

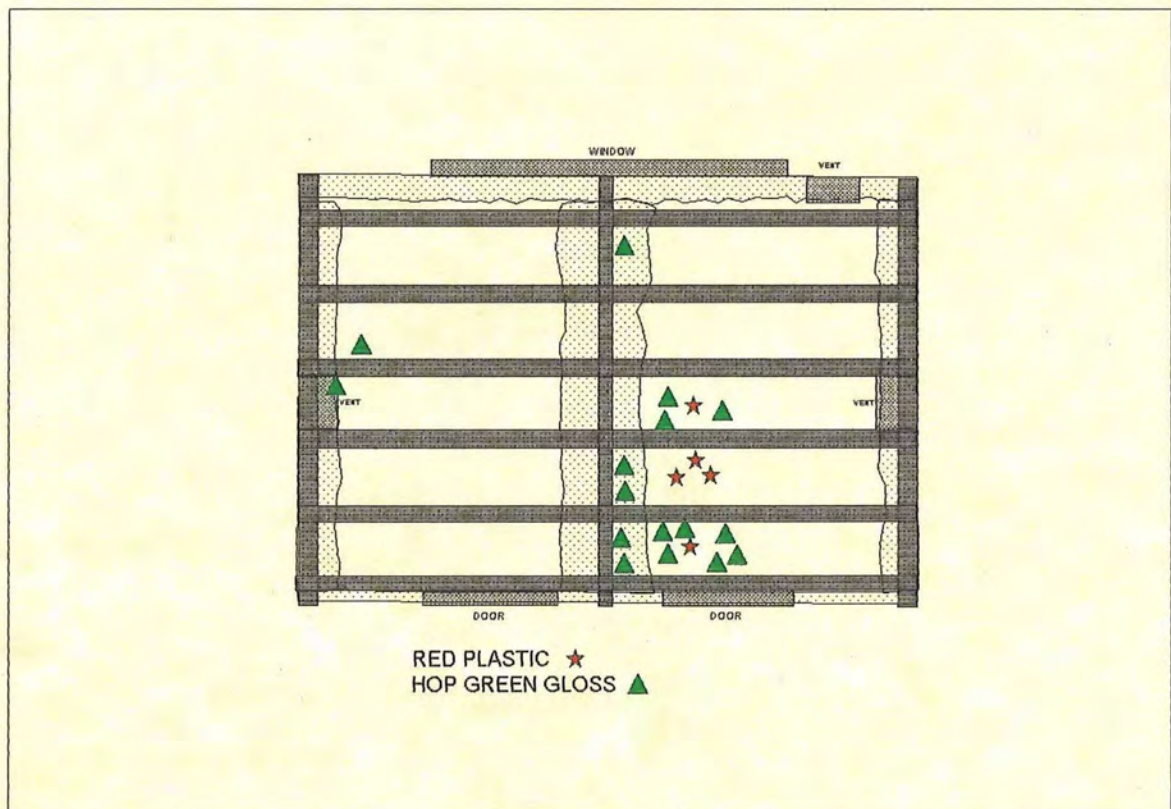


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**REPORT OF ARCHAEOLOGICAL
INVESTIGATIONS ASSOCIATED
WITH THE FREMANTLE PRISON CELL
RECONSTRUCTION PROJECT**



Prepared by
Gaye Nayton B Sc (Hons) AACAI
For
The Department of Contract and Management Services
and
The Fremantle Prison Trust
1998





FREMANTLE PRISON

Gaye Nayton
10 Central Ave
MAYLANDS WA 6051

Dear Gaye

At last I have had the opportunity to look into the box of goodies you left for me. We had an exhibition opening here last Friday, so all week was pretty much taken up with all the carry on that is always attached to those kind of events.

I have looked at the material in relation to the report you have provided. Although I have not scoured it with a fine toothcomb, there are several things I was unsure of or found confusing. I was wondering if you could address the following for me please:

- You have given me 1 bag of drain 1 material and 3 of drain 2 but there is no indication of what or where drain 1 and drain 2 are/were in the report (App 5 details the contents but not the location)
- There are several bagged items – newspaper, cloth and piece of wood with metal which have ‘1960s stash’ written on them, but there is no reference in the text or illustrations to a 1960s stash
- A number of bags are marked FG as opposed to FP – Fremantle Gaol?
- A number of bags marked 1970s stash do not indicate where the material came from (A20aT3 etc). Is there some way we can determine this?
- All of the material indicated in Appendixes 1-4 is currently being held by Sarah (UWA Honours student)?
- It is very disappointing that the tennis balls were lost as we have no others with slits
- Do you have any suggestions as to why there is in essence no 20th century archaeological material present except for the 1970s, when there is quite a substantial amount from the 19th century? On page 49 you suggest ‘1970s assemblages represent all disturbances which have occurred within the cell since early this century.’ Can this explain this dearth of material?
- On page 25 you refer to the new floorboards in the cell above A20 – “The presence of new floorboards indicated that the 1990 fire had extended into the cell above A20 damaging the original boards.” Do you have any evidence to show that the 1988 fire caused the damage to the floorboards? As most of the damage was done to the top floor of 4 division, it is unlikely that this kind of damage would have affected a cell in this position. There has been evidence of termite damage in a number of other areas in the MCB necessitating the replacement of boards; perhaps this was also the case in this cell?

THE TERRACE
FREMANTLE
WESTERN
AUSTRALIA
6160
TELEPHONE
08 9335 9473
FACSIMILE
08 9430 6115
EMAIL
fremantleprison
@cams.wa.gov.au
WEB SITE
http://www.cams
wa.gov.au/freopris



DEPARTMENT OF
CONTRACT AND
MANAGEMENT
SERVICES

The information from the report and the associated materials form an invaluable record and research base for the Prison. I look forward to your reply to make this useful resource even more worthwhile.

Thanking you in anticipation.

Regards

Anne Brake
Curator

4 June 1998

CC: Phil Griffiths
Considine & Griffiths Architects P/L



Gaye Nayton B Sc (Hons) AACAI APhR

Historical Archaeologist
10 Central Ave
Maylands
Perth 6051

Telephone (08) 92711277

Anne Brake
Curator Fremantle Prison
1, The Terrace
Framantle 6160
18/9/98

Dear Anne

I am sorry it has taken me so long to reply to your letter. In answer to your queries most of the problems you have with labelling stem from the fact that the material you have was not used to any great extent in the Cell Reconstruction Project report. It therefore still has its field labelling on it. All material labelled Stash is from the prisoners stash found in A20aT3 which was a distinct one-off feature which did not need any more precise labelling in the field. At the time the field crew labelled the bags we did not have an exact date for the Stash but we knew it was modern ca 1960s or 1970s. The dating of the field bags was designed as an informal prompt in the later sorting and dating process.

The confusion between FP and FG is again because they are field bags and some field workers labelled the bags Fremantle Prison and some Fremantle Gaol. On a large project like this one it is more usual for the site director not to excavate so that they can identify and correct such little deviations in the field. However, this job as you know was done under a tight budget and time frame so I have to combine excavating with site supervision. Only small discrepancies such as FG instead of FP occurred however, my field crew were too experienced to make any real mistakes in labelling.

The Drain 1 material is from the 1st Offenders yard and the Drain 2 material is from the probation yard.

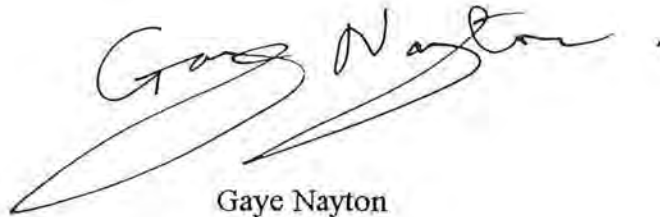
Sarah has all the material which you do not have. She is a UWA Honours student and her Honours report would be due in October. You should get the rest of the material back after that. I have not spoken to her since I handed the material over so I presume the work has gone well. You can contact her through the UWA Centre for Archaeology.

I suggested in the report P74 that the lack of twentieth century material other than maintenance items was due to some sort of floor covering being laid over the floorboards. It is evident that something blocked the passage of artifacts through the floor board gaps and that this was not due to changes in the boards as almost half were still original boards. A floor covering is the most likely answer however there is no evidence to suggest what the covering was.

Some of the floorboards in the cell above A20 appeared to be very new. The fire appears a likely explanation but it should have been framed as a suggestion. I re-read page 25 and it does read like an assertion which it was not actually intended to be.

I hope this clears up your questions satisfactorily.

Regards

A handwritten signature in black ink, appearing to read "Gaye Nayton". The signature is written in a cursive, flowing style with a large, sweeping underline that extends across the width of the signature.

Gaye Nayton

This report has been prepared by

Gaye Nayton **B Sc (Hons) AACAI**
10 Central Ave
Maylands 6051
Ph 08 9271 1277 Fax 08 9271 1277

Historical Archaeologist

ARCHAEOLOGICAL TEAM

Gaye Nayton

Site Director

Darren Cooper

Archaeological monitor

Ryan Hovingh

Field Assistant

Christine Martin

Laboratory Assistant

Monique Pasqua

Laboratory Assistant

Paul Raaff

Laboratory Assistant

This Project was carried out in Association with :

ARCHITECTS

*Considine and Griffiths
Architects Pty Ltd*

BUILDING CONTRACTORS

W. Isherwood & Co.

FREMANTLE PRISON TRUST

Anne Brake

ACKNOWLEDGMENTS

The author would like to thank Toni Gregory for volunteering to sort artifacts and chat to site visitors during the field season. Thanks also go to Nathan, Frank and Fred for volunteering information on building materials and construction techniques. Thanks also to the Fremantle Prison Trust staff and Prison Guardians for their lively interest in the project.

EXECUTIVE SUMMARY

An archaeological component was included in the cell reconstruction project in Division 3, Fremantle Prison to ensure the reconstruction was as authentic as possible. The archaeologists brief was to supervise the removal of fabric from the cells and to investigate the revealed surfaces to aid understanding of cell construction and help determine the location of fixtures and fittings. The investigations fell into three parts, monitoring of accretion removal in cells A20 and A21, further investigation of fixtures and fittings in cells D38 and B37, and excavation of the under floor space in cell A20. Information was uncovered which allowed insights into original cell construction, cell modifications over time, cell layout until ca 1910 and prisoner activities within the cells.

It was found that structural elements in the eastern and western walls of A20 spanned the width of two original cells. However, they were constructed so that the elements in the west wall spanned an alternative set of cells to those in the east wall. Furnishings were also alternated. The hammocks being part of the set of elements associated with the west wall and the two cells its elements spanned. The table, wash basin, stool and bucket were arranged to conform with the elements in the east wall and the two different cells spanned by those structural elements.

Archaeological evidence determined that hinged tables were centrally fixed onto both sides of the wall separating A20A and A20B, placing them on different sides of the actual cell spaces. A small oil lamp was placed on the table and possibly sometimes on the window ledge. Evidence for the distribution of smoking and shaving items suggests that this table was replaced by a movable table located under the foot of the hammock in the 1880s or early 1890s and moved more centrally within the enlarged cell after the turn of the century. The same evidence suggests that the prisoner's may have moved the stool under the window when they were smoking during the 1860s possibly because of the poor ventilation. It also suggests that the bucket was kept to the left of the wall mounted table during the 1870s.

Hammocks were slung using triangular rings with rounded ends between four hooks sunk deeply into a timber backing rail. The hammock in A20A was to the left of the door while that in A20B was to the right. The location of several classes of artifacts suggests that the hammocks were hung so that prisoners lay head to tail to each other.

The wash basin was placed on either side of the central wall under the window. Archaeological evidence in the form of bone toothbrushes show that one activity the basins were used for was to clean teeth. Bone toothbrushes and tooth powder were relatively expensive and therefore not in general use during this time period. Finding toothbrushes in both cells suggests that the prison was either providing the tooth brushes to enforce hygiene standards or catered for a number of gentlemanly inmates.

In the planning stages care seems to have been taken to provide plumbing and ventilation to each cell. However, the ventilation system actually installed on the ground floor of Division 3 placed a higher priority on air circulation around the wooden joists

than on good circulation within the cells to benefit prisoner's health. The artifactual evidence found within A20 suggests that before modifications carried out in the 1880s or 1890s this may have created a real problem within the ground floor cells leading to less use of the cells without an air vent connection to the outside air.

Other aspects of original cell construction posed security risks. The ceiling vent design was vulnerable to tampering that would have allowed prisoners to exchange items or talk. Similarly, the wooden casing around the wash basin pipes could be tampered with to create hiding places for small items. The gap under the cell doors also allowed communication, a problem which was solved by added solid door sills further reducing ventilation within the cells.

The archaeological evidence points firmly to the plaster and lath ceiling in A20 having been installed after ca 1870. Similarly archaeological evidence suggests the wash basins were removed during the same time period. In view of this, the time period represented by cell A20B in the reconstruction project is more properly the 1870s rather than the 1860s. A20A represents both the cell as built in 1859 and its first period of occupation in the 1860s. The archaeological evidence also suggests that a floor covering was added to A20 soon after it was formed from the two smaller cells. However, the archaeological evidence does not suggest what type of covering this was and further historical research would be needed before such a detail could be confidently added to the display in A21.

Archaeological evidence and independence analysis by paint specialists show that finishes within the cells were anything but standardised. This may have been due to the economic realities of running a prison in a isolated colony but the evidence suggests that variation rather than standardisation has been the theme through most of the prisons operating life time. This suggests a prison authority culture which did not highly value standardisation.

Artifacts relating to the prisoners within the cells also suggests a regime which became less standardised throughout the nineteenth century with differences in clothing hardware and a growing variation in the number and function of prisoner related artifacts within the cells. Eating and drinking within the cells appears to have either been condoned or unpreventable. Bottle glass found throughout the deposits, despite its potential for use as a weapon, suggests the former. However, only one bottle had been flaked deliberately to form several pieces with cutting edges suggesting the prisoner's were not abusing the privilege by using the glass in escape bids.

Slate pencils and reading materials were also found throughout the assemblages during a time period when adult illiteracy was high. This suggest prisoners with more education may have been grouped together forming a minimum security division or enclave. The men are likely to have been part of the burgeoning middle classes where there was a strong push for self improvement through reading and writing in the second half of the nineteenth century.

The evidence relating to prisoners suggests an interpretation of A20 as part of a minimum security area during the nineteenth century. The last artifact assemblage dated to ca 1904 however, shows a sudden reduction in variation which may relate to a sterner regime and stricter security after the turn of the century.

Recommendations arising out of this report are:

Recommendation 1 It is strongly recommended that in future projects requiring the removal of fabric or older layers of finishes different methods are used which peel back the layers one at a time.

Recommendation 2 It is recommended that provisions are made for archaeological monitoring of all projects carried out within the prison which involve the removal of historic fabric or the disturbance of ground surfaces.

Recommendation 3 It is recommended that further historical research is carried out into the social status, crimes and security rating of the prisoners in Division 3. Some smaller questions on furnishings could also be undertaken to make the reconstruction presentation more authentic.

Recommendation 4 It is recommended that the photographic archive, artifacts and a copy of the report are kept at the prison for interpretation and display purposes.

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REPORT OF ARCHAEOLOGICAL INVESTIGATIONS ASSOCIATED WITH THE FREMANTLE PRISON CELL RECONSTRUCTION PROJECT.

BRIEF

Five cells within Division 3 of Fremantle Prison were chosen for a reconstruction project designed to demonstrate changes within the cells over the life of the prison (Fig 1). Cells A20 and A21 show the earliest chosen periods of the 1850s, 1860s and ca 1918. These cells required the greatest amount of accretion removal and fabric reconstruction to allow them to demonstrate the chosen periods. To ensure the reconstruction was as authentic as possible, the archaeologists brief was to supervise the removal of fabric from the cells to ensure archaeological evidence was not compromised or destroyed in the process and secondly to investigate the revealed surfaces to aid understanding of cell construction and help determine the location of fixtures and fittings.

The conversion of Cell A20 into the two earliest time periods required more extensive alterations. Archaeological investigation was expected to concentrate on this cell. Removal of plaster allowed the investigation of wall construction and fittings while the removal of the ceiling allowed investigation of the ceiling joists. The timber floor within the cell was thought to be a later replacement and was also planned for removal allowing archaeological investigation of the under floor space for evidence of fixture locations and social activities within the cells.

METHODOLOGY

The archaeological investigations fell into three parts. Monitoring of accretion removal in cells A20 and A21, further investigation of fixtures and fittings in cells D38 and B37, and excavation of the under floor space in cell A20. During the field season two drains in the outside exercise yards were cleaned out by plumbers. The archaeologist was asked to monitor the cleaning and record artifacts recovered.

Monitoring

Monitoring of the accretion removal took place between the 10th and 27th March 1997. In cell A21 only the cement rendering was removed. Cell A20 was stripped of all modern ceiling material, wall plaster, shelving, electrical fittings, paint and brick work. An archaeologist observed and recorded the work as it progressed, building a photographic record of work in progress and materials removed. Photographs of the builders at work were taken at each stage of material removal to demonstrate the tools and methods used during site works. The photographic record has been archived separately to this report.

Monitoring required close cooperation with the builders who were doing the accretion removal to ensure evidence was not lost or compromised during site works. Prior to the removal of wall plaster, samples of paint were taken and areas showing paint *in situ* photographed. In some instances, photographs of particular paint profiles were taken as the colours shown were not observed elsewhere in the cell. All photographs of site works are included in the photographic archive.

Removal of the plaster revealed hidden features such as timber plugs and details of cell construction. The location of these features was recorded and a photographic reference was included in the photographic archive. Samples of lime plaster and paint were kept and an appropriate sub sample was chosen by Errol Tovey for further analysis of paint profiles. A sample of the window sill material was also kept for future reference. The details of how the demolished wall, which once separated A20 into two cells, was keyed into the east and west walls was recorded in a measured drawing.

The removal of floor boards was monitored on the 27th March. The boards were numbered and photographed on removal. The type and size of floorboard and the type of nail fixing the board to the joists was recorded. A photo mosaic was taken of the revealed deposit before excavation. Site works which occurred within the corridor were also observed and recorded. Corridor works included monitoring the removal of plaster from a selected section of wall and the removal of a section of granolithic flooring to reveal the original flagstone floor.

The cleaning of two drains by plumbers in the out side excise yards adjacent to Division 3 was also monitored. Sediment recovered from the drains was wet sieved and recovered artifacts bagged. About thirty, slit open tennis balls were noted but not kept for analysis.

Archaeological investigation of Cells D38 and B37

Further investigation of the location and construction of the 1850s table and washbasin necessitated investigation of cells D38 and B37 (for location see Fig 1). Work was carried out at various times between the 16th of April and the 19th of May 1997. Both cells retained their original cell size and therefore the wall missing in cell A20 was present in both. A timber table bracket was visible on this wall in both cells. In D38 plaster was removed from selected areas around the table bracket by Brian Leicester under the supervision of the archaeological site director. A paint scrape was taken from the table bracket by Brian Leicester for further analysis by Errol Tovey and paint profiles surveyed *in situ* by Brian Leicester using a paint inspection gauge.

In cell B37 initial plaster removal around the table bracket and the north east lower corner of the cell was by Brian Leister under supervision of the archaeological site director. Further removal was by the archaeological team. Plaster was removed from the western side of the table bracket to reveal details of its construction. A sample of the removed material was kept for further reference. Investigation of the former location of the wash basin in the north west corner of the cell necessitated the removal of two modern shelves, cement filling from a narrow channel set in the corner of the wall, brick and mortar filling

from a depression on the north wall and limestone rubble and plaster which was part of the wall construction. The spike from a pipe bracket found during site works was recorded and removed for further investigation. A photographic record was kept of work in progress and features revealed and included in the photographic archive. Revealed features were recorded in a measured drawing.

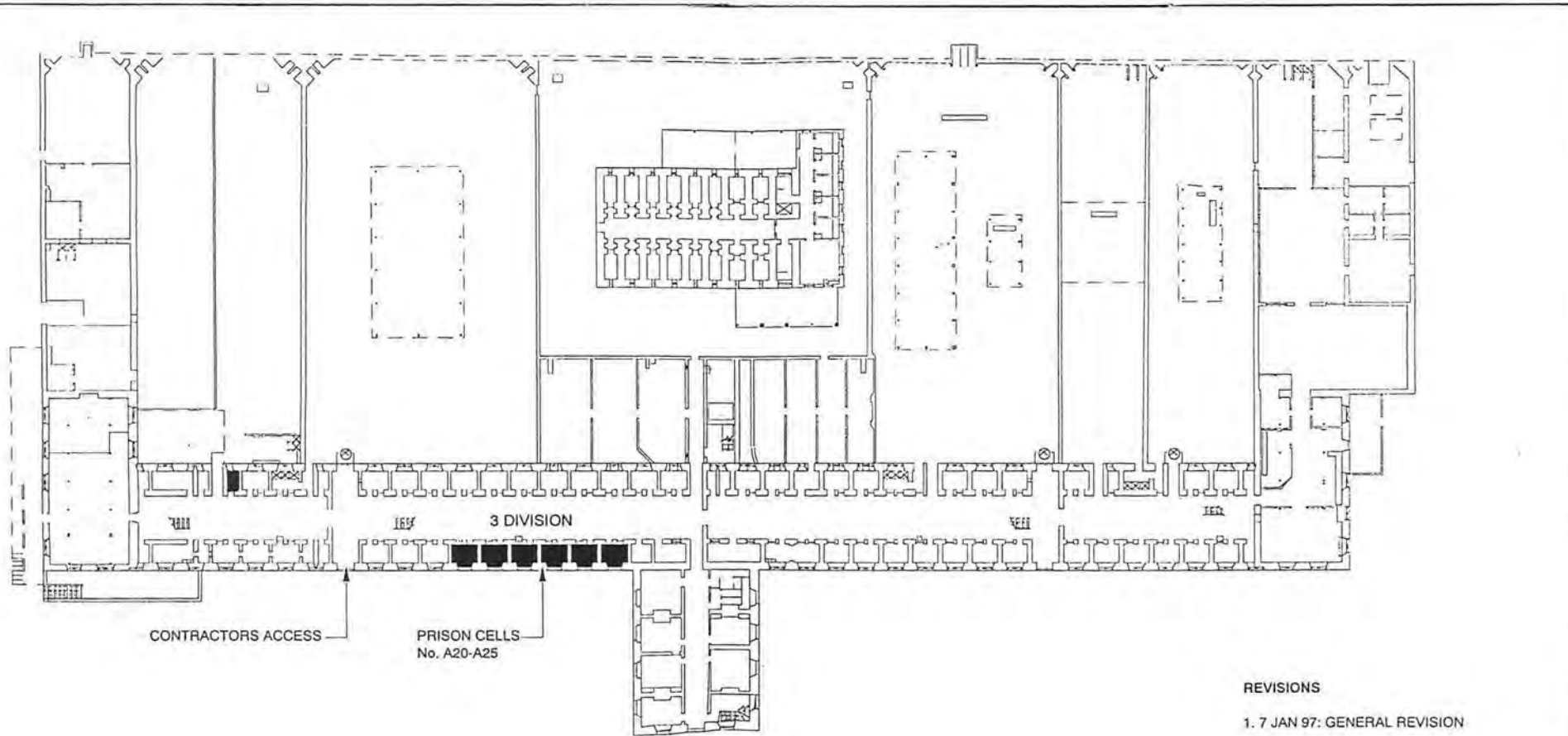
Archaeological Excavation

Excavation of the under floor deposits in cell A20 was carried out between the 27 march and the 8th April 1997. The cell was divided into three sections for excavation. Section A (A20a) being the left hand side of the cell between the southern wall and the remains of a parallel demolished wall running across the centre of the cell (part of cell to be returned to 1850s condition). Section B (A20b) being the right hand side of the cell between the northern wall and the central demolished wall (part of the cell to be returned to 1860s condition). Section C (A20c) was the central area covered by the remains of the demolished wall (to be reinstated). Each section was excavated in five trenches located between the joists. They were orientated north south and demarked by the presence of a joist timber on the east and west (Fig 2).

As material could be expected to vary across the trenches each bucket of deposit was recorded and sorted separately. A station for sieving deposits was set up in cell A21 to minimise the effect of dust on the general division. Deposit was sieved through 5mm and 1mm meshes, the remaining residue was then sorted and artifacts bagged at a sorting station located in the division corridor. As the majority of deposit was made up of construction materials from the demolished wall these materials were sampled with one example of each type of construction material (other than nails) present in each bucket kept for reference.

Bagged artifacts were identified, catalogued and the information entered into a Geographical Information System (GIS) data base for analysis. A site plan of cell A20 was also entered into the GIS program to assist in analysis.

FIG 1. LOCATION PLAN



REVISIONS
 1. 7 JAN 97: GENERAL REVISION

DEPARTMENT OF CONTRACT AND MANAGEMENT SERVICES
 DUMAS HOUSE
 2 Havelock Street
 West Perth
 W. A. 6005
 Tel 222 5555
 Fax 222 5055

DOCUMENTATION BY:
 CONSIDINE AND GRIFFITHS ARCHITECTS
 PTY LTD
 6 • 89 FORREST STREET COTTESLOE W.A. 6011
 TEL 383 3166 • FAX 384 2822

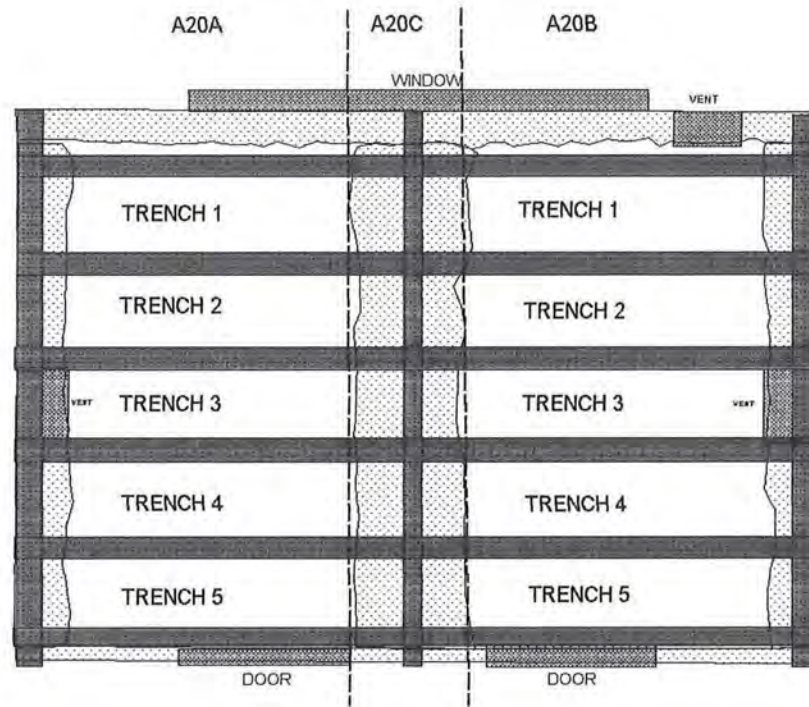
LOCATION PLAN

DRAWN	J.R.	DESIGNED	REDUCTION
CHECKED		PRINCIPAL	
APPROVED			
SCALE	1:500	DATE	8 NOV '96
OB NO.		E NO.	3761/96
		DRAWING NO.	1

Modified from Considine and Griffiths: Set of working drawings.



FIG 2. PLAN OF EXCAVATION TRENCHES



RESULTS

ORIGINAL CELL CONSTRUCTION

Accretion removal, monitoring and excavation carried out within cell A20 enabled a clearer picture to emerge of the construction details of this cell.

Foundations

Although it is known from historical sources that the limestone for Fremantle Prison was quarried from on site and the prison built up on the leveled bedrock this was not evidenced during the excavation of cell A20. Under the archaeological deposit a thick layer of sand was discovered at a depth of 27 cm under the flooring, this was excavated to a further depth of 30 cm (57 cm in total) in places without encountering bedrock.

Artifacts were found only in the top layers of sand and rubble (to ca 25 cm depth). Cell floor drainage uncovered during the archaeological investigations began at the level that artifacts disappeared from the matrix. Limestone boulders were encountered deeper within the sand but were not associated with artifacts at these deeper levels. This could suggest two hypotheses, either Division 3 was not built on bedrock but on a sand and limestone boulder matrix, or that the sand was added after the cell floor drainage and wall footings were constructed. The cell was not excavated to the base of the wall footings to answer this question as this was not a primary focus of the project, which was concerned largely with cell furnishings and fittings.

Cell Floor Drainage

Archaeological investigation revealed a drain channel within the sand matrix 660 - 810 cm from the cell door threshold lying parallel to the corridor wall. The width of the channel was difficult to determine as only one side was clearly defined, being that adjunct to the corridor which was formed by a vertical wall of dressed limestone. The further side of the channel was indicated on the left hand side of the cell by the presence of a lime conglomerate formed by water action which had consolidated both alongside the drain and partly over it before the collapse of the drain (Plate 1). A timber lining is indicated by the absence of a stone lining on both sides and the presence of wrought nails with large flat heads. Such nail heads are used for holding panelling particularly thin panelling where the wood might split if a smaller head was used.

A 10cm diameter channel, cut through the limestone wall for the continuation of the drain, was discovered through both the north and south cell walls at a depth of 57cm below floor height (Plate 2). The channel was clear for the approximate distance of the limestone walls but was blocked beyond it. At the same depth a dark deposit of sediment containing artifacts was found which denoted the location of the bottom of the drain. This deposit was not on a noticeably gradient. Whilst the channel was found in both the north and south walls, a similar opening was not convincingly displayed through the demolished cell wall. After discussions with Alan Kelsall a hypothesis was formulated suggesting that the cell floor drain was formed in short sections each of which serviced two cells then fed through the corridor wall to a corridor drain found running parallel with the cells when the corridor concrete was lifted. If this hypothesis is correct then cell A20 contains the left and right hand parts of two different drain sections. Neither showed evidence of a connection through to the corridor therefore if the hypothesis is correct the corridor connection lies inside the limestone walls. This possibility could not be pursued during the course of this project.

The cell floor drain complex was found not to be connected to the water pipes from the former wash basin. It is likely that it was installed to cope with any water collecting under the flooring from washing the floor boards or natural water run off.

Bearers and Joists

Once the footings were laid, flat bearers were placed along the east west orientated wall footings and six joists laid at right angles across them, parallel to the external and corridor walls (Plate 3). Each joist spanned at least two original sized cells. If they spanned two cells then they would have started and ended within a cell wall. The configuration was such that cell A20 now contains a single set of joists with the end of the beams probably buried within its north and south walls.

Under Floor Air Vents

Under floor air vents between cells were formed by laying short boards over and under the ends of the 3rd and 4th joists in every second wall. With the timber joists positioned on each side this procedure formed a wood lined vent through the wall (Plate 4) under the level of the floorboards with the lintels of the vents just visible above the floorboards. The external (western) wall also had a similar under floor vent in every second cell. The positioning of these vents meant that once cell A20 had been formed out of the two earlier cells it had three under floor vents being located in the northern and southern internal walls and the north western corner of the external wall.

Water action has dissolved lime out of the limestone and redeposited it within the under floor vent and under floor space of A20a. Within the vent (in the southern wall), lime formed a soft white plaster while across the floor it has penetrated the top layers of sand and formed a hard capping. The vent has over time become clogged with lime to the level of the wall demolition material forming a false floor.

Cell Walls

Once the vents had been formed the cell walls were then built around and over the joists. The walls are of limestone much of which was only very roughly dressed. The demolished east west wall offers further clues on how the east west oriented walls were keyed into the walls running north south. The areas where the wall abutted the east and west wall of the cell contains both dressed and undressed stone. While the dressed stone may have been cut prior to being built into the wall it is more likely that they were the stones keying the three walls together and were cut through when the missing wall was demolished. The noticeable grouping of the cut stones reinforces this interpretation (Fig 3). On this evidence the walls appear to be more firmly keyed into the eastern (corridor) wall than to the external wall. Cut stones appear only at the bottom of the west wall and under and above the window, while on the east wall all the visible stones are cut to above the door lintel.

Flooring

Floor boards were laid oriented east west at right angles to the joists. Three different types of floor boards fixed with three different nail types were found in A20 (Fig 4). Boards 3 to 10, 10a and 18,19 are surviving original boards 17 cm wide with no tongue and groove (Plate 5). They formed the bulk of the floorboards in A20a (to be returned to 1850s state) and the two boards nearest the north wall in A20b (to be returned to 1860s state). These two boards lay under the line of the hammock, away from the door on the line of least wear. All boards but board 3 were fixed with two cut brads in each joist and some were carved underneath where they passed over the joist to insure a level floor. Board three was fastened with later rose headed nails.

Window

Investigation of wall, door and window finishes and original door and window construction was carried out prior to archaeological work commencing (Considine and Griffiths 1996). The archaeological report will therefore confine itself to commenting on confirming evidence and illustrating additional evidence.

The prison windows in Division 3 originally spanned two cells, in A20 the window was once divided by the demolished wall. The present window in A20 appears to have been modified over time, however parts of the original construction were uncovered during accretion removal. A thin sheeting of timber was removed from the lintel above the metal frame revealing two wide planks forming the original lintel (Plate 6). The lintel was built into the limestone wall spanning the length of the window and extending for a short distance either side. Beneath the window frame the top of the wall was rendered with lime plaster. Slate was packed along the top of the wall forming a level base for a sloping limestone window sill. The top of the window sill was scored in a diamond pattern (Plate 7), this may be purely decorative but is more likely to be a later modification to assist in the adhesion of a layer of cement render.

Doors

The doors in A20 have also been modified over time nevertheless, details of the original construction of the door frame were apparent. Like the window lintels, door lintels were built into the walls and spanned two cells, however, the door lintels spanned an alternative set of cells to the window lintels. This means that the two doors within cell A20 do not share a common lintel (Plate 8). Slate packing was used between the limestone wall and the timber to form a horizontal level for the lintel. Above the lintel, limestone blocks were used to form an arch, however the southern arch stone over the door to A20a was too large and extended past the door opening. The face of the stone forming the corridor facade has been scored across to present the appearance of two stones evening up the appearance of the arch. Built into the piers between the cell doorways are three angle iron brackets to secure the door frame. The original door cill, formed by a 7x7 cm squared timber (Plate 9) was located underneath the present cill. Its location means that originally there was a gap for ventilation between the cill and the bottom of the door.

