

# Every Procurable Object: A functional analysis of the Ross Factory Archaeological Collection

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*Established in 1848 for accommodation of transported female convicts, the Ross Female Factory operated until early 1855, when the cessation of British penal transportation to Van Diemen's Land caused the closure of this rural place of confinement. From 1995 to 1999, the Ross Factory Archaeology Project comparatively examined material culture from three wards of the prison site. Stratigraphic and architectural data demonstrated that a total of 32 features and deposits could be related to the female-convict period of site occupation. This paper presents results of a functional analysis conducted on artefacts recovered from these Factory-period deposits. Based on studies of nineteenth-century sites in the American West, this specific methodology was adapted to examine the nature and relative frequency of functional types particularly relevant to an archaeology of confinement.*

## INTRODUCTION

There must be a con like me in every prison in America. I'm the guy who can get it for ya. Cigarettes. A bag of reefer, if that's your thing. A bottle of brandy to celebrate your kid's High School graduation. Damn near anything, within reason. Yes sir, I'm a regular Sears and Roebuck. So when Andy Dufrene came to me in 1949 and asked me to smuggle Rita Hayworth into the prison for him, I told him 'no problem'. (*The Shawshank Redemption*, 1994; Castle Rock Entertainment)

From 1995 to 1999, the Ross Factory Archaeology Project examined material aspects of gender identity and power relations within the Ross Female Factory, a mid-nineteenth-century, female-convict prison site in rural Tasmania. This paper will present results from post-excavation work on recovered material assemblages. Following completion of the Ross Factory Archaeology Project, the Ross collection was donated to the Queen Victoria Museum and Art Gallery of Launceston, Tasmania, for curation, display and permanent storage. Access to both the Ross collection and the detailed artefact catalogue is available upon request through the Queen Victoria Museum and Art Gallery, and the Cultural Heritage Program of the Department of Primary Industries, Water and Environment, Tasmania.

### The Ross Female Factory Historic Site

From 1803 to 1854, Van Diemen's Land received over 74 000 convicts transported from the British Isles (Eldershaw 1968: 130). Approximately 12 000 of these felons were women, primarily convicted of petty domestic theft (Oxley 1996). Upon their arrival in the colony, most spent time incarcerated within the Female Factory System, a network of women's prisons scattered across the island (Brand 1990; Damousi 1997).

Named 'factory' as a contraction of the word 'manufactory', these penal institutions were modelled after the British Workhouse System, a nineteenth-century public social welfare system which required standardised rates of labour from all inmates to hasten their social and moral salvation from delinquency, idleness and poverty (Driver 1993). Upon their entry to a Factory, female convicts were assigned to the 'Crime Class' and incarcerated for a minimum of six months. While serving this probationary sentence, the women were intended to 'reform' through Christian prayer and daily labour at the acceptably feminine industries of sewing, textile production and laundry work. Insubordination was punished through lengthy periods of confinement in Solitary Cells, accompanied by severe reduction of food

rations. Once the probationary period had been successfully served, inmates were reclassified into the 'Hiring Class' and awaited assignment to local properties, completing their convict sentences as domestic servants for free colonists (Ryan 1995; Oxley 1996; Damousi 1997; Daniels 1998).

Although detailed discussion of the history and archaeology of the Ross Factory can be found in alternative publications (Casella 1997; Casella 2001a), the major occupation periods must be summarised to contextualise the Ross collection. Located on the southern edge of the Ross Township in the rural midlands of the island, the first historic-period occupation occurred in 1833, when a thatched-roof brick hut was constructed for the accommodation of male convicts during construction of the ornately carved sandstone Ross Bridge. After completion of the Bridge in 1836, the site was abandoned. In 1841, it was reused as a Road Gang Station for 172 male convicts working on the 'Midlands Road' between Hobart Town and Launceston. Historic plans indicate a dramatic expansion of the station, with the original brick building incorporated into a quadrangle of sandstone barracks arranged around two adjoining musteryards (AOT PWD 266/1693). The original brick hut was modified into a 'Bake and Cook House' and three brick ovens were installed.

During 1847, the station underwent significant physical alterations as it was transformed into a female-convict prison. Many of these conversions proved archaeologically significant. When stone floors within the convict dormitory structures were removed, they were replaced by stone joist supports and suspended timber floors, thereby creating a new underfloor space below the Crime Class and Hiring Class Dormitory floor boards (Terry 1998: 32). The internal layout of the original brick Bridge Gang hut was modified, with the ovens removed and a new internal doorway added (AOT PWD 266/1695). Historic plans indicate that the renovated structure housed the 'Assistant Superintendent's Quarters'.

The Ross Female Factory operated from 1848 to 1854, when Britain ceased convict transportation to the Van Diemen's Land colony (Figure 1). At the height of operation in 1851, the Ross Female Factory incarcerated 124 female convicts and 44 of their children (Rayner 1980: 31). Disciplinary problems in 1850 directly led to the construction of a new block of 12 sandstone Solitary Cells located approximately 30 m south of the Main Compound of the Factory (AOT PWD 266/1696). Opened in 1851, the new Solitary Cells were intended to improve the punitive isolation and deprivation of recalcitrant inmates (Scripps & Clark 1991). After closure in 1854, the site was transferred to civilian management and experienced a series of municipal

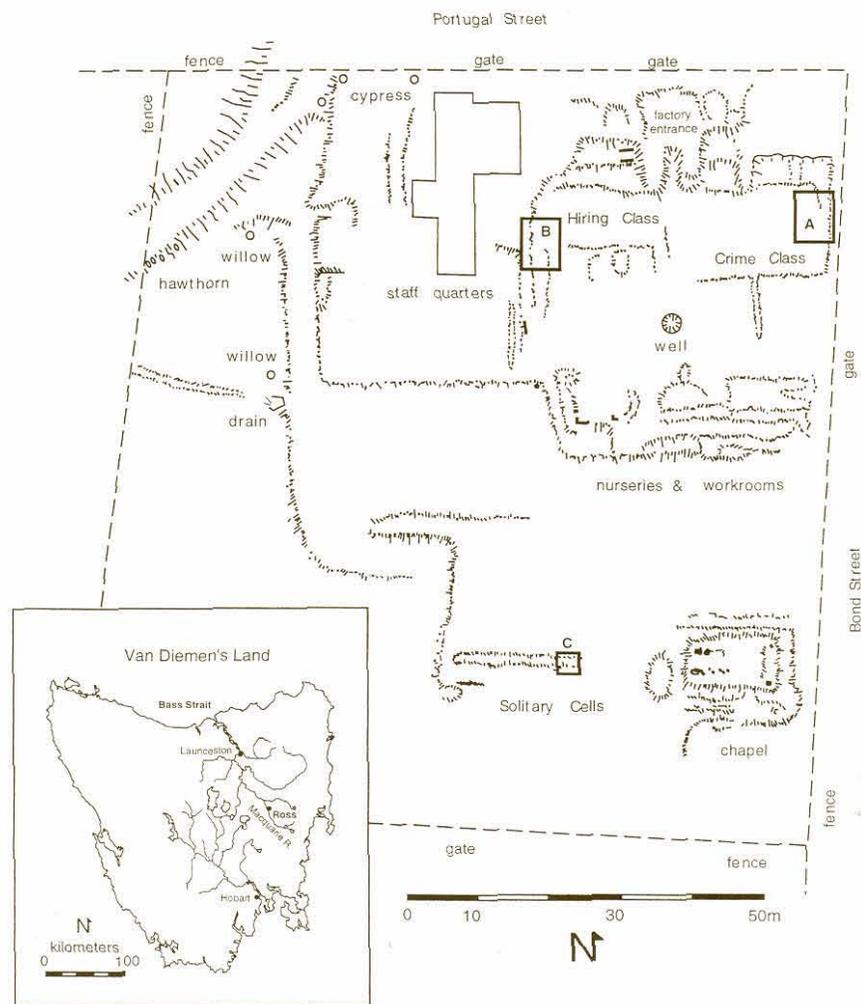


Figure 1: Site plan with inset of Van Diemen's Land (Tasmania).

and domestic occupations. It was gazetted as a historic reserve in 1980 and is now administered through the Cultural Heritage Branch of the Tasmanian Department of Primary Industries, Water and Environment.

