

Coal River Tourism Project
Coal River Historic Site
Stage One

**Historical Analysis of Sites and
Related Historical and Cultural Infrastructure**

by

Cynthia Hunter, August 2001



Watercolour by unknown artist, c. 1820

Original held at Dixson Library, State Library of New South Wales.

This illustration encapsulated principal elements of the Coal River Historic Site. The ocean, Nobbys and South Head, the coal seams, the convicts at work quarrying building the breakwater wall and attending to the communication signals, the river, the foreshore, in all, the genesis of a vital commercial city and one of the world's great ports of the modern industrial age.

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Content

- ❖ Provide a Statement of Significance in a National and State context which qualifies the connected cultural significance of the Coal River sites and the Newcastle East precinct ~ **Section 1**
- ❖ Identify key sites and secondary sites ~ **Section 2**
- ❖ Identify and link areas, sites and relics ~ **Section 3**
- ❖ Propose a conceptual framework for an interpretation plan for Stage 3 ~ **Section 4**
- ❖ Advise on likelihood and location of the tunnels based on historical research ~ **Section 5**

Coal River Time Line

- 1796 Informal accounts reach Sydney of the reserves of coal at 'Coal River'.
- 1797 Lt Shortland and his crew enter Coal River and confirm the coal resources
- 1801 Formal identification of the great potential of the coal reserves and the river and first and brief attempt to set up a coal mining camp.
- 1804 Formation of a permanent convict/military outpost to mine coal, harvest timber and prepare lime. A light beacon and gun emplacement built on the southern headland. Nobbys Island seen as a useful place for confinement. Aboriginal-European encounters
- 1814 Expansion of the settlement in line with Governor Macquarie's policies. Lumberyard developed. Coal mining extends away from 'Colliers' Point'. A farming outpost established at Paterson's Plains.
- 1816 Marked increase in development of convict settlement from 1816 to 1822
- 1818 Increase in trading envisaged. Macquarie Pier commenced, also other aids to navigation. Significant expansion of building program including hospital, stores, accommodation, gaol, church and windmills.
- 1822 Penal settlement moved to Port Macquarie. Variable convict workforce retained for public works such as road making, breakwater building, coal mining, property and tools maintenance, and so on.
- 1823 Beginning of era of transition from a penal/military establishment to a civil settlement with civil administration. Work suspended on the Pier. The built environment of the penal era gradually replaced.
- 1831 End of era of government-controlled coal mining and beginning of private enterprise mining by the Australian Agricultural Company.
- 1830s Work resumes Pier building, completed in 1846. Lighthouse built on Nobbys Island in 1857. Ballast and sand reclaim the foreshore. Building wharfage and harbour formation, and pilot facilities and navigational aids ongoing.
- 1847 Occupation of new military barracks. Lumberyard stockade reused for other purposes from the late 1840s. The barracks complex vacated by the Imperial military when the last convict workers left Newcastle in 1855. South Head later used for fortifications and colonial and then national military purposes. Newcastle East emerged as a complex rail, warehousing, industrial, commercial, residential and leisure precinct.

Chart of Newcastle Harbour 10 December 1839
Original held at Dixson Library, State Library of New South Wales

Significance of Coal River Historic Site

The site is potentially of world heritage significance

Slavery, indentured labour, convict transportation and penal settlement have contributed to the spread of diverse cultural influences throughout the world and are global heritage themes. Australia's origin lies in convict transportation. Convict lives dominated the early cultural landscape and convict labour contributed to Australia's early economic success. Coal River is one of a number of sites in Australia first settled by convicts banished from their host country. Taken together, these places and their historic association represent the world heritage theme referred to above. Most physical evidence of convict activity has been destroyed or concealed beneath subsequent sequential development. The Coal River Lumberyard, which has been the subject of some archaeological investigation, is a rare example of early convict activity on a large scale, thus revealing evidence of Australia's convict beginning. Should suggested investigation of the convict coal mines and the convict-built core of Macquarie Pier likewise yield similar physical evidence, the heritage value of Coal River to Australia's inventory of convict sites will be materially strengthened. Sound documentary evidence supports the likely finding of material evidence.

The site is of national heritage significance

The Coal River Lumberyard is already considered of national importance. Established in 1804/8 and fully developed by 1820, it is contemporary only with Greater Sydney, Norfolk Island and Hobart. No known structures of a similar nature survive in any of these areas. No site of a similar nature is known to survive in any of the later convict establishments of Port Macquarie, Morton Bay, Port Arthur or Norfolk Island. The site marks the first industrial workplace and is located in Australia's industrial capital. Material evidence of the first coal mining undertaken in Australia in a locality that became the greatest coal exporting port in the Southern Hemisphere will be a notable revelation. Evidence of early 19th century sea-wall construction will reveal the skills and labour of the convict harbour-builders.

The site is of State heritage significance

The convict coal mines provided New South Wales with its first commercial export cargo. The techniques used to mine in the early 1800s were at the forefront of world mining practice. Coal was a much-sought-after commodity for the domestic comfort and industrial growth of Sydney. Coal River coal has always had an important place in the economic history of New South Wales. Coal River Lumberyard coincides with Governor Macquarie's term of office and therefore with the Macquarie building period in Sydney. Lime for mortar, and cedar, were prepared at Coal River for use in such buildings as Hyde Park Barracks, the Mint Building, St. James Church and the Macquarie-era extensions to First Government House. Macquarie envisaged the need for a safe harbour with safe entry and egress. Building the Pier commenced in this era. The potential importance of Coal River to New South Wales's economic and social development was already evident.

The site is of local heritage significance

Coal River marks the birthplace of resource extraction and industry in Australia's major coal export port and industrial city. At the Lumberyard/Stockade were forged and maintained the picks, shovels and other equipment for use in Australia's first coal mines in what was to become Australia's major coal town. Here were the first iron forges in what was to become Australia's major steel city. Macquarie's Pier increased the navigational safety of the Port of Newcastle, encouraging international shipping to partake in the coal trade.

Heritage Tourism Masterplan

Recommendations regarding the Coal River Historic Site

- ❖ The *Masterplan* must provide a framework within which the combined elements of the Coal River Historic Site can be identified, protected, conserved, managed, coordinated, presented and interpreted.
- ❖ The *Masterplan* must reflect the historical reality that prior to 1823 - the period of the genesis of Newcastle - the occupied areas of Coal River were without property boundaries. The working and living spaces of the settlement were continuous, complementary and interconnected. Their administration remained with the New South Wales Government acting for the Imperial Government. From 1823, Coal River was fragmented, portions alienated or departmentalised. In the post Federation era, defence, lighthouse and customs transferred to Commonwealth administration. In the modern era, further portions have been alienated to private interests, others retained and some transferred to community interests by way of Local government, or to Aboriginal interests by way of a Land Council.
- ❖ The *Masterplan* must indicate how Federal State and Local Governments can cooperatively lead the way to reclaim the totality of the historic concept that is so vital to the history and identity of modern Newcastle and then present the Coal River story to today's citizens and visitors. The combination of a comprehensive, inter-active and stimulating Coal River Interpretation Facility together with well-presented sites will create not only a *city focus* but also a *regional focus*. Coal River Historic Site will be a landmark of cultural identity and a distinctive marketing accompaniment for all other activities carried out in association with the city's attractions and calendar of events.

.....

To achieve the economic potential of the legacy of our convict heritage, Federal State and Local Governments must unite to re-recognise, define, interpret and present the Coal River Historic Site for the benefit of tourism, education and other cultural industries. In addition to the development of an interpretation facility of vitality and excellence, it is essential to reveal the physical evidence of the Coal River era. This can be achieved by the skilful development of the principal archaeological sites, which are the coal mines beneath Fort Scratchley, the core of Macquarie Pier and the relics of the Lumberyard/Stockade.

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Many sites within Coal River have already been assessed for cultural significance as part of their management plans. The statement of significance for Coal River as a whole should therefore encompass all the values of the individual sites and additionally make a strengthened contribution to heritage considerations because of their unification.

Coal River Historic Site

Coal River (1801-1855) is a complex site both historically and from a heritage perspective. Coal River is the physical and cultural foundation of the eastern part of the city and Port of Newcastle. Coal River is today overlaid with a further century and a half of development and expansion that has reduced or obliterated the intactness of the evidence of its influence. All subsequent layers contribute to the complex fabric of the modern city and each has significance of its own. The historic continuum is apparent to the appraised eye but may be incomprehensible to those unacquainted with the past. Identification and interpretation of sites is the key to bringing about an informed community that can appreciate the significance of the structures and places within Coal River and contribute to their conservation and management.

1. Heritage Significance

1.1 Heritage Assessment Criteria

The criteria nominated to be considered for heritage significance in the New South Wales Heritage Manual Update *Assessing Heritage Significance* August 2000, have been applied to the Coal River settlement for the period 1801 to 1855.

Criterion (a) – an item is important in the course or pattern of New South Wales’s cultural or natural history (or the cultural or natural history of the local area).

Coal River is important in the natural history of New South Wales because of the coal resources that provided Australia’s first commercial export product as well as essential fuel for the Sydney settlement, and the timber and lime resources that supported the development of Sydney and its built environment.

Coal River is important to the cultural history of Australia. Convict heritage provides the foundation theme of modern Australia. Convict lives dominated the early political and cultural landscape of New South Wales; much of Australia’s early economic success was the result of convict labour.

Coal River was the first penal settlement for secondary offenders established within the penal colony of New South Wales.

Coal River provides evidence of the role of the British military in the foundation of Australian colonial settlements.

The theme of transportation and convict settlement places the origins of modern Australia in a world context. Convict banishment and penal settlements have a recorded history that begins with the Roman occupation of Egypt and continues to the late 20th century.¹ The theme has contributed significantly to the present increasingly global society.

¹ Michael Bogle, *Convicts*, p. 3

Criterion (b) – an item has strong or special association with the life or works of a person, or group of persons, of importance in New South Wales’s cultural or natural history (or the cultural or natural history of the local area).

Coal River, 1800 to 1821, has absolute association with convict transportation and British military guardianship. From 1821 to 1855 there evolved at Coal River a particular example of its subsequent integration with civil society and institutions.

Criterion (c) – an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in New South Wales (or the local area).

Revelation of activity at the ‘Lumberyard/Stockade’ site exposed the significance of this site to the industrialisation of Australia. Investigation of the convict coalmines may reveal the technical achievement of Australia’s first coal miners. Investigation of the core of Macquarie’s Pier may reveal the technical achievement of quarrying and masonry work carried out by the convict workforce.

Investigation of key sites has the potential to reveal the skills and achievements of the convict workers banished to Coal River.

Criterion (d) – an item has strong or special association with a particular community or cultural group in New South Wales (or the local area) for social, cultural or spiritual reasons.

Descendants of the early generation of convict workers that founded Newcastle as an industrial city can take pride in the contribution of their forebears. However, much research needs to be undertaken to identify the convict workforce.

Criterion (e) – an item has potential to yield information that will contribute to an understanding of New South Wales’s cultural or natural history (or the cultural or natural history of the local area);

Coal River and its key and secondary sites has the potential to teach about the origin of modern Australia, the origin of settlement in the Hunter Valley and the subsequent history of Newcastle. Revealing evidence of the major convict workplaces at Coal River will provide a greater depth of understanding than is presently possible.

Criterion (f) – an item possesses uncommon, rare or endangered aspects of New South Wales’s cultural or natural history (or the cultural or natural history of the local area)

Coal River provides a rare aspect of Australia’s earliest cultural period and is a particularly significant element in the series of convict sites within Australia.

Criterion (g) – an item is important in demonstrating the principal characteristics of a class of New South Wales’s

- cultural or natural places; or
- cultural or natural environments.
(or a class of the local area’s
- cultural or natural places; or
- cultural or natural environments.)

Coal River and its sites demonstrate the characteristics of a convict settlement administered by military, 1801 to c.1821, phasing out between 1821 and 1855. From Lieutenant Menzies’ to Captain Wallis’ commandancies, the military played a central role in designing and constructing Coal River. This is the foundation of modern Newcastle and Newcastle Harbour.

1.2 Heritage conservation criteria

The Burra Charter is the ‘Charter for the Conservation of Places of Cultural Significance’ prepared by the Australian National Committee of the International Council on Monuments and Sites (Australia ICOMOS). The Burra Charter is the accepted standard for conservation practice in Australia.

By the Burra Charter cultural significance means aesthetic, historic, scientific or social value for past, present or future generations.