Ceiling

A modern plaster-glass ceiling was removed from A20. Upon removal part of a timber picture frame was found lodged between the modern ceiling and the flooring of the cell above. Ceiling joists run at right angles to the floor joists being positioned between the external and corridor walls. A 4 by 4 cm timber batten is fixed using wrought nails to the inside face of each joist which abuts the cell side walls forming a barrier between the joist and the limestone. The walls were then built between the ceiling joists completing the walls in A20. Although not observable it is likely that bearers were laid along the external and corridor walls under the ceiling joists in a similar manner to that used for the floor joists. The floorboards of the cell above then formed the ceiling of cell A20 (Plate 10).

Ceiling Vents

Two ceiling vents are located on the western (external) wall between the ceiling joists at the extreme left and right hand sides of cell A20. Historical evidence (Considine & Griffiths 1996:4) points to these vents being connected to the under floor vent in the same wall within A20, to the ceiling vents in the adjoining cells and to the floor and ceiling vents in the cells above A20. However, while the vents are connected to the adjoining cells and those above they are not connected by a vertical channel to the under floor vents in A20.

The vents are located between two ceiling joists which initially form the walls of the vent, with the floor boards of the cell above forming its roof (Plate 11). Further into the vent the walls and roof are of limestone carved to form a semi circular channel between the two adjoining cells. At a point along this channel furthest from the cells is a vertical shaft leading to the higher cells but there is no evidence of a shaft leading downwards to the under floor vents.

There is evidence of a former vent cover in the ceiling joists on either side of the opening in the form of two wrought nails, one in either joist. There is also a gap approximately 4

cm wide between the floor boards and the start of the limestone roof. The wrought nails are set behind this gap suggesting that if the top of the vent cover was secured by inseting it into the gap, the bottom of the cover than sloped backwards into the vent and was fixed into place by the wrought nails driven through a tab on either side (Fig 5).

Furnishings

The major items of furnishings were built into the cell as part of cell construction. Hammocks were fitted along both the north and south walls of A20, each hung from four hooks, two at each end. The hammock hooks were threaded and screwed into a timber backing rail built into the limestone walls and finished flush with them. Backing rails for the hammock hooks were built into the western (external) wall spanning the same two cells as the floor joists and the window lintels. In the corridor wall the backing rails, like the door lintels, spanned alternate cells (Plate 12). Historical sources suggest several methods of securing hammocks to the hooks but triangular wear patterns on the hooks (Plate 13) could only be made by triangular metal rings with rounded points.

Historical sources raised the possibility of small corner shelves located above the hammocks in the pre 1870s period (Bosworth 1996). Removal of accretions from the walls of cell A20 did not reveal evidence of shelving from this period on any of the extant walls. It is considered unlikely that corner shelves were placed on the demolished wall due to the presence of the window on one side and the door on the other making such a shelf awkward to build and use.

There was also no evidence found on the extant walls in A20 of the wash basin and table known to have been provided when the cell was constructed. Archaeological evidence, in the form of bone toothbrushes excavated from cell A20, suggested that the wash basin may have been located on the western end of the demolished wall (Fig 6). Prison staff and architectural consultants examined cells within the prison which were still the original size for visual evidence of the fixtures. T shaped table brackets were noted in cells D38 and B37 (Plate 14) and these cells were chosen for further archaeological investigation.

The cross piece of the T shaped table bracket would have formed part of the table top. It is fixed to a timber backing rail set into the limestone wall by two large wrought nails one ca 10 cm from each end (Fig 7). The top of the cross piece is at a height of 68 cm and it is 30 cm thick, 66 cm long and 7.5 cm wide. It has two tapered bolt holes each 9 cm long with an internal screw thread set into the wood approximately 20 cm from each end of the cross piece. These holes would have held a tapered bolt which fixed the hinge for the table flap to the cross piece. The upright is formed from a smaller timber being only 15 cm thick with its top dove tailed into the cross piece and its bottom end fixed to the wall by a large wrought nail.

There is a timber stop fixed to the upright with wire nails in D38. Four small nail holes, two larger screw holes and a saw cut were found in the same position in B37. While the wire nails indicate the present stop is not an original fixture it is the only evidence for how the table leg was fixed to the table. It indicates a short leg was fixed to the table flap and

propped on the stop to hold the table in the upright position. The size of the table flap and the length of the leg was assessed by using the location and angle of the stop to calculate a right angled triangle. On this basis a design was prepared and a table made to match this evidence.

Evidence of the wash basin was found in B37 when plaster was removed from the north east corner of the cell. A concrete and brick fill was uncovered which delineated both a drain channel in the cell corner and a roughly quarter circle shaped concrete and brick filled depression on the north wall (Plate 15). Accretion removal revealed that there is essentially a gap between the two walls at the point where they should join to form a corner. The bottom 90 cm of this gap has been bridged with a discoloured limestone slab recessed and set at an angle (Fig 7). The limestone may have been discoloured by damp as a lead waste water pipe, cut off at a height of 35 cm, lies against it (Plate 16). The bottom end of the pipe passes through the external wall possibly to the adjunct drain in the exercise yard. Outside A20 similar lead pipes at the same height as the bottom of the pipe in B37 can be seen emptying into a open drain running along the base of the building (Plate 17).

Two other lead pipes are set into the internal wall under the wash basin area (Plate 16). Both extend downwards for a short distance towards the pipe in the external wall. Their position suggests that they carried waste water from the basins in the cells above B37. Both would have emptied into the waste water pipe leading from the wash basin in B37 and hence into the outside drain. Two nail holes in the discoloured limestone at 70 and 75 cm suggest that the pipes were originally encased in a timber casing (Fig 7). This agrees with historical evidence that pipes within the cells were encased in wood (Bosworth 1996:6).

The wash basin appears to have been located on the internal wall at a height of 85 cm where a hour glass shaped depression with two deep holes and the remains of wood caught behind the later plaster were uncovered. At the same height on the adjunct external wall a wood filled hole was discovered (Plate 18). This evidence suggests that the wash basin was bolted onto a timber batten set into the wall with the bolts passing right through the wood and into the wall behind. The batten appears to have passed across the recessed limestone slab and plugged into the gap between the two walls.

A limestone block 60 mm by 180 mm is located directly above the depression with a large squared block directly above that. This contrasts with the area of rubble and mortar below the basin. This rather weak area may have been the result of infilling around the lead pipes during wall construction or the result of patching damage to the wall caused by pipes bending out of shape when the wash basin was accidentally thrust out of position. Lefroy complained of this happening frequently due to design faults with the method of fixing the basins to the wall (Bosworth 1996:6). The method employed appears similar to that successfully used for the table, however the table flap when lifted was supported by a leg, reducing strain on the wall fixtures. If the wash basin was simply bolted straight onto the batten without any support for the outer rim, weight applied to the edge of the basin furthest from the wall would have applied stress to the wall fixtures leading to the problems described.

The gap between the walls appears to have been utilised for the cold water pipe and tap. Directly above the discoloured limestone slab the gap is filled with rubble and mortar but above the hammock backing rail it divides into two distinct sections with the section on the left in Figure 7 being filled with rubble and mortar while that on the right forms a distinct channel lined with lime wash (Plate 19). This channel starts directly over the backing rail and continues up the wall to just under the window where it curves to the left and peters out. Above that height the gap is filled with more rubble and mortar. At 2.30 m a wrought spike was set into the rubble and mortar (Plate 20). The top of the spike is broken off but it curves out just before the break suggesting that it may have been a bracket to hold the water pipe against the wall. At 1.62 m a hole made by a fixture was located in the rubble and mortar beside the pipe channel (Plate 19). The hole is too shallow to have accommodated a wrought pipe bracket suggesting it was made by a bolt possibly fixing a second timber casing to the wall below the window (Fig 7). Figure 8 is a hypothesised reconstruction of the wash basin and its associated plumbing.

Corridor Flooring

The removal of concrete for a demonstration panel in the corridor (Plate 21) revealed the original flooring of compact Yorkshire stone flagstones. Small off cuts of this stone were found in A20a near the vent in the southern wall.

CELL MODIFICATION AND MAINTENANCE

Cell Enlargement

The rubble under the floor boards came from the demolition of the internal wall. The nails used to fix the new floor boards over the demolished wall suggest the wall was not demolished prior to 1895. Button types found in the deposit on top of the demolished wall have respectively a manufacturing start date of circa 1907 and end of popularity date of circa 1900 suggesting the wall was demolished in the early 1900s. The largely even spread of lime washed stone suggests both sides of the wall were lime washed, however, the clustering of untreated dressed stone in A20a (Fig 9) suggests that the demolished wall had different treatments above and below the dado line on its southern face. The wall material is too mixed by the process of pushing the rubble under the floor boards to access whether the wall was lime washed above the dado line or below it.

Flooring

Cell A20A retained its original boards, the boards in A20B and the centre of the room have however, been replaced. Boards 12 to 17 form the bulk of the flooring for cell A20B. They are 17 cm wide with a square shaped groove on the bottom surface and a tongue and groove system for interlocking the boards (Plate 22). They were fastened with rose headed nails except for board 17 which also had one modern square headed wire nail. The type of

nail used can be identified from previous research as a type popular between 1870 and circa 1900 (Varman 1987: type RIIa). Two artifact layers have been defined as falling within this period. Their mean dates are 1875 and 1885. The 1875 deposit contains three metal buttons dating from 1880 and these indicate that the changeover date between the two deposits is after 1880.

Both deposits contain three rose headed nails and some wrought nails but only the 1875 deposit contains cut brads which were used to pin the original floor boards. The nails within the 1875 deposit are also more evenly distributed while those in the 1885 deposits are clustered in trenches which have been affected by later disturbance suggesting that they are the result of some mixing of the layers. The evidence suggests that floor boards 12 to 17 were installed between 1870 and ca 1880.

Board three in cell A20A has been disturbed and refastened with later rose headed nails. Wrought nails and cut brads are found within the A20A assemblage with a mean of 1883 but not in the lower assemblage with a mean of 1870 suggesting the refastening of board three occurred within the time period covered by the 1883 assemblage.

Joist 2 also showed evidence of repair in A20A having a short batten fixed to the western side of the southern end of the beam (Plate 23). The repair batten has a wrought nail protruding from it but it is fastened to joist 2 by rose headed wire nails. These are the same nails used to pin floor boards 12 to 17 and to refasten board 3. Given the temporal location of the wrought nails in A20A already discussed, this repair is likely to date from the same general period as that of board three.

Boards 1,2 and 11 lie across the demolished internal wall and would have been installed immediately after the demolition. They are 11.60 cm wide with a V shaped groove on the underside and an overlapping system for interlocking the boards (Plate 24). They were fastened with rhomboid headed wire nails which can be dated to between 1895 and 1950 (Varman 1987: type RH IIc and per. comm. Fred Colum). Flat battens were pinned across the joists under the floor boards to insure the thinner boards formed the same floor height as the older boards (Plate 25). Both the type of nails used and the artifactual evidence found lying across the demolished wall's footing (discussed in Cell Enlargement above) suggest that the wall was demolished in the early 1900s.

Artifact deposits found under the floor boards were analysed into chronological groupings using a modified South Mean Analysis described within the artifact analysis section. Deposits from cell A20A could be divided in groupings with means of 1860, 1870, 1883 and 1978. Those from A20B divided into slightly different periods of 1860, 1875, 1885 and 1978. The 1970s deposits are from localised disturbances, only one joint layer could be distinguished across both cells. This layer had a mean date of 1904.

Since this dating clearly suggests that artifacts have been falling through both the original floorboards and the 1880s tongue and groove flooring they should have continued to do so until the 1990s when the cells were finally unoccupied. However, evidence from after the turn of the century is clustered in nature and relates clearly to localised disturbances

Plate 1. Cell drain during excavation



Plate 2. Cell drain fully excavated



Plate 3. Bearer under joists



Plate 4. Inside under floor vent



Plate 5. Original floorboard and nail



Plate 6. Original window lintel



FIG 3. WEST AND EAST WALL SECTIONS SHOWING FORMER LOCATION OF DEMOLISHED WALL.

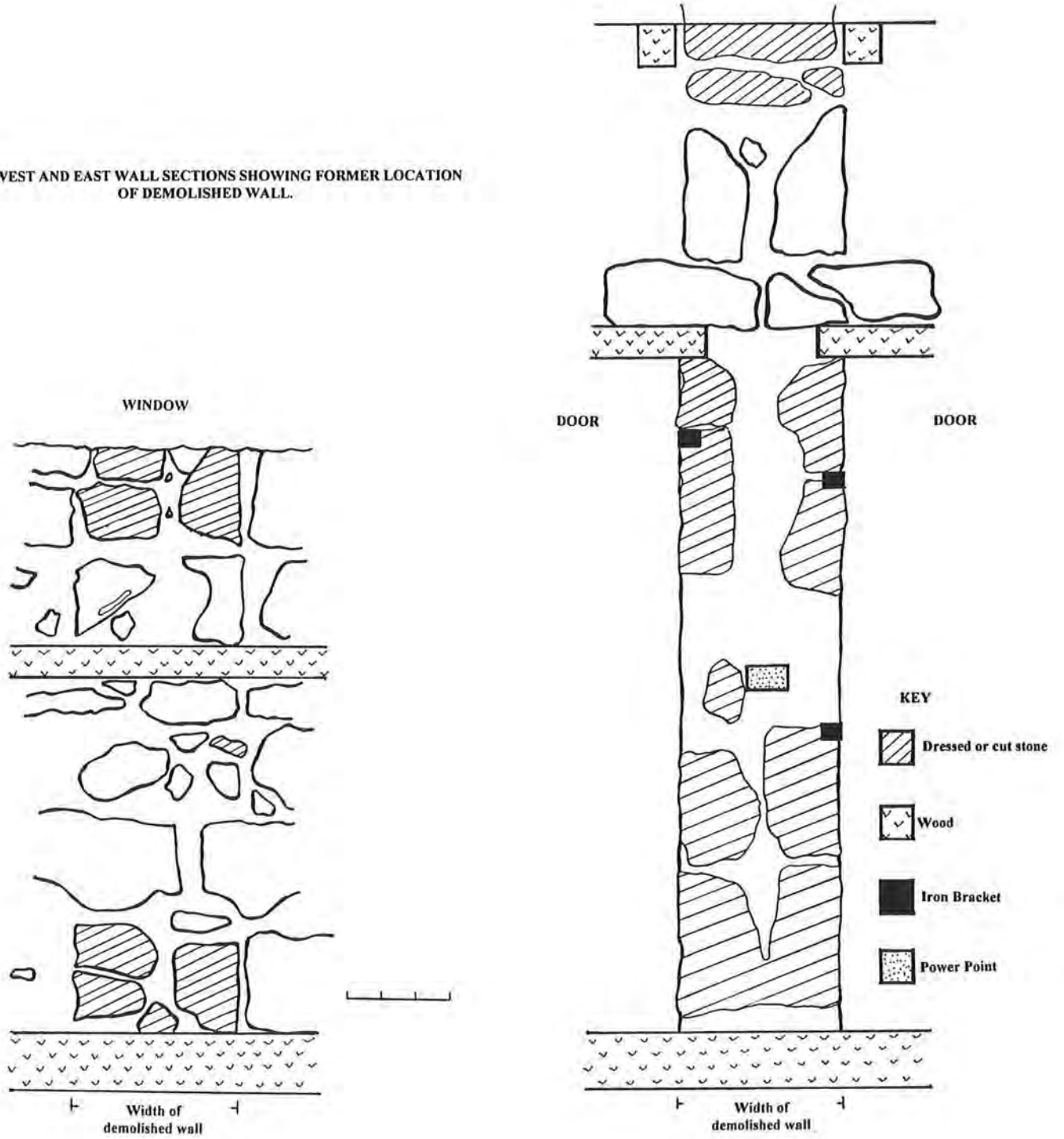
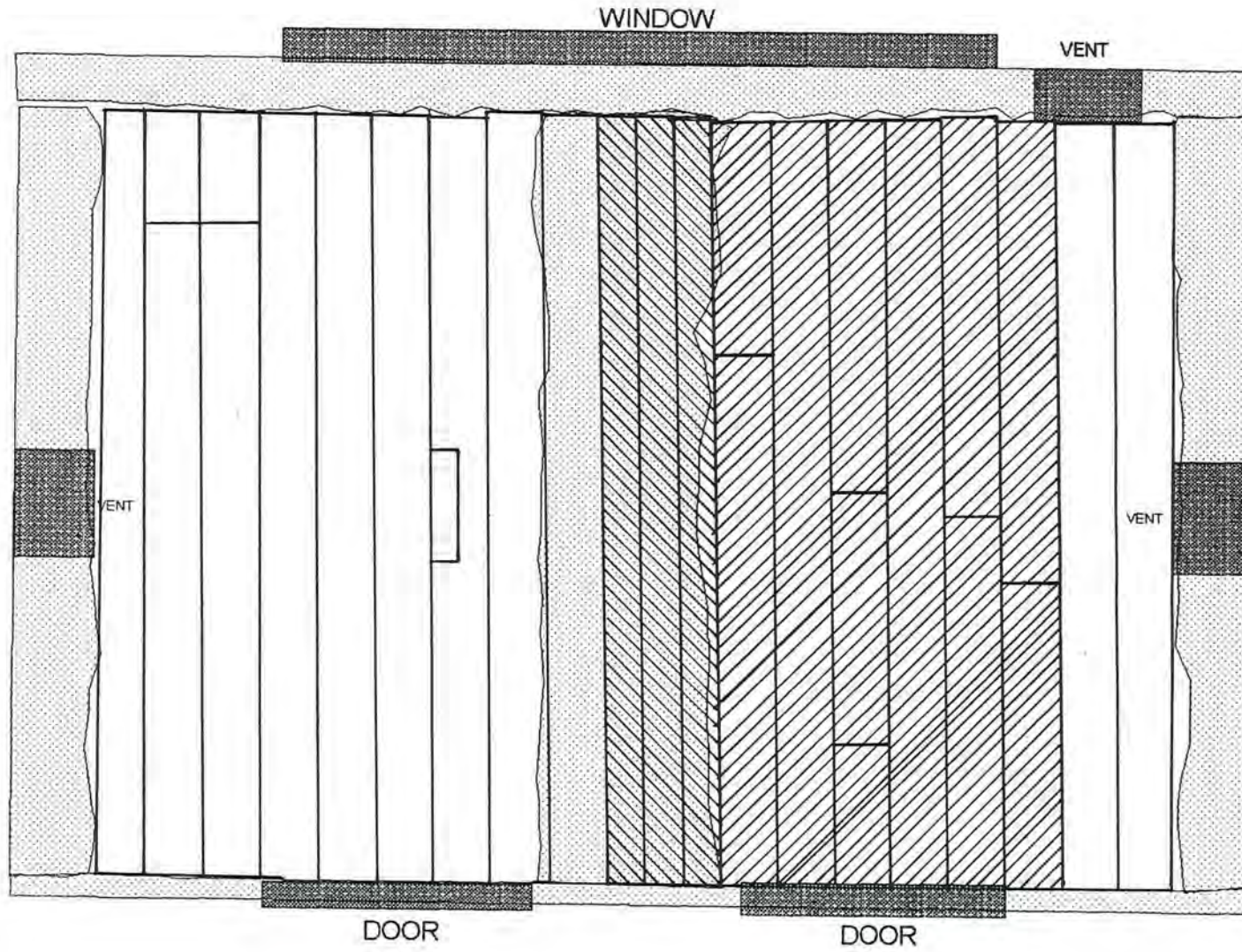


FIG 4. PLAN OF FLOOR BOARDS IN CELL A20.





Vent cover

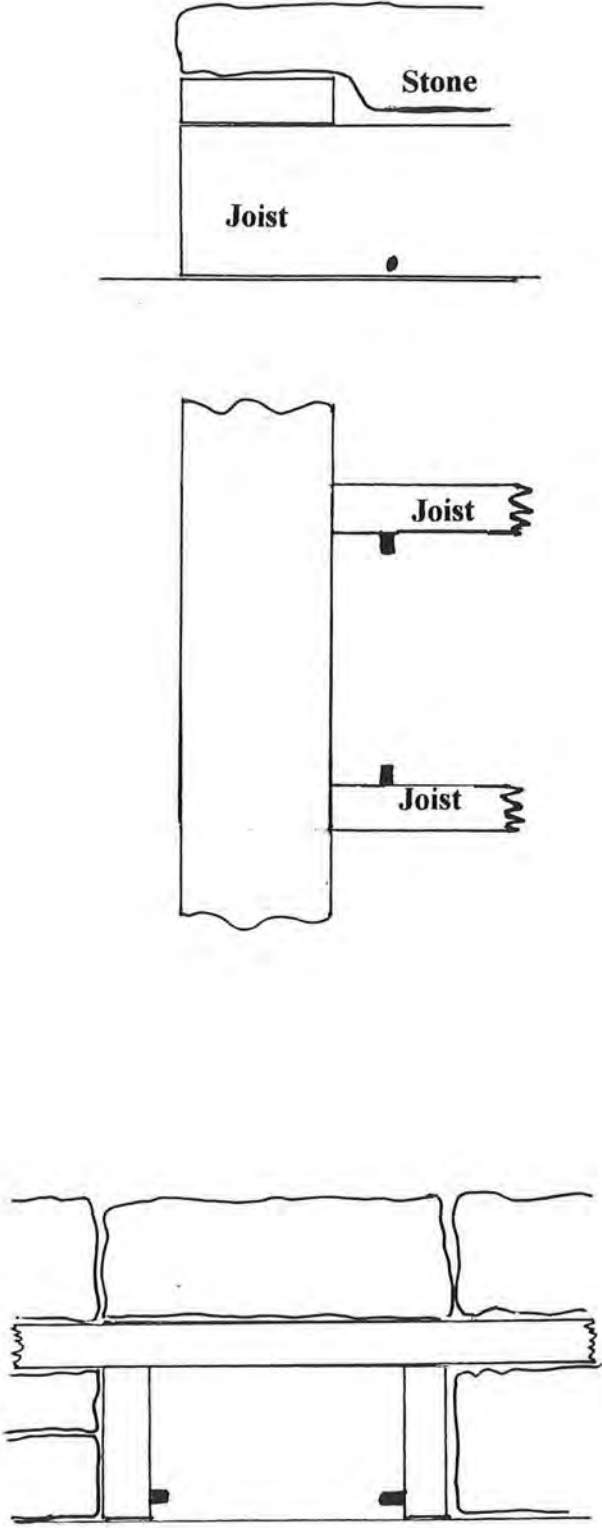


Vent cover



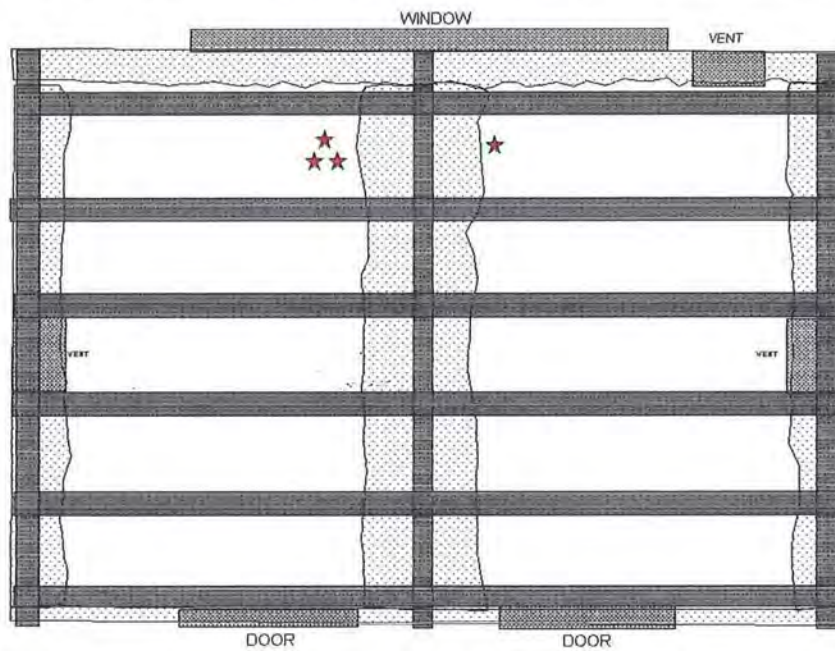
Vent cover

FIG 5. HYPOTHESISED CONSTRUCTION OF CEILING VENT COVER



Not to scale

FIG. 6 LOCATION OF BONE TOOTHBRUSHES IN CELL A20



★ BONE TOOTHBRUSHES

FIG 7. B37 : TABLE AND WASHBASIN FEATURES

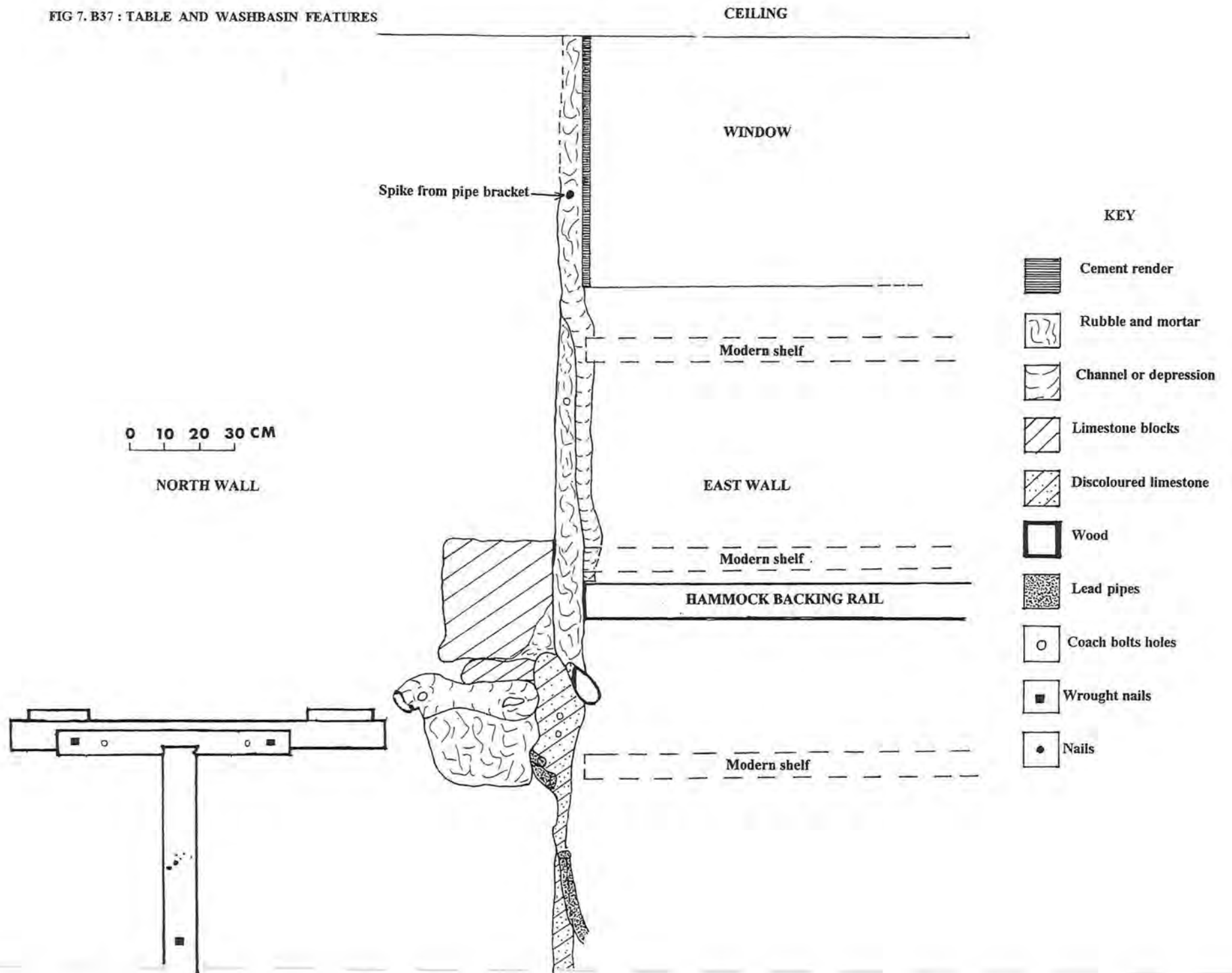
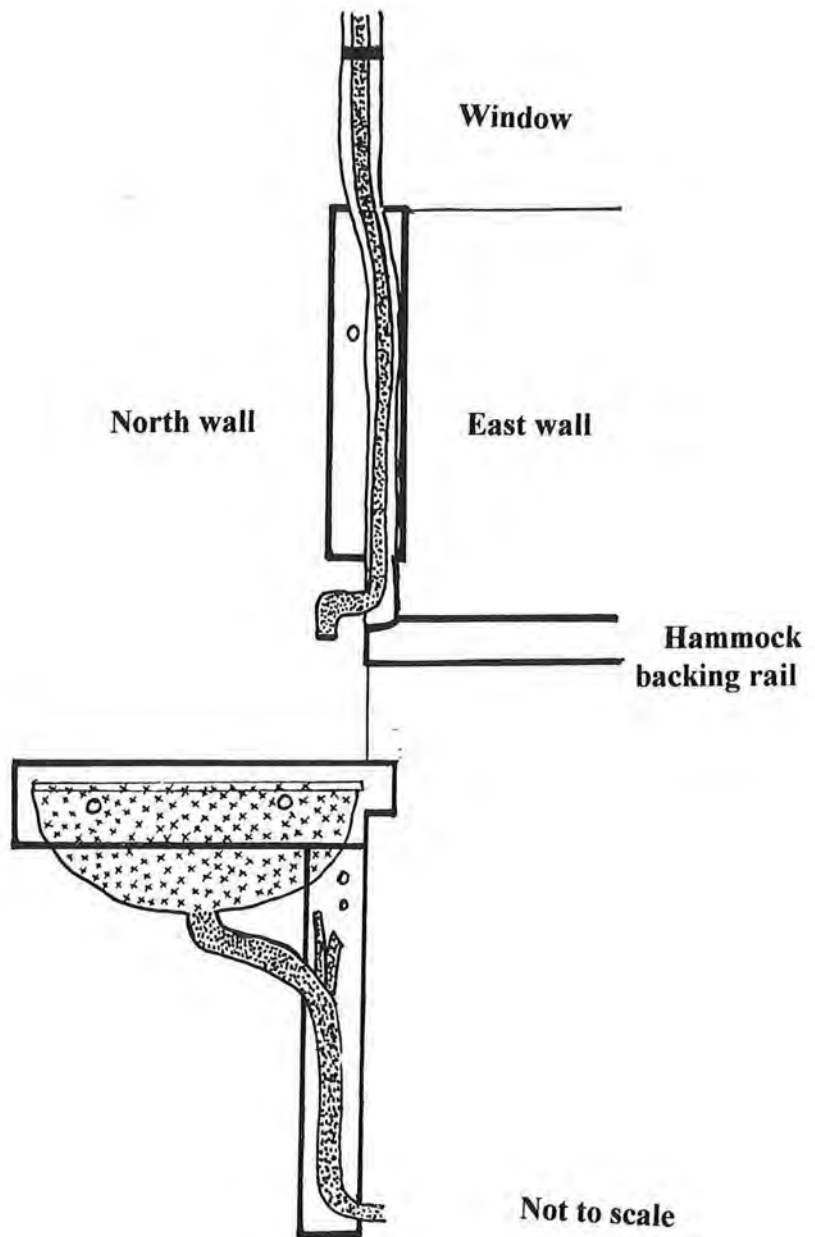


FIG 8. HYPOTHESISED CONSTRUCTION OF WASHBASIN AND PLUMBING



relating to cell maintenance. This pattern would only have occurred if something was preventing artifacts from falling through the gaps in the floor boards. A safety razor blade within the deposit puts the timing of the obstruction to after 1903 but no artifacts can be firmly dated to after 1910 suggesting it was in place by this date. This evidence strongly suggests that a floor covering was laid not long after the two cells had been turned into one.

Six areas of disturbance can be isolated. Three occurred after the cell was painted Frost White which was the last coat of paint before the cell was stripped for the reconstruction. One of these disturbances, located in A20AT1 and T2 was for a white ant inspection during which the western ends of floorboards 8 and 9 were sawn through and lifted (Fig 4). A similar disturbance in A20BT1 was for electrical repairs and this may have been when floor board 12 was cut near its western end. The cause for a deep disturbance in A20BT5 cannot be determined but again this is likely to have been when board 14 was cut at its eastern end.

The more centrally located cuts on boards 14, 16 and 17 are likely to have occurred when A20BT3 was disturbed. The dating of this disturbance is not certain but it occurred when the cell was painted Hop Green. Cell A20A was disturbed between 1911 and 1930 for either the provision of electrical services or the continued maintenance of them. A different kind of disturbance occurred in the early 1970s when a prisoner cut part of board 5 to form a lid under which he hid painting materials.

Wall Finishes

Initial work on identifying paint finishes was carried out by Mr Brian Leicester prior to field work commencing (Leicester 1996). He took paint samples from Cells A20, A21, A22 and A23. During the archaeological field work he also examined cells D38 and B37. During site works Mr Errol Tovey took paint samples from cells A20 and A22 and examined a timber chip from the table bracket in D38 (Tovey 1997). Both paint specialists found that the common theme of the prison painting scheme was variation. Not only did different cells vary but paint sequences varied within the same cell. For this reason the paint sequences will only be discussed in relation to the cells in which archaeological evidence can complement the work of the paint specialists. Colours were identified using the British Standards interior colour guide to allow comparison with the work of Mr Brian Leicester.

Up to the early 1900s cell A20 appears to have been partly lime washed in white. Lime washed coatings are largely 1 or 2 mm thick but vary up to 4 mm. Many of the samples have a flat inner surface as well as a flat outer surface. Along with the relative abundance of dressed stone this suggests the demolished wall had quite smooth faces.

Evidence was found in cell A21 of wear and subsequent patching on the north wall adjunct to the line of the hammock (Plate 26). A large depression with a gently curved lower edge had been worn into the limestone at the approximate position of the slung hammock. This had been patched with lime mortar and lime washed.

