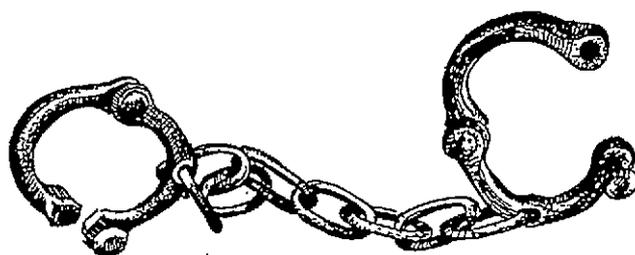


# Convicting Artefacts:

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Representation and the Convict Experience of Life,  
Illness and Death on Norfolk Island



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VOLUME 1

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## Preface

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In February 1997, I took the opportunity of photographing a previously un-studied collection of artefacts held in the Norfolk Island Archaeological Museum, which was to form the basis for an archaeological study of material culture. After observing the archaeological displays in the Museums on the Island, I began to formulate broader ideas about the value of the study of archaeological artefacts, and the presentation of Australia's convict past to the public. Museums are one of the most important means through which the public can learn about the past, and yet it seemed that many museums which had the potential or responsibility to present and interpret convict history, had failed to provide their viewers with a sense of what life was like as a convict. I decided to investigate the accuracy of my impressions.

Fiona Starr, October 1997

## Introduction

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At the official opening of 'The Edge of the Trees' sculpture at the Museum of Sydney in 1995, recognising historical Aboriginal and European contact at the site, one man in the audience shouted 'What about the convicts?' (Ireland 1995: 103). His question highlights a deficiency of representation and recognition of convict contributions to Australian history in Australian museums. While some museums *have* presented penal history, the material culture displayed, and the themes portrayed, focus on the dominant narrative of the harsh, brutal reform of the British lower classes of the eighteenth and nineteenth centuries. The result has been the popular 'ball and chain' or punishment-oriented understanding of Australia's penal past.

Through a survey and analysis of convict displays and exhibitions in Australian museums this thesis will point out the deficiencies in most museums towards developing a broad understanding of convicts as individuals with real experiences, beyond those of punishment. An archaeological case study of the qualities of artefacts excavated from the Civil Hospital privy and the convict headstones, from the second convict settlement on Norfolk Island (1825 - 1855), will be undertaken as a study of the convict experience in a hospital, and an exploration of the themes of life, health, disease, pain, and death. These themes will be discussed as examples that might be explored in Australia's museum representations of the archaeology of convictism, in extending the popular perceptions of Australia's penal past beyond the theme of punishment to look at the human experience of being a convict.

The convicts had two identities - official and unofficial. The official face, which has formed the popular perception of a convict, was recalcitrant, futureless, uneducated, but ordered by punishment. The private convict however, about which we know little, had thoughts, feelings, values, beliefs, jokes, slang, and relationships. Knowledge of the convicts as a group can be discerned from official accounts of the penal system, yet the material culture of convicts is more useful in identifying aspects of individual convict experiences. It would be naive to assert that punishment was not always a part of convict life on Norfolk Island, yet there is more to be understood about private convict lives, and archaeology has enormous potential in extending this understanding.

In 1987, the privy from the Civil Hospital on Norfolk Island was excavated, revealing artefacts discarded by the convicts and staff in the Hospital, from about 1837 when the privy was constructed, to 1855 when the settlement was abandoned. A substantial amount of historical evidence exists for the regulations and official existence of convict hospitals in the colony, but the material evidence from the Hospital can serve two purposes. Firstly, it is valuable in demonstrating certain unofficial happenings in the Hospital, and secondly it is valuable for illustration of the material existence of convicts for increased public understanding of their lives. Qualitative analysis of a sample of artefacts from the privy is used in this thesis to demonstrate the activities of the convicts in the Hospital, and the medical attention they received.

The artefacts under study are stored in the Archaeological Museum, in the Old Commissariat Store basement, on Norfolk Island, and were photographed by the author in February 1997. During this process, artefacts excavated from two privies that serviced the Superintendent of Agriculture's houses, Nos 2 and 3 Quality Row, Norfolk Island, were also photographed, with the intention to compare and contrast the material culture of the convicts and that of the administrators and their families to reveal the dichotomies in living standards. As the photographed artefacts were only a sample of the total privy deposits, and it is unknown whether the artefacts excavated from Quality Row were deposited by the administrators, or by their Pitcairn Island successors, the artefacts from the Civil Hospital were focused upon for this study.

This archaeological case study will stand as a useful entity in itself, as it is one of the few studies of such material from an Australian site, while it will also be useful in the secondary role of this thesis: as an example of the type of interpretative archaeological investigation that could be presented in a museum display to broaden public knowledge of the convict heritage of Australia. 'Archaeological interpretation' is used here to mean a translation or guiding of the process of understanding to explain the meaning of archaeological findings (Hodder et al. 1995). In a museum context, interpretation is the process of conveying meaning from the artefacts to the viewers. More specifically, explaining the archaeological and use contexts of excavated artefacts, the relationships between artefacts and the implications they have for the broader questions about people and the site/s they occupied.

The following research question, which has two components, will be explored in the archaeological case study. The two components present questions that might commonly be asked by one whose perception of convict life is based upon the theme of punishment, and one who might not consider the fact that convicts were individuals who needed medical care, and who had human desires and needs. These questions are posed to test whether the archeological evidence is capable of demonstrating that traditional perceptions of convicts life are narrow-minded, and require expansion.

*What contribution can the artefacts from the Civil Hospital privy make towards a better understanding of the convict experience of life, illness and death in the Norfolk Island Hospital?*

- a) What do the artefacts from the privy reveal about the material circumstances and activities of convicts within the Civil Hospital?

Do any of the artefacts suggest that convicts in the Hospital were denied all access to material goods that might have been considered conveniences they did not deserve? Or do the artefacts suggest that convicts were allowed conveniences, or that they disobeyed rules to obtain items of leisure? What do the artefacts suggest about personal hygiene, convict skills, social interaction between convicts, rules, uniformity and ordering of the convict lifestyle, or use of the Hospital as a refuge from work and punishment? Casella (1996) hypothetically proposed that lamp glass from the convict female factory at Ross, Tasmania, has the potential to represent vandalism of lamps lit at night to prevent homosexual activity, and hence was an act of resistance. Does the presence of some artefacts in the privy indicate a resistance to the rules imposed upon convict lives on Norfolk Island? To what extent can the artefacts be seen to have controlled and structured the experience of convict life? Reverend Sydney Smith, writing on prisons in 1820, expressed his belief that there should be a 'planned and unrelenting exclusion of happiness and comforts' in all prisons (Shaw 1966: 249). If this may be interpreted to include the material culture of comforts and pleasures, then it might be expected that convicts were not able to possess items such as clay tobacco pipes, and thus were not able to use them.

- b) What do the medical artefacts from the privy reveal about the welfare and standard of care of convicts in the Civil Hospital on Norfolk Island?

Do the medical artefacts suggest that convicts were considered to be ordinary people, who deserved standard medical care, or were they viewed by the medical establishment as sub-standard citizens who deserved second rate care? It has been suggested that representatives of the colonial government shared preconceived attitudes towards convicts. For example, Maconochie, a Commandant on the Island, reported the lack of respect for convict feelings by the authorities, and the destruction of their self-respect (1847: 8). Formed by selective observations, they assumed the criminality and immorality of colonial felons. Drew-Smith believes that their 'bias not only shaped their attitudes to the convicts and their families but also to the manner in which they dealt with these felons in their official capacity' (1997: 4). Nicholas (1988) implies that it is a popular belief that convicts were more likely to have received sub-standard care, and they argue that in fact convicts received a higher standard of medical care than imperial slaves and, in some instances, than people in England, yet their argument was not based upon material evidence.

There are two aspects of the standard of care provided for the convicts - official (represented by the supplies to the Hospital), and unofficial (the use of the supplies by the surgeons). The medical artefacts from the privy might indicate the official attitudes towards convicts and the care they deserved, by the types of supplies represented by the artefacts, but the use of these supplies by the doctors is more difficult to discover. If the artefacts are representative of the standard treatment of the time, it might be concluded that at least the supplies provided for the convicts were of an acceptable standard. Alcohol bottles may indicate medicinal use of wine, however they may also indicate the drinking habits of medical officers in the Hospital. Can the material evidence from the privy be linked with historical accounts to provide a more integrated view of the medical care of convicts, and the experience of being a sick convict? The medical artefacts might also indicate the diseases and general lack of health of the convicts, while the headstones in the cemetery might be used to indicate the sanitary standards of the time, religious beliefs, or government policies about burial.

Chapter One involves a presentation and analysis of the representation of convicts and penal history in museums. Chapter two provides a background to medical science and treatment of the nineteenth century, and a historical background to Norfolk Island and the lives of the convicts. The qualities of the artefacts under study are presented in Chapter Three. Chapter Four presents the historical context of the Hospital, within which the artefacts may be placed, while the discussion in Chapter Five draws together the archaeological and historical evidence. The presentation of the archaeological conclusions includes a brief demonstration of how these might be presented in a museum, to allude to the convict experience.

# Chapter 1:

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## Convicts, Archaeology and Museum Representation

### Public perceptions of convicts and Australian history

On the occasion of Australia's 1888 centennial celebrations of European settlement, the convict background of the country was down-played. In 1899 the Governor of New South Wales, Lord Beauchamp, referred to the colony's 'birthstain'. Upper-middle class Australians regarded convict ancestry as embarrassing, these feelings remaining until World War II, when the convict past was seen as insignificant in comparison to the hardship of the War. Fletcher (1992) argues that at least from the 1960s a degree of pride in convict ancestry began to emerge, but it was not until the years approaching the 1988 Bicentennial celebrations of European settlement that Australia's penal past was considered in a positive light.

Perhaps the first official and public suggestion that Australians should be proud of their convict heritage was printed in a trial museum catalogue at Port Arthur of 1984, which stressed that both bond and free pioneers created the foundations of the country we enjoy today (Port Arthur Museum Catalogue 1984). Despite the fact that there has been a movement of positive interest in convict history and origins, there is still a lack of recognition of the men and women who were transported to Australia for sometimes petty crimes, and who formed the basis of today's majority Anglo-Celtic Australian population. In addition, since the interest in convict heritage has increased, popularised accounts of the penal system have formed stereotypes of the victim of the lash and wearer of the ball and chain who is hardly a real person. It would be plausible to argue that with the growth of multiculturalism in Australia since the 1950s, the country's British, colonial origins are no longer relevant. However, many Australians did have ancestors who were early settlers in the colony, free and convict alike. The convict and early settler experience is not only central to the heritage of these people, but central to the heritage of the nation, and for these reasons it is history that should be understood by all Australians.

Much of the study of convicts in Australia has been either sensationalist or statistical. Popular fictional accounts of the convict system, such as Leakey's *Broad Arrow* (1859) and the famous, *For the Term of His Natural Life* (1874), by Marcus Clarke, have been accused of misleadingly zeroing in 'on the horrors of the convict system' (Robson 1988: 31). Clark's characters were based upon research of the most notorious criminals at Port Arthur (Young 1996: 19), yet the work has had enormous influence on the contemporary stereotyped perception of convict life especially in its exposure to the public through the film based on the novel. The post Second World War work of historians such as A.G.L. Shaw (1953a; 1953b; 1966) and Manning Clark (1956a; 1956b) attempted to empirically analyse the convict system, helping to establish an understanding of the convicts as merely unremarkable thieves. Since then an increasing availability of official documents allowed a boom of research in which historians could reconsider Australia's convict origins. Among such studies of convictism, are the statistical analysis by L.L. Robson in *The Convict Settlers of Australia* (1965), and the later *Convict Society and its Enemies* (Hirst 1983) which took a step away from the traditional discussion of convicts in prisons, to consider the historical implications of convictism. *The Fatal Shore*, by Robert Hughes (1987), is an easily-read account of the penal system, but one which has been criticised as sensational in some respects (Fletcher 1992). Hughes' poetic writing style and the appeal his book has to the human fascination with punishment, meant that it quickly became a best-seller, with many people taking the opportunity to read about convict history for the first time.

All of these studies have contributed to the formation of public interest in penal history. Such work, however, has focused too often on the most outstanding and brutal events in penal history, and the prevalence of these stories is reinforced by the material culture of punishment that has so commonly been displayed in Australia's museums. In recent years, the revisionist history *Convict Workers: Reinterpreting Australia's Past*, edited by Nicholas (1988), has attempted to dispel some of the inaccurate popular beliefs about convict life and punishment, and it recognises the contribution of the convict work force towards British colonial expansion. Such current academic thought about penal history has the effect of empowering convicts, and adds to a reconsideration, and a greater respect for Australia's convict origins. These revisionist ideas however remain largely in the academic realm, and need to be projected to the public through museums, an important interface between academic and public learning.

When convicts *have* been represented in museums, literature, films, and other media, the traditional theme has been the 'ball and chain' theme of penal history, and no allusions have been made to the fact that convicts were merely citizens, many highly skilled, and many transported for petty crimes. 'Ball and chain' refers to the popular understanding of the harshness of penal history, dominated by punishment, and represented in museums by the material culture of punishment such as leg irons, manacles, and the cat o' nine tails. As Hutchinson pointed out, it is 'relatively easy to find the sadistic paraphernalia of convictism' (1983: 10), but not the material culture of every-day convict experience. Sullivan has pointed out that museums have a tendency to be 'disconnected from life' because they are usually about the dead (1996: 57), but archaeological artefacts, when well presented, can be extremely useful in conveying the sense of past lives. More often than not archaeology provides evidence of everyday life and therefore seems the obvious counterpart to the histories that have been provided about convict life.

#### **National identity and educating the public about the past**

Museums are a window to the past, but they have a responsibility to the future, in their potential to educate the public, and it has been pointed out that museums largely form people's perceptions of the past (Anderson 1991: 131). For many years museums in Australia paid no attention to history, reflected in the criticisms of the Piggott Inquiry into Museums and National Collections of 1975, which has been interpreted in Australia as a lack of national historical consciousness. The Australian War Memorial was the first to use history to construct an Australian consciousness, based largely on pride in military achievement.

Heritage management authorities have recognised that in recent times, there has been an upsurge of the public desire to discover and conserve historic evidence. Many museums have ignored the potential of archaeology in public education, and have existed without archaeology in their presentation of the past. So do museums need archaeology for representation of the past? Archaeology is not necessary to public understanding of the past, because there are other convenient media through which it can be portrayed, but archaeology can have a central role in such interests, in its ability to extend the

understanding of the past that we gain through documentary history. Archaeology can also have a special role in the development of national identity, in its ability to enlighten new themes in the origins of nations.

Archaeological results are inherently political, especially in a country such as Australia with the British invasion of an already-occupied land. The historical archaeology of colonialism in Australia may be seen as contentious because it robs importance from the Aboriginal past. Historical and prehistoric archaeology have central roles in Australia, however, in developing an integrated national identity, and it is the historical aspect which this thesis will examine. Archaeology in Australia may be seen to have a similar role for Aboriginal peoples, who can thereby demonstrate the diversity and complexity of their culture prior to its displacement and destruction.

Archaeology in Norway has allowed the Norwegians to demonstrate their independence from Sweden and Denmark, after the cultural and political subordination to the two countries for many centuries (Scott 1996). Historical archaeology in Australia is not needed as a tool in proving any sort of national independence, yet it may be used to demonstrate how a distinctly Australian culture evolved from the earliest convict and pioneering origins - that is, distinct from the British culture from which it evolved. It can demonstrate how the Australian character and free lifestyle enjoyed by Australians today was formed from the penal nature of our history. Robson has argued that the 'convict cargo' has not provided Australians with their sense of independence, but with their concern for social and political respectability (1988: 29).

A question facing those with the power to produce interpretations for the construction of national identity is to what extent the darker side of Australia's penal history should be depicted for public consumption. A museum display can stimulate the 'dialogue' between a person and their cultural heritage, and can serve as a source of national pride and identity (Munro 1980). Patriotism and pride in war heroes seems to be the substitute for pride in our earlier history, even though it has been noted that the pioneer legend formed the basis of later Australian legends such as the 'Aussie battler' and the Anzac (Ireland 1996). While many convicts would be considered criminals even by contemporary standards, and they therefore cannot be commemorated on quite the same level as war heroes, their contributions to the origins of the country should be

recognised. In fact, some convicts *have* been idolised in Australia under the guise of Australia's first folk heroes - the bushrangers - who were escaped convicts. Bennett argues that the role of the presentation of punishment in museums is to locate and secure penal severity in the past, but he also notes that in Australia the convict population can be viewed as one of the 'cornerstones of the nation' (1988: 17), or a point of reference from which the history of other groups such as squatters and miners can be drawn.

Just as Anderson (1991) argues that the representation of Aborigines and women have been out-numbered in Australian museums by 'great men' and their families, exploration, and early pioneers, it is argued here that convicts have suffered the same plight. Convicts are central to Australian history, and yet their representation in Australian museums is lacking. A study of the material culture of British soldiers has already sought to increase our understanding of their lives in the early colony (Stanley 1988), yet, no such study has been conducted for the convict population. The tangible connection that convict artefacts have to the past gives them a presence that instils fascination, and Winkworth (1990) has pointed out that this should be harnessed to create a deeper understanding of the convict period.

### **Convict archaeology and its presentation to the public**

Insight into the convict experience can be provided by buildings, archaeological artefacts, museum-collected artefacts, and official and un-official documentary accounts. Karskens (1997) argues that historians have tended to turn to the official records and accounts left by the elite in attempting to understand convict history, and they have reduced convicts to objects and victims of the 'system', in terms of what the system did with them or to them. Convicts have been portrayed as 'devoid of cultural identity, and hence scarcely human' (Karskens 1997: 236). Connah (1988) has pointed out that archaeology in Australia provides a special opportunity to redress the imbalance created by the lack of appreciation of the convict contribution to the colony represented by documentary sources. Despite this, convict archaeology has had a limited profile in Australia. In 1988 Connah stated that very little attention had been paid to the archaeological evidence of Australian convictism, and now almost ten years later, his statement is still largely applicable.

Kerr (1984) explored the designs of buildings for convicts, and how these buildings controlled the lives of their inmates. The buildings are associated with convicts because they were built to house convicts, but do not directly represent the individual convict lives or contributions. Karskens' (1984) pioneering archaeological study of the convict-built road station remains at Wiseman's Ferry and the Great North Road (1986) did address the convict contribution to the development of the early colony, using the uncommonly explored material evidence of convict road gangs and the road they constructed. Similarly, Blair and Claoué-Long (1993) analysed the evidence that the daily interaction of convict workers with their masters left on the Australian landscape at the Lanyon estate near modern Queanbeyan. More recently, the archaeology of convicts has been produced in the study of the Cumberland/Gloucester Street site, at The Rocks, as a convict residential area. The study demonstrates that convict Sydney should not be associated with misery, exile and imprisonment, as has been the traditional view, but with convict families, households, and with the refuse of everyday, traditionally non-convict, life (Karskens 1996: 43). The most recent archaeological investigation into convict lifestyles is that by Casella (1996; in press), on the Female Factory at Ross, Tasmania, in which she explores the value of the archaeological evidence in challenging the existing perspectives about female convicts, attempting to give voices to those who are unequally represented in documentary sources.

While much academic work has been produced, such revelations remain in the academic arena, and very seldom do they filter through to the public consciousness. As Young points out such work has been 'limited, legalistic, and impersonal' (1988: 70). Many museums have displayed artefacts of the 'convict era' and re-told the sensationalist stories from Australia's penal past, but the entire personal experience of being a convict in the early days of the colony largely remains untold. Museums are a medium between academic and professional revelation and the public, and so are perfect platforms from which the public can be exposed to interpretative work on the experience of being a convict. As one newspaper put it 'recalling a black past to entertain the present' (*The Albany Advertiser* 1990: 10).

The representation of archaeological remains in museums has in recent years been considered problematic. It has been recognised that displays of archaeological material have generally been biased towards a middle class, censored or sanitised view of the

past, that is androcentric and only offers one of the often many possible interpretations (Longworth 1994). It has been customary to present specimens, row after row in glass cases, and labelling was usually limited to object names and places of origin, sometimes presenting dates. Until recent years, museums have rarely approached the questions of what and how archaeologists learn from artefacts (King 1984).

Pearce (1990) asserts that objects can be viewed on three levels - as artefacts produced by the application of technology, as signs and symbols about life, or as ideological meanings, representing the feelings they induce. Very few exhibits of archaeology go much beyond the first level. The archaeological contexts of excavated artefacts are rarely considered in the presentation of the objects, and while some museums have had objects to present, their curators have lacked the theory of material culture analysis with which they might interpret the objects for public understanding. As Longworth (1994) asserts, museums should be principally 'about objects', yet the archaeological context is integral to the full understanding of an archaeological object. Visitors need to be guided in their own reconstructions of the past from archaeological objects in a museum, as many do not have the theoretical background to substantiate what they observe in a display.

### **The state of convict museology in Australia**

Due to the lack of convict archaeology in Australia, there is very little archaeological work to be presented in museums. Non-archaeological displays about convictism, involving museum objects accompanied by labelling and excerpts from documentary accounts, have survived for many years as the principal means of portraying Australia's penal history. Such displays, as might be expected of non-archaeological material, have relied upon descriptive signs, and collected relics of convict punishment. The extent of museum exhibitions about convicts range from the folk-history type museum, resembling the store rooms of more advanced museums, to innovative and interpretative displays, in which the human presence behind the objects and stories can be felt by the museum visitor. A survey of museums in Tasmania, Western Australia, New South Wales and Norfolk Island, revealed varying degrees of interpretation and presentation of the personal, human experience of convictism.

While South Australia was not a penal settlement, the Adelaide Gaol Museum, decommissioned as a working gaol in 1988, is interesting for its attempts to present prison life. Recent visitors to the museum have expressed their views about why they visited the gaol, most admitting that they had never seen the inside of a gaol, and that they had a desire to see the conditions of life. When asked what they felt was lacking in the museum, some visitors expressed the need for more details surrounding specific inmates, and the use of case studies to illustrate life in the gaol (Adelaide Gaol Visitor Survey 1997).

### *Tasmania*

Convict paraphernalia was first collected for public display by the Scottish photographer, Beattie, who began a private museum in Hobart in the 1880s, displaying photographs and items he had collected on his trips to Port Arthur - leg irons, manacles, hand cuffs, cat o' nine tails, ticket of leave documents, orders for floggings, and pewter items stamped with the broad arrow (Young 1996: 52). Beattie's arrangement of the instruments of punishment told the story of the severity of the penal regime (figure 1). The museum became Hobart's most popular tourist attraction and hence contributed greatly to the establishment of the popular 'ball and chain' perception of penal history. Today, the result is an almost vulgar popularisation of convictism, represented in the presence of 'Ball and Chain' restaurants, convict ghost tours, and 'Martin Cash' travel lodges which have been established throughout Tasmania (Young 1996).

The 'Copping Colonial Convict Exhibition' in Copping, Tasmania presents a jumble of convict era paraphernalia, in a warehouse that resembles more an antique store/jumble sale than an exhibition (see figure 2). While the museum exhibits the material culture of life of the time, the main items on exhibition being the ball and chain, the museum contributes little to the public understanding of the convict experience.

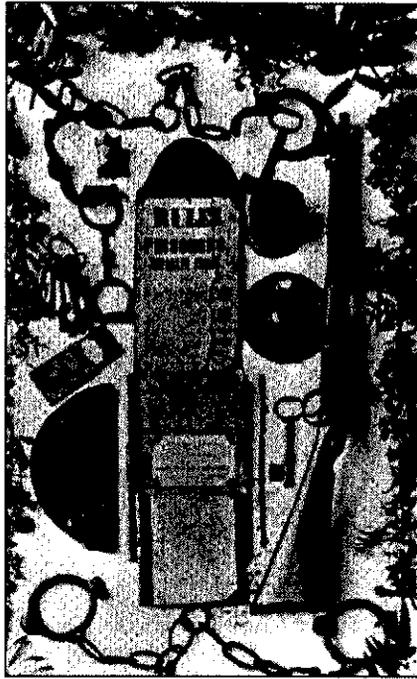


Figure 1: 'Et in Arcadia Ego': relics of punishment and bureaucracy from Port Arthur, surrounded by native wildflowers, Tourist postcard by J.W. Beattie, c. 1870.

(Hughes 1987)

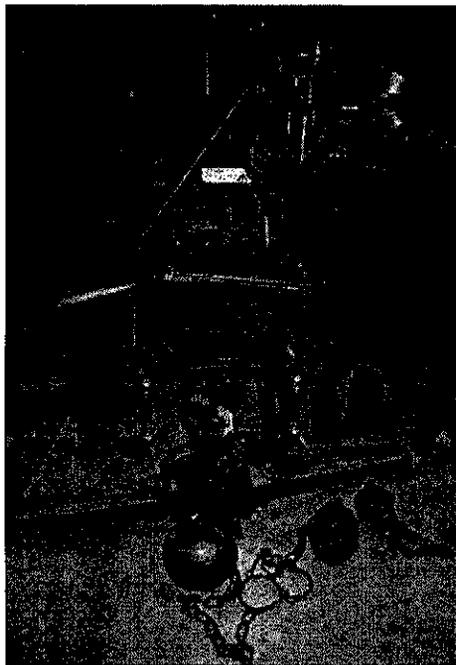


Figure 2: Convict artefacts at the Copping Museum, "Acclaimed Largest Relic Collection Ever Seen"

(Photograph: Copping Museum Postcards)

The Port Arthur penal settlement historic site presents permanent displays specific to the history of the site. Convict eating utensils, items produced by convict hands, and documents relating to the official aspects of convict life, are complemented by the original fabric of the penal settlement buildings interpreted by signs, guided tours of the area and role plays (which give a personal slant to the visitor's experience, and are based on convict records) (pers. com. Jennifer Nuske 1997). The interpretation of the site has however been criticised for focusing too heavily on the history of the buildings and the associated artefacts, instead of the history of the related social themes (Young 1996). Flanagan criticised the managers of Port Arthur for implying through their management of the site that 'life as a convict at Port Arthur was not only all that bad, but in reality rather pleasant' (1990: 39). Flanagan (1996) has also argued that little sense of what it meant to be a convict is portrayed through the site, and that the presentation of archaeological material gives the impression that histories of the people behind the objects are too contentious to discuss.

The Tasmanian Museum and Art Gallery also has a permanent convict display in its 'Port Arthur' room. In its renovation, curator Julia Clark attempted to extend the presentation of convictism beyond punishment to stress the place of the themes of women and class in convict history (Young 1996). Likewise, the Queen Victoria Museum and Art Gallery (QVMAG) in Launceston held an exhibition of convict handicrafts in 1990, displaying items such as shoes, boots and leatherwork made by convicts. A travelling exhibition from 1983 displayed pottery from Port Arthur, a few pieces from the convict period (1830 - 1877), but most from the commercial pottery that existed on the site after 1877. The exhibition was innovative in its attempt to present some of the evidence of the variety of industries in which convicts were employed, as opposed to the already well-known history of the penal nature of the site (Tassell 1983). The QVMAG also curated a small touring exhibition entitled 'Tricks of the Trade' based on photographic portraits of convicts, tools and handmade items, which examined the trades in which convicts were employed (pers. com. Elspeth Wishart 1997).

The Colonial Gaol at Richmond, near Hobart, has also attempted to extend its displays beyond the theme of punishment, presenting displays in cells and other prison rooms indicating the activities in which convicts were engaged, and providing details of the

punishments inflicted for certain offences. The gaol museum has also incorporated the history of the minority groups such as female and Aboriginal prisoners, and their circumstances within the gaol. An exhibition of art in 1988 entitled 'Tasmanian Vision', included paintings by convict artists such as Wainright and Thomas Bock. The publication produced in conjunction with this exhibition was entitled *The Southern Outpost: Hobart 1846 - 1914*, and included a section on 'The stain of convict descent' (pers. com. Jeffrey Scrivener 1997). While recognition was made of the convict contribution, the convict element was not the central theme for this exhibition and publication, emphasising the lack of convict-centred museology in Australia.

### *Western Australia*

At the Old Gaol Museum in Albany, the visitor can observe convict artefacts found during the restoration of the Old Gaol, a diorama of the original settlement, a life-sized model of a convict in uniform, furnished cells and photographs of the era, and on open days actors portray the convict inhabitants of the building, reading from researched scripts (pers. com. Judith Swain 1997). The Western Australian Museum displays artefacts from the local convict era, 1850 - 1868, including a particoloured (yellow and black) chain gang uniform (Young 1988). The display of such artefacts illustrates aspects of the convict existence, but unless interpretation is provided, most viewers have little chance of placing themselves 'in the shoes' of convicts.

From 1979 to 1994, the Fremantle Prison museum operated in a house on The Terrace, Fremantle, displaying objects such as leg irons, convict clothing, and artefacts from the prison hospital. The Museum's displays were arranged thematically, including prison philosophy and prisons in the nineteenth century, transportation, the lives of the prison officers, and current practice regarding the welfare of prisoners. The mission of the Museum was to demonstrate how important the prison and the prisoners had been in the development of Western Australia. The Fremantle Prison, built by convicts, for convicts in 1850, closed as a working prison in 1991, and is now open to the public for inspection. Tourists can learn about the site through guided tours, or by self-guided, audio-assisted tours, enter reconstructed convict cells of the 1850s, and see original convict drawings on the cell walls. In 1996 the basement of the Main Cell Block was refurbished as an Interpretation Centre, including spaces for exhibition and educational

activities, which should in the future provide a venue for innovative displays of the Prison's collection (pers. com. Rob Besford 1997).

### *New South Wales*

The Hyde Park Barracks (HPB) Museum in Sydney is perhaps one of the most innovative and successful attempts in Australia to present the penal past. An aspect of the museum's mission is to revise the way historical issues are discussed and represented, expanding upon the traditional duplication of names, crimes and punishments of convicts, to engage in a personalised presentation of the inhabitants of the building (Crockett 1995). It is a museum in which the human presence behind the stories and the objects can be felt by the visitor, in particular on the top floor with the ghost-like silhouettes and voices of convicts suggesting the past lives associated with the building (see figure 3). Visitor interaction with museum exhibits is one of the best ways in which the curator's message can be conveyed, and a way in which visitors can best understand how the people of the past lived. For example, some of the convict experience can most certainly be felt by the visitor who chooses to lie in the convict hammocks (figure 5) or by making a connection with the inhabitants of the building by searching on the computers for convict ancestors (figure 4). For these reasons the Hyde Park Barracks is innovative in its methods towards presenting penal history to the public, and the subtle references to the past human presence in the building and behind the artefacts are the highlight of the visitor's experience in the museum.



Figure 3: Convict silhouettes at the Hyde Park Barracks Museum  
(Photograph: courtesy of the HPB Museum)



Figures 4 and 5: Searching for convict ancestors and convict hammocks  
at the Hyde Park Barracks Museum  
(Photograph: courtesy of the HPB Museum)

### *Norfolk Island*

The Kingston settlement on Norfolk Island, like Port Arthur, is an open-air museum, as the historic buildings, most of which are of second settlement date (1825 - 1855), have been conserved for public viewing. Interpretative signs posted by the Kingston and Arthur's Vale Historic Area (KAVHA) Management Board assist in public understanding of the original uses of the buildings. Most of the artefacts from archaeological excavations however, lie unsorted, uncleaned, and unlabelled in the basement of the old Commissariat Store, now the Archaeological Museum (see figure 6). A few displays in the Commissariat Store and the Pier Store museums show examples of artefacts from these excavations, however the material is largely uninterpreted, and offers little for the visitor who lacks imagination or basic knowledge of archaeology. While the museum has an unprecedented archaeological collection, with enormous potential, it has been pointed out that the artefacts are merely displayed as objects, and have little relationship with the people who used the artefacts, or with the buildings from which they were excavated, just outside the museum (Winkworth 1992). The 1995 interpretative plan prepared for KAVHA indicated that the focus is on the display of the collections rather than using the artefacts to expand the visitor's understanding of the sites outside the museum (Australian Construction Services 1995).

