Fremantle Prison Bath House Excavation Report | 2014

Jayden van Beek, Stephen Wells and Ross Bertinshaw





Masters of Professional Archaeology Discipline of Archaeology

Table of Contents

EXEC	JTIVE SUMMARY	1
INTRO	DUCTION	2
METH	DDS	7
3.1	Preliminary Work and Excavation Procedures	7
3.1.1	Prior to Excavation	8
3.1.2	During Excavation	8
3.1.3	Post Excavation	8
3.1.4	Recording Process	8
3.2	Trench 1	9
3.2.1	Trench 1 - West of Wall (004)	9
3.2.2	Trench 1 - East of Wall (004)	11
3.3	Trench 2	13
3.4	Trench 3	16
3.5	Artefact Sampling and Laboratory Analysis	17
RESU	TS/FINDINGS	17
4.1	Stratigraphy/Interpretation	17
4.1.1	Bath House - Trench 1	
4.1.2	Bath House - Trench 2	24
4.1.3	Ash Pit - Trench 3	27
ARTE	FACTS	29
5.1	Artefact Sampling and Laboratory Analysis	29
5.2	Preliminary Analysis	29
5.3	Bath House Trenches	31
5.3.1	Bricks	31
5.3.2	Military identity disk	
5.3.3	Bell	
5.3.4	Wedding Ring	34
5.3.5	Food Container "Dixie"	35
5.4	Ash Pit	
MANA	GEMENT DISCUSSION	
6.1	What to do with current findings:	
6.1.1	Artefacts	
	INTRO METHO 3.1 3.1.1 3.1.2 3.1.3 3.1.4 3.2 3.2.1 3.2.2 3.3 3.4 3.5 RESUL 4.1 4.1.1 4.1.2 4.1.3 ARTEE 5.1 5.2 5.3 5.3.1 5.3.2 5.3.1 5.3.2 5.3.3 5.3.4 5.3.5 5.3.4 5.3.5 5.4 MANA 6.1	3.1.1 Prior to Excavation. 3.1.2 During Excavation. 3.1.3 Post Excavation. 3.1.4 Recording Process 3.2 Trench 1 3.2.1 Trench 1 - West of Wall (004). 3.2.2 Trench 1 - East of Wall (004). 3.3 Trench 2 3.4 Trench 3 3.5 Artefact Sampling and Laboratory Analysis RESULTS/FINDINGS 4.1 Stratigraphy/Interpretation 4.1.1 Bath House - Trench 1 4.1.2 Bath House - Trench 2 4.1.3 Ash Pit - Trench 3 ARTEFACTS S 5.1 Artefact Sampling and Laboratory Analysis 5.2 Preliminary Analysis 5.3 Bath House Trenches 5.3.1 Bricks 5.3.2 Military identity disk. 5.3.3 Bell 5.3.4 Wedding Ring. 5.3.5 Food Container "Dixie" 5.4 Ash Pit. MANAGEMENT DISCUSSION MAIA to do with current findings:

	6.1.2	Buildings and baths	37
	6.2	Future excavations and investigation	37
7.0	ACKNO	OWLEDGEMENTS	37
8.0	REFER	RENCES	38

TABLES

Table 1: Weight of Artefacts by Trench and Function (grams)	30
Table 2: Potential Owners of Identity Tag	32

FIGURES

Figure 1: Location of Fremantle	2
Figure 2: Aerial photograph of Fremantle highlighting the prison	3
Figure 3: Archaeological Zoning Plan from Bavin (1990).	4
Figure 4: Plan of Bath House and Ash Pit 1889	5
Figure 5: Aerial Photograph Fremantle Prison taken 1948 with Bath House Demolished	6
Figure 6: Bath House excavations conducted in 1990 (Bavin 1994:359).	7
Figure 7: Trench 1 Sondage post removal of demolition layer (013)	9
Figure 8: Excavation of fill between baths 027 and 028, with slate plate visible.	11
Figure 9: Post excavation of the sterile layer (037)	12
Figure 10: Trench 2 showing main trench with western extension, with both the external and internal walls beginning to show	14
Figure 11: Trench 2 showing ceramic pipe (055) and exterior of the baths along the eastern wall	15
Figure 12: Trench 2 showing the concrete spoon drain overlayed over the ceramic pipe.	16
Figure 13: Trench locations compared against old bath house plan	18
Figure 14: Trench 1 Main Structural Features.	19
Figure 15: Trench 1 showing the baths and internal wall separating the service area.	20
Figure 16: Trench 1 looking east giving sense of size of individual baths.	21
Figure 17: NE extension in Trench 1 showing the boiler floor	22
Figure 18: Trench 1 looking North showing internal north-south wall and baths	23
Figure 19: Old plan showing boilers and return wall.	23
Figure 20: Main structural features in Trench 2.	24
Figure 21: Trench 2 looking east showing concrete drain and external wall	25
Figure 22: Trench 2 showing the ceramic pipe beneath the spoon drain.	26
Figure 23: Bath House drainage from post 1900 sewage plan.	26
Figure 24: End of excavation in the Ash Pit (Trench 3).	27
Figure 25: Plan of Trench 3 showing contexts	
Figure 26: Section on east side of Trench 3 and context 017	

Figure 27: Artefact Function by Weight	
Figure 28: Left - Handmade brick – Right- machine made brick	32
Figure 29: Military Identity Disk	33
Figure 30: Bell	34
Figure 31: Wedding Ring	35
Figure 32: Food Container	36

APPENDICES

APPENDIX A	Context Listing
APPENDIX B	Digital Data Listing
APPENDIX C	Artefact summary table by weight

1.0 EXECUTIVE SUMMARY

In 2013 The University of Western Australia conducted an archaeological excavation of the Fremantle Prison Bath House as part of the university's five year Memorandum of Understanding with Fremantle Prison. The investigation was led by Site Supervisor Dr. Sean Winter and Field School Supervisor, Associate Professor Tom Whitley, as a joint project between students enrolled in the Masters of Professional Archaeology and those in the undergraduate Field Methods unit. The aim of the investigation was to excavate the remains of the Bath House and the Ash Pit to better understand the history of the prison and aspects about the life of its inmates. Previous work had been carried out by Bavin in 1990, who categorised the Bath House and Ash Pit as highly significant.

The excavation was carried out between 23th September and 4th October 2013. The work was spread across three trenches, with Trenches 1 and 2 seeking to examine the eastern and western walls of the Bath House respectively, and Trench 3 aiming to investigate the suspected location of the Ash Pit. The locations of the trenches were based on an examination of existing historical documents and maps, and the work previously carried out by Bavin. In this endeavour all of the trenches met with success, though not necessarily what was originally expected.

Trench 1 was able to uncover a series of baths, two complete and two incomplete, as well as an intact base for one of the original boilers. However, the section of wall which was identified in the trench does not belong to the eastern wall of the Bath House as originally predicted. This difference appears to be a result of the fact that Bavin miscalculated the width of the Bath House, and as a result of using her calculations the location of Trench 1 was off. Trench 2 succeeded in finding the exterior western wall of the Bath House, and also managed to find the western faces of the baths themselves and the ceramic pipes which would have been used to drain water from them. These pipes also demonstrated the on-going maintenance that would have been a naturally occurring event through the 90 years life of the Bath House facility. The excavation also uncovered a concrete pipe drain, possibly used to drain water from the interior surface of the Bath House, overlaying the exterior ceramic pipe.

Trench 3 achieved its purpose of locating the Ash Pit; however the results were not entirely as expected. While the trench did contain charcoal and a rich assortment of artefacts, the size of the pit and the lack of consistent layer of ash suggest that it was more likely to have only been an interim location for depositing the ash. It is possible that the bulk of the ash was used on the gardens over the years, lessening the amount which would be present in the Ash Pit.