The excavated material from A20 also showed evidence of coloured finishes. Almost all of this material is very clustered and is associated with other evidence suggesting later episodes of localised disturbance. Two coatings were isolated which were also associated with artifact layers dated to the 1870s. This material was tested chemically which determined that it was unlikely to be either paint or pigmented lime wash (Tovey 1997) and its exact nature remains unknown. Only ten samples of the orange coating and four of the brown coating were recovered along with one sample which showed Hop Green over the orange. The nearest British Standards colour for the orange coating is Bronze Rose (matt) with Henna (matt) being the nearest for the brown.

The evidence for the two coatings is so scant that it is certain that they were not used for a general wall finish. Figure 10 shows that the evidence is also clustered being found near one of the doors, near the table in A20A and near either the window or the disused wash basin in A20B. The coating was also found on the door jamb of the A20A door locked since the cell was turned into two in the early 1900s (Plate 27). The evidence suggests that the orange coating was used on the door jambs of both doors and on the table in A20A. The brown coating may also have been used on the jambs of both doors. It was not noted during the removal of fabric from the window in A20, this, and the small amount of it found, suggests it was used to coat the timber casing associated with the wash basin. While use of the wash basins was discontinued in the 1860s there is historical evidence that many still remained *in situ* in 1866 (Bosworth 1996). The location of the brown coating suggests that the basin in A20B may not have finally been removed until the 1870s.

The work carried out in A20 prior to site works identified a blue gloss enamel, brown, green and yellow paints on the walls, however, only BSIC Hop Green was identified more precisely (Leicester 1996). Paint samples from A20B were examined under a microscope and showed several layers of colour (Tovey 1997). These colours were not able to be compared to British Standards. Archaeological evidence was examined by eye and such a technique is not capable of showing a sequence as detailed as the microscopic analysis.

While the archaeological techniques could not distinguish as many layers as microscopic examination a less full sequence of colours could be identified and dated against other archaeological evidence. The identified sequence from the limestone wall outwards is white lime washes, Wedgwood, Norse Blue, Hop Green and an acrylic top coat of Frost White.

White lime washes and bare stone were both in use until after the cell was modified into one. Evidence was found on the east wall pointing to it having been coated with a Corinth Rose (gloss) colour below the dado line prior to the cell conversion. Corinth Rose was only uncovered in two places firstly to the north of the north east door below the dado line and secondly when the south east door was opened. Corinth Rose (gloss) was found on the plaster next to the door jamb which had been concealed by the locked door, dating this colour to before the cell conversion (Plate 27). The sample of this colour which was recovered through excavation does not appear to have the texture of paint. At present the exact nature of the material remains unknown.

The next archaeologically discernible colour is Wedgwood (gloss), samples of which were found associated with non disturbed deposits dated to 1904. The Norse Blue (matt) is so dark it is almost black. This is possibly the black layer identified in the microscopic analysis of cell A20 but the black layer may be a later unidentified colour. Norse Blue can be dated by its association with disturbance for the installation or maintenance of electrical wiring. Historical evidence dates the provision of electricity within the prison to 1911 (Bosworth 1996) while the older style electrical clip would suggest a end date not later than ca 1940s.

The Hop Green gloss is associated with both modern disturbance which includes the latest Frost White acrylic coat and with a disturbed area in A20BT3. Associated artifacts include twentieth century artifacts but do not include any artifacts which can be definitely attributed to a period later than ca 1904 which is the last datable layer in the site. The paint cannot then be assigned a date by association with other artifacts. One shard was however found which showed Hop Green over Norse Blue suggesting that it came later which would give an approximate date of the 1950s. Mr Brian Leicester choose Hop Green, which he uncovered in both cells A20 and A22, as the typical paint colour used on cells in the 1950s (1996).

Blue paint was found as a top coat on the strip of plaster caught between the modern plaster-glass ceiling and the original ceiling. The paint stops underneath the remains of the intermediate lath and plaster ceiling (Plate 28) as does a layer of white paint found underneath it. Both overlay Hop Green and the sequence suggests that the cell was painted blue when the plasterglass ceiling was installed (installation is thought to be between 1970 and 1980, Considine and Griffith 1997) and was painted white before that. The latest coating used on the cells was an acrylic Frost White gloss.

Monitoring of fabric removal also uncovered evidence of paint stripes along the bottom of the west wall (Plate 29). There is evidence of a blue stripe associated with a lighter blue. A lower layer revealed a black stripe over an older pink stripe associated with a beige wall coat. These colours cannot be dated archaeologically.

The area excavated near the north east door contained three paint colours not found anywhere else in the cell. One colour is Arras (gloss) which is a green, found in A20BT5 and A20CT4. Paint scrapings of the door bar carried out prior to site work commencing had revealed it was once painted green (Leicester 1996) and this is likely to be the source of the Arras paint shards. The two other colours are Corinth Rose (gloss) which is a bright pinkish red and Pompadour (gloss) which is a blue. The dating and location of the Corinth Rose has already been discussed, the Pompadour however, may be from a mural.

During fabric removal a strip of paint was peeled off the area north of the north east door revealing the Corinth Rose layer below the dado line under an overall coat of what appears to be Hop Green (Plate 30). The paint strip, which was mainly of the paint layers above the red coat, was examined by the paint specialist as his sample 96191-18 (Tovey 1997). Four areas on the paint strip only centimetres apart were sampled revealing quite different sequences prompting the suggestion that a mural had been located in the area.

The results of the paint analysis has been tabled as Figure 11. Grouping the results as a single table helps comparison between them. The first obvious thing about the table is that there are different numbers of layers within the four samples. Secondly although the last coat on the paint strip was Frost White (acrylic) in line with the rest of the cell, under microscopic analysis this colour has been determined as both cream and yellow. This highlights the problem that at this scale of analysis slight variations within the same paint layer may show up as different tones which are described differently such as a creamy white being described as both cream and yellow. This can make the variation look greater than it actually is.

With this in mind an attempt was made to cross reference the samples using a thick obvious mauve layer as a starting point as it appeared in all four samples. Samples A and B correlate perfectly back to grass green while samples C and D correlate back to Beige. If slight variations in tone are taken into account all four samples correlate back to a creamy white layer marked on Figure 11 with a dot. Beyond this point not only are there severe differences in tone but also differences in actual colour. This does suggest that there may have been a mural painted over the lowest green coat (shown in samples A and B as pale olive green). This coat may be Hop Green which would suggest the mural was painted some time after the 1950s. It may also be Wedgwood which would suggest the mural was early twentieth century or it may be an undated colour. The remains of the paint strip should be classified against British Standards to confirm the colour sequences in a manner which can be compared to both the archaeological work and the previous paint study.

Window

The steel window frame in cell A20 may not be the original frame. This is suggested both by the bars being thinner than those observed by the builders and the archaeological monitor in other cells and by the gap between the frame and the limestone wall on both sides of the frame. The frame *in situ* had a brick surround which was removed during reconstruction. Brick fragments have been found under the floor boards close to the window. However, they are found exclusively in A20BT3 and 5 both of which have been disturbed, respectively in the 1950s and recently. All that can be determined archaeologically is that the brick surround was in place by the 1950s.

The limestone walls of the window opening have been rendered and painted over time as had the rest of the cell. The original limestone window sill had been covered with a layer of cement render to form a second sloping sill. Cris crossing score marks in the limestone sill may have been cut to key the cement to the limestone. The timber lintel had been covered with a thin layer of render then also covered with a thin sheeting of wood. At the time of fabric removal this had been painted Frost White (acrylic)

Doors

The south east door was permanently locked when the two cells were modified into one. Evidence of paint finishes on the door frames at the time has already been discussed. Paint scrapings carried out on the right hand door leaf and bar prior to site works identified a

blue gloss finish to the door leaf and a green gloss finish to the door jamb (Leicester 1996). Shards showing Arras gloss which is a dark green were found during excavation adjacent to this door and are likely to be from the jamb and the plaster immediately adjacent to it. The material came from an area mixed by modern disturbance. It therefore cannot be dated by association.

A second cill block with ventilation grooves had been installed on top of the original cill under both doors. When the locked door was opened the cill was found to have retained traces of the Corinth Rose coating. The evidence suggests both that the grooved cills date prior to the cell conversion and that at the time of the conversion this one was painted red to match the door frame.

The door lintel has had various treatments through time (Plate 31). The sequence of changes which can be determined are firstly, a plate was fixed over the join between the two timbers making up the lintel. Secondly the lintel was painted white. The plate of the timber join was then removed and the lintel was covered with a sheet of Crown head tin fixed with Rhomboid headed RH IIc nails dated to between 1895 and 1950 (Varman 1987, and per. comm. Fred Colum). The tin only extended to the locked door suggesting it was put in place after the door was locked. The tin was later covered with a thin sheet of timber which at the time of site works was painted Frost White (acrylic). The top of the door frame had also been covered with chicken wire to act as a key for render. The wire was fixed with bullet head nails dated to after ca 1950 (per. comm. Fred Colum).

The door leaf of the locked door had a ventilation grille and a large door lock. This suggests that these features were in use within the prison by the turn of the century.

Ceiling

A modern plaster-glass ceiling was removed revealing the original ceiling joists. These showed evidence of an older plaster and lath ceiling nailed directly to the joists using small rose headed nails spaced about 2 cm apart. On the evidence of the nails this ceiling would date to after 1870. At this time the ceiling vent would have been modified by the provision of a vented cover in the plaster and lath ceiling. Ceiling joist 4 has been repaired with timber reused from elsewhere. The beam has been repaired twice with timber which has rose headed nails protruding from it and appears to be fastened with rose headed nails. The repairs are again dated to after 1870 with the first repair further dated to before the provision of the plaster and lath ceiling as the marks caused by the laths extend across this repair (Plate 32). The second, which used a white painted timber, is dated to after the provision of the ceiling. This suggests that it is extremely unlikely that two nails protruding from the timber above the window could have acted as hooks for an object suspended below the ceiling.

The timber ceiling was formed by the floor boards of the cell above. The presence of new floorboards indicated that the 1990 fire had extended into the cell above A20 damaging the original boards. The picture frame found trapped between the modern ceiling and the

timber boards is also likely to have dropped below the floor of the cell above either during the fire or during the later repairs.

Furnishings

There was very little evidence of shelving in cell A20. Evidence for two modern fittings was uncovered on the south wall. The first was a series of round pine wall plugs associated with a shelf which stretched across most of the wall at door lintel height. The second was three square pine wall plugs located vertically down the centre of the wall below the shelf. These indicate the presence of a fixed piece of furnishing such as a cupboard. The alcove formed by the locked door in A21 had been turned into a built in shelf unit but this did not occur in A20. A21 also had a greater variety of modern shelves.

Older fittings were located on the north wall of A20. A square jarrah wall plug fixed with a wire nail was located approximately 50 cm above the under floor vent. The wire nail dates this fitting to after 1870 but it cannot be dated more precisely. Two other round jarrah plugs with wire nails were also found low on the north wall. They are likely to have related to a fitting positioned on the floor and bolted to the wall.

Older electrical wiring was found entering the cell through the east wall 10 cm under the hammock backing rail and approximately 2 cm from the north wall. Adjacent to the wiring, on the north wall, two wire nails were located. They are likely to be evidence of the fixture that the wiring was connected to (Plate 33). It has been suggested that this feature may be the remains of an intercom (per. comm. Fremantle Prison staff). Modern wiring was located on the pillar between the two doors.

Two round holes were located under the window in the west wall (Fig 3). It is unlikely that the holes relate to the demolished wall and they are more likely the result of a later fixture being bolted onto the west wall. This would date the fixture to some time after the turn of the century but there is no evidence with which to refine this dating. The west wall also showed evidence of later repairs to the wall around the north end of the hammock backing rail in the form of concrete infilling around the timber.

No fittings were revealed on the walls of A20 which dated to 1850 or 1860. Investigation of cell B37 determined that once the 1850s wash basin and the wood casing had been removed the remaining lead pipe underneath the basin was mortared into the wall forming a flush finish. The channel for the lead pipe leading to the tap was also mortared flush with the wall once the pipe had been removed. Evidence for this fitting may still be therefore be extant in the five cells chosen for the reconstruction project.

Examination of finishes on the timber table brackets in cells D38 and B37 are not directly applicable to cell A20 as the prison painting scheme was not consistent from cell to cell. Both were examined by Mr Brian Leicester who determined the timber appeared to have been variously painted red, green and white in one cell and white, red, green, white and pink in the second. He did not think the original timber had been oiled (per. comm

Plate 7. Score marks in window sill



Plate 8. Door lintels



Plate 9. Original door stop



Plate 10. Joists and ceiling boards



Plate 11. Ceiling vent



Plate 12. Hammock hooks Cell A21



Plate 13. Wear marks on hammock hooks



Plate 14. Table bracket, Cell B37



Plate 15. Brick and mortar, Cell B37



Plate 16. Lead pipes, Cell B37



Plate 17. Drain outside Cell A20



Plate 18. Wash basin area, Cell B37



FIG 9. DENSITY OF DRESSED LIMESTONE AND LIME WASHED LIMESTONE

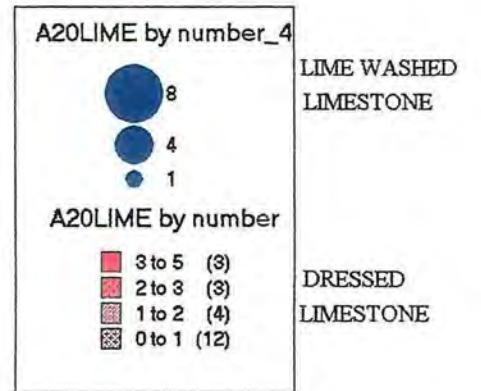
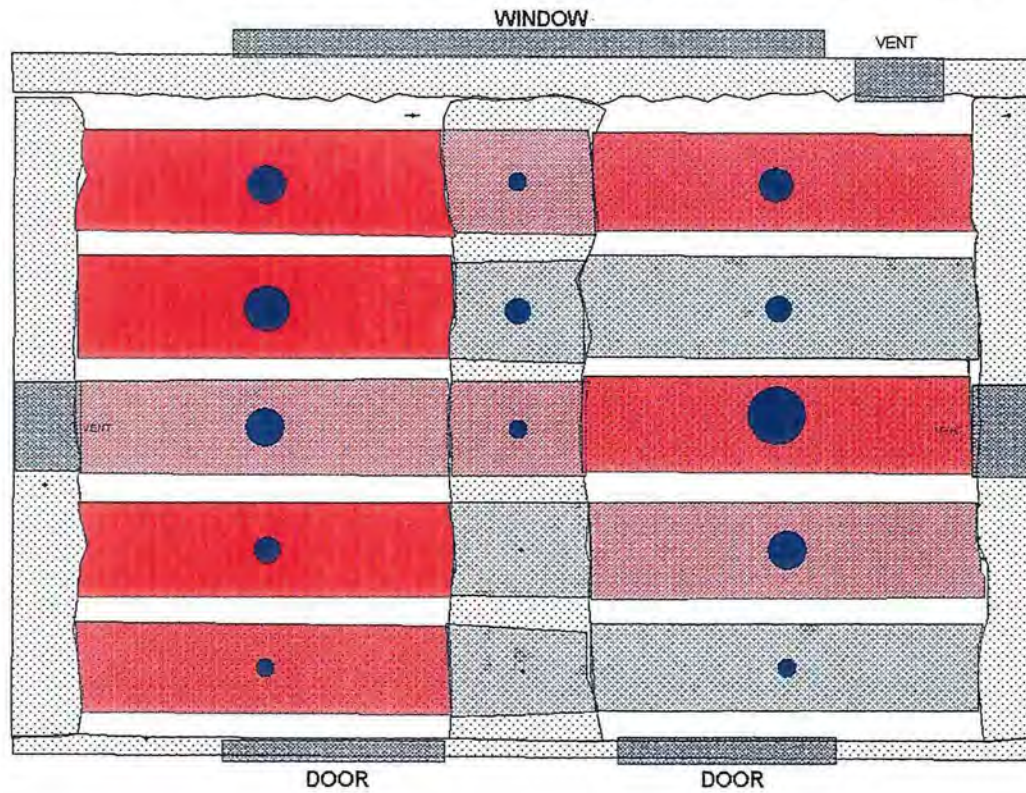


Plate 19. Pipe channel, Cell B37

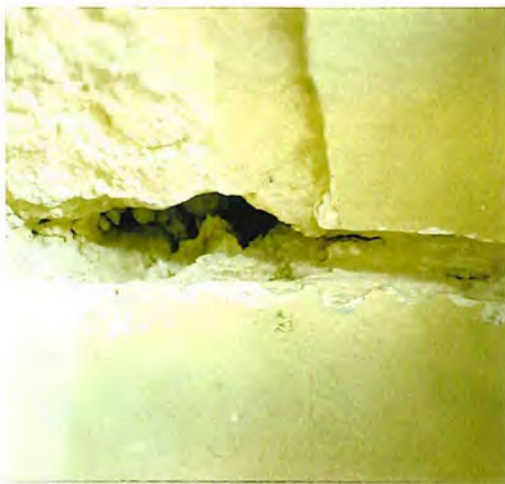


Plate 20. Wrought spike from pipe bracket



Plate 21. Corridor demonstration panel



Plate 22. Tongue and groove floorboard



Plate 23. Joist repair



Plate 24. Overlapping floorboard

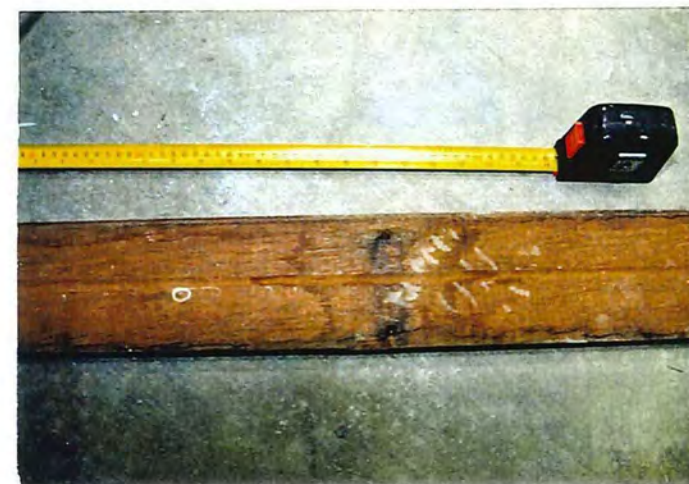
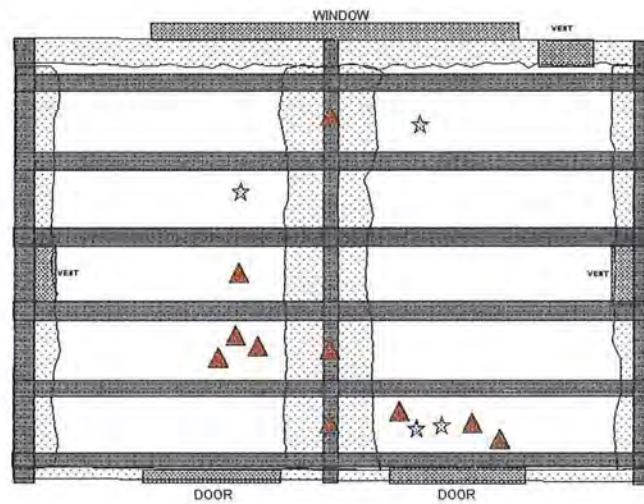


Fig. 10 LOCATION OF SAMPLES OF
EARLY FINISHES



- ▲ Orange coating
- ☆ Brown coating

Plate 25. Battens over joists



Plate 26. Hammock wear



Plate 27. Orange coating on door



Plate 28. Blue finish near ceiling



Plate 29. Paint stripe west wall



Plate 30. Paint strip



FIG 11. MICROSCOPIC PAINT ANALYSIS

96191-18A Colour	Microns	96191-18B Colour	Microns	96191-18C Colour	Microns	96191-18D Colour	Microns
From wall		From wall		From wall		From wall	
Pale Olive Green	20-40	Pale Olive Green	40-60	Yellow	5-10	Green	30-50
Pale Leaf Green	30-45	Lght Grey	20-30	Brown	10-25	Green	30-50
some delamination		some delamination		Light Green	15-45	Yellow	25-35
Cream	20-30	White	20-30	Dark Green	25-35	Green	10-15
Blue Green	10-15	Yellow	25-30	Light Green	20-35	Red	10-15
Greyish Pink	30-50	Blue Grey	10-40	Cream	25-35	Beige	15-20
Blue Green	15-20	Sky Blue	10-25	Mauve	10-15	Green	10-20
● Cream	15-20	Leaf Green	5-10	Blue	10-20	● Cream	10-15
Grass Green	20-30	Greyish Pink	20-45	Green	10-15	Green	20-30
Yellow	20-40	Leaf Green	20-25	Beige	10-20	Yellow	30-65
White	15-20	● White	10	Green	50-65	White	20-50
Yellowish Green	20-40	Grass Green	10-15	● White	10-15	Green	15-20
Pale Mauve	50-80	Cream	30-50	Green	5-20	Mauve	50-70
Brick Red	15-30	White	5-10	Yellow	30-45	White	10-15
Sky Blue	10-20	Yellow Green	30-35	White	20-35	Red	15-25
Black	10-20	Mauve	50-80	Green	25-35	Blue	15-30
Cream	40-70	Brick Red	10-30	Mauve	50-80	Black	5-30
Sky Blue	10-20	Sky Blue	10-20	White	10-15	● Cream	40-70
Cream	60-85	Black	5-10	Red	20-30	Blue	25-35
		Cream	40-80	Blue	5-20	Yellow	50-80
		Sky Blue	10-80	Black	5-35		
		Yellow	50-60	Cream	10-30		
				Cream	15-20		
				Blue	5-15		
				Yellow	80-120		

Plate 31. Door lintel



Plate 32. Repaired joist



Plate 33. Older electrical wiring



Plate 35. Prisoner stash



Leicester 1997). Paint scrapings from the bracket in D38 were examined by Mr Errol Tovey who determined the presence of two thick white paint layers (Tovey 1997).

ARTIFACT ANALYSIS

Changes In Assemblages Through Time.

Artifacts removed from the outside exercise yard drains have been sorted, identified and catalogued. The material is mainly modern in origin therefore only representative samples were kept for the artifact collection. The full database of drain artifacts will be included as an appendix within the report but not analysed as this is outside the scope of this project.

A database of 1240 artifacts has resulted from the excavation of cell A20. Artifacts have been sorted, identified and catalogued. They are catalogued by location, identification and function with many also having dating information included. Figure 12 shows the artifacts grouped by function. Just over a third of the material is associated with cell construction and maintenance. The largest categories relating to the prisoners are smoking related items, leisure items and items of clothing hardware.

The excavated deposits consisted of rubble from the demolished wall overlying a thin deposit of brown sediments. A photographic mosaic was taken of the deposits before excavation (Plate 34) to show the spread of rubble and the location of the 1973 prisoner's stash which was found underneath a lid cut out of the floor boards (Plate 35). Below the rubble and brown deposits was a thick layer of sterile sand which was not fully excavated. The after excavation photographic mosaic shows clearly the footings for the demolished wall and the two cell floor drainage channels (Plate 36). While it was evident that there has been some disturbance to the deposits, this disturbance was not on a large scale as some layering of deposits could be discerned and a coherent chronology could be formed.

Both the artifact and feature databases were entered into a Geographical Information System (GIS) program. This allowed artifact location to be plotted within maps of the cells to analyse information relating to construction and maintenance (Figs 6, 9 & 10) and to identify activity loci.

The artifact data base was divided up into chronological groupings using methods devised for the Cossack Store site (Nayton 1992). These methods were designed to delineate short time periods within Australian historic sites. The method is a modified version of South's mean ceramic date formula (Nayton 1992:81-82). Mathematically the formula is quite simple. Each type within the assemblage is multiplied by its frequency of occurrence, the resulting numbers are then summed and divided by the total frequency of the types to produce the South Mean. Minimum numbers of dateable artifact types present within each bucket were used as the measure of occurrence.

Currently unpublished research of the Cossack Store assemblage has produced a refined method which recognises and circumvents factors that blur raw dates such as artifacts with very long periods of popularity which skew dates away from the assemblage mean, artifacts such as nails which enter the archaeological record both during construction and the demolition or modification of the structure, and artifact types which because of their physical characteristics work their way down through sandy deposits to layers beneath that to which they belong.

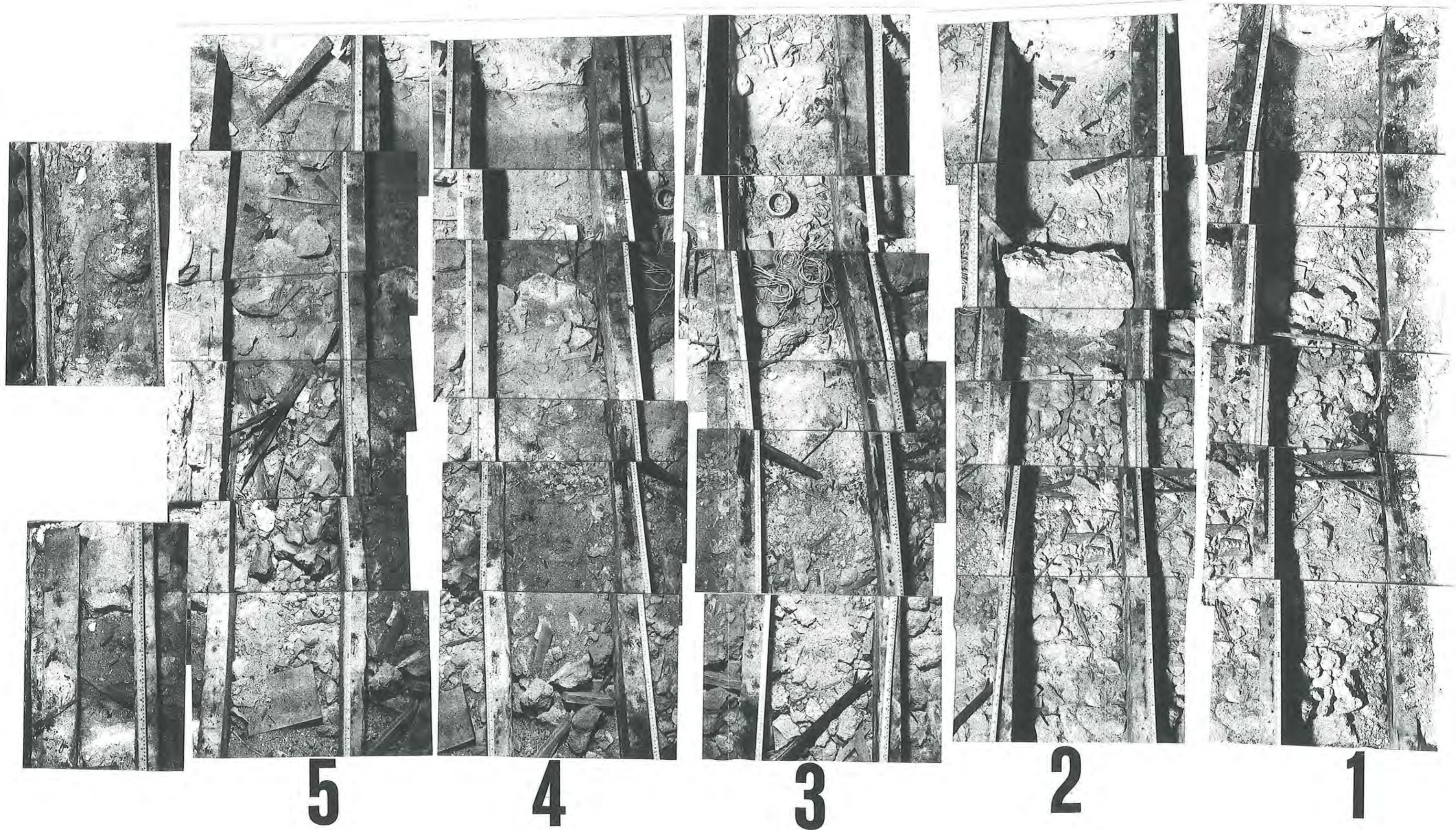
Deposits from cell A20A could be divided in groupings with means of 1860, 1870, 1883 and 1973. Those from A20B divided into slightly different periods with means of 1860, 1875, 1885 and 1978. Only one layer could be distinguished which could possibly relate to cell occupation after the cells were converted into one cell. This layer has a mean date of 1904. The 1970s deposits are from localised disturbances resulting mainly from maintenance works.

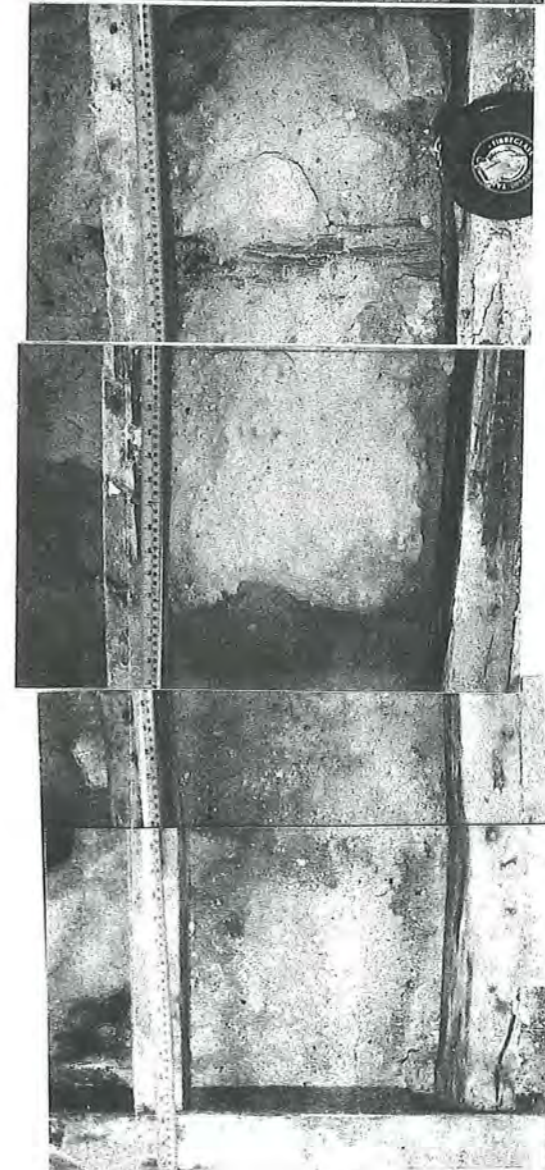
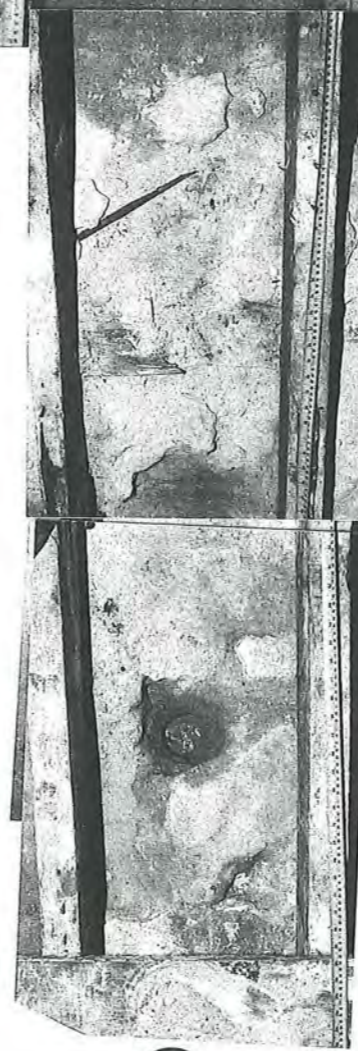
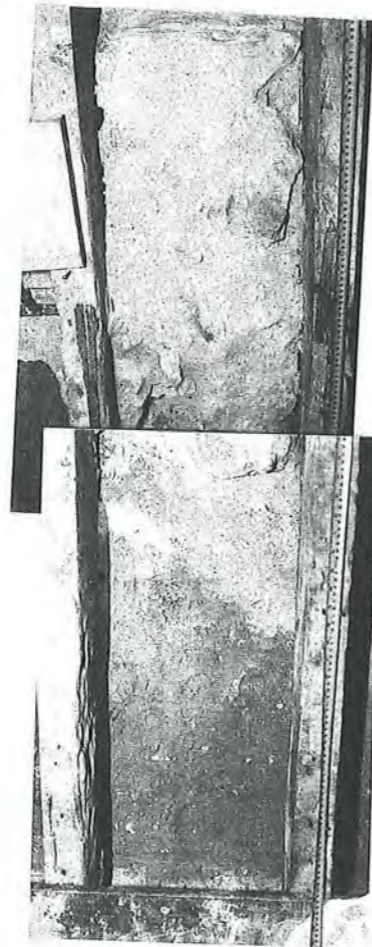
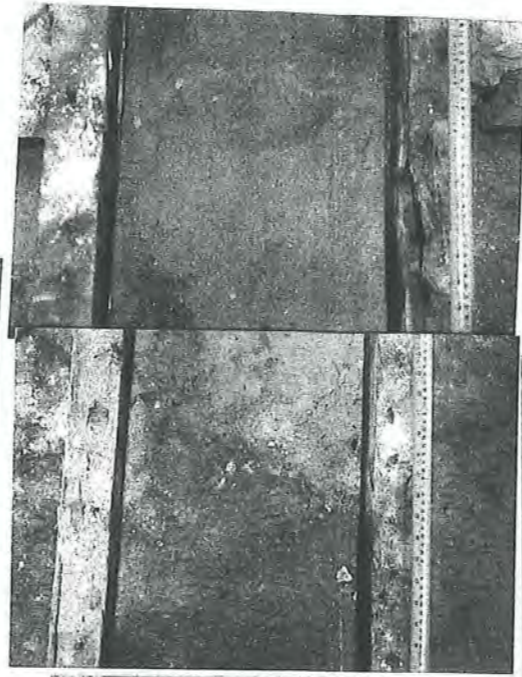
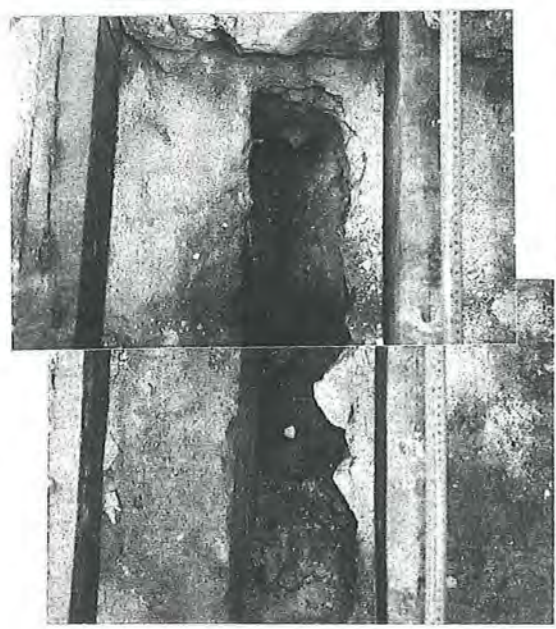
The type of maintenance activity could sometimes be determined by the artifacts such as wooden plugs used to repair holes drilled for white ant treatments. The artifacts left behind during the disturbance could usually be isolated through their more modern dating. The dating of some material was however, hard to determine and they were included with the disturbance material on the basis of association. A case in point is red plastic found in cell A20B. This plastic was not obviously modern and therefore could not be placed in the 1978 assemblage on that basis alone. However, Figure 13 shows that the red plastic has a very strong association with Hop Green paint shards. The paint shards entered the deposit during a localised disturbance while the cell was painted Hop Green. The red plastic was then dated to the same disturbance through association. Similarly match type 4, safety pins, red and blue crayon, clear and white plastic, a plastic button, a clothing rivet, lead pencils, wool, string, egg shell and soft fruit pips could all be distinguished as relating to localised twentieth century disturbances.