### The Ross Factory Archaeology Project

Begun in 1995, the Ross Factory Archaeology Project was developed to examine archaeological remains from the three different classification stages experienced by female inmates. Excavation trenches were therefore located to sample from the Crime Class Dormitory (Area A), Hiring Class Dormitory (Area B) and Solitary Cells (Area C). Trenches within Area B also sampled from the Assistant Superintendent's Quarters (Casella 1997). Following completion of the 1997 excavation season, all recovered artefacts and soil samples underwent 14 months of post-excavation work at the Tasmanian Parks and Wildlife Service laboratory in Hobart.

### LABORATORY METHODS

Three stages of laboratory processing were developed for recovered artefactual materials. During the excavation seasons, retrieved materials underwent field management procedures. After being transported to the Hobart laboratory facilities of the Tasmanian Parks and Wildlife Service, artefacts from the Ross Factory collection were cleaned, identified and catalogued by fabric. Finally, a specialised functional analysis was conducted on materials collected from stratigraphic units related to the female-convict occupation periods. This section will briefly

summarise the methods and procedures developed for each stage of artefact management and laboratory analysis. Detailed discussions of the analysis and interpretation of assemblages from the Ross collection are available through other publications (Casella 1999, 2000, 2001a).

### Stage One: Field Management

During the 1995 and 1997 excavation seasons, field crews conducted primary cleaning, identification and stabilisation of artefacts through an on-site Field Laboratory. Cultural materials and soil samples were identified by excavation area, trench number and stratigraphic context number. The vast majority of recovered finds was collected by lot provenance, with artefacts spatially provenanced as a group and linked to their stratigraphic context number. However, following standard field practices, three-dimensional point provenance data was also taken for 'special finds' or those objects determined to be diagnostic, photogenic, valuable, particularly fragile or otherwise unusual (Davies & Buckley 1987: 167; Dixon 1994: 36-37; Praetzelis & Praetzelis 1990).

### Stage Two: Identification and Cataloguing of Finds

The second stage of management involved laboratory processing of recovered non-indigenous artefacts. A number of Aboriginal lithic artefacts were recovered from disturbed secondary contexts during both seasons of excavation. Mr Charlie Beasley, Tasmanian Aboriginal Heritage Officer for the Ross Factory Archaeology Project, inventoried these lithic

artefacts for identification purposes (Casella 2001a: Appendix 7). All Aboriginal artefacts recovered through the Ross Factory Archaeology Project were repatriated to the Tasmanian Aboriginal Community, through the Aboriginal Heritage Unit of the Parks and Wildlife Service and the Tasmanian Aboriginal Land Council, at the end of each excavation season. Thus, 14 months of curation, identification, cataloguing and analysis were conducted on the Ross Factory assemblages of non-indigenous artefacts.

To encourage future inter-site comparative studies of Tasmanian convict collections, identification and classification methods for the Ross materials were developed from the Fabric Key produced in the early 1980s by the Port Arthur Conservation and Development Project (Davies & Buckley 1987: 184–189). Artefacts were first categorised into one of four fabric types: ceramic, glass, metal or 'other'. Ceramics underwent two further stages of classification: separated by ceramic types, the earthenwares, stonewares, porcelain and terracotta artefacts were then divided by function into domestic versus architectural and industrial ceramics. Owing to the highly fragmentary nature of the ceramic assemblage, vessel type could not be determined with accuracy. Rather, minimum number (MNI) counts were interpreted from differences in fabric and decorative characteristics. Further detailed study of the Ross Factory ceramic assemblage would certainly offer additional information on the nature of foodways within female convict institutions.

Glass artefacts were first classified as window, bottle or other, and then divided by specific glass colour. Metals were separated into aluminium, copper-alloy, ferrous, lead, silver, composite or other. Nails were specifically identified within the collection because of their particular value as chronological indicators. The general category of 'other' contained all fabrics except ceramic, glass or metal. This designation included bone artefacts and ecofacts, cement, coal, concrete, leather, mortar and plaster, plastic, rubber, shell, seeds, stone and wood (including charcoal).

After an artefact lot was separated into fabric categories, individual objects were then catalogued within the assemblage. A unique catalogue number was issued to every individual specimen. This catalogue number consisted of four parts: Excavation Area, Trench Number, Context Number and Artefact Number. Thus, an object catalogued as 'A.2.1015.104' would be the 104th artefact from context 1015 in trench 2 of Area A, the Crime Class region of the site. Counts and weights in grams were taken for all catalogue entries; MNI counts were estimated and recorded for the ceramic, glass, copper-alloy sewing pin and ferrous nail assemblages. When possible, measurements and descriptive identification data were recorded. Funding limits prevented the faunal and floral assemblages from undergoing specialist analysis. Thus, while individual elements were catalogued, bone, seed and shell artefacts could not be identified by species. Future analysis of the faunal and floral assemblages will provide significant perspectives on both the colonial environmental landscape and the presence of food remains within the Ross Factory.

### Stage Three: Functional Analysis

Since the Ross Factory Archaeology Project was specifically investigating the Female Factory period of site occupation, archaeological contexts most directly linked with this horizon were subjected to tertiary stages of analysis. Cultural materials from these deposits underwent a functional analysis as the final stage of post-excavation work. Through a combination of stratigraphic and historical analysis, a total of 32 depositional contexts were identified as most strongly related to the Female

**Table 1: Factory Related Contexts, RFAP.**

Area A	Crime Class Dormitory underfloor: 1022, 1033, 1039, 1020, 1036, 1035 Dormitory underfloor/first demolition: 1008, 1015 Dormitory exterior: 1048, 1028, 1054
Area B	Asst. Superintendent's Quarters east room: 2033, 2020 Quarters west room: 2034 Quarters chimney feature: 2035 Hiring Class Dormitory underfloor: 2023 Dormitory exterior: 2028, 2026
Area C	Solitary Cells interior first floor (F1): 3028, 3040, 3037, 3024 Central cell interior burnt feature: 3036 Cells interior second floor (F2): 3017, 3035, 3018 West cell interior stash pit: 3022 Cells northern exterior: 3034, 3021, 3020 Cells southern exterior: 3025, 3014, 3013

Factory period. These depositional events contained materials most representative of the physical layout and daily use of the Ross Factory from 1847 to 1855. Although detailed discussion of the stratigraphic and historical evidence used for identification of Factory-related deposits is available through other published sources (Casella 1997, 2001a), Table 1 summarises the specific archaeological contexts subjected to the tertiary stages of post-excavation analysis.

The functional classification system used for this research was inspired by the work of Adrian and Mary Praetzellis at the Cultural Resources Facility of Sonoma State University. A series of functional categories were generated from the Praetzellis' report on a nineteenth-century urban domestic site in Sacramento, California (Praetzellis and Praetzellis 1990). The specific functional categories utilised in this study were modified to address institutional and Australian social contexts. This paper will now turn to consider results from this final stage of analysis.

## PRESENTATION OF RESULTS

Specific classification categories used for this functional analysis consisted of Adornment, Clothing, Domestic, Ecofact, Fuel, Indulgence, Literacy, Monetary, Miscellaneous, Social Control and Structural. Tables 2 to 5 present all data discussed in the following section. For some of the artefact assemblages, estimates of the MNI could be calculated. Where these estimates could be made, the MNI count appears in the table directly following the total weight in grams, separated by a semi-colon.

### Adornment

Three types of artefacts were classified under this category. Defined as objects relating to personal ornamentation, the materials found within Factory-related deposits consisted of one composite copper and glass necklace or earring pendant (Area B, Table 3), seven glass beads (Area A, Table 2), and two clear-glass rings (Area A). Although this last artefact type was classified as adornment, it is also possible these objects were part of a closure device for medicine bottles (M. Carney, pers. comm. 1998). No adornment-related artefacts were recovered from Area C, the Solitary Cells (Table 5).

