

The Archaeology of the Convict System in Western Australia

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The convict era in Western Australia (1850 to 1868) represents the last phase of British Transportation, raising questions about how this final evolution of the philosophical and practical aspects of the system compares with earlier forms in eastern Australia and elsewhere. This paper considers the history and archaeology of Western Australian convictism and proposes a framework for study based on whether places were associated with the operation of the system (e.g. prisons and work camps), housed administrators or guards, or were the products of the system (public works). The preliminary survey suggests that despite some continuity with eastern Australia, this late stage had less focus on reform and greater interest in producing a dispersed labour force. It also identifies that widespread lack of recognition of historic and archaeological significance places the vast majority of convict sites places under risk of destruction.

INTRODUCTION

From 1788 to the 1830s, convict transportation played a major part in the economic and social life of the Australian colonies, as it did in other British settlements around the globe. However, by the 1840s many of these colonies were sufficiently well established that they could take the moral high ground and refuse convict transportation. Anti-transportation groups waged effective political campaigns that argued that the continuing threat of moral corruption presented by the convicts outweighed any possible economic benefits from their presence (Shaw 1977: 343–346). In contrast, Western Australia, which for the first 21 years of its existence had made much of its 'free' colony status (Ogle 1839: 39), began to actively promote itself as a potential convict outpost, with the first shipload of convicts arriving at Fremantle on 3 June 1850. In the following 18 years until 1868, nearly 9 700 men in bond, several thousand administrators, engineers, warders, Pensioner Guard and their wives and children were sent to Western Australia as part of the system.

Putting this into perspective for researchers interested in the convict experience, Western Australia was not only the last of the British convict colonies, but also accounted for 20 percent of the total convict period in Australia. Presumably this means that this is where we see the final evolution of the philosophies, practices and the kinds of buildings and works associated with British transportation, an area worthy of consideration equal to the opening phases. However, a quick review of the major works on convictism belies this. Shaw's (1977) *Convicts and the Colonies* deals with Western Australia in six pages out of 362 pages of text; Hughes' (1987) *The Fatal Shore* has eight pages of 603; and Kerr's (1984) *Design for Convicts* has slightly more than three pages of 172. There is still no comprehensive history of convictism in Western Australia and very little other than biographical studies (Hasluck 1959; Erikson 1983). Archaeological studies of the convict system in Western Australia have been similarly restrained, focusing on individual sites with limited reference or comparison to the wider system of which they were a part (Bavin 1990; Gibbs 1989, 1991, 1999; Gibbs & Lilley 1993; MacIlroy 1990). The question is therefore how to start this process of investigation in such a way as to facilitate inter- and intra-site comparison, not only within Western Australia, but also to the earlier places and systems elsewhere in the former British Empire.

This paper reports on the author's Australian Research Council funded project to develop a framework for the study of convict places in Western Australia. In practical terms, the investigation included a review of historical sources, the

development of a database of convict places (which will be discussed in a later paper), an archaeological survey of a sample of the identified convict places and an assessment of the extent of the total surviving archaeological resource. Despite keeping an eye towards future opportunities to address more sophisticated questions about convictism, the aim has been to try to understand some of the more fundamental aspects of the *structure* of the system and its physical expression, that is:

What were the 'convict places' of Western Australia and how did they relate to the operation of the system?

Where were they located?

What was the nature of these sites, the structures within and their layouts?

How many survive, either as standing structures or archaeological sites?

Some preliminary comments are also made on the comparison between Western Australian convict sites with those of eastern Australia.

THE CONVICT SYSTEM IN WESTERN AUSTRALIA

While it is obvious that British authorities of the mid-1800s had been seeking a new outlet for their penal system for some time (Shaw 1977: 326–334), it is less certain why the Western Australians belatedly decided to embrace convictism. The poor performance of the colony since its establishment in 1829, a major recession in the 1840s, spiralling labour costs and difficulties in developing transport infrastructure, probably all contributed to a greater or lesser extent (Statham 1981a, 1981b). Consequently, the acceptance of convicts seems to have hinged on achieving several major aims:

To make cheap labour available to settlers, overcoming the shortage and expense of free workers.

To attract the Imperial funding required to run the system, which would then flow to the free settlers through supply and service contracts with the convict establishment.

To achieve the completion of much-needed public works throughout the colony.

Two further demands were made by the colonists, regarding the character of the convicts to be sent. The first was that they be young, minor offenders from rural backgrounds, preferably with skills consistent with the labour needs of the colony. The second was that there would be no women transported to Western Australia. Subsequent research has shown that the initial intakes of men generally fitted the

preferred model, although by the end of the 1850s the highest proportion were older urban dwellers, committed for more serious crimes (Taylor 1981: 29). However, even if the settlers accepted this shift in the male convict population, further debate in the mid-1850s confirmed their continuing unwillingness to accept female convicts. It is probable that the perception that the convicts were of a 'better type' (Taylor 1981: 19), as well as the lack of women, impacted upon the physical form of the system.

As with earlier manifestations, the process of convict reform in Western Australia worked on the basis of progression through a series of stages resulting from good or bad conduct. However, this was tempered by the findings of the various commissions and inquiries into convictism in the other Australian colonies. In particular, the 'Separate' system was almost non-existent since much of this phase had been completed in England, and there was no equivalent to 'Assignment'. When convicts arrived in the colony, there was simply a short period of close observation and indoctrination spent within the walls of the Fremantle Depot (Willoughby 1865: 32). Once good behaviour was established, a form of probation would be granted which allowed a convict to work outside the prison under a warder's supervision. This was initially in gangs located within the environs of Fremantle and Perth, quarrying, filling swamps, burning lime, constructing public buildings, roads and jetties, or a multitude of other activities. However, a probationer might eventually be assigned to a road or work party located some distance from the main settlements (Erikson 1983: 1-9).

With continued good conduct, after a specified period a ticket-of-leave would be granted, allowing a man to be hired by settlers, or in special cases, to start his own business. However, to ensure a distribution of convicts throughout the colony, the ticket would be issued for employment within a certain district. If not hired immediately he would be assigned to further public works in that district, joining a road or works party, sometimes with probationers. If good behaviour continued a Conditional Pardon would be issued, effectively making him a free man, allowed to leave the colony but not permitted to return to England. At the completion of the sentence a Certificate of Freedom would be granted (Erikson 1983: 1-9)

Any misconduct would see a slide down the scale, with serious misdeeds resulting in a probation or ticket man's return to Fremantle and convict status. Recaptured escapees and recidivists could expect severe corporal punishment, weeks or months in the dark of a separate cell on bread and water, emerging only to be placed on the hard-labour chain gang, working on the roads near Fremantle (Anon 1866: 24). The most serious offenders were hanged.

Even from this brief explanation, it is obvious that the convict system in Western Australia was very physical in nature, with the progress of a convict through the reform process being mirrored by changes in the types of places developed to house and administer him. Similarly, the presence of convicts was marked by the construction of buildings and other public works, satisfying the demands of the colonists. Finally, this was paralleled by the development of offices, houses and facilities for the administrators who managed the system, the Royal Engineers, Sappers and Miners who designed and oversaw the public works, and the warders and guards who kept watch on the men.