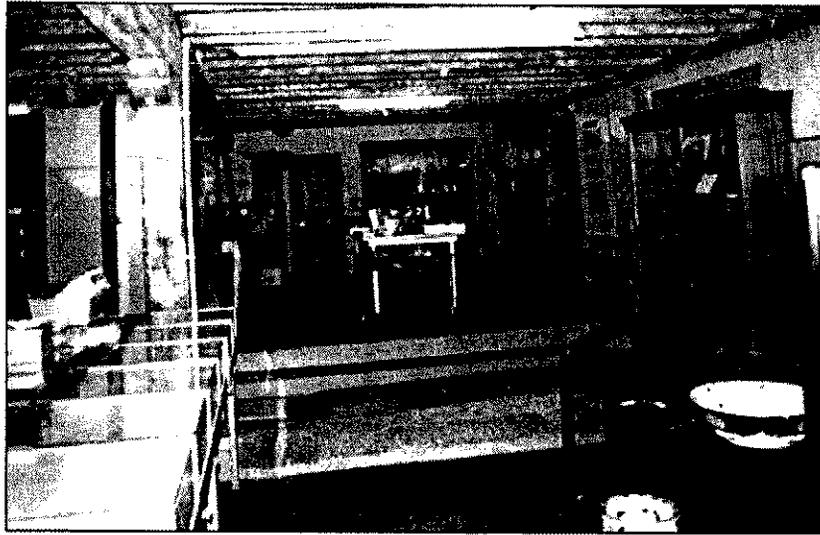
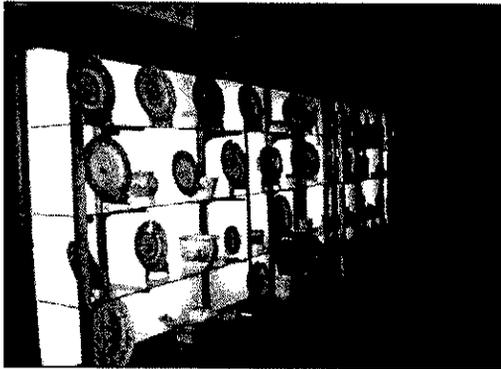


Figure 6: The Norfolk Island Archaeological Museum, Old Commisariat Store, 1997

(Photograph: F. Starr)

Displays in the archaeological museum include ceramic tableware, bottles, bricks, and a selection of 'displayable' artefacts from the Hospital privy. Very little labelling is provided to explain how, why, or from where these artefacts were excavated, or who historically owned or used the artefacts. For instance, a glance at a display cabinet of tableware ceramics might give the non-historically minded viewer the impression that they were used by convicts, while they may for example have only belonged to Pitcairn Islanders. Many of the artefacts on display give the impression that the reconstruction of artefacts is one of the prime objectives of archaeology. In the Pier Store Museum, examples of the bottles, ceramics and other items excavated from the settlement (see figures 7 and 8) are presented in display cases, but no labelling has been provided that might allow the visitor to understand the who, what, when, and why of the history of the artefacts. In addition, the archetypal instruments of convictism are displayed - leg irons and cat o' nine tails, and other artefacts associated with the incarceration of prisoners such as keys, padlocks, and door bolts. Very few artefacts representing everyday convict life are presented, that might indicate to viewer that the prisoners were human, with human experiences.



Figures 7 and 8: Artefact displays in the Norfolk Island Pier Store Museum, 1997

(Photographs: F. Starr)

In 1988, the Macquarie University Australian History Resources Centre held a thematic exhibition about the Island and its history, by using books, illustrations, videos, films and artefacts (Nobbs 1988). It presented the themes of discovery, foundation, first and second settlements, the Pitcairn Era and others, but these themes were historically-oriented, and not about the people on the Island and the social issues surrounding them. This exhibition was a first attempt at extending the perception of the Island's past away from the ball and chain theme which has prevailed in historiography. It attempted to capture the less dramatic aspects of life on the Island - contributions to public works, emotions and aspirations, and material circumstances.

#### *National and Overseas*

The Museum of Australia is due to open in the year 2001, the centenary of Federation, and the possible types of presentation are still undergoing discussion (pers. com. Brad Manera 1997). Among themes such as culture contact, immigration, and Australian lifestyles, should be a section interpreting the early history of the nation, which was contributed to so substantially by convicts. The National Museum has recently acquired a collection of convict material culture, including a particoloured tunic, convict side cap, and leg irons, and while these articles would contribute to a display of penal history, it is hoped that less typical articles that also represent convict life would be presented, to provide a rounded portrayal of life as a convict.

A model that might be considered for presentation in Australian museums has been created by the Galleries of Justice in Nottingham, England. They have created an innovative and post-modern approach to visitor involvement with prison history, in an interactive museum called *Condemned!* On entry to the museum the visitor takes on the identity of a criminal with an identity number, and embarks on the journey from conviction in the court through to punishment such as flogging, transportation to a penal colony, or capital punishment. This journey is experienced through visiting the courthouse and prison where mannequins and actors portray prisoners and guards in cells and punishment rooms (Visitor's Guide *Condemned!*).

As demonstrated by the above discussion, only a small number of Australian museums *have* attempted to explore deeper issues in the history of convictism, and even touched on the value of archaeology in contributing to the interpretation of the past. There is still a general lack of interpretation of convict material culture allowing for the general public to understand the convict experience. Until the National Museum is established and open to the public, there is no central, large-scale public forum in Australia where the role of convicts in the settlement and formation of the country are presented and interpreted. A more accepting attitude towards our convict heritage has provided public interest in the penal past, yet there is no large-scale museum that reflects this interest and acceptance.

## Chapter 2:

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### The Historical Context of the Archaeological Study

#### Medicine in the nineteenth century

##### *Medical treatment and its instruments*

To understand the context of life in the Civil Hospital on Norfolk Island, it is necessary to consider the state of medical science and treatment of the time. The nineteenth century is often referred to as the heroic age of medicine because even though instruments were available to aid in diagnosis, when a conclusion had been reached about the patient's ailment, it was unlikely that a useful drug could be administered (Magner 1992). Drugs of the time were primarily emetics for the stomach or purgatives for the bowel, or had merely palliative or placebo effects. Little attention was given to prevention of illness, doctors being expected to restore health once the illness had set in. As Wilbur notes, diagnosis was largely 'a cookbook approach that would match symptoms with treatment' (1987: 16).

In 1794 Galvani observed the contractions of frog's legs when stimulated with an electrical current, and his findings formed the basis of the use of electrical machines in medical treatment from the early nineteenth century. In 1818, James Blundell performed the first successful blood transfusion (G. Williams 1987) and by 1826, doctors were realising the role of good diet in the recovery of a patient, and scaled diets were introduced in hospitals. Surgery was only performed in emergency situations, mainly for amputation of limbs, trephining of the skull, and the removal of impacted urinary stones.

The process of bloodletting, now considered obsolete, but common practice in the nineteenth century, was the accepted treatment for a wide variety of complaints. It could be achieved by cutting a vein with a scarificator and allowing blood to drain into a special bowl, by applying leeches (*Hirudo medicinalis*) to the skin to suck out the blood, or by cupping (Davis and Appel 1979). Cupping involved placing a glass cup over a

flame, removing oxygen from the cup, and when placed onto the skin, the vacuum would draw blood to the surface (see figure 9). Bloodletting was performed in cases of inflammation, pain, spasm, bruising, fevers, and gout, with the hope of removing congestion and pain, and in calming respiration, improving appetite, preventing nausea, and prolonging life (Pfeiffer 1985).

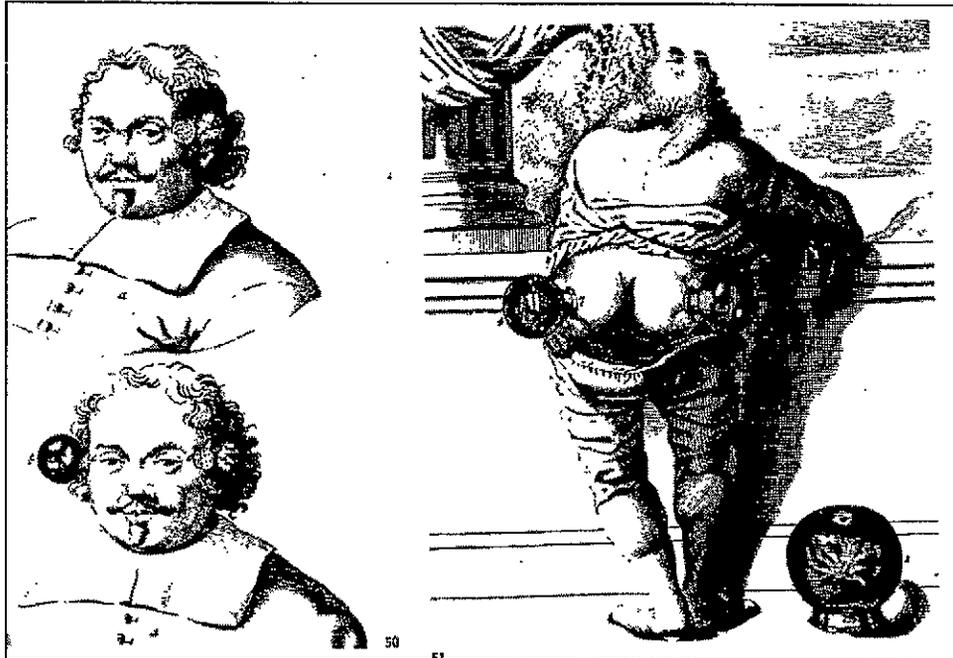


Figure 9: Wet and dry cupping

(Dekkers, F. 1694. *Exercitationes Practicae Circa Medendi Methodum*, Leyden.  
in Davis and Appel 1979: 75)

In the eighteenth and nineteenth centuries, theories of the spread of disease were based upon the assumption that poisonous vapours, or 'miasmata', wafted in the atmosphere and were given off by stagnant ponds, rotting organic matter and human waste (Porter 1996). Semmelweiss later demonstrated that the spread of 'invisible poison' causing deaths from puerperal fever in a Vienna hospital was due to hospital staff not washing their hands, and not from invisible vapours. His observations were not immediately accepted by the entrenched medical establishment, but the later practices of antisepsis and asepsis were developed from his observation (Margotta 1968).

From the mid-nineteenth century there was considerable progress in medical science. In 1857, Louis Pasteur demonstrated that fermentations and many human diseases were

destruction of bacteria), which caused the impetus for the science of bacteriology in the late 1880s (T. Williams 1987). The use of carbolic spray while surgery was undertaken meant that less secondary infection after surgery occurred, which often caused death (Hackett 1986).

The first anaesthetic was first used privately by Crawford W. Long of Jefferson, Georgia, and then publicly in surgery by an American surgeon, W.T.G. Morton, in October 1846, in the Massachusetts General Hospital, Boston (Morton 1847), and it was also used in December of that year in England (Wilson 1983). Surgery became a more common procedure with the introduction of anaesthesia, as patients no longer had to undergo the pain and terror of consciousness throughout the procedure.

The most common articles for a doctor's medicine chest between 1820 to 1900 included a spatula (for mixing ointments, pills); a pill tile; a glass funnel; an enema syringe (made of glass); a graduated glass for measuring fluids; lint for bandaging (from 1849); scales and weights; and a small glass mortar and pestle (Young 1994). Percussion of the chest with the fingers or a pleximeter allowed for determination of the health status of the chest cavity and lungs, and in 1816 the stethoscope, which became a standard instrument of the modern physician, was invented to perform this function (Duke 1991). Recognition of fever was aided by thermometers since the seventeenth century, but the first clinically-useful pulse and blood pressure recording instrument was not available before 1860. Eye diseases were observed with ophthalmoscopes, and eye surgery for the removal of cataracts, for example, was performed with special sets of instruments. Until the practice of antisepsis was established, surgical instruments were all made from steel, with ivory and bone handles, which harboured bacteria. Pewter and glass syringes were used for measuring out ointments to be rubbed into the skin, but also for injections such as enemas (extremely popular in the nineteenth for both the sick and the healthy), urethral injections, aural injections, lachrymal (eye swab) injections, and wound irrigation (Duke 1991).

### *Nineteenth Century Medicines*

In the mid-nineteenth century most medicines were dispensed from hospitals in the form of prepared draughts, in special bottles that allowed for accurate doses (Crellin & Scott

1970). They were prepared by consultation of the pharmacopoeia, a listing of all drugs which were recommended for treatment at the time. The publication described the ailments which the medicines would treat, and gave instructions on how each type should be prepared and administered. The medicines were prepared in various forms including *cataplasmata* (poultices), *cerata* (mixtures of wax and oil), *collyria* (eye washes), *confectiones* (mixtures of medicinal and sweet substances), decoctions (made by boiling medicines in water and straining), *electuaria*, *emulsiones*, *enemata*, *emplastra* (plasters), *gargarismata*, *guttae* (drops), *haustus* (draughts), *infusum* (steeping or extracting the medicines by pouring hot or cold water over them), *julep* (a sweet, aromatic mixture), *linctus*, *linimentum* (liniment), lotions, liquors, *misturae* (mixtures), pills, powders, solutions, tinctures (medicines in alcohol solutions), and *unguentum* (ointments) (Anning 1966).

Delays in the orders of medical supplies from England meant that the colony of New South Wales was forced to become self-sufficient in this respect. By 1795 the benefits of Eucalypt gum in treating dysentery had been discovered. This substance, known as Kino, later entered into the British Pharmacopoeia as tincture of Kino (Haines 1976), combined with opiates, which themselves acted to control dysentery. Most drugs were imported to the colony, in prepared or semi-prepared states, and only required dilution or mixing in order to be used.

One of the first pharmacies in Sydney was established in 1820, by John Tawell on Hunter Street. By 1831 the pharmacy was among others in Sydney that held 270 lines including medicines, preserved fruits, confectionery, spices, perfumery, brushes, and surgical instruments (Haines 1976). Many remedies were unpleasantly bitter, but the tastes must have been tolerable because of their promise of the relief of physical discomfort (Estes 1988). Combinations of drugs such as ipecacuanha, sal volatile (ammonium carbonate in aromatic solution), ammonium acetate solution, squill (plant extract), tolu and camphorated opium tincture were used for coughs, influenza and other respiratory complaints. Stomach complaints were treated with compound cardamom tincture, magnesium carbonate and sodium bicarbonate. Calomel (mercury), jalap and scammonium (extract from a poisonous plant) were used as purgatives (Haines 1976).

Alcohol was consumed regularly for its medicinal properties, as it was a mild pain reliever, and believed to have stimulated the body's ability to heal itself (Estes 1988). In 1814, William Redfern suggested that 1/4 pint of wine per day, if diluted with water and added to a small portion of lime juice would 'furnish an Article [sic] highly antiscorbutic' for convicts on transport ships at the risk of falling ill to scurvy (McNeil 1952: 128). A pamphlet by William Lee of 1842 outlined the benefits of the use of a brandy and salt tincture for treating 'most of the diseases which afflict humanity', and by 1882 port and sherry were listed in the pharmacopoeia (Duke 1991). Tobacco was also used throughout the nineteenth century to alleviate pain, especially when a disease had no known cure. Sometimes the drug could be given in a tincture (a solution of alcohol), as an enema, or it could be smoked through a pipe (Stewart 1967).

Medical treatment in the nineteenth century essentially amounted to depleting patients of fluids through purging, making them anaemic with bloodletting, and poisoning them with doses of heavy metals such as mercury and lead. Opium was one of the only drugs that would have offered any real therapy.

### **The administrative history of the 'Isle of Despair'**

Norfolk Island is 1670 kilometres north east of Sydney, a small volcanic outcrop in the Pacific Ocean, with an area of only 3455 hectares (see figure 10). The Island was uninhabited when discovered by Captain Cook in on 10 October 1774, but there is evidence of prehistoric occupation (Specht 1984). The British first settled the Island on 6 March 1788, primarily as an agricultural outpost to produce flax and masts for ships (made from the local pine trees). The Island was an outpost from which the British could monitor foreign colonial activity in the Pacific, and a port of call for trading vessels on route between Sydney and China (Blainey 1966). Male and female convicts, military men, and free settlers lived on the Island during this period, the convicts labouring on building works and farming. Eventually, the existence of the first settlement proved costly and, gradually from 1805, the people and their settlement were moved to Van Diemen's Land (Hoare 1979). In 1814 the last settlers left the Island, burning the buildings to deter enemies from re-settling.

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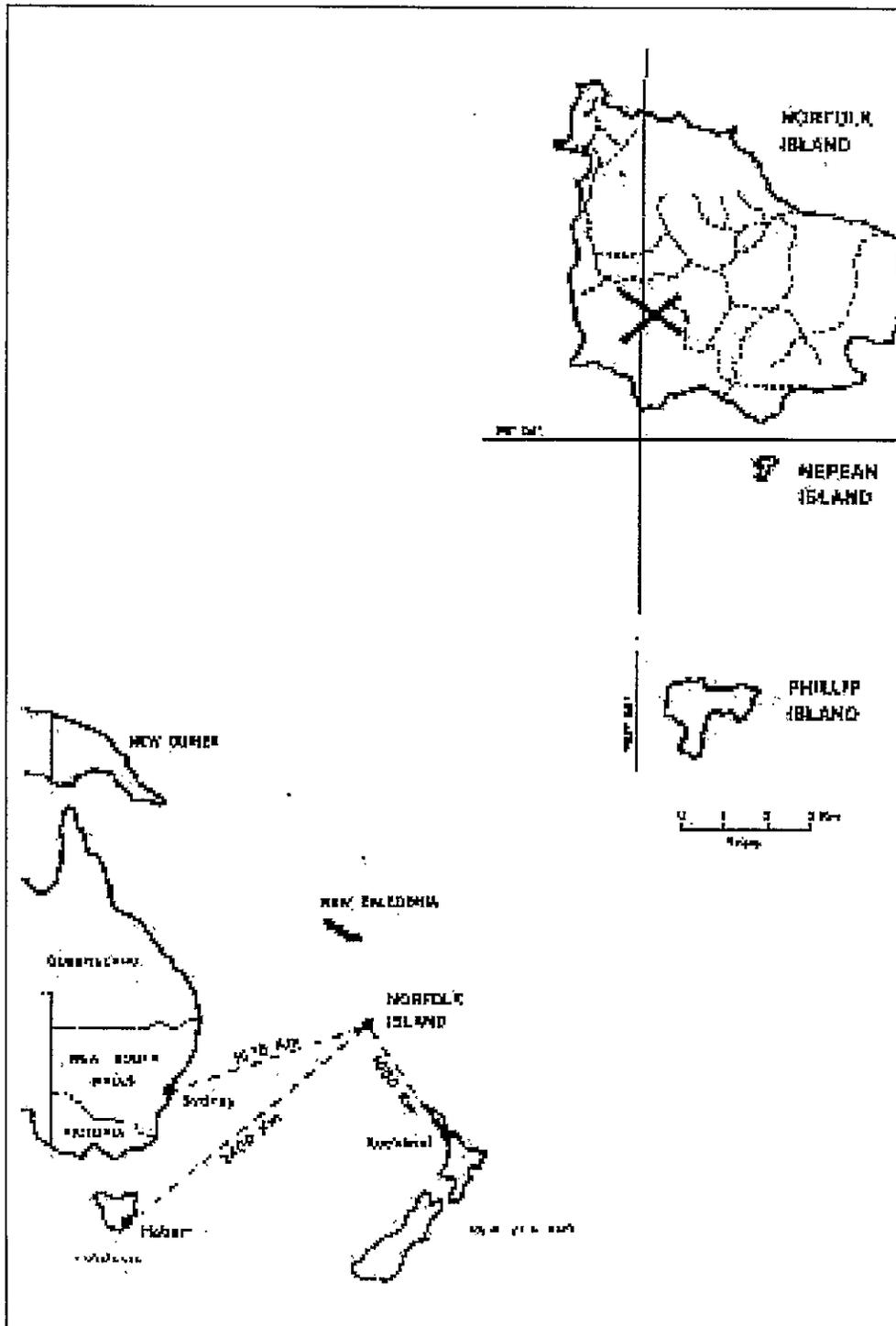


Figure 10: Map of Norfolk Island

(Nobbs 1991)

The continuing transportation of convicts to Australia and overflowing gaols in the colony required the re-settlement of Kingston, Norfolk Island (see figures 11 and 12) on 6 June 1825, and from that point the Island had a more turbulent history. The sole purpose of the settlement was the punishment of secondary-offending convicts, which also acted as a deterrent for other potential criminals. The establishment became one of the most notorious institutions of the British Empire with constant reports of the cruelty, vice and degradation that occurred, making the settlement known, at the time, as the 'Isle of Despair' and the 'Ocean Hell' (Hoare 1979: 25). Sir Thomas Brisbane, the Governor of New South Wales, suggested that the Island should be made 'the *ne plus ultra* of convict degradation', a place of the most extreme punishment, short of death. He explained that 'I cannot see that Felons, who have forfeited all claim to protection from the Law, should complain of being in a worse state than our soldiers are in a Campaign', and that they should be 'excluded from all hope of return' (Hoare 1978: 38).

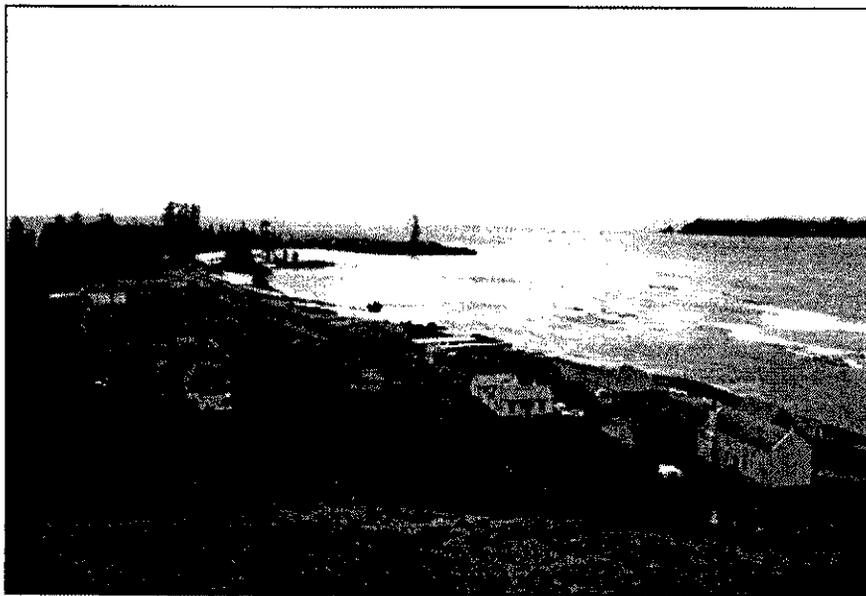


Figure 11: View of Kingston Settlement, Norfolk Island, from Flagstaff Hill, 1997

(Photograph: F. Starr)



Female convicts were taken to Norfolk Island on the initial voyage in 1825 but were sent back to Sydney in early in 1826, and women were subsequently prohibited from Norfolk Island. This ban was later relaxed when Lieutenant-Colonel J.T. Morisset brought his wife to the Island in 1829, but female convicts were never again sent to the Island for punishment. Morisset, commandant from 1829 to 1834, is infamous for the harshness of his punishments, and the unrest during his term because of the terror he caused among the convicts (Hazzard 1984).

Among the most notable of the many Commandants on the Island was Major Joseph Anderson, Commandant from 1834 to 1839 who erected the Soldiers Barracks and the Commissariat Store. He antagonised several of his subordinates, including Gamack the Assistant Surgeon, for being too lenient towards excusing sick men from work, and he was hated by the prisoners for his severity and restraints on rations (Hazzard 1984). Major Thomas Bunbury of the 80th Regiment was Commandant for several months in 1839, reorganised the agricultural system on the island, ordering use of the plough, and crop rotation, and restricting the growth of tobacco (Hoare 1979).

Captain Alexander Maconochie, commandant of the Island from 1840 to 1844, practised humane reform of the convicts, in contrast to the previous and subsequent commandants whose administrations were focused on punishment. He instigated a marks system, in which convicts could work to earn marks, which would add up to a pre-determined amount enabling freedom. Maconochie's convicts had religious readings provided through the windows of their cells; were provided with books and musical instruments; and celebrated the birthday of Queen Victoria in 1840, by being allowed to roam freely around the island (Hughes 1987). Maconochie's reforms were viewed as problematic by the authorities in Sydney and London and he was removed from office in 1844. Maconochie later asserted that he 'found the island a turbulent, brutal hell', and 'left it a peaceful, well-ordered community.' (Maconochie 1847: 17).

Major Joseph Childs succeeded Maconochie in 1844, and was strict in enforcing a harsh system of punishment. His methods of punishment included gagging with wood attached to a leather headpiece, making breathing difficult; chaining to a wall in a crucifixion pose, inducing temporary paralysis; binding the head to the knees, and

leaving the convict until he fainted from pain; and leaving a convict in an underground salt water pit, in which he could not sleep for fear of drowning (Hughes 1987: 533).

A mutiny of the convicts in 1846 led to an investigation by Robert Pringle Stuart, a magistrate sent by the British Government, and as a result Childs was dismissed. A civilian, John Price, was appointed in August 1846, but he was equally harsh during his seven-year term as Commandant. Convicts were regularly flogged, men were forced to use each other's urine for poultices, and the convicts struggled at their work 'ill with dysentery, their trousers wet with discharge' (Smith 1996: 418).

In 1847, the year the new panopticon-design gaol was finished, the British Government gave the New South Wales Governor the order to close the settlement (Grey to Fitzroy, HRA series 1, vol. 25: 375), because of the reports of the harsh treatment of the convicts. Until the final closure of the settlement in 1855, the Island was administered as part of Van Diemen's Land (Wilson and Davies 1980). In 1856, the Island was settled by the Pitcairn Islanders, descendants of the Bounty mutineers and their Tahitian wives, who occupied the houses of the administrators around the settlement (Hoare 1979).

### **The Convicts**

The convicts sent to Norfolk Island were doubly-convicted men in their twenties and thirties, many whose capital sentences had been commuted to life imprisonment or hard labour in chains (Hazzard 1984). In 1829 there were 256 convicts on the Island, a number which grew every year to peak at 1 872 convicts in 1840, and then down to 1 295 convicts in 1843, rising to 1 820 convicts in 1846, and then decreasing gradually until the closure of the settlement (Nobbs 1991: 75). They were employed in heavy labour such as building, brick making, stone-cutting, excavation, lime-burning, grinding corn at the crankmill, and wood cutting; and in lighter employment as clerks, messengers, tailors, hospital staff, shoemakers, school masters, gathering fruit, barbers, dairymen, and cooks (Gipps to Stanley, HRA series 1, vol. 22: 639). The best behaved convicts were given overseer and police roles and were keepers of gates and stores. Flax had been produced on the Island during the First Settlement, and it was re-introduced, by Major Bunbury between 1834 and 1839. A Maori woman taught the prisoners to prepare 'hemp', which Bunbury sold in Sydney. Such official roles gave the convicts

access to supplies or enabled them to make products which they might have traded with other convicts, or the military. Under Maconochie's and Child's administration, convicts were permitted to cultivate gardens, and the convict bushranger Martin Cash wrote that convicts worked at night to make shoes and clothes which enabled them to trade for tea and sugar, among other goods. Cash himself made straw hats to sell to the other convicts (Cash 1967).

The convict experience in the second settlement on Norfolk Island is notorious for its oppression, torture, theft of rations, rape, solitary confinement, disease, and trade of forbidden substances such as tobacco, for which convicts were gagged and flogged if it was found in their possession (Smith 1996). The experience at the settlement is reflected in the name the convicts gave to Sydney - 'Heaven' (Hughes 1987: 115). In 1834, the Hospital was the stage for a convict mutiny, by which a group of convicts had admitted themselves to the Hospital under the pretence of sickness. From the Hospital lock-up, where they awaited examination, they escaped and overpowered the Hospital attendants, but the mutiny was unsuccessful. Those who were sentenced to solitary confinement wept with grief, and those sentenced to hanging thanked God for relief from their horrible lives (Hughes 1987). Those that were hanged are among the few convicts who received headstones in the cemetery.

A famous incident of 1 July 1846, involved the seizure of convict cooking pots and kettles, most of which had been stolen from the soldiers. A mob of convicts stormed the cookhouse in the lumberyard and the constable's quarters, killed four men, and injured two others. The soldiers soon quelled the mutiny. After trial, twelve men were sentenced to death and hanged, and buried in unconsecrated ground outside the cemetery, while others were flogged or given solitary confinement (Nobbs 1991).

The physical and psychological health of the convicts was undoubtedly affected by hard work, isolation from society, poor diet, and overcrowding of the gaols on the Island, in addition to punishments such as flogging and being chained to the floor (Cook 1978). Sleeping quarters were overcrowded and homosexual activities were common at night when the convicts would be locked up together (Stuart, and Ullathorne, in Hughes 1987). Stuart observed that prostitution was common among Child's administration, with many young men trading sexual favours for tobacco, new boots or bread.

Hardened prisoners on the island carried knives, controlling other prisoners and threatening overseers (Stuart 1979). Attempts to escape the Island by boat were numerous, and some convicts spent weeks building boats hidden in the bush, only to be discovered and punished upon completion of their vessels (Cook 1978).

### **A History of the Civil Hospital**

The ruins of the Civil Hospital are located at the western end of the Kingston settlement on the lowest part of Flagstaff Hill which rises up behind the Hospital (see figures 13 and 14). The Hospital only admitted convicts, because the military had a smaller hospital in their barracks (Guymer 1994). The design of the Hospital, as pictured in figure 15, with its central yard and flanking walls, was typical of British military hospitals, similar in plan to the 1814 - 1815 military hospital in Sydney, and the convict hospitals in Parramatta and Liverpool (Kerr 1984).