At the completion of the excavation the site was backfilled. At the suggestion of the Fremantle Prison staff the site may be re-excavated and remain open for public display, the backfilling was done in a careful manner so as to help preserve the site for any future investigations. Artefacts from the site were collected, sorted, and bagged, and currently await cataloguing. At the time of this report only a temporary cataloguing system has been established, which will need to be finalised and applied to the assemblage. Due to the historical and informative nature of the remaining structures it is possible for the site to be reopened in the future and placed on display. Until a decision has been made as to the future role of the Bath House efforts should be made to ensure the stability and preservation of the area.

2.0 INTRODUCTION

Fremantle Prison is located in Western Australia on the south eastern edge of Fremantle city centre. Being located within the state of Western Australia's second largest city, the prison is close to developed road and rail transport. This makes the prison easily accessible (Figure 1 and Figure 2).



Figure 1: Location of Fremantle.

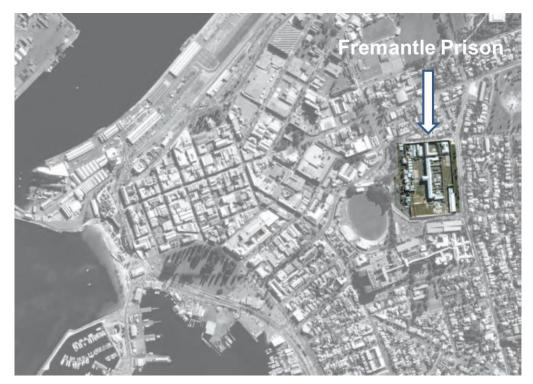


Figure 2: Aerial photograph of Fremantle highlighting the prison.

The prison site is enclosed by a six meter high prison wall which is bounded on its western side by a number of mid-19th century residential buildings. Within the prison walls are a number of cell blocks and other buildings, some dating from the 1850s.

Fremantle Prison is an example of a mid-19th century colonial gaol which operated from its construction in 1855 until its closure as a penal institution in 1991. Covering such an extensive period of time from the early decades of the Swan River Colony (founded, 1829), Federation (1901) and into the latter years of the 20th century the Fremantle Prison site with its range of intact convict buildings and below ground material culture provides a unique resource for the people of Western Australia.

The prison site is recognised as being historically significant and has been heritage listed on state, national and international registers. Recognised by UNESCO and receiving World Heritage listing, Fremantle Prison is the only built site to receive such international recognition in Western Australia. A detailed history of Fremantle Prison can be found in Bavin (1994) and Fremantle Prison Conservation Management Plan (DTF 2010).

Various archaeological investigations have been undertaken starting in 1990. Bavin (1990) developed an Archaeological Zoning Plan for the Fremantle Prison (Figure 3). This plan categorised the site into three zones representing levels of sensitivity with Zone A having "high sensitivity" or the highest significance in terms of its archaeological potential.

Bavin outlined different procedures to be followed as part of any proposed development within the prison. These range from carrying out archaeological test excavations and salvage operations prior to development in the high potential zones, to developing a basic awareness among contractors of what to do if artefacts or structural remains of archaeological significance are uncovered during their work.

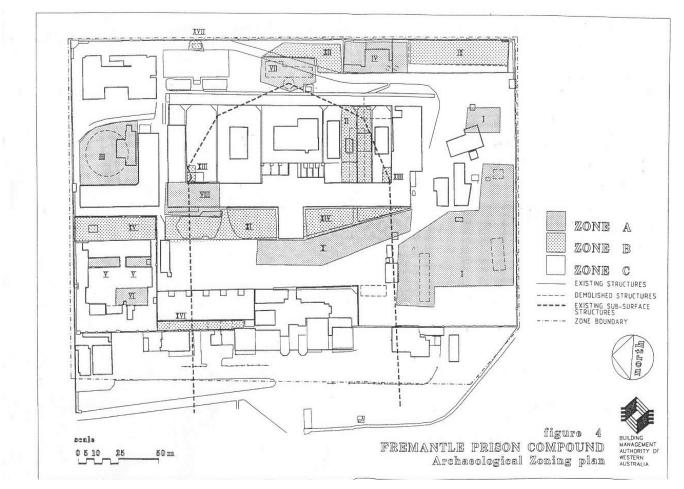


Figure 3: Archaeological Zoning Plan from Bavin (1990).

During 1990, Bavin (1994) carried out excavations at the Bath House, Incinerator, Metalled Road, Southern Cisterns, Women's Prison Yards and Wooden Division as part of her PhD. thesis. Her findings and analysis of artefacts were focussed on the lives, social attitudes towards criminals and their treatment in colonial times by examining Fremantle Prison, the Round House and Perth Gaol.

A wide variety of artefacts were excavated...The artefact assemblage is dominated by construction materials, bottle glass, ceramics, and dietary remains. In particular, the most common building materials were window glass, nails, brick, and slate. Other architectural components include timber, floor tiles, slate roof pins, bolt plates, hooks and drainage pipes. Dietary refuge consists mainly of bones from sheep, cattle, and fowl, some of which has been sawn and others burnt. The remains of various domestic ceramics include plates, bowls, cups, and jars. Although less numerous, artefacts associated with prison clothing such as, shirt buttons, boot lace studs, and heel caps, belt buckles, leather and cloth, were also found during excavations in the prison compound. Special interest items indicating general activities include buckets, flower pots, clay smoking pipes, hair combs and ink wells.

(Bavin 1994:371)

Eureka Archaeology (2009) conducted a series of exploratory excavations in the Parade Ground area in 2008. The report describes the material and sediments encountered during excavation.

In a further examination of the lives of convicts and their treatment by authorities and the residents of the Colony, Winter (2013) compared Fremantle Prison with a number of regional convict depots. His work included excavations at Fremantle Prison.

A series of archaeological investigations starting in 2013 have been instigated through a Memorandum of Understanding between UWA and Fremantle Prison with the goals of heritage management, investigation and archaeological training.

During 2013 and 2014 a range of projects conducted by archaeology students under supervision of academic staff from the University of Western Australia have taken place or are under way. During 2013 an Archaeology Field School carried out excavations of the parade ground (Haast et al. 2013). Archaeological investigations of the tunnel system beneath the prison (creating 3 dimensional representation of the tunnels) and the graffiti in cells are presently underway.

The focus of this report is on the Bath House and Ash Pit within the Prison (Figure 4). Constructed in 1856, the Bath House was demolished in the mid-20th century (Bavin 1994:358). Subsequent investigation of historical aerial photos indicates it was demolished by 1948 (Figure 5).

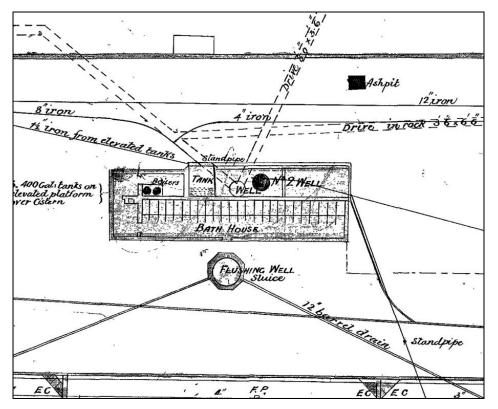


Figure 4: Plan of Bath House and Ash Pit 1889.

The date and specific function of the Ash Pit site is not clearly documented. Historic maps indicate its existence in 1889 (Figure 4). Its initial construction, cease of operation and demolition dates are not known. Located approximately 16 meters north east from the centre of the western wall of the Bath House, the Ash Pit is likely to be associated with the Bath House but may also have been associated with other activities within the prison.

Both the Bath House and Ash Pit sites were in areas identified by Bavin (1990) as being of "Zone A high sensitivity" (1994:337) or the highest significance in terms of their archaeological potential.

Both sites are likely to reveal material culture which will enhance understanding of the history of the prison and the life of its inmates.

As indicated by Bavin (1994:358) the Bath House site has the potential to provide information about cleanliness and health from the 1850s through to the 1950s. Bavin's research also sought information regarding the Bath House plumbing which was detailed in mid-19th century planning documentation. Given this, the Bath House excavation was deemed likely to provide archaeological insight into a key aspect of prison life, practice and operations.