While the Western Australian convict administration generated a formidable body of correspondence that provides a wealth of information about convict places, as usual it is by no means exhaustive, informative or accurate. As might be expected, major works in population centres are quite well represented in written description, plans and images.

Table 1. Framework of Convict Places in Western Australia

The system
<i>Fremantle Prison</i> (& associated offices, barracks, hospitals, commissariat, housing, etc).
Hiring Depots (& associated offices, barracks, hospital, prison, commissariat, housing, etc).
Road & Work Stations, Ticket-of-Leave Depots and Branch Establishments
Road camps & Work camps
Work places (e.g. quarries, sawpits, brick and lime kilns)
Housing for guards, engineers and administrators
Residences.
Barracks & Terrace Housing.
Pensioner Villages.
Public works
Public buildings,
Roads, bridges & culverts,
Jetties, river and sea walls,
Drainage and land filling.

However, the larger body of places outside of these centres, especially those of a semi-permanent or temporary nature, are only rarely identified and even more infrequently located or described. Considering this structure and records of what the Imperial administration considered to be convict works, our definition of 'convict places' in Western Australia falls broadly into three categories:

1. Places directly associated with the operation of the system, including places to house, punish, service or administer convict and ticket-of-leave men, as well as those managing them on-site. These places might be permanent, semi-permanent or temporary in nature.
2. Places used to house those assisting to administer the system or involved in overseeing the men. This includes the Pensioner Guard who acted as warders aboard ship and for a period once arrived at the colony.
3. Places, public buildings and public works created as a result of convict labour under the direction of the Royal Engineers and the administration of the Imperial convict system.

Within each of these categories are various site types, shown in Table 1. While not exhaustive, this creates a framework for investigating and comparing convict places associated with the system and the works done while the men remained directly under the control of its officers. Focussing on the system and its products also allows us to exclude an even larger body of sites and structures built with the assistance of convict labour between 1850 and the 1870s.

The following section characterises the nature and use of the types of sites within each of the categories outlined above. It also presents some of the results of the preliminary archaeological survey, carried out over a two-week period in January 2000. The survey attempted to locate the major convict sites (convict depots, road stations, Pensioner Guard villages) identified through the historical research, as well as a sample of minor sites (road camps, work places) and public works. The following discussion can only briefly mention aspects of site visibility and archaeological potential, although more detailed information on individual sites will be presented in future papers.

A SURVEY OF CONVICT PLACES

The System

Fremantle Convict Depot (Fremantle Prison)

The Fremantle Convict Depot complex, originally covering an area of 39 acres (15.8 hectares) near to the main port of the colony, played several roles in the operation of the Western

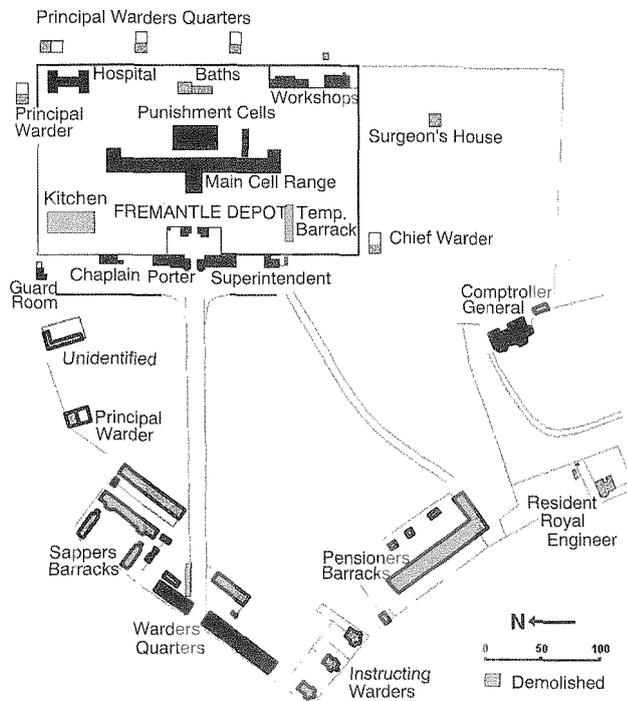


Figure 1. Fremantle Convict Depot Complex c.1860 (based on Public Works Department (WA) Plan 105).

Australian convict system (Fig. 1). The first was to receive and house new arrivals during their period of close observation and instruction, hence its popular title amongst convicts of 'The College' (Willoughby 1865: 32). The second was providing long-term imprisonment and severe punishment to failed escapees, repeat offenders and those who committed more serious crimes. Finally, 'the Establishment', as it was commonly known during the convict period, also housed the main Imperial convict administration and workshops (Kerr 1998).

Constructed between 1852 and 1857 to replace temporary depot facilities in a rented warehouse, Fremantle was designed by the Royal Engineers along similar lines to the Pentonville model prison. However, it was always intended to function as a public-works prison and convict-distribution depot without the brutal 'separate' system such as employed at Pentonville

Table 2. Archaeological Potential of the main Convict Hiring Depot Sites.

Location	Standing Structures	Archaeological Potential
Albany	Commissariat	Moderate – some areas preserved.
Bunbury	None	Limited – further investigation required.
Guildford	Commissariat	Moderate – some development.
Lynton	magistrates qtrs & several standing walls (barracks, cells)	High – limited disturbance.
Mt Eliza, Perth	None	Moderate, although site is also an Aboriginal sacred site.
North Fremantle	None	Limited – further investigation required.
Toodyay	None	High – large portions of site undeveloped.
York	None	High – no development on site

and Port Arthur (Kerr 1984: 165, 1988: 65). The structures of the prison are physically imposing and must have been more so in the 1850s when they were by far the largest buildings in the colony. The main cell range was constructed four stories high of stone quarried on-site (Fig. 2), with a variety of workshops, offices, quarters and associated facilities also contained within the 12 acre (4.8 hectare) area surrounded by the 15 foot (4.5 m) prison walls. The larger area outside the walls included housing for the Warders, Pensioner Guard, Sappers and Miners, Royal Engineers and senior administrators, as well as parade grounds, gardens and other facilities (Fig. 1). Some of these features will be discussed further below.