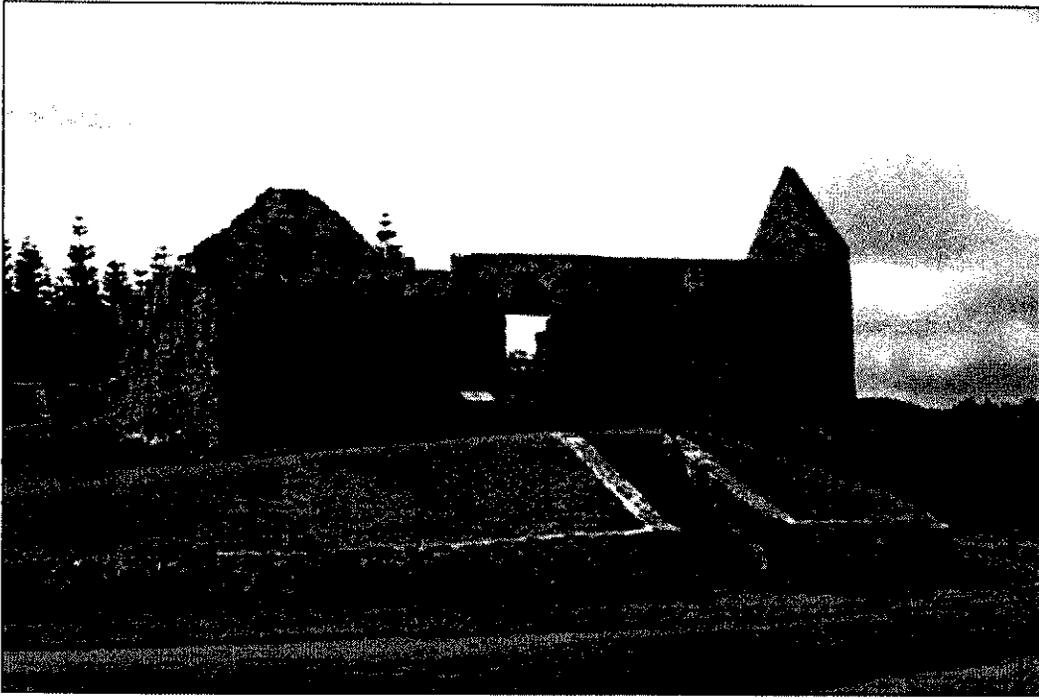


Figure 13: The Civil Hospital

(Photograph: F. Starr)

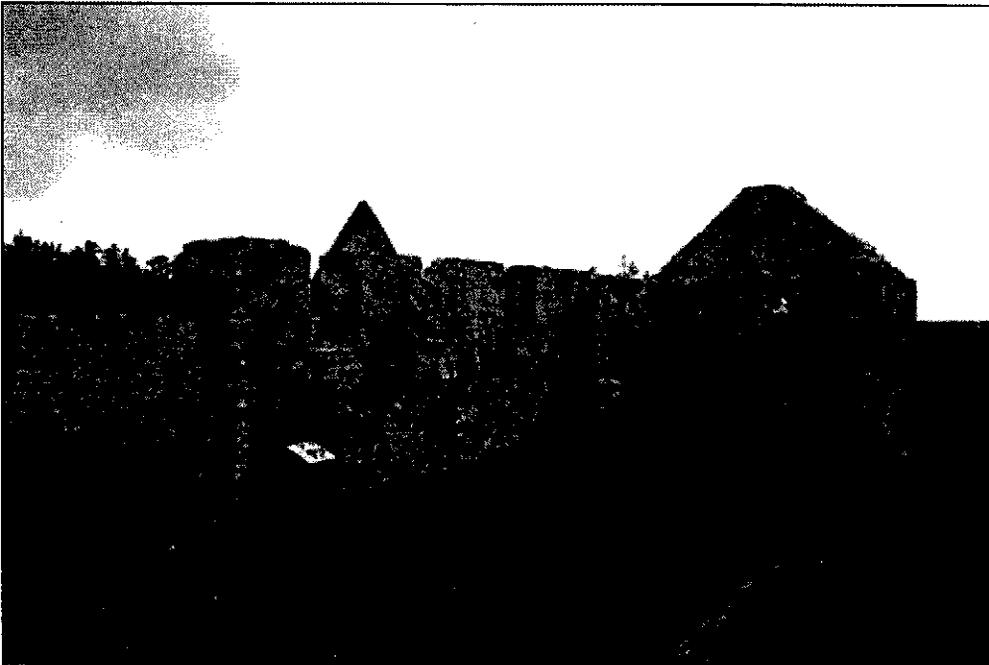


Figure 14: The Civil Hospital wards

(Photograph: F. Starr)

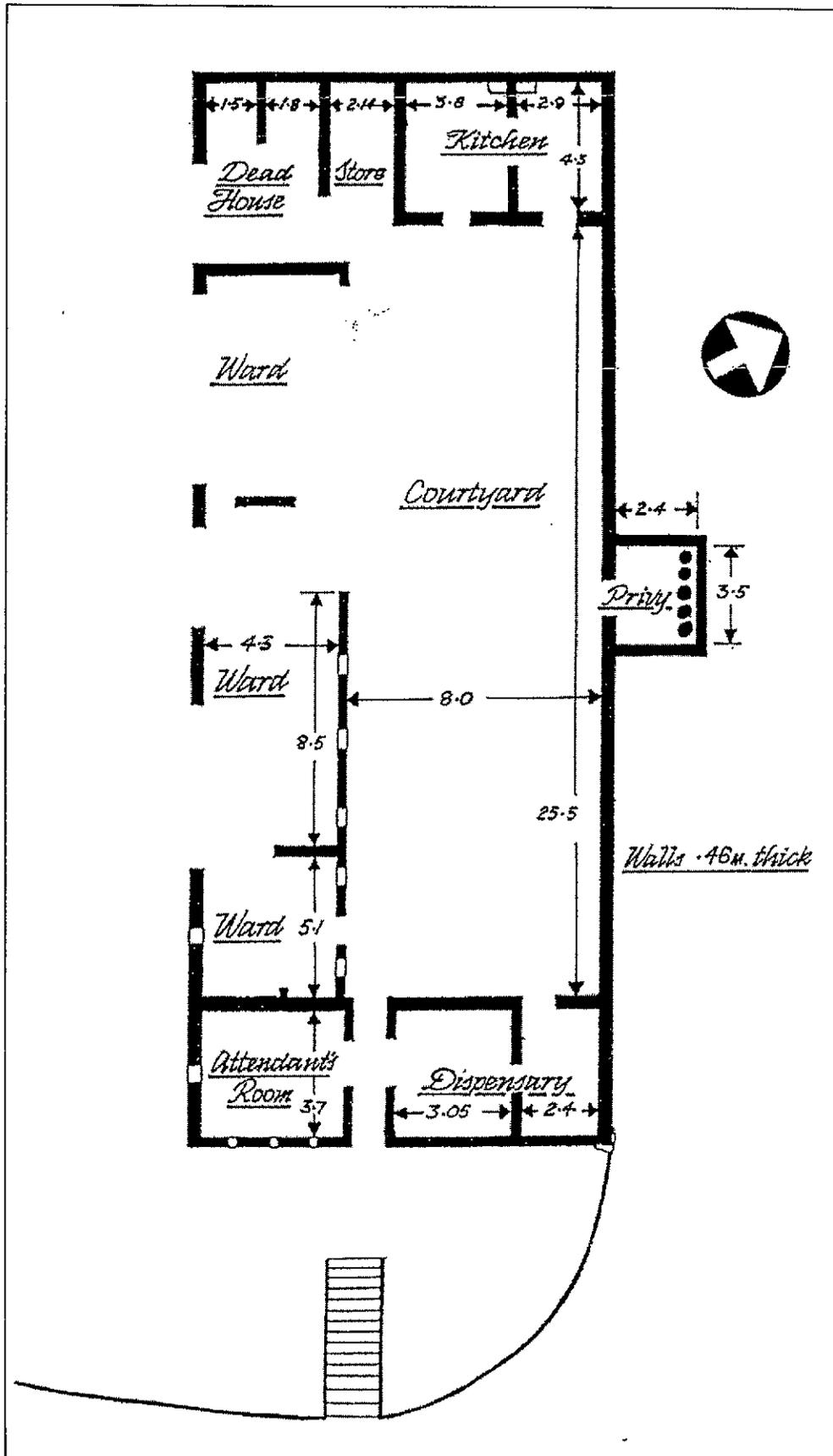


Figure 15: Plan of the Civil Hospital, reconstructed from Stuart's description, 1846.

(Duke, et al. 1994: 28).

The various buildings used as hospital accommodation were always inadequate and unsuitable. Plans were made for more adequate hospital buildings, but were never built. Instead, in the first three months of 1829 (Col. Sec. Return of Labour, DL 4/1171), a temporary, and inadequate, structure was built, from sandstone quarried from Nepean Island, one of the two small off-shore islands. Limestone or coral stone was obtained from the off-shore coral reef, enabling the masons to build coral rubble walls joined with a lime-sand mixture. The dressed sandstone was used for windows, door openings and corners. External walls were rendered with a lime-sand mix, and internal walls were rendered with mortar and finished with a coat of lime and sand (Department of Housing and Construction 1981: 50). In 1829 it measured 14.5 metres by 4.5 metres, and was described as 'an old stone building, thatched, [for the] Hospital Wardsmen and sick' (Col. Sec. Return of Property DL 4/1171).

After being occupied by the Superintendent of Agriculture for two years, in 1833 the building resumed its function as the convict hospital, when extensions were made in the form of a kitchen, a deadhouse, a shingled roof, and a privy (Col. Sec. Morisset to Col. Sec. DL 4/2245).<sup>1</sup> At this time, the building consisted of a central courtyard, a kitchen in the western end, and a dispensary in the east. It had four sick rooms, and a 'lock-up', and the yard was enclosed to the north by a wall (Col. Sec. 'Norfolk Island Mutiny Papers'. DL 2/8291). In the late 1830s, a verandah was added to the south side of the Hospital where some patients were given beds, and the accommodation varied from 39 in 1834 to 20 in 1848 (Guymer 1994).

In 1837 more recommendations were made for extension of the inadequate Hospital and Commandant Anderson, who was an enthusiastic building developer, proposed converting parts of the Old Gaol into a temporary hospital until a new structure could be built (Col. Sec. Anderson to Col. Sec. DL 4/2368.3). Commandant Bunbury complained that the building was inadequate in that it could only accommodate 39 beds, and he proposed that a new building be erected next to the Gaol (Col. Sec. Bunbury to Col. Sec. DL 4/2462). Neither plan was acted upon. The inadequacy of the Hospital for accommodating patients is indicated by the fact that at times surgeons were compelled to occupy a large room over the nearby crankmill to treat the patients (Cook 1978).

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<sup>1</sup> This was not the privy from which the artefacts were excavated but was the original privy in the room on the south-west corner, which later became the dead-house.

In 1846 Reverend Naylor reported the 'wretched hospital accommodations for the prisoners...The building used for them is altogether disgraceful. Other buildings have been erected...but the convict hospital has been, in spite of remonstrances, allowed to remain literally 'a whited sepulchre' (Naylor 1846: 23 - 24). The most complete description of the Civil Hospital was made by the magistrate, Robert Pringle Stuart, who inspected the Kingston settlement in May 1846. He described the Hospital as:

'a low stone building containing three wards, two of them accommodating 5 beds each, the other 10; but they are too confined for this number. The mode of ventilation is objectionable, as a thorough draught cannot be avoided; the wards are exceedingly hot in summer and cold and damp in winter. They open under a narrow verandah into an enclosed yard of about 80 feet by 20: this is the only place in which patients can take exercise. Opposite the verandah is a wall with a privy mid-way, the smell from which is very offensive, in consequence of the want of a proper sewer; but during the hot season, when the wind prevails from the north-ward, the stench is excessive. There are a dispensary, office, and attendant's sleeping-room at one end of the yard and kitchen; store-room and dead-house at the other. The dispensary and office show symptoms of damp, from which cause I believe the medicines and instruments become injured. The contiguity of this building to the beach, on which a heavy surf is constantly rolling is the cause of the dampness, the air being charged with saline particles.

This building affords quite insufficient hospital accommodation for the settlement only, and the deficiency will appear much greater when it is remembered that there is no other accommodation for the patients from Longridge and Cascade stations, containing 1,000 men in addition; in short, twenty beds, and a detached, cold, convalescent ward wherein, during summer, attacks of dysentery of epidemic character, occasionally assuming a malignant type, are common.' (Stuart 1979: 39-40), (see figure 15).

In 1855, the building was described as containing '10 rooms, privy, store, 23 window openings, sashes, doors, etc; 1 copper, surgery fitted up with shelves, draws, press, etc.' (Sec. of State. Young to Denison. DL 4/1627).

The Surgeons Quarters (see figure 16) near the Hospital, was constructed in 1827 and was originally occupied by both the surgeon and the Civil Officers, but by the 1840s only the surgeon was in residence. The surgeons lived in the eastern apartment, which contained a living room and two bedrooms; a stone kitchen, and a privy for the surgeons stands to the north west of the kitchen (Wilson and Davies 1980).

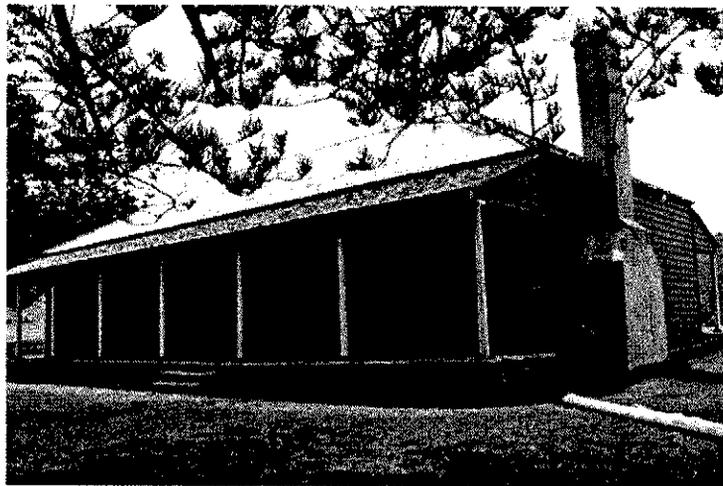


Figure 16: The Surgeons Quarters

(Photograph: F. Starr)

The Hospital was not used as such in the third settlement period (Bairstow and MacLaren 1993). The nearby Surgeon's Quarters was occupied by the Robinson family in the third settlement, and the western wing of the Hospital was used by them as a shed from the 1880s to the 1920s. Restoration works began on the Civil Hospital in the 1960s, including demolition and removal of small sections of badly deteriorated internal walls. Parapets were trimmed to level or stepped lines, damaged doorways were repaired and broken end walls were built up to plumb faces (D.H.C. 1981: 60).

## Convict rations and their affect on health

The daily rations provided for convicts on Norfolk Island are important for the affect they had on the propensity to illness and disease among the convicts. In the earliest years of the second settlement the weekly convict rations included one pound of flour, one pound of salt beef or ten ounces of salt pork, one ounce of sugar, one ounce of salt, and one ounce of soap (White 1889). All the rations were issued raw, and the men were required to cook their own food. In 1834 the weekly rations comprised nine to twelve pounds of wheat, flour, or maize meal, seven pounds of beef or mutton, or four and a half pounds of salt pork, two ounces of salt, and two ounces of soap (Bourke to Stanley, HRA series 1, vol. 17: 326). Two Quaker missionaries, Backhouse and Walker, visited the Island in 1835, during which they observed that the prisoner's diet consisted mainly of salted meat, maize bread, vegetables and wild fruit, which they considered monotonous, but adequate, because the convicts appeared to generally be in good health (Backhouse and Walker 1843).

Bunbury introduced modified rations for prisoners who reported sick to the Hospital, working on the principal that if a convict was too ill to work, he was too ill to eat a full ration. Hoare (1979) reports that eventually, only about 70 out of 300 ill men survived due to the new rations, but Bunbury asserted that the survivors had been cured. During Maconochie's term on the Island, rations included maize meal and salt meat, and vegetables that some of the well-behaved convicts could grow on their farms. Lemons grew on the Island all year round, and guavas were in abundance for two months of the year, and readily available for convicts to eat (Gipps to Stanley, HRA series 1, vol. 22: 619).

A convict named Mortlock, on the Island in 1844, wrote that the convict fare was meagre, their breakfast being unsifted baked corn flour, officially sweetened with one ounce of sugar each, but in reality a lot less. Salt meat and coarse maize bread were served out for dinner. Fresh meat and wheat flour were only available in the Hospital and the Commissariat Stores. He also notes that '...the debility brought on by this diet caused many deaths' (Mortlock 1965: 65). Clark claims that convicts in the Civil Hospital were likely to have their rations stolen by the 'so-called surgeons, to be fed to their fowls and pigs' (1986: 107).

Convicts in colonial hospitals received slightly better and more diverse rations than 'healthy' convicts. In the early years of the Sydney Hospital, which specifically treated convicts, there was no dietary scale, so all patients received the same rations despite their physical conditions, but in 1820, the senior surgeon initiated a dietary scale :

*Full diet:* One pint of tea and 8oz. bread, morning and evening; 8 oz. of animal food and 8oz. of vegetables for dinner.

*Half diet:* One pint of tea and 4oz. of bread, morning and evening; 4oz. of animal food and 4oz. of vegetables for dinner.

*Low diet:* One pint of tea and 4oz. of bread, morning and evening, gruel or rice for dinner, besides such other comforts as the surgeon thought proper.'

(Watson 1911: 63)

A new dietary scale was introduced in September 1836, with four classes of diet, in which milk, vegetables and meat were included. Convicts in colonial hospitals in 1845 were supposed to receive three types of diets available to patients with different ailments. The full diet included meat, bread, potatoes, milk, tea, sugar, salt and barley, the half diet included half quantities, and the low diet less still. It was noted that no extras were to be given, except wine, port or spirits, but only 'when required, in conformity with existing regulations' (Robertson 1845: 45).

### **The Hospital surgeons and staff**

The medical profession of the time considered physicians to be of higher status than surgeons, because of the brutality of surgery before anaesthesia and antisepsis was developed (Bridges-Webb 1983: 192). Norfolk Island was a harsh posting for the surgeons (see appendix 1), many only newly arrived in the colony and thus low in the colonial medical hierarchy. As Pearn (1996) has pointed out, the more remote the posting, the more difficult the medical work required, and the more skills needed. One surgeon who worked in the convict service for thirty years noted that 'the charge which devolves upon the medical officer, even under the most favourable conditions possible,

is sufficiently onerous' (Campbell [1884]1984: 9). So while newly arrived surgeons may have been kind and helpful, months of treatment of abused and consequently bad-tempered convicts may have hardened their approaches to treatment causing indifference towards convict health. For example, in 1845, surgeon Gamack was the target for a spade and an axe thrown by a convict while Gamack was sentencing the convict for robbery in the settlement (Hoare 1988).

Most convicts were shrewd enough to assess the strengths and weaknesses of the surgeons, and to exploit them. For example, Maconochie noted at least two cases of insolence and disobedience towards surgeon Reid, an offence that cost the loss of 100 marks, but many more cases would have gone unnoticed by the commandants (Gandevia 1978). Guymer has argued that the surgeon in the Hospital 'seldom went to bed sober' (1994: 25), and that such drunkenness once allowed a convict who was feigning insanity, to be released from the Hospital at night for the purposes of convalescence. He, in fact, spent that time constructing a boat for his escape from the Island.

Appointed in 1828, Dr Adolphus Ross was the first doctor to work in the Civil Hospital, and he occupied the east apartment of the Surgeon's Quarters, nearby the Hospital (Martin & Cox 1988). In 1829 an official investigation was conducted, instigated by Dr Ross' propensity to drink. Ross was accused of failing to provide medical assistance for the Commandant's female convict servant who was in labour, and a convict overseer, Mr McNeill, who had a blister on his chest, because Ross was inebriated. Thomas Brain, servant to the doctor, and John Taylor, the convict overseer at the hospital, stated that Ross had been kind and attentive to all of his patients, causing the investigation board to dismiss the accusations as false (Harrison 1996b).

Ross was replaced in 1831 by Dr Alexander Gamack, whose caring nature was recorded by the convict Thomas Cook. After seeing a convict who had been shot during the 1834 mutiny, Gamack ordered to have him taken to the hospital for treatment, against the orders of a military officer who ordered the man to be taken to the Police Office. Gamack won, but the convict died the following day (Cook 1978). Gamack was joined by Patrick Harnett in 1836 (Col. Sec. Returns of the Colony. AONSW 4/268: 204), and then Gamack left the posting at the end of the year. Harnett was more popular than

Gamack among the officers because he was more subservient (Baker 1842). In 1838 Harnett was assisted by the well-respected Dr James Stuart, a 36 year old Irish doctor, who was a keen ornithologist, ichthyologist and artist who made watercolour paintings and pencil drawings of the local fauna and flora on Norfolk Island (Musgrave 1955).

In 1840, Stuart was also publicly accused of alcoholism. Lowrie, the hospital overseer, said Stuart of had lent wine from the Hospital store to other officers, had been drinking wine with others in the Hospital dispensary and had been using the dead house as a carpentry shop (Col. Sec. Copies of Letters to Medical Staff. AONSW 4/3789). The official inquiry found that it was in fact Lowrie who was guilty of improper use of facilities and stores. He allegedly used false scales in weighing out medicines, wine, and rations for patients, diverting the excess to his house for his own use. He employed a hospital patient in making articles from bed sheets for his own use, and erected a lathe in the dead house to make wooden items. As a result, Lowrie was dismissed as overseer. Despite the fact that Stuart was dismissed from these accusations, Major Bunbury the Commandant of the time, described the surgeon as an alcoholic, saying the 'stench from his studio was intolerable' (Bunbury 1861: 324).

James Reid was appointed surgeon in 1839, and worked with Stuart, possibly as an assistant. He remained there between 1841 and 1843 and resigned from the medical service in 1844 (Cummins 1974). During 1843 there were 17 convict hospital attendants who worked at various times in the hospital (Gipps to Stanley, HRA series 1, vol. 22: 639). Dr Henry Graham was the only surgeon at the hospital in 1844 and 1845. He lived on the Island with his wife Lavalette, with whom he had ten children, two born on the Island (Hoare 1988). Dr Graham, was recorded by the convict Mortlock as 'much overworked', 'a kind-hearted man, whom I have to thank for thrice making me whole, when brought low by sickness deriving such strength from depression and famine' (Mortlock 1965: 65).

The surgeons on duty in the Civil Hospital also treated the free population of the settlement, in their houses. For example Elizabeth Robertson, the daughter of the superintendent of agriculture, fell ill to tuberculosis, and wrote in her diary of 1845, that 'Dr Graham has promised to send me some physic to night' (Hoare 1988: 20).

Dr G. Everett replaced Graham in 1846, and was assisted by a junior surgeon, R. Blyth (Blue Books DL CO 284/69). Everett was an old military doctor whose family also lived on the Island. Everett was brutal and unemotional, and known as 'Old Bluestone' for his treatment of the backs of flogged convicts by rubbing with a piece of bluestone (Dalkin 1995: 33). Martin Cash wrote that Everett was a strict disciplinarian and 'much dreaded by the prisoners' (1967: 158) yet the Reverend Naylor commented that 'the medical officers in charge [Everett and Graham], have been zealous and skilful men, indefatigable in the discharge of their duties' (Naylor 1846: 23 - 24).

Everett remained in the Hospital until 1852 when Bishop Willson visited the Island, and later made a report to Lieutenant-Governor Denison, that Everett was left alone to do his work through an 'odious routine of duty, attending to eight or nine hundred convicts, civil officers and their families', and that he had been there for six or seven years without leaving the Island (Dax 1996: 53). The length of his term on the Island most probably influenced his disciplinarian attitudes towards the convicts.

Such a report only added to the official sentiments to close the settlement. Everett was replaced by G.F. Huston in 1852 (Blue Books DL CO 284/75: 227), who was criticised by Bishop Willson on his third visit to the Island in 1852 for being in cahoots with commandant Price, and claiming that a desperately sick prisoner had to be kept in an airless cell because fresh air would be prejudicial to him. Huston continued as the only surgeon until the end of 1855 when the Hospital was closed with the abandonment of the settlement on the Island.

### **Colonial surgeons and the question of indifference to convict patients**

Was the medical treatment of convicts of the same standard as the treatment provided for non-criminal patients of the time? McNeil (1952) argues that at first officials were indifferent to the plight of convicts on transport ships with cases such as the surgeon of the *Minerva* in 1822 withholding lime and lemon juice from his convict patients and keeping them in irons below deck in a filthy prison. Medical reform came slowly throughout the years, beginning in 1800 with a monetary incentive of £4 10s 6d awarded to the ships' surgeon for every convict who landed in good health. Government pamphlets were also distributed to instruct the surgeons of the care and procedures

pamphlets were also distributed to instruct the surgeons of the care and procedures required and expected on the ships (for example: *Instructions for the Surgeons* 1838). Verson argued however that 'not all those placed in charge of convicts took delight in the infliction of suffering; there were among them men who pursued a policy both enlightened and humane, who did their best to relieve the prisoner's hardships' (1950: 625).

Nineteenth-century surgeons have often been stereotyped as drunken and negligent, and certain evidence of drunken colonial surgeons supports the stereotype. The surgeon of the convict ship *Susan* of 1834 allegedly spent all his time 'constantly stimulating the system with ether and brandy' (Hagger 1979: 156). His alcoholism caused the incorrect dispensing of drugs, one instance of which was said to have killed a child. William Redfern, a senior surgeon in the colony, launched an attack on the surgeons aboard convict ships saying that they were either new graduates (who were ill-qualified), or they were failed general practitioners (who 'devoted themselves to inebrity') (in McNeil 1952: 129). Thompson, the Deputy Inspector of Hospitals, was concerned with the 'prevailing vice of Drunkenness' which had 'got amongst the medical men, and altho' there are several qualified to take District Surgeoncies there are few who could be trusted' (Hagger 1979: 156). While the accusations of drunkenness brought against the surgeons on Norfolk Island were dismissed the accusations may have had some element of truth.

Medical officers often have conflicts between medical ethics and their political beliefs that their prisoner-patients are not entitled to the same rights as other patients, resulting in inadequate medical treatment. Political sympathies caused neglect in medical care in nineteenth-century Irish gaol hospitals (Smith 1982) and in the case of the treatment of South African political prisoner Steve Biko, in the 1970s, after he sustained injuries from interrogation (Brown and Barnes 1996). Hughes (1987) suggests that no more than 20 per cent of Irish convicts in Australia were convicted for political reasons, but even so, Irish doctors in colonial hospitals may have sympathised with Irish criminals, while English doctors may have had less caring attitudes towards them. Medical negligence may have also occurred in colonial hospitals in Australia arising from prejudices against the convicts as criminals of the lower classes

In general, while some of the earliest surgeons may have been indifferent to the plight of their convict patients, Harrison argues that the British Government acted responsibly and paternally, 'the majority of medical officers were staunch upholders of God, Hippocrates, and the British Way in providing the highest standards for the preservation and continuation of life by the best available means' (1996a: 63).

Before their postings to Norfolk Island, all of the Civil Hospital surgeons had previously served at other free and convict hospitals such as Moreton Bay; Melville Island; the Quarantine Station, Port Jackson; Parramatta; Liverpool; and the Sydney Hospital, suggesting that these men were experienced to provide the treatment required on Norfolk Island. Surgeons Gamack and Graham were listed as members of the Royal College of Surgeons, London, and Graham later became health officer for the City of Sydney (Medical Directory 1860), probably reflecting their high esteem and respectability as surgeons. The other surgeons working on Norfolk Island may have received training in Britain, or, as was common for the time, achieved unofficially-qualified status in the colony (Nutton & Porter 1995).

## Chapter 3:

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### The Archaeological Evidence:

#### Artefacts from the Civil Hospital Privy

##### The privy and its excavation

Signage in the Civil Hospital states that the privy was constructed as a separate structure on the northern wall of the building most probably about 1837 (see figure 17). It had certainly been constructed by 1846, when it was described by Stuart. Its dimensions are 2.4 metres by 3.5 metres, with a depth of approximately 3.2 metres down the side of the building. The bottom is unsealed and liquids drain through into the soil below and through a small outlet at the base of the privy (see figure 18). The location of the drain meant that the liquids easily found their way down to Swamp Creek about 10 metres away.



Figure 17: The courtyard of the Civil Hospital, showing the entrance to the privy.

(Photograph: F. Starr)

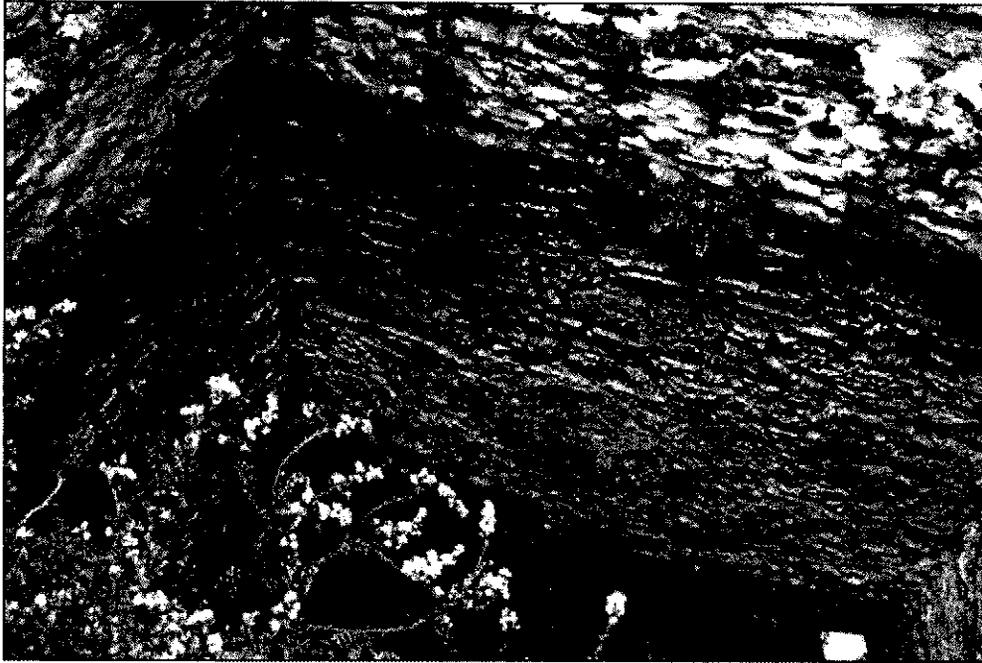


Figure 18: The privy pit, showing the drain at the base

(Photograph: F. Starr)

The privy was approached by crossing an open paved sandstone courtyard (see figure 17), and formed a separate room into which people would step. It is estimated that it accommodated four or five people at once. There were no windows in the privy, and historic photographs indicate that the room had a roof (see figure 19). No attempt at ventilation was made even though by the eighteenth century it had been pointed out that a window situated to catch the prevailing winds could help in the ventilation of a privy (Desjardins and Duguay 1992).



Figure 19: Kingston, from Flagstaff Hill, 1900

(Mitchell Library)

Privy is an early middle-English word, derived from the Latin *privatus*, meaning apart, not publicly known, or secret (Lambton 1978: 7). This privy certainly was not secret, nor can it be considered to be 'apart'. The privy is situated 11.5 metres from the kitchen and only 8 metres from the nearest ward, and the stench from the privy must truly have been repulsive in the kitchen, when food was being prepared.

The excavation of the privy was conducted in 1987 by Dr Robert Varman, the archaeologist employed at the time by the KAVHA board, and members of the KAVHA Works team, largely as a rescue excavation to prevent further tourist disturbance of the deposit (Bairstow, 1991). Supported by small platforms inside the privy, the excavators began with a test square which was later expanded to excavate the entire pit. The pit was excavated in arbitrary 100 mm spits, by segmentation of each layer into south-east, north-east, north-west, south-west, north centre one and two, and south centre one squares (see figure 20). The sediment in the privy was moist, but not saturated, and the drain at the base of the privy appeared to still function, as the pit never filled with water after rain.

Artefacts from the highest level in the privy are labelled 'Dump layer' and 'Dump, lower level', then from 1000mm to 1240mm (representing 1240mm below the former

privy flooring level) down to 3100mm - 3200mm, and the drain at the base of the privy. There was a gap between the original floor level and the privy deposit, the top of which consisted of a beer bottle dump from about 1942, about 800mm deep. Immediately beneath there was household debris from the Robinson and Quintal family occupations of the Surgeons Quarters between *circa* 1856 and *circa* 1920. Beneath this, Varman noted a distinct change to material related to the use of the building as the convict hospital, in a lime-rich matrix.

Varman reported that the layers of lime were intact, and did not show movement to lower layers and that the only disturbance of the privy deposit had been by bottle hunters of the 1970s and 1980s. The 1940s bottle dump was so thick that it was difficult to keep the sides from collapsing where holes were dug by these hunters, and damage to the second settlement material had occurred in the upper layers. The privy was backfilled after excavation, but this has now been removed to reveal the sewer outlet, and to prevent weed growth.

3.5 metres

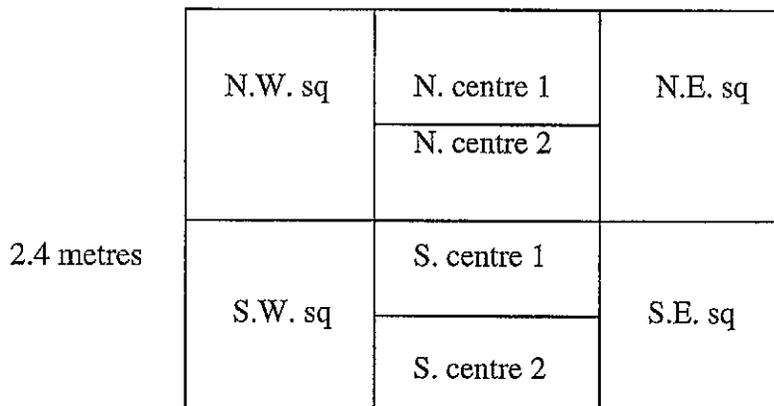


Figure 20. Reconstruction of privy excavation squares

The lime, which Varman noted remained in several layers of pure deposit, was most probably produced by convict labour in one of the three lime kilns on Chimney Hill, near Emily Bay, and dumped into the privy periodically to break down the organic matter and to reduce odours (Bairstow & McLaren 1993). Such practice was not new for

the period, as the London Board of Health had recommended the use of lime for disinfection in privies as early as 1802 (Geismar 1993).

No diagrammatic or detailed recording of the stratigraphy was made because no excavation report was commissioned after the excavation of the privy. For this thesis, information about the excavation has been obtained by discussion with Robert Varman.