Seven glass beads were recovered from deposits within the Crime Class Dormitory (Table 2). Using the standard archaeological classification system for glass trade beads (Spector 1976; Karklins 1982; Sprague 1985) all seven artefacts were identified within the Canadian Kidd typology as 'Type IVa' (Kidd & Kidd 1970). This bead type consists of drawn, hot-tumbled, undecorated, polychrome glass beads.

Table 2: Functional analysis results, Crime Class Dormitory, Area A.

Assemblage		underfloor	underfloor & demolition	exterior
Adornment	glass bead	0.53g; 6	0.11g; 1	
	glass ring	0.1g; 1	0.31g; 1	
	<b>Total</b>	<b>0.63g (0.04%)</b>	<b>0.42g (&lt;0.01%)</b>	
Agricultural	ferrous horse shoe		421.52g; 1	
	<b>Total</b>		<b>421.52g (2.2%)</b>	
Clothing	buttons	3.17g; 1	7.52g; 6	5.07g; 2
	copper eyelets	0.56g; 2	2.25g; 6	
	copper pins	4.21g; 19	2.38g; 18	
	copper thimble	3.55g; 1	2.62g; 1	
	ferrous buckle		0.86g; 1	
	<b>Total</b>	<b>11.49g (0.7%)</b>	<b>15.63g (0.08%)</b>	<b>5.07g (1.2%)</b>
Domestic	ceramic	83.97g; 17	332.90g; 47	11.14; 2
	clear glass tumbler		191.9g; 1	
	clear bottle glass	52.27g; 5	348.37g; 6	21.63g; 2
	brown bottle glass			0.5g; 1
	ferrous container		7.5g; 1	
	<b>Total</b>	<b>136.24g (8.5%)</b>	<b>880.67g (4.7%)</b>	<b>33.27g (8%)</b>
Ecofact	bone	174.97g	762.23g	92.61g
	oyster shell	2.25g	8.3g	
	<b>Total</b>	<b>177.22g (11.1%)</b>	<b>770.53g (4.0%)</b>	<b>92.61g (22.2%)</b>
Fuel	charcoal	18.11g	310.54g	43.16g
	coal	40.36g	50.03g	
	organic slag		552.8g	
	wood	1.29g	6.54g	7.82g
	<b>Total</b>	<b>59.76g (3.7%)</b>	<b>919.91g (4.9%)</b>	<b>50.98g (12.2%)</b>
Indulgence	tobacco pipes	4.11g; 2	19.31g; 4	1.45g; 2
	olive bottle glass	80.90g; 4	1447.85g; 11	45.95g; 3
	<b>Total</b>	<b>85.01g (5.3%)</b>	<b>1467.16g (7.8%)</b>	<b>47.10g (11.3%)</b>
Literacy	slate pencil	7.25g; 3	20.46g; 7	
	slate tablet		9.43; 2	
	<b>Total</b>	<b>7.25g; 3 (0.4%)</b>	<b>29.89g (0.2%)</b>	
Monetary	coin	8.4g; 1		
	token			
	<b>Total</b>	<b>8.4g (0.5%)</b>		
Social Control	ferrous chain link	11.35g	524.20g	
	<b>Total</b>	<b>11.35g (0.7%)</b>	<b>524.20g (2.8%)</b>	
Structural	brick	96.79g	3878.56g	
	mortar/plaster	22.85g	167.44g	
	ferrous nail	351.87g	1112.11	115.70g
	ferrous other	570.83g	8026.72g	31.78g
	copper other		0.17g	0.39g
	lead		12.9g	25.92g
	sandstone cobble		51.7g	
	slate	3.20g		
	clear lamp glass		68.1g; 1	
	clear window glass	60.2g	500.73g	14.38g
	<b>Total</b>	<b>1105.74g (69%)</b>	<b>13818.43g (73.3%)</b>	<b>188.17g (45.1%)</b>
	<b>Total (g)</b>	<b>1603.09g (99.9%)</b>	<b>18,848.36g (100%)</b>	<b>417.20g (100%)</b>

The variety recovered from Ross Factory Crime Class underfloor deposits were all transparent red over an opaque white interior (Figure 2). The shape of all seven beads roughly corresponded with the 'doughnut' shape category defined in Janet Spector's 1976 classification article (Spector 1976: 25). Two sizes were recovered: one was 2.5 mm in diameter (weighing 0.02g), and six varied from 4 mm to 5 mm in diameter (each weighing 0.11g).

In a 1997 report on trade beads recovered from a nineteenth-century Native American site in California, archaeologist Lester Ross observed that Kidd Type IVa constituted the second most common bead type recovered from archaeological sites in the western United States (Ross 1997: 185). The red-on-white variety was often termed 'cornaline d'Aleppo' or 'Hudson's Bay Company' beads, and

was especially common in sites dated from 1800 to 1860 (Ross 1997: 185).

To promote international studies of trade beads, Australian historical archaeology has predominantly utilised pre-existing Canadian bead classification systems (Iacono 1996: 46-47; Birmingham 1992). Although these artefact reports have tended to identify beads under the functional category of 'decorative element', other functions have been suggested. Australian literature has reported on the use of glass beads in Catholic rosaries and decorative weights for sewing bobbins (Iacono 1996; Lydon 1993). However, in the specific context of the Ross Female Factory, it seems unlikely that these artefacts related to lacemaking or performances of religious devotion. Numerous historic studies of the Australian Female Factories have demonstrated that conflicts over convict

Table 3: Functional analysis results, Assistant Superintendent's Quarters, Area B.

Assemblage		east room	west room	chimney
Adornment	composite pendant		1.07g; 1	
	<b>Total</b>		<b>1.07g (0.08%)</b>	
Clothing	buttons	12.22g; 15	3.93g; 4	0.34g; 1
	composite (shoe frag)	0.22g; 1		
	copper fastener	1.87g; 1		
	copper pins	0.92g; 5	0.69g; 4	0.25g; 2
	ferrous fastener	0.72g; 2		
	<b>Total</b>	<b>15.95g (0.6%)</b>	<b>4.62g (0.4%)</b>	<b>0.59g (0.6%)</b>
Domestic	ceramic	279.41g; 30	66.0g; 13	
	clear glass tumbler	13.78g; 1		
	clear bottle glass	19.78g; 5	3.43g; 2	
	green bottle glass	2.60g; 1		
	blue bottle glass	2.57g; 2	0.25g; 1	
	stoneware bottle	38.76g; 3		
	stone marble	10.35g; 2	15.77g; 3	
<b>Total</b>	<b>367.25g (14.6%)</b>	<b>85.45g (6.5%)</b>		
Ecofact	bone	273.16g	91.69g	27.19g
	peach seed		2.39g	
	egg shell		0.37g	
	oyster shell	0.37g	0.15g	0.21g
	<b>Total</b>	<b>273.53g (10.9%)</b>	<b>94.6g (7.1%)</b>	<b>27.4g (27.9%)</b>
Fuel	charcoal	12.93g	2.8g	8.47g
	coal	3.48g		
	<b>Total</b>	<b>16.41g (0.6%)</b>	<b>2.8g (0.2%)</b>	<b>8.47g (8.6%)</b>
Indulgence	tobacco pipes	5.62g; 2	1.5g; 1	
	olive bottle glass	39.81g; 2	254.38g; 1	
	<b>Total</b>	<b>45.43g (1.8%)</b>	<b>255.88g (19.4%)</b>	
Literacy	slate pencil	6.42g; 3		
	<b>Total</b>	<b>6.42g (0.3%)</b>		
Miscellaneous	quartz crystal	77.83g; 2	1.03g; 1	22.59g; 1
	<b>Total</b>	<b>77.83g (3.1%)</b>	<b>1.03g (0.08%)</b>	<b>22.59g (23%)</b>
Monetary	coin	9.42g; 1		
	token		15.45g; 1	
	<b>Total</b>	<b>9.42g (0.4%)</b>	<b>15.45g (1.2%)</b>	
Social Control	ferrous chain link	37.13g		
	ferrous padlock	156.67g		
	<b>Total</b>	<b>193.80g (7.7%)</b>		
Structural	brick	193.23g		
	mortar/plaster	33.90g		
	ferrous nail	624.27g	187.32g	39.02g
	ferrous other	645.79g	653.61g	
	clear window glass	11.66g	20.31g	
	<b>Total</b>	<b>1508.85g (60%)</b>	<b>861.24g (65%)</b>	<b>39.02g (39.8%)</b>
<b>Total (g)</b>	<b>2514.89g (100%)</b>	<b>1322.14g (99.9%)</b>	<b>98.07g (99.9%)</b>	

uniforms permeated the disciplinary structures of these penal institutions (Casella 1999; Damousi 1997; Daniels 1998). The presence of glass beads within the underfloor deposits of the Crime Class Dormitory may relate to this perpetual conflict, and thus might represent inmate circumvention of Factory regulations over dress code and personal possessions (Casella 2000).