In 1886 the depot and associated buildings were handed over to colonial authorities and used continuously as the major prison for Western Australia until the closure of the complex

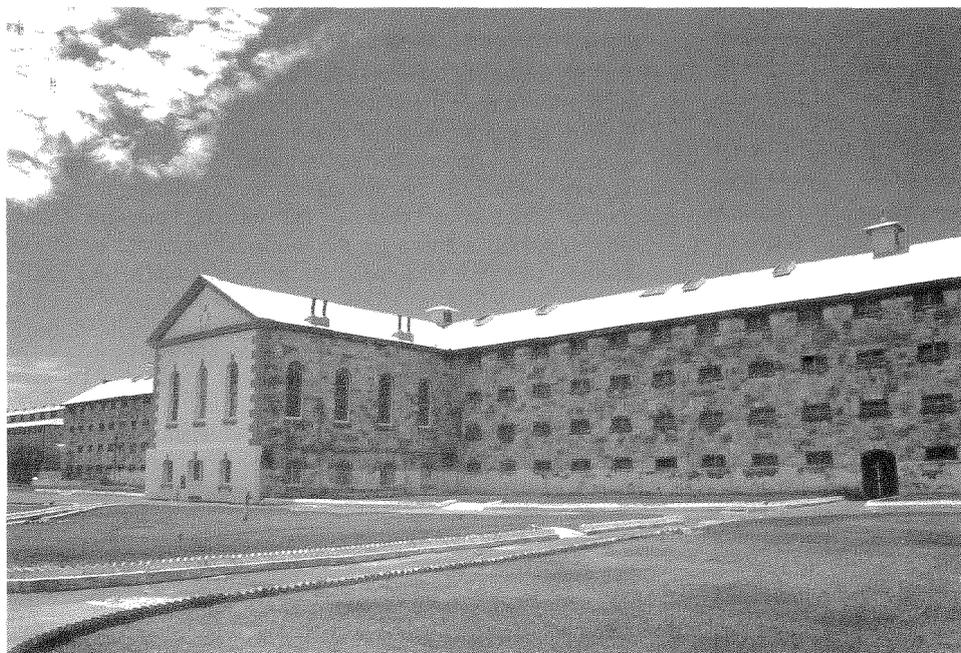


Figure 2. The Fremantle Convict Depot Main Cell Range (M. Gibbs 2000).

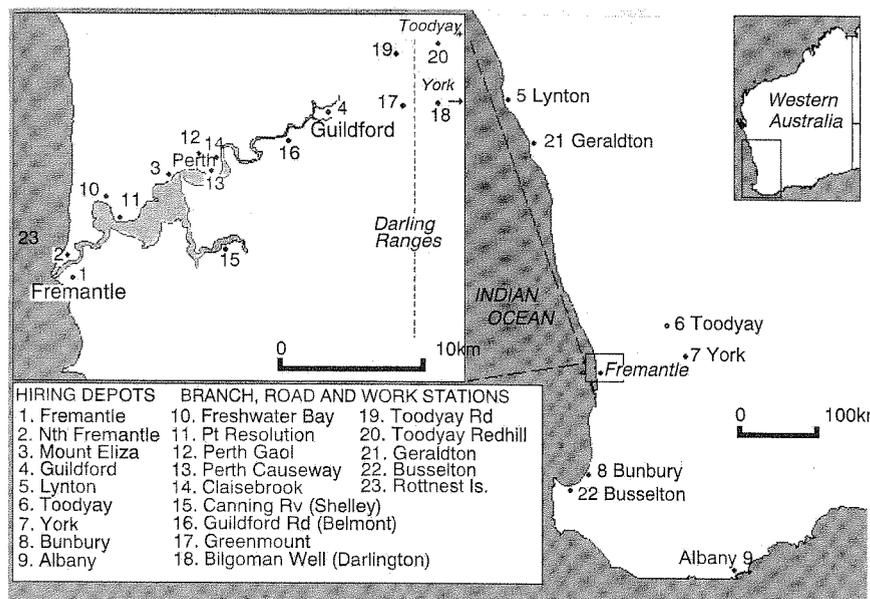


Figure 3. Convict Hiring Depots, Road Stations and Work Stations.

in 1991 (Kerr 1998: 4). Consequently, the core of the Fremantle Depot, now commonly known as Fremantle Prison, has remained remarkably intact, although many of the places that originally surrounded it have been altered or demolished (shown in grey in Fig. 1). A number of archaeological investigations have taken place within and beyond the walls (e.g. Bavin 1990; McIlroy 1990a, 1990b) and the main buildings and a number of associated places (discussed below) are now managed as heritage sites.

Hiring depots

For the first half of the 1850s the Imperial authorities pursued a regional convict hiring system which saw ticket-of-leave men sent out to the various districts of the colony and made available for private employ. In an attempt to fulfill the original agreements which saw the colonial government accede to Transportation, the system theoretically provided the settlers in country regions the greatest opportunity to hire ticket-of-leave labour. The men assigned to the depot who had not achieved private employ would be assigned to whatever public works were being carried out, usually as part of a ticket-of-leave 'gang' (Erikson 1983: 5). The system also ensured that convicts were not concentrated in any one vicinity, especially Perth and Fremantle, thus reducing the potential for organised rebellion.

The operation of the regional system saw the construction of Convict Hiring Depots in or adjacent to the major population centres of the colony (Fig. 3). The depots were intended to serve as district administrative centres from which the ticket-of-leave men could be engaged or to which they could be returned in case of sickness or misbehaviour. They also provided a base for the Royal Engineers supervising the local public works being carried out by the probation and ticket parties, as well as a storehouse for equipment and supplies. The depots did not have a standardised layout, with comparison of the historic plans suggesting that they were arranged as dictated by the nature of the land boundaries and the topography of the site. However, they did contain similar components. The heart of each complex was the sleeping barracks for the ticket-of-leave men, capable of housing between 60 and 120 men in hammocks, as well as a cookhouse/bakery, hospital and a small range of cells for the punishment of minor offenders. There were also offices and quarters for the Officers, guards and sappers attached to the depot, as well as a commissariat store that also stored or supplied materials for the public works being undertaken in the district.

An area that needs further historical and archaeological investigation is the nature of the structures within the depots. Most depots appear to have passed through several phases of construction, starting with temporary tents, huts or prefabricated wooden structures. These were progressively replaced by substantial structures of brick or stone, suggesting that the depots, or at least the infrastructure, were intended to last for the long-term. Unfortunately, there are few surviving floor plans, elevations or drawings of individual buildings, although what evidence we have suggests some similarities in design. Another important consideration is that the hiring depots were not designed or used as a form of mini-prison. On the few plans that survive there is no evidence of enclosing walls, guard posts or observation points. An 1863 description of the York depot illustrates the open nature of these sites:

No one would have supposed from the exterior of our convict depot at Bardalong [York], that its inmates were under any sort of restraint, and, contrary to ordinary precedent in Government work, the architect appeared to have been strongly imbued with the idea of saving space and husbanding brick and mortar. Low white railings surrounded the enclosure instead of high spiked walls, and an out-house that looked like a large

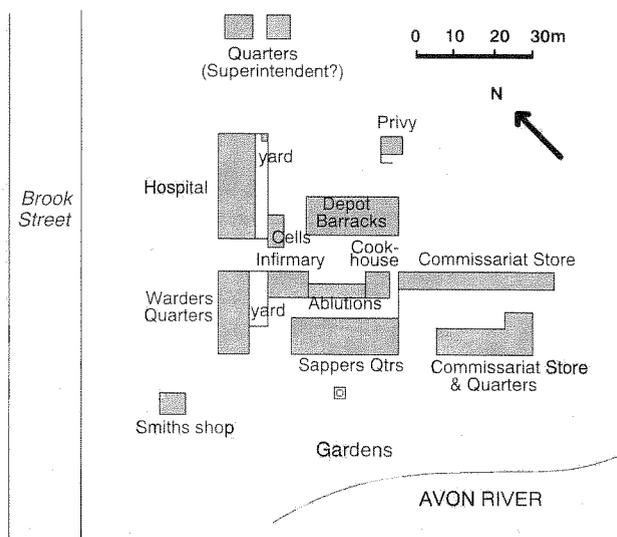


Figure 4. York Convict Hiring Depot 1857 (based on Battye Library Acc. 1067C, MPG 722).