As part of her research Bavin opened four trenches to investigate the Bath House (Figure 6). She found much of the foundations and flush well of the Bath House intact but lying beneath approximately 0.25 meters below the lawn surface. Remains of the western and northern wall along with the north east and north west corners of the building were also located (Bavin 1994: 364).

The Ash Pit may reveal information about activities associated with the Bath House or potentially other prison activities. To date no excavation of this area has been undertaken.

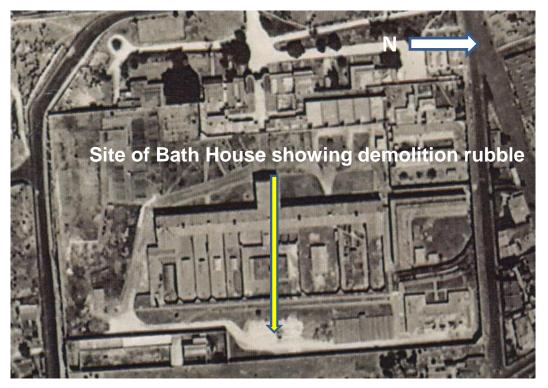


Figure 5: Aerial Photograph Fremantle Prison taken 1948 with Bath House Demolished.

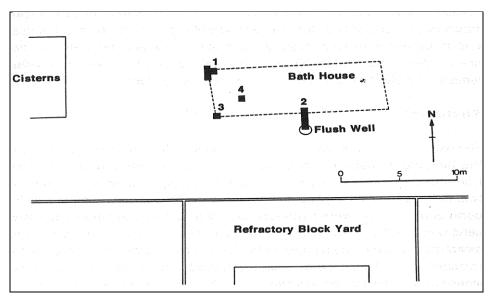


Figure 6: Bath House excavations conducted in 1990 (Bavin 1994:359).

3.0 METHODS

3.1 **Preliminary Work and Excavation Procedures**

Prior to excavation, undergraduate students were provided with training on archaeological methodology, site background and research aims of the project. This was followed by a two week excavation under direct supervision from Masters of Professional Archaeology Students who were in turn supervised by Site Supervisor Dr. Sean Winter and Field School Supervisor, Associate Professor Tom Whitley. The goal for the Field School was to excavate the remains of both the Bath House and the Ash Pit.

The first stage of the excavation process involved selecting suitable locations for the placement of trenches. The selected locations were chosen by examining the existing historical maps of the Bath House and comparing them against the indentations in the grass (seen from the ground and in a series of aerial photographs). Indentations which matched the location of the Bath House in the historical documents and the results of Bavin's previous investigation were chosen as they were deemed the most likely to return positive results.

The dimensions of the Bath House based on British Parliamentary papers and referenced in Bavin (1994:359) were used as a base for the layout of the bath house, which was measured and sketched onto the grass using spray paint. A baseline was subsequently placed on a North - South bearing allowing all three trenches to be mapped in relation to each other. Trench 1 and 2 were placed using the spray painted outline as a guide for trench placement. Trench 3 was placed at the suspected location of the Ash Pit using the 1889 map as a base reference (Figure 4).

Participants of the field school were then divided into three teams each with a Trench Supervisor (Alyce Haast, Kate Robertson and Philippa Hunter). Large scale trenches were used for excavating in accordance with the open area excavation strategy developed by the Museum of London for complex open air excavations (MOLAS 1994). A set of standard procedures for the recording process was set out prior to excavation detailing the following methodology.

3.1.1 **Prior to Excavation**

- A context number was allocated by the site manager from the site register.
- A recording form was commenced, recording as much detail as possible at that point in the excavation.
- Starting levels were recorded using the dumpy level.
- Planning was conducted using the total station.
- Photographs were taken containing both photo board and scale.
- Where necessary a 1:20 scale plan drawing was made including its orientation and relation to the site grid.

3.1.2 During Excavation

- Changes or extra information was added to the context recording form.
- A bulk sample of sediment was taken for analysis.
- All excavated sediment was sieved.
- Recovered artefacts were placed in plastic bags with contextual information written on the bag with fragile items provided additional support in order to protect them.
- Important features were mapped or photographed as required mid excavation
- Point provenience recording of artefacts with the total station occurred occasionally.

3.1.3 **Post Excavation**

- Context recording forms were completed.
- Artefact bags were sealed and placed in central storage for duration of the excavation.
- End levels were taken using the dumpy level.
- Planning was conducted using the total station.
- Where necessary a 1:20 scale drawing was made, this is mandatory for in situ structural elements.
- Completed recording forms were re-lodged with the central site folder.

3.1.4 Recording Process

Throughout the excavation detailed photos were taken to record the process of each trench and what was discovered in each. These photos were supported by total station recordings detailing the location of the trenches and the features within them, along with plans of each trench and section drawings of key parts. Each context layer was further detailed by taking dumpy levels, recording descriptions of the soil and its contents, gathering bulk soil samples, and recording soil colour with a Munsell Colour Chart and pH levels.

Given the preservation level of the trenches, the potential for them to remain open or alternatively be re-excavated for display was considered by staff at Fremantle Prison. Given this potential backfilling was completed with care taken to preserve the intact structural features to allow for the possibility of re-excavation. Plastic and modern artefacts were placed at the bottom of each trench so as to easily identify the depth reached in each area in the event that the trenches are reopened at a later date.

3.2 Trench 1

Trench 1 was placed on the suspected eastern wall of the Bath House. A 3 m x 3 m trench was placed between 7-10 metres south of the assumed north east corner of the Bath House, extending 50 cm to the east of the spray painted edge and 2.5 metres to the west of the edge.

The removal of the grass and sod top layer immediately revealed the faint outline of a linear feature running north - south along the trench, as well as the remnants of modern reticulation piping. Context (001) was assigned to the topsoil layer and was removed until it revealed the reticulation piping feature and the wall feature, as well as a dark rusted brown layer that ran parallel to bitumen road surface to the east of the trench. The cut relating to the reticulation pipe was excavated revealing a small consistent cut which runs wider at the point it intersects with wall feature (004), likely due to the resistance that the wall would have caused during excavation of the pipe trench. This was followed by the rusted brown stain like deposit which consisted of small pebbles and some small artefacts. At this point both sides of (004) exhibited a soft brown sand that were separated entirely by the wall feature (004), (009) to the west and (010) to the east. Both of these layers were removed by trowel and fine hand tools. While both contexts exhibit similar characteristics in texture and artefacts, (010) was a significantly deeper deposit and as such interpreted as the exterior portion of the wall.

3.2.1 Trench 1 - West of Wall (004)

The context immediately below (009) was found to contain high levels of structural demolition material believed to be part of the bath structure itself; as such a sondage was sunk in the south west corner of the trench in order to determine (Figure 7):

- The extent of the demolition rubble layer.
- The potential for intact deposit below this level.
- The presence or absence of foundations related to 004.



Figure 7: Trench 1 Sondage post removal of demolition layer (013).

The sondage was excavated to a depth of 50 cm at which time an in-situ concreted wall feature was located. This sondage was believed to represent the composition of (013) and as such the demolition rubble layer was removed quickly using mattocks, shovels and trowels. Material from this layer consisted of large fragments of demolition material making sieving difficult, and as a result the context was not sieved for artefacts. Once (013) was completely removed the remains of

four baths, (two whole, two partial) were identified in situ, with limestone fill between each bath. Debris removed as part of (013) confirmed that this limestone fill was placed in between the baths and capped with concrete as such connecting each bath.

A wall had been left below the reticulation for support and during excavation of (013) a void was found within the wall revealing an in situ jarrah post in between the two southern baths next to the wall. It was interpreted as a possible remnant post from a dividing wall between the baths leading to the decision to remove the limestone fill in between baths (026) and (027) as well as the fill between baths (027) and (028). The removal of these two fills, designated (030) and (031) respectively, revealed coarse concrete connecting both baths, however there was no evidence of any posts or dividing walls in these features. These features combined represent a significantly more recent construction method than expected. As a result, the decision was made to remove one of the concrete connectings to investigate the possibility of remnants of earlier construction periods of the bath house and to access the drainage system suggested at by the visible voids within the drain holes of the central baths.