#### Agricultural

Only one object related to agriculture or similar activities was recovered from Factory-related deposits: a ferrous horseshoe found within Area A (Table 2). Since this artefact came from mixed underfloor and demolition deposits (contexts 1015 and 1008) this object may have entered the site during demolition activities after closure of the Female Factory in 1855.

#### Clothing

This category included materials related to clothing use and production. Artefact types included within this category were: buttons of various fabric, a composite leather and copper shoe fragment, copper eyelets, copper pins, copper thimbles, copper fasteners, ferrous fasteners, and ferrous buckles. No clothing-related materials were recovered from the Hiring Class Dormitory interior of Area B (Table 4). In contrast, the Crime Class Dormitory interior of Area A yielded both the highest concentration and greatest diversity of clothing related artefacts, including seven buttons, eight copper eyelets, 37 copper pins, and two copper thimbles (Table 2). A small ferrous buckle was also included within the clothing category, although it might have been a fastener on a leather horse

Table 4: Functional analysis results, Hiring Class Dormitory, Area B.

Assemblage		interior	exterior path	exterior drain
Clothing	buttons		11.40g; 15*	0.36g; 1
	copper eyelets			
	copper pins		0.13g; 1	
	ferrous buckle			1.24g; 1
	<b>Total</b>		<b>11.53g (15.4%)</b>	<b>1.6g (0.08%)</b>
Domestic	ceramic	1.28g; 1	0.56g; 1	31.90g; 11
	clear glass tumbler			18.02g; 1
	clear bottle glass		4.91g; 2	168.65g; 8
	blue bottle glass	0.07g; 1		158.69g; 2
	stoneware bottle			148.37g; 4
	<b>Total</b>	<b>1.35g (0.4%)</b>	<b>5.47g (7.3%)</b>	<b>525.63g (27.4%)</b>
Ecofact	bone	57.42g	13.14g	124.85g
	<b>Total</b>	<b>57.42g (16.3%)</b>	<b>13.14g (17.6%)</b>	<b>124.85g (6.5%)</b>
Fuel	charcoal	6.08g	0.77g	31.63g
	coal	1.13g	0.64g	16.03g
	<b>Total</b>	<b>7.21g (2.0%)</b>	<b>1.41g (1.9%)</b>	<b>47.66g (2.5%)</b>
Indulgence	tobacco pipes			
	olive bottle glass	2.13g; 1	1.14g; 1	457.02g; 6
	<b>Total</b>	<b>2.13g (0.6%)</b>	<b>1.14g (1.5%)</b>	<b>457.02g (23.8%)</b>
Literacy	slate pencil		1.81g; 1	1.41g; 1
	slate tablet			
	<b>Total</b>		<b>1.81g (2.4%)</b>	<b>1.41g (0.07%)</b>
Miscellaneous	quartz crystal			4.22g; 1
	<b>Total</b>			<b>4.22g (0.2%)</b>
Monetary	coin			
	token			7.87g; 1
	<b>Total</b>			<b>7.87g (0.4%)</b>
Social Control	ferrous chain link			
	ferrous powder flask			297.77g
	<b>Total</b>			<b>297.77g (15.5%)</b>
Structural	brick	53.40g		54.05g
	mortar/plaster			
	ferrous nail	197.91g	35.79g	77.85g
	ferrous other	32.03g	2.12g	293.27g
	copper other			
	lead			17.14g
	slate			
	clear window glass	0.33g	2.25g	9.06g
	<b>Total</b>	<b>283.67g (80.6%)</b>	<b>40.16g (53.8%)</b>	<b>451.37g (23.5%)</b>
<b>Total (g)</b>		<b>351.78g (99.9%)</b>	<b>74.66g (99.9%)</b>	<b>1919.40g (99.9%)</b>

\*special find 575, a cache of 4-hole bone buttons held between sandstone flags of context 2018.

harness. Artefacts specifically related to clothing production (sewing pins and thimbles) were also in greatest concentration within the Crime Class Dormitory. Materials related to clothing production generally appeared to be concentrated within interior spaces of the Main Compound. The Crime Class Dormitory yielded the highest frequency of copper sewing pins (MNV = 37), followed by the Assistant Superintendent's Quarters (MNV = 11). No clothing production related materials were recovered from the Solitary Cells of Area C (Table 5).

The highest concentration of buttons (MNV = 36) were recovered from the exterior yards and Assistant Superintendent's Quarters of Area B (Tables 3 and 4). Fifteen of these buttons formed special find number 575, a cache of identical four-hole, sew-through bone buttons held between two large sandstone flags of the pathway immediately north of the Assistant Superintendent's Quarters. The Solitary Cells held the second greatest concentration of buttons, with 22 recovered from Area C (Table 5). Nine buttons were recovered from Area A (Table 2). A detailed analysis and interpretation

of the Ross button assemblage can be found in other published sources (Casella 2000; Casella 2001b).

### Domestic

The domestic category was used for artefacts related to food storage, preparation and consumption. Domestic items included tableware (ceramics and clear glass tumblers), bottles (clear, blue and brown glass, and stoneware), and ferrous containers. The greatest concentration of domestic artefacts was recovered from the Crime Class Dormitory interior, with a minimum of 77 individual vessels (1 016.91 g; see Table 2). Comparatively, the Hiring Class Dormitory of Area B yielded two vessels (1.35 g; see Table 4). The exteriors of these structures demonstrated contrasting results, with 29 vessels (531.10 g) recovered from the Hiring Class sandstone pathway and drain system, and only five vessels (33.27 g) recovered from the exterior and drains of the Crime Class. In both regions, ceramic vessels dominated the domestic assemblages.

The Assistant Superintendent's Quarters held a total of

Table 5: Functional analysis results, Solitary Cells, Area C.