coach-house, and which stood open in the day, was the convicts' common hall and dormitory. The warders' quarters were as miserably cramped as if the bit of desert on which they stood had been rated at a London ground-rent, and the discovery that a district hospital was wanted had resulted in the appropriation for that purpose of an old kitchen, in which apartment both bond and free alike received benefit, but in less degree than would have been conferred upon them by larger space and better ventilation. The depot bell, however, was a public boon without alloy. It swung from a tall slender gallows in the middle of the white-railed yard, and being rung several times a day at stated hours, was as good as a church clock to those who heard it, few of whom had any other way of reckoning time. (Millett 1980: 72)

An 1857 plan (Fig. 4) shows the layout of the York Hiring Depot. These buildings were mostly brick structures built on stone foundations, with shingle roofs. The hospital, Warders Quarters and Sappers Quarters are also shown as having verandahs. A report from the Royal Engineers in 1863, the same year as Millett's description, confirms the nature of the depot, describing it as consisting of:

A depot for 120 men, quarters for six warders (three of these are at present used by the police), cook-house, hospital, commissariat store, quarters, stables, forage-room, harness-room, together with the necessary out-buildings, have been erected; also superintendent's quarter similar to those at Guildford (now occupied by the medical officer). The whole enclosed by a post and rail fence. (Royal Engineer Office 1863)

The regional hiring system proved relatively unsuccessful, since insufficient men, often with inappropriate skills, were being sent to the country districts. There was also great tension between the demands of the private settlers and the assignment of ticket-of-leave men to public works, a situation that pleased neither convict nor colonist. As more employers began to engage men directly from Fremantle, the expensive and inefficient regional system was ended and the depots closed between 1855 and 1856. However, most reopened soon afterwards as 'Branch Establishments', continuing to act as administrative centres and housing for work parties (see below). The exceptions were North Fremantle, which became a convict invalid station, while Lynton depot (Port Gregory) closed permanently as a result of the new Midwest population centres developing some distance southwards at Geraldton and Greenough (Gibbs & Lilley 1993).

The historical record is sufficiently detailed that the sites of the major depots are relatively easy to find, although very little remains visible on the surface. After the end of the convict era most of the convict sites and buildings were transferred to the Colonial Government, where they continued to serve the developing towns. Over time and as recently as the 1980s convict depot structures were demolished as they became redundant or fell into poor repair (Considine & Griffiths 1993). The only depot buildings still standing are the former commissariat stores of the Guildford and Albany depots, although it is possible that other structural elements, much altered, might still survive at these and the other depot sites. The Lynton depot, situated in a remote location and sold into private ownership soon after its closure in 1856, is the most exceptional site surveyed. While the various buildings only survive as low foundations or partially standing walls, the site preserves the layout of the original depot with little or no modification or intrusion (Gibbs & Lilley 1993).

There is undoubtedly archaeological potential for subsurface artefact and structural remains at most of the depot sites, many of which often remain at least partially on State or

Local Government land (see Table 2). The exception is the site of the Bunbury depot, which has already been completely destroyed by a modern shopping-centre development. Unfortunately, the continued sale, subdivision and redevelopment of Government lands and assets, inevitably without prior heritage investigation, threaten their survival.

Although the nine main hiring-depot sites were the focus of the investigation, it became clear that many of the depots were originally housed in rented premises, or moved location before their final establishment in the sites surveyed. For instance, Fremantle depot was originally situated in Daniel Scott's warehouse close to the landing in South Bay, while the Mount Eliza men slept in a nearby Steam Mill while constructing their new quarters. Toodyay depot was established within the original Toodyay town site, but later moved several kilometres to the new settlement at nearby Newcastle (later renamed Toodyay). Similarly, North Fremantle depot appears to have been moved (half a kilometre) northwards to a better position along the Perth Road, while Port Gregory (Lynton) was essentially replaced by the Geraldton depot. Unfortunately, the location of most these original sites proved difficult to determine and it was not possible to include them in the archaeological survey. Consequently, the number of potential 'hiring depot' sites is larger than anticipated and requires further research.

Road stations, work stations, ticket-of-leave depots and branch establishments

While the hiring depots formed the core of the regional administration, they were complemented by a number of semi-permanent road or work stations, established along major routes and at work places in positions which were too far from the nearest depot to make daily travel practical (Fig. 3). In the first years of the 1850s there were only four major road stations, situated on the Perth-Fremantle road, the Perth-Guildford road, and one each at the foot of the Darling Ranges where the roads from Guildford to the inland settlements of York and Toodyay began their ascents. These camps seem to have been occupied only when a work gang was required in the area, although the constant need for maintenance of these major routes ensured regular use. Several smaller permanent work stations were also constructed in this period, such as at the quarry at Point Resolution (Dalkeith), which provided limestone for the new public buildings being constructed in Perth (Hope 1968: 21).

While not as large as the depots, these stations were equipped with barracks capable of housing as many as 60 men, huts for warders and sappers, plus cookhouses and smaller outbuildings for storerooms and privies (Royal Engineers Office 1863). Construction varied from prefabricated timber buildings, to slab huts or rammed earth or stone, depending upon what was available (e.g. Gibbs et al. 1995). A contemporary sketch of the Greenmount station drawn by a young Royal Engineer (Hasluck 1959: 96) suggests that, like the depots, the road stations were simple collections of buildings to house the convict workmen. The work stations appear to have been even smaller, with Point Resolution appearing to consist of a small stone barracks for a dozen or so men, and a stone cottage for their guard (Hope 1968: 21).

After the closure of the hiring depots, most of the existing road and work stations were also given status as 'Branch Establishments' and 'Ticket-of-Leave Depots'. Several new permanent stations were also developed in new areas such as Champion Bay (Geraldton), Vasse (Busselton) and Claisebrook (Perth; Comptroller General 1865: 375, *Perth Gazette* 18/8/1854, *Inquirer* 13/12/1854 and 14/4/1854). However, less is known of the nature of these later depots. In 1858 the Perth Gaol was transferred to Imperial control for use

as a convict depot, with the colonial prisoners formerly housed there being shifted to the Fremantle Depot (Browne 1982: 9). As with the hiring depots, these sites reverted to the Colonial government in the late 1870s and 1880s after the cessation of transportation and winding down of convict works.

It has so far proved quite difficult to firmly identify the original locations or archaeological remains of many of the stations and ticket-of-leave depots. Investigations of the Freshwater Bay station have shown that nothing remains standing above ground, although archaeological excavations at the site, now behind the Claremont Police Station, indicate that some traces survive below the surface of the car park which now covers it (Gibbs 1989). The site of the Point Resolution quarry camp can still be found below the limestone cliffs, although the ruins of the buildings which were still visible in about 1900 can no longer be seen (Battye Library Photo Collection Accession No. 5549 B/36). Foundations may still exist beneath the sand and rubble that now covers the area. A section of the depot lockup survives at Geraldton, although as late as the 1980s a decision was made to demolish the original convict hospital in favour of creating a car park (Considine & Griffiths 1993). Claisebrook has been completely redeveloped and any potential for further investigation eliminated (Gibbs 1992). Further historical and archaeological research is required to pinpoint the former location of other sites.