Preliminary sorting of some of the artefacts had been done, and an artefact inventory had been begun, but this only includes artefacts from the upper dump layers. Some of the broken ceramic artefacts have been reconstructed and are on display with other items from the privy in the archaeological museum on Norfolk Island. No previous archaeological study has been conducted on the artefacts.

### **Sampling and methodology**

The artefacts under study are stored in the Archaeological Museum on Norfolk Island and were selected and photographed by the author. Due to the proximity of the collection and constraints on time available for photographing, the entire assemblage could not be photographed for study. The sample includes 640 artefacts, and represents about two thirds of the total assemblage. Each artefact was chosen as a diagnostic example of its artefact type.

Since the sample does not include the entire assemblage, quantitative analysis of the artefacts could not be undertaken for the current study. However, since the objective of this study is to consider the qualities of individual artefacts, quantitative or statistical analysis is not required. It should be pointed out however, that the conclusions drawn from the artefacts might be biased, since the entire assemblage was not surveyed, yet this too does not greatly apply to the main objective of this thesis - to demonstrate how convict artefacts can be 'convicted' in museum presentation for public education.

It is highly probable that there was some movement of artefacts from higher levels to lower levels, so it is difficult to distinguish any particular level within the privy from which artefacts cannot be included in this study. As will be demonstrated, specific post-1855 dates have been established for certain artefacts, but others are largely un-datable.

The discussion of the convict period material will discuss all artefacts from the level 1400 to 1500 mm and below, as too many of the artefacts from the above layers appear to have been deposited after 1855, but some artefacts from this level and lower may also have been deposited post- 1855. The discussion of artefacts will focus on the approximate dates, manufacture techniques, archaeological and use contexts, and will discuss in detail artefacts with direct indicators of manufacturers or dates, as these types of artefacts are most productive in generating information for the museum viewer. The study undertaken is the most extensive study into artefacts from Norfolk Island, and is certainly one of very few archaeological studies of Australian colonial hospitals, and of this class of data.

It is likely that the archaeological integrity of the upper layers of the privy is fairly low, due to the high tourist impact on the area since the 1970s. There have been bottle hunters, and unauthorised excavations in other areas of the historic settlement, and the same has probably occurred in the Civil Hospital. Another factor that may have affected the integrity of the collection is the fact that until one or two years ago, the rooms where the collection was stored was opened to the public, unattended by museum staff. Some artefacts in the museum were left scattered upon a table, ready for the tourist's pickings, and this is undoubtedly what has occurred.

Most of the artefacts selected for the current study were photographed individually, but as a time-saving measure, some were photographed in groups of the same type of artefact. Details about the artefacts entered into the database (see appendix 2) include object type, material, colour, manufacture details, stratigraphic level, function, inscription, and other notes. Material categories include glass, metal, leather, ceramic, pipe clay, bone, shell, wood, slate, and fibre. Function categories include architectural, agricultural, tableware, medical, alcohol, food, food preparation, personal (including sub functions clothing, pastime, writing), and household. All glass classifications made were according to the guidelines set out by Jones and Sullivan (1985). Images of the artefacts can be found in appendix 3.

The *terminus post quem* for the artefacts may be about 1837, and more probably about 1845/6, when the privy shows up in plans, and was probably first built. However, the artefacts may be earlier in date, and dumped into the privy when it was built. The

*terminus ante quem* of second settlement artefacts is about 1855, when the settlement was abandoned as a penal settlement. Artefacts from the third settlement are largely from the period of occupation of the Surgeon's Quarters by the Robinson family, 1880 - 1920, during which they used the western wing of the Hospital as a shed.

### **Distinguishing between second and third settlement material**

In general, the upper layers of the privy, especially 1240 to 1550 mm, are characterised by whole embossed bottles, their presence indicating a late nineteenth-century date for the layer, when there was an increase in production of embossed bottles which constituted a semi-luxury trade. The embossing is the most significant artefactual quality for distinguishing convict-period from post-1855 material because registered and patented embossing principally occurred after 1860, with the use of iron moulds (Hutchinson 1981). To a lesser extent the marks on ceramics were also able to provide evidence of their post-1855 deposition.

The post-1855 date for 1240 to 1550 mm is supported by the inscription on a bottle (image 109) - 'To contain only LEGGO's JAMS, PICKLES, or PRESERVES THIS BOTTLE IS THE PROPERTY OF H.M. LEGGO & Co. LTD'. The bottle was made by H.M. Leggo, an Australian manufacturer in Bendigo, who began business in 1880 (Arnold 1978). Likewise, the inscription 'Calvert's Extra Pure Carbolic Acid' on a bottle (image 103) also from 1240 - 1550 mm, indicates it was probably manufactured after the antiseptic qualities of carbolic acid were demonstrated in 1867, and when the Bendigo chemist Calvert was in business in the late nineteenth century. He sold his business to E.Wood in 1867 so the bottle was either made before the business changed hands or the new proprietor, who was still listed in 1875, kept the 'Calvert' name on his bottles (Arnold 1978).

One small colourless glass bottle neck (image 387) with an external screw, and the metal top still attached, was excavated from 2500 to 2600 mm, of the type that held patent medicines such as essence of peppermint, and identified by Jones (1981) as of twentieth century production. External screw neck bottles were first manufactured about 1885, suggesting that this bottle was deposited during the third settlement, and due to its size it easily found its way down through earlier deposits. Masons fruit preserving jars,

with zinc caps, such as one excavated from the privy (image 152), were first made about 1860 (Nayton 1992: 79), but first exported to Australia between 1875 - 80. Other evidence of fruit preserving jars, in the form of glass stoppers bearing the marks 'Prepared by Eno's Patents', 'Eno's Fruit Salt', and 'Prepared by Patent Enos', were excavated from between 1240 and 1550 mm, and are assumed to be of a similar date. A bottle sherd excavated from 1800 to 1900 mm bears the embossed name of 'Whittaker and Crossm[an]'. Whittaker was a manufacturer/distributor of soft drinks, working in Victoria from *circa* 1852 to 1935, a period which just allows the bottle to be interpreted as being deposited during the convict use of the privy, but more likely as post-1855 deposition.

A bottle bearing the embossed letters 'J L & Co Ltd C 109' (image 91) was made by the Yorkshire bottle manufacturer John Lumb and Co. between 1870 and 1937, the dates between which this English company was in business (Boow 1991: 179). A bottle bearing the embossing 'Day & (Hora) 97 London' (image 92) was probably manufactured in 1897, indicated by the '97'. Another bottle sherd bearing the embossed mark of 'Roberts (crown) Registered Market St. Sydney' (image 115), was made by a Sydney wine and spirits manufacturer, who advertised in the *Sydney Morning Herald* of 1900 (Boow 1991: 205). These bottles were excavated from 1240 to 1500 mm, reinforcing the post-1855 date for the deposition of the material in this layer. Press-moulded glass tableware and household items, such as the glass fragments in images 84 and 85, were excavated from the upper layers of the privy. Production of this type of glass did not become popular until the 1850s, since before then a tax on glass production prevented its cheap manufacture (Lattimore 1979).

A denture excavated from 1700 - 1800 mm (image 154), is most likely to be of third settlement date. In 1844 Charles Goodyear patented the process of vulcanisation of rubber, and dentists began to use the malleable brown-red coloured vulcanite with porcelain teeth to make dentures (Hackett 1986). This denture may be made from vulcanite, but appears to be a deep pink colour, characteristic of acrylic dentures made in the twentieth century. It seems unlikely that dentures would have been a luxury that was extended to convicts.

The plate in image 697, excavated from 1700 - 1800 mm, bears the mark of 'Royal Ironstone China', earthenware made by the Staffordshire manufacturers Mellor, Taylor and Co. between 1880 and 1904 (Cushion 1976). A sherd from a white ceramic plate with a multicoloured Chinese design from 2000 to 2100 mm (image 266) bears the mark 'Made in China', indicating a post-1891 date for the manufacture of this piece, because due to the U.S. McKinley Tariff Act of 1891, all imported goods were required to be marked with their place of manufacture (Godden 1964). There is a possibility, however, that these plates may have been manufactured earlier than these dates. All the associated artefacts from these levels appear to be of a much earlier date, suggesting that the sherds travelled down from the upper post-1855 layers.

## **Medical artefacts**

### *Medicine bottles*

The necks of many small, colourless glass bottles from the privy originally contained medicines either prepared in a chemist, or in the Hospital dispensary, and are typical of those stored in mid nineteenth-century medicine chests (see figures 21 and 22). These bottles, or phials, have thin walls, flanged lips, and the neck fragments are no larger than four centimetres (see images 172, 173, 218, 415, 433, 446, 502). Likewise, there are corresponding bases for such bottles, although they do not necessarily match the necks (images 219, 281, 416, 475). Medicines prepared in the form of tinctures, ointments, et cetera, were stored in these small round section bottles with ground glass stoppers, often referred to as 'shop rounds'.

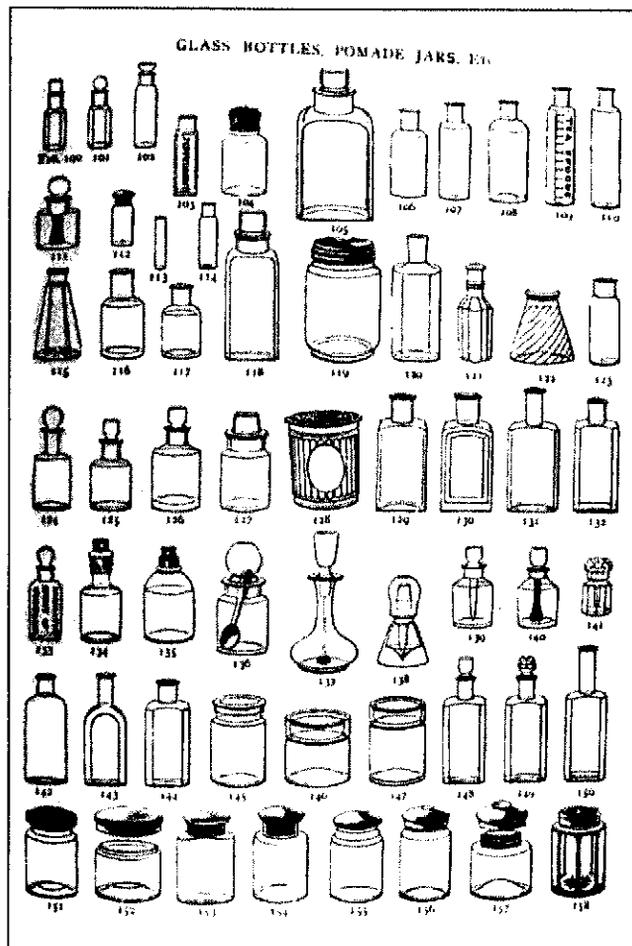


Figure 21: Medicine bottles from a nineteenth century chemist's catalogue  
(Fletcher 1976: 15).

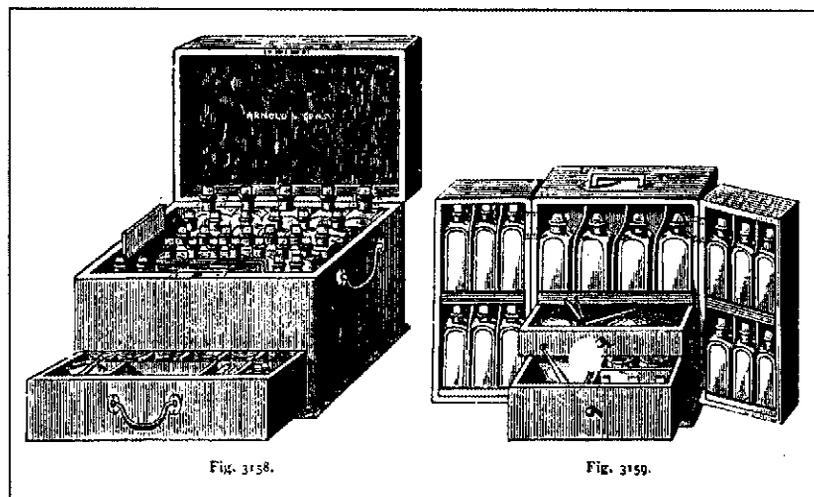


Figure 22: Nineteenth century medicine chests  
(Arnold and Sons 1895: 712).

Ground glass stoppers that sealed these types of medicine bottles were also excavated from the privy (images 207 and 480 - flat oblong heads, image 414 - with flat heads, and image 418 - with a cut glass globe head), and are examples of the types commonly used for bottles in nineteenth century medicine chests. Images 130, 244 and 496/7 illustrate colourless glass phials or test tube bases, which would have had small neck openings designed for dropping the contents out in measured amounts (Jones 1981).

Other medicine bottles from the privy include neck and base fragments of large, light green, round-sectioned, glass bottles with small openings, very short necks, and high kick-ups (images 235, 301, 316, 359 - 362, 365, 366 - 7, 393, 461, 468, 471 - 2, 500). Two have hand-engraved ratios on the shoulder of each bottle - '1=9 1/2' (image 424) and '2 = 1' (image 529). Some rectangular and octagonal section bottle base fragments of various sizes, were also excavated (images 252, 253, 288 (light blue glass), 312, 343 - 5, 350, 368, 391, 515), which were common for medical storage in the mid-nineteenth century (Crellin and Scott 1970). The necks of such jars, which tend to be thicker glass than the 'shop rounds', and have string-rims, were also excavated (images 299, 300, 394, 435, 447, 465, 508, 522).

Various sizes of square-sectioned colourless and light green bottles from the privy bear embossed broad arrows, indicating their government manufacture and use by the dispensaries of government ships and other government medical establishments (Crellin 1969: 127) (see images 225, 337, 338, 434, 498, 505 - which bears a composite anchor/arrow, and 527-29 - bearing arrow and 'C 8'). Likewise, a round-sectioned colourless glass phial bears an embossed arrow and a 'K' (images 498 and 499).

Some embossed bottles resembling patent medicines were excavated from the upper layers of the privy, but very few bottles resembling patent medicines were excavated from the convict period deposit in the privy, despite the fact that they were by far the most popular type of medicine on the market in the nineteenth century (Griffenhagen and Young 1992).

From 1831, concentrated lime juice was sold in elaborately moulded bottles, for medicinal purposes (Vader and Murray 1975: 36). One such bottle (image 336) was excavated from the privy, from 2300 - 2400 mm, in the north-west square, and bears the

mark "Ross' Jamaica Lime Juice". Their lime juice cordial was advertised in the Sydney Morning Herald of 1890 (Boow 1991: 205) but the advertisement does not necessarily indicate the first date of manufacture, so the bottle from the privy may have been manufactured some years prior to this date.

### *Cupping glasses*

The sample included two incomplete cupping glasses which were excavated from the privy (images 270 and 490). Cupping glasses have thick rolled rims to enable them to achieve an airtight fit to the skin, and were usually obtained in sets of three, but the rims from these cups have been broken off. Such cupping glasses are illustrated by Bennion (1979), and demonstrate that the design of the glasses remained largely unchanged since the beginning of the nineteenth century. Another cup excavated from the Hospital privy, is illustrated in plate 23, but is no longer held by the museum, so was not available for inclusion in the sample of artefacts for the current study.



Figure 23: Cupping glass excavated from the Civil Hospital privy  
(Stanbury 1994: 67).

### *Medicine cups*

Three sizes of white, salt-glaze, stoneware cups were excavated from the privy, with diameters of 4.5cm (images 145, 248, 290, 531), 7cm (images 291, 319, 335, 382, 436), and 9cm (images 185, 186, 187, 460). They are identical to those identified by Drake (1960) and Noel Hume (1982) as medicine cups both of which date to the late eighteenth century (see figure 24). Further confirmation for the date comes from the identification of the same cups by Starbuck (1997: 39) from the American Revolution frontier hospital at Mount Independence, Vermont, built in 1777. It is likely that the design of the cups did not vary much from the late eighteenth to nineteenth centuries. Stoneware is a strong ware, most useful for objects with utilitarian purposes, and was widely used in the nineteenth century for domestic and pharmaceutical storage. Such pots were used for dispensing measured amounts of medicines to the patients, they could have held pills, ointments, and any other form of measured medicine. Such medicine cups, for example those in images 247 and 436, were excavated from the privy with the makers mark 'Copeland & Garrett' transfer printed in blue on the base. Copeland and Garrett were manufacturers of earthenwares, parian, and fine porcelain wares, working at Stoke-on-Trent in England, and printed such a mark on their wares from 1833 to 1847 (Godden 1968: 56), but even hospital products were not considered too lowly for them to make (Matthews 1971). Such cups were also manufactured with transfer printed designs such as Willow and pastoral scenes, but as would be expected at a government institution, the Civil Hospital cups were without decoration or ornament.

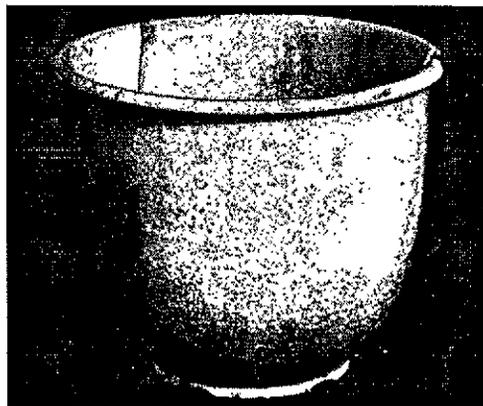


Figure 24: Nineteenth century salt-glazed stoneware medicine cup

### *Other medical ceramics*

An incomplete composition mortar pictured in images 451/2 also bears the mark of Copeland and Garrett, and was excavated from 2600 - 2700 mm. Another such broken mortar, and an accompanying bone pestle were also excavated from the privy, but were on loan for display at the Museum of Sydney, so was not included in this study. Crellin (1969) illustrates brown glazed earthenware storage jars similar to those excavated from levels ranging from 1800 mm to the drain at the base of the privy (images 156, 192, 202, 214), which were used for pharmaceutical storage. The white stoneware jar in images 215 and 216 has a groove which would have held a tie-down wax sealer around the neck. Most pharmaceutical goods were stored in glass because it was cheaper and more readily available, and was not prone to reacting chemically with the contents. One brown glazed earthenware storage jar bears an incised broad arrow/anchor/snake (image 201), the snake suggesting its medical use, and the anchor and arrow suggesting government production of the jar for naval use. Another jar (images 215-6) is of the type commonly used to store ointments, toothpaste, and even cheese.

### *Syringes*

A minimum number of five glass syringes were found in the privy (images 125, 126, 127, 165, 262, 273, 469), calculated from the number of plungers. The syringes are of two sizes, 16 centimetres long and 23 centimetres long, measured from the end of the plunger to the end of the nozzle. They are pre-hypodermic, that is, they had no needle attached allowing injections under the skin to be made. The syringes have ground a glass plunger, a tapering glass nozzle, and rings on the plungers which would have originally held cork or twine to seal the tube.

In the nineteenth century syringes were used for a variety of medical procedures including injections in the ear, nose, urethra, and anus; for cleaning wounds; and to drain excess fluids from the body. Maw's catalogue of 1838 lists 39 varieties of enema syringe, the smallest from 18cm long, made from brass, pewter and glass, with a rubber or twine-bound plunger (Maw 1838). Ear syringes were also made from brass (Warren 1994: 25), and had ivory nozzles, however some were made from glass, such as one

1994: 25), and had ivory nozzles, however some were made from glass, such as one illustrated by Young (1988: 41). Warren suggests that glass syringes, similar to those excavated from the privy, were used for douches, but douche syringes were also made from pewter.

An identical glass syringe was excavated from the well at 30 Harrington Street, the Rocks, which was dated to the 1850s (Kelly, 1997: 115). Another such glass syringe, 23cm long, is illustrated by Bennion (1979: 172), dated to 1860. Examples of these syringes with ground glass plunger, glass nozzle, and cork rings on the plunger to seal the tube, are illustrated in an 1895 medical catalogue (see figure 25), a 1920 catalogue (Mayer and Phelps, 1920), and an 1948 catalogue (Elliot, 1948) suggesting that the design of the earliest syringes was successful enough to be maintained.

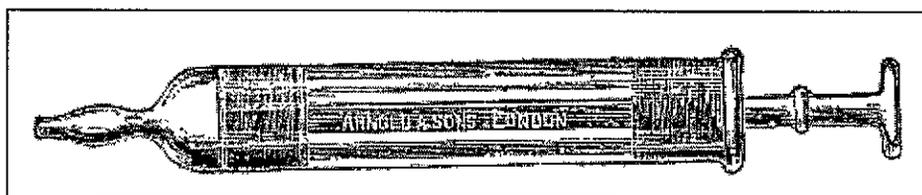


Figure 25: Glass urethral syringe

(Arnold and Sons 1895: 622)

#### *Anaesthetic apparatus and measuring glasses*

One colourless glass funnel-type artefact (images 506, 507) excavated from the privy may be identified as a component of an early type of anaesthesia apparatus. This identification is tentative however, as it may be a component to any laboratory apparatus or funnel. An early example of an anaesthetic apparatus is illustrated in figure 26, dated to *circa* 1846, when anaesthesia had recently been discovered.

Two fragments of colourless measuring glasses were excavated. Image 275 illustrates a conical measuring glass, on a circular base, with Roman numeral gradations embossed and etched on the side. A sherd from the side of a green straight sided measuring glass also bears embossed gradations of the Roman numerals 'V' and 'VI' (image 533).

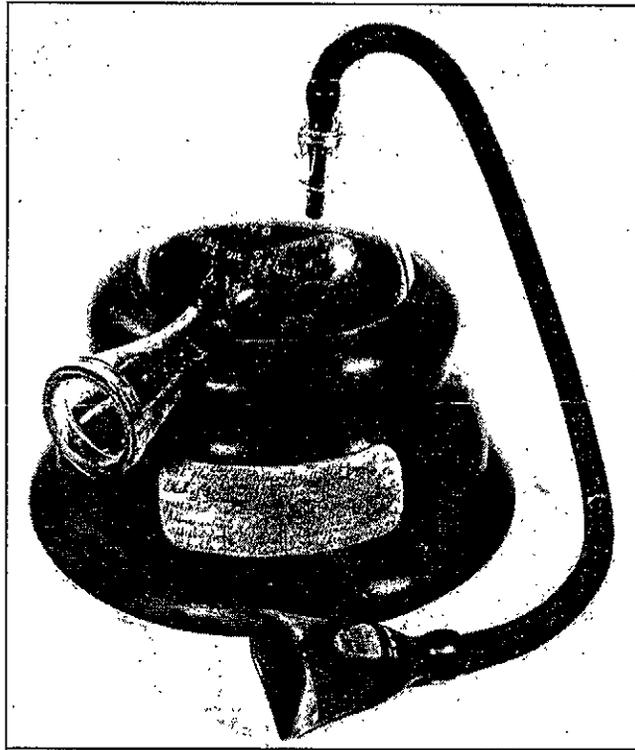


Figure 26: Early anaesthetic apparatus, c. 1846

(Bennion 1979: 190)

### **Alcohol bottles**

The most common type of bottle excavated from the privy deposit was the cylindrical, black or dark olive glass bottle, that was made cheaply from impure materials, and had widespread use in storing alcoholic beverages. In the nineteenth century wide, low-shouldered types variously stored brown ale (porter), light beer (ale), and sprits such as brandy, rum, and whisky; and the narrower, taller-shouldered types stored wine and cider (Boow 1991). Similar bottles, in lighter coloured green glass, also contained other products such as vinegar, mineral water, castor oil, linseed oil, and olive oil (Desjardins and Duguay 1992: 76). Gin came in differently shaped and coloured bottles, and will be discussed below.

Many of these alcohol bottles, both black and light green in colour, have double collared rims, which date between about 1820 and 1860. Some have embossed central pimple-like projections on their bases, called mamelons, (images 161, 189 - 91, 198, 316), created by a valve in the process of three piece moulding, and characteristic of bottles

(Morgan 1977). The three pieces of the mould left side seams and a ring seam around the shoulders of the bottles. The Rickett's patent lapsed in 1835, and thereafter other bottle-makers copied his mould. Most of the black glass bottles from the privy are three-piece moulded, but some appear to have been hand blown, and are un-uniform in shape. Their presence is not surprising since until the 1840s and 1850s some bottles were still being made by traditional methods. Such bottles are identical in all respects to Ricketts' bottles except that they do not bear any name or manufacture location in relief on the bottle, as with the Ricketts bottles. It is likely that the dark olive alcohol bottles from the privy are copies of the Ricketts mould, because they do not bear the Ricketts name, but do bear the mamelon on the base.

Broken 'case' gin bottle necks and bases were also excavated from the privy, with their characteristic olive green colour, square tapering section, and short single-collared necks, some with vertical embossed fluting on their sides. From the seventeenth century, gin was dispensed as a medicine through apothecaries, but its popularity soon led to its widespread use as a beverage. The bottles obtained their characteristic square design in seventeenth century Netherlands, because of the ease of packing such bottles in cases for mass-export (Lerk 1971).

Sheared lip bottle necks are also represented in the assemblage, the neck being roughly cut off during manufacture with shears (Adams & Payne 1976). Patination or 'spalling', which occurs mainly on cheap glass, had occurred on many of the glass bottles present in the privy deposit, due to the chemical reaction between the surface of the glass and the lime-rich, organic matrix within the privy.

Bottles containing special wines had a glass seal attached to the bottle, bearing an impression of the makers' name or trade mark. Bottle seals were achieved by the manufacturer dropping a blob of molten glass onto the relevant area, and impressing the company seal (Wills 1974). A few glass bottle seals excavated from the privy include one of green colour, bearing the government broad arrow, a '7' and a 'C' (image 466), and one bearing a tall bird standing over the Roman numerals I to V (image 339).

## Food and its preparation

The selection of bones chosen for the current study was limited, as it was recognised that there was not a substantial amount excavated. It is likely, therefore, that the refuse from the nearby kitchen was dumped over the northern wall of the Hospital courtyard, only a few steps out of the kitchen, but this area has not yet been excavated. The sample under study included a few examples of bird, fish, and sheep bones and a peach seed, that might represent meals in the Hospital. However, discussion of these few examples would not do justice to the archaeological answers that might be drawn about eating habits within the Hospital.

If a more in-depth study of the faunal assemblage was to be undertaken some interesting questions to apply might include: do the bones largely represent local animals, or domestic species brought to the island for food? Are they large animals, from which economical amounts of meat was gained, or are they small? Who caught/killed the animals for eating - convicts or others? Were they official foods, or caught by the convicts and eaten privately?

Tableware ceramics within the privy were minimal but included a few sherds of transfer printed stoneware and porcelain. An incomplete plain white plate in image 154 displays an anchor mark on the base, most probably representative of the Davenport firm in Staffordshire, England, who produced wares between 1794 and 1887 (Blackburn Museum and Art Gallery 1978). The incised or printed anchor mark was used by this firm between 1820 to 1840 (Cushion 1976). Transfer printed earthenware, such as that from the privy were produced in vast amounts by the Davenport factory, so such wares may not have been of such high quality, and were probably quite inexpensive.

Individual sherds (image 233, 325, 370, 420) and two reconstructed blue transfer printed plates from various levels of the privy (images 184, 216) have elaborate pastoral scene designs, as does a brown transfer printed tea cup (images 258/9). Banded wares from the privy include three reconstructed plates from 1800 - 1900 mm in the privy, with pink/red bands and green and gold printed banding around the edges. There was also a single sherd of a blue feather-edged plate (image 431), and the base of a colourless wine glass (image 263/4).

A few pieces of cutlery were excavated from the privy, including the heads of large metal serving spoons (images 313, 385, 397, 425/6), a two-tined carving fork (image 161), and a three-tined fork (image 341). Among other examples were the bone handles of certain implements (images 259, 327, 328, 395) but it is difficult to discern the type of implement to which they were attached. Before the invention of stainless steel in about 1846, cutlery was not particularly durable, and grinding quickly wore down knife blades (Hayward 1956). Evidence of cooking, and of the nearby kitchen, was excavated from the privy in the form of iron pot fragments (images 427 and 428), an iron kettle spout (image 321) and fragment of the kettle shoulder (image 322).

### **Evidence of Clothing**

Many bone, sew-through buttons with four holes were excavated from the privy (images 143, 178, 196, 2328, 248, 284, 289, 324, 332, 408, 481, 517) of the type that were commonly sewn onto men's trousers, shirts, and underwear (Birmingham 1987; Olsen 1963) and are dated between 1837 and 1865 (Noel-Hume 1982). Peacock claims that these buttons, made from rib and shin bones of cattle and sheep, were 'the mainstay of peasant clothing before 1875' (1978: 56). Shoes of the mid-nineteenth century were often fastened with five to eight buttons (Taylor 1994) so it is possible that some of the buttons were originally attached to shoes in addition to clothes.

Porcelain (images 323 and 441), shell (image 166) and metal (image 196) buttons were also present, though in fewer numbers. Such buttons were mass-produced in the Birmingham area in England from the beginning of the nineteenth century, but were more fashionable than the more common bone variety, so less likely to be found in a government institution. Most shell buttons produced were the two and four holed types used on shirts and pyjamas (Peacock 1978), which Noel-Hume dates between 1800 and 1830 (1982).

The heels, soles, and uppers of leather shoes were popular items discarded or lost in the privy (images 138, 157, 171, 177, 256, 283, 302, 305, 309/10, 310, 317, 318, 358, 375, 439). Shortages of shoes were always common in the early days of the colony, due to the lack of local shoemakers and the tendency of the shoes to wear out quickly on the rough

Australian landscape. In 1828, Sydney had one shoemaker for every 236 inhabitants (Maynard 1994). Many boots and shoes would have been imported from England, yet since the distance was great, the wait for orders must have been long. It therefore seems unusual that shoes were considered disposable enough for so many to be discarded in the privy.

Five buckles were excavated from the privy deposit, all of very simple rectangular design (images 19, 140, 264, 442). The two in image 19 were most likely deposited post-1855, because they were excavated from the upper layers, and the limited amount of corrosion may indicate their shorter life in the privy. The corrosion of the moving parts of these buckles indicates that they are composed of a different metal to the body, which are not corroded. Buckles of these type were used for belts, but also for animal harnesses (Noel-Hume 1982). Three fragments of coarse hessian-type fabric (images 139, 178, 413) may be fragments of clothing or fabric items such as bandages used in the Hospital, and a large fragment of hard leather (image 470) may be part of a hat. One man's size finger ring (image 390), was excavated from the 2500 - 2600 mm depth.

### **Evidence of pastimes**

Clay pipes were excavated in abundance from the privy deposit. The majority are undecorated, except for a small amount of glaze around the mouthpiece, and all have residues of carbonated tobacco indicating their use. Many have spurs, a common design element allowing the pipe to stand upright on a flat surface. Only two demonstrate any clear evidence of makers - one (image 294) with the marks 'Glasgow' "Murray" 'T', 'D'; a Glasgow firm which made pipes between about 1826 and 1861-2 (Humphrey 1969). The other pipe (image 487) bears the initials 'T.W.', which represents the maker Thomas White, of Edinburgh, who made pipes between 1832 - 1864 (Oswald 1975). Walker (1983) however, gives the dates of production as between 1823 - 1876. One pipe stem sherd (image 414), about 4 1/2 cm long, appears to have been re-worked, with a hole bored out. Such re-worked pipe stems from the 17th century site of Fort Orange, New York, have been discussed by Huey (1975) as crude whistles.

Fifty boxes of such clay pipes manufactured by Thomas White were excavated from the wreck of the brig *Tigress* in the Gulf of St Vincent, South Australia (Harris 1986), and

Wilson and Kelly (1987) estimate that up to 25 million clay pipes were imported to Australia every year during the mid- to late nineteenth century, indicating their availability and low cost in the colony.

### **Personal hygiene and personal items**

Three bone toothbrushes were found in the privy (images 348/9, 520/1), two with straight sides, and one with a narrowing at the neck. The bristles have fallen out or have disintegrated while in the privy. The shaft of the toothbrush, known as the stock, was usually cut from cow and ox bones and bristles came from pig hair. The regularity of the bristle holes in the toothbrushes suggest that they were machine drilled, probably using a metal template for even spacing of the holes. Such standardisation in brush making was common by the early nineteenth century (Shackel 1993).