Assemblage		F1	burnt layer	F2	stash pit	northern ext.	southern ext.
Clothing	buttons	12.32g; 9		17.69g; 7		5.55g; 4	0.95g; 2
	ferrous buckle			14.0g; 1			
	<b>Total</b>	<b>12.32g (0.4%)</b>		<b>31.69g (2.3%)</b>		<b>5.55g (0.5%)</b>	<b>0.95g (0.04%)</b>
Domestic	ceramic	44.89g; 8				6.88g; 5	8.77g; 2
	clear glass bottle	59.42g; 4		6.75g; 1		3.48g; 3	42.37g; 1
	blue glass bottle	0.25g; 1					
	ferrous container				375.50g; 1	2.15g; 1	28.22g; 1
<b>Total</b>	<b>104.56g (3%)</b>		<b>6.75g (0.5%)</b>	<b>375.5g (43.5%)</b>	<b>12.51g (1.2%)</b>	<b>79.36g (3.1%)</b>	
Ecofact	bone	1318.47g	40.47g	265.34g	26.49g	667.69g	292.9g
	oyster shell	0.69g					
	snail shell	0.09g					
	<b>Total</b>	<b>1319.25g (39%)</b>	<b>40.47g (24.9%)</b>	<b>265.34g (20%)</b>	<b>26.49g (3.1%)</b>	<b>667.69g (65%)</b>	<b>292.9g (11.4%)</b>
Fuel	charcoal	192.45g	95.30g	311.63g	6.19g	63.96g	35.01g
	coal	0.44g					
	wood	0.13g		6.56g		1.71g	1.04g
	<b>Total</b>	<b>193.02g (5.7%)</b>	<b>95.30g (58.5%)</b>	<b>318.19g (24%)</b>	<b>6.19g (0.7%)</b>	<b>65.67g (6.4%)</b>	<b>36.05g (1.4%)</b>
Indulgence	tobacco pipes	68.53g; 7	1.01g; 1	1.57g; 1	3.1g; 1	14.24g; 3	6.31g; 3
	olive glass	221.14g; 6	2.77g; 1	27.24g; 2	60.92g; 1	90.27g; 3	608.72; 5
	<b>Total</b>	<b>289.69g (8.5%)</b>	<b>3.78g (2.3%)</b>	<b>28.81g (2.2%)</b>	<b>64.02g (7.4%)</b>	<b>104.51g (10.1%)</b>	<b>615.03g (24%)</b>
Monetary	coin	4.68g; 1					
<b>Total</b>	<b>4.68g (0.1%)</b>						
Social Control	ferrous chain link	67.39g				40.40g	
<b>Total</b>	<b>67.39g (2%)</b>					<b>40.40g (3.9%)</b>	
Structural	brick	805.05g	18.77g	604.01g		11.95g	839.21g
	mortar/plaster			10.51g			1.51g
	ferrous nail	318.82g	4.14g	23.37g	32.81g	46.97g	258.64g
	ferrous other	259.05g		33.52g	358.10g	67.49g	77.91g
	copper other	2.01g					
	lead						83.55g
	timber						54.77g
	clear window glass	26.89g	0.30g	0.51g		6.89g	219.84g
	<b>Total</b>	<b>1411.82g (41%)</b>	<b>23.21g (14.3%)</b>	<b>671.92g (51%)</b>	<b>390.91g (45.3%)</b>	<b>133.3g (12.9%)</b>	<b>1535.43g (60%)</b>
	<b>Total (g)</b>	<b>3402.73g (99.7%)</b>	<b>162.76g (100%)</b>	<b>1322.70g (100%)</b>	<b>863.11g (100%)</b>	<b>1029.63g (100%)</b>	<b>2559.72g (99.9%)</b>

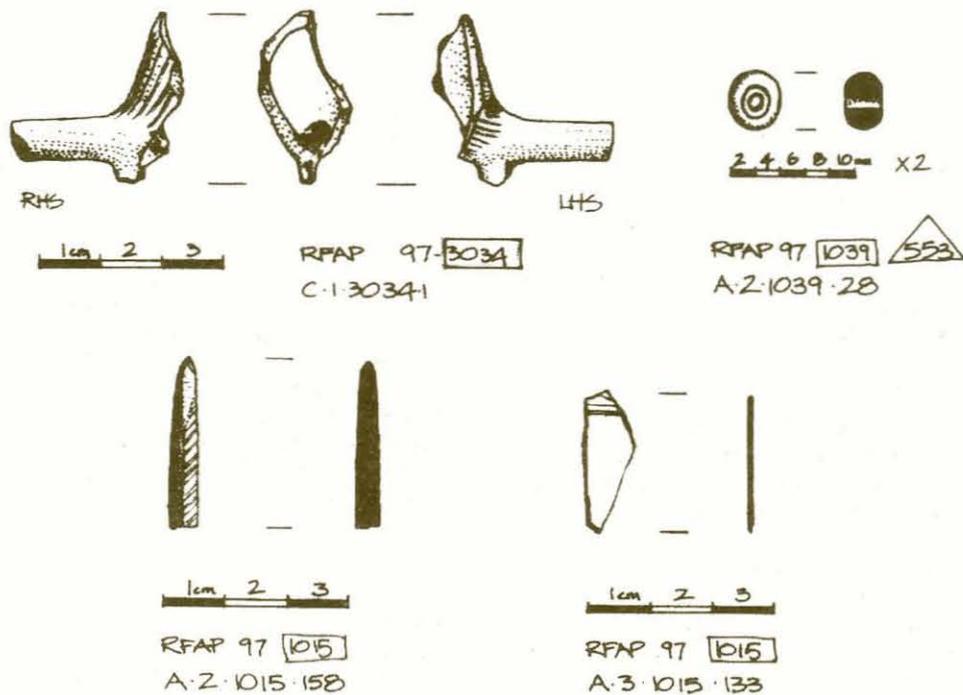


Figure 2: Top: kaolin clay pipe bowl and stem (Area C) and red-on-white glass bead (Area A). Bottom: slate pencil and tablet fragments (Area A). Drawings by Russell Warman.

452.70 grams of domestics, minimally representing 63 vessels (Table 3). The greatest diversity of domestic materials came from this structure. Stone marbles were included in the domestic category because of their possible use in bottle closures. Further analysis of the domestic assemblage will be necessary to adequately date and source these materials.

Inside the Solitary Cells, 15 vessels were recovered, weighing a total of 486.81 grams (Table 5). The two highest concentrations of domestic artefacts occurred in the first-floor horizon and northern exterior of the cellblock. Although a greater minimal vessel count of ceramics was present, one ferrous container dominated the assemblage by weight.

#### Ecofact

Although this category of cultural materials primarily consisted of bone, other finds included oyster shell, snail shell, egg shell, and peach seeds. Due to financial constraints, the Ross Factory ecofact assemblage did not undergo specialist analysis. During the secondary stage of post-excavation work, basic counts and weights (in grams) were recorded as part of the cataloguing process. Species identification and calculations of the MNI present were not undertaken.

A comparative examination of bone weights recovered from the three excavation areas produced limited results. By weight, Area A yielded over five times more faunal material than the Hiring Class region of Area B. A total of 1 029.81 grams of bone was recovered from the interior and exterior regions of the Crime Class Dormitory, as opposed to 195.41 grams from interior and exterior spaces of the Hiring Class Dormitory (Tables 2 and 4). The largest amount of bone was present in the Solitary Cells, with 2 611.36 grams recovered from Area C (Table 5). This faunal material concentrated in the first-floor layer of the three excavated cells, with over 50 percent of the bone from Area C recovered from this stratigraphic horizon. Other areas of concentration included the southern exterior (11%) and the second floor layer (10%).

These preliminary results are significantly biased by both

variations in the weight of different skeletal elements from the same species, and by differences in the weight of skeletal elements among different species. Further specialist studies of the faunal remains from the Ross collection are essential for future research on this site. Identification of species present and MNI estimations would yield significant new perspectives on diet and foodways within the Ross Female Factory.

#### Fuel

The fuel category incorporated both flammable materials, and by-products of conflagration. Four types of materials were classified as fuel. Charcoal and coal were the most common types within the collection, found within all three excavation areas. Wood was recorded separately from charcoal to differentiate fire-related activities within the site. Some overlap existed between the Fuel and Structural functional categories, as both wood and charcoal could be classified under either heading.

Charcoal appeared in highest frequency on the interiors of the Solitary Cells, with 704.54 grams recovered from Area C (Table 5). Concentrated in the second-floor horizon, charcoal also constituted over 58 percent of the cultural materials recovered from context 3036, a hearth-like deposit of burnt materials located between the two floor horizons in the southern half of the Central Cell (see Casella 2001a for discussion of stratigraphic evidence). This data has been interpreted as representing an intentional act of arson by Factory inmates undergoing 'separate treatment' (Casella 2001c).

The category of 'organic slag' consisted of wood modified by carbonisation, with rapid combustion producing a puffed charcoal resembling slag (Schweingruber 1978: 204). This type of material was only recovered in Area A, from mixed underfloor and first-demolition period deposits on the interior of the Crime Class Dormitory (Table 2). When combined with the high frequency of charcoal, the presence of 552.8 grams of organic slag within this depositional layer might indicate that the dormitory structure was partially damaged by fire

following closure of the Factory in 1855. Coal was also recovered in greatest quantity from Area A, specifically from contexts on the interior of the Crime Class Dormitory.