The concrete layer (035), situated between baths (027) and (028), was chosen for excavation as there were already segments of the concrete that had cracked and as such it was considered a more appropriate avenue. Removal of the concrete exposed a drainage system lined by wood and covered by slate pieces in the western end while at the eastern end of the baths a wooden feature initially considered remnants of a post were found (Figure 8). Further investigation of the 'post hole' revealed that the wooden feature extended underneath the baths in both directions. Sediment was removed across the entire length of the channel, revealing a combination of timber beams and concrete slabs running underneath the baths. These were interpreted as levelling beams perhaps used in the substantial renovation that would have occurred to replace the original baths with the 20th century baths that remain in situ.



Figure 8: Excavation of fill between baths 027 and 028, with slate plate visible.

The drain feature was also excavated with the slate being lifted and the material within the drain being excavated as a single context. Given that the drain was still functioning the soil within the drain cavity was damp and given its potential for preservation and likelihood of containing small artefacts the entirety of the sieve residue was bagged for further laboratory analysis.

3.2.2 Trench 1 - East of Wall (004)

During the excavation of (010) a lens of yellow builder's sand was identified and was subsequently excavated as a separate feature (016). Excavation of this lens however revealed no features or artefacts relating to the lens and as such it was considered insignificant to the overall interpretation

of the site. Beneath (010) was a layer comprised grey mixed limestone. Excavation of this layer resulted in the discovery of a stone slab believed to relate to the boiler plate (021) and a charcoal patch considered a potential post hole. Investigation of the post hole led to a feathering out of the structure, leading to the deposit being reclassified as remnants of the material used in the boiler. Beneath the grey limestone layer was a loose crushed limestone layer (022), which extended from the bottom of level of the boiler plate. Apart from some metal and brick inclusions, this layer was mostly sterile. (022) could potentially have been used as a levelling floor layer after the walls had been constructed. Excavation of (022) continued during which it transitioned into a compact limestone layer (037), with large chunks of limestone being removed in the process. This layer was completely sterile and interpreted as the eroded foundation layer relating to the wall (Figure 9).



Figure 9: Post excavation of the sterile layer (037)

The initial 3 m x 3 m trench was expanded in the north-east and the south-east corners of the trench in order to expose features hinted at from the earlier excavation. The north-east extension consisted of a 1 m x 1 m trench placed to uncover a larger portion of the slab that had been confirmed as the boiler plate. The extension of the trench allowed for the indents related to the

boiler stand and burn marks to be discerned on the slab. The expansion to the south was constructed as a 1.5 m x 1 m addition; however this was restricted by the bitumen road to the south east. This extension aimed to extend the wall feature (004) and discern the extent of the wall return as indicated on the bath house plan. In addition to the return the floor surface of the room to the south of the wall return was sought. The initial context below the surface was considered to represent the same material as (010), however as it was physically separated by the wall return it was given the new context number (044). Excavation of (044) revealed a compacted 'clean' limestone layer which was interpreted as the potential floor feature and subsequently recorded and left in situ.

3.3 Trench 2

Trench 2, initially measuring 3 m x 3 m, over what was thought to be the western outer wall of the Bath House structure. The excavation of the topsoil layer (001) revealed a clear cut of yellow builder's sand in the south-west corner of the trench, however, excavation of this layer (007) failed to recover any artefacts, and as a result was believed to be associated with the laying of the nearby road. The context beneath the topsoil layer, (008), consisted of a layer of rubble featuring a mix of structural materials and a large percentage of limestone. Some areas of this layer contained significantly more compacted sections of limestone, namely the western edge, which when removed revealed no other demolition material. Due to the compact nature of the limestone in these sections further excavation was stopped. The location and the absence of artefacts in this area suggested that that this might be the deteriorated remains of the front wall of the Bath House.

To test this hypothesis a 2 m x 2 m extension was placed at the north-west corner of the trench. Excavation of this extension revealed that beneath (008) was a substantial layer of rubble, including a mix of structural materials and (008), which covered the entire area of the trench. The excavation of this layer exposed a modern PVC reticulation pipe, protruding through the northern half of the western wall of the trench extension. The modern fill (015) for this cut, was removed. To investigate what might be below the rubble of (008) a 30 cm deep sondage was placed along the southern wall of the extension, and at the same time an accompanying sondage was placed in the initial trench also running along the southern edge. From this it could be seen in the extension that there was a noticeable change in contexts, with a transition of colour from light yellowy brown to a darker brown band without limestone rubble. The sondages also revealed that a wall (023) did run north-south between the initial trench and the extension. This section of wall was approximately 50 cm thick suggesting that this was the exterior wall of the front of the Bath House (Figure 10). Context layer (008) in the extension was then removed relatively guickly with mattocks and hand picks down to the darker layer (018), which was then also removed with trowels. This revealed that there was a break in the wall near its northern end, which had possibly been used to drain water from the interior. The fill for this drain (032) was removed in order to expose the actual drain itself (038), and at the same time the excavation of (018) had also uncovered a concrete spoon drain (040) leading away from the break in the wall.



Figure 10: Trench 2 showing main trench with western extension, with both the external and internal walls beginning to show.

The sondage in the initial trench uncovered a large amount of limestone rubble, similar to what had been found in the extension, and along with the exterior wall the west also found an apparent wall near its eastern end as well, in the form of a solid section of limestone, roughly the width of a modern brick (Figure 10). This was thought to be part of an internal dividing wall (033) for the baths, running north-south near the eastern side of the trench. The sondage had shown that there was a clear change in the colour and texture of the limestone and so it was decided to leave the initial trench west of (033) at the level it had reached at the time, (024), and to focus instead on the area of the trench to the east of (033).

Context layer (024), followed by (025), in the eastern section were quickly removed with mattocks, removing large amounts of rubble and limestone, along with a few red bricks and some cement pieces. This revealed that the wall continued running north-south for roughly half of the trench (1.5 m), before deteriorating into more rubble. Further investigation of this section also uncovered the brick and cement rendered side of the baths along the eastern side of the trench, similar to what had been found in Trench 1. Following this a length of in situ large ceramic pipe (055) was found at the base of the internal dividing wall, featuring a series of off shooting sections running along its length (Figure 11).



Figure 11: Trench 2 showing ceramic pipe (055) and exterior of the baths along the eastern wall

On the opposite side of the trench a new 2 m x 1 m extension was placed on the southern end of the initial extension, to bring Trench 2 to a total size of 5 m x 3 m. This new extension was quickly brought down to the same level as the previous extension, in the process finding the continuation of the concrete spoon drain (040) uncovered previously. Originally coming straight out from the wall, the drain then turned south and continued to the southern edge of the new extension. Further investigation of this drain revealed that it overlayed a cut (058) running along the base of the external wall), which contained a ceramic pipe (059), similar to what had been found over on the eastern edge of the main trench (Figure 12).



Figure 12: Trench 2 showing the concrete spoon drain overlayed over the ceramic pipe.

3.4 Trench 3

Trench 3 aimed to find the Ash Pit that was depicted on many of the maps from the 19th century. The scale and proportion of the buildings were not accurate on the map, so tape measures were laid out to the outer wall and the engine house to estimate the distance to the Ash Pit shown in the maps. A 4 m x 2 m trench was established, and immediately upon removal of the grass and sod layer there was a difference in the soil colours within the trench. The northern end of the trench was yellowish-brown sand, and the middle was more a dark brown soil with charcoal inclusions. This context was labelled (001). A patch of yellow-brown sand was visible in the north end of the trench, and this was given an arbitrary context of 005. The patches of soil colour variation in the north of the trench were too haphazard to tell anything definite about what lay beneath it. The southern end of the trench was labelled (012), as it had become darker with more gravel and charcoal inclusions as excavation continued. Further excavation found that the yellow-brown soil which was originally on the northern end, extended down the east side of the trench to connect to the southern end.