Significance is further expressed by an item’s ability to interpret the past according to recognised heritage themes, at global, national state and local level. These themes are included later in this Section.

Criterion 1, Historic significance in the evaluation and pattern of history

Coal River is significant for providing major evidence of the convict colonisation of Australia, of Newcastle’s establishment as a place of secondary punishment for convicts - the first such outpost in New South Wales - and of the interrelated work and punishment orientated regime of daily life .

Criterion 2, Aesthetic significance in possessing or contributing to creative or technical achievement

Coal River demonstrates the capabilities of the convict workforce to undertake mining, quarrying, timber getting, lime burning, building and industrial trades, farming and gardening, navigation and harbour work as well as improvising in a frontier environment.

Criterion 3, Significant through association with a community for social, cultural and spiritual reasons

Coal River has significance as the place of contact between Aboriginal and European people in the northern region. Aboriginal people continued to frequent the locality during the convict era.

Coal River is closely associated with the Newcastle community today because the key and secondary sites have played and continue to play an important and changing role in the lives of successive generations.

Coal River occupies a scenic part of the city and its key and secondary sites contribute significantly to the townscape of Newcastle and Newcastle East and their attractions.

Coal River invites further archaeological investigations that may reveal the routines of daily life for both the convict and military population, additional to that contained in documentation.

Coal River is significant as a latent resource with great educational and recreational potential, to be presented to the community using excellent, up-to-date methods in a central, outstanding venue, where interpretation of the convict/military history of Newcastle can be presented and linked to pre and post settlement themes.

Coal River provides the potential to reconstruct the convict/military community as a dynamic whole, reflecting the dominance of Sydney and the development of trade. Interpretation of Coal River as a single entity will enable unification of elements that have been dismembered by subsequent development and urban evolution.

Criterion 4, Scientific - Significant in the potential to yield information contributing to an understanding of the history of New South Wales

Coal River has the potential to reveal through future archaeological investigations further evidence of convict occupation and work, especially convict coalmining, quarrying and pier building.

1.3 Additional criteria

Criterion 5, Rarity - Significant in possessing rare, endangered or uncommon aspects of the history of New South Wales

Coal River, a convict/military settlement for prisoners guilty of colonial offences is one of few such convict settlements in Australia, and was the earliest such settlement. Evidence of convict workplaces, coal mining, pier building, quarrying, and other activities are rare in Australia. The role of British military in the foundation of colonial society is little studied and the example of Coal River could make a valuable contribution to cultural studies. The period of transition from military rule to civil administration is of great interest and educational value and is rare in Australian settlement history and society.

Criterion 6, Association - Significance for association with people, activities phases and events in the history of New South Wales

Coal River has significant associations with people and events in Australian history, which await dissemination. For example, John Platt merits recognition. The roles of Governors Hunter, King and Macquarie are significant. The Castle Hill rebellion played a significant part in the 1804 settlement at Coal River. Coal River's convict population awaits identification and evaluation, for example, the supporters of Governor Bligh when overthrown by the military, were exiled to Newcastle. The military commandants and other holders of administrative positions merit evaluation for their contribution to the organisation of Coal River. Evidence of their influence should be revealed. Mariners sailing the coast and those who worked in the harbour could be recognised, as well as their ships. The educational and interest value of this information can be used to great advantage in cultural industries today.

2. Significance of two key sites within Coal River

2.1 Statement of Heritage Significance, Lumber yard stockade: Archaeological Site

Summary: The statement of heritage significance prepared by Dr D Bairstow in 1989 for the Convict Lumber yard site² proposes, with argument, that

1. The site is potentially of world heritage significance
2. The site is of national heritage significance
3. The site is of State heritage significance
4. The site is of local heritage significance
5. The site is of Aboriginal heritage significance

The site is potentially of world heritage significance

There is a growing interest throughout former European colonies ~ in particular USA, Canada and South Africa ~ in colonisation from the viewpoint of the colonist. This is seen in the foundations of the colony and in the changes which occurred as the colonist gradually adapted his European-conditioned ways to achieve survival and finally success in the new and different world in which he found himself.

Australia's origin lies in convict transportation.

Most of that heritage has been destroyed. The Newcastle Lumberyard is the only known site in Australia to retain evidence of early convictism on a broad scale. Thus it is the only known site to retain evidence of Australia's colonial foundation.

The site is of national heritage significance

The Newcastle Lumberyard should be viewed at a national level.

Established in 1804 and virtually fully developed by 1820, the Newcastle Lumberyard is contemporary only with Greater Sydney, Norfolk Island and Hobart. No known structures of a similar nature survive in any of these areas. No site of a similar nature is known to survive in any of the other major convict establishments of a later period, viz., Port Macquarie, Morton Bay, Port Arthur or Norfolk Island.

The site marks the first industrial workplace in Australia's industrial capital.

The site is of State heritage significance

The Newcastle Lumberyard coincides with Governor Macquarie's term of office and therefore with the Macquarie building period in Sydney. Lime for mortar, and cedar, were prepared on this site for use in such buildings as Hyde Park Barracks, the Mint Building, St. James Church and the Macquarie extensions to First Government House.

² Dr D Bairstow, 1989, Excavation Report, pp 7-9, included as Appendix H in 'The Convict Lumberyard Conservation Policy' prepared by Meredith Walker and others

The site is of local heritage significance

The Newcastle Lumberyard marks the birthplace of industry in Australia's major industrial city. Here were forged and maintained the picks, shovels and other equipment for use in Australia's first coal mines in what was to become Australia's major coal town. Here were the first iron forges in what was to become Australia's major steel city.

The site is of Aboriginal heritage significance

Newcastle Harbour is virtually man-made and foreshore reclamation has been extensive. Probably no overt traces of the original inhabitants survive on the foreshore. The identification of evidence of Aboriginal occupation (a camp site) in archaeological studies within the Lumberyard curtilage makes this a site of significance to Aboriginal heritage and enhances the heritage value of the whole site. The site encapsulates Australian history, not merely the history of its European settlers.

2.2 Statement of Significance for Fort Scratchley

This Statement of Significance is taken from *Fort Scratchley Newcastle Conservation Plan Final Report* prepared for the Commonwealth of Australia August 1992 re-printed 1996 by Godden Mackay Pty Ltd.

This report provides an analysis of the documentary and physical evidence relating to the Fort Scratchley Historic Site. On the basis of this analysis the cultural significance of the place is assessed and may be summarised as follows:

1. The Fort Scratchley Historic Site comprises an outstanding complex of buildings and structures, which form a landmark precinct on the coastal edge of one of Australia's most historic cities.
2. The Fort Scratchley Historic Site concentrates the whole story of the discovery and development of Newcastle. It was the site of Newcastle's first coal mine, which became the primary resource of the settlement, the site of the first navigational aids of coastal shipping and Hunter River traffic, and the site of a series of fortifications designed to protect the growing settlement and its precious coal reserves.
3. Fort Scratchley was a significant part in the colonial defence strategy, second only to Port Jackson.
4. The structures in the battery complex express every phase of military fortress technology from the 1870s to the 1960s.
5. Fort Scratchley is the most complex surviving example of the military technology of the late nineteenth, early twentieth century period.
6. Used mainly for public purposes throughout its history, the site has strong association with the establishment of Newcastle as a settlement. The site also has association with early Colonial Architects, Mortimer Lewis and James Barnett and defence experts, Major General Sir William Francis Jervis and Lieutenant Colonel Peter Scratchley.

7. In addition to many significant individual details and elements of fabric in the buildings and structures, the Fort Scratchley historic site provides an important scientific resource, evidencing its own construction and wider aspects of building technique and technologies.

3. Suggested significance of other key sites within Coal River

3.1 Convict coal mine workings, Signal Hill

As has been noted, no archaeological investigation has been made to date of this site. However, using the same criteria as Dr Bairstow used for the Lumberyard Stockade, this site also is potentially of world heritage significance and of national, State and local significance as well. Not only is it the site of Australia's first coal mine, but it is the site of the first use of the bord and pillar extraction method in Australia, thereby placing mining in Australia in 1801 at the technical forefront of world mining practices. This indicates transference of technology across the world. That a convict, John Platt implemented this transfer is particularly significant in a broad context. The mines, as convict workplaces, pre-date the Lumberyard Stockade workplace and the 'coal yard' that appears on Jeffries 1816 Map (Illustration 1) indicates that 'coal yard' use may have preceded the establishment of the Lumberyard Stockade. This recognition enhances the Lumberyard Stockade's significance. Site significance for both coal mines and coal yard is further enhanced by its relationship to Australia's first export commodity - coal.

3.2 Macquarie Pier

No archaeological investigation has been made to date of this site and although a Conservation Management Plan has been undertaken by the Hunter Port Corporation, this document is not presently available, so the Statement of Significance cannot be quoted. However, using the same criteria as Dr Bairstow used for the Lumberyard Stockade, this site also is potentially of world heritage significance and of national, State and local significance as well. Governor Macquarie in 1818, probably as a result of deliberations with surveyor James Meehan, Commandant Captain James Wallis, and possibly architect Francis Greenway approved building the Pier. Completion of the Pier, from Nobbys Island to South Head (1846) and repair and strengthening work until 1855 was performed by convict labour.

Macquarie Pier was, and is, a major item of public works and the first of many engineering innovations associated with Newcastle Harbour that in total were awarded, in 1989, the ultimate accolade of the Institute of Engineers Australia – The National Engineering Landmark Award.

Building the Pier to increase the safety of the sea-road between Sydney and Newcastle commenced earlier than, but was otherwise contemporary with, building the North Road from Wiseman's Ferry towards Wollombi, Maitland and Singleton, and beyond. Undoubtedly the Pier in its evolving form has been of vast economic value to Australia by providing, along with complementary works, a safe harbour for the record shipping, including coal export that passes its entrance.

3.3 Aboriginal heritage

Newcastle Harbour is a creation of a century and a half of modern engineering endeavour. Evidence of the original appearance and landform of the river estuary is depicted principally in early colonial artistic representations and various maps, sketches and plans. Some of these works depict an Aboriginal presence usually as a small group of people around a campfire. Examples are *New South Wales with a distant view of Point Stephens*, 1812 by T R Brown and engraved by W Preston, *Inner View of Newcastle* c. 1818, attributed to Joseph Lycett and *View of Hunter's River Newcastle New South Wales 1820* by Walter Preston. These paintings are part of the Newcastle Region Art Gallery collection. Diarists and letter writers, such as Lieutenant W S Coke, stationed at Newcastle during 1827, constantly refer to the movement and activity about the district of Aboriginal people.³ Locating material evidence of Aboriginal activity is highly probable in any area that has been overlaid with European utilities without excessively disturbing the landform. Such areas may be about the original shoreline and in lower parts of the city west of Watt Street.

3.4 Other sites

Many other sites within Coal River are overlain with evidence of other important themes of settlement history. These sites relate to maritime, navigation, communication, administration, trade, commerce, industry, railway, religion, health, and community social and recreational development. Where relevant, for example the Stationmaster's and Paymaster's cottages, the original convict-era association forms a influential basis for comprehensive statements of significance.

4. Re-assembling the whole

A number of detailed heritage and management studies have been commissioned in recent years that focus on individual sites in Newcastle East, many with a convict heritage component. For example:

1. *The Convict Lumberyard, the Stationmaster's Residence and the Paymaster's Office, a Conservation Policy*, prepared for the Council of the City of Newcastle by Meredith Walker, Damaris Bairstow, John Turner and Eckford Johnson and Partners.
2. *The Newcastle Lumber yard, Historical Archaeological Report*, prepared for the Heritage and Conservation Branch, Department of Environment and Planning, by Damaris Bairstow with history by John W Turner, 1987.
3. *Heritage Places Strategic Plan and Plans of Management*, prepared for Newcastle City Council June 1998 with amendments February 2000, by Australian Street Company, Professor Barry Maitland and Manidis Roberts Consultants
4. *Newcastle Archaeological Management Plan* prepared for Newcastle City Council by Suturs Architects, S Lavelle, MJ Doring Pty Ltd and John Turner, February 1997.
5. *Fort Scratchley Newcastle New South Wales Studies* Volumes 1 and 2, prepared for the Department of Administration Services by Suturs Architects Snell, 1997

³ C Hunter *The 1827 Newcastle Notebook and Letters of Lt W S Coke, HM 39th Regiment*, p. 31- 57

6. *Shepherds Hill Cottage and Surrounds, Conservation Study*, prepared for Newcastle City Council by Gardner Brown, Planning Consultants

7. *Macquarie Pier and Nobbys Head Conservation Management Plan* prepared for (or in preparation for) Newcastle Port Corporation by Suters Architects Snell, 1996

8. *Newcastle Customs House Conservation Plan*, prepared for the Department of Administrative Services Construction Group by Brian McDonald Architect Pty Ltd, Wendy Thorpe and Crooks Mitchell Peacock and Stewart, 1988

There are probably many more, as well as individual Management Plans for community land, such as the Foreshore and King Edward Park.