### Indulgence

The Indulgence classification category was adopted directly from the functional analysis model developed by Adrian and Mary Praetzellis (1990). Consisting of kaolin tobacco pipes and olive-glass alcohol bottles, this category represented the presence of activities forbidden to female convict inmates of the Ross Factory. Detailed analyses and interpretations of this functional category are available in recent published and unpublished sources (Casella 1999; 2001b). Within this report, some patterns in the distribution of this functional category will be briefly summarised.

Dating the kaolin pipes recovered from Factory-related deposits proved difficult as no artefact from this highly fragmented assemblage displayed identifiable makers' marks (Oswald 1975). The most intact artefact from this assemblage was an unmarked bowl-and-stem fragment (Figure 2). Displaying a moulded rib design on the bowl segment, this non-diagnostic pipe fragment was common throughout the nineteenth-century (Ayto 1979). The fragment was similar in both manufacture technology and decorative style to clay pipe bowls typical to Australian historic sites (Gojak and Stuart 1999: 39 and Figure 4). At Ross, tobacco pipes appeared to be concentrated within the Solitary Cells, as both the highest minimum number of vessels (16) and greatest amount by weight (94.76 g) were recovered from Area C (Table 5). Area A contained a total of 24.57 grams of tobacco pipe fragments, representing a minimum of eight pipes (Table 2). As no tobacco-pipe fragments were recovered from the Hiring Class Dormitory of Area B, these results might indicate a differential use of illicit tobacco within the Crime Class region of Ross Factory. At a minimum estimate, three pipes were recovered from the Assistant Superintendent's Quarters of Area B, weighing 7.12 grams (Table 3).

The lowest frequency of olive-glass alcohol bottles were recovered from Area B. A minimum total of 11 bottles (754.48 g) were collected from this excavation area. The majority of this material was recovered from the drain system located on the exterior of the Hiring Class Dormitory (Table 4). Only 294.19 grams (MNV = 3) of olive bottle glass was found within the Assistant Superintendent's Quarters, representing the smallest amount recovered from the excavated Factory structures (Table 3).

In contrast, the majority of olive glass bottles recovered from Area A were collected from the interior of the Crime Class Dormitory. While a total of 1 574.70 grams (MNV = 18) was recovered from Area A, approximately 1 528.75 grams (MNV = 15) of this glass was found inside the Dormitory structure (Table 2).

Comparing the olive glass distribution between Areas A and C produced some noteworthy results. Although both areas contained a minimum of 18 bottles, a greater weight of olive glass was recovered from the Crime Class region, with 1 574.70 grams recovered from Area A, versus 1 011.06 grams recovered from Area C. When interior deposits of these structures are compared, the same differential patterning exists; 1 528.75 grams (MNV = 15) of olive glass was collected from inside the Crime Class Dormitory, and only 312.0 grams (MNV = 10) of olive glass was found inside the Solitary Cells. However, while a greater minimum number and weight of olive glass bottles were recovered from Area A, an area three times greater had been excavated in this region than in Area C. Furthermore, olive glass constituted only 55 percent of the total glass assemblage from the Crime Class Dormitory underfloors, compared with over 77 percent of the

total glass assemblage from the Solitary Cell interiors. Thus, olive glass bottles occurred much less frequently inside the Crime Class Dormitory than within the Solitary Cells.

These results could have been affected by such factors as occupation density, differential preservation of the record, and depositional processes. The greater presence of these artefacts within the earthen floors of the Solitary Cells might also have reflected the limited options for disposal of incriminating evidence. In her study of the glass assemblage from the Boot Mills of Lowell, Massachusetts, Kathleen Bond noted the significantly high quantity (by weight) of undiagnostic smashed glass artefacts in the courtyards that surrounded the workers' boardinghouses (Bond 1989). She suggested that this occurrence might indicate a 'smash and scatter' strategy employed by the mill girls to safely disperse all incriminating evidence of their illegal alcohol consumption. The lower frequency of tobacco pipes and alcohol bottles within the Crime Class Dormitory underfloor deposits might indicate a greater variety of options available to those inmates for disposal of their indulgences.

### Literacy

The functional category of Literacy consisted of objects related to reading, writing and numeracy. Within the Ross collection, two types of artefacts constituted this category: slate pencils and slate tablets (Figure 2). Both weights and estimates of minimum numbers present were taken for this category of artefacts.

Artefacts related to literacy were concentrated in Area A, specifically on the interior of the Crime Class Dormitory. A minimum of ten slate pencils (27.71 g) were recovered from underfloor deposits within Area A (Table 2). Approximately 9.4 grams of slate tablet were also collected from these stratigraphic contexts. Minimally representing two tablets, these fragments constituted the only presence of slate tablets within Factory-related deposits. Area B contained 9.64 grams (MNI = 5) of slate pencil fragments (Tables 3 and 4). These artefacts were found in highest frequency in the east room of the Assistant Superintendent's Quarters, although two pencils were recovered from deposits on the exterior of the Hiring Class Dormitory. No literacy-related artefacts were recovered from Area C, perhaps reflecting the absence of this activity within the Solitary Cells (Table 5).

While embarked upon transport ships and incarcerated within the Female Factories, convict women were encouraged to develop their literacy skills through regular training in reading, writing and numeracy. Drawing upon fashionable philosophies of penal reform, the Convict Department considered the cultivation of literacy necessary for encouraging obedience and mental discipline, and for enhancing the convicts' value as skilled domestic workers. Female convicts in Australia tended to be more literate than their free, working-class counterparts in either England or Ireland (Oxley 1996: 161). Since convict women assigned to the Crime Class were encouraged to attend literacy instruction within their dormitories each evening (Scripps & Clark 1991), the high concentration of literacy-related artefacts within the interior of the Crime Class Dormitory may reflect this activity.

### Miscellaneous

One particularly ambiguous type of artefact was recovered within Factory-related deposits. During excavations, five quartz crystals were recovered from the earthen floors of the Assistant Superintendent's Quarters and the drain system on the exterior of the Hiring Class Dormitory (Tables 3 and 4). Weighing a total of 105.67 grams, these crystals were found only in deposits from Area B. The functional purpose of these artefacts remains unknown.

## Monetary

The Monetary category accounted for two types of artefacts: legal tender, and merchant tokens from colonial businesses. Three British coins were recovered from excavation trenches at the Ross Female Factory (Figure 3). One copper-alloy penny was found within the eastern room of the Assistant Superintendent's Quarters of Area B (Table 3). Depicting a female bust, this coin was identified as a Victorian Era issue. On the reverse, the date 1866 could be discerned. The presence of a post-Factory period coin within the earthen floor of the Assistant Superintendent's Quarters suggested this structure had probably experienced some occupation or use after closure of the Female Factory. Therefore artefactual materials recovered from these earthen floors were less directly associated with the Ross Factory inhabitants.

Context 1020, an underfloor deposit within the Crime Class Dormitory of Area A, contained a highly oxidized copper-alloy coin (Table 2). Inscribed with a laureate bust, and the word '...ORGIUS', no date could be read on the reverse of this coin (Figure 3). Comparative stylistic analysis of coins issued during the reign of George III identified this artefact as a British copper penny, part of the fourth issue from Matthew Boulton's Soho mint in Birmingham (Seaby 1961: 32; Cooper 1983: 21). This penny best matched the diameter measurement of those issued during 1806. Since it was recovered from context 1020, an Area A underfloor deposit

stratigraphically linked to the female-occupation period, its presence could reflect the illicit possession of legal tender by a female convict accommodated within the Crime Class Dormitory.

Within Area C, a copper-alloy 1823 George IV British farthing was recovered from the first-floor horizon of the central solitary cell (Table 5). This artefact was recovered in good condition, with only a slight degree of oxidation obscuring its surfaces (Figure 3). Stylistic analysis suggested this coin had been printed during the Soho mint of Birmingham's first issue for George IV, which ran from 1821 to 1826 (Seaby 1966: 212). The location of this coin suggested it had been deposited during female-convict occupation of the site.