These procedures could be expected to filter out material deposited during the disturbance. However, mixing of older material during the disturbance is harder to determine. Some mixing can be discerned through artifact dating and others through association such as bone tooth brushes which can be clearly related by cluster analysis to the 1850s wash basin (Fig. 6). Bottle glass in the western half of cell A20B is also clearly related with most of the glass coming from two bottles, however, shards of the bottles initially ended up within different chronological assemblages. The chronological ordering of the assemblages suggests that this type of mixing is not great and every effort has been made to distinguish the affected artifacts. However, it may still lead to some anomalies surfacing during analysis.

Figure 14 shows artifacts grouped by function for each of the assemblages. Variation in function is consistently greater in A20B with only the 1880s assemblages showing a similar level of variation. The picture for quantity is more mixed (Fig. 15) with the 1860s assemblage for A20B having a greater level of both variety and quantity while the 1880s assemblage has the same variety but a lot less artifacts than the same time period in A20A. The lower number of artifacts in this instance can be explained by disturbance within

PLATE 34 BEFORE EXCAVATION PHOTO MOSAIC





5

4

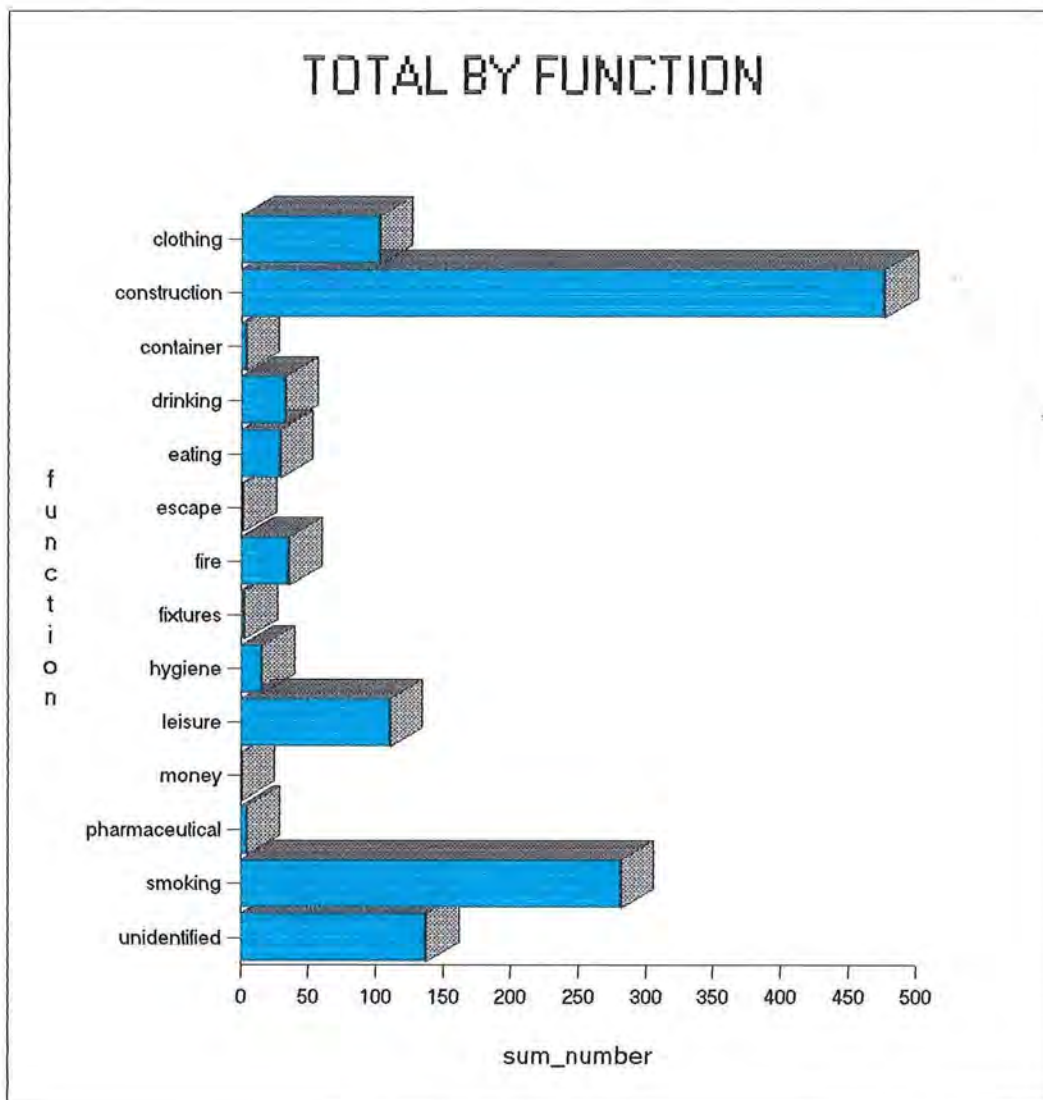
3

2

1

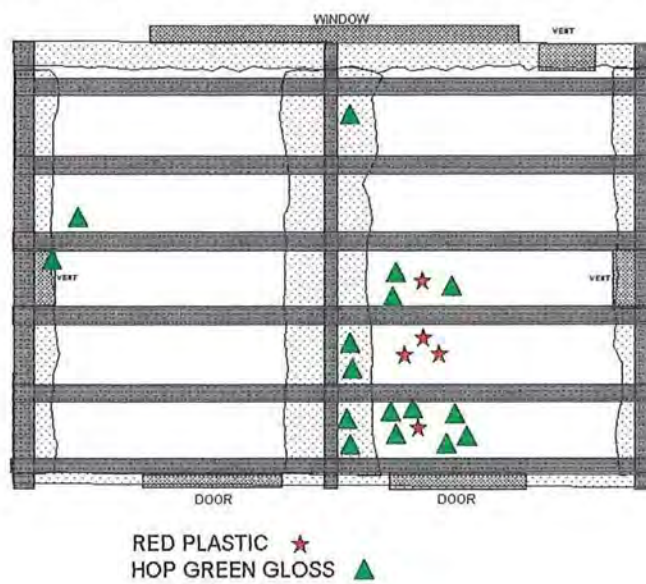
PLATE 36 AFTER EXCAVATION PHOTO MOSAIC

FIG. 12 TOTAL OF ARTIFACTS GROUPED BY FUNCTION



function	number	sum_num
clothing	1	103
construction	1	477
container	1	4
drinking	1	33
eating	1	29
escape	1	2
fire	1	36
fixtures	1	3
hygiene	3	16
leisure	1	111
money	1	1
pharmaceutical	1	5
smoking	1	282
unidentified	1	138

FIG 13. DISTRIBUTION OF RED PLASTIC AND HOP GREEN GLOSS



trenches 3 and 4 which occurred when the cell was painted Hop Green. The ensuing artifact mixing has resulted in older levels not being readily discernible within these trenches therefore almost all artifacts were placed within the 1978 assemblage. The same explanation does not hold for the greatly reduced numbers in the 1860s assemblage from A20A where mixing has only happened in trench 2.

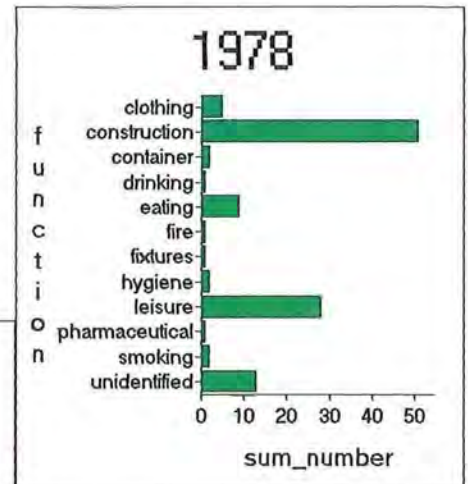
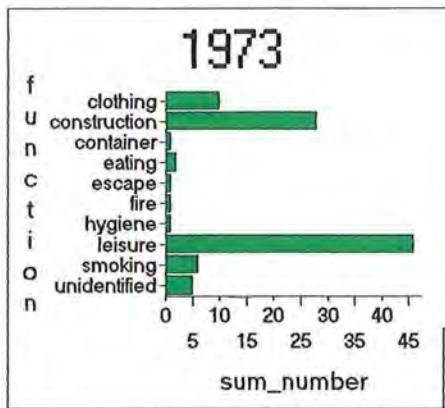
This picture can be looked at in more detail, era by era. Figure 16 compares the 1860s assemblages where the variation is extreme. In cell A20A only three toothbrush fragments and a clay pipe shard indicate that there was ever a prisoner within the cell, in A20B thirteen classes of artifacts relating to the cell occupant were found. A large percentage of these were found in the cell drain while artifacts relating to prisoners found in the drain for A20A date more closely to the 1880s. This may indicate that less artifacts were available during the early periods to wash into the drain in A20A biasing the assemblage to the 1880s. However, even if the artifacts found in the drains are taken out of consideration the variation is still greater in A20B. Ten artifacts from six artifact classes were found in A20B against four artifacts from two classes found in A20A. This suggests that cell A20A may indeed have been used less during the 1860s.

The same picture is not at first glance suggested for the 1870s (Fig. 17). There is only a difference in total artifact numbers of nine and variation appears similar. However, there are only 70 non construction items in A20A compared to 102 items in A20B. Again there are no non construction artifacts in the A20A drain but 25 non construction items were found in the A20B drain. The overall number of artifact classes in both cells is identical with 20 in each but functional classes show greater variation. In A20A there are 7 functional classes while 11 functional classes were found in A20B. While 5 functional classes were found within the drain only one was exclusive to the drain (a rib bone from the functional class eating) altering the overall variation by very little. The variation in the 1870s is clearly in quantity of non construction items and the function of these items. Both cells have items relating to clothing, drinking, eating, fire, leisure, smoking and unidentified pieces of metal. A20B additionally had a lid tin (container) bristles from a shaving brush (hygiene) a sixpence (money) shards of clear glass probably from the same medicine bottle (pharmaceutical) and some unidentified fibres. The greater number and variety of items relating to the cell's occupants suggest either that A20B was used more than A20A or its occupants had a greater level of material culture.

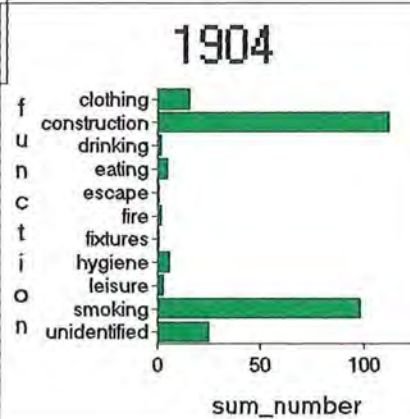
The reversal of this picture initially shown by Figure 18 is more truly a reflection of the methodical problem posed by layer mixing than a reflection of lesser usage of cell A20B. The reduction of total artifact numbers in A20B is reflected in a reduction in artifacts classes with 17 classes represented against 22 found in A20A. The number and type of functional classes is however almost identical with eight classes in each cell, seven of which are identical. A20A has a shard of medicine bottle while no pharmaceutical items were found in A20B and A20B has fibres thought to be from a coir mattress found in trench four. It also has some unidentified fibres found in trench 1.

The range of functional classes does not truly suggest that A20B was used less in the 1880s and 1890s but it also does not suggest that A20A was often left unoccupied which is

Fig 14. ARTIFACTS THROUGH TIME



A20A



A20B

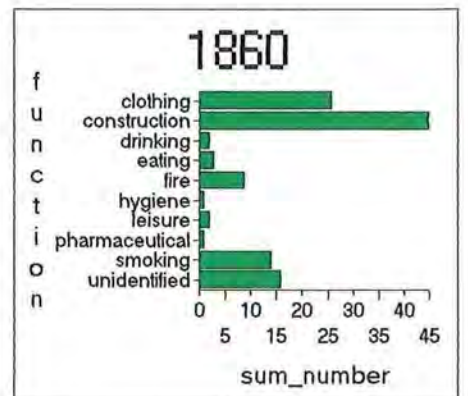
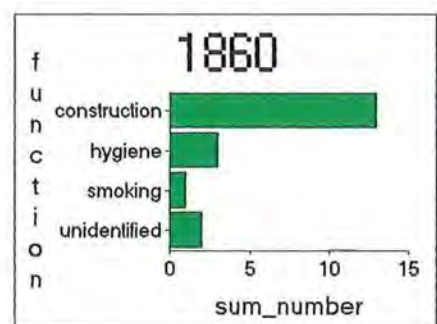
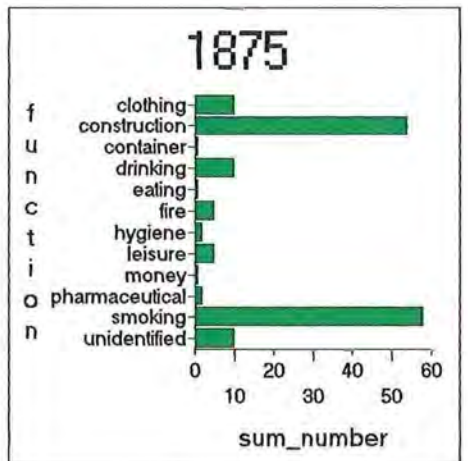
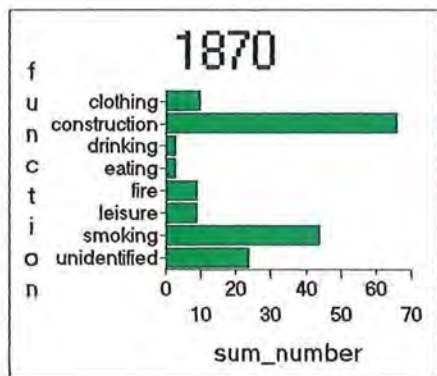
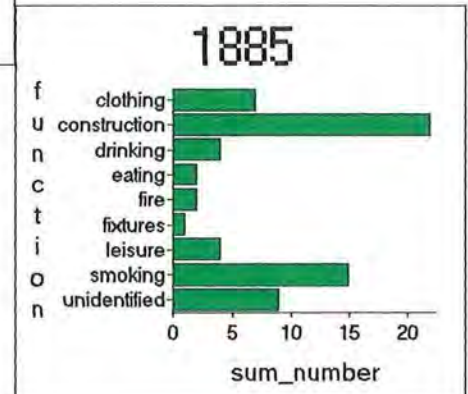
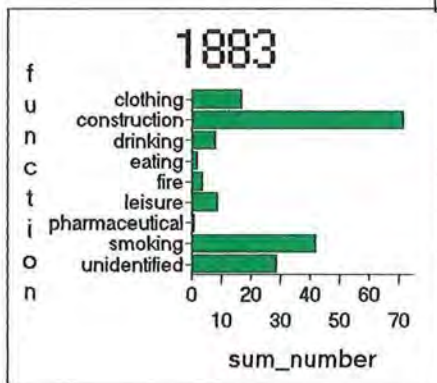


FIG 15. Number of Artifacts Summed Per Assemblage.

1973 - 101

1978 - 116

1904 - 271

1883 - 184

1885 - 66

1870 - 168

1875 - 159

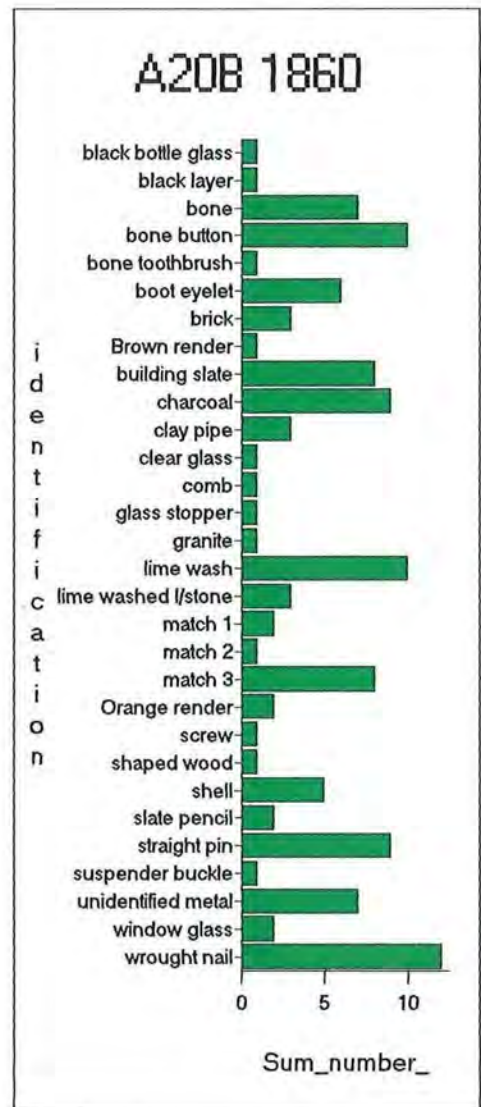
1860 - 19

1860 - 119

FIG 16. 1860s ARTIFACT CLASSES

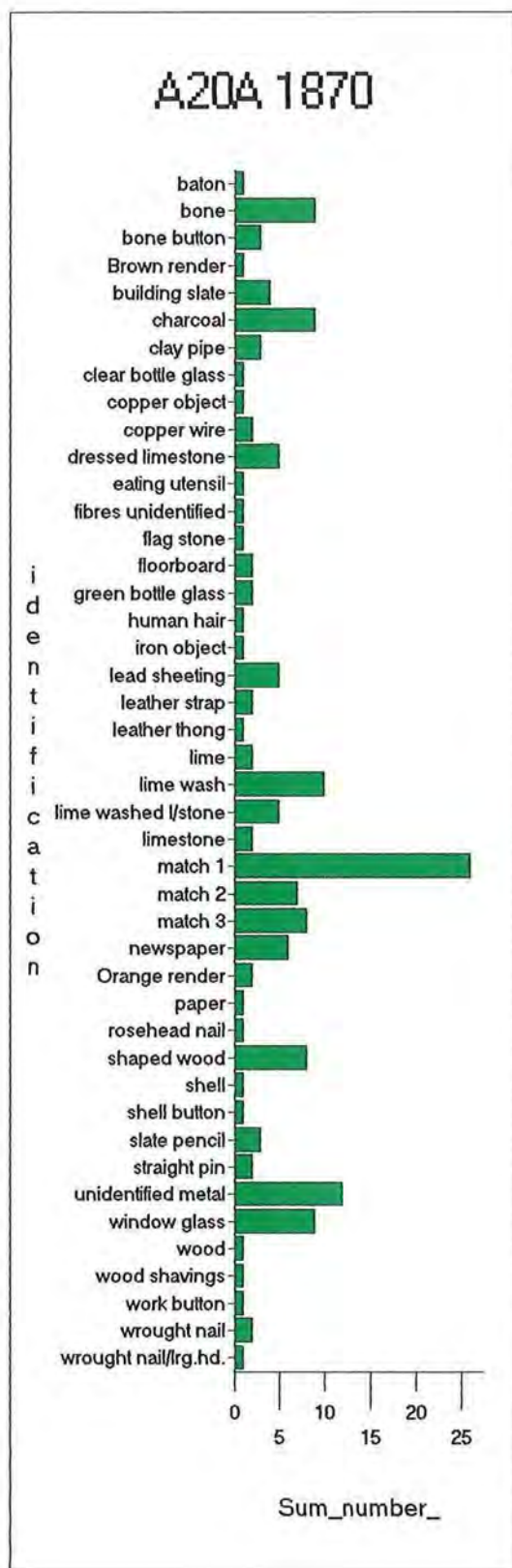


A20A SUM: 13

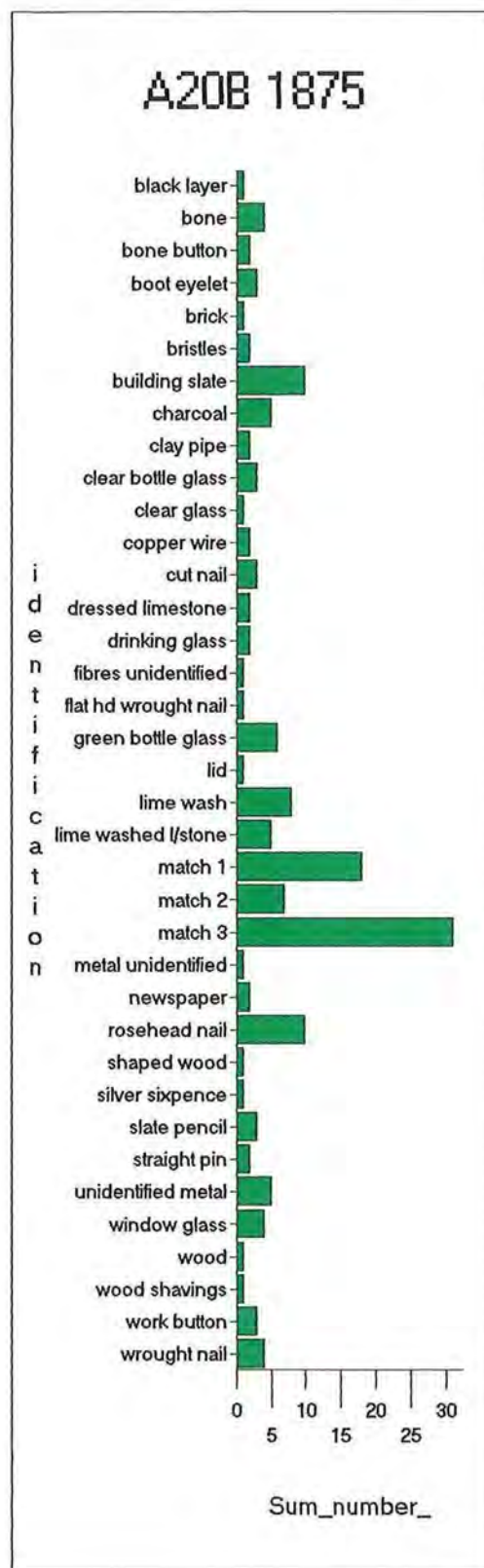


A20B SUM: 35

FIG 17. 1870s ARTIFACT CLASSES

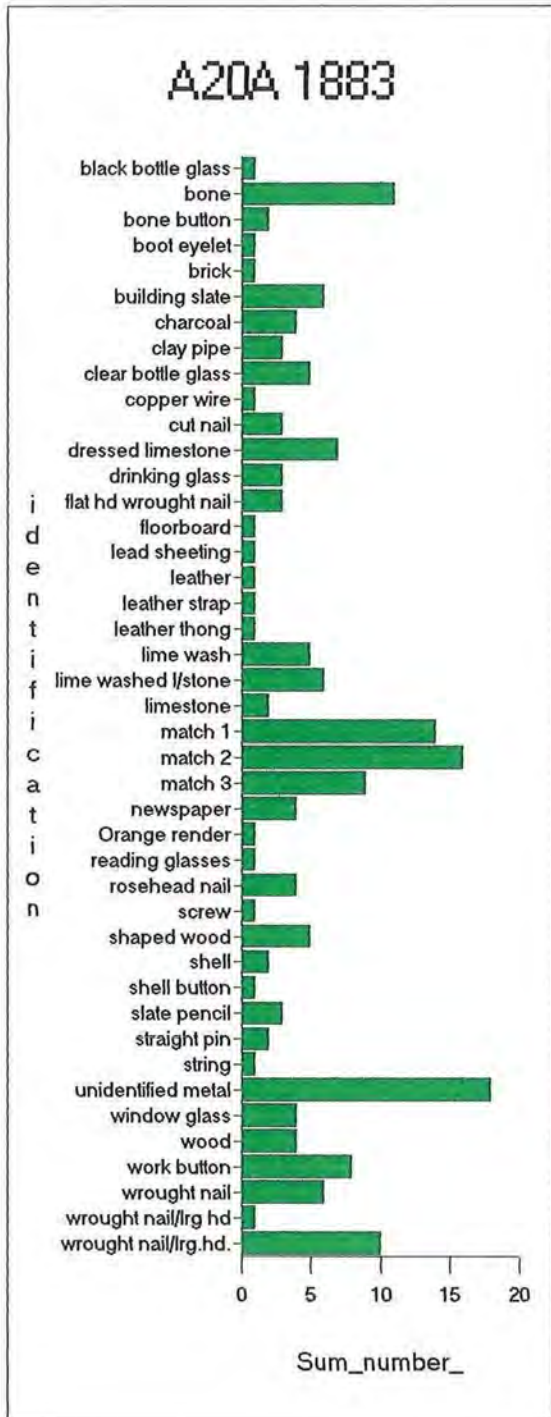


A20A SUM: 45

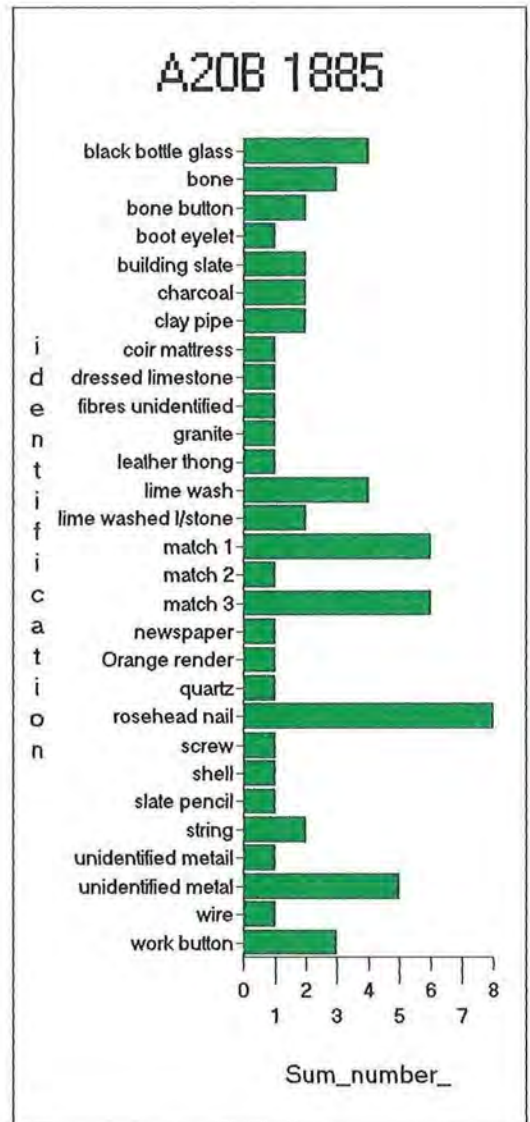


A20B SUM: 54

FIG 18. 1880s ARTIFACT CLASSES

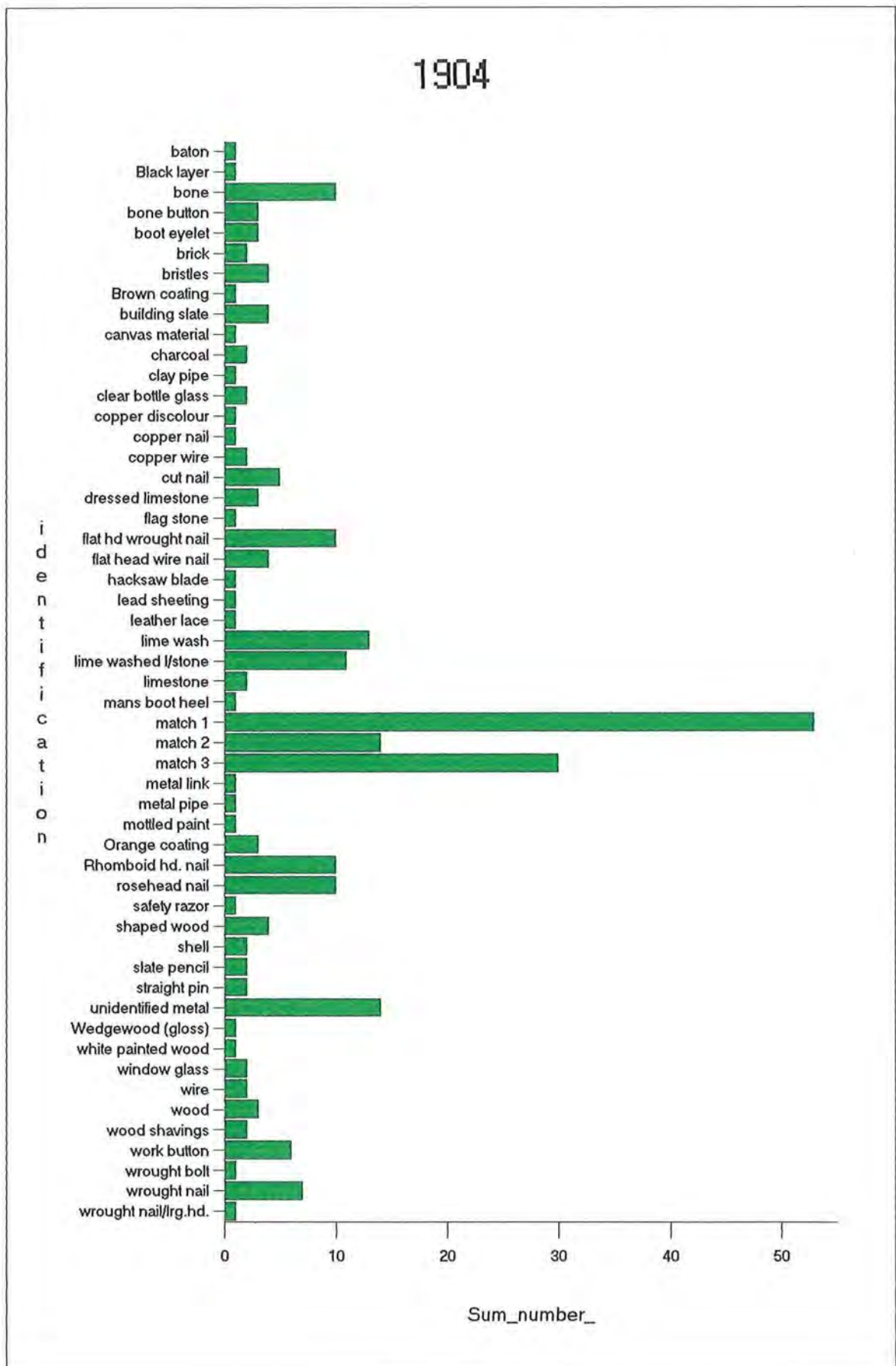


A20A SUM: 47



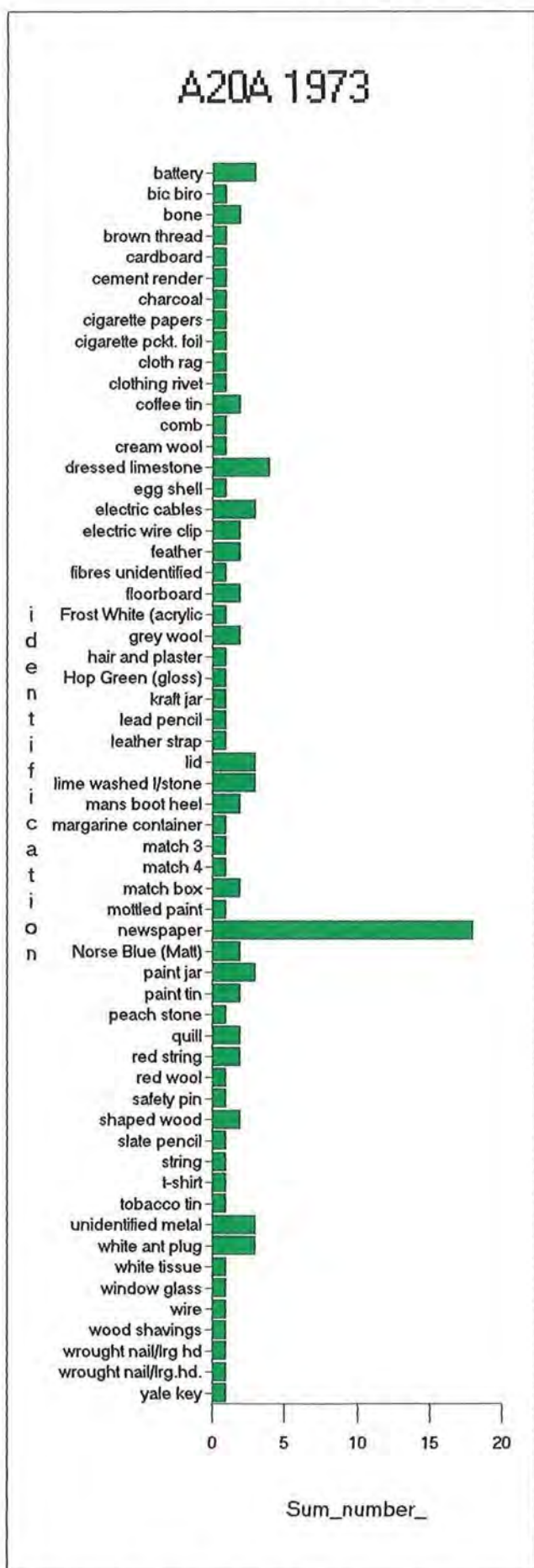
A20B SUM: 34

FIG 19. 1900s ARTIFACT CLASSES

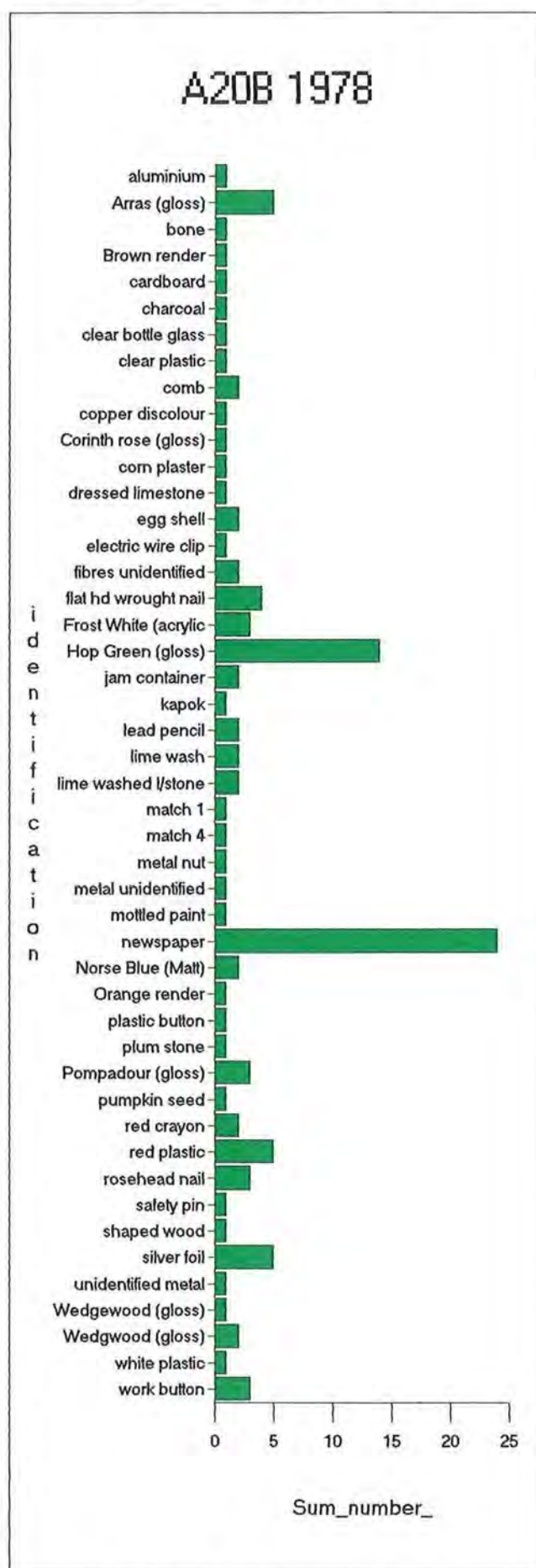


A20 SUM: 78

FIG 20. 1970s ARTIFACT CLASSES



A20A SUM: 67



A20B SUM: 106

contrary to the trend in the earlier two decades. A possible explanation for this may have been problems with ventilation solved by the provision of grooved cill blocks under the doors. An improvement which the physical evidence firmly points to having occurred before the two cells were turned into one. Originally the doors were built to have large gaps underneath them but solid cills appear to have been installed in the 1860s to prevent prisoners from communicating with each other (Bosworth 1996:5). This would have left A20A with only an internal underfloor vent and a ceiling vent while A20B had two underfloor vents one of which was connected directly to the outside air.