Each study contains statements of significance for their component elements. Coal River as a whole must more than reflect the sum of the evaluations of the component parts.

5. 'Old Town'

The significance of many sites within Henry Dangar's Government Town 1823 (Illustration 4) will have as their foundation, convict/military occupation or impact of the pre-1822 period. The 'Newcastle Archaeological Management Plan', prepared by Suters Architects, 1997, draws attention to the potential of many sites in eastern and central Newcastle to hold evidence of earlier development, particularly development with convict/military associations.

The analysis of the 'Old Town' of Newcastle made in the document 'Newcastle 'Old Town' 1997' prepared by the Newcastle Concerned Citizens Committee 1992, emphasised that the city needed planning strategies which distinguished between the heritage and modern area of the city. The document identified five key heritage precincts for which a number of management and presentation ideas were proposed, with interpretation, education, visitor attraction and commercial opportunity considerations uppermost. The five precincts all have foundations in the penal settlement era. They are:

- ❖ Foreshore Precinct: Lumberyard stockade, rail heritage, Customs House, warehouse and bond store
- ❖ Pacific Park Precinct: Newcastle Hospital
- ❖ The Commercial Precinct: expanding from Watt Street
- ❖ Maritime Precinct: Nobbys, Macquarie Pier, Fort Scratchley, Pilot Station and wharves, the old gaol site
- ❖ The Residential Base: Newcastle East and The Hill, and including James Fletcher Hospital, the Obelisk, the Cathedral

This document describes how appropriate presentation of the precincts can generate a circulation of people around and through the entire 'Old Town'. The document also recognised that many of the key elements within each precinct are not available to public viewing, being either closed to the public or minimally presented.

For example, the former military barracks and parading ground, built between 1836 and 1847, are an outstanding example of a convict era military site and are the one remaining significant building complex of the Coal River pre-1855 era. These barracks were built under the same circumstances as Victoria Barracks in Sydney and are an example of all the considerations that makes Victoria Barracks culturally important. They are little known and inaccessible to the public.

Of the outstanding No 4 Maritime Precinct, this document says ‘the area is redolent of Newcastle’s history but most of it remains invisible to visitors’. (Newcastle Old Town, Part B, Heritage Precinct Strategies, 1V Maritime Precinct)

6. Historical Themes

The following lists of National and State historical themes are appended. Sites such as Coal River are evaluated by these themes. The themes highlighted are particularly relevant to assessing Coal River.⁴

6.1 National Historical Themes⁵

- 1. Tracing the evolution of a continent’s special environments**
- 2. Peopling the continent**
- 3. Developing local, regional and national economies**
- 4. Building settlements, towns and cities**
- 5. Working**
6. Educating
- 7. Governing**
8. Developing cultural institutions and ways of life
9. Marking the phases of life

State Historical Themes⁶

- 1. First Australians: may include sites of interaction with other cultures, conflict, resistance, settlement, work, education and social and cultural activities, and includes prehistoric and historic times.**
- 2. Convict**
- 3. Exploration**
4. Pastoralism
5. Agriculture
- 6. Land tenure: Aboriginal and European: may include subdivisions, fences, survey marks etc.**
- 7. Mining: may include gold, coal, tin, gemstones, sand, shale, and quarries**
8. Fishing: includes whaling
- 9. Environment: natural or modified and shaped: may include Aboriginal and European features, clearing, timber-getting, soil conservation, national parks, gardens, special planting, preservation of open space**
- 10. Townships: may include present, former or aborted settlements, streetscapes**
- 11. Migration**

⁴ ‘Heritage Information Series’ leaflet *Historical Research for Heritage*, April 2000, New South Wales Heritage Office

⁵ Source: Australia Heritage Commission

⁶ Source: New South Wales Heritage Office

12. Ethnic influences
- 13. Transport: includes road, rail, water, air**
- 14. Communication: includes printing, postal to modern media**
15. Utilities: eg. water, sewerage, gas, electricity
- 16. Industry**
- 17. Labour: includes work practices and organised labour**
18. Commerce; includes banking, retailing
- 19. Technology**
20. Science
- 21. Government and administration: includes maladministration**
- 22. Law and order: includes protest**
- 23. Defence: may include Aboriginal battle sites, war memorials**
24. Housing
25. Social institutions: eg. CWA, masonic, progress halls, schools of art
26. Cultural sites: from low to high culture; significant for the creation or performance of art, music, literature, drama, film etc; local symbols
27. Leisure: includes tourism, resorts
28. Sport: includes sporting facilities, equipment, trophies
29. Health: includes hospitals, maternity hospitals
30. Welfare: eg. charitable and self-help institutions
31. Religion: eg. churches, convents, manses, mosques
32. Education: includes formal and informal, schools, mechanics institutes, secondary and tertiary educational institutions
33. Death: eg. cemeteries, undertakers
34. Events: may include monuments, sites of special significance and social value
35. Persons: may include individuals, families, dynasties, birthplace, place of residence, women's sites

6.3 World Heritage Themes

Of interest is the proposal put forward in 1997 for a number of convict sites and settlements in Australia to be submitted to the International Council on Monuments and Sites, which advises the World Heritage Committee of UNESCO on cultural heritage nominations, with the intent of gaining World Heritage Listing for them.⁷

Historic sites associated with convicts were to be forwarded as a serial listing, that is that their world significance lies in the complete series, although each site has to have outstanding significance on its own, it was said.

⁷ *Sydney Morning Herald* 4 December 1997

At the time, the sites nominated were Hyde Park Barracks, Great North Road, Norfolk Island's Kingston, Arthur's Vale historic area Port Arthur and Fremantle Prison. Other site proposed for inclusion were Sydney's First Government House site, the Wiseman's Ferry and Devine's Hill stockades, and Cockatoo Island.

In combination these places were said to represent all three themes identified as being of potential global significance.

The themes that put the convict system in an international context were slavery, indentured labour and the movement of people.

'Together the sites convey a lot about early Australian settlement in one simple graphic step. Just by having a map of the sites immediately gives a sense of that first settlement process, the distances, the isolation and also the success of the system', said Mrs Joan Domicelj, a former Vice-President of the International Council.

The application may not succeed. Post-1788 Australia is probably too recent a society for sites other than natural environments to merit consideration in a world heritage context. However, the question arises: should 'Coal River' have a place on Australia's list? Is it not part of the 'complete series'? Has Newcastle made sufficient effort to recognise its convict heritage in an equivalent way as others have recognised and presented the eight nominated sites? Would a comprehensive identification and interpretation of 'Coal River' supported by the Newcastle community be the first step along the road to claiming a well-deserved position for this heritage in an Australia context?

Since the preparation of Section 1, in May/June 2001 considerable interest and action has occurred following the threat to the preservation of the remains of Port Macquarie's convict-era Commandant's Residence, built in the early 1820s. 'The 'remains' were saved by an injection of funds (one million dollars) from the New South Wales government'. (Reported in the Royal Australia Historical Society journal *History*, September 2001).

The significance and potential of the Coal River Historic Site equals any other convict-era site in New South Wales and merits substantial resources for presentation and interpretation.

Content, Section 2

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Background

The first settlement at Coal River was at the extremity of a peninsular almost surrounded by water — the estuary and the coast where precipitous cliffs imparted a fortress-like quality when viewed from the sea. The layout of the settlement and uses made of the different precincts within, at various times, provides an understanding of how the penal establishment worked and how it was supplanted by a civil society.

The coastal and inland cliffs and hills have all been cut down and reshaped and the estuary completely remade such that geographical and environmental change is a major theme in Newcastle’s history.

The concept ‘Coal River Sites’ embraces sites relevant to the penal settlement or pre 1822 period, as well as sites relevant to the period of transition, 1822 to 1855 when the military presence and convict workforce were finally removed. In the first quarter-century, convicts performed the groundwork for Newcastle’s maritime, industrial and commercial history, a foundation which was then slowly overlain in the second quarter-century as Newcastle and the Hunter Valley developed and diversified as a free-enterprise society.

In considering ‘key sites and secondary sites’, it is necessary to identify and review the nature and extent of development to 1822 and then subsequently, as civil institutions slowly replaced the military command of the locality.

The following historical outline brings together a selection of evidence that enables a concept to emerge of Coal River and all its sites.

2. Development at Coal River to 1822

Many records are accessible that document the progress at Coal River during the convict period (to 1822) and the period of transition to a free-enterprise society (to 1855).

A number of early paintings provide images of the appearance of the settlement during this half-century. Examples are those executed by Bauer in 1804, Brown in 1810-1812, Commandant Wallis and/or Joseph Lycett c. 1816 to 1818, John Bingle in 1822, Sophia

Campbell and others from the 1820s and John Rae in 1849.⁸ Newcastle Art Gallery possessed three historically important landscapes of early Newcastle. Selected drawings of native scenery in the 1820s by Joseph Lycett⁹ provide information about the Aboriginal people and the landform.

Three historic maps also help visualise the extent of convict/military environmental impact and change. These maps were drawn in 1816, 1818 and 1823. None of them are as complete as would be desired because each was created for a purpose and many developments were not relevant to that purpose.

The maps are

- ❖ Lt. C Jeffries map, which was created for navigational guidance is the only one of the three that acknowledges the convict coal workings. His map indicates the ‘coal mines’ and the track (possibly the ‘Colliers’ Track’) from the mines under Signal Hill to the ‘coal yards’ near the wharf. (Illustration 1)
- ❖ James Meehan, deputy surveyor general, accompanied Governor Macquarie to Newcastle in 1818 and prepared a ‘Plan of Newcastle’ at the time, which must have fitted streets to the existing development. Principal sites and buildings are marked, and Governor Macquarie’s bureaucratic style of place naming was adopted for the streets. Meehan’s Elizabeth Street is approximately Church Street; Wallis Street is King Street and Cowper Street is Pacific Street. At least the governor acknowledged the contribution to Newcastle’s development made by Captain James Wallis, which no other subsequent administration has done. Meehan also proposed two alignments for the intended pier. (Illustration 2)
- ❖ In 1823, Henry Dangar created a new lay-out for a government town with a regular grid street pattern, individual building allotments, land apportioned for churches and a market place, the lumberyard stockade defined and a large foreshore area reserved for government or public purposes.(Illustration 3)

In 1822, all the buildings at Newcastle belonged to the Crown and were convict-built. An inventory of these buildings (tabulated on the following pages) is contained in *Historical Records of Australia*, I, IX, pp. 698-8.

In addition to this list were maritime and industrial developments. Other government/convict sites not on the 1822 buildings list that belong to the penal settlement era include several government cottages/courthouses at Stockton, Cottage Creek (including the Commandant’s farm), Nelson’s Plains, Wallis Plains, Paterson’s Plains and Seaham, constructed during either Wallis’ or Morisset’s time as commandant. Timber camps along the rivers and the limeburning facilities at Fullerton Cove must also be included. Any complete definition and interpretation of the ‘Coal River Convict Site’ would encompass this extended development and indicate the outflow from Newcastle that occurred as the resources of the Hunter Valley generally grew in significance.

Judicious use of all evidence can provide the information needed to recreate using modern interpretation and display technologies insights and understanding of Newcastle’s formative years for the benefit of the district’s own citizens as well as visitors to the city. Few people

⁸ Most of the illustrations mentioned here are reproduced in *The History of Early Newcastle 1800-1870 Documents and Illustrations* by D O’Donnell, 1969

⁹ *The Lycett Album*, National Library of Australia, 1990

would otherwise be aware of the changes initiated in the first fifty years because of the archaeological nature of the surviving evidence.