One complete ivory hair comb (image 38) excavated from the upper layers of the privy, bearing the inscription "The Double Diamond British Manufacture", is likely to have been deposited post-1855. A few fragments of another ivory fine-toothed comb (image 523), were excavated from the lowest layers of the privy. Both combs are double edged, and these were most commonly used by people of low socio-economic groups in the nineteenth century (Noel-Hume 1982). Such combs were listed on supplies to Norfolk Island during the second settlement, as will be discussed in Chapter 4.

### **Miscellaneous artefacts**

Two fragments of slate pencils were excavated from between 2500 and 2900 mm within the privy (images 409, 519) but their size suggests that they may have easily travelled down from the post-1855 dump layer, from which other examples of such pencils were excavated (image 22). Both hand wrought and machine cut iron nails were excavated from the privy, and the shorter ones may have come from shoe soles, while the longer nails are architectural, possibly nails that held the shingles to the roof of the privy, or other parts of the Hospital. Artefacts related to the presence of transport or farming animals on the settlement include a horse shoe (image 235), and fragments of leather straps (image 46) probably parts of bridle straps for horses. An iron barrel key was excavated from 2700 to 2800 mm (image 484), and three incomplete iron keys with

straight shafts and ovoid ends were excavated from 2500 to 2600 mm (image 399).

Fragments of iron banding from wooden barrels and buckets were also excavated from the privy (images 182 and 396).

## Chapter 4:

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### Historical Evidence of the Convict Experience in the Hospital

#### Convict illnesses in the Hospital

It is certain that the living conditions, and the policies that caused them, affected the health of the convicts during the second settlement. The brutal discipline, hard labour, overcrowding of living spaces, lack of hygiene standards, lack of education, exposure to the elements, and lack of places for religious worship, surely had detrimental effects on the physical and mental well-being of the convicts. The annual returns of diseases treated at the Civil Hospitals of Norfolk Island and Moreton Bay during 1838 and 1841 are listed in tables 1, 2 and 3, and for the purposes of this study have been divided into those related to work or accident injury, those caused by micro-organisms, and congenital and general illnesses. The categories are not mutually exclusive, as some illnesses may have had more than one influential factor, for example fever may be due to micro-organism infection or general sickness, and many of the diseases might be said to have been influenced by poor diet.

In analysing this data, it is important to recognise that the 1838 return of diseases also included the return from the convict hospital at Moreton Bay. Therefore, not all of the cases can be interpreted as convicts from Norfolk Island. The medical conditions in tables 1 to 3 would have been diagnosed by Drs Harnett and Stuart in 1838 and by Drs Graham and Reid in 1841. It is quite possible that these doctors had differences in methods of diagnosis and different names for specific diseases. For example the 1838 return lists *neurosis* and no mania, while the 1841 return lists mania and no *neurosis*, suggesting different preferences for naming the same illness. The single death from neurosis in 1838 might have been death by misadventure due to the neurosis, or perhaps a nineteenth-century euphemism for suicide.

A matter concerning attention is the fact that in 1841, 18 cases of diarrhoea are listed, while only 8 are listed for 1838. This may represent the competency of some doctors over others in the ability to specifically diagnose an illness. Likewise, the use of the term '*febris*', or fever appears to have been widespread and vague, since 42 cases of fever

were listed for 1838, and 88 cases for 1841. Many of these cases may have referred to malaria, which was called 'intermittent fever' in the nineteenth century. However, as Porter (1996) points out, nineteenth-century doctors were preoccupied with fever, and used it as a general term when no further diagnosis could be determined.

Table 1: Work/Accident related illnesses on Norfolk Island 1838/1841

Illness	1838	1841
abcessus (abcesses)	4 (1 death)	9
ambustio (burns)	8	--
asphyxia	--	1
asthma	2	3
carditis (inflammation of the heart)	2	9 (2 deaths)
concussio (concussion)	3 (1 death)	2
contusio (bruises)	25 (3 deaths)	15
dislocatio (dislocated limbs)	--	3
drowning	1 death	--
dyspepsia (indigestion)	--	1
dysponoea (breathlessness)	2	--
dysuria (painful or difficult urination)	4	--
epistaxis (nose bleeding)	1	--
eruptio (skin rash)	4	--
flagellatio (flogging wounds)	7	--
fractura (fractured bones)	7 (2 deaths)	7 (3 deaths)
haematamesis (vomiting blood)	--	7 (2 deaths)
hernia	5	--
hernia humeralis	4	2
oedema (swelling of body parts, eg. ankles due to standing)	--	1
ophthalmia (inflammation of eye or eyelid)	18	28
paralysis	4	3
punctura (cuts)	1	--
spasmi (spasms)	--	8
ulcus (ulcers)	64	26
vertigo	4	2
vulnus (wounds)	12 (1 death)	15 (1 death)
Total:	182	142

Table 2: Illnesses Caused by Micro-Organisms on Norfolk Island 1838/1841

Illness	1838	1841
anthrax (infectious disease of farm animals)	1	--
bronchitis (inflammation of bronchi due to mic.-org. infection)	14	4 (1 death)
bubo (swelling of lymph glands in groin due to venereal disease)	1	--
catarrhs (inflammation of mucous membrane, eg. common cold)	23	1
cholera (acute infectious disease caused by bacteria)	14	1
cholera morbus (disease of the stomach and bowel)	2	--
cyananche (tonsillitis)	3	2
diarrhoea	8	18
dysenturia (infection of large intestine caused by bacteria)	69 (5 deaths)	65 (6 deaths)
enteritis (inflammation of the intestines caused by bacteria)	8	3 (1 death)
erysipelas (streptococcal infection of the skin)	11	1
gangrena (death of tissue, usually due to bacteria)	4	--
gastritis (indigestion)	18 (2 deaths)	3
gonorrhoea (venereal disease, infection of urethra by bacteria)	7	--
haemoptysis (disease of the lungs causing anaemia)	--	3 (1 death)
hepatitis (inflammation of liver due to virus)	6	1
nephritis (inflammation of the kidney)	1	1
otitis (middle ear infection)	--	1
ozaena (inflammation of the nose)	1	--
peritonitis (inflammation abdomen lining, due to bacterial infection)	1	--
phthisis (consumption or pulmonary tuberculosis)	10 (4 deaths)	6 (1 death)
pleuritis (inflammation of pleura - outer surface of lungs)	10 (1 death)	9
pneumonia (lung inflammation due to infection)	13 (1 death)	11
scrophula (tuberculosis of lymph glands)	--	1
strictura urethra (narrowing of urethra from inflammation or V.D.)	--	7 (1 death)
syphilis (venereal disease caused by mic.-org.)	2	9
tetanus (bacterial infection of wounds)	1 (1 death)	--
Total:	228	147

Table 3: Congenital/ Poor Health-Related/General Illnesses.  
on Norfolk Island 1838/1841

Illness	1838	1841
anasarca (swelling of tissue due to cardiac disease or starvation)	2	--
ascities (accumulation of fluid in abdomen due to inflammation)	1 (1 death)	--
cephalalgia (headache)	3	1
colica (spasms of the intestine)	2	--
debilitas (debility, low state of health)	3	16 (1 death)
dolora (pain)	6	--
epilepsia (epilepsy)	--	9
febris (fever)	42 (1 death)	88 (5 deaths)
fistula in ano (anal fistula)	2	1
fistula in perineum (fistula of perineum, between genitalia & anus)	--	2
hydracele (fluid in scrotum, congenital or due to injury)	4	--
hypertrophia cordis (increased growth of tissue)	1	--
icterus (jaundice)	3	9
mania (mental disorders)	--	4
morbis cordis (heart disease)	7 (1 death)	--
nurosis (neurosis, possibly the same as mania)	3 (1 death)	--
obstipatio (constipation)	3	3
palpitatio (heart palpitations)	2	2
prolapsus uteri (prolapse of uterus)	1	--
phlegmon (inflammation of the skin due to infection)	10	5
phoenitis (loss of voice?)	5	--
porrigo (disease of the scalp, eg. dandruff)	--	1
rheumatismus (rheumatism)	15	9
scorbutus (scurvy)	1	2
schirrus uteri (? uterus)	--	1
Total:	116	153

Total (1838): 526 cases (29 deaths)

(Annual Return of Diseases 1838, DL A/1220: 898 - 899).

Total (1841): 442 cases (16 deaths)

(Annual Return of Diseases 1841, DL A/1228: 923 - 925).

The convict population on Norfolk Island in 1838 was 1 447, and in 1841 the population was 1791 (Nobbs 1991: 75). When compared with the total cases of medical conditions, it can be concluded that the health of the convicts on Norfolk Island was generally poor. Dysentery was endemic and caused many deaths on Norfolk Island, as it did in the

Newcastle convict settlement (O'Donnell 1996), and in the Sydney Hospital, where it recurred at regular seasons, and was attributed to diet, water, and the 'conditions of life' (Watson 1911: 40). The Deputy Inspector of Military Hospitals in New South Wales wrote in 1830 that 'Dysentary [sic] is the most prevalent and most fatal disease to which the Colonists are subject', 'it carries off about one Half of the Convicts who die in the Civil Hospitals' (Hagger 1979: 102).

Treatments for dysentery varied, depending upon the doctor. In the Sydney Hospital it was treated by copious bleeding and administration of calomel which purged the bowels to rid the body of the problem, and patients were given the 'low diet' (1911: 63). Dr D'Arcy Wentworth recorded his method ' Spontaneous Homorrhage [sic] always of service even if it be considerable... bleed first by leeches or from the arm, then open the bowels by Castor Oil, after this give large doses of opium and calomel....'. Enemas of ipecacuanha and water were also given (Gorringe 1850), and a convict named Mortlock on Norfolk Island reported that dysentery was treated with a decoction made from the bark of a tree (probably Green Wattle, *Acacia decurrens* and Willow bark, *Mimosa longifolia*) (Mortlock 1965).

There had been a mild epidemic of dysentery on Norfolk Island in 1838-9, but the disease was not a major problem on the Island until 1840 (Gandevia 1977). In that year the disease broke out among the 'old hands' on the Island, and shortly, a shipment of new men landed to be trialed on Maconochie's new 'marks' scheme. Within three months 400 of 700 new men had the disease. This occurrence faded, and then another epidemic occurred which lasted from November 1841 to June 1842. A third epidemic occurred three months later, and had declined by January 1843. In September of that year, the surgeon noted that only 81% of the 'old hands' and 61% of the 'new hands' could work. Commandant Maconochie observed lower mortality from dysentery among convicts who had been fed well prior to their arrival on the Island, and he agreed with doctors Graham and Reid that diet was one of the main causative factors. The doctors also argued for the influence of local factors, but they denied the fact that contagion was possible.

It was not common knowledge at the time that bacterial diseases could infect water and food, and thus cause epidemics, and it was only in the mid-1850s that people began to

recognise this problem (Margotta 1968). Instead, the surgeons in the Civil Hospital probably believed that miasma, expelled from the privy, caused the spread of diseases such as dysentery. Stuart believed that the 'external chill, acting on the over-heated interior, is productive of much illness, catarrh, diarrhoea, dysentery, ophthalmia, and rheumatic complaints', and that Dr Everett had mentioned to him that the mortality in the Hospital was due to the 'seriously defective sleeping accommodation' (Stuart 1979 : 57).

The most likely factor causing the prevalence of dysentery among the convicts would have been the poor sanitary standards in the convict-used areas of the settlement. The use of tubs as privies in the convict barracks at night, and the proximity of permanent privies and eating places, along with dirty hands would have contributed greatly to the epidemics. Other influential factors would have been the contamination of drinking water and vegetable gardens, since the outlet of the privy drained down the hill into the creek north of the Hospital. For example an 1829 map of the settlement illustrates gardens in the swampy area north of the privy, into which the privy drained (Plan of the Settlement, 1829, AONSW map 6321), and it was common practice in the nineteenth century to empty night soil from privies onto gardens and crops as fertiliser (Roberts and Barrett 1988). The bacteria responsible for dysentery (*Entamoeba histolytica* or bacteria of the genus *Shigella*) would have thus contaminated the produce from the gardens and the water collected by convicts for drinking.

Other common illnesses among the Norfolk Island convicts included bruises, ulcers, common colds, diarrhoea, pneumonia, debility, fever, ophthalmia and rheumatism. These medical conditions, among others such as tonsillitis and skin inflammations were similarly high among convicts at Moreton Bay and Port Arthur (Jackson 1924; Cleland 1932). Pearn (1996) argued that the convicts at Sarah Island, Macquarie Harbour, were mainly affected by injuries due to work and misadventure, such as drowning and escape accidents, but as the preceding division of illness types illustrate, Norfolk Island convicts seem to have suffered more from infectious diseases and general or poor-health related problems. A general list of medical conditions treated in New South Wales for 1838, reveals that the most common problems in the colony were abscesses, burns, tissue swelling, colds, headache, bruises, debility, diarrhoea, dysentery, skin rashes and infections, fever, fractures, gonorrhoea, ophthalmia, tuberculosis, rheumatism, scurvy,

syphilis, ulcers, and wounds (Annual Return of Diseases 1838, DL A/1220: 894 - 5). All of these complaints were similarly common on Norfolk Island, suggesting that the living conditions there, and perhaps other factors such as diet, did not differ greatly from the rest of the colony.

Evidence of punishment exists in the cases of *contusio* (bruises), a term which surgeons often used; with others such as *flagellatio* and *punitas*, to refer to punishment (Pearn 1996). Many of the ulcers and abscesses listed would have been inflamed lesions caused by the leg irons worn by many of the convicts. Malingering, or simulation of illness, in order to avoid hard work and gain admittance to the Hospital, was habitual among Norfolk Island convicts between 1830 and 1845 (Gandevia 1978). Convicts would intentionally ingest poisonous matter, burn themselves and inflict wounds with hoes, tamper with their eyes (causing ophthalmia), aggravate existing sores and ulcers, and attempt to contract dysentery. In 1834, Dr. Gamack had 100 of 200 men on light labour because of illness, and in 1836 Dr Harnett reduced it to 50, promising punishment if any came to him with pretences of illness. Malingering convicts led to the overcrowding of the Hospital, and Cook noted that at one point up to 80 to 100 men were locked in a room 16 feet long and 12 feet wide. 'Notwithstanding the great attention of the Medical Officer, Death in many Cases occurred' (Cook 1978: 62). One convict explained to Cook that 'but for the care and attention of that Gentleman I must have quickly sunk into the Grave', 'he ever evinced a feeling of sympathy in my fate and regard for my interests', 'in the whole course of my chequered life, I never met a Gentleman more attentive to his duties, or one possessing a larger share of humanity' (p. 62).

On the 1838 list, there are higher numbers of illnesses that may have been feigned or purposely inflicted by malingering convicts. These include burns, dislocated limbs, paralysis, ulcers, spasms, skin inflammations, rheumatism, and neurosis. Stuart noted that there were fewer cases of malingering during Maconochie's lax term of administration, and this may be represented in the lower numbers of easily-feigned illnesses for 1841. Campbell recalled one incident in his career when he administered electric shocks to one prisoner's legs, after suspicion arose that he was feigning paralysis (1984) - such treatment may have been in order on Norfolk Island.

Cases of genuinely sick men being accused of malingering and being punished as a result, attest to the lack of necessary medical attention provided by the Hospital staff. For example, between 1834 and 1839, Dr Harnett reported to the Commandant, Major Anderson, that a convict named Barrett, who had had dysentery for three weeks and was unable to consume his ration, was malingering. He was sentenced to 200 lashes, received only 50, and then admitted to Hospital where he died four days later (Cook 1978: 62). The convicts regarded this as murder, the administrators regarded it as an unfortunate consequence of necessary punishment.

In two separate incidents, two convicts named Phennel and Castleton attended the Hospital on consecutive days without receiving attention, and were threatened by surgeon Harnett that they would be reported to the Commandant if they appeared again. Phennel was forced to leave work, and was transferred to the Hospital where he died that evening, and Castleton was reported to the Commandant and sentenced to fifty lashes, after which he died (Hazzard 1984). Cook noted that the surgeons performed a post mortem on Castleton's body (1978: 62).

In 1847 James Herewith and J. Fitzgerald were charged with malingering, and came in from the field to see the medical officer. One had a very sore throat, and the other had a bowel complaint, but the doctor would not see them because they had not previously been to see the medical dispenser, in the morning before they went to work. They claimed that neither had known that they would be ill when they left for work that morning. Also, a convict named Richards suffered from extreme heart palpitations, and missed the morning muster and was consequently sentenced to solitary confinement for four days (Duke 1995: 35).

Contemporary reports from the settlement protest the prevalence of homosexual acts among the convicts (McEnroe to Col. Sec. 1842, DL 4/2566). Convicts would commit crimes such as petty theft, highway robbery and gambling to get money with which they could buy sexual favours. In 1830, one witness in a Sydney court claimed that 50 to 60 cases of sodomy occurred on the Island each day, out of a population of only 600 prisoners (Stephen to Report of Select Committee, PP 1832: 30). Stuart reported that there were about 150 homosexual couples who called themselves 'man' and 'wife' (Stuart 1979: 46). If homosexual activities were so widespread, we might expect that the

sexually transmitted diseases that did occur would have been in large numbers, but not so. Sexually transmitted diseases such as syphilis and gonorrhoea seem to have been contained to a few cases in both 1838 and 1841. Either homosexuality was not as widespread as they protest, or when such diseases arose the homosexual convicts were relatively inactive. Governor Gipps related to Lord Stanley that at least one man had died 'in consequence of the commission of the crime', and that instances of illnesses were associated with it (Gipps to Stanley, 1843, HRA series 1, vol. 22: 623), which may have included fistula of the anus and perineum, *strictura urethra* (narrowing of the urethra due to inflammation) and *bubo* (inflammation of the lymph glands in the groin).

### **Medicines and supplies to the Hospital**

The supply lists of instruments and medicines received by the Norfolk Island Hospital are useful in indicating just what types of artefacts might be present in the Hospital privy. The supplies were entirely dependent on requisitions completed by the surgeons and sent to Sydney, listing the required items. From 1827, a vessel was sent every three months with new supplies for Norfolk Island (Darling to Hay, 1827, HRA series 1, vol. 13: 303), but it is not known whether this frequency was continued throughout the years of the settlement. It seems logical that some control was kept on the amounts being ordered by each hospital, so the requisitions had to be within reason of what was required. Many of the artefact types excavated from the Hospital privy are listed on the following lists of items provided for the Civil Hospital, and support the use of the artefacts by convicts, and their use during the convict occupation of the Hospital. Those items on the following lists that were also excavated from the privy are denoted by underlining in the text.

The following list of medical supplies to Norfolk Island Hospital between 1840 and 1841 indicates the type of instruments and other supplies the surgeons worked with in the Civil Hospital: one set of cupping instruments (which were received broken), eight lancets, one set of 'pocket instruments', one case of scalpels, one bolus knife, one wooden case, one 'cask', and one grain scale (Abstract of Receipt of Medicines 1841, DL A/1226: 376-7).

During 1842-1843 the Hospital received:

6 cases of lancets, 12 common bougies [for urethral examinations], 1 caustic bougie, 2 elastic gum catheters, 1 silver catheter, 1 hydrocele case, 7 spare packing boxes, 19 stoppered bottles, one canister, 31 stone jars, 5 'castes', 6 lbs lint, 4lbs surgeons 'tow', 8 lbs surgeons sponges, 6 yards of calico for bandages, 12 yards of flannel, 18 yards of linen, 22 yards of linen spread with adhesive plaster, 50 calico bandages, 24 flannel bandages, 22 linen bandages, 3 bag trusses, 6 steel trusses, 2 double steel trusses, 8 pieces of tape, 2 lbs thread for ligatures, 1 lb of silk for ligatures, 5 papers of pins, 1 set of grain scales and weights, 2 graduated minim measures, 1 graduated two ounce measure, 2 spreading spatulas, 1 pot spatula, 3 pill boxes, 7 gross bottles and phials, 4 gross gallipots, 3 dozen pint bottles, 1 dozen half pint bottles, 1 glass funnel, 1 gross of glass vial corks, 1 gross of pint bottle corks, 5 quart bottle corks, 1 cork screw, 1 pair of counter scissors, 4 lbs packthread, 1 'straight waistcoat', 1 pewter funnel (Abstract no.2 of medical stores 1842, DL A/1232).

The Norfolk Island Hospital was listed on requisition lists with standard types of supplies for Windsor, Newcastle, Parramatta and Goulburn convict Hospitals. Many other items on these lists were not supplied in the 1840/1 and 1842/3 requisitions for the Norfolk Island Hospital, but which may have been included in requisitions of other years. They included items such as old linen sheets, splints, pharmacopoeia, mortars and pestles, tin pannikins, copper decoction pots, 'horn cups', crutches, urinals, dental instruments, dissecting instruments, urethra and enema syringes, amputating instruments, forceps, electrical machines (for administering electrical shocks), stethoscopes, thermometers, eye instruments, and pill making machines (Gov. of NSW to Sec. of State, vol. 43, 1843, DL A/1232: 154). In 1843, a list of deductions to be made in a requisition for medicines for the Convict Medicine Department also listed surgical instruments which would have, at times, been available for use in the Civil Hospital on Norfolk Island. Those that are not already listed above include: 'capitol' and portable instruments, cupping scarificators, post mortem instruments, stomach pumps, apparatus for suspended animation, 'cattius (?) bases', dissecting scissors, and various forms for returns of medicines and books (Sec. of State to Gov. of NSW 1843, DL A/1291: 94-5).

It seems the above instruments, apparatus and supplies were standard for the time. For example a Canadian military hospital of 1845 used all the above instruments, in addition to 'black' and 'green' bottles (probably referring to alcohol bottles), phials, cupping glasses, syringes, and glass measures (Carley 1981). The Hospital also used items not specifically for hospital use, such as forks, kettles, wine glasses, and tumblers, all of which were also excavated from the Civil Hospital privy.

In 1831 the Norfolk Island Hospital requested 12 reams of paper, 1 ream of 'wrapping' paper, 1 ream of blotting paper, 50 pens, 2 black lead pencils, 10 slate pencils, 1 box of wafers, 2 black ink powders, and 1 red ink powder. A more specific order of items requested from the Norfolk Island Hospital of 1834, listed 6 pillow cases, 6 plain sheets, 6 pewter urinal pots, 6 pewter bed pans, and 2 pewter stool pans, 1 inkstand, one pen knife, 100 tin pots, 500 spoons, 12 iron pots. (Requisition for Stores 1843, AONSW 4/6661: 2-4, 13-14, 208, 314). A register of approved requisitions of 1835 included 20 boxes of small tooth combs (AONSW 4/418-9: 447).

A requisition for hospital stores for Military and Convict Departments in New South Wales for 1834 listed items that would have been supplied to the Norfolk Island Hospital. These included blankets, rugs, sheets, pillow cases, gowns, trousers, flannel waistcoats and drawers, cotton night caps, flannel, towels, mops, sweeping brushes, saucepans, pewter chamber pots and tin tea pots. Among more personal items for convicts in general, were listed fine tooth combs, shaving boxes with brushes, razors, pairs of scissors, tin plates, large tin dishes, needles, spades, and shovels. Other items for use in the hospitals included spitting boxes, tin slipper baths, common and carving forks and knives, horn lanterns, tin hand lamps, iron saucepans of various sizes from 1/4 to 2 gallons each, white wash brushes, and frying pans.

Medicines for the convict hospitals included over 200 preparations from the Latin Pharmacopoeia, ordered by requisition from London or the Army Medical Board after 1836 (Cummins 1974). Often three years would pass before an order was made and, consequently, the General Hospital in Sydney always had a poor supply of drugs to dispense to the other colonial hospitals. When the most suitable drug was unavailable in a hospital, the dispenser would supply the best substitute in the dispensary at the time but drugs were often dispensed to the wrong patient due to careless administration.

The surgeons of the Civil Hospital probably brought medicines with them to the Island, as surgeons of the time travelled with medicines, however, most of the supplies were ordered by requisition. In 1841 the Civil Hospital received two complete medicine chests (Extra Abstract of the Receipt of Medicines 1841, DL A/1226: 376), full of glass medicine bottles, and in 1843 another three (Sec. of State to Gov. of NSW 1843, DL A/1291: 153). Medicines supplied to the Civil Hospital in 1842-43 included:

acaciae (2lb 8oz), acaciae contrit.(1lb 8oz), acid acetic (1lb), acid hydrochlor. (11oz), acid hydrocyan. dilut. (3oz), acid nitric (2lb), acid tartar contrit. (1lb 2oz), acid nitric dilut. (8oz), aloes (12oz), alum (2lb), ammoniac (10oz), ammoniae hydrochlor. (10oz), ammoniae sesquicarb. (8oz), anthemidis (1lb 8oz), antimon oxysulphur (1oz), antimon potassio-tartr. (6oz), argenti nitrat. (4oz), bal amer (?) (8oz), calamine ppt. (4oz), calumbae (4oz), camphor (8oz), catechu (4oz), cerre (8oz), cerre albae (4oz), cerat calamine (3lb 8oz), cerat cetacci (1lb), cerat resinae (1lb), cerat saponis (1lb), cinchon lanc.contr. (1lb), confect.aromatic (1lb 6oz), confect. opii (14oz), copaib. (2lb 8oz), cretae ppt. (3lb 8oz), cupri sulph. (1lb), cinchonae cort. (1lb 8oz), digitalis fol. contrit. (2oz), emplastr. canthardis (5lb), emplastr. hydrarg. (2oz), emplastr. plumbi (1lb), emplastr. resinae (2lb), emplastr. saponis (2lb), extract balladonae (12oz), extract cinchon (8oz), extract colocynth. comp. (1lb), extract conii. (1oz), extract gentianae (6oz), extract hyosciami (6oz), extract opii. purif. (4oz), ferri sesquioxyd. (1oz), ferri sulph. (2oz), gentianae (4lb), guaiaci resin (2oz), hydrarg. chlorid. (1lb 7oz), hydrarg cum cretae (1lb), iodin. (1oz), ipecacuanhae contr. (15oz), kino (4oz), lini semin (3lb), lini semin farin (7lb), liniment saponis (1lb 8oz), liquor ammon. (10oz), liquor ammon. sesquicarb. (1lb), liquor plumbi diacetat. (2lb 4oz), liquor sodae chlorinat (1lb), magnesia carbon (1lb 8oz), magnesia sulphat. (80lb), morph. acetat. (12oz), morph. hydrochlor. (12oz), galla (?) (7oz), ol. lini (1lb), ol. olivoe (6lb), ol. olivoe. secund (6lb), ol. ricini (12lb), ol. terebinthinae (3lb), opii crud. (16oz), opii duri contrit. (2oz), pilul. aloes cu myrhh (3oz), pilul hydragyri (1lb 6oz), plumbi acet. (1lb 4oz), potass. bitartr.contr. (5lb), potass. carbon. (4oz), potass. hydrat. (1oz), potass. nitrat. (4lb), potass. sulphat. (2oz), potass. tartrat. (4oz), potassii iodid. (3oz), pulv. antimonii. comp. (7oz), pulv. antimonii. jacobii (2oz), pulv. cinnamoni comp. (8oz), pulv. cretae comp. (2lb), pulv. cretae. comp. cu opii (1lb), pulv. ipecacuanhae comp. (1lb 5oz), quessiae concis. (8oz), quinae disulph (5oz), resinae (5lb), rhei contrit. (1lb 12oz), sapon. (4oz), sarzae concis. (2lb), scillae recens exa.contr. (4oz), sennae (1lb 4oz), sinap. contr. (2lb), sodae biborat.

(4oz), sodae carbon (1lb 8oz), sodae potassio tart. contr. (2lb), sodae sesquicarb. (8oz), sodae sulph. (446lb), spirit aether. nitric (1lb), spirit aether sulph.c.(1lb 2oz), spirit ammon. arom. (8oz), spirit rectificat (2b 8oz), sulphur (3lb 8oz), tinct. calumba. (1 lb 10oz), tinct. camph.comp. (1 lb 10oz), tinct. cantharid. (5oz), tinct. cardam. comp. (10oz), tinct. cinchon. comp. (14oz), tinct. cinnam. comp. (12oz), tinct. digitalis (6oz), tinct. ferri. sesquichlor. (6oz), tinct. gentian. comp. (3lb), tinct. hyosciam (9oz), tinct. jalap (1oz), tinct. iodin. comp. (4oz), tinct. kino. (1lb 6oz), tinct. lavand. comp. (12oz), tinct. myrrhh (6oz), tinct. opii. 3lb 4oz), tinct. rhei. comp. (1lb 12oz), tinct. scillae. (8oz), tinct. sennae. comp. (10oz), vin. antim. potassio-tart. (4oz), vin. colchici. (8oz), vin. ipecac. (12oz), vin. opii. (4oz), ung. cetacci. (1 lb), ung. hydrarg. fort. (3lb 8oz), ung. sulph. comp. (1lb 10oz), zinci sulph. (10oz), zingiber (10oz), zingiber contrit. (8oz) (Abstract no.2 of Medical Stores, 1843, DL A/1232).

Many of the above medicines are the same basic drug supplied in different preparations. For example opium, cinchona, jalap, ipecacuanha, gentian, and kino were supplied in their basic forms, in extracts, and in tinctures and wines. Since diseases and physical ailments caused by poor living conditions and over working were common in convict settlements, it might be expected that the convict hospital pharmacopoeias included much expanded lists of drugs for sick convicts. Indeed, most of the medicines on the above list were employed in the nineteenth century specifically to treat such complaints (Squire 1867; Pearn, Petrie and Petrie 1988), and this is demonstrated in table 4:

Table 4: Medical conditions in the Civil Hospital  
which were treated by medicines on the 1843 supply list

Medical Condition from 1838/1841	Medicines available for treatment in the Hospital in 1843.
bronchitis	copaibae, tincture iodin. comp.
burns	cretae praeparata (carbonate of lime), liquor plumbi diacetat.
catarrhs	tinct. chinchon., spirit aether nitric, ol. lini (linseed oil)
constipation	extract. colocynth. comp., ol. ricini., tinct. rhei. comp.
diarrhoea	chinchona, cretae praeparata, zinci sulph.
dropsy	spirit aether nitric
dysentery	tinct. chinchon. comp., hydrargyri chlor. (mercury), ol. lini, ol. ricini, tinct. kino
epilepsy	hydrargyri chlorid.
erysipelas	tinct. chinchon., extract chinchon.
fevers	hydrargyri chloride (mercury), unguent sulph. comp.
gonorrhoea	copaiboae, zinci sulph., hydrargyri sulph.
headache	spirit ammon. arom. (aromatic spirit of ammonia)
heart conditions	tinct. digitalis, copaibae, tinct. opii.
inflammations of mucous membranes	hydrargyri chloride, ol. lini, tinct. scillae (squill)
inflammations of urinary tract	ol. lini (linseed oil)
kidney complaints	hydrargyri chloride (mercury)
liver complaints	hydrargyri chloride (mercury)
ophthalmia	zinci sulph.
pain	tinct. opii., alcohol, tobacco
phthisis	tincture iodin. comp.
rheumatism	unguentum sulph., tincture iodin. comp., pilul. hydrargyri
scrofula	cretae praeparata (carbonate of lime)
skin conditions	liquor plumbi. diacetat.
syphilis	pilul. hydrargyri, guaiaci resin
tetanus	tinct. opii.
ulcers	cretae praeparata (carbonate of lime)

The amounts and physical properties of the substances in the 1843 list can suggest the types of containers in which they would have been transported and stored in the Hospital dispensary. Many of the raw substances required dilution in water or alcohol before they could be administered, and any one of these types of medicines would have been stored in bottles such as those excavated from the privy with ratios of dilution scratched into the glass. Many of the medicines above were supplied in amounts smaller than twelve ounces, all of which would have been stored in the small, flanged lip, clear glass bottles excavated from the privy. Larger amounts of substances which varied from one to eighty

pounds would have variously been stored in the larger glass bottles and earthenware jars excavated from the privy.

The 1809 London Pharmacopoeia recommended the storage of acids, alkalis, earths, metals and salts in stoppered glass bottles (Crellin & Jones 1972). Acids, *confecta* (confections), *tinctura* (tinctures), *liquores* (liquors), *olea* (oils), *spiritus* (spirits), *linimenta* (strong tinctures), and *vina* (medicinal wines) were all in liquid form (Squire 1867) and therefore most would have been stored in bottles. The consistency of *extracta* (extracts), *pulveres* (powders), *cerata* and *unguenta* (ointments) meant that they would have been stored in jars or pots. In addition *pilulae* (pills) would have been stored in jars or boxes.