The soil change was investigated by placing a 30 cm wide sondage along the eastern trench wall. This revealed a distinct difference in the soils, transitioning from the yellow-brown sand to a gravelly brown soil. From this change in soil colour and texture, it was thought that this was part of the Ash Pit. Through the use of a mattock the sondage was widened to 75 cm. This extension recovered a number of artefacts, which supported the hypothesis that this area was the Ash Pit. The Ash Pit was intended to be excavated in 10 cm spits, but because of the nature of the artefacts and the unevenness of the soil, this was mostly unsuccessful.

Due to the decreasing abundance of artefacts as the excavation continued, a 75 cm x 50 cm test pit was placed in the southern end of the sondage. Within 10-15 cm the yellow-brown sand from context (005) had re-emerged, before transitioning to limestone bedrock. The remainder of the sondage was all cleared back to bedrock, which was uncomplicated due to the lack of artefacts and large bricks and rubble that were easy to remove.

The top soil from context (012) was removed so that the far eastern wall of the Ash Pit could be seen. This layer was still rich in artefacts, similar to those found above. This section was intended to be dug in 10 cm spits, but due to time constraints this approach was not deemed feasible, and instead the aim was to reach the bedrock in this section as well. The western wall of the Ash Pit was found, and once this sondage extension was taken down to the bedrock, an estimated depth of 86 cm, the final photos and levels were taken for the trench.

3.5 Artefact Sampling and Laboratory Analysis

Artefacts recovered during excavation were bagged at site based on material type or individually if they represented a particularly interesting find. Artefacts representing construction were primarily omitted from collection based on curatorial limitations expressed by Fremantle Prison. During lab analysis artefacts were cleaned and washed as appropriate and accessioned assigning individual accession numbers to each artefact. Fragmentary and non-diagnostic pieces of metal and bone were bagged as a single artefact based on context/feature due to the material offering no diagnostic information. Artefacts were catalogued using a Microsoft Excel database recording weight, number of artefacts, and functional category as a minimum with extra information pertaining to specific use or datable attributes being added when available. Once analysed, Artefacts were stored at the UWA Lab pending curation and permanent storage at Fremantle Prison.

4.0 **RESULTS/FINDINGS**

4.1 Stratigraphy/Interpretation

Figure 13 shows the locations of the trenches against an old Bath House plan. Bavin (1994:359) quoting British Parliamentary Papers gives the dimensions of the Bath House as 27.4 m x 5.2 m. Based on scaling dimensions off the plan in Figure 13 the size of the Bath House is estimated at 28.6 m x 8.4 m. The difference in lengths is reasonable within expected order of accuracy but there is obviously a substantial difference in the widths which cannot be explained by plan stretch or other likely errors. It is not clear whether this is due to a change in design or whether they were only considering the width of the bath area itself. If you only measure between the west external

wall and the internal wall separating the baths and service area, then the width is about 5m. As discussed below the excavations confirm the design in Figure 13 and basic dimensions scaled from it.

This means that Bavin who used the 5.2 m width of building was probably not digging in the Bath House locations she thought she was. It is possible that her Trench 1 was located only half way along the northern wall.

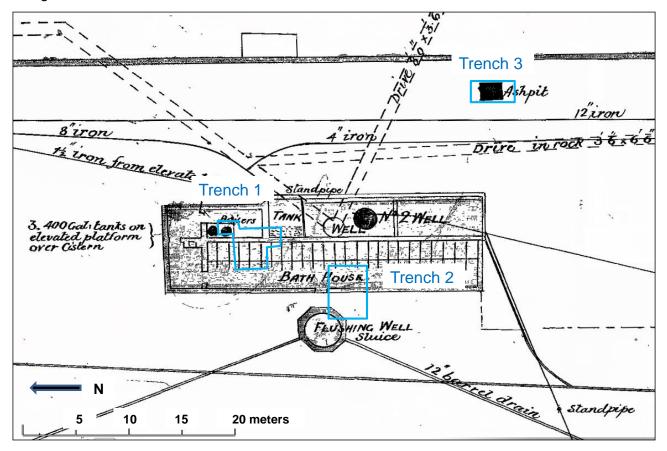


Figure 13: Trench locations compared against old bath house plan.

4.1.1 Bath House - Trench 1

The surface layer (001) was assigned to sod removal. The layer below the sod was a sand fill to provide a suitable surface for the lawn. The sand was mixed with limestone chips and gravel.

Figure 14 shows the main structural features in Trench 1. The first context below the sand was 004 a large limestone wall running north south and the wall between the baths to the west and service area with the boilers and water tank to the east. It is about 0.7m wide and with an extension to the trench in the south, 4 m of the wall were uncovered.

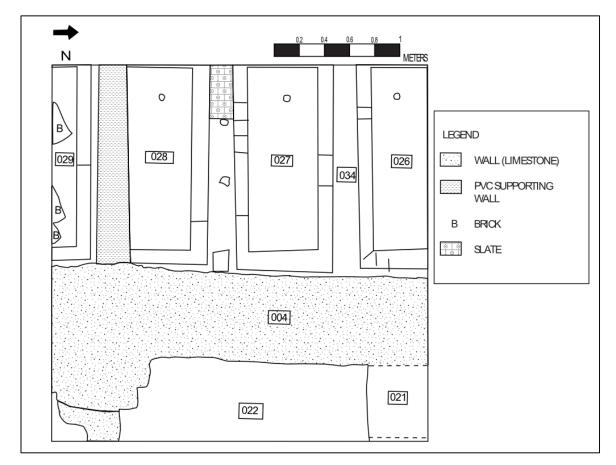


Figure 14: Trench 1 Main Structural Features.

To the west of 004 the remains of four baths were uncovered. These had been filled with demolition rubble. Each bath is about 1.4 m long by 0.5 m wide and 0.28 m high. The baths are rendered with possibly slate tiles used to cover the flat surface between the baths. Drainage holes were located in the western end of the baths. A jarrah post (048) and other timber was found between one of the baths. These may have been used as construction formwork.

Figure 15 is a photograph looking north showing the baths and the internal limestone wall 004. Figure 16 shows the trench and baths looking east and gives a good sense of the size and how the prisoners might have sat in them. The two figures also show a white PVC water reticulation pipe. As noted by Bavin (1994:366) this system was put into place in the late 1980's to water the lawn.



Figure 15: Trench 1 showing the baths and internal wall separating the service area.



Figure 16: Trench 1 looking east giving sense of size of individual baths.

To the east of the limestone wall 004, part of the service area was uncovered. Feature 021 contains limestone slabs and a circular burnt patch suggests that these were the base for the boilers. Figure 17 is a picture of the NE extension to Trench 1 showing some of the floor slabs of the boiler room. A slight darking of the floor also possibly shows where a boiler once stood.



Figure 17: NE extension in Trench 1 showing the boiler floor.

An extension of Trench 1 to the south was made to follow the limestone wall further and show the return wall better. Figure 18 shows Trench 1 looking north. The return wall running to the east off (004) is probably the wall between the boilers and water tank which can be also clearly seen in Figure 19, confirming that basic design shown in that plan.



Figure 18: Trench 1 looking North showing internal north-south wall and baths.

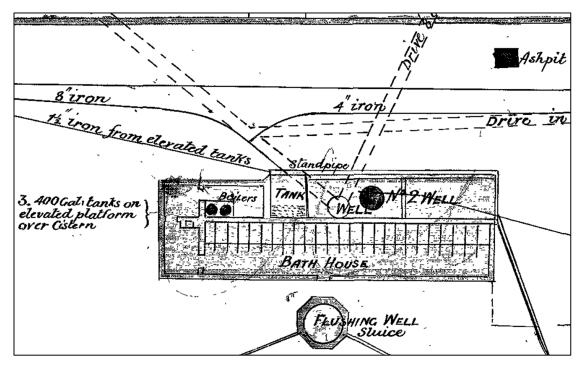


Figure 19: Old plan showing boilers and return wall.