The built environment at Coal River before or at 1822 and subsequent outcome

*ITEM AS LISTED	HISTORIC OUTCOME
A Handsome neat Stone built Church with a Spire situated on an elevated airy situation	Granted to Anglican Church. Demolished some time after last service on 7 December 1884. Replaced by Christ Church Cathedral.
A Burial Ground of 4 acres enclosed with a paling	Burial place for convicts and others killed or dying at Newcastle. Exclusively Anglican from the 1840s. Part of burial ground is now Cathedral Park.
A Neat Brick-built Stuccoed One Story parsonage house, with a Verandah and all the necessary Out Offices and also a Kitchen Garden and Grazing Paddock, attached thereto, both enclosed with a paling.	Part of site returned to government for new military barracks, offices and parading ground. Parsonage demolished 1902
The house and Offices for the accommodation of the Commandant repaired, enlarged and considerably improved with a good Kitchen Garden and a large Grazing paddock, both enclosed for the use of the Commandant.	This building (the house) was burnt down in the early 1820s. A plaque in Watt Street approximately marks the site.
A Brick-built barrack for three Subaltern Officers, having also the necessary Out Offices and a Garden attached thereto.	A plaque in Watt Street approximately marks the site of the subalterns' barrack. The building was at the rear of the former Council Chambers building. This barrack was still standing in 1939 when it was said to have been used by the officer in charge of the Commissariat, also as the post office until 1872 when it was transferred to the Municipal Council who met there until 1884 when the new Chambers, built in front of the old structure, opened.
A Brick-built Barrack for the Assistant Surgeon of the Settlement with the necessary Out Offices and Garden attached thereto.	-
A Brick built Barrack with front Verandah for the accommodation of 100 Soldiers with the necessary Out Offices, Guard House and Square in front for Parading, the whole of these Premises being enclosed with a high brick wall; A large Kitchen Garden being also attached to the Barracks for the use of the Troops.	A plaque in Watt Street approximately marks the site. The complex was dilapidated in the mid-1830s when new barracks offices and parading ground were commenced that took many years to complete. The military departed from Newcastle in 1848 but a detachment returned in 1849 and occupied the new barracks until the 1850s. The new buildings are extant.
-	Baths for the commandant and possibly soldiers were cut out of a rock platform beneath Shepherd's Hill. The Council later managed these baths and enlarged them in 1884 when they were known as 'Bogey Hole'.
A Weather-boarded Military Hospital with a Verandah in front for the accommodation of 20 patients, enclosed with a paling.	Renovation of this dilapidated building was considered in 1851 as a possible Customs House

A Weather-boarded Colonial Hospital with a Verandah in front for the accommodation of 60 Patients, having an extensive Area of Ground round it, which is surrounded by a strong Stockade.	In 1850, the materials of the buildings of the late Convict Hospital were put up for sale in lots to suit the purchasers –bricks, timber, slabs, iron, flagging, doors, windows, etc. ¹⁰ The site is now Royal Newcastle Hospital
A large Commodious Stone-built Gaol, the necessary Wards, Cells and Out Offices, with apartments for the accommodation of the Jailer and his Family, the whole of the premises being surrounded with a strong stone wall, 12 feet high.	Last execution at Newcastle in 1848 Gaol abandoned after 1849 when function removed to East Maitland. Demolished c 1890
A large brick-built provision Store and, Granary.	A plaque in Watt Street approximately marks the site. The Commissariat Stores remained an important and useful building throughout the transition period because supplies for the convicts, military, hospital, gaol and road gangs were issued from here.
A Weather-boarded Barrack for the Storekeeper with Garden attached thereto.	-
A Weather-boarded Barrack for the Chief Constable.	-
A Weather-boarded Barrack for the principal Superintendent of Convicts.	-
A range of Weather-boarded Barracks for the accommodation of 800 male Convicts with Kitchen Gardens attached thereto.	A plaque in Watt Street approximately marks the site. Convicts accommodated in these barracks for many years.
A separate small range of Barracks for the accommodation of 50 female Convicts.	-
A complete lumberyard enclosed with a strong stockade.	In 1823, when most convicts were relocated, 900 cedar logs and some spare boats were advertised for sale at the lumberyard. In 1850, the materials of the Stockade Barracks near the Queen’s Wharf were put up for sale in lots to suit the purchasers –bricks, timber, slabs, iron, flagging, doors, windows, etc. ¹¹ Commercial use of this site began about 1850. In late 1850, Mitchell and Tully rented part of the building that was formerly the prison of the old stockade, as a ships chandlery store, and the other part was used as the post office. This building was partly destroyed by fire in July 1851. ¹² See recent heritage/management site studies for additional history.
A large Boat house for locking up the Boats, Tackle and Oars in.	-
A Weather boarded Guard house in a high Situation overlooking the Lumber Yard, Timber Lime and Coal Yard and Boat house.	- (Early paintings depict this and other convict and military buildings)

¹⁰ *Maitland Mercury* 8 May 1850

¹¹ *Maitland Mercury* 8 May 1850

¹² *Maitland Mercury* 12 July 1851

A Watch-house for the Constables on duty, adjoining the Landing Place.	-
A Weather-boarded barrack for the Pilot, Overseers and Constables.	-
A good strong substantial Wooden Wharf or Quay and landing place for Vessels to load and unload their Cargoes at.	Located at the foot of Watt Street at the time. A pile driver was built in the lumberyard to drive piles for the wharf extensions. The ballast wharf extended eastwards and the foreshore was reclaimed from ships ballast for rail and port use. This area was later defined with a stone wall and made into a major wharf, pilotage and lifeboat facility, completed about 1860.
A Mole or Pier on a large substantial plan built of Stone now erecting, and about 3/4ths finished across the Channel between the main and 'Coal Island' for the purpose of protecting the Harbour of Newcastle from the great Surf coming in through the said Channel, and also for the purpose of confining the Waters of 'Hunter's River' exclusively to one Channel, so as to prevent the Harbour from being choked up.	Building work ceased in 1823 and resumed in the 1830s. Storms caused breaches in the wall on many occasions. Over 150 convicts were stationed at Nobbys from time to time in the 1840s in accommodation in a stockade there. The core of the breakwater, particularly near the island and south head, probably remains beneath the present structure.
Two Stone built Windmills for Grinding Corn.	In 1823 and 1826 the government windmills were advertised for lease. In 1827, the materials of one windmill were put up for sale. One windmill stood for many years in a state of ruin and was sold in the late 1840s for its materials so that redevelopment of the site could occur. However, mariners influenced the government to replace the landmark with an Obelisk in 1850. In 1880, a reservoir was build nearby.
A small Stone Tower with Light house.	Superseded by Nobbys lighthouse in 1857/8. A house for the Harbour Master and accommodation for boatmen were then built, prior to fortification works in the 1880s.
A long Shed with Stockyard for the Government Working Oxen.	The herd of working oxen were returned to Sydney in 1824. Possibly, the oxen grazed on areas of pasturage about Shepherd's Hill. A visual link with the past natural environment still exists here.
The whole of the Old Streets in the Town of Newcastle repaired and some new ones opened and made.	Dangar's survey replaced much of Meehan's layout. This may have been intended to allow new development in front of existing buildings and maintain the use of the older buildings until their removal was desired. Iron gangs worked on the roads until about 1850.

The 'government garden' (the Cottage Creek farm) was advertised 'To Let' in 1828.

In 1830, the government cottages at Cottage Creek, Nelsons Plains and Seaham were advertised 'For Sale'. The Cottage Creek and Seaham cottages sold, with a half-acre of land each.

In the 1840s, sites were provided from the farm at Cottage Creek for burial grounds for denominations other than Anglican and many convicts, emancipists and civilians are interred here.

The Coal River settlement contained all these elements. The following paragraphs contain additional information about the historic outcomes in the transition period when a number of precincts took on new significance.

The *church, parsonage house, and several acres of ground* including the *cemetery* and land south of Church Street were granted to the Church of England. Some of the land south of Church Street was returned to the Crown in the 1830s in exchange for other land so that *new military barracks*, offices, gardens and a parading ground could be built to replace the deteriorating structures in Watt Street. The boundaries of the barracks were subsequently defined to fit in with the street pattern and land to the east and south became *public reserve land*. These reserves were once known as Upper and Lower reserves and today, as Fletcher Park and King Edward Park including Shepherd's Hill. Sites within these spaces are linked with the convict and transition eras. These include *pasture land, mine and ventilation shafts and adits*, the *obelisk* where the *government windmill* stood and the rock ledge 'Commandant's baths' beneath Shepherd's Hill that became popular for public bathing (the *Bogey Hole*) and enlarged by the council in the 1880s.

Watt Street evolved into an important commercial, administrative and social focus for the new society. The convict-era buildings were gradually replaced. The building that survived the longest was the one at the rear of the former Municipal Chambers and was demolished some time after 1939.

The *Watt Street Wharf*, which in the convict era was probably a small boat wharf, was lengthened into deeper water and widened to accommodate the increase in shipping created by the demand for trade and transport, and then steam navigation. The Australian Agricultural (AA) Company built a private coal loading facility further west. For two or three decades, ships ballast helped reclaim the foreshore until stone wharfage could be extended from Watt Street towards Nobbys. By the close of the convict-transition era, this wharfage had been built towards the point where a *new pilot facility* and *boat dock* was set up, leaving a bay or wave trap between here and Nobbys breakwater. The extensive *reclaimed ground* was ready for use as railway yards, providing the transport interchange for goods between the northern districts and the shipping and including the loading of coal brought from the proliferating private mines that flourished after the AA Company's production monopoly ceased in 1850.

The *Lumberyard Stockade* was a workplace focus that remained in government use until the late 1840s. Convict numbers at Newcastle appear to have fluctuated considerably during the 1822-1855 period. A second *stockade on Nobbys* accommodated convicts during intensive *breakwater* building or repair periods in the 1840s, keeping them close to their workplace and away from the commercial town. The history of the Lumber yard stockade is thoroughly documented in reports such as the *Historical Archaeological Report* by Damaris Bairstow and John Turner, 1987, and the *Conservation Policy for the Convict Lumber yard, Stationmaster's Residence and Paymaster's Office* by Meredith Walker, Damaris Bairstow, John Turner and Eckford Johnson and Partners. The latter report includes sites of significance to the theme of rail transport, which originated in the mid-to-late 1850s, as the title indicates.

Land additional to the old lumberyard remained in government ownership for railway, customs and navigation and port related uses.

The *convict hospital and grounds* precinct is a special site for all eras of Newcastle's history. It was built late in the penal era when the numbers of convicts increased and was then much

used during the transition period when infirm and sick men and women assigned to settlers in the Valley were too ill to work and needed hospital care.

The *convict gaol* precinct had similar historical significance. Subsequent landform change and development on the site totally mask its earlier meaning. Interpretation of Coal River is at risk of distortion if the gaol is overlooked.

The location of *farms and gardens and grazing spaces* for oxen further impart understanding of the dynamics of the penal settlement.

South Head (Signal Hill) was the primary workplace of the convict era, and a landmark, which together with *Nobbys Island* identified the Hunter River entrance to mariners, at a time when all communication between Newcastle and Sydney was by sea. The placing of a *flagstaff* strengthened this landmark role and the *coal fired beacon* on the summit guided shipping until December 1857. Dangar's 1823 map indicates a '*fort*' on the headland, but the purpose was rather to prevent convict escapes by boat, rather than to defend the embryonic settlement from attack.

The *coal seam in the southern headland* was the source of all coal mined at Newcastle for about the first 10 years or until another access to the seam was opened up, penetrating the hill to the west and behind the settlement. Stone cut away from the headland helped form the breakwater as well as provide materials for other public works. Stone below high water level was of strong enough quality to be used for building works and was quarried for this purpose, particularly during the transition era. The headland has been radically reshaped and no longer has rugged perpendicular cliffs rising from the sea.

In the 1880s, Signal Hill was chosen for extensive *fortification works*. Part of the fort capabilities involved the ability to lay a *torpedo mine cable* across the harbour from the pilot station and controlled from the fort. As subsequent eras experienced threat from enemy sources, the fortifications were upgraded to meet the danger and more nearby sites extended the defence capabilities such that today defence-related infrastructure is a unique network to the north and south of the harbour entrance. This rare legacy is a clear marker of Newcastle's industrial and economic importance to Australia.

Nobbys Island served as a place of confinement in the years when the population of the settlement was relatively small. The *breakwater wall* was commenced in 1818 and the first phase of building stopped in 1823. Considerable convict labour was subsequently expended completing the wall during the transition years particularly from the late 1830s to 1846 and then maintaining it into the 1850s. As work began and proceeded from the Nobbys Island end, the summit of the island was cut down for the purpose. Further cut down prepared a platform for the erection of a *lighthouse* in 1857, which first shone in January 1858.