A study by Pearn, Petrie and Petrie (1988) has cast new light on the medicines provided for the convict settlement of Moreton Bay, for 1824. The list of medicines represented what the surgeons of the settlement considered a standard 'first aid' chest of the time. Medical problems such as fevers, dysentery, eye diseases, heat exhaustion and malnutrition were overwhelming in the new settlement, causing two thirds of the convicts to be unsuitable for work. The medical supplies were inadequate however, and were exhausted within two weeks of settlement.

The pharmacopoeia ordered for Moreton Bay represents the most minimal list of medicines, which might be expected to be ordered for a mainland hospital with regular patients. Such lists were probably compiled by the surgeons in the hospitals, and would therefore reflect the surgeon's ideas about the convicts and his perceptions of the treatments they deserved. Pearn, Petrie and Petrie (1988) argue that the health status of the convicts in the colony would have been increased if there was a more available supply of medicines in the colony. In comparison to the Moreton Bay list, which contains 17 preparations to treat a population of 50 people, the Norfolk Island supply list, which includes 140 preparations (in addition to the supplies already in the Hospital), seems to be more than adequate to treat a population of between 1395 to 1518 convicts in 1842/3, plus the military and free population who must have amounted to another couple of hundred. The Moreton Bay supply proved itself to be inadequate, and in subsequent years the list would have been expanded, yet it is useful for comparison in its description as a 'bottom-line' drug list.

Whether these medicines were available to convicts in the Hospital is a separate issue. Mortlock (1965) reported that common medicines were regarded as too good for convicts, and whenever they could, the surgeons would substitute medicines with cheaper alternatives. Sea water was substituted for Epsom salts; tetanus and infected burns were treated by packing fresh cow manure around the wound; an infected boil was brought to the surface with the neck of a hot bottle; and chest complaints such as 'consumption' were treated with a mustard plaster (Park and Emanuel 1982). So while the Hospital may have been supplied with all the regular drugs and appliances of the time, the doctors may have been unwilling to use them on the convicts.

### **Evidence of the daily workings of the Hospital**

A government publication of the time entitled *Instructions for the Management of the Convict Hospitals* (Robertson 1845) provides evidence of the daily routines that must have occurred in the Civil Hospital. The surgeon was to visit the hospital twice a day, record the most recent complaint of each patient, administer medicines, and perform the 'operations of bleeding, cupping, dressing and bandaging wounds or ulcers' (p. 4). The surgeon had the charge of all surgical instruments in the hospital, and had to take care that they were fit for use.

On admittance to the hospital, convicts were to be washed, their hair combed and cut, clothed with 'a well-aired shirt' (Robertson 1845: 5), a nightcap, a pair of slippers, and a hospital dress. Patients were supposed to be separated in different wards respective of their diseases, and cards recording the details of each patient were to be hung over each bed head. Each patient was supposed to have been allotted five feet for his bed, although in the late eighteenth century, the National Convention of the French Revolution ruled that hospital beds should be at least three feet apart, a total space of about 8 feet (Richmond 1983). Clean bedding and clothes were provided once a fortnight, and patients shaved three times a week. The introduction of any extra articles into the hospital, such as drink was 'positively forbidden' (Robertson 1845: 9). Wine, spirits and malt liquor, however, could be administered by the medical officers. Each hospital was to have one or more medicine chest from which the officers, and their wives, children,

and servants, could also obtain medicines. Post mortem examinations and descriptions were to be carried out to determine cause of death, and not as routine procedures.

The apothecary or dispenser was responsible for bedding, utensils, medicines, and was responsible for any damage or loss. He was required to complete the annual return and requisition of medicines. It was the duty of the wardmaster to maintain the cleanliness of the wards, and the *Instructions* make special mention that the wardmaster should make sure that 'bones, rags, or other articles are not thrown out of the windows, or into the privies' (Robertson 1845: 26).

Not all of the substances supplied for the Civil Hospital in the 1840s were used for treatment of patients. Camphor (*tinct. camph. comp.*), chamomile (*cerat calamine*), and chloride of soda (*liquor sodae chlorinate*), were used as disinfectants in the early to mid nineteenth century, and boiling vinegar and burning fires were thought to have expelled the air of miasmata (Corbin 1986). These measures were probably employed in the Civil Hospital to maintain a minimum level of hygiene, evidenced by the presence of the appropriate substances in the requisition.

Initially, colonial hospitals were controlled by independent civil surgeons, who answered to the Governor, and after 1838, the surgeons were military men, and the hospitals were subject to the rules and regulations of the military hospitals (Campbell 1983). The establishment and publication of such rules and instructions, indicates a need for more strict procedures in the colonial hospitals, and perhaps a need to rule out carelessness on the part of the medical staff.

A useful comparison to the standards in the Norfolk Island Hospital is that of the Sydney Hospital, on Macquarie Street, established in 1811 for the care of convicts. Each ward was 60 feet long by 24 feet and 16 feet high, and intended to hold twenty patients (Watson 1911), but often the wards had to accommodate up to fifty people each, which would have allowed less than a foot on either side of each bed. The wards were washed out every morning, and the windows were fixed in an open position to allow for ventilation. Wardsmen and nurses were locked in with the patients at night to oversee.

Hospital life in the nineteenth century was not a desirable experience, and was avoided at all cost by the upper classes. Hospitals were generally squalid, overcrowded and influenced the spread of disease (G. Williams 1987). As has been discussed, convict hospitals in Australia were diverting places for healthy convicts, but extremely dangerous for the genuinely sick. Often the mortality rate was so high in hospitals that people often had a better chance of recovery, and escaping death, by remaining at home (Starbuck 1997).

## Chapter 5:

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### Convict Life, Illness and Death on Norfolk Island

#### Depositional patterns in the privy

Privies were considered rubbish pits in the nineteenth century, filled with broken or outdated objects and the refuse of consumerism. Certain standard behaviours often led to the accumulation of privy deposits. These include consumption, use, and breakage, all leading to intentional discard of artefacts; accidental loss, long-term or gradual deposition, rapid deposition of large amounts of refuse, and the intentional dumping of artefacts for good drainage, since solid objects kept organic matter in suspension, allowing liquids to drain. Faecal deposition and lime or yard soil deposition also contributed to deposits, and the negative factors of disturbance within the privy, cleaning, and looting are also influential on the nature of the deposit (LeeDecker 1994).

Specific reasons for the deposition of artefacts in privies are always difficult to discern (Lydon 1995). Some authors believe that some privies are filled with refuse in as short a period as six months (Wise 1985), yet many other privies can take years to fill. Roberts and Barrett (1988) suggest that privy pits are comparatively empty of artefacts during their lives as privies, and only filled with rubbish once they are no longer used. The archaeological evidence in the Civil Hospital privy does not necessarily indicate rapid filling of the pit, nor does it indicate gradual accumulation of deposits, but it is known that the Hospital deposit accumulated sometime between about 1837 and 1855. The artefacts in the deposit most probably represent this period of use of the Hospital, but the history of the site prior to the construction of the privy has been presented in recognition of the possibility that some of the artefacts represent debris used in the Hospital prior to the existence of the privy, and dumped in the pit when it was built.

The artefacts from the upper layers of the privy deposit do suggest a household clean-up, where whole bottles and other artefacts were no longer wanted, and deposited in one episode. During the convict period use of the privy, breakage (eg. medicine cups, clay pipes, bottles, syringes), refuse disposal (eg. bones), consumption (eg. empty bottles), accidental loss of unwanted items (eg. buttons) and accidental loss of wanted items (eg.

a ring) represent the reasons for the accumulation of the deposit. Lydon suggests that the reconstruction of complete vessels from the privy in the Jobbins Building, The Rocks, probably indicates that the vessels were broken, swept up and thrown into the privy in one episode, and this is most probably the case for many of the Hospital artefacts, for example many of the medicine cups.

The above processes leading to the accumulation of the deposit in the Civil Hospital privy are illustrated in the flow diagram in figure 27, based upon a general model constructed by LeeDecker (1994: 355).

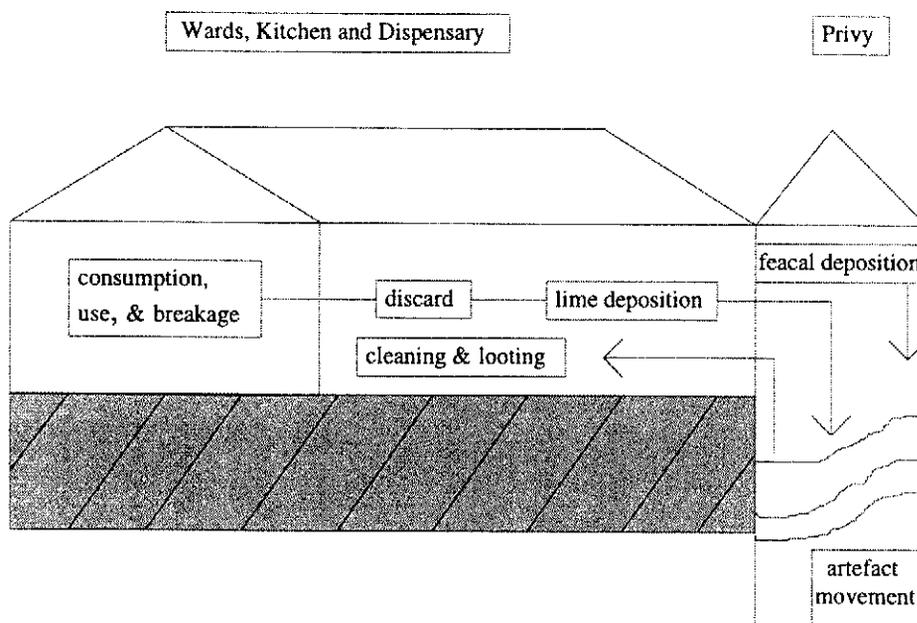


Figure 27: Activities in the Civil Hospital leading to artefact deposition in the privy

Varman reported no evidence of movement of artefacts from the upper layers to the lower layers, and supports a steady build-up of material over time without contamination from upper layers. However, ceramic sherds which have been reconstructed for museum display, for example glazed earthenware jars and stoneware medicine cups, demonstrate that movement may have occurred to some extent. The sherds which form the reconstructed artefacts were each excavated from different stratigraphic units in the privy. For example a glazed earthenware jar (image 202) had sherds excavated from various levels between 1900 and 2900 mm. Another glazed

earthenware jar (images 215/6) had sherds excavated from 1900 - 2000 mm and from the drain at the very base of the privy (about 3m).

If movement did occur in the privy, it is likely that only the smaller artefacts could have moved considerably, hence the movement of small sherds of ceramic. If this is the case then it might be expected that other small artefacts such as buttons and clay pipes would have travelled to lower levels than the level at which they had been deposited. A problem arises however, in that such artefacts are usually excavated whole, and have left no trace (in the form of part of the object) of the level of the privy deposit when the object entered the privy. As such, these small artefacts cannot reliably demonstrate movement, but it is probable that many moved down through the deposit.

The privy deposit may have accumulated unevenly in one section, or corner, causing some artefacts to land in lower levels of the privy than earlier-dating artefacts, thus creating confusion for use of the law of stratigraphic superposition. Since no section drawing was made of the privy deposit, the depositional order of the accumulation cannot be considered. The artefacts discussed above in relation to movement, may have been thrown into the privy causing the break up of the artefact into many sherds, some rolling to the bottom of the deposit, others remaining near the top, or where the object originally landed. Therefore, any attempt to use the stratigraphy for relative dating would be problematic, and so this factor cannot be significantly considered in the artefact analysis.

Evidence for irregular deposit of artefacts in relation to time is provided by the dating of certain artefacts excavated from different spits. A bottle (image 110) displaying the name of the Australian company 'Leggo' (of Bendigo, Victoria) was excavated from a depth of 1240 - 1550 mm, and this could only have been manufactured from 1880 onwards (Arnold 1978). In the next unit below, 1400 - 1500 mm north east square, three syringes (images 126 - 128) were excavated, most probably from the second settlement occupation of the building as a hospital. From the same level, a plain white ceramic plate sherd was excavated (image 155), bearing the mark of 'Royal Ironstone China', which could only have been manufactured from 1880 to 1904, when the Staffordshire manufacturers that produced it, Mellor, Taylor and Co., were in business (Cushion 1976: 112).

A process which may have caused this apparent mixing of stratigraphic layers is rat activity. Since rats are attracted to strong smelling organic matters, this process would seem highly likely due to the stench of the deposit reported by Stuart in 1846 (Stuart 1979). Varman was conscious of the potential of rat activity, but observed no signs of it while excavating (pers. com. Robert Varman 1997). Nor did he observe any evidence that the privy had ever been emptied, which might have shown up in changes of stratigraphic colour or texture. It was standard practice for privies and cesspits to be emptied in the nineteenth century (Wright 1960; Geismar 1993) so the Hospital privy was most probably emptied during its use between 1837 and 1855, by convicts using buckets. Considering the fragmentary nature of many of the artefacts, it is likely that some of the deposit was periodically removed, leaving some parts of artefacts behind, while removing others and dumping material into the nearby sea. Such a process would also explain the lack of clear stratigraphy in the deposit.

It is reasonable to assume that when the settlement was closed in 1855, ready for the Pitcairn Islanders in 1856, all supplies would have been packed up and transported back to Sydney. If this was the case, we can reasonably assume that any excess medical supplies, etc. in the Hospital at the time, would not have been haphazardly dumped into the privy. Likewise, it should be assumed that the lack of more surgical artefacts such as scalpels, etc. reflects the value of such items at the time, and the fact that the surgeons would not have discarded them readily.

As would be expected, the most common items deposited in the privy are those which were supplied in large quantities, were relatively common at the time, were easily broken and preserve well in archaeological contexts - glass bottles and earthenwares. Breakage seems to be the most likely reason for discard of hospital items into the privy, but whole items suggest that the item was outdated, useless, or dangerous to leave lying around, for fear of its re-use as a weapon by convicts, for example. Accidental loss in the privy is probably represented by items such as many of the clay tobacco pipes, which may have been whole upon discard, and were subsequently broken on entry, or while in the privy. Other items of accidental loss include the man's ring, and possibly the toothbrushes, if their bristles were intact upon discard. Small items such as these could

have easily slipped out of pockets while visiting the privy, and the many buttons in the privy may have been valuable or invaluable items which were accidentally lost.

A doctor's medical kit of the 1840s to late 1850s would have had many instruments such as scalpels, specula, mirrors, a stethoscope, thermometer, amputation instruments, and scissors (Warren 1994). In addition to such standard medical instruments, there were specialist instruments such as trephining sets, instruments for ear nose and throat examination, post mortem instruments, ophthalmic instruments, and cupping instruments, some of which were very often the surgeons own possessions (Margotta 1968). It is also likely that surgeons possessed some dental instruments, such as tooth extracting forceps, as there was no specialist dentist on the Island. Some of these instruments are listed in the supplies to the Hospital, yet none were found in the privy deposit probably because such instruments were not easily broken or lost, and probably costly and rare, so not readily discarded.

### **Convict Life**

The artefacts from the Hospital privy are largely austere and utilitarian, with very few classes of items associated with leisure, and less associated with the frivolities and extravagances usually associated with nineteenth-century, Victorian lifestyles. Some of the artefacts that were discarded in the privy do however suggest aspects of convict activities in the Hospital. It is reasonable to assume that the privy was not regularly used by the military or by the surgeons, who had privies attached their respective residential lodgings, and therefore most of the artefacts found in the privy, whether owned or only used by convicts, were probably deposited by convicts. The convict overseers and wardsmen must have had some responsibility for cleaning the wards, and during this process the privy was probably used for rubbish disposal.

When one considers the traditional artefacts associated with convictism - manacles, leg irons, cat o' nine tails, etc. - and then considers the artefactual evidence in the Hospital privy, there is very little indication that there was a convict settlement on the Island. The proliferation of everyday nineteenth-century items such as alcohol bottles and clay tobacco pipes suggests non-convict users, but the lack of typical nineteenth-century luxury items such as expensive tablewares, does point to at least a low class of user.

*Evidence of the ordering of convict life*

Throughout the colony convicts generally wore 'slop' clothing, readymade and mass-produced from a coarse woollen cloth made in the Parramatta Female Factory called 'Parramatta Cloth' (Scandrett 1978). A list of materials issued to the Female Factory, from 1839 to 1842, included striped cotton fabric and bone shirt buttons, to be converted into shirts (Westamacott 1986). The parti-coloured black and yellow wool uniforms associated with convicts (see figure 28) were originally worn by those working on chain gangs, or doing hard labour, and were intended to be humiliating in their reference to the medieval fool (Young 1988). In the 1830s such clothing was worn in winter by gaol prisoners in Hobart, and broad-arrow branded linen clothing in summer, so it is likely that such uniforms were also worn on Norfolk Island.

A lithograph by Augustus Earle entitled *A Government Chain Gang*, of 1830, (figure 29) illustrates male convicts clothed in shirts and trousers with the government broad arrow, all wearing a hat of sorts, some wearing dark jackets with 'PB' (Prisoner's Barracks) markings, and some wearing shoes. The trousers worn by the convicts button at the side and were designed to be worn when a convict wore leg-irons (Maynard 1994: 16). Examples of side-buttoning trousers exist in the Western Australian Museum and Fremantle Museum collections and are fastened with eight bone buttons on each side (Young 1988). The buttons excavated from the privy are identical to those on the convict uniforms in these collections suggesting that the Norfolk Island convicts had similar side-buttoning trousers, or that these four-holed bone buttons were standard on convict uniforms.

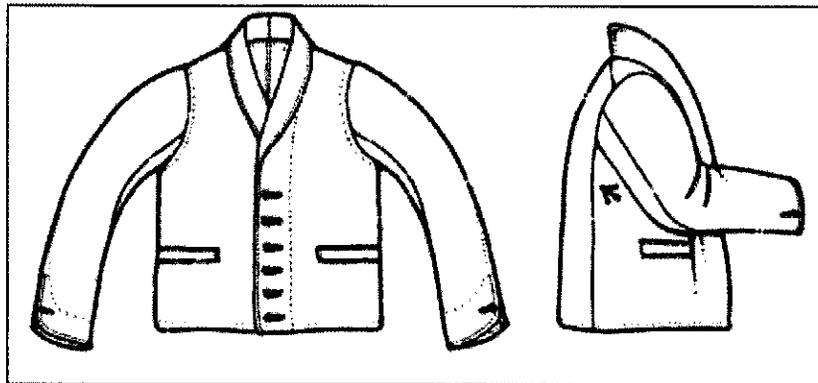
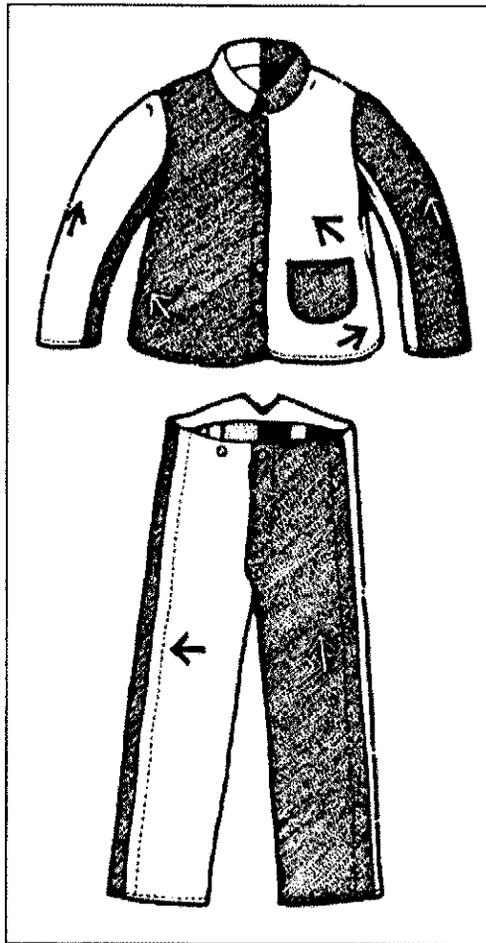


Figure 28: Particoloured convict suit, and convict jacket

(Drawings: Jill Ruse, Young 1988: 72, 75)



Figure 29: Augustus Earle. *A Government Chain Gang*, 1830, Lithograph.

(National Library of Australia)

Another artistic depiction of convicts is a watercolour by Sophia Campbell of 1817, entitled *The Costume of the Australians*, in which she portrayed a convict wearing a leather cap with flaps (Maynard 1994). Such caps were standard convict issue and the fragment of tough leather excavated from the privy may be part of such a cap, as it does not resemble a shoe fragment. Many of the shoe fragments discarded in the privy may represent broken shoes belonging to convicts, who received three pairs of shoes in their annual supplies. Most of the fragments seem to represent plain round-toed, lace-up, leather shoes, while some individual heels are quite high suggesting a woman's boot, or a more elaborate man's shoe, which might have been worn by the surgeons or other free men in the settlement. The shoes in the privy may account for many of the smaller nails also excavated, which were nailed to the soles of the shoes.

The issue of loss of these items of clothing is interesting when the annual supplies are considered. While varying due to the supply of cloth and labour, the convicts on Norfolk Island received two frocks or jackets, three shirts, two pairs of trousers, three pairs of shoes, one hat or cap, one blanket, and one mattress each year (Bourke to Stanley, HRA

series 1, vol. 17: 326). Therefore, the convicts could not afford to discard clothing items if slightly damaged, and besides, there were penalties - one convict named Rouse was brought before George Duncan, the Superintendent of Convicts, for losing a button, an offence which carried the punishment of solitary confinement for three days (Smith 1996).

Convict uniforms are an aspect of convict life that reflect the official desire for maintenance of discipline and order amongst the prisoners. They enabled the military to survey and supervise the conduct of convicts, while they would be categorised by their attire. The bath, shave, haircut, and clothing of convicts by authorities meant the loss of individuality and the ultimate official control of the personal. Maynard (1994) notes that clothing issues in the colony were highly unpredictable, but convicts were usually supplied with new clothes twice a year. Convicts confined to barracks were required to wear a uniform, but John Steven who gave evidence to the select committee on Secondary Punishment in 1832 noted that convicts rarely wore uniforms any more. Convicts in Tasmania and Sydney could trade with local free settlers for civilian clothes, but the wearing of uniforms by convicts on Norfolk Island must have been more widespread since there was only a small free population with which to trade.

The buckles may have belonged to belts or shoes worn by the free staff in the Hospital, or by the soldiers. Alternatively, they may have been deposited post-1855, and subsequently moved down through the deposit. The few metal buttons excavated from the privy were probably from military uniforms, and may have been found by convicts elsewhere in the settlement, kept as possessions, and then lost accidentally in the privy. Buttons may have had more than usual value among the convicts, used as an informal type of currency, or in games such as 'chuckpenny', the playing of which by convicts was recorded in 1844 on the steps of the Sydney courthouse (in Lydon 1996: 53). Tokens and dominoes ground from ceramic sherds and cut from bone were excavated from beneath floorboards in the Hyde Park Barracks, suggesting that the recycling of items such as buttons for games by convicts might also have occurred on Norfolk Island.

Considering the hundreds of convicts who passed through the Hospital in its last ten years, the presence of only three toothbrushes in the privy suggests that they might have been 'owned' by privileged convicts who accidentally lost the brush while visiting the

privy, or shared among many men. Alternatively, they may have been owned by soldiers or other free people such as the surgeons, although they may have been deposited post-1855, and travelled down through the earlier deposits. By the nineteenth century, toothbrushing had become a common daily practice, and bristle toothbrushes, such as those from the privy, are first historically recorded in an 1806 publication (Asgis 1929: 311). They were more common among the middle to upper classes, suggesting that they would not have been supplied for convicts. Also, there is an absence of toothbrushes in the requisition lists for use by the convicts of the settlement, while other items of personal hygiene such as hair combs and razors are listed.

Shackel (1993) looks at the development and use of the toothbrush as an indicator of increasing hygiene and personal discipline. The fine toothed combs listed in the requisitions, and evidenced by the example in the privy, are another example of the increasing social requirement for health and hygiene in the nineteenth century, which was being imposed upon the convicts on Norfolk Island. If the brushes were used by convicts, they might be seen as a measure of discipline and standardisation of behaviour, and as extensions of the discipline forced upon them in all aspects of their lives. The personal discipline that is associated with the regimented daily use of a toothbrush may have been required of the convicts, in parallel to the practice of giving enemas to the convicts, as a physical, even moral, cleansing procedure. If the toothbrushes were for convict use, their presence in the privy may be viewed as the penetration of the increasing hygiene standards of the upper classes of the time, into a society that was considered to be the lowest in terms of discipline and social values. They might also be seen as yet another aspect of the regimentation of the convict lifestyle, although it must be remembered that the conclusion that the brushes were used by convicts is tentative.

Interestingly, no dental problems are mentioned with the return of diseases, and yet dental caries should have been a common problem among the convicts whose diet included processed wheat, corn flour and sugar. In the absence of a toothbrush, pieces of soft wood or cloth can be chewed to stimulate the gums and dislodge food from between the teeth, both of which have been recorded methods throughout history (Asgis 1929: 310) although it seems unlikely that most convicts would have understood the need or the benefits of this action. The lack of records therefore might suggest that convicts avoided seeing the surgeon about toothache because they knew that the only solution

was the incredibly painful process of extraction, or that dental problems were simply not recorded.

### *Evidence of convict resistance*

The few sherds and reconstructed tableware ceramics from the Hospital privy are most likely to have been the discarded possessions of the surgeons, because it was common for medical men of the nineteenth century to own expensive display items (Mann, Owsley and Shackel 1991). If not owned by the surgeons they may have been administrators tablewares appropriated by convicts, obtained through theft, or recycling of administrators rubbish by convicts, as it is most likely that ceramic wares were not provided for the convicts.

The evidence of knife handles may indicate the use of knives for eating in the Hospital, as kitchen implements, or as surgical implements. The survival of the handles and not the metal blades may be indicative of why the object was discarded in the privy - the blade breaking or lost, and the handle being discarded, or the handle breaking, being discarded, and the knife being attached to a new handle. Maconochie noted that prior to his term on the Island, when he allowed convicts to use eating implements, convicts were not allowed knives nor forks, and this rule was re-enforced when Childs succeeded Maconochie in 1844 (Maconochie 1847: 9). If they are evidence of surgical implements, the surgeons probably readily discarded them to prevent their reuse by convicts as weapons. If they are evidence of convict meals they may be considered with the spoons, pots and kettle fragments also excavated from the privy, which relate directly to one of the most extreme acts of convict resistance on the Island - the 1846 mutiny, which was a result of the confiscation of convict cooking items.

Clay tobacco pipes were always associated with convicts, especially the Irish (Gojak and Stuart n.d.), so it is possible that most of the pipes from the privy were owned and smoked by convicts. The plain design of the majority of the pipes reinforces this suggestion because such undecorated examples would have been less expensive and therefore easier for the convicts to obtain, than examples with elaborately moulded designs. Since tobacco was a known pain reliever, it is conceivable that tobacco and

pipes may have been provided in the Hospital on special occasions, or for well-behaved convicts.

Walker (1984) stated that tobacco was a common ration item for convicts, in lieu of wages, but it is unlikely that secondary-offenders, such as those on Norfolk, would have been allowed this privilege. Pipes produced by the Scottish firms of Thomas White and Murray, which were excavated from the Hospital privy, were also excavated from the convict barracks at Port Arthur (Dane and Morrison 1979) from which an estimated minimum number of 200 pipes were excavated, in a settlement in which the possession of tobacco was illegal (Weidenhofer 1981). The possession of tobacco on Norfolk Island was also illegal, illustrated by a report by Cash of his observation of a convict named Whelan being tied to a lamp post and left to be exposed to the sun and flies for eight hours because he had tobacco. Whelan, and another convict had also been flogged, for 'having a pipe', and put in solitary confinement while gagged (Cash 1976). Reverend Rogers, on Norfolk Island in the 1840s, recalled Peter Charles suffering 14 days solitary for having a pipe and a pair of scissors, and James Low the same punishment for having tobacco (Rogers n.d.). During Maconochie's rule, however, convicts with farms were allowed to grow tobacco (Gipps to Stanley 1843, HRA series 1, vol. 22: 624), so it is possible that the better behaved convicts were permitted to smoke, at least under Maconochie's administration. Indeed it might be expected that during Maconochie's term convict possessions in general became more common, with his free attitudes towards discipline.

Tobacco and clay pipes, were therefore probably the objects of informal economic activity between convicts, and convicts and the military, in addition to other goods such as tea, sugar and liquor. In 1839 Commandant Bunbury had a group of huts demolished because he suspected that they were a location for the transaction of garden produce and stolen property (Nobbs 1991). Trade items could have been manufactured by convicts, such as the straw hats made by Cash, or earned or stolen from the stores on the settlement, where many of the convicts worked. Such illegal trade also occurred in the convict settlement of Sarah Island, in Macquarie Harbour, Tasmania. Despite attempts to search convicts for tobacco upon entry to Sarah Island, smuggling of tobacco for convicts thrived thanks to the military (Brand 1984). On Norfolk, convicts could obtain

tobacco by trading goods or services for civil staff and their wives who ran as many as three 'shops', officially for the benefit of the free population (Nobbs 1991).

Convicts were searched for tobacco at any time of the day or night, and Reverend Rogers, described the process - 'They harass them everywhere', 'search them at the privies', and leaving the privies (Rogers n.d.). So the Hospital privy may well have been a trading site for convicts and since so many broken clay pipe fragments were found in the privy, most displaying carbon residues indicating use, it may be that the convicts in the Hospital went to the privy to smoke, and were forced to discard the pipes in the privy upon discovery by an overseer. The pipes therefore may indicate the resistance of the convicts to the rules imposed upon them. The privy was in fact probably one of many communal places for illegal transactions to occur between convicts, and between convicts and the military. It may have been a place for contraband to change hands, and the evidence of it lies in the privy deposit, discarded quickly perhaps for fear of being discovered, or accidentally dropped into the pit.

The pipe stem from which a hole has been bored would produce a soft, high-pitched whistle if air was blown through the pipe. Only one historical reference exists for the musical use of a tobacco pipe - Nicholas Blundell of Liverpool, England, recorded in his diary of 1720 he had heard a person 'playing trumpet tunes upon a tobacco-pipe' (in Walker 1976: 124). The example from the privy may have been fashioned to fill in time, because it would not have had any particularly musical use, or it may have been functional, for example to alert fellow convicts of overseer presence.

The Hospital could not accommodate more than about 50 people in any of its stages of construction. In the earliest years, it was recognised that the Hospital was inadequate, and yet the population had not then reached its peak of 1 872 convicts, in the very year the dysentery epidemic was at its worst. The Civil Hospital building was hopelessly inadequate to treat so many men who because of their poor diet, hard manual labour, and squalid living conditions, were particularly prone to illness.

## Convict Illness

The medical artefacts from the privy illustrate the human needs of the convicts, and their generally poor state of health. The fragmented medicine bottles found in the privy would have held such medicines as listed in the 1842/3 supply to the Hospital, and were used to treat convicts with illnesses and diseases such as those listed in the 1838 and 1841 lists. The basic treatment for most of the diseases involved purging to rid the body of the problem. Cinchona (quinine), antimony tartrate and Epsom salts (magnesium sulphate), treated fever, and castor oil, calomel (mercury), jalap, colocynth and linum were all used at the time to treat dysentery, diarrhoea and constipation (Williams 1996). Powdered sulphur and plasters applied to the skin were used to treat skin diseases.

Shiploads of bottles were made in Bristol and traded with the United States and Australia in the nineteenth century (Wills 1974), and it is evident that some ended their journey on Norfolk Island. Bottles are commonplace objects that are discarded without consideration, especially because they are so easily broken. They are also easily reused for purposes other than their original use. Whaling ships that visited the Island on route to China or Sydney may have brought supplies to the Island, but such supplies must have been costly, unless they were special provisions for the settlement. If so, it might be expected that the artefacts used in the Hospital were recycled, for example bottles may have been used for storing substances other than their original contents. Vader and Murray (1975) related a story told by an elderly lady they interviewed, who remembered that the case gin bottles her parents had were emptied, and taken to the store and filled with kerosene. Such re-use of containers on Norfolk Island must have been great at times, especially when a shipment was overdue, and new supplies were being waited upon.