4.1.2 Bath House - Trench 2

Trench 2 was located to the south of the Flushing Well and aimed at picking up the main external western wall of the bath house. Similar to Trench 1 this trench was covered by a layer of yellow sand to level the site with demolition rubble below.

Figure 20 shows a plan of the main structural features in Trench 2. Feature 023 is the external western limestone wall of the Bath House. The break through the walls northern end was interpreted as being a means of draining water from the interior surface of the bathhouse. The concrete spoon drain (040) is seen as the continuation of the drain through the wall.

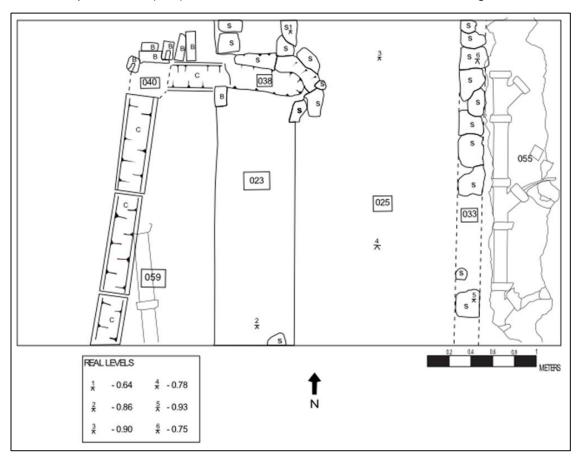


Figure 20: Main structural features in Trench 2.



Figure 21: Trench 2 looking east showing concrete drain and external wall.

The drain runs to the west away from the break for 0.5 m before turning to the south, as seen in Figure 21. Under the drain is feature (059), a ceramic pipe that runs north-south (Figure 22). This appears to be the 6" drainage pipe, shown in the post 1900 Fremantle Prison Sewage Plan, which takes the waste water from the bath house and then east towards the main cell block (Figure 23). It must have been at this time that the drainage system of the Bath House was upgraded with the water no longer going to the Flushing Well.



Figure 22: Trench 2 showing the ceramic pipe beneath the spoon drain.

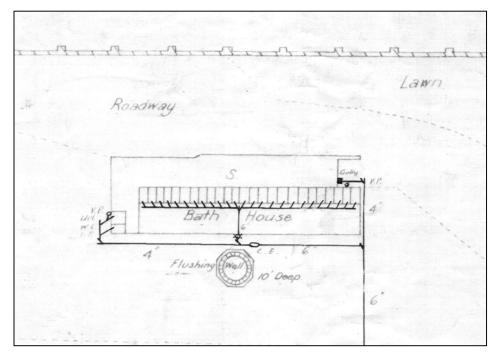


Figure 23: Bath House drainage from post 1900 sewage plan.

To the east of the limestone external wall and therefore inside the Bath House there is a stone structure about 0.2 m wide and to the east of it sits another ceramic pipe 055.

This pipe runs north-south and is the drainage pipe for the baths (Figure 11 and Figure 23).

From the excavation the basic drainage system of the baths at demolition is reasonably obvious. A metal pipe runs from the drain hole in each bath to the ceramic pipe where it is cemented into place. This pipe collects the water from all the baths and then takes it through the western wall to an outside collection ceramic pipe (Figure 23). This has collected the waste water from an outside W.C. on the northern end of the building and runs to the southern end the building before turning west towards the main prison block.

4.1.3 Ash Pit - Trench 3

Trench 3 aimed to uncover the Ash Pit and Figure 24 is a photo showing the final excavation. Figure 25 is a plan of the contexts after removal of the initial layer 001.

Context 017 is the fill material within the Ash Pit. It is a loose fill with a mixture of sand, limestone rubble, brick and artefacts. The top half of the fill is artefact rich with the density of artefacts decreasing as the limestone bedrock is reached. The total depth of the pit is about 0.85 m. The material above the pit is sandy yellow fill in the north with a dark grey fill mixed with gravel and charcoal towards the south.



Figure 24: End of excavation in the Ash Pit (Trench 3).

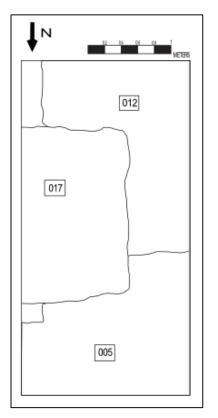


Figure 25: Plan of Trench 3 showing contexts.

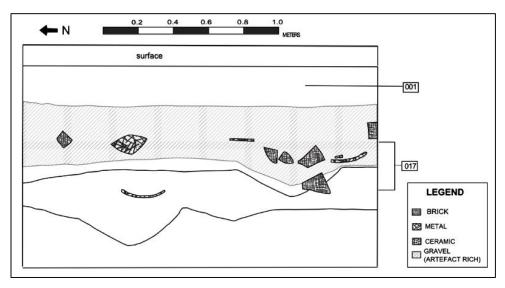


Figure 26: Section on east side of Trench 3 and context 017.

The Ash Pit shows up on the a number of the 19th century maps including the 1899 Penal Commission Plans however by the early 20th century, a post 1900 plan of the Fremantle Prison sewage system (Figure 23) shows a roadway and lawn in the area so by this time the Ash Pit is likely to have been closed off. The depth of the pit is only about 0.85 m to the limestone bedrock so the capacity to take actual ash from the boilers in the area would not have been large. As it is, only small amounts of charcoal were found and there appeared to be no continuous layer of ash/charcoal in the pit. It is possible it was only used as an interim holding location with the ash being used on the gardens around the prison as required. When the pit was finally grassed the opportunity may have been made to get rid of other waste. An analysis of the artefact dating range may shed more light on this.

5.0 ARTEFACTS

5.1 Artefact Sampling and Laboratory Analysis

Artefacts recovered during excavation were bagged at site based on material type or individually if they represented a particularly interesting find. Large artefacts representing construction were primarily omitted from collection based on curatorial limitations expressed by Fremantle Prison.

At this time the artefacts have been cleaned, sorted with a preliminary analysis which is discussed below. They are presently stored at the UWA lab pending final cataloguing and analysis.

The following definitions were used as a basis for cataloguing the material by function:

Domestic: Materials used in a domestic setting, but not created to be a permanent feature in the landscape. These items included clothing and household items such as light bulbs and furnishings.

Structural: Material used in the construction of a permanent feature on the landscape such as those related to buildings and other general construction. This category included items such as nails, brick and window glass.

Subsistence: Material related to the consumption of food or beverages including the remains of the food items themselves and the materials used in the consumption of the goods. This included remains of cutlery, bowls, plates, bottles, cans as well as faunal remains. As a convention, fragmented bone was assumed to be related to subsistence if otherwise unidentifiable.

Medicinal: Material related to health or healing, included surgical equipment and glass bottles and jars with diagnostic features indicating their use for medicinal purposes.

Recreational: Material related to activities completed for enjoyment. Included in this is items related to games and leisure activities. This included alcohol, tobacco, writing implements, and game pieces.

Other: Items identified but unable to be incorporated into the above categories.

Unknown: Items that had no identified function.

5.2 **Preliminary Analysis**

Table 1 and Figure 27 summarise the weight of artefacts collected by function and trench. A more detailed table including material type and context is included as an Excel file in the digital data and

a version is attached as Appendix C. It should be noted that in general when summing the weights of items over 2 kg were not included so as to avoid skewing the data.

Most of the material recovered is structural even though most of the construction material was purposely left behind.