The area of land that isolated the gaol, the coal mines and Signal Hill from the rest of the settlement was once vegetated but, as prisoners in the gaol continually attempted to escape in the 1830s, was cleared of vegetation for better surveillance. This environmental mistake opened the denuded sand to wind erosion, to the detriment of the settled area east of Watt Street. The effort begun in the 1850s, when the function of the gaol ceased, to rectify this problem, was in part the labour of a convict work force.

Beneath Signal Hill, and near the original shore line, was a *lagoon fed by a spring of fresh water*, which was probably the water supply that determined John Shortland's party to camp on the site during their visit in September 1797. Fresh water retained in the various

geological strata of the hill drained towards the estuary where it broke through to the surface and accumulated as a lagoon. This 'spring' of fresh water, together with other similar sources further west, was important for the settlement prior to the provision of a reticulated water supply. Several references indicate that the spring beneath Signal Hill was used during the 19th century and an early photograph exists that depicts a lagoon area enclosed by a fence identified as the water source.

The district experienced severe drought conditions in 1880 when the following contribution was published in the *Newcastle Morning Herald* under the heading 'The Sandhills Well'.

A correspondent suggests an acceptable plan by which residents at the Sandhills and vicinity of Nobbys may be avoided the present necessity for carting all their water supply from Newcastle. It is well known that close to the Signal Hill a fine well, yielding excellent water, existed for many years, but has of late been choked up with sand. It only needs emptying, and the erection of a few protecting palings to make it once more available, and the suggestion is that as private individuals cannot undertake the cost, and seeing that the military quartered there would be equal sharers in its benefits, a contingent from them might well be told off for the task. The whole thing might readily be accomplished in a couple of days, and much daily expense and annoyance to all parties concerned, be avoided.¹³

This well site, and its likely association with John Shortland's historic camp, and the first settlement in 1801, heightens the significance of the Foreshore area.

¹³ *Newcastle Morning Herald* 10 September 1880

3. Demarcation of 'key' and 'secondary' sites

Convicts laboured on public works of great benefit to society, being works that continued to be of economic worth and so were maintained, improved, adapted and re-used after the convicts had gone. Some Coal River locations remained in government ownership after 1822 and these generally contained public works important to regional, state or national development. These sites tend to be the 'key' sites today. Many other assets of Coal River were sold in the transition period. Because new layers of development and use have blanketed these sites, their contribution to the Coal River period is now academic, yet the dynamics of their era involved them closely. Today they are probably considered 'secondary'.

There is a lesson to be aware of here as a new wave of publicly owned asset sales or attempted asset sales sheds or seeks to shed a number of other sites. In this category can be listed the gaol site, Fort Scratchley, the Lumberyard stockade, Customs House, the Sailors Home, Newcastle Hospital, the Post Office and railway infrastructure. Public affinity with those items that pass into private ownership and redevelopment will be lost unless sympathetic attitudes are shown to heritage resources.

Inventory of sites

Brief tabulation only. Present ownership of roads and open spaces needs verification.

Site	Present use	Ownership	Interpretation opportunities and constraints
Nobbys headland	Lighthouse and signal station	Hunter Port Corporation	Interpretation from without Access minimal
Tunnels within Nobbys		HPC	Inaccessible Requires engineering and archaeological investigation
Macquarie Pier	Breakwater, access to Nobbys headland	HPC and Newcastle City Council	Open access for pedestrians Needs engineering and archaeological investigation Needs revised traffic management plan Needs an aesthetic landscape analysis
Nobbys Road	Access		Interpretation needed
Fortification Drive	Access		Interpretation needed (Links with quarrying, mining shipwrecks and later 'Soldiers baths')
Signal Hill	(Fort Scratchley)	Com of Aus	Communication and maritime role needs investigation and interpretation
Fort Scratchley	Cultural resource. Museums, events	Com of Aus	Needs conservation management and interpretation
Coal mines within Fort Scratchley headland		Com of Aus and ? others	Inaccessible Needs engineering and archaeological investigation
Convict coal mining history and heritage			Needs site identification and interpretation
Former SES site	Open space	?	
Old Jail Site	Commercial/tourism	Private	No interpretation by owners
Sandhills (Newcastle East)	Residential, commercial etc	Private	Newcastle East Heritage Walk sign
Foreshore	Cultural resource. Recreation, events. Railway history and heritage. Maritime History and heritage	NCC	A number of exiting signs and plaques
Customs House	Hotel, eatery	Private	Décor only
Pilot Station (Torpedo mine, Boat Dock)	Pilot Station	HPA	Interpretation from without Access minimal
Well		NCC	Several wells in Coal River including that at

			Shortland's landing place are important resource sites and need identification and interpretation
Lumberyard		NCC	Interpreted site. Revision should be programmed
Watt Street	Thoroughfare	?	Some plaques and signs Needs greater heritage presentation
Church and cemetery	Church and park	C of E, NCC	Cemetery has potential for greater interpretation Cathedral is a heritage site
Windmill/Obelisk	Monument	NCC	Landmark site indicative of boundary of Coal River. Has potential for imaginative interpretation.
Church Street	Thoroughfare		Some plaques and signs Needs greater heritage presentation
Military barracks	?? Health services	? New South Wales Govt	Large site reflecting several themes needs a CMP
King Edward Park	Park, recreation	NCC	Opportunity for interpretation including past mining connection
Shepherds Hill	Recreation, relics	NCC	Opportunity for reuse and interpretation
AA Co mines	Some relics in situ	Part alienated	Opportunity for interpretation

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1. The Coal River community

The table below depicts the evolving community at Coal River and its composition from 1804 to 1821.¹⁴

Year	Convict males	Convict females	Total convicts	Total N'cle population	Non-convict population
1804	55	6	61	95	34
1805				125	
1806	66	11	77	103	26
1807	63	21	84	113	29
1808					
1809					
1810	46	16	62	100	38
1811	58	11	69	124	55
1812	100	30	130	196	66
1813	123	31	154	242	88
1814	149	39	188	272	84
1815	215	39	254	346	92
1816	245	42	287	413	126
1817	394	46	440	533	93
1818					
1819	696	86	792	748	
1820					
1821				1169	

From 1812, the numbers rapidly increase. This corresponds to the beginning of Governor Macquarie's administration. Macquarie began an extensive building program in Sydney that demanded constant supplies of timber and lime to carry out. More convicts were sent to Newcastle to obtain them. Not all were secondary offenders and many were chosen for their appropriate skills. The number of both convict and military increased significantly especially in the 1817 to 1821 period, necessitating an extensive building program to accommodate so many people and meet their needs.

The figures do not represent the *total* number of convicts or military who served at Newcastle because individuals were regularly returned to Sydney and replaced by others.

It is noted elsewhere that substantial primary and secondary source material is available for this era including images and maps, which are noted in the Bibliography.

¹⁴ Data taken from D. O'Donnell, *The History of Early Newcastle Documents and Illustrations*, Tables 5 and 6

However, very little is known about the people who made up the Newcastle settlement, apart from the Commandants, an occasional high-profile military person or convict, and the selected people who established farming at Paterson's and Wallis' Plains. The writer is aware of private researchers who have sought out the identity of Newcastle's penal settlement population but this information is not readily available, nor has its compilation been encouraged. Such a research project is worthy of major public support so that a more human face can be assigned to the founders of Newcastle. As it is, the individuals remain buried, like the physical evidence that was almost joyfully obliterated when the wall was built around Fortification Hill.

The Convict Trail Project ('caring for the Great North Road and our convict heritage') has sought out the names of all the convict workers who were engaged on that task and initiated an 'adopt a convict' approach to interested volunteers who try and build up the previous and subsequent lives of all the road workers. The question arises why is not a similar investigation under way for the pre-1822 population of Newcastle, and the later workers who laboured building the breakwater? Any future interpretation of Coal River convict sites will remain vague if the people associated with the sites are merely statistics, and lopsided if they are only few, eminent or notorious.

The following table indicates population growth from 1822 to 1851, a time of transition that saw the emergence of a free-enterprise maritime town.

Year	Population	Convict	Free
1821	1169		
1829	400		
1833*	491	252	239
1836**	704		
1841	1377		
1851	1340		
1861***	3719		
1871	7581		

During this period, which was the second phase of Newcastle's convict history, the population at first fell, from over 1000 people and then remained static. Frequently the number of free persons was less than the number of convicts and former convicts.

** In 1833 the population of Newcastle consisted of 239 free persons and 252 convicts (51%). In 1834, the entire population of the colony was 70,000 of who a little more than 24,000 (34%) were convict.*

*** Until 1828, only convicts were brought to New South Wales as workers. From 1828, emigration began but convicts significantly exceeded emigrants in all years until 1836 when transportation ceased and emigration continued on a large scale.*

**** The general population of New South Wales swelled following the 'gold rushes'. After the initial period of gold fever, this new population gravitated to the towns to find employment. The complete phasing out of a military and convict presence in Newcastle, growth in exports and shipping and port related activities and the development of a variety of industrial enterprises also contributed to this growth.*

Lieutenant Menzies attempted to name the settlement ‘King’s Town’ in honour of Governor King¹⁵ but ‘Newcastle’, which echoed the coal connection with Great Britain, was soon adopted instead. When Henry Dangar began his survey work and laid out a government town in 1823, Sir Thomas Brisbane named it King’s Town, to honour to the memory of the founder, Governor King, and he named the parish in which it was situated ‘Newcastle’. On neither occasion did this nomenclature for the town succeed. The name ‘Coal River’ remained in common use until about 1850 following which Newcastle was used exclusively.

2. 1822 to 1855; Years of transition - penal settlement to self determining society

The following chronological summary of change during this era indicates convict heritage linkages to the subsequent succession of development.

Year	Convict/military regime	Free enterprise society
1822	Time of change	
1823	Governor Brisbane orders work stopped on the breakwater. Most convicts removed to Port Macquarie. About 50 convicts remain at Newcastle ‘to work at the mines’. Captain Gillman replaced Major Morisset as (Military) Commandant. The government began to dismantle the penal settlement. The Newcastle Windmill and house ‘To Let’ for one year. (SG 25.3.1823) Some spare boats and 900 cedar logs lying on the beach near the lumber yard put up for sale in lots of 20 (SG 15.7.1823). Convicts assigned to Valley settlers were troublesome, some become ‘bushrangers’. Mounted police and military involved in trying to maintain law and order. Captain F Allman replaces Captain Gillman as Commandant in December.	Private trading increased between Newcastle, Sydney and Morpeth. Several settlers win contracts to supply meat, wheat, etc for the military and convicts.
1824	A Report was prepared on the state of the breakwater, which gives details about its construction.	
1826	Repairs carried out on the Commissariat Stores (SG 22.3.1826). 100 head of government cattle ‘For Sale’ at Newcastle (SG 15.4.1826). ‘A machine has been constructed in the lumber yard for driving in piles, for the extension of King’s Wharf’ (SG 1.7.1826.) Troops from Newcastle assist those stationed at Wallis Plains in tracking down bushrangers. Convict chain gangs working at road building between Newcastle and Wallis Plains. Government windmill ‘To Let’ by tender for 7 years (SG 15.11.1826).	Australian Agricultural Company takes up a one million-acre grant north of Port Stephens.
1827	About 250 convicts employed at Newcastle. Their primitive methods of labour at the coal works prompted criticism. One observer wrote of <i>the coal being drawn about the wharf in barrows, 5 or 6 prisoners to a barrow, the coal shifted from baskets to bullock carts, from bullock carts to the wharf, from the wharf to the pier, from the pier to the lighter, from the lighter to the ship, and by the time it arrives in Sydney it is nothing but dust.</i> (A 31.1.1827) Government begins negotiations with the AA Company to take over the coalmines at Newcastle. Position of Commandant ceased and replaced with that of ‘Police Magistrate’: Captain Francis Allman continues in this position. Quarter Sessions held at Newcastle. Most persons under trial were assigned to Valley land proprietors. Materials of the government windmill ‘For Sale’ (SG 10.3.1827). Milling generally taken over by private enterprise. Under Engineer Busby’s supervision, a better wharf at Watt Street was	Increase in private shipping leads to a call for the completion of the breakwater (SG 26.4.1826). Several sailing ships wrecked near entrance. Port users call for a better lighthouse than the present coal fired beacon (SG 1.10.1827). Government calls tenders for the carrying of coal to