Dispensing bowls may have also been used as bleeding bowls, during the process of venesection or cupping. Crellin (1969) noted that there is no evidence that such bowls were necessarily used as drug containers. Test tubes and measuring glasses, such as those excavated from the privy, would have been used for urine analysis, a common aid in nineteenth century diagnosis of illness (Davis 1981).

Despite the popularity of patent medicines, it is unlikely that the Government Medical Establishment, or the Military Medical Department would have purchased them for treatment of convicts, and this is reinforced by their absence from the privy. Patent medicines were produced for a highly commercial, advertisement-based public market, and the constant development of these medicines would not have had exposure on Norfolk Island. It is more likely that medicines prepared in the dispensary and stored in 'shop bottles' would have been provided for the treatment of convicts, as they were prepared by the surgeon, or apothecary from the raw materials, were standard issue on ships of the time, and would undoubtedly have been cheaper. As demonstrated in Chapter 4, 'shop bottles' excavated from the privy would have held the types of medicines supplied to the Hospital in the 1842/3 list, some of which were ready to dispense to the patients, and others that needed to be prepared by the surgeons.

Starbuck (1997) suggests that soldiers receiving medicines from the American frontier hospitals must have taken the medicines in bottles, back to their cabins, wherever possible, rather than being exposed to contagion in the Hospital. Not all the sick convicts could have been accommodated in the Norfolk Island Hospital at once, so it too may have functioned as a dispensary, with some convicts receiving medicines, taking them back to the gaol, and then continuing with their daily work. As has been discussed, the historical accounts indicate that many convicts used the Hospital as a refuge from work, suggesting that convicts would have preferred to receive treatment in the Hospital, reflected in the medicine bottles and dispensing cups recovered from the privy. The medicine bottles are direct evidence of the treatment of diseases such as dysentery with medicines such as calomel, opium, ipecacuanha, jalap and others, and the medicine cups are evidence that these medicines were being dispensed to the patients.

The cupping glasses excavated from the privy would have been used regularly on patients for bloodletting, and perhaps in other treatments, such as blistering of the temples and neck to treat ophthalmia (Miller 1996). In addition to purging, bloodletting would have been one of the most common treatments for the patients in the Hospital. The glass syringes from the privy were most probably used for urethral injections, to treat venereal diseases (pers. com. Ghislane Lawrence 1997), but may have also been used for enemas, ear injections, or other orifice injections. The enema in the nineteenth century was used for physical cleansing, for both the healthy and the ill, but may have

been administered on Norfolk Island as an extension of the attempt at ordering of the convict lifestyle, reflected in the clothes, toothbrushes and hair combs.

The contents of the dark olive wine bottles, and olive gin bottles in the privy were most probably intended for use in dispensing to ill convicts in the Hospital, as the historical sources suggests that wine was a standard ration for hospitalised convicts. Prior to the use of anaesthetics such as ether in surgery, alcohol was the most common substance used for the reduction of pain and muscular relaxation in surgical procedures (Margotta 1968: 254). In Australia, the first news of anaesthesia was published in the *South Australian*, of 4 May 1847, arriving at Adelaide on a ship from England. The use of anaesthetics administered in Australia was first mentioned in the *Sydney Morning Herald* of 18 June 1847. Since the privy was in existence for many years before this date, many of the alcohol bottles may represent their use for patients undergoing surgical procedures. After 1847 however, use of ether for surgical procedures in the Hospital is likely, evidenced by the glass component of the apparatus from the privy.

The doctors working in the Hospital would not have had knowledge of the spread of disease by bacteria. So if surgery was performed, it is likely that secondary infection occurred, and the cause of death probably attributed to the original ailment. For many years in the Civil Hospital, such surgery would have been performed without the use of anaesthesia. The component of an anaesthetic apparatus suggests that convicts in the later years of the life of the Hospital had the benefit of anaesthetic for surgical procedures. It is quite likely that information about the use of anaesthesia could have reached the surgeons on Norfolk Island, or at least the English authority in charge of supplies to the colonial hospitals who would have sent the necessary equipment.

The historical stereotype of the drunken surgeon, and the real accusations of alcoholism among Norfolk Island surgeons, suggest however, that the contents of some of the bottles represent the drinking habits of the surgeons from after about 1837 when the privy was built. The convict overseers and wardsmen in the Hospital, who might have been rewarded with alcohol for their hard work, might also have contributed to the alcohol bottles present in the privy. The most reasonable conclusion, perhaps, is that both factors contributed to the deposit.

The bottles might also have been saved from elsewhere in the settlement, such as the military barracks, and recycled for use in the Hospital for other purposes such as storage of large mixtures of standard medicines prepared in the dispensary. Many of the alcohol bottles were discarded whole, their thick walls preventing them from shattering on impact with the privy deposit. If the bottles were recycled, there probably came a point in their re-use at which the Hospital staff decided they would discard them. The discard of whole items that could have been recycled suggests that the need for storage containers was not great. New supplies to the Island must have been fairly regular, or there may have been a policy to discard excess items such as glass which could have been appropriated by convicts to create dangerous weapons.

The artefacts certainly indicate that the Hospital was supplied an extensive range of medicines and supplies for treatment of convicts. The treatment provided by the surgeons is only represented by the presence of the medical artefacts, suggesting that the contents of bottles were used, or that hospital supplies were broken through use. While some surgeons such as Everett were supposedly feared by the convicts, most historical opinions give evidence that the surgeons provided adequate treatment and were diligent in performing their duties as if treating a non-criminal population. After 30 years medical service on convict ships and gaol hospitals, Campbell wrote in defence of his colleagues 'The public are sometimes inclined to sympathise with criminals, and to consider that those in charge treat them with want of proper humanity, I think it right that they should be disabused of any such notion, for it is most unjust' (1984: 60), emphasising that when an officer was found guilty of harsh treatment of a prisoner, he was punished.

The medical artefacts therefore suggest that medical care of convicts on Norfolk Island was of a reasonably high standard, and therefore support the argument proposed by Nicholas (1988) that convicts received a high standard of medical care, contrary to popular belief.

### **Convict death**

The convict headstones point to the natural progression in the sequence for many of the convicts who experience both life and illness in the Hospital. The official attitudes

toward convict death on Norfolk Island are reflected in the number of convict headstones in the cemetery, located at the eastern end of the Kingston settlement on Norfolk Island. Only 42 second settlement headstones are known to be markers of convict graves (see appendix 4), although many small lumps of stone with initials crudely engraved on their surfaces may also represent convict graves, and many may have been buried by the nearby sand dunes, or were marked with wooden markers that no longer remain. The plan of the cemetery (figure 30) indicates that the convicts were buried north west of the graves of the soldiers, administrators and their families. Most were buried in a clustered line, but others more dispersed.



Ten convicts executed for the 1834 mutiny were commemorated with headstones (for example see figure 31). Hughes (1987) suggests that the commemoration of these men's executions by headstones may have been an attempt to deter other convicts from committing similar acts that would lead to the same fate. However, in stark contrast, the 1846 mutineers suffered mass burial in unconsecrated ground (see 'Murderers Mound', figure 29). Three other convicts commemorated by headstones were also executed, but only five are known to have died in the Hospital from illness (Dalkin 1995). The other hundreds of convicts who died on the Island, who may or may not be buried within the cemetery, were not given headstones. Their graves were probably marked by wooden crosses which no longer exist. The burial of convicts may have been an orderly procedure with convicts buried throughout the cemetery, and the gaps between the headstones representing the unmarked graves of other convicts.

A letter from a convict named Brassington about a friend who died in the Sydney Hospital from dysentery in 1823, noted that 'Government berrys [sic] all that die in the hospital with out They [sic] have any friends that wish to bury them' (Hagger 1979:103), indicating that all convicts who died in the Civil Hospital must have been buried. Only five convict headstones reveal the cause of death as illness or disease, despite the many hundreds who would have died in the Hospital. All of these convicts died in 1841 and 1842, during Maconochie's term, suggesting his differing attitude toward convict death and commemoration. Twelve other convict headstones do not reveal the cause of death, but these may also have been deaths in the Hospital.

The majority of the convict headstones were for men who died during Maconochie's term as Commandant (see appendix 4), for he had a new policy on death and commemoration, allowing other convicts to place painted wooden boards and headstones at the graves of their friends (Hughes 1987). Even convicts who were shot while attempting to seize the *Governor Phillip* were not denied commemoration after death, actually having among the most elaborate of convict stones, for example that of Samuel Jones in figure 32, displaying the Angel of Resurrection blowing a trumpet.

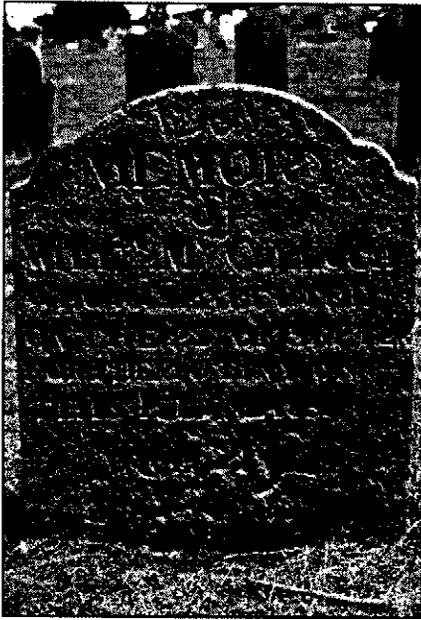


Figure 31: Headstone of convict

William McCulloch

(Photograph: F. Starr)



Figure 32: Headstone of convict

Samuel Jones

(Photograph: F. Starr)

Death was welcomed by many convicts during the second settlement. Murder pacts existed between them, so that one would die from the arrangement, and the other would be transported to the mainland for trial or be hanged for the crime. For example, a convict named Fitzgerald made a make-shift knife from a piece of hoop iron, and after drawing the short straw among a group of convicts who had consented to the suicide pact, was disembowelled by another convict and died in the Hospital a few days later. The rest were sent back to Sydney for trial (Hughes 1987: 468-9). Such pacts were especially convenient for Catholics, who both escaped the Island's grim life, and avoided the damning act of suicide.

Many convicts arrived in the colony unmarried, and without dependents (Drew-Smith 1995) so it is unlikely that the headstones were carved on the mainland and sent to the Island by family members. Therefore, the carving and erection of headstones seems largely to have been left to the discretion of the men's fellow convicts, except that of John Atkinson, a convict constable at Government House, whose headstone was erected by Commandant Ryan, known for his humanitarian rule of the Island. The headstone of a convict named William Storey, a troublesome and mutinous character, was erected by a fellow convict, Laurence Frayne, who was notorious for his courage and recalcitrant behaviour on the Island. Frayne had a death sentence in Sydney that was commuted to

life on Norfolk Island, where he was sentenced to about 500 lashes, two months in solitary confinement, three years in the chain gang, and spent every night chained to the barracks wall (Hughes 1987: 463). Despite his reputation on the island, Frayne was able to carve and erect a headstone to his friend who was accidentally killed when absent in the bush. (Dalkin 1995).

Twenty-one of the headstones state the birthplace of the deceased, and seventeen of these were Irish. This probably reflects the importance that religious Irish convicts would have placed on death and the afterlife, and the need for a headstone to be erected, but might also represent Irish nationalism and the pride in establishing a man's Irish origins. The effort to commemorate the mutinous convicts of 1834 probably represents a political gesture by other convicts, reflecting their respect for the convicts who dared to challenge the authorities. The headstones may also represent the friendships that the deceased formed with other convicts, who were willing to seek permission to create the headstone, and who had stonemasonry skills.

The likelihood of the convicts on the Island being able to carve headstones is supported by the fact that the convicts were employed in the carving of stone for the buildings of the settlement such as the pentagonal prison. A study by Taylor of convicts in Western Australia in 1850-51, found that of 453 convicts, 32 were stonemasons (in Kerr 1992) so at least a few on Norfolk would have been stonemasons by trade before conviction. Two convicts from Port Arthur are known to have carved some of the convict headstones on The Isle of the Dead, and one, Thomas Pickering, had also spent time on Norfolk Island, from 1850 - 54 (Lord 1995). The headstones were carved from the common local limestone (Varman 1997) but they may not necessarily have been erected at the time of the convict's death.

The existence of the few convict headstones discussed suggests that the official attitude to convict death, while not being liberal enough to erect headstones for all the convicts, was tolerant enough to allow fellow convicts to erect headstones for their friends. This attitude may be viewed as the same official attitude that allowed the reasonable supply of medicines and instruments and rule requirement for the treatment of convicts in the Hospital.

## Chapter 6:

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### Conclusion

This thesis set out to examine the state of the representation of penal history in Australian museums. A survey and discussion of the presentation of convict life in museums from various states in Australia has demonstrated that the important theme of penal history has not received the attention it deserves in Australian museums. It revealed that while some museums have attempted to concentrate on the more in-depth issues relating to convictism and life in prison, the material culture of punishment still dominates the representation of penal history in most museums, preventing any understanding of convicts as individuals with real life experiences.

The archaeological case study addressed the question of the convict experience of life and illness and death in a colonial hospital, specifically asking what standard of care the convicts were given, and in what activities the convicts were involved. Analysis of artefacts from the Civil Hospital privy of the second settlement on Norfolk Island, and their historical context, have demonstrated that the popular perceptions about convict life have largely been inappropriate.

The analysis has shown that convict life in the Hospital was not quite so bereft of material goods. The non-medical artefacts suggest that processes that would be unexpected in a convict hospital were occurring. Alcohol bottles from the privy suggest that they may have been obtained illegally by convicts, but more probably represent the administering of wine for medical purposes in the Hospital, or the drinking habits of the surgeons. The evidence of clothing and items of personal hygiene reflect the official control over the personal realm of the convicts. The presence of clay tobacco pipes has been interpreted to represent a trade in items of convenience between convicts, and the military and free people on the Island. When coupled with the historical accounts of malingering, attempts at escape, and mutiny, the trade of such illegal items may be seen as convict resistance to authority and to the order imposed on their lives.

The analysis also suggests that the types of medical supplies provided for the Hospital were sufficient for the treatment of the diseases contracted by the convicts, and were

reasonable and standard for the period, although it is obvious through historical sources that the actual hospital building was inadequate for the treatment of such a large population. The many types of medicine bottles suggest diversity in the hospital supply, allowing the surgeons to treat many different problems, and the types supplied seem to have been specifically for the treatment of the illnesses commonly contracted by convicts. It can only tentatively be concluded that the artefacts indicate the actual standard of care provided by the surgeons in the use of the drugs and instruments. The presence of these artefacts in the privy however, should be taken to indicate their discard after being used to treat patients. Historical accounts suggest that some of the surgeons might have been hardened by the life on the Island, which was reflected in their attitudes towards treating convicts. Yet many accounts of the surgeons suggest that they were diligent in their duties and reasonably compassionate to their convict patients. The artefacts and the convict headstones from the cemetery, which represent the natural progression in the sequence for many of the convicts, suggest that official attitudes towards convict illness, death and afterlife were reasonably tolerant and humane.

On the basis of the qualitative evidence there are further in-depth studies which might be undertaken of the entire assemblage. Quantitative analysis could be carried out on groups of artefacts to determine trends in their availability and use frequency. A more in-depth study could be undertaken on the faunal remains from the privy to determine the quality of the convict diet in the hospital in comparison with that of the convicts not in hospital, through study of historical accounts of rations, or study of another convict faunal assemblage from the Island or elsewhere.

The archaeological case study was undertaken to attempt draw to light to issues that might be explored in the museology of convictism, to allude to the humans among the stories of punishment. A museum display of archaeology should essentially seek to portray the results of the archaeological investigation - looking at artefacts as representative of the belief patterns of the people who made, commissioned, purchased or used them. The artefacts should be used to demonstrate a sense of the individual among the anonymity of the convict stereotype, in addition to presenting an informative and stimulating interpretation of the archaeology of the Hospital. The display should aim to inform the visitor about the purpose of the archaeological excavation, what was revealed, and why the artefacts are significant in contributing to our understanding of

the convict experience. The artefacts should not necessarily be used to illustrate the historical accounts but should raise their own questions.

Cossons (1980) stresses that a visit to a museum is essentially a visual experience for a visitor so, for a museum to succeed, it needs the highest standard of visual interpretation and presentation. Most visitors do not see archaeological objects in their original use or depositional contexts, so this might be conveyed through the diagrammatic presentation of the processes that led to the deposition of artefacts in the Hospital privy, presented in figure 27, in Chapter 5.

Archaeological material is inherently difficult to present and explain to the general museum viewer because its appearance is often altered through burial, and its form offers little information about its use to a contemporary audience (Clark 1997). When an archaeologist or a museum visitor comes to observe and judge artefacts for their meaning, our assumptions about life can obscure the true meaning of the objects. As Berger (1972) describes our assumptions mystify rather than clarify, and the viewer is likely to undertake the process of mystification whereby the viewer will deny what is evident about the past. It is for these reasons that interpretation in an archaeological display is paramount and the challenge for the curator is to reconstruct a 'living' archaeological past. A theme or storyline should relate the artefacts to the viewers as humans, and set the artefacts into a wider context of what was happening in other buildings in the settlement. It might influence the visitor into thinking about what the object tells us: why was it thrown away, lost, broken, how has it been altered while buried, and what does it tell us about the owner?

Many museums over-emphasise the value of the aesthetics of archaeological artefacts, so that displays tend to be contrived and over-designed, with objects chosen not for their archaeological significance, but for their aesthetic values (Mackay 1997). This is a standard problem in which the selection of only 'exhibition quality', artefacts for display means that archaeologically-important, but not necessarily aesthetically-pleasing artefacts are left in storage (King 1984). Hopley and Rylatt (1975) have pointed out that a display should emphasise that archaeological objects are not an end in themselves, and require interpretation before they can be related to the true purpose of doing archaeology - to reconstruct the past from material remains.

Previous interpretative work in museums has proven that a successful manner of presentation for site-museums is the development of a dynamic interaction between the visitor and the displays, where the visitor goes beyond the usual passive-observer state to become an active participant in activities in reconstructed rooms of the past (Tomasevic-Buck 1985). Walsh (1992) argues that displays should contain such intrinsic characteristics as timeliness, usefulness, opportunity for the viewer to interact with the exhibit, and elements of surprise or challenge. The display of the convict experience should have personal meaning to the viewer who will then have some active attention and involvement in the display and be able to make human connections between the buildings they visit and the people who used them. Establishing this relationship between the artefacts and their physical historical environment is relatively simple on Norfolk Island, as the museum displays are within close proximity to the architectural remains of the settlement, and in this case, the excavation site, the Civil Hospital privy.

How do you display the intangible, such as emotions, aspirations, and attitudes? The archaeological objects have to carry the burden, and the intangible can only be expressed through interpretation and the visitor's imagination. A display of the archaeological material from the Civil Hospital privy might explore the themes of everyday activities discussed in the archaeological analysis - life, illness, pain, and death, with reference to the convicts who died in the Hospital and were buried in the cemetery. While labelling might refer to relevant historical accounts (for example convicts being punished for possession of tobacco), to illustrate the historical context of the artefacts, the archaeological questions that the artefacts raise should be central. The medical artefacts can be interpreted as illustrating the human needs of the convicts, and their generally poor state of health caused by their lifestyle. Everyday artefacts from the privy, such as shoes, buttons, and toothbrushes, may be used to demonstrate how clothing and items for the maintenance of hygiene represent official attempts at ordering convict lives. Clay tobacco pipes, and questionably some of the alcohol bottles, may be used to transmit the ways in which convicts traded in resistance to the rules and structures imposed upon their lives.

The value of presenting information in various levels for different levels of understanding by viewers has been pointed out by various authors (Pearce 1995; Binks, Dyke and Dagnall 1988). South (1997) argues for the benefits of the generalised (as opposed to literal) approach to the presentation of history, which is a result of the presentation of multiple meanings of artefacts. Recognition of multiple interpretations of the artefacts from the Hospital privy may not fulfil the viewer's sense of certainty about the past, but would promote thought and the desire for further research which can lead to challenge and surprise for the viewer.

A successful presentation of multiple meanings might explain academic interpretations of the artefacts, while also allowing the viewers to pose their own interpretations. Pearson (1995) has pointed out the problem that we will never know which interpretations are closer to the truth, and that new interpretations can always be offered, but better that we are exposed to more than one meaning than be refined to one which may be incorrect. This multi-view approach might be realised in a display of the artefacts from the privy by suggesting the ways in which certain artefact types can have more than one equally plausible meaning. For example, alcohol bottles can be interpreted as used and discarded by the surgeons, or by the surgeons for use in treating convicts, or by the military elsewhere, and recycled in the hospital for storage purposes. The display might also indicate how the same artefacts can be used to illustrate and investigate other themes, for example trade to and from the settlement.

Finally, the exhibition should recognise more general issues in the presentation of convict heritage. It might indicate how the presentation of material culture in the display has the ability to extend the popular perceptions about convict life in the penal settlement. The display might point out how attitudes to our convict heritage are changing, and the contribution that archaeology has made to this process. The 'convicted' artefacts can thus be viewed at the level of individual meaning, but the result should be that the totality of the display is greater, and more informative, than the sum of its parts.

It has been recognised that there have been limitations on the sample chosen for study, preventing extensive quantitative analysis of the assemblage. However, the archaeological sample has been adequate for the demonstration of new themes in the

convict experience and how these might be presented in a museum to evoke a sense of the human behind the objects. The archaeological study of this thesis is significant in its re-working of archaeological material obtained through salvage excavations such as that of the Hospital privy. Rescue of endangered deposits is important, yet the main objective of archaeology - to further our understanding of the past - cannot be achieved if no efforts are made to interpret the archaeological material.

The archaeological case study has revealed information about the experience of being a convict in the Hospital, but also about the lives and medical treatment employed by the surgeons in the Hospital. The case study presents themes not commonly explored in the presentation of penal history for the public, demonstrating that everyday items, not usually associated with convict life, can allude to the themes of convict activities, disease, medical treatment and death. Such themes can generate a perception of the convict as a real person with human aspirations and an identity. The artefacts contradict the popular notion that the material culture of punishment and segregation is the only surviving material evidence of convict life. In this respect the artefacts have enormous potential for museum display in extending the popular perception that convicts were faceless 'numbers' living existences involving punishment and nothing more.

The archaeological case study of convict life in the Hospital on Norfolk Island represents one aspect of a myriad of stories to be told about Australia's convicts. Norfolk Island was a place of banishment for secondary offenders, and for many, the end of the transportation line, but many stories of the convict experience will involve happier episodes, of those who worked their way up through the convict system towards a ticket of leave. Connah (1988) suggested that study of convict material culture should be divided into evidence of those going up the scale towards freedom, and evidence of those going down towards capital punishment. If the current study is placed in this scheme, it most definitely fits into the latter category. It therefore should not be viewed as representative of convict life throughout the colony, but as one of the more unfortunate human situations from the penal past of Australia.

The archaeological case study and its application to the state of the representation of convicts in Australia will hopefully inspire reflection on the lack of representation of the convict experience in museums and the lack of the archaeology of convictism in

Australia. In turn, it is hoped that the study will inspire new archaeological investigations into convictism and will make some contribution to a new approach to the museology of convictism in Australia. Most significantly, the end point of this new approach should be an extension of popular understandings of the penal past to include perceptions of convicts as real individuals with every-day experiences.

# Bibliography

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## Abbreviations

AONSW: Archives Office of New South Wales

DL: Dixon Library, Sydney

HRA: Historical Records of Australia

ML: Mitchell Library, Sydney

PP: Parliamentary Papers

## Personal Communications

Besford, Rob, Assistant Curator, Fremantle Prison, 5 September 1997.

Lawrence, Ghislane, Science Museum, London, 6 August 1997.

Manera, Brad, National Museum of Australia, 6 August 1997.

Nuske, Jennifer, Curator, Port Arthur, August 1997.

Scrivener, Jeffrey, Tasmanian Historical Research Association, 24 July 1997.

Swain, Judith, Albany Historical Society, 3 September 1997.

Varman, Robert. Archaeologist, Norfolk Island.

Wishart, Elspeth, Curator of History, Queen Victoria Museum and Art Gallery, Launceston, 17 September 1997.

## Manuscript Sources

Abstract No. 2 of Medical Stores, stores form Convict Medical Depot at N.S.W. from 1 April 1842 to 31 March 1843, DL A/1232.

Adelaide Gaol Visitor Survey, 1997, courtesy of Jade Herriman, Information Officer, Adelaide Gaol.

Annual Return of Diseases treated at the Colonial Hospitals of Norfolk Island and Moreton Bay from 1 January to 31 December 1838 inclusive, DL A/1220: 898 - 899.

An Annual Return of Diseases treated in the Convict Hospitals at Norfolk Island from the 1 of January to the 31 of December 1841, inclusively, DL A/1228: 923 - 925.

Annual Return of Diseases treated in the Colonial Hospitals of the Colony of New South Wales from 1 January to 31 December 1838 inclusive, DL A/1220: 894 - 5.

Blue Books of Statistics, Van Diemen's Land, DL CO 284/69: 219.

Blue Books of Statistics, Van Diemen's Land, DL CO 284/75: 227.

Bourke, Governor to the Right Honorable E.G. Stanley, 15 January 1834, HRA series 1, vol. 17: 326.

Colonial Secretary, New South Wales, Return of Labour to 31 March 1829, DL 4/1171.

Colonial Secretary, New South Wales, Return of Property, 25 June 1829, DL 4/1171.

Colonial Secretary, New South Wales, Morisset to Colonial Secretary, 1 October 1833, DL 4/2245.

Colonial Secretary, New South Wales, Map in 'Norfolk Island Mutiny Papers 1834', DL 2/8291.

Colonial Secretary, New South Wales, Anderson to Colonial Secretary, 12 May 1837, DL 4/2368.3.

Colonial Secretary, New South Wales, Bunbury to Colonial Secretary, 20 March 1839, DL 4/2462.

Colonial Secretary, Returns of the Colony, Blue Books, AONSW 4/268: 204.

Colonial Secretary, Copies of Letters to Medical Staff, 15/4/1836 to 30/3/1841, AONSW 4/3789: 393.

*Condemned!* at the Galleries of Justice, Nottingham, England, Visitor Guide, courtesy of Sarah Colley.

Darling, Governor of NSW, to Under Secretary Hay, 14 May 1827. HRA, series 1, vol. 13: 303.

Extra Abstract of the Receipt of Medicines and etc. between the 1 April 1840 and 3 March 1841 (Norfolk Island), DL A/1226: 376-7.

Grey, Earl, to Sir Charles Fitzroy, 27 February 1847, HRA series 1, vol. 25: 375.

Gipps, Sir George, to Lord Stanley, 1 April 1843, HRA series 1, vol. 22: 619, 624, 639.

McEnroe to Colonial Secretary, Norfolk Island, 20 September 1842, DL 4/2566.

New South Wales Governor's Despatches to the Secretary of State for the Colonies, List of Convict Medical Stores, vol. 43, October - December 1843, DL A/1232: 154.

Plan of the Settlement and Garrison Farm, Norfolk Island, 1829, AONSW, map 6321.

Register of Approved Requisitions, 1833 - 5, AONSW 4/418-9.

Requisition for Stores for Military and Convict Departments in New South Wales for the year 1834, AONSW 4/6661.

Rogers, W. F. n.d. 'Man's Inhumanity, being a Chaplain's Chronicles of Norfolk Island in the Forties, based on the Journal of Reverend Thomas Rogers'. Typescript C214, ML.

Secretary of State for Colonies, Young to Denison, 29 September 1855, DL 4/1627.

Secretary of State for Colonies, Despatches to the Governor of New South Wales, May-August 1843, DL A/1291.

Stephen, John, Jr. to Report of the Select Committee on Secondary Punishments, Parliamentary Papers 1832, minutes: 30.

### Unpublished and Published Sources

Adams, T. & A. Payne. 1979. *The Bottle Collector's Dictionary*. Southampton: Southern Collector's Publications.

Anderson, M. 1991. 'Selling the Past: History Museums in the 1990s', in J. Rickard and P. Spearritt (eds) *Packaging the Past: Public Histories*. Melbourne: Melbourne University Press, 130 - 142.

Anning, S.T. 1966. 'A Hospital Pharmacopoeia of the Nineteenth Century', *Medical History* 10: 70 - 75.

Arnold, K. 1978. *Bendigo: A History in Bottles and Stoneware, 1852 - 1930*. Bendigo, Victoria: Northern Offset Printing.

Arnold & Sons. 1895. *Catalogue of Surgical Instruments and Appliances*. London: Arnold & Sons.

Asgis, A.J. 1929. 'The History of the Toothbrush and the Hair-Bristle Toothbrush'. *The Dental Digest* 35: 307 - 13.

Australian Construction Services. 1995. 'Norfolk Island, KAVHA: Interpretative Plan', Volume 2 (Strategy). Sydney: Unpublished report.

Backhouse, J. & G.W. Walker. 1843. *A Narrative of a Visit to the Australian Colonies*. London.

Bairstow, D. 1991. 'Artefact Catalogue: Historical Archaeological Assessment Report to Australian Construction Services', KAVHA Archaeological Report no. 31, part 1. Sydney: Unpublished report.

Bairstow, D. & P. McLaren. 1993. 'The Civil Hospital Research and Interpretive Design'. Sydney: Unpublished report prepared for Australian Construction Services on behalf of the KAVHA Management Board.

Baker, W. 1842. *List of the Legally Qualified Medical Practitioners of the Colony of New South Wales*. Sydney: W. Baker.

- Bennett, T. 1988. *Out of Which Past? Critical Reflections on Australian Museum and Heritage Policy*. Brisbane: Griffith University Press, Occasional Paper No. 3, Institute for Cultural Policy Studies.
- Bennion, E. 1979. *Antique Medical Instruments*. Berkeley: University of California Press.
- Berger, J. 1972. *Ways of Seeing*. London: BBC and Penguin Books.
- Binks, G., J. Dyke & P. Dagnall. 1988. *Visitors Welcome: A Manual of Presentation and Interpretation of Archaeological Excavations*. London: Her Majesty's Stationery Office.
- Birmingham, J. 1987. 'Buttons', in J. Birmingham and D. Bairstow (eds), *Papers in Australian Historical Archaeology*. Sydney: Australian Society for Historical Archaeology, 18 - 20.
- Blackburn Museum and Art Gallery. 1978. *Davenport Pottery and Porcelain, 1794 - 1887*. Borough of Blackburn: Recreation Department, Arts Division.
- Blainey, G. 1966. *The Tyranny of Distance: How Distance Shaped Australia's History*. Sydney: Pan Macmillan.
- Blair, S. & A. Claoué-Long. 1993. 'A Landscape of Captive Labour: Evidence of the Convict Era in the Lanyon Landscape', *Public History Review* 2: 81 - 98.
- Boow, J. 1991. *Early Australian Commercial Glass: Manufacturing Processes*. Sydney: Heritage Council of New South Wales.
- Brand, I. 1984. *Sarah Island*. Launceston: Regal Publications.
- Bridges-Webb, C. 1983. 'Some Early Medical History in Gippsland', in J. Pearn and C. O'Carrigan (eds) *Australia's Quest for Colonial Health: Some Influences on early health and medicine in Australia*. Brisbane: Dept. Child Health, Royal Children's Hospital, Brisbane, 191 - 201.
- Brown, A.J.V. & J.A.G. Barnes. 1996. 'Prison Medicine in South Africa: James Barry and Steve Biko', in J. Covacevich, J. Pearn, D. Case, I. Chapple & G. Phillips (eds) *History Heritage and Health, Proceedings of the Fourth Biennial Conference of the Australian Society of the History of Medicine*. Brisbane: Australian Society of the History of Medicine, 29 - 37.
- Bunbury, T. 1861. *Reminiscences of a Peninsula Veteran*. London: Skeet.
- Campbell, J. [1884] 1984. *Thirty Years' Experience of a Medical Officer in the English Convict Service*. London: Garland Publishing Inc.
- Campbell, R. 1983. 'The Medical History of the Mint Building', in J. Pearn and C. O'Carrigan (eds) *Australia's Quest for Colonial Health: Some Influences on early health and medicine in Australia*. Brisbane: Dept. Child Health, Royal Children's Hospital, Brisbane, 39 - 44.