The colonial economy thrived on a second layer of material exchange. A general dearth of legal currency within Van Diemen's Land encouraged the development of economic networks of semi-legal barter throughout the colony. Although the majority of Van Diemen's Land tokens originated in Hobart, copper-alloy merchant tokens were issued by 20 different businesses located in six different towns around the island (McNeice 1969: 68). Van Diemen's Land tokens typically came in denominations of either one penny or one-half penny. They were widely circulated from the early 1850s to 1875, when all non-governmental currency was recalled by the *British Monies Act* of 1875. Two of these merchant tokens

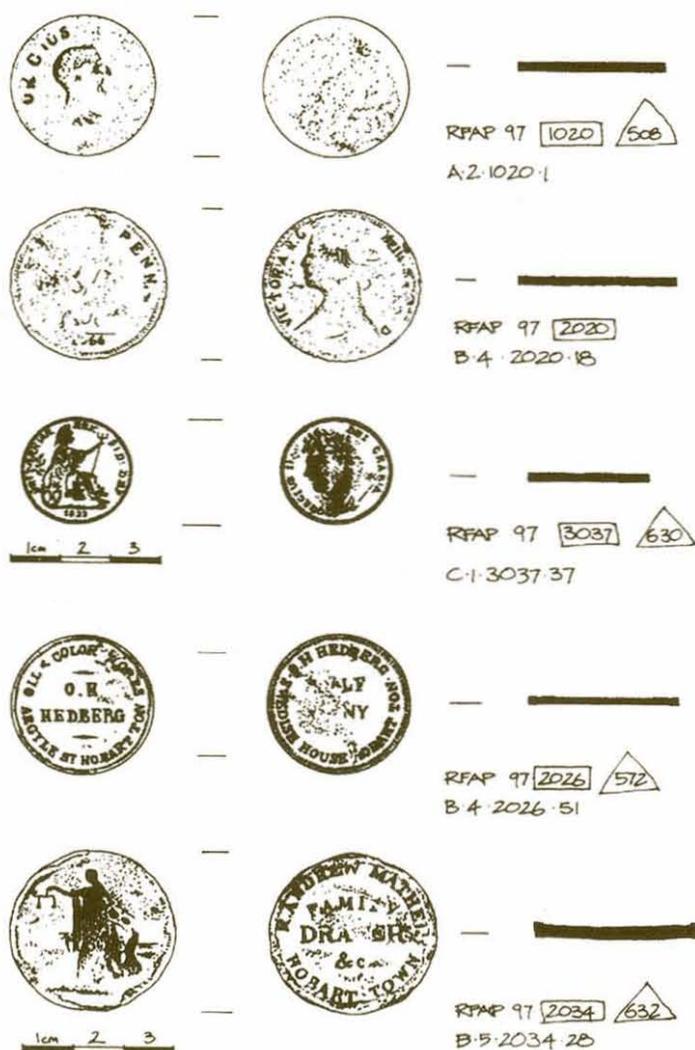


Figure 3: Top: British coins from the Ross Collection. Bottom: merchant tokens (Area B). Drawings by Russell Warman.

were recovered within the Assistant Superintendent's Quarters of Area B (Figure 3). As discussed above, the presence of an 1866 Victorian-issue British coin within the earthen floor of the eastern room indicated a degree of post-Convict Era occupation of this structure. However, although the two merchant tokens could not be directly associated with inmates or staff of the Female Factory, they do suggest that some Factory or post-Factory inhabitants acknowledged, and likely participated in, the semi-legal economy of mid-nineteenth-century Van Diemen's Land.

The first token was recovered from a deposit of dark brown silt that had accumulated within the underbarrel drain of Area B. Approximately 28 mm in diameter, this merchant token had been issued by Olf H. Hedeberg, a grocer on Argyle Street in central Hobart Town. Named the 'Swedish House,' Hedeberg's business catered to a particular ethnic minority amongst the free settlers.

The second token was recovered from the earthen floor of the western room inside the Assistant Superintendent's Quarters. This copper-alloy token had been issued by R. Andrew Mather, a leading draper and clothier of Hobart Town. The Mather token was 33 mm in diameter. It appeared to be thicker in cross-section, and stamped with less detail than the Hedeberg token. Although these differences might have reflected variations in the manufacture process, a similar Mather token recovered from Port Arthur—a male-convict site on the Tasman Peninsula of Van Diemen's Land—did not show similar signs of substandard manufacture (McGowan 1985: 33, 116). Recovered from a post-1848 domestic deposit inside 'Lithend,' a staff cottage within the Port Arthur penal compound, this Lithend Mather token was similar in size, thickness and clarity of design details to the Hedeberg token from the Ross Factory collection. Tasmanian numismatist Roger McNeice observed that the Mather token was frequently forged. Although these illegal copies were usually stamped in lead, other metal fabrics were also used. Thus, it is possible that the Mather token recovered from the Ross Factory Assistant Superintendent's Quarters was a forgery, although post-depositional impacts cannot be fully dismissed.

### Social Control

The category of Social Control consisted of objects related to the physical enforcement of domination. Three types of such artefacts were found within Factory related deposits. Ferrous chain links were recovered from all three excavation areas. The greatest concentration (524.20 g) of these artefacts was found within underfloor and demolition deposits on the interior of the Crime Class Dormitory (Table 2). This evidence could suggest that these chain links entered the site after closure of the Factory in 1855. Rather than relating to the exercise of social control, they might have served some structural or demolition related function. Within Area C, 67.39 grams of ferrous chain links were recovered from the first-floor horizon, and 40.40 grams from the northern exterior of the cellblock (Table 5). No ferrous chain links were recovered within the Hiring Class Dormitory and only 37.13 grams found within the eastern room of the Assistant Superintendent's Quarters (Table 3).

Two other objects related to social control were recovered from Area B. One ferrous padlock was recovered from the eastern room of the Assistant Superintendent's Quarters. Heavily oxidised, it was intact, heart-shaped and weighed 156.67 grams.

Finally, a ferrous gun-powder musket flask was recovered from silt deposits within the underbarrel of the sandstone drain system on the exterior of the Hiring Class Dormitory of Area B (Table 4). Capped with a copper-alloy self-measuring release valve spout, this pear-shaped artefact was

manufactured from 1750 to the late nineteenth-century (Held and Jenkins 1959: 134). Heavy oxidation of the ferrous body of this artefact obscured identification details, including any distinguishing military insignia or decorative marks.

This ferrous artefact was recovered from context 2026, a brown alkaline silt deposited within the base of the Area B drain underbarrel. It was located approximately 70 cm into the course of the box-drain. Context 2026 was an alluvial silt, and had accumulated through the normal functioning of the drain system in Area B. These drains were installed in 1841, during expansion of the penal site to provide accommodation for male Road Gang convicts. After closure of the Factory in 1854, the drains were no longer maintained regularly. Since seasonal floods of the Macquarie River frequently inundate the site, the drain underbarrel would have rapidly clogged with alluvial sediments. Thus, the musket flask probably related to one of the convict periods of site occupation. Depositing this flask within the drain underbarrel would have required raising the heavy sandstone drain bowl. Thus, the musket flask appeared to be intentionally hidden deep within the drain underbarrel—a rather inconspicuous and inappropriate location for a container of gunpowder within a penal institution.

### Structural

Structural materials consisted of artefacts related to the physical fabric of Factory buildings, architectural features, and furnishings. The functional category included: terracotta brick, mortar/plaster, ferrous nails, ferrous other (screws, bolts, nuts, wire, flat fragments, and unidentified fragments), copper other (wire, flat fragments, and unidentified fragments), lead, sandstone cobblestones, slate, timber (fragments of joists, beams or roof shingles), clear lamp glass and clear window glass. By weight, the 'Structural' category formed a dominant component of the recovered artefactual assemblage in all three excavation areas. Although more research must be completed to comparatively analyse materials from this category, some preliminary trends can be discussed.