¹⁵ Lt Menzies’ letter to Governor King, 19 April 1804

	<p>built (c. 170 feet long. At the end, the water was 6-7 feet deep). Vessels now able to load and unload at wharf instead of into lighters.) Government advertises coal for sale at Newcastle. DF Mackay was the first civil person to be Superintendent of Convicts. Commissariat Stores at Newcastle supply rations. Tenders called regularly for supplies to HM troops, the gaol, the hospital and prisoners in and out of barracks and in road gangs (SG 26.10.1827). Future sittings of the Court (Circuit Court) proposed be at Wallis Plains rather than Newcastle, for the convenience of settlers.</p>	Sydney.
1828 1829 1830	<p>'For Sale', the whole of the materials of the old prisoners barracks in 3 lots' (SG 28.1.1828). 'To Let' for 7 years, the ground known as the government garden (SG 25.4.1828). Peter Cunningham wrote in 1827 – <i>the government windmill overlooks the town. Small detached houses of wood or brick present no very imposing appearance. Few except the government houses are worthy of notice.</i> From 1829, the permissible area of settlement in New South Wales was divided into Police Districts each with a police magistrate, constables, clerks and scourgers. Some also had mounted police. Government officials at Newcastle were Police Magistrate Captain Samuel Wright (39th Regiment); Surgeon Dr Brooks; Overseer of Public Works John Rodd; Commissary Walter Scott; Superintendent of Prisoners D F Mackay. Convicts labour on public works such as road making and quarrying. Others work in the lumberyard where they were accommodated in 'prisoners barracks'. Total population about 400 people including convicts and military. 50 inhabited houses, a few stores, inns and a church (SG 29.10.1829). The Newcastle Gaol remained the central gaol for the Valley and northern district. Government Cottages put up 'For Sale'. (These were the government farm cottage at Cottage Creek, 'Nelson's Auberge' at Nelsons Plains and the Court House/cottage at Seaham) (SG 22.6.1830).</p>	AA Company given 2000 acres west of Newcastle and begin to take over coal mining using professional engineers and miners and modern equipment, and convict labour.
1831 1832 1833 1834 1835	<p>Circuit Courts suspended because of cost. 24 prisoners held at Newcastle gaol sent to Sydney for trial instead (SH 4.7.1831). An iron-gang put on to build a road between Newcastle and Maitland under the supervision of a sergeant and 17 soldiers (SH 7.10.1833). Government allows £500 for further construction of breakwater and £200 for the wharf (1834 Estimates). Work recommences on Macquarie's Pier (1835). Captain JH Crummer appointed assistant police magistrate in 1835, a position he held until 1849. An iron-gang was at work at Newcastle under Crummer and a guard of soldiers.</p>	AA Company opened a coal mine and produced 5000 tons in the first year. Steam navigation introduced to the coastal trade stimulates trade and the economy generally. Another call for a lighthouse at Newcastle from shipowners (SH 24.10.1831).
1830s	<p>Convicts and former convicts exceed free people during the 1830s and the military guard, about 70 soldiers, form a significant part of the population. Part of the land granted to the Church of England was returned to government for building new military barracks, which were not ready for occupation until 1847 and completed in 1849. The detachment was finally withdrawn from Newcastle in 1855. Apart from some use by police, the barracks were vacant until 1866 when the government set up a reformatory with 86 uncontrollable young women and girls from the streets of Sydney, despite the objection of the Newcastle community.</p>	Relationships between settler-masters and convicts not good
1836	Governor visits Newcastle to lay foundation stone for the new barracks, on the hill near the parsonage house (SH 4.4.1836).	
1837	Convicts at Goat Island prepared stone for the new barracks. First cargo to	

	Newcastle in July (SH 5.6 and 31.8.1837). The whole of the old line of breakwater at Newcastle was made good and strengthened. Two lines of railroad were formed and cranes constructed to work two quarries. A tunnel about 100 feet in length was cut through the rock to access good material. The railroad and machinery allowed 200 ton of stone deposited daily on the breakwater (Col Sec 3/9684).	
1838	Colourful accounts of law breaking, murder, executions, and convicts escaping from Newcastle gaol relate to this era (eg SH 10.10.1838). Escapes lead to clearing of the vegetation between the gaol and the town. Capt Furlong (28 th Regt) is officer in charge of the Newcastle Stockade, until 1840.	
1839	A gang of men employed at Nobbys to commence work on the breakwater from that end and work towards its completion (SH 20.3.1839). Government Order – ‘no unauthorised landing on Nobbys Island whatsoever’ (GG 22.7.1839). The cost to maintain the convict system is high. Transportation to New South Wales to cease.	Private assignment discontinued. Hired labour increases the cost of coal. Great era of free emigration begins
1840	£300 was spent in Newcastle Breakwater in 1840. Government allows £5000 for Maitland gaol and £1000 for Newcastle breakwater for the next year.	AA Company put down a second mine shaft.
1841	Road gangs work in district. A wall was built for Maitland gaol, costing £6000 to date, but no gaol built yet (SH 7.6.1841). Government spend >£2386 completing a new court house and watch house at Newcastle (1841). Convicts guilty of further offences now sent to Tasmania or Cockatoo Island to labour in chains. No longer to Norfolk Island, which had been used after Port Macquarie was opened to free settlement. Tenders called for supply of 11,000 feet of 6” flagging in the rough delivered to new military barracks Newcastle (SH 11.11 1841). Foreshore reclamation occurring by deposit of ships ballast	
1842	Convicts moved from Newcastle to Maitland to build gaol	
1843		Private industries establish, eg the tweed factory at Stockton. (1843)
1844 1845 1846 1847	Old convict-era buildings considered for Customs House. Breakwater completed enough to allow communication with mainland (MM 24.6.1846). Convicts returned to Newcastle from Maitland Gaol works (1846). Convicts employed in the 1840s on the breakwater, the ballast wharf, ‘at the stockade’, and repairing huts, carts, tools, etc. Convict number temporarily reduced to 30 men. Clerk of Works recommends completion of breakwater and wharf work using 200 convicts for three years rather than contract labour. Establishment necessary for maintenance of 200 convicts was given as one military assistant engineer, one foreman of works, one assistant foreman of works, five military overseers and assistant overseers, one scourger, and 60 soldiers of the line as military guard.	Newcastle made a free port (1844). Customs House set up in a rented house. Charles Bolton is sub-collector of customs and warehouse keeper. Thomas Blair is landing waiter. Increased demand for coal due to Maori wars in NZ. Civil members of District Council to oversee spending government grants for roads, bridges.
1848	The Stockade was ‘broken up’ prior to 15 March 1848, and unserviceable stores such as carts drays and bullocks were advertised for sale. Many convict-era buildings dilapidated due to absence of maintenance. Convicts repairing the breakwater and building the wharf were accommodated in a Stockade at Nobbys and supervisors occupied cottages on Signal Hill. ‘The 99 th Regiment has left Newcastle – not a single red-coat in the town or neighbourhood’ (MM 24.6.1848). Captain Bull, military engineer,	Part of Stockade let to ships chandlers Mitchell and Tully, and Messrs Lodge and Company.

	<p>belonged to the 99th. He was associated with public works at Newcastle. However, convicts were again needed for breakwater work and the military guard returned to the new barracks.</p> <p>The last execution at Newcastle Goal occurred in October 1848. This was a colourful pioneering story of social class, love, jealousy, murder, trial, and public reaction to an incompetent hangman.</p>	
1849	<p>Storms breach Nobbys breakwater (MM 24.1.1849). Tenders called for repairs (GG 8.5.1849). Repairs under way in November (MM 7.11.1849) completed by August 1850. A survey of the harbour by Col. Barney indicated that the breakwater had improved the depth of the channel and ships drawing 20 feet could navigate it.</p>	<p>Public dinner to Major Crummer, 15 years a magistrate at Newcastle.</p>
1850 1851	<p>Reduction in the Imperial military in New South Wales due to economic constraints. Police force must be paid for by local funds.</p> <p>New uses sought for the old stockade, the old military hospital and the gaol. Clerk of Works M W Lewis, of the Colonial Architect's Department, recommends the old military hospital for a Customs House.</p> <p>The Public (or Ballast) Wharf was faced with stone east and west of the Watt Street wharf.</p> <p>A violent gale breached the breakwater. 20 chains was washed away and the tram road torn away (MM 7.6.1851).</p> <p>Nobbys Island proclaimed a quarantine station in December (GG 2.12.1851) possibly associated with illnesses amongst emigrants.</p>	<p>AA Company monopoly on coal mining lifted. 'Rush to the gold diggings' (MM 24.5.1851). Gold discovery increases emigration, steam shipping, trade and coal export and in the following era creates general prosperity and social diversity.</p>
1852	<p>Negotiations under way concerning a lighthouse for Newcastle and solving the problems associated with the sand drifts (Leg Council paper, MM 20.10.1852).</p>	
1853	<p>158 prisoners working on the breakwater. Accommodation and security are poor (MM 9.2.1853)</p> <p>Major Macpherson, superintendent of the convicts still at Newcastle, put some of them to work stabilising about 8 acres of sand drift at Newcastle East by fencing to exclude animals, planting, seeding and grassing, and covering all with brushwood.¹⁶</p>	<p>AA Company begin land sales west of Brown Street Bank of New South Wales opened.</p>
1855	<p>Revegetation of the sand drifts continued using the labour of four convicts. Public dissatisfaction with the management of the convicts at Newcastle was aired in the press.¹⁷</p> <p>The last convicts appear to have been removed prior to August 1855.</p> <p>The 30 acres of promisingly revegetated sand was at risk of reversion to a wasteland.¹⁸</p> <p>Mr Kemp, foreman of works, recommends remaining dilapidated stockade buildings be 'broken up', the Newcastle breakwater stockade establishment also be broken up, and left over stores either sold or transferred to Sydney.</p> <p>All military removed from Newcastle</p>	<p>Public Works now done by private contract.</p>

Year	Convict/military regime	Free enterprise society
1855	The first Volunteer Force enrolled in Sydney but disbanded in 1856.	A volunteer fire brigade forms at Newcastle
1856		First local members returned to parliament. Newcastle Chamber of Commerce forms
1857		Northern Railway opened, Newcastle to Maitland then beyond
1858		Nobbys lighthouse begins operating. Signal Hill

¹⁶ A letter from the Director of the Botanic Gardens Sydney to the Colonial Secretary, published in the *Maitland Mercury*, 2 September 1854

¹⁷ *Maitland Mercury* 27 June 1855

¹⁸ *Maitland Mercury* 29 August 1855

		light ceases. Residences build on hill for Harbour Master and boatmen. Signal staff ordered to be moved to Nobbys.
1859		Representative local government established by the Newcastle Municipal Council. Reclamation of sandhills revived, which enabled the establishment of Newcastle East as a mixed residential and commercial area. After about 30 years of building eastwards and filling, the ballast wharf was approximately today's foreshore line between Watt Street and the Pilot Station. Rail lines occupied the ballast ground and ships loaded coal, wool and other cargo at the long wharf called in the 19 th century Queen's Wharf.
1860	A second Volunteer Force was enrolled that included one battery at Newcastle.	
1870	Imperial troops removed from New South Wales	
1877		Signal Staff returned to Signal Hill, except for tide signals
1878	Reorganisation of Voluntary Forces and Permanent Force.	
1881	A Permanent Artillery and company of infantry stationed at Newcastle. Building of fortifications on Signal Hill obliterates evidence of convict-era mining.	

3. Evidence of the Coal River settlement in the third phase of Newcastle's development

1897, the time of the centenary of Lt Shortland's arrival at Newcastle, was a time for reflection and writing about past historical events and a number of discourses were published that acknowledged the development of the city and its coal mining heritage. A commemorative edition of the *Newcastle Morning Herald* contained an article about the town's 'Old Landmarks'.¹⁹

Landmarks remaining from the pre-1855 era were few. The oldest was thought to be a building at the rear of the Council Chambers in Watt Street. This was 'built in 1818 as a residence for the commissariat officer'. In its day, it was considered a superior building and in its construction, the timbers for a new gallows had been mistakenly used for its beams. In 1872, the Municipal Council used the building as chambers until a new building was erected in front of the old landmark in 1884. It was finally demolished some time after 1939.

¹⁹ *Newcastle Morning Herald*, 9 September 1897

The next oldest building was the front part of the Christ Church parsonage, 'which was built in 1820'. When the town was laid out in 1823, the house encroached on the alignment and even in 1897 it occupied the whole of the footway fronting it. (The old parsonage was demolished in 1902.)