Road camps and work camps

Public Works parties of probation or ticket-of-leave men frequently worked well beyond the boundaries of the few towns, mostly creating and maintaining the tenuous road network that linked the settlements. The majority of these gangs consisted of between 20 and 50 men, who were considered to pose such limited risk that they were usually guarded by two and sometimes only one warder, sometimes assisted by a convict constable (Henderson 1863: 497). This lack of formal supervision may lend weight to Kimberly's assertion that 'In some cases the warder drew a circular line around the camp beyond which the convicts must not go after certain hours' (Kimberley 1897: 171). For periods of less than three months a road or work party might stay 'under canvas', with five or six men per tent (Kennedy 1863: 205). However, if remaining for as much as twelve months a more substantial series of brushwood or slab huts would be constructed, while there are also reports of the construction of portable wooden houses and barracks (Comptroller General 1852: 491). However, there is no evidence for construction of stockades or restrictive fencing. Although the facilities provided were rudimentary, most accounts by convicts, travellers and officials alike agree that life on the road parties could be relatively pleasant (Anon 1866: 22; Erikson 1983: 132).

The short-term and ephemeral nature of these camps underlies the difficulties in locating and positively identifying associated archaeological sites. Historical descriptions of their locations are usually imprecise, although in some instances we can associate the camps with known wayside wells, water sources, river crossings or other features. Many of the encampments were situated close to the roads that the men were building, so that inevitably, as these roads have widened into highways, they have expanded over any remains (Gibbs et al. 1995). However, on the edges of some country roads and particularly on superseded alignments it may still be possible to find the low chimneys that might be the remains of these camps. Archaeological survey along the length of the York Road has shown that traces of early road camps still survive at several sites known to have been used by convicts, such as Bilgoman Well, Chauncey's Spring and Manyeuring Spring (Smith 1992). However, it remains to be seen if these can be firmly associated with the convict system.

Work places

With the exception of ironwork, most of the raw materials and building resources used by convicts in public-works construction and building activities were extracted or manufactured by work parties. There are numerous documentary references to convicts quarrying stone, sawing timber, burning lime, digging clay, and preparing and firing bricks. However, only a limited number of these work places and processing sites can be identified archaeologically.

Quarries are the most archaeologically visible work sites, although many continued to be worked beyond the convict period. Other types of work site have been far harder to identify, although there are rare examples which appear to be associated with convicts such as the limekilns at Lynton depot (Gibbs & Lilley 1993), sawpits near Mahogany Creek and traces of a brick kiln at Chauncey's Spring on the York Road (Smith 1992). Further investigation on the nature of the building materials is also necessary, particularly convict brick-making throughout the colony. Sample measurements from several sites are suggestive of a standard size of approximately 9.0 by 4.25 by 2.75 inches (230 x 110 x 70 mm).

Housing for Guards, Engineers and Administrators

Residences

Separate residences were built within the close proximity of the Fremantle Depot for the senior members of the Convict Department. The 1858 plan of the complex shows houses for the Chief Warder, the several Principal Warders, the Assistant Chaplain, Surgeon, Superintendent and other officials constructed near to the depot (Fig. 1). Slightly further away, on what is now South Terrace, were several more houses for Instructing Warders, as well as the somewhat larger house for the Resident Royal Engineer (Reece & Pascoe 1983: 32; Campbell 1975: 33). Most imposing was the 'The Knowle', built for the Comptroller General of Convicts in a position which provided it with sweeping views across the town and out to sea. When Comptroller Henderson departed the colony in 1867 the building was adapted for use as the convict invalid depot and asylum (Kerr 1998: 29).

With the end of transportation, most of the Fremantle residences were handed over to the colonial authorities and re-used for the prison staff. However, over time a large number have been demolished, so that only those buildings that form the frontage of the prison have been retained. Archaeological investigation along Knutsford Street and Hampton Road has shown that the foundations of the Principal Warders' cottages can be found below the current ground surface (MacIlroy 1990a, 1990b), although the sites of the Instructing Warders' cottages and the Engineer's house along South Terrace have been destroyed (Campbell 1975: 33). The Knowle also survives in a modified form as part of the Fremantle Hospital complex (Kerr 1998: 32).

While most of the country depots also included quarters for their superintendent, warders, resident engineers and sappers, these structures were usually within the boundaries of the depot sites and modest in design. At this time it appears that the former commissariat buildings at Albany and Guildford, which both originally contained quarters, are the only standing structures of this type, although there are archaeological remains such as at Lynton (Gibbs & Lilley 1993).

Barracks and terrace housing

Terrace housing was constructed near to the Fremantle Depot for married and single warders and sappers. The three terraces of the Warders Quarters, situated along what is now Henderson Street, continued their original use until 1989 and

have retained their original character. The Sappers' Barracks were demolished in the late-nineteenth century (Campbell 1975: 33), although there is a high probability that archaeological remains survive beneath or in the grounds of the 1890–1903 courthouse and police complex which replaced them.

The Pensioners were retired soldiers who received passage to the colony and a grant of land, a cottage and other benefits in return for acting as guards aboard the convict vessels (Broomhall 1989: 2–3). Part of the agreement was that they remained on duty until the next convict ship arrived, meaning that they had to be housed near the Fremantle Depot. Although originally located in leased premises at Bathers Bay, a new barracks was completed in 1854 along what is now South Terrace (Commandant's Office 1851: 201; Reece & Pascoe 1983: 32; Public Works Department, WA, plan 1484). The barracks contained a series of two-roomed apartments for married men, as well as accommodation for single men. These structures continued in use as a military hostel until after World War II, when they were demolished (Campbell 1975: 33). It is unlikely that any remains survive beneath the later structures on the site.

Pensioner barracks are mentioned for several of the country regions, presumably housing the men and their families while their cottages were prepared. In some instances these were existing buildings leased for a short period, although Champion Bay was one station where prefabricated timber barracks were specially prepared in Fremantle and sent northward (Comptroller General 1857: 53). Later it was replaced by a substantial structure that was re-used after the removal of the Pensioners and their families as the Geraldton Council Chambers (Bain 1996: 292). Although this and most other regional barracks have long since been demolished, the building used as a barracks for the Kojonup Pensioners, although not originally constructed for that purpose, still survives (Bignell 1971: 65–66).

The largest and most impressive Pensioner Barracks was constructed in Perth between 1863 and 1867 on the elevated ground at the head of St George's Terrace (Broomhall 1989: 112–117). Capable of housing 60 families, the building included a military hospital, magazine, workshops and outbuildings, guardrooms and cells (Knight 1870: 29). The

large brick building housed the Pensioners and many of their widows until nearly the turn of the century, when it was taken over as offices for the Public Works Department. Both wings were demolished in 1966, with the decorative, brick entry-arch saved only after a public outcry. Deep excavations for the Mitchell Freeway removed any archaeological potential for the site.