The 1904 layer covers most of A20B, all of the early twentieth century material above the demolished wall but only extends into one trench of A20A. The top layers of most of A20A having been affected by later disturbance. The patterns are similar however to other era's with 146 non construction items in 20 artifact classes (Fig. 19) and 10 functional classes.

The 1970s assemblages (Fig. 20) represent all the disturbances which have occurred within the cell since early this century. The construction materials have already been discussed as they are pointers to changes within the cells. Most other artifacts are modern and relate to either to maintenance activities or to a prisoner who hid items under the floorboards in the early 1970s. Only a slate pencil in A20A and metal work buttons in A20B are likely to be from earlier assemblages. However, it is possible that undatable artifacts from this time period may have worked their way down to the lower assemblages. Unpublished work carried out at Cossack has established that long thin objects often move downwards through sandy deposits therefore the distributions of both matches and straight pins needed to be studied.

Four types of matches were found within cell A20. Match type 1 is a square sectioned match of light coloured softwood, identical in shape and material to modern matches. Match type 2 is a flat sectioned wax vesta taper with an approximate date range of 1832 to 1911. Match type 3 is a square sectioned match of a dark softwood. It is smaller in section than match type 1 and has a pointed tip. Match type 4 is a large modern Bar-b-que sized match, few of this type were found and they were exclusively related to areas of modern disturbance.

Figures 21 to 23 plot the distribution of match types 1, 2 and 3 for all the assemblages. In disturbed areas matches, like other artifacts, will be mixed through all the deposits affected by the disturbance. In these areas they may occur in a later assemblage than their true position. In undisturbed areas however, the matches can be expected only to work their way downwards, therefore the level where they first appear is importance.

Match type 2 is confined mainly to the 1870s and 1880s appearing in the 1860s and 1900s only in A20BT5 which is a trench known to have been disturbed past the depth the match included in the 1860s assemblage was discovered at. It is clear that this match type belongs to the 1870s and 1880s with a slight increase in use in the 1880s.

The temporal distribution of match type 3 is confused in trenches A20BT3 to T5 appearing in all four assemblages. This is certainly a result of later disturbances as trench A20BT5 is known to have a deep modern disturbance and trenches A20BT3 and T4 were disturbed when the cell was painted Hop Green. Outside of this area the match is almost exclusively found in the 1880s with one match in the 1900s.

Match type 1 is the only match type with the bulk of the artifacts in the 1900s assemblage. It is associated with the disturbances in A20BT3 to T5, with the more minor disturbances in A20BT1 and A20AT1 to T2. It is also found with and adjacent to the 1973 prisoner's stash.

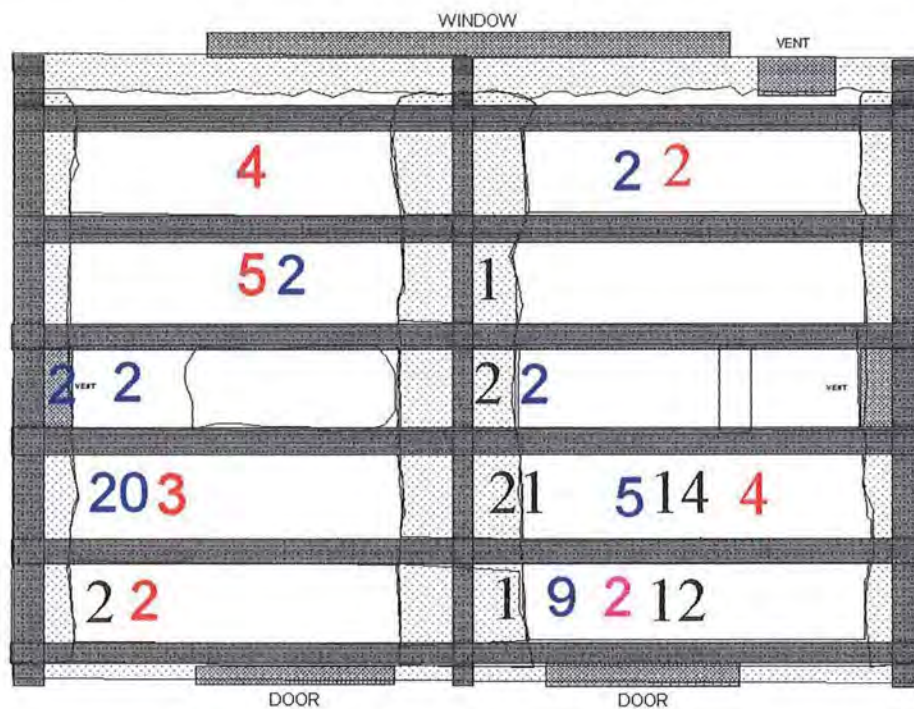
It appears that match type 3 phased out the early wax vesta matches (type 2), probably in the later 1880s. Match types 1 and 4 are modern matches associated closely with disturbances. As such they should be removed from the earlier assemblages. Also match type 2 should be removed from the 1900s and 1860s assemblages and match type 3 should be confined mainly to the 1880s assemblage.

While matches such as type 1 and 4 are quite likely to have entered the cell with maintenance workers it is less likely that pins would have entered the archaeological record this way. Figure 24 shows that pins are not directly associated with disturbances except in A20BT5 which is the only place where they appear in the 1900s assemblage. The eight pins associated with the 1860s assemblage in this trench have been mixed with the lower drain deposits. Across the rest of the square they are associated more strongly with the 1870s and 1880s assemblages. The pins show a very clustered distribution and probably represent three episodes of use, one in A20A and two in A20B. Given the tendency of these artifacts to work their way downwards, the episodes of use are probably associated with the higher 1880s deposit.

Figures 25 and 26 show artifacts classes within the time periods after matches and pins have been adjusted and non construction classes which are definitely not related to the prisoners such as mouse bone and shell are removed from consideration. This still leaves charcoal and unidentified metal in the assemblage. The metal is disintegrated to a point where identification is confined to whether it is wire, fragments of thin metal sheet or from a heavier metal object. Much of the wire is likely to be remnants of post 1870 nails relating to either construction or maintenance activities. Yet it cannot be removed from consideration because it cannot be definitely identified as construction materials. This gives the category a strong presence in the assemblages, in some cases being the most numerous. This would not occur if the artifacts represented by the category were sorted into their true classes and functions. Because of the uncertainty this category causes a blurring affect skewing the appearance of the graphs therefore this distortion should be ignored when purely prisoner related activities are being considered.

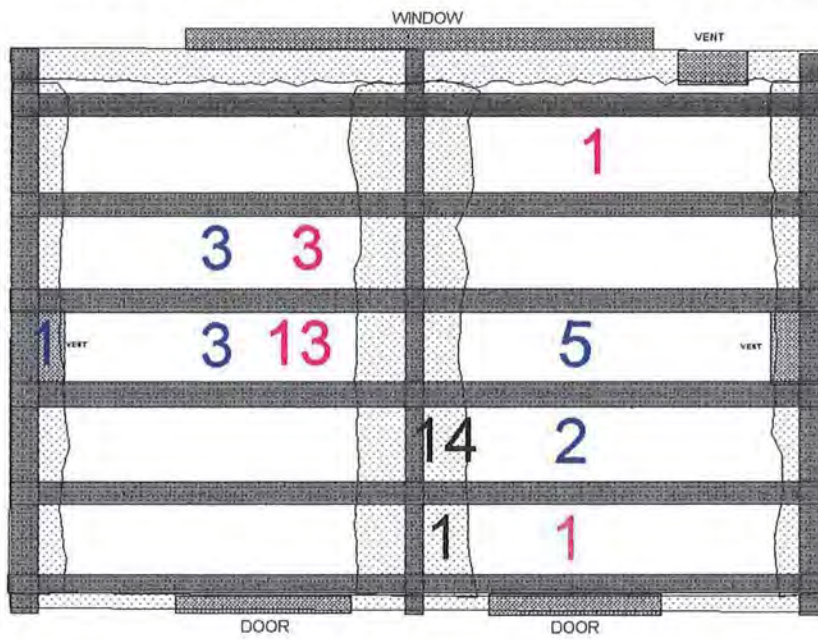
Charcoal is also difficult to determine because it may have entered the archaeological record through the actions of either prisoners or prison authorities. It consistently appears in all the assemblages except the A20A 1860s assemblage and therefore is unlikely to be related to a unique event such as a general prison fire. The amount of charcoal is also

FIG 21. DISTRIBUTION OF MATCH 1



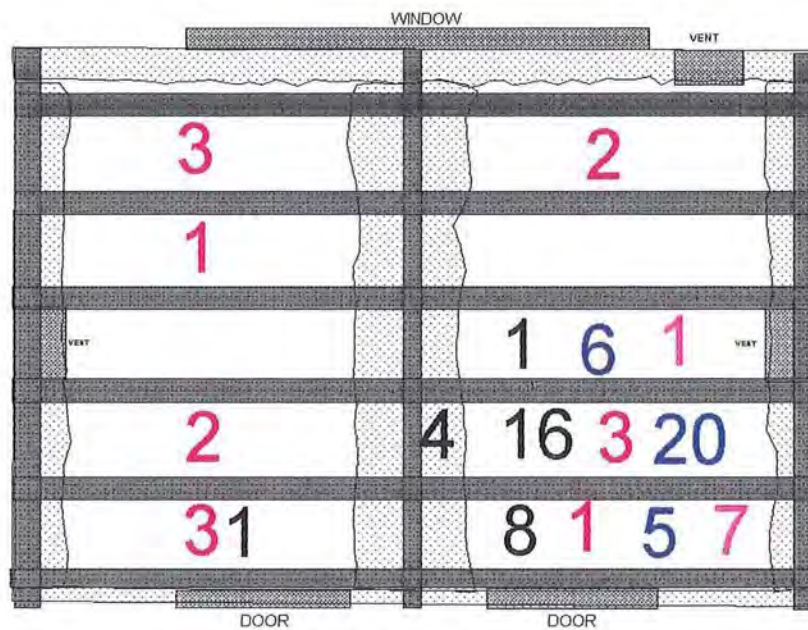
- 14 1900s
- 4 1880s
- 4 1870s
- 2 1860S

FIG 22. DISTRIBUTION OF MATCH 2



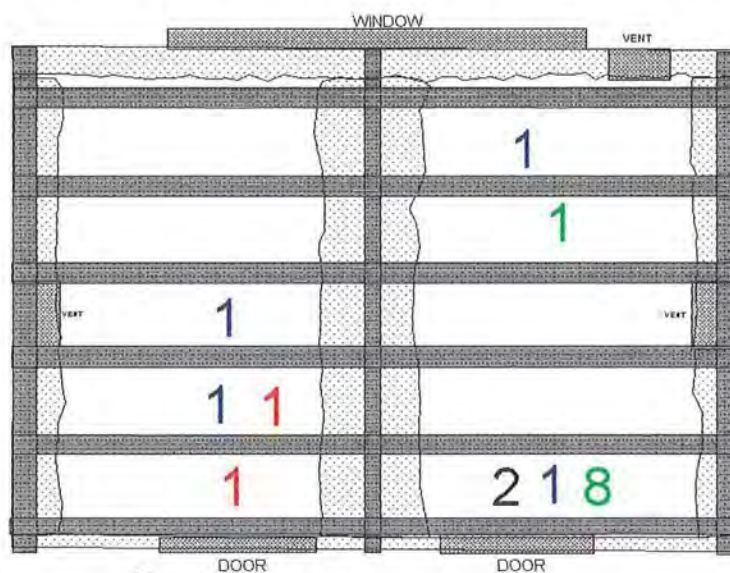
- 1 1900s
- 1 1880s
- 2 1870s
- 1 1860s

FIG 23. DISTRIBUTION OF MATCH 3



- 1 1900s
- 1 1880s
- 3 1870s
- 1 1860s

FIG 24. DISTRIBUTION OF STRAIGHT PINS



- | | |
|---|-------|
| 2 | 1900s |
| 1 | 1880s |
| 1 | 1870s |
| 8 | 1860s |

FIG 25. NON CONSTRUCTION ARTIFACT CLASSES

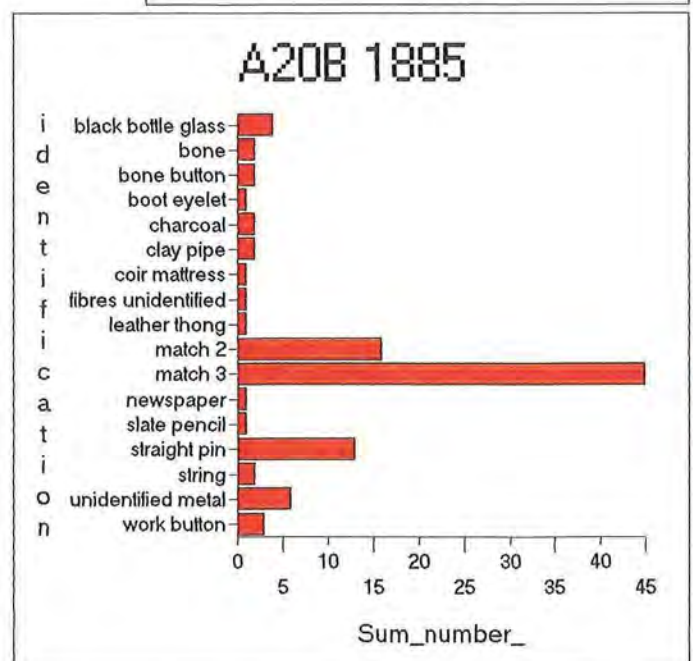
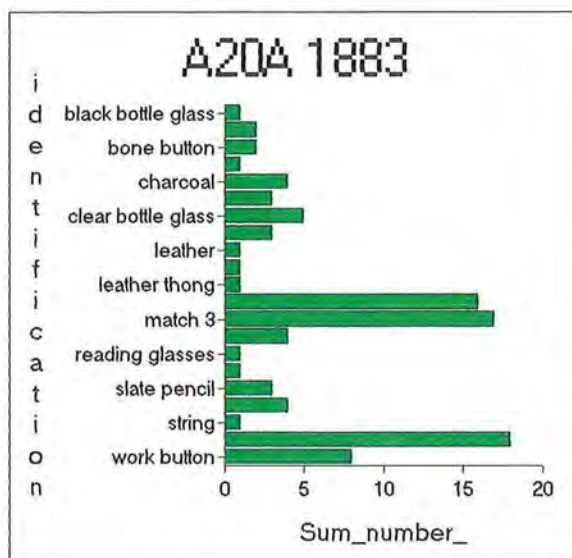
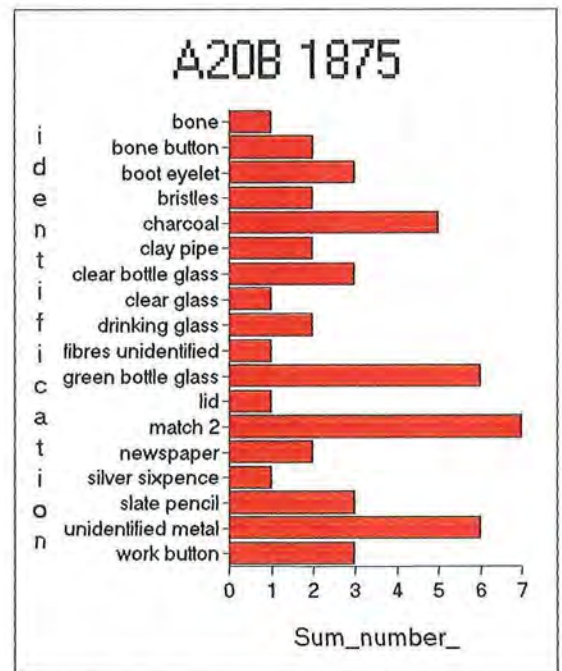
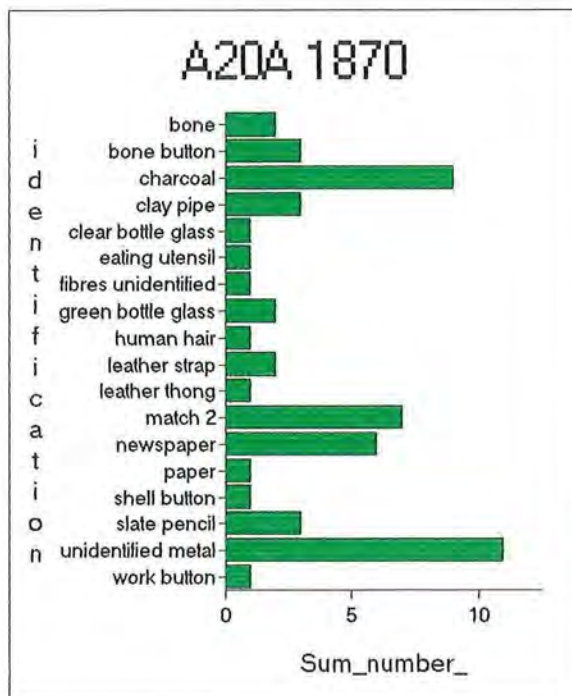
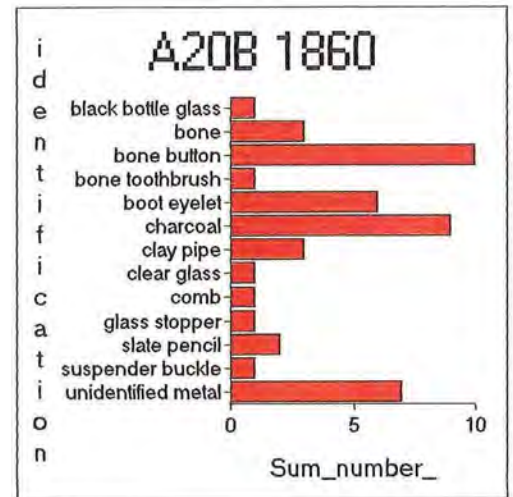
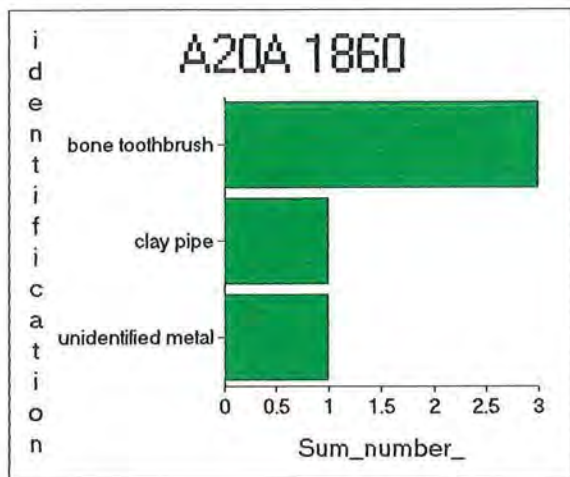


FIG 26. NON CONSTRUCTION ARTIFACT CLASSES

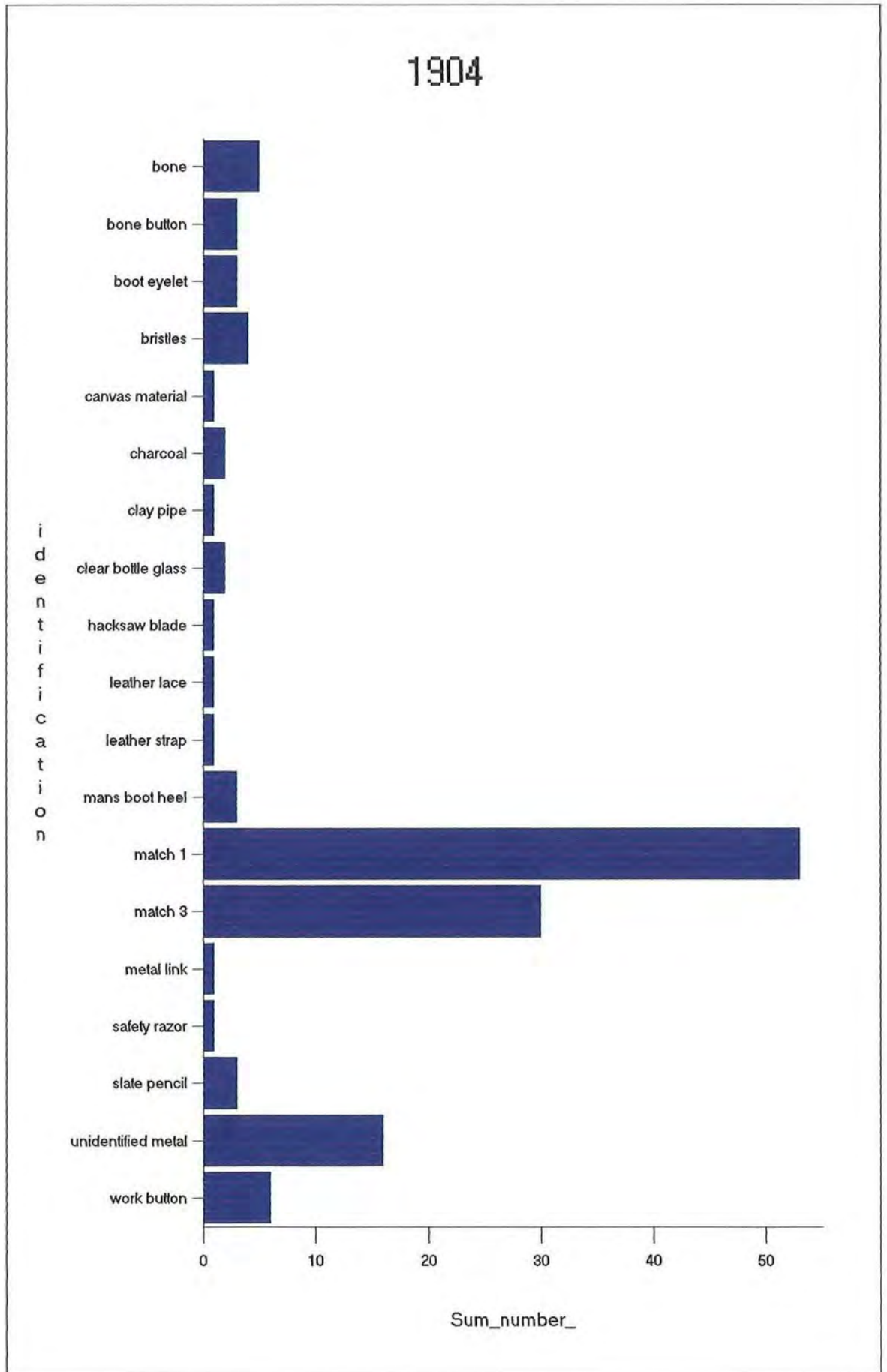


Plate 37. Clay pipes



Plate 38. Typical clothing items



Plate 39. Flaked glass from A 20B



Plate 40. Bone toothbrushes

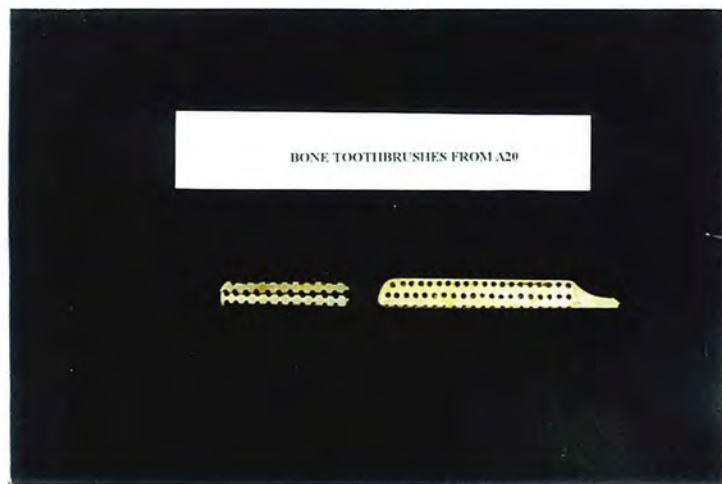


Plate 41. Floorboard lid for stash



FIG 27. FUNCTIONAL CLASSES THROUGH TIME

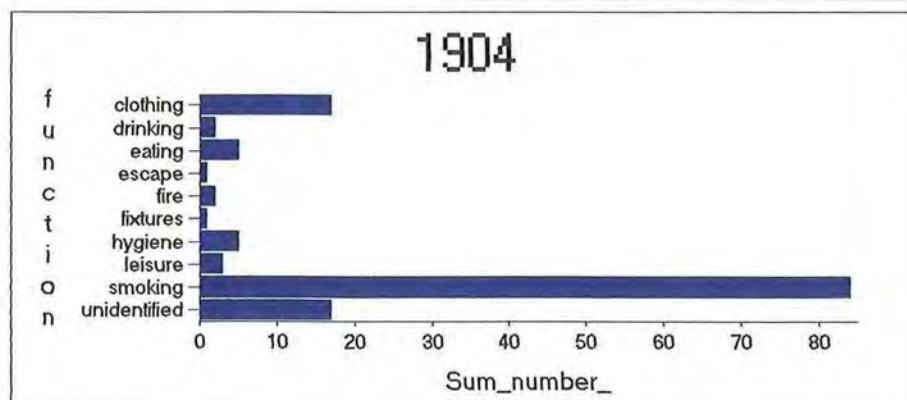
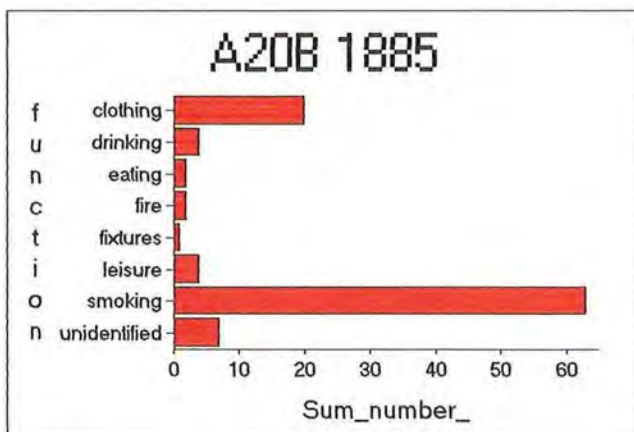
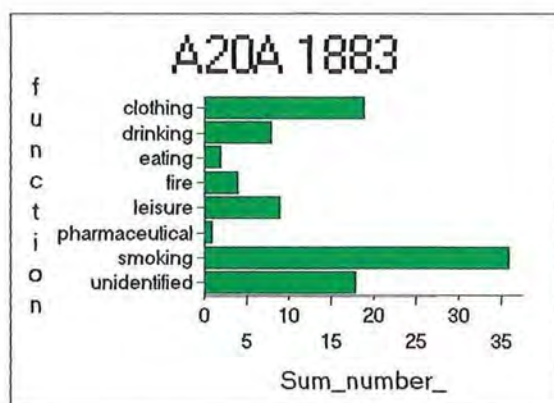
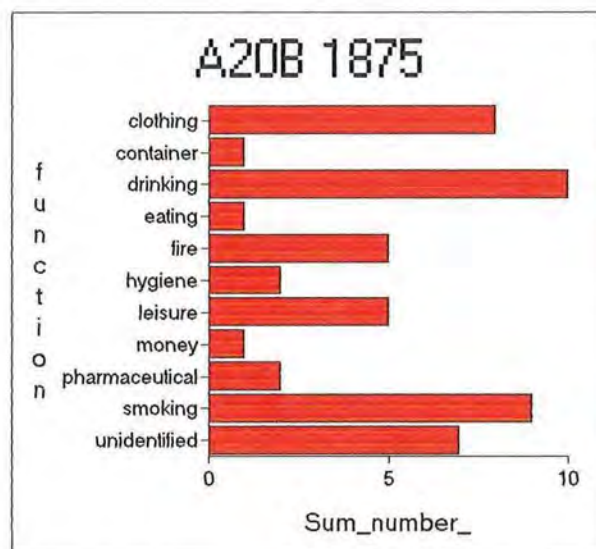
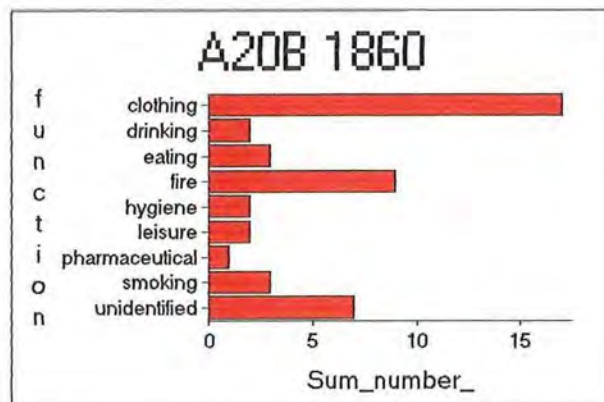
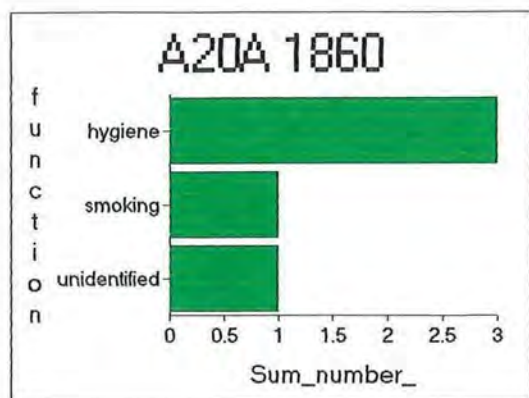
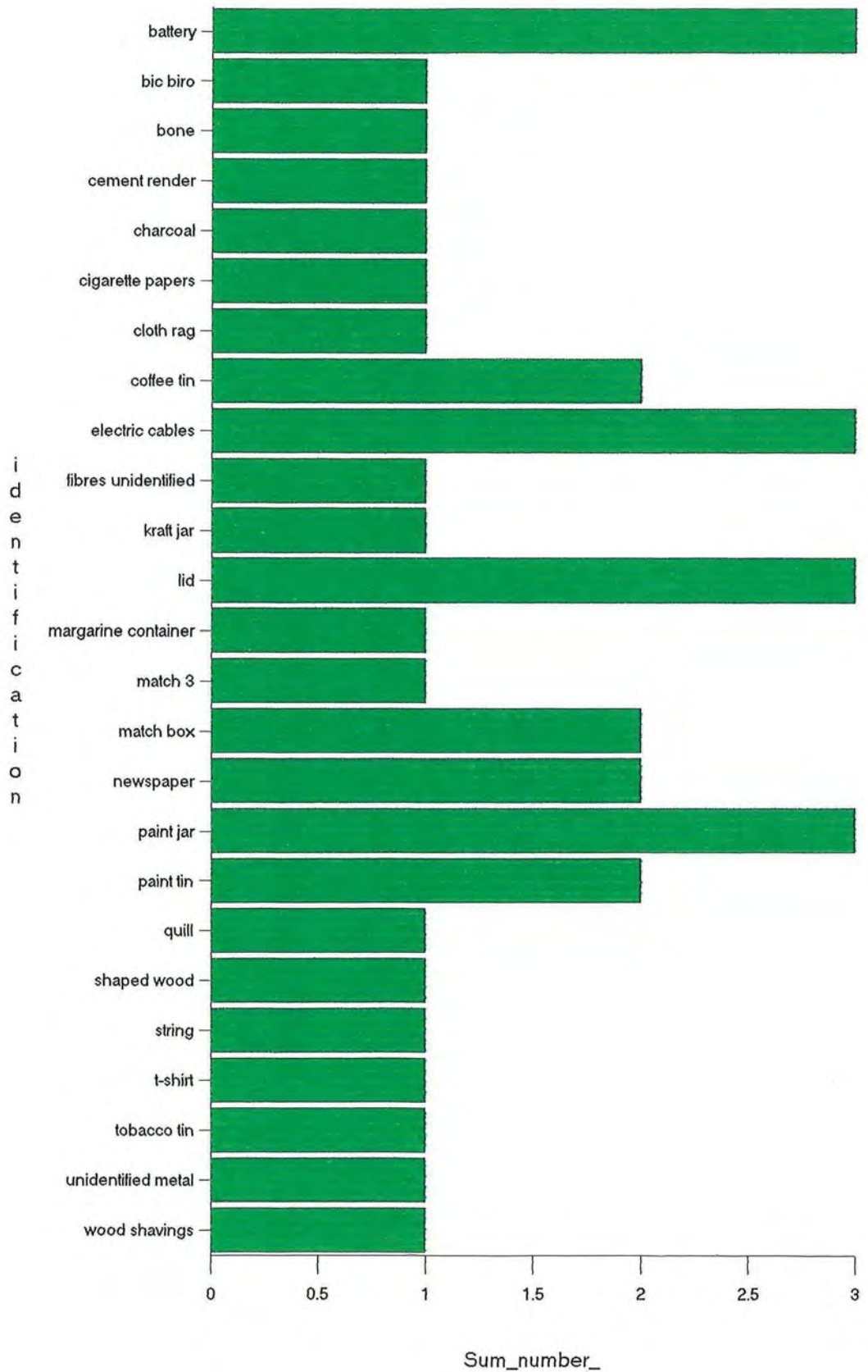


Fig 28. PRISONER'S STASH CA 1973



relatively consistent with it being found in between 5 to 10 buckets of deposit within each assemblage with its presence dropping slightly in A20B 1885 and 1904. Where the charcoal was found might provide clues as to how it entered the archaeological record and this issue will be pursued further in locational analysis.