Another old landmark was Reid's store. Lieutenant James Reid retired from the Royal Navy and became a free settler in 1823. He contracted for the supply of provisions to the prisoners in the road gangs and many tons of meat and other rations were issued from his store. The 'store' may have been a former convict-era building.

Still fresh in some of the townspeople's memories was the old goal that had fallen into ruin and was pulled down in the early 1890s to make way for the tram terminus at the top of Scott Street. Many recalled the 1851 fire that destroyed the old stockade, which 'stood upon the beach near the present Customs House'.

The review cited the government residence of Major Morisset that was destroyed by fire in 1820. Upon the destruction of his residence, Major Morisset 'occupied the government offices at the top of Watt Street. These offices, amongst the earliest erected, were also used as a court of petty sessions and a customs house'.

The recognised sites were predominantly ones that were associated with the military administrators rather than with the convict workforce. Perhaps these were considered the 'key sites' at that time. If so, the idea is suggested that evidence of past use, or structures that impart a real link with the past, were essential to appreciating historical events. With the passage of another century and additional layers of development, it is still highly desirable to be able to see or experience real evidence of historical events. This is apparent in modern ideas about interpretation of historic sites.

4. Macquarie Pier

Technical information about the construction of the Pier will be necessary for future interpretation of this key element of Coal River. The following details have been located during research.

In 1818, when the foundation stone was laid by Governor Macquarie for a breakwater wall between the south headland and Nobbys Island, a great deal of broken or small stone must have accumulated at the base of the hill from about a decade or more of tunnelling and mining. Work stopped on the project in 1823 when Governor Brisbane replaced Macquarie. Brisbane called for a Report on the state of the breakwater.

Extracts from the Report indicate that the pier reached 350 yards into the channel, was 42 feet wide, and the depth of water at the end, about the deepest part of the channel, was 10 feet at low water. About 100 yards further on was a reef and shoal.

The Report also included details of its construction.

The surface of the pier was covered with numerous small stones, which had been used in its original construction to fill up the chasms left after the bedding of the side stones of the south-east face of the wall. These stones had been washed out from between the chasms by easterly gales and they laid for the most part scattered on the surface of the pier. About 30 feet from the foundation stone, at the west end of the pier, the second course of side stones had, in many places, entirely gone, and the remainder was more or less shook. At the distance of about 350 feet, the third tier, or layer of stones, was very much shattered; and for a space of between 20 and 30 feet, the small stones and rubbish placed to fill up the vacancies between the heavy stones had been entirely washed away, leaving an opening by which the surf passed up in an oblique direction through the second and upper tier of side stones, to the surface of the pier; and it was expected that unless that defect was speedily remedied, a breach would be made, in the course of the then ensuing winter, quite across, by the surf, which beats very heavily on it in south-west gales. The whole of the backing was found to be washed away, for nearly two

thirds the length of the pier, and many of the upper stones had been removed from the extreme or unfinished end into the channel between Nobbys Island and the main land. The most speedy means ought to be adopted to put it in a state of security, but which could not be accomplished by the prisoners then at Newcastle without putting a stop to all the other public works; for with the exception of the few mechanics in the Lumber yard, of those employed at the mines, the boats' crews, and those in charge of government flocks and herds, the numbers there were totally inadequate to such a laborious undertaking. A gang of not less than 50 strong able-bodied (sic) were recommended to be sent from Sydney without delay for the purpose of repairing the pier and later having performed that service, they could then be assigned to free settlers in the Valley.

The trading and commercial interests of Sydney and Newcastle were concerned about the interruption to the completion of the breakwater. A noticeable improvement to the main channel was evident due to the influence of the part already built.²⁰ However, in 1825, many of the large stones at the unfinished end of the pier were washed into the main channel to the detriment of regular shipping.

Reflecting on the Report and the building of the pier to 1823, an *Australian* editorial review of the breakwater, 30 June 1825, stated that

no one other than Captain Wallis was appointed to superintend the pier's construction. Newcastle's engineers of the period 1818 to 1823 were subalterns of the 46th and 48th regiments. The mechanics and workmen generally were under the orders of an old sergeant of the 46th Regiment who was principal superintendent of public works and died at Newcastle. ... The overseers under him were two stone masons who, though good mechanics in their way were totally unfit to carry such an important undertaking into effect.

There used generally to be employed on the pier from its commencement a gaol gang amounting to an average of 140 men, and about 40 other mechanics and labourers. There were generally employed in drawing stone and rubbish about 35 working oxen.

The greater part of these well-trained oxen was sent to Sydney in 1824.

Not until the 1830s did a major investment in finishing the breakwater occur that continued regularly until the end of the convict era. The story of the breakwater wall since 1855 is another interesting component of Newcastle's history.

Macquarie Pier has extraordinary potential for archaeological investigation and the presentation of findings. Within the present structure, particularly at the southern end, historical documentation indicates that one would expect to find some of the convict-era stonework, which could reveal information about how the breakwater wall was constructed. The present-day traffic arrangements are not conducive to opening a site for investigation. The present-day traffic arrangements for the southern half of the Pier would benefit greatly by reorganisation in order to enable this outstanding pedestrian promenade to be presented and landscaped to advantage. Alternate access to the car park would enable motor traffic to be eliminated from the Pier. Signal station vehicles could access the northern half of the Pier at the obelisk. Removal of traffic would enable an archaeological

²⁰ *The Australian*, 30 June 1825

investigation site to be developed to discover the foundations of this major public work and celebrated example of convict heritage.

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1. Coal River Historic Site

At least two recent documents have sought acknowledgment of the convict heritage of Coal River (Newcastle) and its potential to advance cultural industries. Both documents recognise the under developed resource that lies beneath the modern city.

2. The Site

The Parks and Playgrounds Movement Incorporated's proposal (submitted since 1969, and most recently in October 1999) lists as primary elements of a *Newcastle Coal River Historic Site* Nobbys Headland, Macquarie Pier (Nobbys breakwater), the convict coal workings beneath Fort Scratchley, the Military Fortifications (Fort Scratchley and Torpedo mine) and the Stockade Lumberyard.

The *Heritage Places Strategic Plan and Plan of Management* (February 2000) notes five 'sites' or Heritage Places with convict associations: Nobbys Headland, Lumberyard Stockade, Fort Scratchley, Cathedral Park and King Edward Park.

The latter definition is geographically more comprehensive for the overall concept 'Coal River' and both concepts include subsequent layers of occupational history.

Convict heritage is inseparable from military heritage. However, the military heritage diverged and evolved along an individual pathway after the cessation of the convict era, until in recent times the sites that had been long used were no longer appropriate for modern military purposes. The importance of the military history and its interlocking in time and place with convict heritage elements explains the inclusion of 'Fort Scratchley, and the torpedo mine facility' in the Parks and Playgrounds prospectus.

The guns installed at Fort Scratchley in the 1880s had a range of over 2 miles. They also covered one or two lines of torpedo mines, which could be laid across the harbour from the pilot boat shed to Stockton. Directing and controlling this system of submarine mines

protecting the entrance to the port was done from a command position at Fort Scratchley. The underground bunker for storage of the mines and cables remains in situ at the pilot station, near the historic boat dock, and is an interesting object that enhances interpretation of the early defences of Newcastle.

Cathedral Park and King Edward Park are ‘Heritage Places’ that include not only important elements of convict heritage but civic and social elements of the evolving city.

A concise definition of Coal River, in time and space, is a prerequisite for interpretation proposals.

On the basis of evidence presented in this report, the primary area is the space impacted upon (by Europeans — convicts and military) prior to 1822. The secondary area accommodates the continuation of the convict and military presence until 1855. A third sphere indicates the superseding of the physical evidence of the former eras by the evolving society.

The *Heritage Places Strategic Plan and Plan of Management* states, page 7, that ‘Council recognises that heritage places require interpretation and wherever possible this should be on site for casual encounter by the visitor as well as maps, plans and documents’.

The *Plan* also indicates that ‘there are still many opportunities for Council to increase the benefits to the city’s cultural industries through improvements to the city’s image and tourist capacity’.

The *Parks and Playgrounds Movement Prospectus*, page 2, calls for ‘the provision of a world class Coal River Interpretative Centre with access to convict coal mine workings and an innovative presentation of Newcastle’s unique convict and industrial heritage associated with the site’ (Point 4 of a 5-Point proposal).

3. Existing on site interpretation

Coal River has been recognised in recent years by the placing of a number of informative plaques in the streets. An inventory of plaques was compiled for the preparation of the Newcastle East Heritage Walk Signage Project. Along and to the east of Watt Street are approximately 13 plaques that mark convict heritage sites and 16 plaques that highlight heritage elements belonging to the post-1855 era. There is also a substantial Coal Monument with historical images and text. Plaques west of Watt Street were not included in the above inventory.

The Newcastle East Heritage Walk is comprised of 18 interpretive signs that explain diverse heritage elements of their sites through all phases of occupation.

Macquarie Pier has a number of diverse interpretation elements that includes four plaques and an obelisk the interpretation of which needs reinstating to prevent misinterpretation. Beyond Nobbys are additional sculptural works that convey aspects of history through that medium.

The Lumberyard Stockade site has comprehensive interpretation, erected recently.

4. A Central Interpretation Facility

An Interpretation Centre is a venue where a visitor can be led through a series of informative experiences that reveal the meaning and significance of the entity to be interpreted, in this instance ‘Coal River’.

4.1 Design Requirements

Visitors and staff must be able to access the venue by appropriate transport.

The Centre must provide a positive and comfortable experience for visitors and thus must be informative attractive and efficient with facilities such as a café, toilets, and optional mementos such as books, leaflets, photographs and general visitor information. The design must provide for a favourable arrangement for income generation.

The interpretative content of the Centre must indicate a high level of scholarship and use up-to-date technology for information management equal to the standards of presentation appropriate for a major Australian city.

4.2 Favourable criteria for the site of an Interpretation Centre

- ❖ The site should be dramatic and commanding
- ❖ The site should be central to the area to be interpreted
- ❖ The site should be in public ownership with potential to expand
- ❖ The site should physically and socially relate to the area to be interpreted
- ❖ The site should be accessible to transport and parking space
- ❖ The site should lend itself to a building that can be distinctive yet discrete

The result of test bores to locate coal mines will help determine ranking of final choices.

4.3 Possible sites for Interpretation Centre

Site	Opportunity	Constraint
Fort Scratchley fortifications	Already a tourist attraction	Unique fortification dominated by military heritage. Unwise to compromise this focus.
Nobbys Road/old SES site	Believed to be above convict coal mines Commanding position Overlooks convict Newcastle entirely Purpose built facility possible Adjacent to a well visited tourist attraction Protected from on-shore weather	

Pilot Station		Unique site redolent with maritime and navigational heritage. Unwise to compromise this focus.
Nobbys Surf Lifesaving Clubhouse	Outstanding location adjoining a parking facility Ideally situated to appreciate many themes eg. Nobbys, the Pier, coal mining and the harbour.	Unlikely to be available Outlook excludes the city Hostile environment
Park above Ocean Baths	Purpose built facility possible Believed to be above convict coal mines Overlooks much of convict Newcastle Purpose built facility possible Central to Newcastle East	Exposed to severe weather
Coutts Sailors Home	Superb maritime heritage building that would have been ideal to interpret maritime history, maritime social history, and heritage. Proximity to Lumber yard ideal to strengthen tourism visitations.	Recently handed over to Land Council
Stationmasters house	Close position to Lumberyard site.	Railway heritage/domestic building. Interior arrangements not known.
Former military barracks	A substantial British military building of the late convict era, with open space. Has an appropriate relationship to the convict era and convict coalmines. Proximate to early coal shaft	Enclosed by high brick wall; prevents instructive vistas of convict Newcastle. Possibly too large and complex a site to achieve the optimum experiences relating the city's past to its present. More information needed.
Shepherds Hill Cottage/site	Overlooks convict Newcastle. Proximity to KEP favourable for attracting visitors.	Relatively remote from key sites Transport and parking may be problematic
Newcastle Bowling Club in KEP	Overlooks convict Newcastle. Proximity to KEP favourable for attracting visitors. Proximate to coal shaft	Relatively remote from key sites Unlikely to be available

4.4 Advantages of a new facility

Interpretative content can be planned prior to designing the building. This is especially important for introducing modern interpretive facilities.