Pensioner villages

In addition to their initial guard duties aboard ship and when first arrived in the colony, the military pensioners were expected to spend seven years or more in the Enrolled Pensioner Force, a reserve civil defence group which presumably would reduce the threat of a convict uprising. Consequently, while the men were entitled to a free grant of approximately 10 acres (4 hectares) and assistance in constructing a cottage, the government made sure that these grants were strategically located close to the depots and other centres of convict activity (Broomhall 1989: 17–23). The Pensioner grants were clustered into what were essentially small villages, partially modelled on the 'fencible' villages developed for soldier-settlers in New Zealand (Kennedy 1863: 194; La Roche 1997). Some of these men continued in service as warders or other officials in the local convict depot or station, while the remainder attempted to become settlers, except for their 12 days of paid duty per year.

The Pensioner villages were largely unsuccessful, either because the men were unwilling to take up the grants in remote locations, or because the small blocks and generally poor land-fertility made it impossible to make a living. Fig. 5 shows the locations of the known villages, although further research is required to determine how many pensioners were actually at each. Some of the villages such as North Fremantle ('Brucetown') and Greenough originally had more than two dozen cottages, while others such as West Guildford (Bassendean) had as few as four cottages actually constructed, despite the large number of grants (Gibbs 1991). Detachments of pensioners were also sent to the new northern settlements such as Roebuck Bay and the ill-fated Camden Harbour. However, details of their activities are vague and only the latter appears to have included families and an attempt to establish a village (Broomhall 1989: 89, 100).

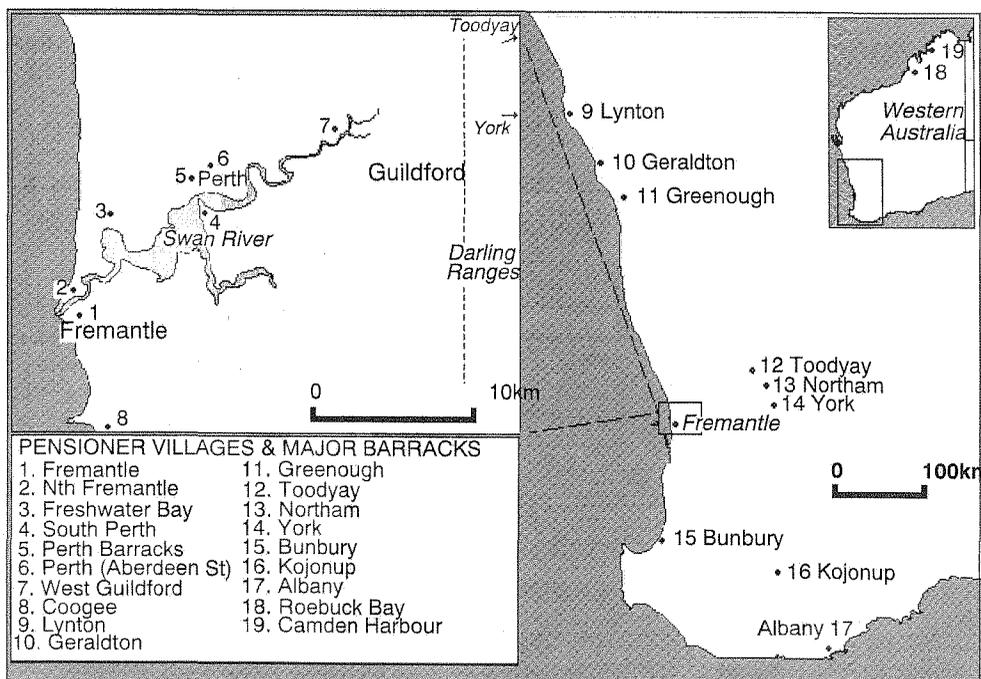


Figure 5. Pensioner Guard Villages.



Figure 6. West Guildford (Bassendean)
Pensioner Guard Cottage (M. Gibbs 2000).

The Pensioner cottages, built by probation or ticket labour under the direction of the engineers or sappers, were constructed of stone, brick or rammed earth, with two rooms and one chimney (Comptroller General 1854: 218). While there are many similarities between all of the surviving buildings, there does not appear to have been a standard design. Essentially, they were a version of an English labourer's cottage, with an outer room that included the external door and fireplace, as well as an inner room. Several of the surviving structures have later been expanded into three rooms.

Very few Pensioner cottages have survived in each of the original villages. Of the settlements close to Perth and Fremantle, no structures can be located at Freshwater Bay, Perth or South Perth, while a single cottage is preserved at West Guildford (Fig. 6; Gibbs 1991). It is possible that several modified cottages survive in North Fremantle but have not been firmly identified. The Coogee settlement is preserved in a series of foundations and a single standing ruin lining the lake's edge. Several cottages survive in each of the country areas, although often altered in varying ways. The Lynton Pensioner village, abandoned when the depot moved to Geraldton, survives as a distinct series of foundations along the edge of the Hutt Lagoon (Gibbs 1999).

Public works

Roads, bridges and culverts

One of the most important contributions of the convict labour force was the construction of a network of roads connecting the settlements throughout south-west Western Australia. The re-survey and clearance of what had previously been a series of rough bush tracks, together with the creation of hundreds of minor and major culverts and bridges, finally allowed a reasonable flow of traffic and produce. Although the majority of roads were simply cleared of vegetation with some minor quarrying, filling and drainage, more substantial foundations were constructed in urban areas. Documentary sources include guidelines for standardised stone roads, 18 feet (5.5 m) wide and 18 inches (46 cm) deep, with bordering ditches (Public Works Department, WA plans 249, 383). Circular sections from sawn tree trunks, referred to in some accounts as 'Hampton's Cheeses', were also used on the main route from Perth to Fremantle (Briggs 1917: 13). While it is not possible to determine the total extent of the road system constructed by convicts, an 1870 estimate placed it at over 1 100 miles (1 771 km) (Knight 1870: 30).

While many of the major modern highways in metropolitan Perth and between towns in south-west Western Australia still follow these routes, it is difficult to assess whether any physical trace of the convict presence survives beneath or adjacent to the modern road foundations. It has not been possible to examine the cross-section of a firmly identified convict road, although the survey did locate several remnants of former road alignments in country areas that might date to the convict era. At least one abandoned alignment of the Guildford to York Road retains the 18-foot width, cobbled surface and parallel drainage ditches very similar to the historical guidelines described above.

There are a number of detailed design drawings by the Royal Engineers of the bridges constructed by convict labour, ranging from small single spans to extensive multiple span structures. The majority was built of timber, although several larger bridges in the timber-poor Midwest region were of stone. While it is impossible to determine precise figures for the whole convict era, the 1870 census reports that at least 17 of the 44 major bridges constructed in the period between 1860 and 1870 were convict-built (Knight 1870: 31). One of the most impressive engineering feats was the 954 feet (291 m) 'Bridge of Sticks' (sometimes 'Styx') constructed across the Swan River at North Fremantle and officially opened in November 1866 (Battye Library Research Note 91; Fig. 7). An unknown number of smaller bridges and many hundreds of culverts were also constructed across the numerous creeks and gullies crossed by the new roads (Royal Engineer Office 1863: 562).