The greatest concentration of structural materials was recovered from mixed underfloor-demolition contexts within the Crime Class Dormitory of Area A (Table 2). While this result was in itself unremarkable, the particularly high frequency of clear window glass present in this stratigraphic layer (500.73 g) corroborates with documentary evidence for the installation of paned windows in the convict dormitories in 1847, in preparation for the Female Factory occupation period. Within Area C, a relatively high amount of clear window-glass (219.84 g) was also recovered from the southern exterior of the Solitary Cells (Table 5). Extrapolating from contemporary penal design, the southern windows were most likely small and rectangular, installed just below ceiling level to provide necessary air circulation, while limiting visual stimulation and preventing escape (Evans 1982).

Although a far greater amount of structural materials was recovered from the interior, versus exterior, of the Crime Class Dormitory, the opposite trend appeared in the Hiring Class region of Area B (Table 4). The exterior of the Crime Class Dormitory yielded 188.17 grams of structural artefacts, while excavations of the exterior pathway and drain system of the Hiring Class produced 491.53 grams of these materials, or approximately 2.6 times more structure-related artefacts. This discrepancy could represent a combination of causes, including differences in the process of demolition employed on the two dormitories during later periods of site occupation, or increased robbing and recycling of structural materials from the Hiring Class Dormitory building. Further research is required to adequately evaluate these results.

## DISCUSSION

Results of this functional analysis present some interesting inter-regional material patterns. Comparison of all three excavation areas demonstrates that both the greatest amount and greatest functional diversity of artefacts were recovered from the Main Compound of the Factory (Tables 2 to 4), as opposed to the Solitary Cells (Table 5). Although this is a rather predictable distribution pattern, it is nonetheless worth noting the significant amount and diversity of cultural materials recovered from the Solitary Cells—that region of the site dedicated to the enforcement of austere disciplinary deprivation.

Within the Main Compound, the Assistant Superintendent's Quarters (Table 3) contained the greatest diversity of cultural materials. Unfortunately, this region of the site was also related to the Factory-occupation period with the least degree of certainty. The brick Assistant Superintendent's Quarters was originally constructed for the accommodation of male convicts during the Bridge Gang occupation period of the early 1830s. Stratigraphic evidence suggests that unlike the Crime Class and Hiring Class Dormitories, the earthen-floored Quarters had never been installed with wooden floorboards during preparations for the establishment of the Female Factory in 1847. Thus, the earthen floors of the excavated east and west rooms most likely held a mixture of pre-1848 and Factory-related artefacts. Finally, as presented earlier, the recovery of an 1866 Victorian penny within the eastern room deposits also suggested a significant degree of post-Factory impact on this structure.

The two regions of the site predominantly occupied by female convicts were the Crime Class Dormitory (Table 2) and the Solitary Cells (Table 5). Comparison of results from these two areas reveals that materials from the two functional categories related to personal appearance, Adornment and Clothing, appeared to be concentrated within the Crime Class Dormitory. With the significant exception of buttons, Clothing-related artefacts were recovered in greater number, weight and diversity from the Dormitory. All seven beads recovered at the Ross Factory were found in the Dormitory underfloor deposits; no Adornment-related artefacts occurred within the Solitary Cells.

Finally, materials from the Indulgence category were recovered in greatest concentration from the Solitary Cells. As presented before this pattern might reflect a lack of disposal alternatives within the Cells. Although detailed evidence for the acquisition and transport of these illicit artefacts can be found in other sources (Casella 2000; Casella 2001b), it is worth noting that the archaeological presence of olive-glass alcohol bottles and kaolin tobacco pipes might materially signify internal networks of covert blackmarket exchange. These 'illicit objects' could therefore reflect subversions of the boundaries, fencelines and architectural isolation of the Ross Factory. Ultimately, the high presence of forbidden 'indulgences' in Area C suggests that female convicts sentenced to periods of 'separate treatment' enthusiastically maintained their access to diverting luxuries.

## FUTURE DIRECTIONS

The Ross Factory Archaeology Project was designed to examine reciprocal power relations as reflected in both the built environment and the distribution of portable artefacts. Although results of the functional analysis have illuminated significant patterns of site use during the Factory-occupation period, further research could reveal additional aspects of life within this unique convict site, and would provide new directions for the archaeology of confinement. Two avenues seem particularly rich for future study.

## The Fabrication of Discipline

Excavations of the Solitary Cells (Area C) only examined approximately 17 percent of this important structural feature. Given this limited sample, one particularly valuable future direction would be the continued analysis of this region of the Ross Factory site. Opening further trenches to the north and south of the Solitary Cells would provide comparative data for testing interpretations of the internal architecture of the structure. Interweaving stratigraphic and architectural data, I have argued that these cells contained two layers of earthen floor, separated from the entrance level by a drop of at least 30 cm (Casella 1997; Casella 2001c). However, if these cells had been originally floored with suspended wooden floorboards, a common building feature during the mid-nineteenth-century, it is possible that the stratigraphic contexts identified as the upper 'F2' floor actually represented the construction surface. In this case, artefacts recovered from this horizon would have been deposited by the male convict labourers as they built the sandstone cellblock. Following this alternative model, the stratigraphic contexts defined as the lower 'F1' floor would pre-date the Solitary Cells. Artefacts recovered from that earlier horizon would represent the generic scatter of nineteenth-century materials washing downhill from the Main Compound of the Ross Station during the 1830s and 1840s.

However, results generated by a functional analysis of the artefacts recovered from excavations might contradict this alternate architectural interpretation. In Table 5, results demonstrate that the First Floor (F1) contained 1 411.82 grams of structural materials, while the Second Floor (F2) yielded only 671.92 grams. Thus, although structural materials accounted for a relatively greater component of the total artefact assemblage in the Second Floor (55% of F2 versus 41% of F1), the First Floor contained twice as many structure-related artefacts by weight. With no building construction or demolition activities historically documented in this southern region of the site before erection of the Solitary Cells in 1851 (Scripps & Clark 1991), this high frequency of structural materials in the first-floor horizon could identify that feature as a combination construction-and-first-occupation floor, rather than a generic scatter of cultural debris related to occupation of the Main Compound before 1851.

By extending excavation trenches to the immediate north and south of the cellblock, we could evaluate the alternative archaeological interpretations of Area C. To sustain my interpretation of two superpositioned floor features within the cells, the density of artefactual materials would need to concentrate on the interior of the cells, and diminish to the northern and southern exteriors. If no change in artefact density were present, the lower first-floor horizon is more likely to represent the 'background noise' of secondary deposition, rather than an architectural floor feature. These new data would then enable a re-evaluation of physical evidence for the presence of cultural deposits and social activities within Area C.

## Food and the black market economy

Preliminary identification and inventories of ferrous, faunal and ceramic assemblages suggests a significant discrepancy between the physical evidence for food within convict dormitories and cells, and the official scale of food rations calculated by the colonial Convict Department (Scripps & Clark 1991: 20). Furthermore, in their 1842 testimony to the Committee of Inquiry into Female Convict Prison Discipline, convict informers explained how their fellow inmates easily supplemented their officially issued rations through illegal trade in food (AOT CSO 22/50). A detailed study of faunal materials and ethnobotanical remains from the Ross collection

would directly investigate this issue of illicit food exchange within the prison. A detailed specialist analysis of the ferrous containers and ceramic assemblage recovered from the Crime Class Dormitory and Solitary Cells would also provide new data on the procurement and distribution of food within the Factory. Ultimately, such research would provide further material insight into another means by which female convicts transgressed the disciplinary regulations and spatial barriers that structured their institutionalised lives.

The Ross Factory Archaeology Project added new material perspectives to current research debates on Australian female convicts. Using functional analysis methods developed in American historical archaeology, this research has examined the cultural remains related to the Female Factory occupation period. Results of this analysis provide us with new physical evidence for both the institutional structures of confinement and the covert aspects of life within the Ross Factory.

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