The variety of artifact classes which can be confidently linked to prisoners fluctuates but has a general growth trend until 1904 when variety drops back to below 1870 levels. Two classes (toothbrushes and clay pipes) were found in A20A in 1860 levels with 11 found in A20B (with charcoal and unidentified metal disregarded). The variety in the 1870s rises to 15 in both cells with A20A rising to 19 in the 1880s (variety in A20B is diminished by methodical problems). In 1904 it drops back to 14 classes definitely related to the prisoners rather than fixtures (canvas, metal link) or suspect because they may be related to either prisoners or maintenance activities (hacksaw).

It is clear that numerically, smoking items dominate the prisoner related items and that this trend has grown through time. There are no matches surviving from the 1860s, smoking related items in this time period are confined to clay pipes. Shards of four separate clay pipe stems were found from this time period (Plate 37). Three show evidence of a red glaze with the stem from A20BT5 B4 having a dark red glaze. This shard is also impressed with the lettering N.NE on one side and No (short for number) on the other. The N.NE is part of the name BEN NEVIS, unfortunately most British pipe makers included a Ben Nevis pipe in their range therefore this is not enough information to determine manufacturer. It is also not enough information to refine the dating range although Ben Nevis pipes are known to have been in production from at least the late 1860s. The fourth pipe stem is a unglazed stem and lip shard from a pipe with a curved stem.

Seven clay pipe shards from at least four clay pipes were found from the 1870s time period (Plate 37). Two stem shards from A20BT5 B3 are red glazed, the other stem and bowl shards are unglazed and unmarked. All the pipes are plain and unadorned but the fragments are too small to determine if they are from cutty or Dutch style pipes. Accompanying the pipes were shards from type 2 matches, 7 of which were found in each cell.

The 1880s assemblages contained nine shards from at least four different pipes (Plate 37). The pipes found in A20A were plain, unglazed and unmarked. Most shards were from pipe bowls but one in T4 was a thin straight stem piece with no defined lip. Again in A20B only one shard was from a stem (found in T1). The stem is larger and heavier with a unglazed lip and orange glazing towards the bowl. Part of a decorative pipe bowl was also recovered from A20BT1. The bowl is decorated with ribs running from the bowl junction towards the rim. The seam is decorated with a feather motif while part of a scallop can be seen between the rim and the ribs.

Both type 2 and type 3 matches are associated with the pipes. In A20B almost all the type 3 matches have been cut into small lengths. The number of tips found was used to estimate the numbers of whole matches but under these conditions this can cause under estimation. For example the type 3 matches in A20BT5 B3 were cut into 35 small pieces but only five

tips were recovered. This behaviour of cutting up the matches appears confined to A20B although there is some evidence for type 3 matches in A20A having been cut in half. It also appears confined to the 1880s as most of the type 3 matches in the 1904 assemblage have not been cut. The exception to this is the deeply disturbed trench A20BT5 where 25 pieces from an estimated 8 matches were recovered in bucket 1. It appears clear that these matches are in the wrong assemblage and should be reassigned to the 1880s grouping. This would not significantly alter the overwhelming domination of matches in the 1904 assemblage. Only one small shard from a clay pipe bowl was recovered, however this is consistent with the change to briar pipes and cigarette smoking which occurred after the turn of the century.

Other trends are apparent in the assemblage but are easier seen if the artifacts are compared by function (Fig. 27). In functional classes unidentified metal and fibres are combined to form the unidentified category and charcoal forms the fire category. As in the previous discussion these two categories blur the picture and should for the moment be ignored.

By 1904 items relating to clothing are well established as the second most important artifacts category (Plate 38) but before the 1880s the picture is more confused. In the 1860s assemblage, before the appearance of matches in the deposit, smoking is not the dominate class. In A20B clothing dominates while the tiny A20A assemblage is dominated by bone toothbrushes. Actually the hygiene and smoking numbers for both assemblages is similar but A20A lacks the rest of the A20B assemblage. The clothing category in A20B consists of 10 bone buttons, 6 boot eyelets and a suspender buckle. All but four of these items were found in the disturbed area of A20BT5 which also contains the under floor drain. Either of these factors may have introduced later material into the 1860s levels. If the material in A20BT5 is disregarded clothing still dominates the smaller data base, but not to such a large extent, having 4 items compared to eating (2) leisure (2), smoking (1), and hygiene (1).

The number of clothing items generally grows through time from about 10 to about 20 items in the assemblage. Bone buttons and boot eyelets dominate the clothing hardware of the first two time periods. The bone buttons were standardised having either three or four holes and being either 13 or 17 mm in diameter. The boot eyelets were also similar in manufacturing details and size. A single tooth from a bone comb was also found in the 1860s assemblage and one buckle from a suspender belt (Plate 38).

Pieces of leather from clothing items appear in the 1870s and remain a part of the assemblages from that period onwards. Metal work buttons appear from the 1870s and dominate the clothing hardware in the two later assemblages. There is more variety in the metal buttons with both iron and brass one piece buttons in three sizes. Except for one four hole button the iron buttons are too corroded to determine the number of holes. The brass buttons are all four holed and fall into two main types. One type being an almost flat button with a tapering rim and a slightly convex centre. They are plain buttons except for one example which is engraved Clark & Co Fremantle around the rim. The second button type has a flat rim and a concave centre. Two are plain, the others have writing engraved

around the rim. Almost all are engraved Best Ring Edge, the exception being engraved Edward T Hope, Perth.

The first metal buttons in the 1870s assemblages were iron with only one brass Best Rim Edge button. This button is in the disturbed deposits of A20BT5 and therefore may be displaced from later layers. The other engraved brass buttons are shared between the 1880s and 1904 assemblages with both plain brass and iron buttons also found throughout. This suggests that the first metal buttons available to the prison were iron but later supplies were sought from different places creating a degree of variety.

No single functional class dominates either of the 1870s assemblages. The A20B assemblage is more varied with 9 functional classes directly relating to prisoners against 5 in A20A. Smoking and clothing are almost equally dominant with leisure related items also showing a strong presence. The dominance of bottle glass in A20B is partly produced by the effects of mixing and the spatial spread of glass over more than one trench. There is at least one green 3-piece moulded bottle, one clear bottle and one small thin medicine bottle represented in the assemblage. The possible maximum is 10 bottles (2 medicine, 2 clear and 6 green) but the true number is likely to be closer to the minimum of three. A20B also has shards of a drinking glass while A20A has shards from at least two bottles. Black bottle glass and a glass stopper representing two different bottles was found in the 1860s assemblage from A20B and the 1885 assemblage had glass from one black glass bottle. The matching 1883 assemblage from A20A had shards from at least one black bottle and two clear bottles. The 1904 assemblage has shards from a clear bottle but as they are in a disturbed area they may relate to the 1875 assemblage. Whether this last item is mixed or not it is clear that prisoner's had bottles in their cells throughout the nineteenth century.

This is a surprising revelation despite the fact that nineteenth century black, green and clear bottle glass did not always contain alcoholic beverages. Broken bottle glass can make a formidable weapon for hand to hand fighting and its consistent presence in prison cells would not be expected for that reason. However, only one of the bottles represented in the assemblages has been deliberately broken to form sharp edges. The green bottle shards are in the 1885 A20B assemblage and are spread over T1 - T3 with most concentrated in T1. Unlike the other glass all the shards show evidence of conchoidal fracturing which produces a sharp edge. Two shards show conclusive evidence of deliberate flaking while a third is a conchoidal flake which in a stone assemblage would be accepted as evidence of manufacture (Plate 39). The techniques used to flake and shape the glass shards are recognisably Aboriginal. However, this does not automatically mean that the person flaking the glass was also Aboriginal. The possibility exists that the tool maker was a man who had had enough contact with Aboriginal people to emulate their tool making techniques. It is beyond the scope of the present project to pursue which of these possibilities is the most likely.

Other prisoner related activities within the cells are leisure, hygiene and eating. Hygiene related most strongly to the first and last assemblages with bone toothbrushes (Plate 40) in the 1860s and bristles and safety razors in the 1904 layers. Two bristles which are possibly from a shaving brush were also found in the 1875 layer in cell A20B. The bone

toothbrushes are all confined to Trench 1 in both cells and clearly relate to use of the wash basins located on either side of the demolished wall. The tooth from a bone comb was found at the other end of the cell in the drain deposits of A20BT5. As these deposits have been disturbed this artifact may relate to later era's. However, its location is not inconsistent with it being from the 1860s as hair combing is unlikely to be as tightly controlled by the location of the wash basin as washing or teeth cleaning.

A blade from a safety razor was found in A20BT5 while bristles which are probably from shaving brushes were found on top of the demolished wall foundation in trench 2 and 3 and adjunct to the wall in A20BT4. All except the two bristles adjunct to the wall were found in the 1904 assemblage. As Trench 4 has been disturbed these artifacts probably also relate to the 1904 time period. The bristles suggest that prisoners were shaving in the middle of the cell after the cell had been turned into one. This suggests the presence of a table on which to place a wash basin with shaving taking place in A20C allowing artifacts to be discarded into A20C and A20B in trenches 2 to 5. The distribution of shaving items is all on or to the north of the demolished wall suggesting that the northern edge of the table was positioned over the demolished wall (A20C) and the prisoners were standing to the north of the table to shave. A different distribution would have occurred if the prisoners were standing to the west of a table pushed against the eastern wall between the two cell doors. The location of the table edge over the demolished wall also suggests it was not placed symmetrically in the middle of the cell.

The bone shown in Figures 25 and 26 are all rib bones. They are a small but relatively constant presence in the assemblages over time and form the main evidence for prisoners eating within their cells. This activity is likely to have been conducted secretly by the prisoners stealing food or keeping part of their portion back to eat once they had been locked into the cells. A small bone handle found in the 1807 layer of A20A may have also been from a eating utensil but this identification is uncertain.

Leisure items in the earlier assemblages are all connected to reading and writing activities. Slate pencils form a constant part of the assemblages and newspapers appear by the 1870s. This pattern is consistent for both cells until after floor coverings blocked the entry of artifacts into the archaeological record in ca 1910. Changes in cell activities cannot be determined for the twentieth century until ca 1973 when a prisoner hid a stash of items under the floor boards (Plates 41 & 35). The stash was found to contain containers used to hold paint, home made paint brushes, rags and newspaper used to clean paints, paint bottles containing unidentified substances which are probably crystallised paints, batteries, electrical cables, matches, cigarette papers and a tobacco tin (Fig. 28).

These items show that the prisoner was painting, smoking and probably listening to music on a small battery run radio with an improvised aerial utilising the electric cables. He appears to have had access to the prison kitchen or its rubbish bins as most of the containers would have originated from the kitchen. They were not however, full of their original food stuffs but were reused to hold paints. Similarly the newspaper may have been read but it was then reused to clean up paint as were the cloth rags. The t-shirt may have

been his painting shirt. The bic biro was taken to pieces and the outer clear case used for dot painting. The ink tube was cut to create a quill also for painting.

There is no evidence of what the prisoner was painting, other than given his home made biro brush the style is likely to have been Aboriginal dot painting. Prison policy in the 1970s and the secrecy surrounding the painting paraphernalia make it unlikely that he was openly painting on the cell walls. He may have been painting smaller pieces which could be easily smuggled within the prison or to the outside world. This odd stash of items is a physical link to an expression of prisoner resistance to prison authority which can be traced back through the possible twentieth century mural in cell A20B to the forger's cell with its detailed drawings hidden under a layer of oatmeal. This resistance activity was recognised and actively encouraged during the prison's last stage of occupation as a means of defusing tensions caused by conditions which in the later 1980s were recognised as deficient by modern standards.

Changes In Activities Through Time.

The dated assemblages relate almost exclusively to the nineteenth century when the cell was in fact two cells. Only the 1904 assemblage relates to the present configuration of cell A20. This confines locational analysis almost exclusively to activities within the smaller cells.

Figure 29 shows the artifacts within the two cell drains. Artifacts found in the drain sediments date up to the 1880s after which the drains appear to have become non functional. Artifacts trapped in the sediments are likely to have been washed in from other areas of the cells which is why the drains show such a high concentration of artifacts. This has to be kept in mind as it may bias locational analysis towards these two trenches.

Figure 30 shows the distribution of charcoal over time from the 1860s to 1904 where it was found in two buckets of the disturbed deposits of A20BT4 and T5. It seems likely that the charcoal was confined to the nineteenth century and that its appearance in the 1904 layer is the result of mixing. The pattern of charcoal distribution in A20A is strongly related to Trench 3. It either entered the cell through the underfloor vent in Trench 3 or dropped through the floorboards into Trench 3 and partly washed out of the cell through the vent. The charcoal is also confined to the 1870s and 1880s deposits. The picture in A20B is less clear, charcoal appears in 1860s layers and is spread more generally around the cell. The amount of 1860s charcoal in the drain deposits may be the result of mixing with later deposits as all but one instance came from deposits which showed some signs of mixing. If the drain deposits are disregarded the charcoal distribution is again centred on Trench 3 with some charcoal spreading towards the outside vent and some towards and into the underfloor drain.

The pattern of spread over all three era's of nineteenth century cell occupation in A20B and confinement to the later era's in A20A still remains however. This echoes the general pattern of findings for prisoner related items within the two cells suggesting the charcoal is

connected to the prisoner's within the cells rather than washing in from higher cells or the roof. The amount of charcoal and its limited distribution suggest a fixture which produced small amounts of charcoal. This is likely to be the oil lamps provided to light the cells into the late 1890s (Bosworth 1996). From the distribution of the charcoal it appears likely that the lamp was usually positioned on the table fixed to the internal wall. The charcoal in A20BT1 and T2 could also be interpreted as resulting from the lamp sometimes being placed on the window ledge rather than the charcoal washing out of the cell through the outside vent.

Figure 31 shows the distribution of eating and drinking items through time. Bone is the main evidence for eating and it is very clustered being confined in A20A to trenches 3 to 5, and in A20B to trenches 1 to 3 with some being washed into the drain in Trench 5. The picture presented by glass shards is visually more confusing, partly because shards from one bottle or glass can be spread over up to three trenches. Shards suspected of belonging to the same item have been circled in Figure 31 to try to lessen confusion. Thus it can be seen that five shards from a green bottle were dropped across trenches 1 to 3 in A20B in the 1870s while two shards from a clear bottle and one from a drinking glass were dropped across trenches 3 and 4 in the same time period.

There are minor deviations in both cells with a shard of black glass and a glass bottle stopper found in A20BT5 and clear bottle glass and a bone handle, possible from a food utensil found in A20AT1. However generally the spatial distribution through time remains similar with most food and drink related artifacts occurring in trenches 3 to 5 in A20A and in trenches 1 to 3 in A20B. Eating and drinking within the cells could be described as a leisure activity since the official arena for such activities was outside of the cells. The distribution of other leisure related items (Fig. 32) also quite strongly follows the pattern shown in Figure 31. Again there is a minor deviation in A20A in the 1880s with newspaper and a shard from a reading glass lens found in Trench 1. Combined with the clear bottle glass this suggests that some activity was taking place at this end of the cell during the 1880s but the majority of activity through time was conducted at the other end of the cell. A20B again shows the reverse pattern with the majority of activity in Trench 1. Slate pencils are almost all confined to trenches 1 to 3 with only one in the concentrated deposits of Trench 5. Newspaper is not quite so confined with shards in trenches 4 and 5 as well as Trench 1.

Figure 31 and 32 show a fairly clear reversed pattern for leisure related items within the two cells which is relatively consistent through time. This is most likely to be the result of the positioning of a piece of furniture on which leisure related activities were carried out. The most likely candidate is the hammock slung between the east and west walls as the table was fixed in the centre of the cells and unable to be moved. The observed reversed distribution could be quite easily obtained by the head of the hammock being placed against different walls in the two cells. If the prisoners were lying in the hammock while reading, writing, drinking and eating this would suggest that the head of the hammock was against the east wall in A20A and against the west wall in A20B.

The distribution of items relating to smoking and clothing is less clear. The pattern for smoking related items in A20B is in fact almost the reverse of the patterns for leisure items (Fig. 33). In A20B smoking related artifacts cluster in trenches 3 to 5. There is some evidence of activity in Trench 1 in the 1880s and one clay pipe was found in the 1860 assemblage. In A20A the items cluster more towards the centre of the cell. It is quite possible that favourite places for smoking, or the placement of a disposal bin (probably the toilet bucket) varied over time creating a less defined pattern.

Evidence from the 1860s is scant but clay pipes were found in both cells in Trench 1. They were also found in the drain deposits in A20B. The similar locations does not suggest the men were lying in hammocks with their heads against different walls nor are they likely to have been sitting at the table in the centre of the room. It is much more likely that either they had moved their stools underneath the windows or that they used the wash basin fittings as a small convenient shelf.

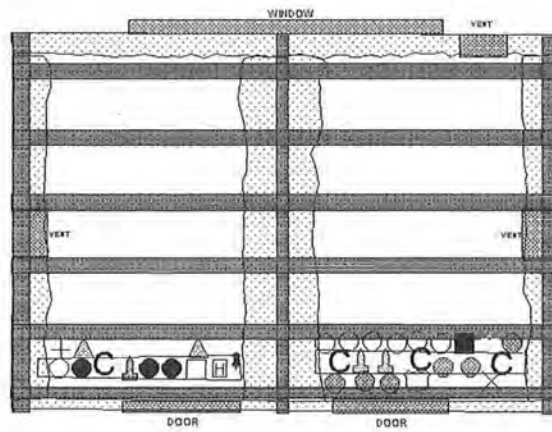
Smoking related items in the 1870s are almost extensively related to the centre of the cells suggesting that they were using the tables fixed to the walls. The patterns are again slightly reversed with the artifacts in A20A falling into trenches 2 and 3 and those in A20B falling into trenches 3 and 4 with some being washed into the drain in Trench 5. Both clusters would be to the left of a person sitting at the table. As more of the population are right handed than left handed this does not suggest that the items were being dropped directly where they were used but rather that some effort has been made to drop them to the left of the table. This suggests the presence of a bin which was probably the toilet bucket.

Smoking items in the 1880s are more spread out suggesting changing positions. The bulk of the artifacts in the 1880s and those from the early 1900s are however in trenches 1 to 3 in A20A and in trenches 3 to 5 in A20B. This is the reverse of the patterns for leisure related items and almost certainly also relates to the placement of the hammock head. In this case, the prisoner's were using the opposite end of the hammock. This begs the question, were the prisoners lying down while eating, drinking, writing and reading and sitting at the bottom of the hammock while smoking or *visa versa*.

In either case as sitting at one end of a hammock is difficult to do the distribution more likely relates to the position of the prisoners stool in relation to the head of the hammock. This is clearly a different pattern to the 1870s and suggests that the stool was no longer adjacent to the table bolted to the wall. The provision of a small movable table and stool positioned at the opposite end of the cell from the hammock head is suggested. This table would have been utilised when the hammock was rolled up and put away during the day.

Additionally match 3 artifacts in A20B trenches 3 to 5 show a non smoking related behaviour. Fifty one matches can be distinguished in this one small area all cut into fragments approximately 1 cm long. This number may be an under representation as counting was on the number of match tips found rather than the number of match fragments. The idiosyncrasy of the behaviour suggests it is more likely to be the result of one prisoner's activities than an accumulation of activities from several prisoner's over time.

FIG. 29 ARTIFACTS IN DRAIN SEDIMENTS



- | | |
|----------------------|----------------------|
| 🪸 Clay pipe | ⚡ Slate pencil |
| C Charcoal | + String |
| ○ Boot eyelet | ● Work button |
| □ Clear bottle glass | 📰 Newspaper |
| △ Window glass | ■ Black bottle glass |
| ● Bone button | ● Glass stopper |
| 🪪 Suspender buckle | ✕ Bone comb |

FIG. 30 DISTRIBUTION OF CHARCOAL OVER TIME

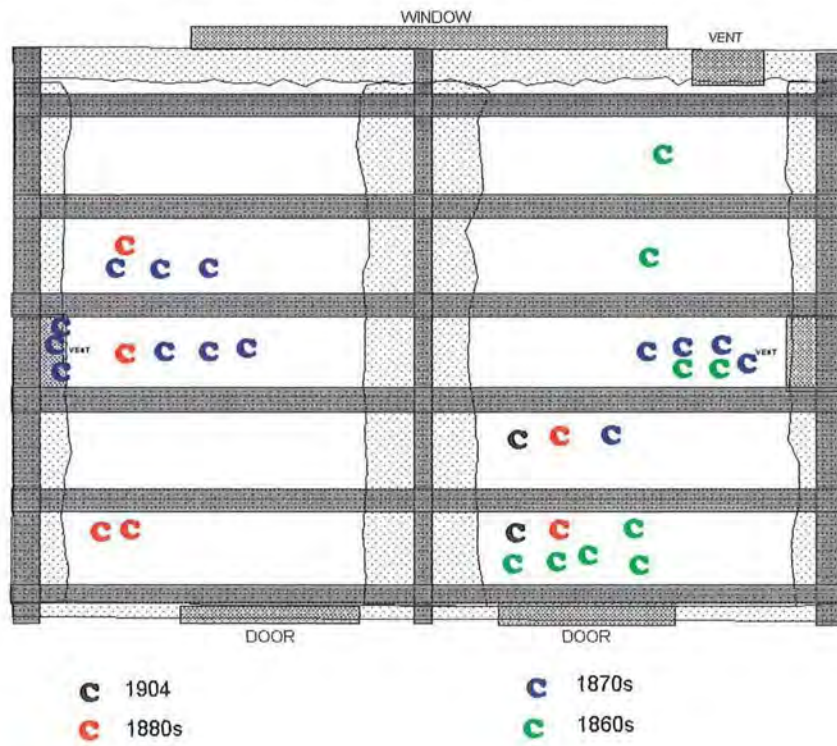
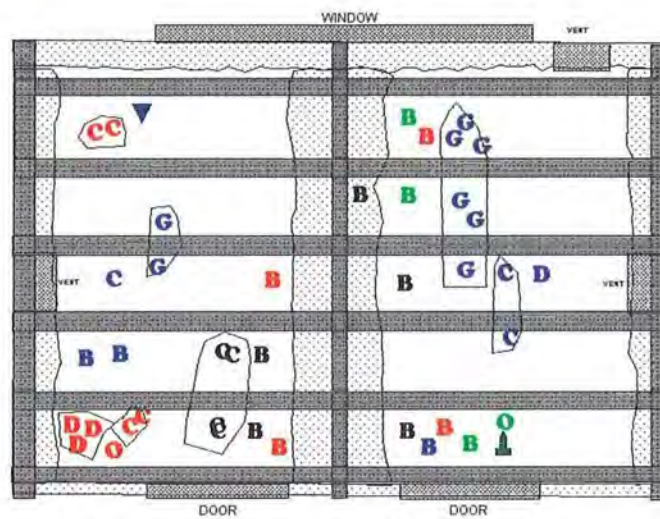


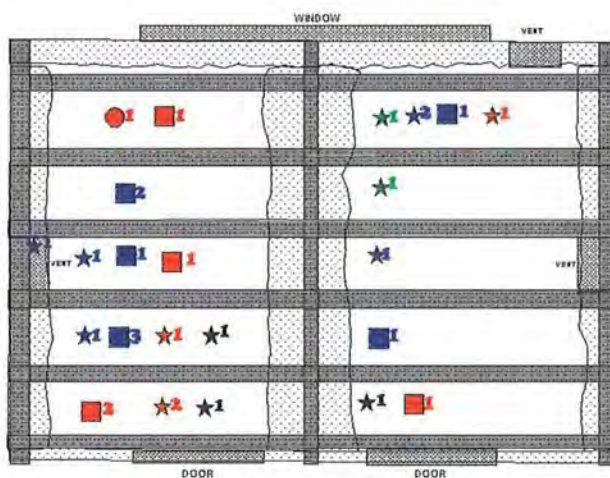
FIG. 31 DISTRIBUTION OF EATING AND DRINKING THROUGH TIME



- | | |
|-----------------------------|-----------------------------|
| B Bone | D Drinking glass |
| C Clear bottle glass | G Green bottle glass |
| Spread from one object | O Black bottle glass |
| Bone handle | Glass stopper |

Black text 1900s. Red text 1880s, Blue text 1870s, Green text 1860s

FIG. 32 DISTRIBUTION OF LEISURE ITEMS THROUGH TIME



★¹ num. Slate pencils

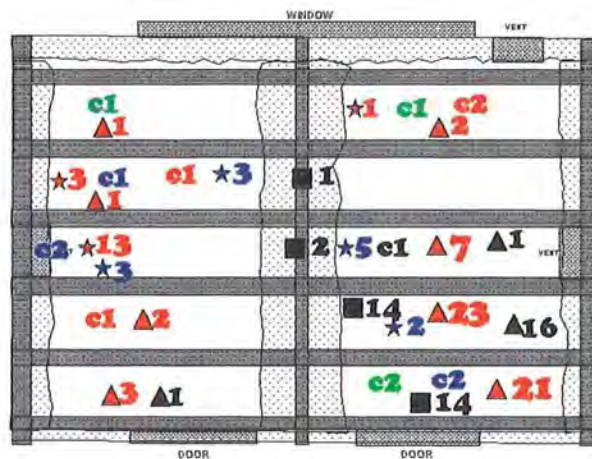
■¹ Num. Newspaper

●¹ Num. Reading glasses

Black text 1900s, red text 1880s, Blue text 1870s

Green text 1860s

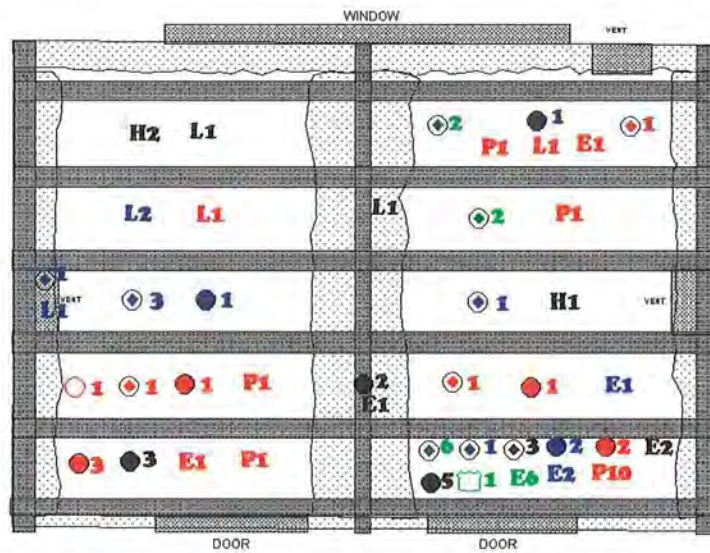
FIG. 33 DISTRIBUTION OF SMOKING ITEMS THROUGH TIME



c1 Num. Clay pipes **Δ1** Num. match 3
★1 Num. match 2 **■1** Num. match 1

Black text 1900s, Red text 1880s, Blue text 1870s
 Green text 1860s

FIG. 34 DISTRIBUTION OF CLOTHING ITEMS THROUGH TIME



- | | |
|------------------------|----------------------------|
| ○ 1 Num. Shell buttons | ● 1 Num. Work buttons |
| ◇ 3 Num. Bone buttons | □ 1 Num. Suspender buckles |
| L1 Num. Leather items | E1 Num. Boot eyelets |
| H1 Num. boot heels | P1 Num. straight pins |

CONCLUSIONS

The archaeological investigations provided information on original cell construction, cell modifications over time, cell layout until ca 1910 and prisoner activities within the cells.

It was found that structural elements in the eastern and western walls of A20 spanned the width of two original cells. However, they were constructed so that the elements in the west wall spanned an alternative set of cells to those in the east wall. They may have been designed this way to provide more structural strength.

In the planning stages care seems to have been taken to provide plumbing and ventilation to each cell. While innovations for their time, both were less than successful. In particular a deliberate decision seems to have been made between the planning and the building of the prison which affected the ventilation within the ground floor cells. The planned ventilation system had above floor vents in all the levels of the cell block (Considine and Griffiths 1996:4). This was in line with contemporary thinking on the beneficial affects of good air circulation on prisoner health and disease control. The system actually installed on the ground floor of Division 3 placed a higher priority on air circulation around the wooden joists than on good air circulation within the cells. The artifactual evidence found within A20 suggests that before modifications carried out in the 1880s or 1890s this may have created a real problem within the ground floor cells leading to less use of the cells without an air vent connection to the outside air.

Other aspects of original cell construction posed security risks. The ceiling vent appears to have had a cover fastened with only one nail on either side. If removed or opened the design of the vents would have allowed prisoners to exchange items or talk. Historical information also points to problems with prisoners hiding items in the wooden casing around the wash basin pipes and around the window. The wooden casing appears to have only been held in place by two nails and is likely to have been comparatively easy to manipulate. The gap under the cell doors also allowed communication, a problem which was solved by added solid door cills further reducing ventilation within the cells.

The archaeological evidence points firmly to the plaster and lath ceiling in A20 having not been installed until after 1870. Similarly archaeological evidence suggests the wash basins were not removed until the same time period. In view of this, the time period represented by cell A20B in the reconstruction project is more properly the 1870s rather than the 1860s. A20A represents both the cell as built in 1859 and its first period of occupation in the 1860s. The archaeological evidence also suggests a floor covering was added to A20 soon after it was formed from the two smaller cells. However, the archaeological evidence does not suggest what type of covering this was and historical research would be needed before such a detail could be added to the display in A21.

The cells were originally left as bare stone but a re-occurring flea problem promoted a program of white washing. Archaeological evidence and independence analysis by paint

specialists have shown that this program and later modifications to cell finishes were anything but standardised. This may have been due to the economic realities of running a prison in an isolated colony but the evidence suggests that variation rather than standardisation has been the theme throughout the prisons operational life. This suggests a prison authority culture which did not highly value the leveling influence of absolute standardisation. Since this is a fairly standard ploy for institutions of all types from the army to hospitals it is surprising to find a prison apparently not enforcing regimentation.

Artifacts relating to the prisoners within the cells also suggests a regime which became less standardised throughout the nineteenth century with differences in clothing hardware and a growing variation in the number and function of prisoner related artifacts within the cells. Eating and drinking within the cells appears to have either been condoned or unpreventable. Bottle glass found throughout the deposits, despite its potential for use as a weapon, suggests the former. Most of the glass shards lack the sharp edges which would have turned them into weapons. While accidentally broken bottle glass can end up with sharp conchoidally fractured edges, the majority of shards do not. This suggests that most of the glass within the cells was from bottles broken accidentally in the cell. Only one exception was found, a green glass bottle flaked deliberately to form several pieces with cutting edges. The last artifact assemblage dated to ca 1904 shows a sudden reduction in variation which may relate to a sterner regime at the turn of the century enforcing security and possibly a stricter standardisation.

Lack of standardisation did not apply to cell furnishings. Originally each cell was equipped with a hammock, table, stool, wash basin and toilet bucket. In line with the same thinking which alternated the structural elements in the east and west walls in sets of two cells, the furnishings were also alternated. The hammocks being part of the set of elements associated with the west wall and the two cells its elements spanned. The table, wash basin, stool and bucket were arranged to conform with the elements in the east wall and the two different cells spanned by those structural elements.

Archaeological evidence determined that a hinged table would have been centrally fixed firmly onto both sides of the wall between A20A and A20B, placing them on different sides of the actual cell spaces. A small oil lamp was placed on the table and possibly sometimes on the window ledge. Evidence for the distribution of smoking and shaving items suggests that this table was replaced by a movable table located under the foot of the hammock in the 1880s or early 1890s and moved more centrally within the enlarged cell after the turn of the century. The same evidence suggests that the prisoner's may have moved the stool under the window when they were smoking during the 1860s possibly because of the poor ventilation. It also suggests that the bucket was kept to the left of the wall mounted table during the 1870s.