While there are several surviving timber and stone bridges that might date from the correct period and [were built with] used convict labour, none appear to have been designed or overseen by the Royal Engineers, disqualifying them as 'convict places' given my current definition (Institution of Engineers 1998). However, the survey identified a number of sites where the timber footings of early bridges, possibly those of the convict period, are visible in the banks and shallow water.

Jetties, river and sea walls

With no overland connection to the other colonies and difficult land routes between the settlements, ocean—and to a lesser extent river—trade was vital. Substantial ocean and river jetties were constructed, as was a variety of sea and river walls, groins and breakwaters to attempt to manage the channels that had been dredged (Comptroller General 1854b: 476–480; Royal



Figure 7. Fremantle Bridge, 1867 (*Illustrated London News*, 29 February 1868).

Engineer Office 1856: 111–115). The Western Australia Maritime Museum has identified the sites and remains of a number of early jetty structures, although limited work has been done to determine the extent to which earlier works are preserved beneath later structures and fills. The most interesting survival is the wooden barrier constructed in the Canning River in the late 1860s, built to facilitate the passage of timber barges from Mason's Landing. This fence-like structure, consisting of wattling (woven branches) between large stakes, was built in at least two sections over several kilometres and was probably intended to concentrate the water flow to keep the channel open, rather than holding back dredged sediments (Hutchison and Davidson 1979). The line of the barrier is still clearly visible in the river.

Table 3. Public Buildings built by convict labour

Town	Buildings constructed
Albany	Lighthouses & quarters – Breaksea Island and Point King Public Offices – Courthouse, post office, & bond store. Police Station & Gaol.
Bunbury	Bond Store Courthouse Police Quarters & gaol
Champion Bay (Geraldton)	Police Buildings & Residences Lighthouse (not completed)
Fremantle	Boys' School Commissariat & Bond store Lunatic Asylum Powder Magazine & Guard Room Water Police Quarters & Boathouse Police Barracks
Guildford	Courthouse & bond store Police station
Perth	Abattoir (Claisebrook) Boys' School Colonial Hospital Government House & stables Police Buildings Colonial Gaol Poor House Town Hall
Rottneisl.	Governor's residence Pilot's Quarters
Toodyay	Police station & gaol
York	Police Station & gaol
Other	Numerous police stations throughout the colony, including at Arthur River (Albany Rd), Bannister, Baylup, Beaufort River Bridge, Gordon River, Kelmscott, Kojonup, Mandurah, Mt Barker, The Lakes (York Road), 36 Mile (Albany Rd), etc.

Drainage and land filling

A large number of swamps in and around the various settlements were drained or filled by convict labour (Comptroller General 1854). The most complex of these was the series of timber or brick drains used to eliminate the extensive swamps and lakes behind Perth and create areas for market gardens (Le Page 1986: 67, *Perth Gazette* 18/8/1854). Although none of these earlier drainage systems has been identified or examined, it is possible that some are still in place.

Public buildings

Essential government buildings were constructed by ticket-of-leave labour in most of the settlements of the colony. Most common were the police stations and lockups, housing the regular police force that had been created in response to the introduction of convicts into rural areas (Trinca 1997: 27). Courthouses and small colonial jails were developed in the larger towns, while bond stores were constructed in the coastal areas in an attempt to control smuggling. Several lighthouses were also built near the major ports at Fremantle, Albany and Geraldton to assist in navigation along what could be a hazardous coastline.

In Perth and Fremantle a series of more elaborate public buildings was erected, including residences for the Governor at Perth and on Rottneisl, and a town hall. The Colonial and Imperial architects explored a range of styles, ranging from the formal classical style of the Colonial Hospital in Perth, to the simple Georgian façade of the Perth Gaol and the Jacobean residence for the Governor (Campbell 1979; Molyneux 1981). In some instances these designs can be traced to pattern books (Beasley 1979: 197). A number of major buildings including the Perth Town Hall, Fremantle Asylum and Perth Boys School were also built in Gothic Revival style. In the 1850s this architectural form was closely linked with notions of inculcating high morality upon those who beheld it, which possibly can be seen as a reaction to the convict presence in the colony (Stannage 1979: 135). Table 3 provides a preliminary listing of public buildings constructed by convict labour, omitting many minor structures as well as extensions and repairs to existing buildings.

In contrast to most of the other forms of public works, many of the major public buildings constructed by convict labour have survived. In many cases these buildings have been modified, extended or given new functions, although the original convict components can often be located without great difficulty. The large and solidly built brick and stone structures in Perth and Fremantle are still important parts of the townscape. However, most of the smaller police stations and minor structures have been lost, although there is still the potential to recover archaeological remains at some sites.

DISCUSSION: THE CONVICT SYSTEM IN WESTERN AUSTRALIA

The questions originally posed in this study were oriented towards understanding the structure of the convict system in Western Australia and in particular its physical expressions. The purpose of this was to create a framework that not only organises and explains the historical and archaeological evidence of convict places but also identifies further questions and avenues for research as well as the archaeological resource available for investigation.

Further historical research is required on both the documentary and archaeological evidence of convictism in Western Australia, and as such, a lengthy comparison with other Australian convict systems and places would be premature. However, on the basis of this overview study some

preliminary statements can be made. There can be little doubt that the convict system that operated in Western Australia had evolved from the earlier forms seen in eastern Australian colonies. Nevertheless, it was by no means conceptually or physically a simple, direct continuation of these systems. In particular, in Western Australia there appears to have been a considerable softening of the disciplinary and reform processes. As Hughes (1987: 578) notes, the lash 'was part of the discipline here, but not its basis'. In part this may be because the custodial component of most convicts' sentences had been completed by the time that they arrived. The almost immediate transition to probation or ticket-of-leave status negated the need for the strict control of the earlier stages of reform. Consequently, the buildings and works that were involved with the operation of the system were largely aimed towards ensuring distribution of labour and the completion of public works.

The design of the Fremantle Depot cell range exhibits the most obvious continuities and influences from the penal philosophies then-current in the United Kingdom, as well as the sorts of convict housing structures seen in the eastern colonies. However, it was only repeat offenders who suffered the full impact of the solitary cell and the chain gang, with Fremantle fulfilling a role as the place of secondary punishment. For the majority of the occupants, who were either recent arrivals or in the probationary phase, the cell range essentially functioned as a barracks with only low-key surveillance (Anon 1866: 504). Similarly, there is no evidence that the regional Hiring Depots, Branch Establishments and other probation and ticket-of-leave stations and camps in Western Australia significantly borrowed either their design or operation from the earlier work gangs of New South Wales or Tasmania (cf. Kerr 1984; Karskens 1984; Brand 1990). The Western Australian sites were smaller, less formally designed and completely lacking restrictive enclosures or surveillance structures.