- Carley, C.D. 1981. 'Historical and Archaeological Evidence of Nineteenth Century Fever Epidemics and Medicine at Fort Vancouver', *Historical Archaeology* 15(1): 19 - 35.
- Casella, E. 1996. "one, or two globular lamps made of glass": Archaeology and the Cultural Australian Landscape of Tasmanian Convictism', in S. Ulm, I. Lilley, and A. Ross (eds) *Australian Archaeology '95, Proceedings of the 1995 Australian Archaeological Association Annual Conference, Tempus, Volume 6*. St. Lucia, QLD: Anthropology Museum, University of Queensland, 257 - 264.
- Casella, E. 1997 (in press). "a large and efficient Establishment": Preliminary Report on Fieldwork at the Ross Female Factory', *Australasian Journal of Historical Archaeology* 15.
- Cash, M. 1976. *Martin Cash: The Bushranger of Van Diemen's Land, in 1834 - 4*. Hobart: J. Walch and Sons.
- Clark, C.M.H. 1956. 'The Origins of the Convicts Transported to Eastern Australia 1787 - 1852', *Historical Studies* 7(26): 121 - 35; 7(27): 314 - 27.
- Clarke, D.V. 1997. 'Changing Paradigms in Museum Archaeology', *Antiquity* 71: 750 - 52.
- Clarke, M.[1874] 1992. *For the Term of His Natural Life*, introduction by Laurie Herghenha. Sydney: Angus and Robertson.
- Clarke, P. 1986. *Hell and Paradise: The Norfolk, Bounty, Pitcairn Saga*. Ringwood, Victoria: Viking.
- Cleland, J.B. 1932. 'Morbidity and Morality in the Convict Settlement at Port Arthur, Tasmania, from 1830 to 1835', *The Medical Journal of Australia* 2(12): 347 - 350.
- Connah, G. 1988. *Of the Hut I Buildded: The Archaeology of Australia's History*. Melbourne: Cambridge University Press.
- Cook, T. 1978. *The Exile's Lamentations*. Sydney: Library of Australian History.
- Corbin, A. 1986. *The Foul and the Fragrant: Odor and the French Social Imagination*. Leamington Spa, England: Berg Publishers.
- Cossons, N. 1980. 'The Museum in the Valley, Ironbridge Gorge', *Museum* 32(3): 138 - 153.
- Crellin, J.K. 1969. *Medical Ceramics: A Catalogue of the English and Dutch Collections in the Museum of The Wellcome Institute of the History of Medicine*. London: Wellcome Institute of the History of Medicine.
- Crellin, J. & J.R. Scott. 1970. 'Pharmaceutical History and its Sources in the Wellcome Collections, III. Fluid Medicines, Prescription Reform and Posology, 1700 - 1900', *Medical History* 14: 132 - 153.

- Crellin, J. & J. R. Scott. 1972. *Glass and British Pharmacy, 1600 - 1900: A Survey, and Guide to the Wellcome Collection of British Glass*. London: Wellcome Institute of the History of Medicine.
- Crockett, G. 1995. 'The Recovery of Silence: Interpreting Traces of Inmates at the Hyde Park Barracks', Paper presented at ASHA/AIMA Conference, *Soundings: Approaches to Marine and Historical Archaeology*, Hobart, Tasmania 23 - 25 October, 1995.
- Cummins, C.J. 1974. 'The Colonial Medical Service: II. The Administration of the Convict Hospitals of New South Wales', *Modern Medicine of Australia* 17(1): 11 - 25.
- Cushion, J.P. 1976. *Pocket Book of British Ceramic Marks*. London: Faber and Faber.
- Dalkin, R.N. 1995. *Colonial Era Cemetery of Norfolk Island*. Coorparoo, Queensland: Robert Brown and Associates.
- Dane, A. & R. Morrison. 1979. *Clay Pipes from Port Arthur, 1830 - 1877*. Technical Bulletin No. 2, Department of Prehistory, Research School of Pacific Studies. Canberra: Australian National University.
- Davis, A.B. 1981. *Medicine and its Instrumentation: An Introduction to the History of Medical Instrumentation*. Westport, Connecticut: Greenwood Press.
- Davis, A. & T. Appel. 1979. *Bloodletting Instruments in the National Museum of History and Technology*. Washington D.C.: Smithsonian Institution Press.
- Dax, E.C. 1996. 'Lunatics and Convicts in the Work of Bishop Willson', in J. Covacevich, J. Pearn, D. Case, I. Chapple & G. Phillips (eds) *History Heritage and Health, Proceedings of the Fourth Biennial Conference of the Australian Society of the History of Medicine*. Brisbane: Australian Society of the History of Medicine, 53 - 55.
- Department of Housing and Construction. 1981. *Norfolk Island: The Architectural Historical Record of Kingston and Arthur's Vale*. Canberra: Australian Government Publishing Service.
- Desjardins, P. & G. Duguay. 1992. *Pointe-à-Callière: From Ville-Marie to Montreal*. Montreal: Septentrion.
- Drake, T.G.H. 1960. 'Antiques of Interest to the Apothecary', *Journal of the History of Medicine* 15: 31 - 44.
- Drew-Smith, L. 1997. 'Convict Families: Research for Exhibition at Hyde Park Barracks'. Sydney: Unpublished report for Historic Houses Trust of New South Wales.
- Duke, J. 1995. 'Norfolk Island', in J. Pearn and P. Carter (eds) *Islands of Incarceration: Convicts and Quarantine Islands of the Australian Coast*. Brisbane: University of Queensland, 20 -35.

Duke, J.S, M-L. Duke, A. Guymer, M. Hoare & N. Smith (eds) *Norfolk Island Hospitals and Public Health from the 1st Convict Settlement*. Norfolk Island: Norfolk Island Historical Society.

Duke, M.L. 1994. 'Second Settlement', in Duke, J.S, M-L. Duke, A. Guymer, M. Hoare & N. Smith (eds) *Norfolk Island Hospitals and Public Health from the 1st Convict Settlement*. Norfolk Island: Norfolk Island Historical Society, 14 - 23.

Duke, M.1991. *The Development of Medical Techniques and Treatments: From Leeches to Heart Surgery*. Madison: International Universities Press.

Elliots and Australian Drugs Pty. Ltd. 1948. *Catalogue of Surgical Instruments*. Sydney: Elliots and Australian Drugs Pty. Ltd.

Estes, J. Worth. 1988. 'The Pharmacology of Nineteenth Century Patent Medicines', *Pharmacy in History* 30(1): 3 - 18.

Stuart, R.P. 1979. *Norfolk Island, 1846: The Accounts of Robert Pringle Stuart and Thomas Beagley Naylor*. Adelaide: Sullivan's Cove.

Flanagan, R. 1990. 'Crowbar History: Panel Games and Port Arthur', *Australian Society* 9(8): 35 - 39.

Flanagan, R. 1996. 'Anti-Museum: The Case of the Strahan Wharf Centre', in *Sites, Nailing the Debate: Archaeology and Interpretation in Museums*, Seminar 7 - 9 April, 1995. Sydney: Museum of Sydney on the Site of the First Government House, 179 - 198.

Fletcher, B. 1992. 'Australia's Convict Origins: Myth and History', *History Today* 42: 39 - 43.

Fletcher, E. 1976. *Antique Bottles in Colour*. Poole, Dorset: Blandford Press.

'From the Clink of Leg Irons to the clink of tourist dollars', *The Albany Advertiser*, Tuesday, October 9, 1990: 10.

Gandevia, B. 1977. 'The Epidemiology of Dysentery at Norfolk Island, 1840 - 1843', in N. Hicks (ed.) *Proceedings of the Annual Meeting of the Australian and New Zealand Society for Epidemiology and Research in Community Health, May 1976*. Adelaide: ANZSERCH, 198 - 200.

Gandevia, B. 1978. 'Malingering in the Penal Era: Its Epidemiology and Social Implications with Contemporary Observations by James Stuart' in *Festschrift for Kenneth Fitzpatrick Russell*. Melbourne: Queensbury Hill Press, 61 - 89.

Geismar, J.H. 1993. 'Where is Night Soil? Thoughts on an Urban Privy', *Historical Archaeology* 27(2): 57 - 70.

Godden, G. 1964. *Encyclopedia of British Pottery and Porcelain Marks*. London: Barrie and Jenkins.

- Godden, G. 1968. *The Handbook of British Pottery and Porcelain Marks*. London: Herbert Jenkins.
- Gojak, D. & I. Stuart. n.d. 'Going Beyond Typology: Studies of Clay Tobacco Pipes from Australian Sites'. Sydney: Unpublished paper.
- Gorringe, T.H. 1850. *Short Dissertations on Diarrhoea, Dysentery, Cholera Morbus, Scarlatina and Erysipelas*. Hobart Town: H.& C. Best Printers.
- Griffenhagen, G.B. & J.H. Young. 1992. 'Old English Patent Medicines in America'. *Pharmacy in History* 34(4): 199 - 229.
- Guymer, A. 1994. 'A Second Glance at the Second Settlement', in Duke, J.S, M-L. Duke. A. Guymer, M. Hoare & N. Smith (eds) *Norfolk Island Hospitals and Public Health from the 1st Convict Settlement*. Norfolk Island: Norfolk Island Historical Society, 24 - 27.
- Hackett, E. (ed.) 1986. *Devils, Drugs and Doctors: A Wellcome History of Medicine, Australia, 1986 - 87*. Sydney: International Cultural Corporation of Australia.
- Hagger, J. 1979. *Australian Colonial Medicine*. Adelaide: Rigby.
- Haines, G. 1976. *The Grains and Threepenn'orths of Pharmacy: Pharmacy in N.S.W., 1788 - 1976*. Kilmore, Victoria: Lowden Publishing.
- Harris, C.A. 1986. *The Discovery and Survey of the Wreck of the Tigress*. North Adelaide: Society for Underwater Historical Research Inc.
- Harrison, J. 1996a. 'Indulged With a Marine Excursion: Medical Memoranda on Women Convicts at Sea, 1815 - 40', in J. Covacevich, J. Pearn, D. Case, I. Chapple & G. Phillips (eds) *History Heritage and Health, Proceedings of the Fourth Biennial Conference of the Australian Society of the History of Medicine*. Brisbane: Australian Society of the History of Medicine, 57 - 64.
- Harrison, J. 1996b. 'A Base Propensity to Mischief: The Case of the Medical Officer and Female Chit-Chat', in J. Covacevich, J. Pearn, D. Case, I. Chapple & G. Phillips (eds) *History Heritage and Health, Proceedings of the Fourth Biennial Conference of the Australian Society of the History of Medicine*. Brisbane: Australian Society of the History of Medicine, 363 - 368.
- Hayward, J. 1956. *English Cutlery*. London: Her Majesty's Stationery Office.
- Hazzard, M. 1984. *Punishment Short of Death: A History of the Penal Settlement at Norfolk Island*. Melbourne: Hyland House.
- Hoare, M. 1978. *Norfolk Island: An Outline of its History, 1774 - 1987*. St. Lucia: Queensland University Press.
- Hoare, M. 1979. *Norfolk Island: A History Through Illustration, 1774 - 1974*. Canberra: Australian Government Publishing Service.

- Hoare, M. (ed.) 1988. *Elizabeth Robertson's Diary, Norfolk Island 1845*. Newcastle: Newey and Beath.
- Hobley, B. & M. Rylatt. 1975. 'The Lunt Roman Fort Museum and Interpretative Centre, 1965 - 75', *Museums Journal* 74(4): 151 - 155.
- Hodder, I., M. Shanks, A. Alexandri, V. Buchli, J. Carman, J. Last and G. Lucas (eds) 1995. *Interpreting Archaeology: Finding Meaning in the Past*. London: Routledge.
- Horne, L. 1988. 'Linking the Past with the Present: Ethnoarchaeology in a Museum Context', *Museum* 40(1): 57 - 61.
- Huey, P.R. 1975. 'Reworked Pipe Stems: A 17th Century Phenomenon from the Site of Fort Orange, Albany, New York'. *Historical Archaeology* 8: 105 - 111.
- Hughes, R. 1987. *The Fatal Shore*. London: Collins Harvill.
- Humphrey, R.V. 1969. 'Clay Pipes from Old Sacramento'. *Historical Archaeology* 3: 12 - 33.
- Hutchinson, D. 1981. 'Identifying Bottles', *Australian Society for Historical Archaeology Newsletter* 11(1): 16 - 23.
- Hutchinson, D. 1983. 'Material Culture and the Study of Australian Life', *Museums Australia* (December 1983): 18 - 23.
1838. *Instructions for the Surgeons Superintendent on board convict ships proceeding to NSW or Van Diemen's Land and for the Masters of those ships*. London: William Clowes and Sons.
- Ireland, T. 1996. 'Excavating National Identity', in *Sites, Nailing the Debate: Archaeology and Interpretation in Museums*, Seminar 7 - 9 April, 1995. Sydney: Museum of Sydney on the Site of the First Government House, 85 - 106.
- Jackson, E.S. 1924. 'Historical Notes: A Comparison of Two Annual Lists, those of 1827 and 1832, from Brisbane Hospital Records', *Medical Journal of Australia* 1: 381 - 385.
- Jones, O. 1981. 'Essence of Peppermint: A History of the Medicine and its Bottle', *Historical Archaeology* 15(2): 1 - 57.
- Jones, O. & C. Sullivan. 1985. *The Parks Canada Glass Glossary*. Ottawa: Canadian Parks Service, Environment Canada.
- Karskens, G. 1984. 'The Convict Road Station Site at Wiseman's Ferry: An Historical and Archaeological Investigation', *Australian Historical Archaeology* 2: 17 - 26.
- Karskens, G. 1986. 'Deference, Defiance and Diligence: Three Views of Convicts in New South Wales Road Gangs', *Australian Historical Archaeology* 4: 17 - 28.

- Karskens, G. 1996. Cumberland/Gloucester Streets Site Archaeological Investigation, Vol. 2, Main Report. Sydney: Unpublished report, Godden Mackay.
- Karskens, G. 1997. *The Rocks: Life in Early Sydney*. Melbourne: Melbourne University Press.
- Kelly, M. 1997. *Anchored in a Small Cove: A History and Archaeology of The Rocks, Sydney*. Sydney: Sydney Cove Authority.
- Kerr, J.S. 1984. *Design for Convicts*. Sydney: Library of Australian History.
- Kerr, J.S. 1992. *Fremantle Prison: A Policy for its Conservation*. Perth: Building Management Authority of Western Australia.
- Kidd, D.A. 1984. *Collins Gem Latin Dictionary*. London: Collins.
- King, M-E. 1984. 'Museums, Archaeology and the Public', *Curator* 27(4): 298 - 307.
- Kovel, R.M. & T.H. Kovel. 1953. *Dictionary of Marks: Pottery and Porcelain*. New York: Crown.
- Lambton, L. 1978. *Temples of Convenience*. London: Gordon Fraser.
- Lattimore, C. 1979. *English Nineteenth Century Press Moulded Glass*. London: Barrie and Jenkins.
- Leakey, C. 1859. *Broad Arrow: Being Passages from the History of Maida Gwynnham*. London: Richard Bentley.
- Lee, William. 1842. *Brandy and Salt, being an effectual remedy for most of the diseases which afflict humanity*. Sydney: James Tagg.
- LeeDecker, C.H. 1994. 'Discard Behaviour on Domestic Historic Sites: Evaluation of Contexts for the Interpretation of Household Consumption Patterns', *Journal of Archaeological Method and Theory* 1(4): 345 - 375.
- L'E Turner, G. 1980. *Antique Scientific Instruments*. Poole, Dorset: Blandford.
- Lerk, J.A. 1971. *Bottles in Australian Collections*. Melbourne: Cambridge University Press.
- Longworth, I. 1994. 'Museums and Archaeology: Coping with the Chimaera', in D. Gainster (ed.) *Museum Archaeology in Europe, The Museum Archaeologist* 19, Oxford: Oxbow Books, 1 - 8.
- Lord, R. 1995. *The Isle of the Dead: Port Arthur*. Taroona, Tasmania: Richard Lord and Partners.
- Lorrain, D. 1968. 'An Archaeologist's Guide to Nineteenth Century American Glass', *Historical Archaeology* 2: 35 - 44.

- Lydon, J. 1995. 'Boarding Houses in the Rocks: Mrs Ann Lewis' Privy, 1865', *Public History Review* 4: 73 - 88.
- Lydon, J. 1996. 'Sites: Archaeology in Context', in *Sites, Nailing the Debate: Archaeology and Interpretation in Museums*, Seminar 7 - 9 April, 1995. Sydney: Museum of Sydney on the Site of the First Government House, 139 - 162.
- Mackay, M. 1997. 'The Museum of Sydney', Seminar to Prehistoric and Historical Archaeology Department, Sydney University, 15 August.
- Maconochie, A. 1847. *Norfolk Island*. Hobart: Sullivan's Cove Publisher.
- MacQueen, I. 1991. *Concise Family Medical Handbook*. London: Collins.
- Magner, L.N. 1992. *A History of Medicine*. New York: Marcel Dekker.
- Mann, R.W., D.W. Owsley and P.A. Shackel. 1991. 'A Reconstruction of 19th Century Surgical Techniques: Bones in Dr. Thompson's Privy', *Historical Archaeology* 25: 106 - 112.
- Margotta, R. 1968. *An Illustrated History of Medicine*. Middlesex: Paul Hamlyn.
- Martin, E. & P. Cox. 1988. 'Rebuilding the Settlement', in R. Nobbs (ed.) *Norfolk Island and its Second Settlement, 1825 - 1855*. North Sydney: Library of Australian History, 99 - 137.
- Matthews, L.G. 1971. *Antiques of the Pharmacy*. London: Bell and Sons.
- Mayer & Phelps. 1920. *The Chiron Catalogue of Surgical Instruments*. London: Chiron House.
- Maynard, M. 1994. *Fashioned from Penury: Dress as Cultural Practice in Colonial Australia*. Melbourne: Cambridge University Press.
- Maw, J. & S. 1839. *A Catalogue of Surgical Instruments, Pharmaceutical Implements, Dispensary Utensils and Vessel in Glass, Earthenware, Metal, etc.*. London: S. Maw.
- McCarthy, J. 1988. 'The New Gold Mountain: Chinese Trade Networks in Northern Australia', in J. Birmingham, D. Bairstow & A. Wilson (eds) *Archaeology and Colonisation: Australian in the World Context*. Sydney: Australian Society for Historical Archaeology, 139 - 148.
- McNeil, D. 1952. 'Medical Care Aboard Australia-Bound Convict Ships, 1786 - 1840', *Bulletin of the History of Medicine* 26: 117 - 140.
- Miller, G.C. 1996. 'The Worshipful Society of Apothecaries of London: Its Role in Naval Medicine and Penal Transportation', in J. Covacevich, J. Pearn, D. Case, I. Chapple & G. Phillips (eds) *History Heritage and Health, Proceedings of the Fourth Biennial Conference of the Australian Society of the History of Medicine*. Brisbane: Australian Society of the History of Medicine, 259 - 262.

- Morgan, R. 1977. *Sealed Bottles: Their History and Evolution, 1630 - 1930*. Burton-on-Trent: Midlands Antique Bottle Publishing.
- Mortlock, J.F. 1965. *Experiences of a Convict*. Sydney: Sydney University Press.
- Mortimer Young, A. 1994. *Antique Medicine Chests*. Brighton: Vernier Press.
- Morton, W. 1847. *Remarks on the Proper Mode of Administering Sulphuric Ether by Inhalation*. Boston: Dutton and Wentworth.
- Munro, P. 1980. 'Revitalising an Archaeological Past: A Museum Program for Children', *Curator* 23 (3): 175 - 181.
- Musgrave, A. 1955. 'James Stuart, artist, naturalist', *Australian Zoologist* 12: 120 - 26.
- Naylor, T. B. Rev.[1846] 1979. Report in *Norfolk Island: The Botany Bay of Botany Bay*. Hobart: Sullivans Cove.
- Nayton, G. 1992. 'Applying Frontier Theory to a Western Australian Site: The Problem of Chronological Control', *Australasian Historical Archaeology* 10: 75 - 91.
- Nicholas, S. 1988. 'The Care and Feeding of Convicts', in S. Nicholas (ed.) *Convict Workers: Reinterpreting Australia's Past*. Cambridge: Cambridge University Press, 180 - 198.
- Nicholas, S (ed.) 1988. *Convict Workers: Reinterpreting Australia's Past*. Cambridge: Cambridge University Press.
- Nobbs, R. 1988. 'Norfolk Island, 1788 - 1988, Recollecting 200 Years', *Magazine of the Royal Australian Historical Society* (October 1988): 5 - 7.
- Nobbs, R. (ed.) 1991. *Norfolk Island and its Second Settlement, 1825 - 1855*. Sydney: Library of Australian History.
- Noel-Hume, I. 1982. *A Guide to the Artifacts of Colonial America*. New York: Alfred A. Knopf.
- Nutton, V. & R. Porter (eds), *The History of Medical Education in Britain*. Amsterdam: Rodopi.
- O'Donnell, D. 1996. 'William Evans and the Newcastle Convict Hospital, 1811 - 1822', in J. Covacevich, J. Pearn, D. Case, I. Chapple & G. Phillips (eds) *History Heritage and Health, Proceedings of the Fourth Biennial Conference of the Australian Society of the History of Medicine*. Brisbane: Australian Society of the History of Medicine, 225 - 232.
- Olsen, S.J. 1963. 'Dating Early Plain Buttons by Their Form'. *American Antiquity* 28(4): 551 - 554.
- Oswald, A. 1975. 'Clay Pipes for the Archaeologist', *British Archaeological Reports*, British Series 14, Oxford.

- Park, R. and C. Emanuel. 1982. *Norfolk Island and Lord Howe Island*. Sydney: Serendip.
- Peacock, P. 1978. *Discovering Old Buttons*. Haverfordwest: C.I.Thomas and Sons.
- Pearce, S. 1990. *Archaeological Curatorship*. Leicester: Leicester University Press.
- Pearce, S. 1995. 'Structuring the Past: Exhibiting Archaeology', *Museum International* 47(1): 9 - 13.
- Pearn, J. H. 1996. 'Scorbuticus et Contusio: Medical Practice at the Macquarie Harbour Penal Settlement, Tasmania, Australia', in J. Covacevich, J. Pearn, D. Case, I. Chapple & G. Phillips (eds) *History Heritage and Health, Proceedings of the Fourth Biennial Conference of the Australian Society of the History of Medicine*. Brisbane: Australian Society of the History of Medicine, 83 - 87.
- Pearn, J., A. F. Petrie & G. M. Petrie. 1988. 'An Early Colonial Pharmacopoeia: A Drug List and its Materia Medica for an Australian Convict Settlement', *The Medical Journal of Australia* 149: 630 - 634.
- Pearson, M.P. 1995. 'Tombs and Territories: Material Culture and Multiple Interpretation', in Hodder, I., M. Shanks, A. Alexandri, V. Buchli, J. Carman, J. Last and G. Lucas (eds) 1995. *Interpreting Archaeology: Finding Meaning in the Past*. London: Routledge, 205 - 9.
- Pfeiffer, C. 1985. *The Art and Practice of Western Medicine in the Early Nineteenth Century*. London: McFarland and Co.
- Port Arthur Historic Site. 1984. 'Museum Catalogue. Trial version'. Hobart: Tasmania National Parks and Wildlife Service and the Education Department.
- Porter, R. 1996. *The Cambridge Illustrated History of Medicine*. Cambridge: Cambridge University Press.
- Richmond, R. 1983. 'Early Influences on the Development of Australian Hospitals', in J. Pearn and C. O'Carrigan (eds) *Australia's Quest for Colonial Health: Some Influences on early health and medicine in Australia*. Brisbane: Dept. Child Health, Royal Children's Hospital, Brisbane, 149 - 155.
- Roberts, D.G. & D. Barrett. 1988. 'Nightsoil Disposal Practices of the Nineteenth Century and the Origin of Artifacts in Plowzone Proveniences', *Historical Archaeology* 18(1): 108 - 115.
- Robertson, J. 1845. *Instructions for the Management of the Convict Hospitals*. Hobart: Advertiser Office.
- Robson, L. 1965. *The Convict Settlers of Australia: An Enquiry into the Origin and Character of the Convicts Transported to New South Wales and Van Diemen's Land, 1787 - 1852*. Melbourne: Melbourne University Press.

- Robson, L. 1988. 'The Convict Cargo Reinspected', *Bulletin of the Centre for Tasmanian Historical Studies* 2(1): 29 - 39.
- Scandrett, E. 1978. *Breeches and Bustles: An Illustrated History of Clothes Worn in Australia, 1788 - 1914*. Lilydale, Victoria: Pioneer Design Studio.
- Scott, B. 1996. 'Archaeology and National Identity: the Norwegian Example', *Scandinavian Studies* 68(3): 321 - 342.
- Shackel, P. 1993. *Personal Discipline and Material Culture: An Archaeology of Annapolis, Maryland, 1695 - 1870*. Knoxville: University of Tennessee Press.
- Shaw, A.G.L. 1953a. 'The British Criminal and Transportation', *Tasmanian Historical Research Association, Bulletin and Proceedings* 2(2): 29 - 33.
- Shaw, A.G.L. 1953b. 'The Origins of the Probation System in Van Diemen's Land', *Historical Studies* 6(21): 16 - 28.
- Shaw, A.G.L. 1966. *Convicts and the Colonies: A Study of Penal Transportation from Great Britain and Ireland to Australia and Other Parts of the British Empire*. London: Faber and Faber.
- Smith, F.B. 1996. 'Henry Rouse, A Man Born Into Trouble' in J. Covacevich, J. Pearn, D. Case, I. Chapple & G. Phillips (eds) *History Heritage and Health, Proceedings of the Fourth Biennial Conference of the Australian Society of the History of Medicine*. Brisbane: Australian Society of the History of Medicine, 417 - 421.
- South, S. 1997. 'Generalised Versus Literal Interpretation', in J.H. Jameson (ed.) *Presenting Archaeology to the Public*. London: Altamira Press, 54 - 62.
- Specht, J. 1984. *The Prehistoric Evidence of Norfolk Island*. Honolulu: Bernice P. Bishop Museum, Pacific Anthropological Records No. 34.
- Squire, P. 1867. *A Companion to the British Pharmacopoeia*. London: John Churchill and Sons.
- Stanbury, M. 1994. *HMS Sirius 1790: An Illustrated Catalogue of Artefacts recovered from the wreck site at Norfolk Island*. Australian Institute for Maritime Archaeology, Special Publication No. 7. Adelaide: The Australian Institute for Maritime Archaeology.
- Stanley, P. 1988. "A Horn to Put Your Powder in': Interpreting Artefacts of British Soldiers in Colonial Australia", *Journal of the Australian War Memorial* 13: 9 - 18.
- Starbuck, D.R. 1997. 'Military Hospitals on the Frontier of Colonial America'. *Expedition* 39(1): 33 - 45.
- Stewart, G.G. 1967. 'A History of the Medicinal Use of Tobacco, 1492 - 1860', *Medical History* 11: 228 - 268.

- Sullivan, S. 1996. 'Archaeology, Sites and Museums', in *Sites, Nailing the Debate: Archaeology and Interpretation in Museums*, Seminar 7 - 9 April, 1995. Sydney: Museum of Sydney on the Site of the First Government House, 45 - 64.
- Tassell, C. 1983. *Port Arthur Pottery*. Launceston: Queen Victoria Museum and Art Gallery.
- Taylor, K.C. 1994. 'Footwear Consumption in Nineteenth Century Detroit: A Case Study from the Beaubien Privy', *The Michigan Archaeologist* 40(3): 77 - 100.
- The Medical Directory for New South Wales and Queensland, 1860*. Sydney: Joseph Cook and Co.
- Tomasevic-Buck, T. 1985. 'A Roman Town and its Presentation to the Public', *Museum* 47(3): 127 - 135.
- Ullathorne, W.B. 1891. *Autobiography of Archbishop Ullathorne, with Extracts from his letters*. London: Burns and Oats.
- Vader, J. & B. Murray. 1975. *Antique Bottle Collecting in Australia*. Sydney: Ure Smith.
- Varman, R. 1997. 'Norfolk Island', Seminar to the Royal Australian Historical Society, Sydney, 1 February.
- Verson, M.L. 1950. 'A Medical Account of a Voyage on a Convict Vessel', *The Medical Journal of Australia* (1): 625 - 7.
- Walker, I.C. 1976. 'Alternative Uses for Clay Tobacco Pipes and Tobacco Pipe Fragments: Some Notes', *Historical Archaeology* 10: 124 - 127.
- Walker, I. 1983. 'Nineteenth Century Clay Tobacco Pipes in Canada', in P. Davey (ed.) *The Archaeology of the Clay Tobacco Pipe, VIII*. America. B.A.R. International Series 175: 1 - 88.
- Walker, R. 1984. *Under Fire: A History of Tobacco Smoking in Australia*. Melbourne: Melbourne University Press.
- Warren, D.J. 1994. *Old Medical and Dental Instruments*. Shire Album 308. Buckinghamshire: Shire Publications.
- Watson, J. F. 1911. *The History of the Sydney Hospital, 1811 - 1911*. Sydney: W.A. Gullick, Government Printer.
- Walsh, K. 1992. *The Representation of the Past: Museums and Heritage in the Post-Modern World*. London: Routledge.
- Weidenhofer, M. 1981. *Port Arthur: A Place of Misery*. Melbourne: Oxford University Press.

- Westamacott, K. 1986. 'Archival Report - Convict Clothing in New South Wales, 1788 - 1845'. Sydney: Historical Archaeology, University of Sydney.
- White, C. 1889. *Early Australian History: Convict Life in New South Wales and Van Diemen's Land, Parts I and II*. Bathurst: C & GS White, Free Press Office, 1889.
- Wilbur, C.K. 1987. *Antique Medical Instruments*. West Chester, Pennsylvania: Schiffer.
- Williams, G. 1987. *The Age of Miracles: Medicine and Surgery in the Nineteenth Century*. Chicago: Academy Chicago.
- Williams, L.M. 1996. 'Convict Life During Transportation', in J. Covacevich, J. Pearn, D. Case, I. Chapple & G. Phillips (eds) *History Heritage and Health, Proceedings of the Fourth Biennial Conference of the Australian Society of the History of Medicine*. Brisbane: Australian Society of the History of Medicine, 97 - 102.
- Williams, T. 1987. *The History of Invention*. New York: Facts on File.
- Wills, G. 1974. *English Glass Bottles, 1650 - 1950, for the Collector*. Edinburgh: John Bartholomew and Son.
- Wilson, G. 1983. 'The First Anaesthetics in Australia and the Men who Gave Them', in J. Pearn and C. O'Carrigan (eds) *Australia's Quest for Colonial Health: Some Influences on early health and medicine in Australia*. Brisbane: Dept. Child Health, Royal Children's Hospital, Brisbane, 75 - 84.
- Wilson, G. & M Davies. 1980. *Norfolk Island: Archaeological Survey of Kingston and Arthur's Vale Region*, Vols. 1 and 2. Canberra: Department of Housing and Construction of the Commonwealth Government.
- Wilson, G. & A. Kelly. 1987. *Preliminary Analysis of the Clay Tobacco Pipes from the First Government House Site, Sydney*. Sydney: Department of Planning.
- Winkworth, K. 1990. 'Hyde Park Barracks and the Material Culture of Convicts', Sydney: Unpublished report to the Historic Houses Trust of New South Wales.
- Winkworth, K. 1992. 'Norfolk Island Integrated Museums: A Report Discussing Issues, Problems and Opportunities for the Museums', Sydney: Report to Kingston and Arthur's Vale Historic Area Management Board.
- Wise, C.L. 1985. 'A Tale of Two Privies: Sources of Variability in Working Class Assemblages'. Boston: Paper presented at the annual meeting of the Society for Historical Archaeology.
- Wright, L. 1960. *Clean and Decent: The History of the Bath and Loo*. London: Routledge and Kegan Paul.
- Young, D. 1996. *Making Crime Pay: The Evolution of Convict Tourism in Tasmania*. Hobart: Tasmanian Historical Research Association.

Young, L. 1988. 'The Experience of Convictism: Five Pieces of Convict Clothing from Western Australia', *Costume* 22: 70 - 84.