Hammocks were slung using triangular rings with rounded ends between four hooks sunk deeply into a timber backing rail. The alternation of the cell doors placed the doors of A20 adjacent to each other. This in turn meant the hammocks had to be placed against alternative walls as this was the only space left for them. In A20 this meant that the hammock in A20A was to the left of the door while that in A20B was to the right. The

location of several classes of artifacts suggests the alternation was carried through to which direction the head of the hammock was placed in, with prisoners lying head to tail to each other.

The wash basin was also alternated being placed on either side of the central wall under the window. The provision of a wash basin in the cells was an innovation for the times. Archaeological evidence in the form of bone toothbrushes show the basins were used to clean teeth. While quite common today, Hygiene practice such as cleaning your teeth with tooth brushes and tooth powder was not standard for the mass of the population in 1859. Bone toothbrushes were hand made and therefore relatively expensive and tooth powder was still 6d a pot in the late nineteenth century. It is therefore quite surprising that toothbrushes were found in both cells. This suggests that the prison was either providing the tooth brushes to enforce hygiene standards or catered for a number of gentlemen inmates. At present, no historical information has been found that suggests the prison was supplying toothbrushes. However, this requires further historical research.

Slate pencils and reading materials were also found throughout the assemblages during a time period when adult illiteracy was high. This suggests Division 3 was not catering solely for the dregs of colonial society. Possibly prisoners with more education and a higher social status were grouped together forming a minimum security area or enclave within the division. In this case, higher social status does not necessarily mean they were landed gentry. The men are much more likely to have been part of the burgeoning middle classes where there was a strong push for self improvement through reading and writing in the second half of the nineteenth century. An interpretation of A20 as part of a minimum security area is re-enforced by the evidence for lack of rigid standardisation, the increase in variety of artifacts relating to prisoners and evidence for condoned indulgences or lax security during the nineteenth century.

However, while the archaeological evidence can define trends and activity loci for A20 it can only suggest that these trends may have been general within the division. The occupational history of A20 may have been quite different from that of other cells. For instance, it may have been accidental that inmates who could read and were interested in their hygiene were placed in the A20 cells. It is also possible that the cells may have hosted a series of prisoners exceptionally good at smuggling forbidden items leaving the impression of lax security or condoned behaviour. Further archaeological work carried out as needed in conjunction with maintenance or interpretation projects will gradually supply supporting evidence from other cells and divisions. It is beyond the scope of the present project to carry out further archaeological excavations or to compare the data base from A20 with material already excavated from other parts of the prison.

RECOMMENDATIONS

The reconstruction cells A20 to A25 is a self contained project however some questions do arise out of the evidence presented in this report. Therefore some recommendations are included for further investigation and for management of the artifact data base.

Recommendation 1

Work carried out for this project has shown rather conclusively that variety rather than standardisation was the rule for cell finishes. The forger's cell, the paint strip from A20B and the hidden painting equipment in A20 suggest quite strongly that drawings and paintings may also be concealed on the walls. Being a prison the probable presence of graffiti should also not be overlooked. The methods utilised to remove fabric during this project were incapable of uncovering any of this information even with archaeological monitoring of the process.

It is strongly recommended that in future projects requiring the removal of fabric or older layers of finishes different methods are used which peel back the layers one at a time.

A decorative painter or an artist who specialises in restoration would have the appropriate skills to uncover such information for recording without destroying it in the process.

Recommendation 2

The archaeological work carried out as part of the reconstruction project has resulted in a body of information, particularly about cell A20 and the prisoners who occupied it that would not have been recovered if an archaeological monitor have not been included as part of the project.

It is recommended that provisions are made for archaeological monitoring of all projects carried out within the prison which involve the removal of historic fabric or the disturbance of ground surfaces.

Recommendation 3

The archaeological investigations in cell A20 has raised some questions about the social status and security rating of its prisoner's in the nineteenth century which may be answered by further historical research. Such information would enrich the interpretation of the cells reconstructed to the appearance of cells in the 1850s, 1860s and 1914.

It is recommended that further historical research is carried out into the social status, crimes and security rating of the prisoners in Division 3. Some smaller questions on

furnishings could also be undertaken to make the reconstruction presentation more authentic.

Recommendation 4

This project has resulted in the compiling of an artifact database, a photographic archive and a report.

It is recommended that the photographic archive, artifacts and a copy of the report are kept at the prison for interpretation and display purposes.

The artifacts should be stored and displayed in conditions which do not cause deterioration in their condition. The artifacts and plans resulting for this project have potential to be used in a supporting display in Division 3 which would enrich visitors appreciation of life within the cells.

The report and photographic archive also document the reconstruction project itself and could form a secondary display.

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APPENDIX 1

Location	Bucket	Identification	Number	Presence	Function	Date_from	Date-to	South-mean	Conjoins	Remarks
a20at1	4	clay pipe	1	1	smoking	1850	1911	1859		stem end fragment
a20at1	4	lime washed l/stone	1	1	construction	0	0	1859		
a20at1	4	lime wash	1	1	construction	0	0	1859		3 mm thick, smooth both sides
a20at1	4	unidentified metal	1	1	unidentified	0	0	1859		
a20at1	4	building slate	1	0	construction	0	0	1859		
a20at1	4	cut nail	1	0	construction	1800	1870	1859		
a20at1	4	bone	1	1	unidentified	0	0	1859		
a20at1	4	shaped wood	1	1	construction	0	0	1859		
a20at1	4	bone toothbrush	1	1	hygiene	1832	1939	1859		fragment
a20at3	7	lime wash	1	1	construction	0	0	1859		
a20at3	7	wrought nail	1	0	construction	1840	1870	1859		
a20at4	7	flat hd wrought nail	1	0	construction	1840	1870	1859		
a20at4	7	wrought nail	1	0	construction	1840	1870	1859		
a20at5	9	building slate	1	1	construction	0	0	1859		
a20at5	9	lime wash	1	1	construction	0	0	1859		1 mm thick, smooth both sides
a20at5	10	wrought nail/lrg. hd.	2	0	construction	1840	1870	1859		
a20at1	3	bone toothbrush	1	0	hygiene	1832	1939	1883		
a20at1	2	bone toothbrush	1	1	hygiene	1832	1939	1883		fragment

Location	Bucket	Identification	Number	Presence	Function	Date-from	Date-to	South-mean	Conjoins	Remarks
a20bt1	3	wrought nail	1	0	construction	1840	1870	1881		
a20bt1	4	wrought nail	6	0	construction	1840	1870	1881		
a20bt1	5	bone toothbrush	1	1	hygiene	1832	1939	1873		
a20bt1	6	unidentified metal	1	1	unidentified	0	0	1866		mainly nails
a20bt1	6	lime wash	1	1	construction	0	0	1866		1mm thick, smooth both sides
a20bt1	6	building slate	1	1	construction	0	0	1866		
a20bt1	6	bone	1	1	eating	0	0	1866		
a20bt1	6	wrought nail	5	0	construction	1840	1970	1866		3 tacks, 2 nails
a20bt1	6	screw	1	0	construction	1849	1900	1866		
a20bt1	6	shaped wood	1	1	construction	0	0	1866		painted white
a20bt1	6	slate pencil	1	1	leisure	0	0	1866		
a20bt1	6	bone button	1	1	clothing	1800	1850	1866		fragment, 3 hole
a20bt1	6	clay pipe	1	1	smoking	1850	1911	1866		stem fragment
a20bt1	6	bone button	1	1	clothing	1800	1850	1866		4 hole
a20bt1	6	charcoal	1	1	fire	0	0	1866		
a20bt1	7	building slate	1	1	construction	0	0	1866		
a20bt1	7	lime wash	1	1	construction	0	0	1866		
a20bt1	7	unidentified metal	1	1	unidentified	0	0	1866		
a20bt2	4	bone button	1	0	clothing	1800	1850	1866		4 holes; diameter 13mm (small)
a20bt2	4	building slate	1	1	construction	0	0	1866		
a20bt2	4	bone button	1	0	clothing	1800	1850	1866		4 holes; diameter 17mm (large)
a20bt2	4	slate pencil	1	0	leisure	0	0	1866		
a20bt2	4	unidentified metal	1	1	unidentified	0	0	1866		
a20bt2	4	charcoal	1	1	fire	0	0	1866		
a20bt2	4	lime washed l/stor	1	1	construction	0	0	1866		
a20bt2	4	bone	1	1	eating	0	0	1866		
a20bt3	10	lime washed l/stor	1	1	construction	0	0	1866		
a20bt3	10	charcoal	1	1	fire	0	0	1866		
a20bt3	10	unidentified metal	1	1	unidentified	0	0	1866		
a20bt3	10	shell	1	1	unidentified	0	0	1866		
a20bt3	10	lime wash	1	1	construction	0	0	1866		1 mm thick, smooth both sides
a20bt3	9	lime wash	1	1	construction	0	0	1866		1 mm thick, smooth both sides
a20bt3	9	charcoal	1	1	fire	0	0	1866		
a20bt3	9	building slate	1	1	construction	0	0	1866		
a20bt3	9	shell	1	1	unidentified	0	0	1866		
a20bt3	9	brick	1	1	construction	0	0	1866		

a20bt3	9 black layer	1	1 construction	0	0	1866	
a20bt5	4 lime wash	1	1 construction	0	0	1866	
a20bt5	4 lime washed l/stor	1	1 construction	0	0	1866	
a20bt5	4 shell	1	1 unidentified	0	0	1866	
a20bt5	4 building slate	1	1 construction	0	0	1866	
a20bt5	4 bone	1	1 eating	0	0	1866	4 fragments
a20bt5	4 boot eyelet	5	0 clothing	0	0	1866	
a20bt5	4 glass stopper	1	0 drinking	1850	1920	1866	1 fragment
a20bt5	4 bone button	3	0 clothing	1800	1850	1866	1 complete three hole, 2 fragments 4 hole
a20bt5	4 unidentified metal	1	1 unidentified	0	0	1866	
a20bt5	4 suspender buckle	1	0 clothing	0	0	1866	
a20bt5	4 window glass	1	1 construction	0	0	1866	4 fragments
a20bt5	4 clear glass	1	0 pharmaceuti	0	0	1866	fragment 0.5 mm thick
a20bt5	4 clay pipe	1	0 smoking	1850	1911	1866	Ben Nevis with N.NEV No --- red coloured ?
a20bt5	4 Orange render	1	1 construction	0	0	1866	
a20bt5	4 lime wash	1	1 construction	0	0	1866	1 mm thick, smooth both sides
a20bt5	5 lime wash	1	1 construction	0	0	1866	2 mm thick, smooth both sides
a20bt5	5 charcoal	1	1 fire	0	0	1866	
a20bt5	5 shell	1	1 unidentified	0	0	1866	
a20bt5	5 building slate	1	1 construction	0	0	1866	
a20bt5	5 bone	1	1 unidentified	0	0	1866	
a20bt5	5 brick	1	1 construction	0	0	1866	
a20bt5	5 bone button	2	0 clothing	1800	1850	1866	4 holes
a20bt5	5 bone button	1	0 clothing	1800	1850	1866	3 holes
a20bt5	5 unidentified metal	1	1 unidentified	0	0	1866	
a20bt5	5 window glass	1	0 construction	0	0	1866	1mm thick
a20bt5	5 clay pipe	1	0 smoking	1850	1911	1866	stem/bowl join; plain
a20bt5	5 black bottle glass	1	0 drinking	1840	1920	1866	
a20bt5	5 comb	1	0 hygiene	1800	1930	1866	bone
a20bt5	5 Brown render	1	1 construction	0	0	1866	
a20bt5	5 Orange render	1	1 construction	0	0	1866	
a20bt5	5 lime wash	1	1 construction	0	0	1866	1 mm thick, smooth both sides
a20bt5	6 charcoal	1	1 fire	0	0	1866	
a20bt5	6 bone	1	1 unidentified	0	0	1866	
a20bt5	6 boot eyelet	1	0 clothing	0	0	1866	
a20bt5	6 brick	1	1 construction	0	0	1866	
a20bt5	6 granite	1	1 construction	0	0	1866	

a20bt5	6 lime wash	1	1 construction	0	0	1866
a20bt5	7 charcoal	1	1 fire	0	0	1866
a20bt5	7 shell	1	1 unidentified	0	0	1866
a20bt5	7 building slate	1	1 construction	0	0	1866
a20bt5	7 bone	1	1 unidentified	0	0	1866
a20bt5	7 lime wash	1	1 construction	0	0	1866
a20bt5	8 unidentified metal	1	1 unidentified	0	0	1866
a20bt5	8 bone	1	1 unidentified	0	0	1866
a20bt5	8 building slate	1	1 construction	0	0	1866
a20bt5	8 charcoal	1	1 fire	0	0	1866
a20bt5	9 charcoal	1	1 fire	0	0	1866

1 mm thick, smooth both sides

APPENDIX 2

Location	Bucket	Identification	Number	Presence	Function	Date-from	Date-to	South-mean	Conjoins	Remarks
a20at2	4	shaped wood	1	1	construction	0	0	1877		
a20at2	4	lime wash	1	1	construction	0	0	1877		1 mm thick, smooth both sides
a20at2	4	lime washed l/stone	1	1	construction	0	0	1877		
a20at2	4	green bottle glass	1	1	drinking	1860	1920	1877		
a20at2	4	match 2	1	0	smoking	1832	1911	1877		
a20at2	4	unidentified metal	1	1	unidentified	0	0	1877		
a20at2	4	window glass	1	1	construction	0	0	1877		
a20at2	4	Brown render	1	1	construction	0	0	1877		
a20at2	4	lime wash	1	1	construction	0	0	1877		3 mm thick, smooth both sides
a20at2	5	lime wash	1	1	construction	0	0	1877		3 mm thick, smooth both sides
a20at2	5	bone	1	1	unidentified	0	0	1877		small; includes murid jaw
a20at2	5	leather strap	1	0	clothing	0	0	1877		2 pieces of leather riveted together
a20at2	5	eating utensil	1	0	eating	0	0	1877		bone and metal handle
a20at2	5	charcoal	1	1	fire	0	0	1877		large quantity
a20at2	5	lime washed l/stone	1	1	construction	0	0	1877		
a20at2	6	dressed limestone	1	1	construction	0	0	1877		dressed to form ledge
a20at2	6	lime washed l/stone	1	1	construction	0	0	1877		
a20at2	6	lime wash	1	1	construction	0	0	1877		1 mm thick, smooth both sides
a20at2	6	charcoal	1	1	fire	0	0	1877		
a20at2	6	bone	1	1	unidentified	0	0	1877		
a20at2	6	match 2	2	0	smoking	1832	1911	1877		
a20at2	6	unidentified metal	1	1	unidentified	0	0	1877		
a20at2	6	lead sheeting	1	1	construction	0	0	1877		
a20at2	6	floorboard	1	1	construction	0	0	1877		tongue and groove
a20at2	6	human hair	1	1	unidentified	0	0	1877		
a20at2	6	building slate	1	1	construction	0	0	1877		
a20at2	6	window glass	1	1	construction	0	0	1877		1 mm thick
a20at2	6	paper	1	1	unidentified	0	0	1877		no print
a20at2	6	leather thong	1	0	clothing	0	0	1877		1 piece
a20at2	6	copper wire	1	1	construction	0	0	1877		
a20at2	6	copper object	1	0	construction	0	0	1877		flat clamp? over iron strap 21 mm wide.
a20at2	6	newspaper	1	1	leisure	1858	1900	1877		
a20at2	7	clay pipe	1	1	smoking	1850	1911	1877		bowl fragment
a20at2	7	newspaper	1	1	leisure	1858	1900	1877		
a20at2	7	charcoal	1	1	fire	0	0	1877		
a20at2	7	bone	1	1	unidentified	0	0	1877		mice

Location	Bucket	Identification	Number	Presence	Function	Date-from	Date-to	South-mean	Conjoins	Remarks
a20at2	7	unidentified metal	1	1	unidentified	0	0	1877		
a20at2	7	limestone	1	1	construction	0	0	1877		
a20at2	7	lime wash	1	1	construction	0	0	1877		4 mm thick, smooth both sides
a20at3	3	lime wash	1	1	construction	0	0	1877		
a20at3	3	charcoal	1	1	fire	0	0	1877		
a20at3	3	unidentified metal	1	1	unidentified	0	0	1877		
a20at3	3	wood	1	1	construction	0	0	1877		
a20at3	3	lime washed l/stone	1	1	construction	0	0	1877		
a20at3	3	match 2	1	1	smoking	1832	1911	1877		
a20at3	3	limestone	1	1	construction	0	0	1877		
a20at3	3	wrought nail/lrg. hd.	1	0	construction	1840	1870	1877		
a20at3	3	bone	1	1	unidentified	0	0	1877		
a20at3	4	dressed limestone	1	1	construction	0	0	1877		
a20at3	4	lime washed l/stone	1	1	construction	0	0	1877		
a20at3	4	match 2	1	0	smoking	1832	1911	1877		
a20at3	4	window glass	1	1	construction	0	0	1877		1 mm thick
a20at3	4	bone	1	1	unidentified	0	0	1877		small animal, mice?
a20at3	4	lime wash	1	1	construction	0	0	1877		1 mm thick, smooth both sides
a20at3	4	work button	1	0	clothing	1880	1900	1877		
a20at3	4	charcoal	1	1	fire	0	0	1877		
a20at3	4	wrought nail	1	0	construction	1840	1870	1877		
a20at3	4	unidentified metal	1	1	unidentified	0	0	1877		
a20at3	4	fibres unidentified	1	1	unidentified	0	0	1877		
a20at3	4	newspaper	1	1	leisure	1858	1900	1877		
a20at3	4	shaped wood	1	1	construction	0	0	1877		
a20at3	5	window glass	1	1	construction	0	0	1877		
a20at3	5	shaped wood	1	1	construction	0	0	1877		
a20at3	5	flag stone	1	1	construction	0	0	1877		
a20at3	5	unidentified metal	1	1	construction	0	0	1877		
a20at3	5	lime wash	1	1	construction	0	0	1877		0.1 mm thick
a20at3	5	match 2	1	0	smoking	1832	1911	1877		
a20at3	5	bone button	1	1	clothing	1800	1850	1877		
a20at3	6	slate pencil	1	0	leisure	0	0	1877		
a20at3	6	bone	1	1	unidentified	0	0	1877		murid
a20at3	6	shaped wood	1	1	construction	0	0	1877		soft wood, white paint
a20at3	6	window glass	1	1	construction	0	0	1877		2mm thick

Location	Bucket	Identification	Number	Presence	Function	Date-from	Date-to	South-mean	Conjoins	Remarks
a20at3	6	bone button	1	0	clothing	1800	1850	1877		4 holes; diameter 17mm
a20at3	6	bone button	1	0	clothing	1800	1850	1877		3 holes; diameter 12mm
a20at3	6	charcoal	1	1	fire	0	0	1877		
a20at3	6	lead sheeting	1	1	construction	0	0	1877		
a20at3	6	baton	1	1	construction	0	0	1877		1 piece
a20at3	6	clear bottle glass	1	0	drinking	0	0	1877		
a20at3	6	green bottle glass	1	0	drinking	1820	1920	1877		
a20at3	6	unidentified metal	1	1	unidentified	0	0	1877		
a20at4	4	unidentified metal	1	1	unidentified	0	0	1877		
a20at4	4	building slate	1	1	construction	0	0	1877		
a20at4	4	bone	1	1	eating	0	0	1877		
a20at4	4	dressed limestone	1	1	construction	0	0	1877		
a20at4	4	shaped wood	1	1	construction	0	0	1877		
a20at4	4	newspaper	1	1	leisure	1858	1900	1877		
a20at4	5	shaped wood	1	1	construction	0	0	1877		
a20at4	5	floorboard	1	1	construction	0	0	1877		tongue and groove
a20at4	5	bone	1	1	eating	0	0	1877		
a20at4	5	unidentified metal	1	1	unidentified	0	0	1877		4 x broken nails
a20at4	5	shell	1	1	unidentified	0	0	1877		
a20at4	5	copper wire	1	1	construction	0	0	1877		
a20at4	5	window glass	1	1	construction	0	0	1877		2mm thick
a20at4	5	slate pencil	1	0	leisure	0	0	1877		
a20at4	5	iron object	1	0	construction	0	0	1877		flat with series of holes, 7 shards
a20at4	5	Orange render	1	1	construction	0	0	1877		
a20at4	5	newspaper	1	1	leisure	1858	1900	1877		
a20at4	6	building slate	1	1	construction	0	0	1877		
a20at4	6	unidentified metal	1	1	unidentified	0	0	1877		
a20at4	6	window glass	1	1	construction	0	0	1877		
a20at4	6	lime wash	1	1	construction	0	0	1877		
a20at4	6	Orange render	1	1	construction	0	0	1877		
a20at4	6	newspaper	1	1	leisure	1858	1900	1877		
a20av	1	charcoal	1	1	fire	0	0	0		
a20av	1	lead sheeting	1	1	construction	0	0	0		
a20av	1	leather strap	1	1	clothing	0	0	0		
a20av	1	lime	1	1	unidentified	0	0	0		
a20av	2	dressed limestone	1	1	construction	0	0	1873		

Location	Bucket	Identification	Number	Presence	Function	Date-from	Date-to	South-mean	Conjoins	Remarks
a20av	2	bone	1	1	unidentified	0	0	1873		
a20av	2	shaped wood	1	1	construction	0	0	1873		
a20av	2	lime wash	1	1	construction	0	0	1873		
a20av	2	unidentified metal	1	0	unidentified	0	0	1873		
a20av	2	rosehead nail	1	0	construction	1870	1900	1873		
a20av	2	dressed limestone	1	1	construction	0	0	1873		
a20av	2	slate pencil	1	1	leisure	0	0	1873		
a20av	2	charcoal	1	1	fire	0	0	1873		
a20av	2	lead sheeting	1	1	construction	0	0	1873		
a20av	2	shell button	1	0	clothing	1850	1900	1873		3 holes
a20av	2	window glass	1	1	construction	0	0	1873		
a20av	2	wrought nail	1	0	construction	1840	1870	1873		
a20av	2	wood shavings	1	0	construction	0	0	1873		
a20av	2	match 2	1	0	smoking	1832	1911	1873		
a20av	2	clay pipe	1	0	smoking	1850	1911	1873		
a20av	2	building slate	1	1	construction	0	0	1873		
a20av	2	lime	1	1	unidentified	0	0	1873		
a20av	3	charcoal	1	1	fire	0	0	1875		
a20av	3	unidentified metal	1	1	unidentified	0	0	1875		
a20av	3	clay pipe	1	1	smoking	1850	1911	1875		fragments bowl and stem
a20av	3	lead sheeting	1	1	construction	0	0	1875		
a20av	3	shaped wood	1	1	construction	0	0	1875		
a20av	3	window glass	1	1	construction	0	0	1875		loove window

Location	Bucket	Identification	Number	Presence	Function	Date-from	Date-to	South-mean	Conjoins	Remarks
a20bt1	3	green bottle glass	1	1	drinking	1820	1920	1873	b5	shard 3 piece mould bottle
a20bt1	5	slate pencil	2	1	leisure	0	0	1873		
a20bt1	5	building slate	1	1	construction	0	0	1873		
a20bt1	5	lime wash	1	1	construction	0	0	1873		
a20bt1	5	lime wash	1	1	construction	0	0	1873		1 cm thick
a20bt1	5	unidentified metal	1	1	unidentified	0	0	1873		
a20bt1	5	newspaper	1	1	leisure	0	0	1873		
a20bt1	5	cut nail	1	0	construction	1800	1870	1873		
a20bt1	5	match 1	2	0	smoking	0	0	1873		
a20bt1	5	work button	1	0	clothing	1880	1900	1873		
a20bt1	5	green bottle glass	1	1	drinking	1820	1920	1873	b3	shard 3 piece mould bottle
a20bt1	5	straight pin	1	1	clothing	1835	1991	1873		
a20bt1	6	rosehead nail	3	1	construction	1870	1900	1866		
a20bt1	6	green bottle glass	1	1	drinking	1820	1920	1866		3 piece bottle
a20bt2	2	green bottle glass	1	1	drinking	1820	1920	1904		3 piece bottle
a20bt2	4	green bottle glass	1	1	drinking	1820	1920	1866		3 piece bottle,
a20bt3	5	brick	1	1	construction	0	0	1873		
a20bt3	5	bone	1	1	unidentified	0	0	1873		
a20bt3	5	unidentified metal	1	1	unidentified	0	0	1873		
a20bt3	5	building slate	1	1	construction	0	0	1873		
a20bt3	5	clear glass	1	1	drinking	0	0	1873		
a20bt3	5	flat hd wrought nail	1	0	construction	1840	1870	1873		
a20bt3	5	wrought nail	2	0	construction	1840	1870	1873		1 eubanks, 1 tack
a20bt3	5	copper wire	1	1	construction	0	0	1873		
a20bt3	5	match 2	1	1	smoking	1832	1911	1873		
a20bt3	5	charcoal	1	1	fire	0	0	1873		
a20bt3	5	lime washed l/stone	1	1	construction	0	0	1873		
a20bt3	6	lime wash	1	1	construction	0	0	1873		1 mm thick, smooth both sides
a20bt3	6	building slate	2	1	construction	0	0	1873		
a20bt3	6	bone button	1	0	clothing	1800	1850	1873		4 holes; diameter 17mm (large)
a20bt3	6	fibres unidentified	1	1	unidentified	0	0	1873		
a20bt3	6	green bottle glass	1	1	drinking	1820	1920	1873		same 3 piece bottle as conjoin pieces
a20bt3	6	rosehead nail	2	1	construction	1870	1900	1873		
a20bt3	6	match 1	2	0	smoking	0	0	1873		
a20bt3	6	lid	1	0	container	0	0	1873		104 x 67mm tin lid; corroded; in 2 pieces
a20bt3	6	match 2	2	0	smoking	1832	1911	1873		

Location	Bucket	Identification	Number	Presence	Function	Date-from	Date-to	South-mean	Conjoins	Remarks
a20bt3	6	unidentified metal	1	1	unidentified	0	0	1873		
a20bt3	6	lime washed l/stone	1	1	construction	0	0	1873		
a20bt3	7	dressed limestone	1	1	construction	0	0	1873		
a20bt3	7	building slate	1	1	construction	0	0	1873		
a20bt3	7	unidentified metal	1	1	unidentified	0	0	1873		
a20bt3	7	charcoal	1	1	fire	0	0	1873		
a20bt3	7	black layer	1	1	construction	0	0	1873		
a20bt3	7	lime washed l/stone	1	1	construction	0	0	1873		
a20bt3	8	silver sixpence	1	1	money	1865	1895	1873		
a20bt3	8	slate pencil	1	1	leisure	0	0	1873		
a20bt3	8	dressed limestone	1	1	construction	0	0	1873		
a20bt3	8	lime wash	1	1	construction	0	0	1873		
a20bt3	8	unidentified metal	1	1	unidentified	0	0	1873		
a20bt3	8	building slate	1	1	construction	0	0	1873		
a20bt3	8	match 2	1	0	smoking	1832	1911	1873		
a20bt3	8	drinking glass	1	0	drinking	0	0	1873		
a20bt3	8	lime washed l/stone	1	1	construction	0	0	1873		
a20bt3	8	building slate	1	1	construction	0	0	1873		
a20bt3	8	match 2	1	1	smoking	1832	1911	1873		
a20bt3	8	charcoal	1	1	fire	0	0	1873		
a20bt3	8	charcoal	1	1	fire	0	0	1873		
a20bt4	5	lime wash	1	1	construction	0	0	1873		3 mm thick not totally smooth
a20bt4	5	lime wash	1	1	construction	0	0	1873		1 mm thick, smooth both sides
a20bt4	5	window glass	1	1	construction	0	0	1873		3 mm thick.
a20bt4	5	window glass	1	1	construction	0	0	1873		1.5 mm thick
a20bt4	5	clear bottle glass	1	1	pharmaceuti	0	0	1873		clear glass 0.5 mm thick, bottle or glass
a20bt4	5	bone	1	1	unidentified	0	0	1873		small animal, mice?
a20bt4	5	lime wash	1	1	construction	0	0	1873		0.5 mm thick, smooth both sides
a20bt4	5	shaped wood	1	1	construction	0	0	1873		small pieces soft wood
a20bt4	5	wood shavings	1	1	construction	0	0	1873		
a20bt4	5	building slate	1	1	construction	0	0	1873		
a20bt4	5	match 1	5	0	smoking	0	0	1873		2 with points sharpened
a20bt4	5	match 2	2	0	smoking	1832	1911	1873		
a20bt4	5	copper wire	1	1	construction	0	0	1873		
a20bt4	5	charcoal	1	1	fire	0	0	1873		
a20bt4	5	wrought nail	2	0	construction	1840	1870	1873		large

Location	Bucket	Identification	Number	Presence	Function	Date-from	Date-to	South-mean	Conjoins	Remarks
a20bt4	5	cut nail	2	0	construction	1800	1870	1873		
a20bt4	5	rosehead nail	1	0	construction	1870	1900	1873		
a20bt4	5	bristles	2	0	hygiene	0	0	1873		material unidentified
a20bt4	5	lime washed l/stone	1	1	construction	0	0	1873		
a20bt4	6	bone	1	1	unidentified	0	0	1873		
a20bt4	6	newspaper	1	1	leisure	1858	1900	1873		
a20bt4	6	boot eyelet	1	0	clothing	0	0	1873		
a20bt4	6	building slate	1	1	construction	0	0	1873		
a20bt4	6	clear bottle glass	1	1	drinking	0	0	1873		
a20bt4	6	window glass	1	1	construction	0	0	1873		2 mm thick
a20bt4	6	drinking glass	1	1	drinking	0	0	1873		
a20bt4	6	lime wash	1	1	construction	0	0	1873		1 mm thick, smooth both sides
a20bt5	3	bone button	1	0	clothing	1800	1850	1873		4 holes; diameter 13mm
a20bt5	3	work button	1	0	clothing	1880	1900	1873		brass, 4 holes; Best Ring Edge
a20bt5	3	clay pipe	1	0	smoking	1850	1911	1873		stem
a20bt5	3	clay pipe	1	0	smoking	1850	1911	1873		red stem, two shards
a20bt5	3	building slate	1	1	construction	0	0	1873		
a20bt5	3	match 1	9	0	smoking	0	0	1873		
a20bt5	3	bone	1	1	eating	0	0	1873		
a20bt5	3	straight pin	1	0	clothing	1835	1991	1873		
a20bt5	3	boot eyelet	2	0	clothing	0	0	1873		
a20bt5	3	rosehead nail	1	0	construction	1870	1900	1873		
a20bt5	3	unidentified metal	1	1	unidentified	0	0	1873		3 broken nails
a20bt5	3	wood	1	1	construction	0	0	1873		
a20bt5	3	window glass	1	0	construction	0	0	1873		2mm thick
a20bt5	3	clear bottle glass	1	0	pharmaceuti	0	0	1873		small bottle
a20bt5	3	work button	1	0	clothing	1880	1900	1873		iron
a20bt5	4	rosehead nail	1	0	construction	1870	1900	1866		
a20bt5	5	rosehead nail	2	1	construction	1870	1900	1866		2 broken nails

APPENDIX 3

Location	Bucket	Identification	Number	Presence	Function	Date-from	Date-to	South-mean	Conjoins	Remarks
a20at1	2	lime washed l/stone	1	1	construction	0	0	1883		
a20at1	2	bone	1	1	unidentified	0	0	1883		
a20at1	2	work button	1	0	clothing	1880	1900	1883		
a20at1	2	unidentified metal	1	1	unidentified	0	0	1883		
a20at1	2	screw	1	0	construction	1849	1900	1883	iron	
a20at1	2	wrought nail	2	0	construction	1840	1870	1883		
a20at1	2	match 3	1	0	smoking	0	0	1883		
a20at1	2	clear bottle glass	2	0	drinking	0	0	1883		2 fragments
a20at1	2	shell	1	0	unidentified	0	0	1883		1 fragment
a20at1	2	reading glasses	1	0	leisure	0	0	1883		1 fragment from glasses/magnifying glass
a20at1	2	clear bottle glass	1	0	pharmaceutica	0	0	1883		1 fragment of thin glass aprox 0.5mm
a20at1	2	window glass	1	1	construction	0	0	1883		2 fragments
a20at1	2	unidentified metal	1	0	unidentified	0	0	1883		2 pieces
a20at1	2	wrought nail/lrg hd	1	0	construction	1840	1870	1883		
a20at1	2	dressed limestone	1	1	construction	0	0	1883		
a20at1	3	dressed limestone	1	1	construction	0	0	1883		
a20at1	3	limestone	1	1	construction	0	0	1883		newspaper stuck to it
a20at1	3	building slate	1	1	construction	0	0	1883		
a20at1	3	lime wash	1	1	construction	0	0	1883		
a20at1	3	match 3	1	1	smoking	0	0	1883		
a20at1	3	limestone	1	1	construction	0	0	1883		
a20at1	3	wood	1	1	construction	0	0	1883		
a20at1	3	bone	1	1	unidentified	0	0	1883		
a20at1	3	unidentified metal	6	0	unidentified	0	0	1883		
a20at1	3	bone	1	1	unidentified	0	0	1883		
a20at1	3	work button	1	0	clothing	1880	1900	1883		
a20at1	3	bone button	1	0	clothing	1800	1850	1883	complete	
a20at1	3	cut nail	1	0	construction	1800	1870	1883		
a20at1	3	wood	1	1	construction	0	0	1883		
a20at1	3	wrought nail/lrg.hd.	1	0	construction	1840	1870	1883		
a20at1	3	floorboard	1	1	construction	0	0	1883		identifaction uncertain
a20at1	3	unidentified metal	2	0	unidentified	0	0	1883		
a20at1	3	match 3	1	0	smoking	0	0	1883		
a20at1	3	leather thong	1	0	clothing	0	0	1883		5 pieces
a20at1	3	leather strap	1	0	clothing	0	0	1883		
a20at1	3	unidentified metal	1	1	unidentified	0	0	1883		