Function	Trench 1	Trench 2	Trench 3	Total
Domestic	7	706	1,618	2,331
Medicinal	-	47	1,224	1,271
Other	4	129	1,296	1,429
Recreational	10	12	140	162
Structural	1,625	11,827	9,381	22,833
Subsistence	44	2,730	1,587	4,361
Unknown	264	1,513	5,464	7,241
Grand Total	1,954	16,963	20,710	39,627

Table 1: Weight of Artefacts by Trench and Function (grams)

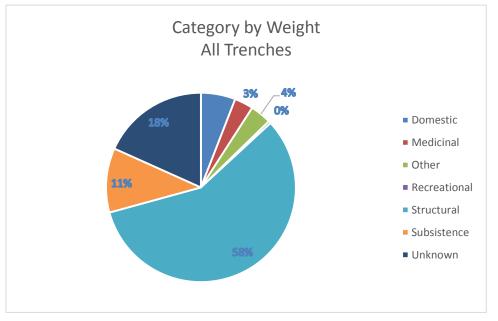


Figure 27: Artefact Function by Weight

Most of the Unknown material was probably also structural but as it was usually small non-descript pieces of metal no better categorisation could be applied.

Trenches 3 and 2 contained by far the most material with Trench 1 a very distant third. This is probably because Trench 1 was located entirely within the Bath House where most of the material was demolition rubble and not collected.

Trench 3 contains the most varied collection of artefacts with (neglecting the structural and Unknown categories) which is to be expected as it was used as a disposal pit.

Looking at all the trenches the next most common item after Structural and Unknown was Subsistence at 11% of total weight. This was mostly bone with some ceramic and metal additions. One interesting item here was a corroded metal food container ("Dixie"), it will be discussed below.

Next at 6% of the material collected was Domestic with metal, ceramic and glass being the main material types. Much of the material was metal or bone buttons, heel protectors and light bulb fragments. One interesting item found was a possible wedding ring. This will be discussed further below.

The Other category was close behind at 4% of total weight and included a very interesting item, a World War 2 army identity tag. It will be discussed further below. Also, rather arbitrarily placed in Other, was a bell like artefact which was very heavy and so not included in the weights. This will also be discussed below. The majority of the artefacts in Other were glass bottle shards that could not be objectively placed in an another category.

The next category was medicinal at 3% of total weight. This was mostly fragments of glass medicine bottle and was almost entirely from Trench 3 where presumably they had been disposed of as waste from the hospital.

By far the smallest Category with less than 1% of the artefacts collected was Recreational. Typical items were fragments of alcohol bottles and pipe fragments, two of which were clay. However about half the material was from the surface and top layers and so could have been brought in as part of levelling and lawn creation process after the Bath House was demolished and the Ash Pit covered.

Some of the more interesting finds are discussed below.

5.3 Bath House Trenches

5.3.1 Bricks

Figure 28 shows on the left a handmade brick with finger imprint and to the right a machine made brick. The handmade brick would have been convict made and was probably part of the initial bath house constructed around 1858. The machine made brick would have been used as part of the upgrade or maintenance of the Bath House after about 1880. Bavin (1994:364) has also noted these two brick types demonstrating a number of phases in the Bath House development. This was also shown by the later ceramic piping used to upgrade the drainage from the Bath House.



Figure 28: Left - Handmade brick – Right- machine made brick.

5.3.2 Military identity disk

A military identity disk of World War 2 was found in context 006 of Trench 1. This was in the orange sand in the east side which had probably been used as a levelling fill prior to grassing the area and so may have come from elsewhere.

The disk shown in Figure 29 has inscriptions on both sides and a hole for a cord so that it can be worn around the neck. The inscriptions on the front are "TORPY LP" "RC" "NX1173" and on the reverse "O4". This is respectively the surname and initials, religious affiliation (Roman Catholic) and army service number. It is not known what the inscription on the reverse represents though it could be blood type.

Looking up "Torpy LP" on the World War Two Nominal Roll (2012) gives two potential candidates as owners of the tag, which are shown in Table 2. Looking up the National Archive (2014) and doing a name search only returns Leonard Patrick Torpy. It also notes two Courts Marshall in his name (23 November 1942 and 3 January 1944)

Surname	Other	Army Numbers	DOB	Date of Enlistment	Date of Discharge
Torpy	Leonard Patrick	NX8559	29 Jul 1909		12 Jul 1944
Torpy	Leslie Patrick	NX117435 13986	19 Apr 1921	1 Aug 1942	29 Apr 1946

Table 2: Potential Owners of Identity Tag

Looking up the army number NX1173 as inscribed on the disk gives another soldier (Cooper, Sargent W) who at one time was in the same unit as Leonard Patrick Torpy.

It is possible that the tag is genuine but it could also be a fake made up to confuse identity. Again it is possible that Leonard Patrick Torpy served time at Fremantle Prison when it was a military detention centre during World War 2. It may have been lost or discarded during that time.

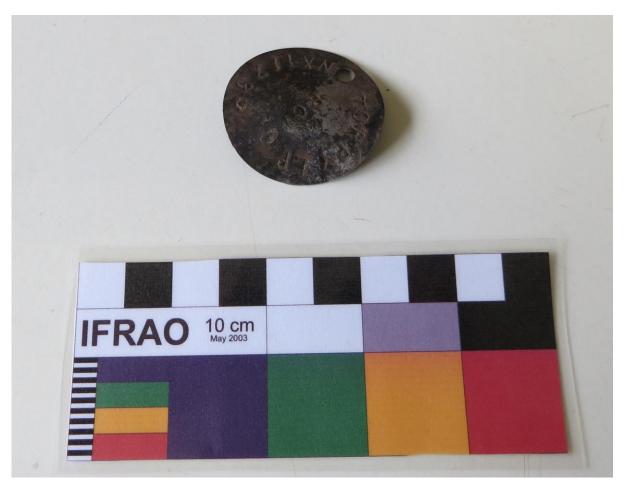


Figure 29: Military Identity Disk

5.3.3 Bell

This bell like artefact was found in Trench 2 context 018 so was probably part of the Bath House demolition. It looks like a bell but has no clapper internally or even a loop for a clapper to be attached to. It is made of cast iron and is 27.5 cm high and 15 cm wide at the flange. It is thick and very heavy. A small hole is located near the bottom flange of the artefact (Figure 30). A metal bolt was also found nearby and may have been used as a striker. When struck it does make a ringing sound but not particularly loudly.

It would appear that this artefact has been adapted as a bell, maybe to ring when it was time to get out of the baths or sound when they were ready. However what it was initially is still a mystery. Suggestions have been as a counter weight for a door or as a part of a pressure relief valve on a boiler such as were in the Bath House.



Figure 30: Bell

5.3.4 Wedding Ring

A small corroded copper ring 20 mm in diameter and about 4mm wide was found in Trench 1 context 042 (Figure 31). This is the fill of the drainage structure under the baths. So it could have been lost during construction by a worker.



Figure 31: Wedding Ring

5.3.5 Food Container "Dixie"

A metal food container was found in Trench 2 context 041 which was mixed fill located under the surface contexts west of the external wall. It is possible it was lost during the installation of the new drain system.

It appears to be a standard military/prison food container (Figure 32).



Figure 32: Food Container

5.4 Ash Pit

The primary artefacts from the ash pit were glass bottles, metal (nails, riveted metal and wire), ceramics and bone. There were no distinguishing individual finds form this Trench but it had the greatest diversity of material. Given the fact that it was a refuse pit, this is as expected.

6.0 MANAGEMENT DISCUSSION

Fremantle Prison is a heritage listed site with significant cultural heritage of national and international significance. The prison is a repository of resources which can shed light on the past life of the prison and its occupants. Archaeological detail may also offer a unique opportunity to gain insight into how the prison and its inmates were perceived by local society.

Excavation of the Bath House indicated the remains of relatively intact architectural features of the building construction and the layout of the baths. Remains of intact sections of drainage was also found. In both the Bath House and Ash Pit excavations a range of artefacts were recovered.

All finds require cataloguing into three broad categories (along with other standards descriptors):

- Public interest and worthy of display;
- Research interest and worthy of curation;
- No apparent display or research capacity.