One of the hallmarks of the Western Australian convict system was the emphasis on economy. The buildings associated with the operation of the system and the housing of the administrators and guards tended to be utilitarian in design with simple facades. For instance, while the layout of the Fremantle Depot closely following the Pentonville pattern, the colonial structure was stripped of the architectural refinements seen in the original (Molyneux 1981: 5). What little is known of the structure of individual Hiring Depots suggests similarly unpretentious forms, solidly built in timber or stone. These plain forms cannot be blamed on lack of imagination on the part of the Royal Engineers and Colonial Architects. Restrained in the design of the convict buildings, these draftsmen found their creative outlet in the major public buildings built by the ticket-of-leave labourers, borrowing a wide range of historical and contemporary designs, albeit sometimes in strange combinations.

The distribution of convicts into a network of depots, branch establishments and work camps spread throughout the colony fulfilled the original aims of completion of public works and availability of labour to free settlers, although this latter objective declined after 1856. This strategy ensured not only a dispersal of the convict population for the purposes of control, but also allowed the colonial government to move new settlers into rural areas through strategic positioning of the Pensioner Guard villages. In his analysis of the spatial properties of the convict system, Trinca (1997: 30–31) suggests that this pattern, together with the development of a police force and the convict-assisted construction of police stations, allowed the colonial government to establish a security and surveillance network throughout the colony. Combined with the construction of the road network linking the widely separated population centres, formerly empty

spaces in the colony were redefined as regulated places.

It has not been the purpose of this study to determine the effectiveness of convict transportation as an agent of social or economic change in Western Australia, or even to determine whether it met the expectations of the colonists. However, many of the free settlers were clearly disappointed by the cost, limited skills and lack of enthusiasm for hard work exhibited by the ticket-of-leave workers—not unexpected features in bond labour (Appleyard 1981: 213). A great deal of the ticket-of-leave men's time was also tied up in constructing their own facilities rather than completing the much-anticipated public works. Despite this, there can be no doubt that by 1869 the convicts had transformed the landscape of Western Australia.

Economically, convict transportation did bring the expected Imperial expenditure and the large supply and service contracts. There were also the benefits from an expanded workforce, reducing the cost of labour and allowing the emergence of new industries, particularly extractive enterprises such as mining and timber-getting. It was also through convict labour that transport by road, river and ocean was vastly improved, facilitating the movement of people and goods within the colony, as well as trade with the outside world. Almost every town and village received some form of public building and in the main settlements of Perth and Fremantle there were finally the large civic structures such as town halls and public offices which indicated the continuing prosperity and survival of the colony.

By the end of 1849 there had been approximately 5 300 free settlers in Western Australia—a disappointing figure given that it represented 21 years since the Swan River Colony's establishment. Over the next 18 years almost 9 700 convicts were introduced to the population, as well as 1 191 pensioners accompanied by 817 women, 1 470 children and an unknown number of other Imperial administrators and their families (Bolton 1981: 84). Although many of the convicts left the colony as soon as possible, by 1869 the total population had risen to 24 653 persons (Appleyard 1980: 216). However, the refusal of Western Australia to accept female transportation left the colony with a serious sexual imbalance of well over two marriageable men to every marriageable woman (Anderson 1983: 84).

The disparity between the sexes had been anticipated at the start of the convict era. One of the original conditions set by the Western Australian colonists was that the Imperial government send an equal number of free immigrants, with some emphasis on the need for single women (*Perth Gazette* 29/9/1850: 3). It was hoped that these respectable single women would provide a pool of domestic servants, as well as be a moral and socialising influence on the convict colony as whole (Anderson 1983: 91). Although large-scale immigration did not occur, there were a number of so-called 'bride-ships' sent to Western Australia. Groups of young women were sent to immigrant depots, often established in the same towns as the Hiring Depots (Gibbs & Lilley 1993), where it was hoped that they would become brides for free settlers or ticket-of-leave men. Consequently, while Western Australia lacked the female factories of Van Diemen's Land and New South Wales (Kerr 1984), it could be argued that these immigration depots, established as a direct consequence of the convict presence, should also be included in the boundaries of the wider convict system.

Despite the apparent successes of the convict era in re-invigorating the demography and economy of Western Australia during the 1850s and 1860s, this ultimately proved to be artificial. The cessation of Transportation and the withdrawal of Imperial funding resulted in a sharp economic decline accompanied by a dramatic drop in migration. The civic buildings and roads constructed by the convicts served

with almost no addition for nearly 20 years, when the discovery of gold was to see the next phase of population increase and public-works construction.

Investigating the archaeology of the convict system in Western Australia

Although this study establishes a framework, the history and archaeology of convictism in Western Australia remains largely unexplored. Returning to the original question of what survives of the convict system, the best-preserved convict places are the major public buildings, particularly in Perth and Fremantle. In contrast, only a handful of the hundreds of other public works, such as roads, bridges, jetties and minor buildings, have survived as structures. In many cases there do appear to be archaeological remains in the form of remnant piles from jetties and bridges, sections of road, walls and fences, landfills, earthworks and long-buried drains. However, the convict association is rarely identified and the significance of the sites therefore remains unrecognised. Similarly, through age, neglect and development the settlements of the Pensioner Guard have been reduced from villages to the occasional surviving cottage and assorted foundations. Sites associated with the convict system itself are the worst preserved and least understood. Except for a few notable examples such as Fremantle Prison and the Lynton Hiring Depot site, convict places in Western Australia have been rarely identified and even more infrequently actively conserved. It is suspected that, even into the 1970s, these places were deemed better forgotten or destroyed.

The need for basic identification and documentation of all of the sites associated with the operation of the convict system will continue to dominate any future research. Further historical and archaeological research is required to locate and record convict places. Attention should also be paid to photographic evidence, oral histories and local knowledge of possible sites, all of which are currently untapped sources. Given our limited knowledge of the nature of these convict places, particularly those associated with the operation of the system, there is also a priority towards determining the layout of the convict depots, stations and camps, as well as the form and role of individual structures.

Descriptions by convicts of life within the system are extremely rare, usually with limited detail representing the circumstances of the literate convict elite. Even though Western Australia lacked the repressive (and potentially interesting) regimes of earlier systems, excavation and analysis of the material remains of convict life in the different prison, depot and camp situations is still required. Naturally, these studies should be done with the usual reference to ambiguities with the historical record, as well as with a comparative dimension towards both other Western Australian and eastern Australian convict sites. Interesting comparative research might also be carried out between the different bond and free groups associated with convictism.

Finally, attention should also be given to transformations in the nature of sites and living conditions over the 18-year period of transportation and the decade that followed. Although this paper has represented convictism in Western Australia as a single system, there were changes and reforms over time. In particular, the 1862 arrival of former Tasmanian convict administrator Stephen Hampton saw a shift to a more rigorous and punitive approach. How this expressed itself physically remains to be investigated.

The convict system as it operated in Western Australia was the last stage of an experiment in penal philosophy and practice that had shaped much of the early society, economy and landscape of colonial Australia. Understanding the nature of this final phase is therefore essential if we are to

comprehend how this system of human management and repression evolved, and the factors that led to its diminishment and dissolution. Much of what we might learn of that system is only accessible from the structures and archaeological deposits of the places where the convicts and their guards lived and worked. However, the lack of previous recognition of convict places has placed this resource in a precarious position, requiring immediate attention and investigation.

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