Location	Bucket	Identification	Number	Presence	Function	Date-from	Date-to	South-mean	Conjoins	Remarks
a20at1	3	newspaper	1		1 leisure	1858	1900	1883		
a20at1	3	lime washed l/stone	1		1 construction	0	0	1883		
a20at2	2	match 2	3		0 smoking	1832	1911	1883		
a20at2	2	match 3	1		0 smoking	0	0	1883		
a20at2	2	bone	1		1 unidentified	0	0	1883		mice
a20at2	2	clay pipe	1		1 smoking	1850	1911	1883		bowl fragment
a20at2	2	lime washed l/stone	1		1 construction	0	0	1883		
a20at2	2	dressed limestone	1		1 construction	0	0	1883		
a20at2	2	leather	1		1 clothing	0	0	1883		botton hole on strap
a20at2	2	rosehead nail	1		0 construction	1870	1900	1883		
a20at2	3	bone	1		1 unidentified	0	0	1883		
a20at2	3	wood	1		1 construction	0	0	1883		
a20at2	3	charcoal	1		1 fire	0	0	1883		
a20at2	3	rosehead nail	1		0 construction	1870	1900	1883		
a20at2	3	dressed limestone	1		1 construction	0	0	1883		
a20at2	5	match 3	2		0 smoking	0	0	1877		
a20at2	6	match 3	2		0 smoking	0	0	1877		
a20at3	1	lime wash	1		1 construction	0	0	1883		2 mm, smooth both sides
a20at3	1	building slate	1		1 construction	0	0	1883		
a20at3	1	rosehead nail	1		0 construction	1870	1900	1883		
a20at3	1	match 2	13		0 smoking	1832	1911	1883		
a20at3	1	wood	1		1 construction	0	0	1883		
a20at3	1	bone	1		1 eating	0	0	1883		rib
a20at3	1	Orange render	1		1 construction	0	0	1883		
a20at3	1	shaped wood	1		1 construction	0	0	1883		
a20at3	1	unidentified metal	1		1 unidentified	0	0	1883		
a20at3	1	newspaper	1		1 leisure	1858	1900	1883		
a20at3	1	cut nail	1		0 construction	1800	1870	1883		
a20at3	1	lead sheeting	1		1 construction	0	0	1883		
a20at3	1	flat hd wrought nail	2		0 construction	1840	1870	1883		
a20at3	1	wrought nail/lrg. hd.	1		0 construction	1840	1870	1883		
a20at3	1	cut nail	1		0 construction	1800	1870	1883		
a20at3	1	lime washed l/stone	1		1 construction	0	0	1883		
a20at3	2	shaped wood	1		1 construction	0	0	1883		
a20at3	2	brick	1		1 construction	0	0	1883		
a20at3	2	charcoal	1		1 fire	0	0	1883		

Location	Bucket	Identification	Number	Presence	Function	Date-from	Date-to	South-mean	Conjoins	Remarks
a20at3	2	rosehead nail	1	0	construction	1870	1900	1883		
a20at3	2	lime washed l/stone	1	1	construction	0	0	1883		
a20at3	3	match 3	1	0	smoking	0	0	1877		
a20at3	4	straight pin	1	0	clothing	1835	1991	1877		33.5 mm long
a20at3	5	match 3	1	0	smoking	0	0	1877		
a20at4	2	shaped wood	1	1	construction	0	0	1883		
a20at4	2	straight pin	1	0	clothing	1835	1991	1883		
a20at4	2	shell button	1	0	clothing	1850	1900	1883		3 holes
a20at4	2	window glass	1	1	construction	0	0	1883		1mm
a20at4	2	unidentified metal	1	1	unidentified	0	0	1883		
a20at4	2	bone	1	1	unidentified	0	0	1883		mice
a20at4	2	match 3	2	0	smoking	0	0	1883		
a20at4	2	flat hd wrought nail	1	0	construction	1840	1870	1883		
a20at4	2	lime wash	1	1	construction	0	0	1883		1 mm thick, smooth both sides
a20at4	3	lime washed l/stone	1	1	construction	0	0	1883		
a20at4	3	shaped wood	1	1	construction	0	0	1883		
a20at4	3	clay pipe	1	1	smoking	1850	1911	1883		stem and bowl fragments
a20at4	3	slate pencil	1	1	leisure	0	0	1883		
a20at4	3	shell	1	1	unidentified	0	0	1883		
a20at4	3	wrought nail/lrg.hd.	1	0	construction	1840	1870	1883		
a20at4	3	unidentified metal	1	1	unidentified	0	0	1883		
a20at4	3	work button	1	0	clothing	1880	1900	1883		
a20at4	3	bone button	1	0	clothing	1800	1850	1883		fragment
a20at4	3	dressed limestone	1	1	construction	0	0	1883		
a20at4	5	straight pin	1	0	clothing	1835	1991	1877		
a20at4	5	match 3	1	0	smoking	0	0	1877		
a20at5	2	work button	1	0	clothing	1880	1900	1883		
a20at5	2	shaped wood	1	1	construction	0	0	1883		
a20at5	2	wrought nail	2	0	construction	1840	1870	1883		
a20at5	2	clear bottle glass	1	0	drinking	0	0	1883		
a20at5	2	bone	1	1	eating	0	0	1883		
a20at5	2	copper wire	1	0	construction	0	0	1883		
a20at5	2	match 3	1	0	smoking	0	0	1883		
a20at5	2	dressed limestone	1	1	construction	0	0	1883		green copper stain on underside
a20at5	2	unidentified metal	1	1	unidentified	0	0	1883		
a20at5	3	dressed limestone	1	1	construction	0	0	1883		

Location	Bucket	Identification	Number	Presence	Function	Date-from	Date-to	South-mean	Conjoins	Remarks
a20at5	3	charcoal	1	1	fire	0	0	1883		
a20at5	3	lime wash	1	1	construction	0	0	1883		
a20at5	3	unidentified metal	1	1	unidentified	0	0	1883		
a20at5	3	black bottle glass	1	0	drinking	1860	1920	1883		
a20at5	3	bone	1	1	unidentified	0	0	1883	mice	
a20at5	3	straight pin	1	0	clothing	1835	1991	1883		
a20at5	3	work button	1	0	clothing	1880	1900	1883		
a20at5	3	drinking glass	1	1	drinking	0	0	1883		
a20at5	3	match 3	1	0	smoking	0	0	1883		
a20at5	3	building slate	1	1	construction	0	0	1883		
a20at5	3	bone	1	1	unidentified	0	0	1883		
a20at5	3	slate pencil	1	1	leisure	0	0	1883		
a20at5	4	unidentified metal	1	1	unidentified	0	0	1883		
a20at5	4	drinking glass	2	0	drinking	0	0	1883		
a20at5	4	building slate	1	1	construction	0	0	1883		
a20at5	4	match 3	1	0	smoking	0	0	1883		
a20at5	4	newspaper	1	1	leisure	1858	1900	1883		
a20at5	7	building slate	1	1	construction	0	0	1883		
a20at5	7	wrought nail/lrg.hd.	5	0	construction	1840	1870	1883	2 complete	
a20at5	7	string	1	0	leisure	0	0	1883	green	
a20at5	7	window glass	1	1	construction	0	0	1883	1mm thick	
a20at5	7	boot eyelet	1	0	clothing	0	0	1883		
a20at5	7	clear bottle glass	1	0	drinking	0	0	1883		
a20at5	7	clay pipe	1	0	smoking	1850	1911	1883	fragment bowl	
a20at5	7	wrought nail	1	1	construction	1840	1870	1883		
a20at5	7	newspaper	1	1	leisure	1858	1900	1883		
a20at5	8	work button	1	1	clothing	1880	1900	1883	Best Ring Edge	
a20at5	8	slate pencil	1	1	leisure	0	0	1883		
a20at5	8	charcoal	1	1	fire	0	0	1883		
a20at5	8	window glass	1	1	construction	0	0	1883		
a20at5	8	work button	1	0	clothing	1880	1900	1883		
a20at5	8	unidentified metal	1	1	unidentified	0	0	1883		
a20at5	8	building slate	1	1	construction	0	0	1883		
a20at5	8	wrought nail	1	0	construction	1840	1870	1883		
a20at5	8	bone	1	1	unidentified	0	0	1883	mice	
a20at5	8	lime wash	1	1	construction	0	0	1883		

Location	Bucket	Identification	Number	Presence	Function	Date-from	Date-to	South-mean	Conjoins	Remarks
a20at5	8	wrought nail/lrg.hd.	2	0	construction	1840	1870	1883		
a20at5	8	work button	1	1	clothing	1880	1900	1883		Edward T Hope, Perth
a20av	2	match 3	1	0	smoking	0	0	1873		

Location	Bucket	Identification	Number	Presence	Function	Date-from	Date-to	South-mean	Conjoins	Remarks
a20bt1	1	black bottle glass	1	0	drinking	1860	1920	1978		flaked shard, rest in bucket 3
a20bt1	2	black bottle glass	1	0	drinking	1840	1920	1978		bottle base sharpened into knife
a20bt1	3	dressed limestone	1	1	construction	0	0	1881		
a20bt1	3	unidentified metal	1	1	unidentified	0	0	1881		
a20bt1	3	lime washed l/stone	1	1	construction	0	0	1881		
a20bt1	3	black bottle glass	1	0	drinking	1840	1920	1881		3 shards
a20bt1	3	slate pencil	1	0	leisure	0	0	1881		
a20bt1	3	fibres unidentified	1	1	unidentified	0	0	1881		
a20bt1	3	unidentified metal	1	1	unidentified	0	0	1881		
a20bt1	3	string	2	0	leisure	0	0	1881		1 red, 1 white
a20bt1	3	rosehead nail	1	0	construction	1870	1900	1881		
a20bt1	3	match 3	1	0	smoking	0	0	1881		
a20bt1	3	clay pipe	1	0	smoking	1850	1911	1881		side of bowl; decorated w/- lines, scallop at top
a20bt1	3	lime wash	1	1	construction	0	0	1881		1 mm thick, smooth both sides
a20bt1	4	boot eyelet	1	0	clothing	0	0	1881		
a20bt1	4	leather thong	1	1	clothing	0	0	1881		
a20bt1	4	lime wash	1	1	construction	0	0	1881		1 mm thick, smooth both sides
a20bt1	4	building slate	1	1	construction	0	0	1881		
a20bt1	4	bone	1	1	eating	0	0	1881		rib bone
a20bt1	4	unidentified metal	1	1	unidentified	0	0	1881		
a20bt1	4	bone button	1	0	clothing	1800	1850	1881		fragment
a20bt1	4	match 2	1	1	smoking	1832	1911	1881		
a20bt1	4	wire	1	1	construction	0	0	1881		
a20bt1	4	unidentified metal	1	1	unidentified	0	0	1881		corner piece of frame?
a20bt1	4	rosehead nail	6	0	construction	1870	1900	1881		
a20bt1	4	match 3	1	0	smoking	0	0	1881		
a20bt1	4	clay pipe	1	1	smoking	1850	1911	1881		end of stem fragment and shard of bowl
a20bt1	5	straight pin	1	1	clothing	1835	1991	1873		
a20bt2	1	black bottle glass	1	1	drinking	1840	1920	1904		flaked glass same as t1b1,2,3
a20bt2	4	straight pin	1	0	clothing	1835	1991	1866		
a20bt3	10	match 3	1	0	smoking	0	0	1866		
a20bt3	6	match 3	3	0	smoking	0	0	1873		chopped into small pieces
a20bt3	8	match 3	1	0	smoking	0	0	1873		
a20bt3	8	match 3	2	1	smoking	0	0	1873		chopped into small pieces
a20bt4	3	match 2	1	1	smoking	1832	1911	1904		
a20bt4	4	bone button	1	0	clothing	1800	1850	1881		

Location	Bucket	Identification	Number	Presence	Function	Date-from	Date-to	South-mean	Conjoins	Remarks
a20bt4	4	coir mattress	1	1	fixtures	0	0	1881		coir ? hemp like material / from mattress??
a20bt4	4	match 3	3	0	smoking	0	0	1881		
a20bt4	4	quartz	1	0	construction	0	0	1881		1 piece of quartz
a20bt4	4	bone	1	1	unidentified	0	0	1881		small animal, mice?
a20bt4	4	lime wash	1	1	construction	0	0	1881		4 pieces of lime wash
a20bt4	4	shell	1	0	unidentified	0	0	1881		1 piece of shell
a20bt4	4	screw	1	0	construction	1849	1900	1881		iron
a20bt4	4	work button	1	0	clothing	1880	1900	1881		
a20bt4	4	unidentified metal	1	1	unidentified	0	0	1881		15 pieces
a20bt4	4	charcoal	1	1	fire	0	0	1881		1 piece
a20bt4	4	lime wash	1	1	construction	0	0	1881		6 pieces of lime plaster
a20bt4	4	lime washed l/stone	1	1	construction	0	0	1881		
a20bt4	5	match 3	7	0	smoking	0	0	1873		all cut into small lengths
a20bt4	6	match 3	13	0	smoking	0	0	1873		
a20bt5	1	match 3	8	0	smoking	0	0	1904		26 pieces altogether; much of it chopped up small
a20bt5	1	straight pin	2	1	clothing	1835	1991	1904		
a20bt5	2	charcoal	1	1	fire	0	0	1881		
a20bt5	2	rosehead nail	1	0	construction	1870	1900	1881		
a20bt5	2	building slate	1	1	construction	0	0	1881		
a20bt5	2	granite	1	1	construction	0	0	1881		
a20bt5	2	work button	2	0	clothing	1880	1900	1881		1 iron, 1 brass
a20bt5	2	unidentified metal	1	1	unidentified	0	0	1881		
a20bt5	2	match 3	1	1	smoking	0	0	1881		
a20bt5	2	newspaper	1	1	leisure	1858	1900	1881		
a20bt5	2	Orange render	1	1	construction	0	0	1881		0
a20bt5	2	bone	1	1	eating	0	0	1881		
a20bt5	3	straight pin	1	0	clothing	1835	1991	1873		
a20bt5	3	match 3	5	0	smoking	0	0	1873		chopped into 35 pieces
a20bt5	4	match 2	1	0	smoking	1832	1911	1866		
a20bt5	4	straight pin	8	0	clothing	1835	1991	1866		9 fragments
a20bt5	4	match 3	3	0	smoking	0	0	1866		
a20bt5	5	match 3	4	0	smoking	0	0	1866		
a20ct4	1	match 2	9	0	smoking	1832	1911	1882		
a20ct4	sur	match 2	3	0	smoking	1832	1911	1882		
a20ct5	1	match 2	1	0	smoking	1832	1911	0		

APPENDIX 4

Location	Bucket	Identification	Number	Presence	Function	Date-from	Date-to	South-mean	Conjoins	Remarks
a20at1	1	lime washed l/stone	1	1	construction	0	0	1972		
a20at1	1	leather strap	1	0	clothing	0	0	1972		
a20at1	1	mans boot heel	2	0	clothing	0	0	1972		
a20at1	1	dressed limestone	1	1	construction	0	0	1972		
a20at2	1	lime washed l/stone	1	1	construction	0	0	1972		
a20at2	1	dressed limestone	1	1	construction	0	0	1972		
a20at2	1	unidentified metal	1	1	unidentified	0	0	1972		
a20at2	1	wrought nail/lrg hd	1	0	construction	1840	1870	1972		
a20at2	1	dressed limestone	1	1	construction	0	0	1972		
a20at4	1	lime washed l/stone	1	1	construction	0	0	1972		
a20at4	1	slate pencil	1	1	leisure	0	0	1972		
a20at4	1	wire	1	1	construction	0	0	1972		square cross section
a20at4	1	unidentified metal	1	1	unidentified	0	0	1972		
a20at4	1	bone	1	1	eating	0	0	1972		rib
a20at4	1	shaped wood	1	1	construction	0	0	1972		
a20at4	1	wrought nail/lrg.hd.	1	0	construction	1840	1870	1972		
a20at4	1	dressed limestone	1	1	construction	0	0	1972		
a20at5	1	bone	1	1	eating	0	0	1904		
a20at5	1	lime washed l/stone	1	1	construction	0	0	1904		
a20at5	1	building slate	1	1	construction	0	0	1904		
a20at5	1	slate pencil	1	0	leisure	0	0	1904		
a20at5	1	shaped wood	1	1	construction	0	0	1904		
a20at5	1	baton	1	1	construction	0	0	1904		2 pieces; to adjust joist heights for floorboards
a20at5	1	wood shavings	1	1	construction	0	0	1904		
a20at5	1	work button	2	0	clothing	1880	1900	1904		iron
a20at5	1	match 1	2	0	smoking	0	0	1904		
a20at5	1	match 3	1	0	smoking	0	0	1904		
a20at5	1	copper wire	1	1	construction	0	0	1904		
a20at5	1	lime wash	1	1	construction	0	0	1904		2 mm thick, smooth both sides
a20bt2	2	unidentified metal	1	1	unidentified	0	0	1904		unidentifiable nails
a20bt2	2	shaped wood	1	1	construction	0	0	1904		
a20bt2	2	Rhomboid hd. nail	1	0	construction	1895	1950	1904		
a20bt2	2	copper discolour	1	1	construction	0	0	1904		
a20bt2	2	lime washed l/stone	1	1	construction	0	0	1904		
a20bt3	2	lime wash	1	1	construction	0	0	1904		2 mm thick, smooth both sides
a20bt3	2	wrought bolt	1	0	construction	1840	1870	1904		flat headed bolt, steel rod with hand made head

Location	Bucket	Identification	Number	Presence	Function	Date-from	Date-to	South-mean	Conjoints	Remarks
a20bt3	2	wrought nail	1	0	construction	1840	1870	1904		with large domed head
a20bt3	2	cut nail	1	0	construction	1800	1870	1904		
a20bt3	2	rosehead nail	2	0	construction	1870	1900	1904		
a20bt3	2	unidentified metal	1	1	unidentified	0	0	1904		
a20bt3	2	shell	1	1	unidentified	0	0	1904		
a20bt3	2	bone	1	1	eating	0	0	1904		rib bone
a20bt3	2	clay pipe	1	0	smoking	1850	1911	1904		plain bowl
a20bt3	2	lime washed l/stone	1	1	construction	0	0	1904		
a20bt3	3	lime washed l/stone	1	1	construction	0	0	1904		
a20bt3	3	unidentified metal	1	1	unidentified	0	0	1904		
a20bt3	3	match 3	1	1	smoking	0	0	1904		
a20bt3	3	cut nail	2	0	construction	1800	1870	1904		
a20bt3	3	flat head wire nail	4	0	construction	1900	1991	1904		
a20bt3	3	flat hd wrought nail	2	0	construction	1840	1870	1904		
a20bt3	3	rosehead nail	1	0	construction	1870	1900	1904		
a20bt3	3	lime wash	1	1	construction	0	0	1904		
a20bt3	4	lime washed l/stone	1	1	construction	0	0	1904		
a20bt3	4	mans boot heel	1	1	clothing	0	0	1904		iron
a20bt3	4	building slate	1	1	construction	0	0	1904		
a20bt3	4	unidentified metal	1	1	unidentified	0	0	1904		
a20bt3	4	rosehead nail	1	0	construction	1870	1900	1904		
a20bt3	4	Rhomboid hd. nail	1	0	construction	1895	1950	1904		
a20bt3	4	flat hd wrought nail	4	0	construction	1840	1870	1904		
a20bt3	4	lime wash	1	1	construction	0	0	1904		2 mm thick, smooth both sides
a20bt4	1	lime wash	1	1	construction	0	0	1904		1 mm thick, smooth both sides
a20bt4	2	lime washed l/stone	1	1	construction	0	0	1904		
a20bt4	3	unidentified metal	1	1	unidentified	0	0	1904		
a20bt4	3	lime washed l/stone	1	1	construction	0	0	1904		
a20bt4	3	dressed limestone	1	1	construction	0	0	1904		
a20bt4	3	lime wash	1	1	construction	0	0	1904		
a20bt4	3	match 1	14	0	smoking	0	0	1904		
a20bt4	3	match 3	16	0	smoking	0	0	1904		
a20bt4	3	charcoal	1	1	fire	0	0	1904		
a20bt4	3	rosehead nail	1	0	construction	1870	1900	1904		
a20bt4	3	Rhomboid hd. nail	3	0	construction	1895	1950	1904		
a20bt4	3	bone	1	1	unidentified	0	0	1904		

Location	Bucket	Identification	Number	Presence	Function	Date-from	Date-to	South-mean	Conjoins	Remarks
a20bt4	3	clear bottle glass	1	1	drinking	0	0	1904		
a20bt4	3	Wedgewood (gloss)	1	1	construction	0	0	1904		
a20bt4	3	hacksaw blade	1	1	escape	0	0	1904		
a20bt5	1	lime wash	1	1	construction	0	0	1904		1 mm thick, smooth both sides
a20bt5	1	unidentified metal	1	1	unidentified	0	0	1904		
a20bt5	1	building slate	1	1	construction	0	0	1904		
a20bt5	1	slate pencil	1	0	leisure	0	0	1904		
a20bt5	1	clear bottle glass	1	0	drinking	0	0	1904		
a20bt5	1	window glass	1	1	construction	0	0	1904		1mm thick
a20bt5	1	bone	1	1	eating	0	0	1904		
a20bt5	1	match 1	12	0	smoking	0	0	1904		
a20bt5	1	copper wire	1	1	construction	0	0	1904		
a20bt5	1	copper nail	1	0	construction	0	0	1904		
a20bt5	1	brick	1	1	construction	0	0	1904		
a20bt5	1	safety razor	1	0	hygiene	1903	1991	1904		2 pieces
a20bt5	1	work button	2	0	clothing	1880	1900	1904		1 v old; 1 Clark & Co Fremantle
a20bt5	1	bone button	3	0	clothing	1800	1850	1904		4 holes; diameter 12mm
a20bt5	1	rosehead nail	1	0	construction	1870	1900	1904		
a20bt5	1	boot eyelet	2	1	clothing	0	0	1904		
a20ct1	1	cut nail	2	0	construction	1800	1870	0		
a20ct1	1	flat hd wrought nail	1	0	construction	1840	1870	0		
a20ct1	1	unidentified metal	1	1	unidentified	0	0	0		
a20ct1	1	white painted wood	1	1	construction	0	0	0		
a20ct1	1	Orange coating	1	1	construction	0	0	0		
a20ct1	1	metal pipe	1	0	construction	0	0	0		metal alloy pipe with screw thread
a20ct1	1	dressed limestone	1	1	construction	0	0	0		
a20ct1	1	lime washed l/stone	1	1	construction	0	0	0		
a20ct2	1	match 1	1	0	smoking	0	0	0		
a20ct2	1	bristles	1	0	hygiene	0	0	0		shaving brush
a20ct2	1	wood shavings	1	1	construction	0	0	0		
a20ct2	1	bone	1	1	eating	0	0	0		rib bone
a20ct2	1	bone	1	1	unidentified	0	0	0		small animal, mice?
a20ct2	1	Rhomboid hd. nail	1	0	construction	1895	1950	0		
a20ct2	1	wrought nail	2	0	construction	1840	1870	0		
a20ct2	1	flat hd wrought nail	1	0	construction	1840	1870	0		
a20ct2	1	lime washed l/stone	1	1	construction	0	0	0		

Location	Bucket	Identification	Number	Presence	Function	Date-from	Date-to	South-mean	Conjoins	Remarks
a20ct2	1	lime wash	1	1	construction	0	0	0		1 mm thick, smooth both sides
a20ct2	2	lime washed l/stone	1	1	construction	0	0	0		
a20ct2	2	lime wash	1	1	construction	0	0	0		
a20ct2	2	bone	1	1	unidentified	0	0	0		
a20ct2	2	limestone	1	1	construction	0	0	0		
a20ct2	2	unidentified metal	1	1	unidentified	0	0	0		
a20ct2	2	wood	1	1	construction	0	0	0		
a20ct2	2	leather lace	1	1	clothing	0	0	0		knotted
a20ct2	2	building slate	1	1	construction	0	0	0		
a20ct2	2	wrought nail/lrg.hd.	1	0	construction	1840	1870	0		
a20ct3	1	rosehead nail	2	0	construction	1870	1900	0		
a20ct3	1	dressed limestone	1	1	construction	0	0	0		
a20ct3	1	lime washed l/stone	1	1	construction	0	0	0		
a20ct3	1	shaped wood	1	1	construction	0	0	0		
a20ct3	1	match 1	1	0	smoking	0	0	0		
a20ct3	1	bristles	3	0	hygiene	0	0	0		shaving brush
a20ct3	1	flat hd wrought nail	1	0	construction	1840	1870	0		
a20ct3	1	wrought nail	3	0	construction	0	0	0		
a20ct3	5	shaped wood	1	1	construction	0	0	0		
a20ct3	5	unidentified metal	1	1	unidentified	0	0	0		
a20ct3	5	window glass	1	1	construction	0	0	0		1mm
a20ct3	5	limestone	1	1	construction	0	0	0		
a20ct3	5	match 1	1	1	smoking	0	0	0		identification uncertain
a20ct3	5	lime wash	1	1	construction	0	0	0		
a20ct3	5	flag stone	1	1	construction	0	0	0		
a20ct4	1	lime wash	1	1	construction	0	0	1882		
a20ct4	1	canvas material	1	1	fixtures	0	0	1882		
a20ct4	1	wire	1	1	construction	0	0	1882		
a20ct4	1	bone	1	1	unidentified	0	0	1882		
a20ct4	1	metal link	1	0	unidentified	0	0	1882		
a20ct4	1	work button	2	0	clothing	1880	1900	1882		
a20ct4	1	Rhomboid hd. nail	1	0	construction	1895	1950	1882		
a20ct4	1	match 1	20	0	smoking	0	0	1882		
a20ct4	1	match 3	1	1	smoking	0	0	1882		
a20ct4	1	flat hd wrought nail	1	0	construction	1840	1870	1882		67mm long, screw?
a20ct4	1	wood	1	1	construction	0	0	1882		blue paint

Location	Bucket	Identification	Number	Presence	Function	Date-from	Date-to	South-mean	Conjoins	Remarks
a20ct4		1 boot eyelet	1	0	clothing	0	0	1882		
a20ct4		1 unidentified metal	1	1	unidentified	0	0	1882		
a20ct4		2 unidentified metal	1	1	unidentified	0	0	1882		
a20ct4		2 match 1	1	0	smoking	0	0	1882		
a20ct4		2 shell	1	1	unidentified	0	0	1882		
a20ct4		2 lead sheeting	1	1	construction	0	0	1882		
a20ct4		2 Orange coating	1	1	construction	0	0	1882		
a20ct4	sur	wire	1	1	construction	0	0	1882		
a20ct4	sur	unidentified metal	1	1	unidentified	0	0	1882		
a20ct4	sur	Rhomboid hd. nail	1	0	construction	1895	1950	1882		
a20ct4	sur	match 3	3	0	smoking	0	0	1882		
a20ct5		1 lime wash	1	1	construction	0	0	0		1 mm thick, smooth both sides
a20ct5		1 unidentified metal	1	1	unidentified	0	0	0		
a20ct5		1 rosehead nail	2	0	construction	1870	1900	0		
a20ct5		1 wrought nail	1	0	construction	1840	1870	0		
a20ct5		1 bone	1	1	unidentified	0	0	0		
a20ct5		1 match 1	1	0	smoking	0	0	0		
a20ct5		1 bone	1	1	unidentified	0	0	0		
a20ct5		1 wood	1	1	construction	0	0	0		
a20ct5		1 brick	1	0	construction	0	0	0		
a20ct5		1 unidentified metal	1	0	unidentified	0	0	0		
a20ct5		1 Brown coating	1	1	construction	0	0	0		
a20ct5		1 lime wash	1	1	construction	0	0	0		
a20ct5		1 charcoal	1	1	fire	0	0	0		
a20ct5		1 Black layer	1	1	construction	0	0	0		
a20ct5		1 Rhomboid hd. nail	2	0	construction	1895	1950	0		
a20ct5		1 mottled paint	1	1	construction	0	0	0		red wash under light blue paint
a20ct5		1 Orange coating	1	1	construction	0	0	0		

APPENDIX 5

Location Number	Description
D1	1 Tennis ball - approximately 30 slit tennis balls not kept
D1	7 Wooden chequer pieces - not coloured
D1	4 Cigarette wrappers - metallic
D1	2 Leather thongs [strips]
D1	Brush bristles - white
D1	1 Biro [tips and tube]
D1	1 Cigarette butt
D1	2 Mirror fragments
D1	1 Metal work button
D1	1 Brown plastic button - large - with rampant lion symbol
D1	1 Metal clip - possibly from boot
D1	2 Tin lids
D1	3 Bottles - one may have been flaked
D1	9 Mugs - fragments from ceramic cups
D1	1 Green cotton - one piece
D1	2 Innersole - leather fragment
D1	2 Razors -with fragments of blades
D1	14 Pull tops from drinking cans - rectangle type
D1	1 Pull top from drink can - round style
D1	1 Clothing label - SEKEM 95 cm to fit 95 cm chest Australian made
D1	3 Paper clips
D1	1 Tack
D1	1 Strand of white cotton
D1	1 Rubber stopper - from the bottom of a chair leg
D1	1 Material - possibly from a bandaid
D1	1 Strip with 2 empty tablet cases - for Dymadon [paracetamol]
D1	6 Bones [unidentified]
D1	1 Light bulb - glass fragments
D1	8 Nails - heavily rusted
D1	4 Screws - heavily rusted
D1	2 Metal objects - heavily rusted - could be a nail
D1	1 Red brick [fragment]
D1	Limestone fragments - some with blue metal
D1	1 Limestone fragment with dark red paint over brown paint
D1	1 Limestone fragment with turquoise paint
D1	1 Limestone fragment with pale blue paint
D1	1 Flake of dark green paint with cream wash
D1	1 Plaster fragment with white paint
D1	1 Electrical wire insulation - grey plastic section
D1	1 Red plastic tube approx. 0.5cm in diameter and 1 cm long
D1	1 Circular section from a PVC pipe approx. 1 cm in diameter
D1	1 Metal label [possibly from table wine] reading ; UM TABLE WIN
D1	1 Metal circular piece - rusted - possible from a boot eyelet
D1	2 Fragments of glass from at least 2 windows
D1	1 Melted section of grey pipe [PVC poss] W.A visible written in black pen on the side
D1	3 Plastic knives [remains]
D1	1 Wax paper label from a masters milk carton
D1	5 Plastic wrappers [possibly from a straw]
D1	1 Plastic razor cover
D1	3 Plastic spoons
D1	1 Plastic fork
D1	1 Metal handle - probably from a fork, knife or spoon

Location Number	Description
D1	2 Plastic labels
D1	1 Section from a green scouring pad
D1	1 Strip of black plastic twine
D1	1 Rubber tread from shoe
D1	1 Wood fragment with brown paint
D1	5 Matches - type 2 - flat wax vestas 1832-1911 [broken into small pieces]
D1	1 Paint strip with three paint layers - grey over light blue over turquoise
D1	1 Paint flake - dark blue
D1	1 White lime wash
D1	1 Piece of plastic with a row of holes
D1	1 Shell tube ?
D1	1 White plastic paint flake
D1	1 Leather fragment from boot or shoe - from lace hole area
D1	1 Fragment of flat clear plastic
D1	3 Electric wire
D1	1 Piece of large metal wire - single strand - approx 2mm thick
D1	1 Wood shaving
D1	1 Paint flake with light brown over white
D1	1 Paint flake - yellow one side, pink the other
D1	1 Blue plastic label
D1	1 Black plastic wrapper
D1	3 Wood slivers of uniform size and shape
D1	1 Small metal wire - single strand
D1	1 Solid wood cylinder approx. 1.5 cms long
D1	2 Fragments of orange stained clear plastic
D1	1 Piece of leather - white marked
D1	2 Folded over pieces of metal in cone shape [squashed] possibly used to smoke dope" - blackened on the inside
D1	2 Grey metal fragments
D1	1 Metal foil - gold coloured
D1	1 Metal foil - pink and silver
D1	1 Metal washer
D1	2 Black plastic wires
D1	1 White and silver tube [paper and foil] approx 4 cm long
D1	1 ' Valve ' from a tap ?
D2	1 Board [in several pieces] - chipboard with aboriginal style dot painting - red , yellow & blue dots on brown board
D2	3 Flattened tins with tops and bottoms removed - forming rectangles
D2	1 Padlock - approx 4 cms across at base
D2	6 Tin lids - 2 with black writing on a yellow background stating - ' Look for the recipe on the back of label '
D2	1 Black shoe lace
D2	Large amounts of brown paint strips
D2	1 Brush - plastic bristles and some metal
D2	1 Piece of white string
D2	1 Metal handle from a knife, fork or spoon
D2	Strip of dark reddish brown paint
D2	Strips of turquoise paint
D2	2 Condensed milk tubes - NESTLE sweetened and condensed milk net 200g
D2	1 Piece of coiled spring type wire
D2	1 Ball of matted green fluff
D2	White paint
D2	1 Piece of green cotton

Location	Number	Description
D2	5	Bones <i>skullion of liquid measurement?</i>
D2	1	Piece of paper
D2	1	Plastic from a straw holder
D2	1	Plastic lid from a Kraft tomato sauce sachet
D2	4	Pieces of plastic wrap
D2	1	Piece of tin folded over to make a cone shape - possibly for "dope smoking"
D2	1	Cement render with triangular pattern
D2	2	Plastic knives
D2	1	Glass from a medical [?] phial with Thailand written on the glass
D2	1	Cigarette butt
D2	1	Galvanised nail
D2	1	Button - green plastic
D2	1	Button - black plastic
D2	1	Ball of thin metal wire
D2	3	Metal fragments - heavily rusted
D2		Grey paint
D2	1	Mirror
D2	1	Red brick fragment
D2	1	Limestone fragment
D2	1	Metal disc [copper ?] with hole near top [name tag ?]
D2	1	Metal pull top from drink can - rectangular type
D2	2	Razors
D2	1	Piece of metallic type plastic wrapper
D2	1	Foil label with the words ' Indoweth ac: ' 25 mg written on it. - probably for some kind of medicine
D2	1	Piece of dark, thin, sheet tin
D2	✓1	Piece of cloth
D2	1	Rubber tube, approx 0.5 cms , with electrical wiring wound around
D2	1	Match type 3
D2	1	Black plastic half disc, approx 2 cms diameter
D2	1	Black plastic crescent
D2	1	Glass bottle