Consideration is required by the Fremantle Prison Board about what criteria would be used to classify an artefact as meeting the first category "worthy of display". Considerations for classification of "research interest and worthy of curation" may be determined by the student archaeologists in consultation with their academic supervisors.

Given the above, two broad areas for future management need to be addressed:

• What to do with what was found during the current investigation; and

• Should future excavation or other investigation of the areas be considered?

6.1 What to do with current findings:

6.1.1 Artefacts

Upon completion of cataloguing, those artefacts deemed worthy of display, and within current and future Fremantle Prison directions, should be prepared for display and information for the public. This work to be carried out by appropriately qualified Fremantle Prison staff or their associates.

Those artefacts deemed as worthy of research and curation are to be archived on site at the Fremantle Prison.

Those artefacts deemed of no immediate display or research use are to be reburied on site where possible.

6.1.2 Buildings and baths

A section of the Bath House could to be re excavated to reveal two baths and plumbing. This site should be stabilised, made weather proof and become a viewing area for the public. A clear covering and a raised walk around area to look down on the excavation is suggested.

6.2 Future excavations and investigation

The situation may change over time regarding what to do in the future so any recommendations given should be considered as preliminary.

Unless there is a specific purpose or research question which requires additional detail to what has been found and documented from the current investigation then no invasive or destructive further investigation of the Bath House and Ash Pit should take place.

Nonintrusive methods to map the extent of the building or other unknown structures may be undertaken. Again the only reason for undertaking this research would be to investigate a clearly defined research questions or themes requiring site specific information.

7.0 ACKNOWLEDGEMENTS

The authors would like to acknowledge the work of all the people who made this project possible. In particular we wish to thank the excavation teams who worked on the site. Dr. S Winter was the Site Director and Dr. T Whitley was the Field School Supervisor. The trench supervisors were Alyce Haast, Kate Robertson and Philippa Hunter, who also put together the preliminary draft report. The excavations were carried out by the UWA 2013 Field School students.

We would also like to thank Olympia Cullity Head Curator and Luke Donegan Heritage Conservation Manager from Fremantle Prison for their assistance and advice.

8.0 **REFERENCES**

Bavin, L. J. 1990, *Fremantle Prison Conservation and Future Use: Archaeological Zoning Plan of the Prison Compound*. Report Prepared for Building Management Authority.

Bavin, L. 1994, *The punishment administered: archaeology and penal institutions in the Swan River Colony*. Unpublished Doctoral dissertation, University of Western Australia, Crawley.

Smith, C.E. and H.D. Burke 2007 *Digging it Up Down Under: A Practical Guide to Doing Archaeology in Australia*. New York: Springer.

Department of Treasury and Finance [DTF] - Building Management and Works Division, 2010 *Fremantle Prison Conservation and Management Plan.*

Eureka Archaeological Research and Consulting UWA 2009, (Flemming, K. Morse, K. & Paterson, A.) *Fremantle Prison Parade Ground Archaeological Test Excavation Results (Stage 3)*, Report prepared for Palassis Architects.

Gibbs, M. 2001, The Archaeology of the Convict System in Western Australia. *Australasian Historical Archaeology* 19:60-72.

Haast, A., K., Robertson, P. Hunter and V. Boyadjian 2013, *Fremantle Prison Parade Ground Excavation Report 2013*, University of Western Australia.

Museum of London Archaeological Service [MOLAS] 1994, *Archaeological Site Manual*, London: Museum of London.

National Archives, 2014, www.naa.gov.au/collection/search/index.aspx [24 August 2014]

Winter, S. 2013, *Global, regional and local networks: Archaeological investigation of the Western Australian Penal Colony 1850 – 1875.* Unpublished Doctoral dissertation, University of Western Australia, Crawley.

World War Two Nominal Roll 2012, <u>www.ww2roll.gov.au</u> [24 August 2014].

APPENDIX A CONTEXT LISTING

Unit #	Trench	Unit Type	Description	Notes
001	All	Fill	Mixed levelling fill underlying T1, T2, T3	10cm
002	1	Cut	linear cut for reticulation pipe	
003	1	Fill	fill of 002	
004	1	Structure	Limestone rubble- possible wall foundation	
005	3	Deposit	Yellow fill under 001	
006	1	Deposit	orange fill at east	
007	2	Deposit	Yellow sand	
008	2	Deposit	Demolition deposit throughout trench	
009	1	Deposit	Fill west of 004	
010	1	Deposit	Fill east of 004	
011	2	Cut	Pit cut filled with 007	
012	3	Deposit	Black charcoally deposit with gravel under 001	
012	1	Deposit	demolition layer (interior) under 009	
014	2	Cut	Cut west end for reticulation pipe	
014	2	Fill	Fill of 014	
015	1	Deposit	yellow builders sand under 010	
010	3	Fill	demo rubble within pit	
018	2	Deposit	dark cultural soil under 008 west of wall	
010	1	Deposit	Limestone rubble layer east of wall under 010	
019	1	Deposit	Post hole - dark stain under 019	
020	1	Structure	Stone slab to east of wall 004	
021	1	Fill		the well
	2		yellow limestone sand under 019 east of Front external limestone wall	
023		Structure		040
024	2	Fill Fill	limestone levelling - same as 013 in T1	013
025	2		demo rubble under 008 east of trench	
026	1	Structure	Bath 1	
027	1	Structure	Bath 2	
028	1	Structure	Bath 3	
029	1	Structure	Bath 4	
030	1	Fill	Fill between 026 and 027	
031	1	Fill	Fill between 027 and 028	
032	2	Fill	Organic fill in drain 038 within 023	
033	2	Structure	Internal N-S wall	
034	1	Fill	Cement fill between 026 & 027	
035	1	Fill	Cement fill between 027 & 028	
036	1	Deposit	Fill under 035	
037	1	Deposit	Limestone fill under 022	
038	2	Structure	Drain through 023 wall	
039	2	Deposit	Organic bone rich deposit at 038 outflow	
040	2	Structure	Concrete drain w/ of 023	
041	2	Deposit	Mixed fill under 018	
042	1	Deposit	Fill of 043 drain	
043	1	Structure	Drain under baths	
044	1	Deposit	under 006 south east 004	
045	2	Deposit	Linear feature south end of T2 limestone	deposit
046	1	Structure	Post in situ between 028 & 029	
047	2	Deposit	Loose yellow/white sand in NW corner	same as 054
048	1	Structure	Insitu jarrah post 028 & 029	
049	2	Structure	Brick and concrete bath in east section	
050	2	Deposit	Levelling layer under baths	

051	2	Deposit	Brown stain at NW of trench	
052	1	Fill	Possible floor in T1	
053	2	Fill	Fill of 040 drain	
054	2	Fill	Limestone rubble west of 040	
055	2	Structure	Ceramic pipes for bath drainage	
056	2	Structure	Concrete floor between 033 and baths	
057	2	Fill	Fill of 058 pipe trench	
058	2	Cut	Pipe trench west of 023 wall	
059	2	Structure	Ceramic pipe in 058 trench	
060	2	Cut	Vertical cut seen in West section	

APPENDIX B DIGITAL DATA LISTING

#	Item	Description	File
1	Context Sheets	Scanned original context sheets for Trenches 1 and 2	Context Sheets.pdf
2	Photo Register.pdf	Scanned register of important photos (see item below)	Photo Register.pdf
3	Photographs	Directory with photos taken during excavation. Important ones are cross referenced by photo number in photo register. Photos are in JPG format	Directory - Photos
4	Drawing Register	Register of drawings	Drawing Register.xls
5	Drawings	Each drawing is in two formats (jpg and ai). The JPG format is a scan of the original pencil plans. The ai format (Adobe Illustrator) is vector plan made from the original pencil drawings.	Directory - Drawings
6	Artefact Summary Data	Spreadsheet summarising the count and weight of artefacts by Trench, context, function and material type.	Spreadsheet -

APPENDIX C ARTEFACT SUMMARY TABLE BY WEIGHT