The building can be designed to provide optimally for the requirements, including built-in security. If sited in a location that visually provides a city-wide and harbour-wide panorama,

the relationships and links between the key and secondary sites of Coal River can be demonstrated in a superior manner. The convict heritage foundation of the city becomes at once apparent and if this is supplemented by appropriate images the subsequent growth and development of Newcastle is readily conceptualised.

A new building will have the potential to become a landmark.

If favourable test boring to tap the coal workings beneath Fort Scratchley hill helps determine selection of the Nobbys Road site for the Interpretative Centre, the opportunity will be presented to provide a particularly unique exhibition.

4.5 Attributes of an adapted facility

Many existing buildings already represent specific heritage themes. This quality may present difficulties in establishing another identity without overshadowing the building's existing heritage attributes.

Spaces within existing buildings may limit interpretative content and techniques used.

5. Concept for a Coal River Interpretation Centre

Newcastle has no central interpretive facility that presents the story of the city to citizens and visitors in a prominent educational and recreational environment. Many cities do have such a facility, for example, the 'Lady Nelson Interpretive Centre' at Mount Gambier, South Australia, set up for 1988. Here, a 'highlight' theme was selected — the European sighting of the locality's old volcano by Lieutenant Grant in the survey ship *Lady Nelson* — and an extensive interpretative exhibition developed around this, and other themes, using the location and landform of the volcano to advantage and audio visual, film, video, computer and some more-traditional techniques to tell the stories.²¹

The following concept for a Coal River Interpretation Centre would provide a similar facility that reveals the magnificent visual and historic panorama of Newcastle from one of the city's most significant sites.

The preferred site option for an Interpretation Centre is the space east of Nobbys Road that for most of the 19th and 20th centuries accommodated residential and military buildings and probably convict housing at the time of first occupation in 1801. (Illustration 11) Imaginative but discrete architecture could be used that represents, for example, continuation of the fortifications wall. From interior spaces, Coal River can be interpreted in a manner not possible in the outer environment because of attrition of structures and changed meaning of space. Linkages in time and place can be readily conveyed within the panorama of not only the city and harbour but the Hunter Valley as well. Common historical elements can be presented by interactive technologies within the exhibition space. 'Then and Now' presentations can show the viewer images from the past and direct them to real images of the present.

Coal River can be the principal and initial theme of the Interpretive Centre, that is, the convict, Imperial military and industrial period 1804 to 1822 and convict, military and civil period 1822 to 1855. The highlight of the interpretation could take the form of images of the coal workings beneath Fort Scratchley hill transmitted to screens by a camera or cameras in situ, using the borehole techniques used when building the Taxation Office. In time, it may be possible to expose old workings by excavation.

²¹ Tocal Agricultural College is presently establishing a substantial Interpretive Centre and the methodology used may be of comparative value to any plans for a Coal River Interpretive Centre

Subsequently, other themes can be incorporated, such as geological history, Aboriginal occupation, European arrival 1796 to 1804 and Aboriginal and European interaction.

The development of the defences of Newcastle holds great interest for the community and the proximity of the Coal River Interpretive Centre to Fort Scratchley provides the opportunity for a cooperation arrangement within that extensive site.

Maritime, port and coal trade themes are continuous with all periods since European arrival. The remaking of the harbour into one of the world's great ports of the modern industrial age is a story of great significance. People who helped shape the community merit recognition. The growth and decline of industries and the modern remaking of the city are additional themes to be explored, and which help define the identity of Newcastle.

The aim of a Coal River Interpretive Centre is to be interactive, not merely between visitors and the exhibits but also between the site and the environment outside the building.

The existing fortifications wall is an additional opportunity on which to depict bas-relief-sculptured scenes of convict mining and quarrying.

5.1 Linkages between sites

A central interpretation facility using modern technology can have the ability to explain graphically the form and function of Coal River and then superimpose theme by theme upon this structure the incremental changes that have progressively occurred, to the present. Successive overlays can 'build the city'. By this means, the visitor can understand, for example, the development of the coal yard into a lumberyard, industrial workplace and stockade, the progression of coal loading techniques first by hand and basket or barrow to mechanical devices and steam cranes at specially constructed wharves. The visitor can understand the sequence of harbour engineering that has created the Port of Newcastle, or the extension of mining from the coastal headland to beneath the city and nearby hills, and to the coal-mining origin of the inner and outer suburbs.

Having experienced the overall centralised interpretation, the visitor can inspect each site as they chose. Provided with thematic maps, for example the defence of Newcastle, the visitor can walk to the observation post beneath Nobbys, view the site of the torpedo mine chambers near the Pilot Station, explore Fort Scratchley and visit the Shepherds Hill site. The interpretative display would have indicated that Stockton, Fern Bay, Tomaree Port Stephens and places to the south of Shepherds Hill were also part of the more recent chain of fortifications. Stories relating to the fortifications could be colour-coded on to an information panel at selected sites.

5.2 Summary of Objectives for a Coal River Interpretive Centre

- ❖ To identify the convict heritage of Coal River and its potential to provide a visitor attraction and educational and recreational resources that can attract people to the heritage core of Newcastle and contribute to identity and prosperity.
- ❖ To provide a modern and imaginative exhibition in a relevant location within a special building integral to the concept.
- ❖ To orient visitors to other heritage features and other cultural and natural attractions including walking trails.
- ❖ To unite the Heritage Places of Newcastle East, the publicly owned ones of which are presently managed according to individual management plans.

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Tunnels under Fort Scratchley

1.1 Background

Nobbys Island and South Head, Hunter’s River. A copy of part of a 1902 ‘Geological Map of Part of the Maitland Coalfields’ by T W Edgeworth David is appended. (Illustration 12) This diagram indicates the past continuity of the land and various coal seams that feature in Newcastle’s 19th century coal mining history. Wind and water erosion over the recent geological past caused the face of the residual perpendicular cliffs (South Head) and island (Nobbys) at the entrance to Coal River to wear away. Stone and coal collapsed into the sea, later to be washed ashore.

When Europeans arrived in the vicinity, they saw three coal seams in South Head and two or three coal seams in the island. The found large deposits of water-worn and weather-eroded coal accumulated around the beaches and foreshores.

No accounts have been seen that indicate Aboriginal use of this coal resource.

1.2 Historical context for coal mining 1796 to 1821

Eight years after the First Fleet’s arrival at Port Jackson, in 1796 fishers who sheltered in the vicinity of Newcastle took to Sydney a sample of coal that they had gathered from the beach.

In 1797, Lieutenant Shortland and his crew entered the Coal River estuary and confirmed the presence of large quantities of coal lying about the shoreline that had been eroded from seams in the near-perpendicular cliffs of the island and the southern headland.

The lowest visible seam was at sea level at both the hill and the island. The seams in the southern headland continued from the harbour to the sea coast and thence in a southerly direction where a fourth seam was noted. T W Edgeworth David’s survey indicates that the sea level seam on the island was not the same seam as the sea level seam on the southern headland.

During the period 1797 to 1801, crews of both government and private boats visited Newcastle to collect cargoes of timber and coal. At first, coal was gathered from the foreshore or hewed out of the most easily accessed seams using iron bars and other available tools.

1.3 Historical evidence of convict coal mining

Coal mining implements and persons with mining experience were almost non-existent in the colony until 1799. That year John Platt, a 35-year old convict who was also an experienced miner, reached Sydney. The expertise of this knowledgeable man was immediately put to task using some boring apparatus sent from England in the unsuccessful quest for coal in the vicinity of Sydney.

At last in 1801 Governor King was able to send an exploration and surveying party to Coal River that included Lieutenant-Colonel William Paterson, Lieutenant James Grant, surgeon Mr John Harris, surveyor Ensign Barrallier, a pilot, soldiers and a native in two ships – *Lady Nelson* and *Francis*. John Platt was included in the party. He was sent to establish and supervise coal mining by reliable methods.

A party of soldiers first worked with Platt at ‘Colliers Point’. Other officers, a guard and 12 convicts specially selected for the task subsequently joined them. Huts were erected for the convicts and their guards.

Platt opened up a tunnel and the convicts were set to work extracting coal. The seam that was almost at sea level yielded the best quality coal and the deeper into the cliff the miners penetrated the better was its quality.

This was Australia’s first coal mine.

Details of coal mining, conveying, measuring and loading in late 1801 are contained in two letters written by Martin Mason (Surgeon-Commandant of the party) to Governor King. (Historical Records of New South Wales Vol 5 pp. 597, 627, copies appended Illustrations 5 and 6)

Mason noted that at four locations around the cliff, the coal seam was being penetrated and propped. The four tunnels were 34, 31, 27 and 10 yards into the seam. Candles were needed as the men reached further underground. More places could be opened if more labour was available. Mason wanted the assistance of a surveyor who could determine the direction that the seams took, so that he could determine ‘where to open any of the hills to the most advantage’ for saving labour and carrying off water.

Jim Comerford, mining authority and author of a recent discourse *Coal and Convicts*, published in 1997, has interpreted Mason’s observations and concludes that Mason’s letters reflect Platt’s expertise.²²

Comerford describes the early workings at Colliers Point:

Between June 15 and November 21, 1801, the miners had pushed one drive nearly 100 feet underground, a second drive had been taken the same distance and a third drive was in by 80 feet. The newest of Platt's drives had penetrated a further 30 feet. Aggregating 310 feet of tunnelling, those drives, or headings as they are called, ran parallel to each other. That the main headings had been connected at regular intervals by cross-drives, or cut-throughs, is evident by the absence of vertical shafts. The distances covered by the miners in the cut-throughs would equal the distances in the

²² Jim Comerford, p. 113

headings so, in total, about 600 feet of under ground roadways had been mined out in five months.

The connected workings facilitated the circulation of fresh air from the sea. Without vertical shafts, unconnected headings would not have received sufficient fresh air to permit miners to remain at the face. Shallow vertical shafts have been found in the grounds of what was Watt St Hospital. Further up the rise from the harbour to the coastal cliffs they were sunk to the coal seams clearly for ventilation purposes only. They were put down later than Platt's time at Newcastle. The first shaft used for the production of coal was sunk between 1812 and 1814. This is the shaft referred to in James Tucker's 1884 novel Ralph Rashleigh. This reveals that Platt was using more systematic methods of mining than the bell pit²³. His method was the model that British miners were still agitating to have adopted at that time.²⁴

This first attempt at a settlement at Newcastle is generally said to have been unruly and was withdrawn in early 1802. Comerford critically analyses the relationships and conflicts between Commandant Mason and the men (and woman) who were directed to perform the mining. The evidence indicates that inappropriate administration of the settlement was the cause of its suspension. Mason's attitude to Platt is overbearing, as indicated in his (Mason's) letter 21 November 1801. (illustration 6)

Comerford makes further observations about early convict mining.

While there has not been any systematic archaeological investigation of the convict-worked mines at Newcastle they have been intermittently re-entered, particularly during excavation for the foundations of new buildings over their sites. In January 1885, a concrete retaining wall was put around Fortification Hill, as Colliers Point had been renamed.

In its issue of January 29, 1885, the Newcastle Morning Herald noted that the wall had 'blotted out forever' the 'broad drives' into the old mines under the hill. ... A number of leg-irons, manacles and other articles ... had been found in the exposed drives.²⁵

Comerford continues:

From what has been uncovered ... the more advanced bord and pillar methods had been adopted for the underground layout.

Colliery workings by bord and pillar can be likened to the layout of a city by parallel main streets, with the side streets broken off at right angles to them. The city blocks would represent the pillars of coal left to support the overlying strata. Roadways through the city block (pillars) are called cut-throughs. Cut-throughs are systematically brick-walled to ensure the flow of fresh air into the mine and the discharge of vitiated air to the surface.

When the section of a mine laid out in headings, bords, pillars and cut-throughs reaches its extremities, or barrier, the coal left in the pillars is extracted. That is the most dangerous sequence in the miners work, since there is then nothing left to support the roof as the coal extraction pulls back. Width of the drives and the size of the pillars can

²³ An early mining method used in English mines that is described in Jim Comerford, 'Coal and Convicts'.

²⁴ Jim Comerford, pp 103-104

²⁵ Jim Comerford, p. 105

vary according to the thickness of the seam, its depth from the surface, nature of roof strata and other natural conditions.

At the harbour-side entries to the convict mines into Colliers Point, and for some distance underground, the miners could work in natural ventilation as a result of prevailing sea breezes. But beyond their limit ventilation had to be induced by other means. ...

Robert Alfred Harle, General Collieries Manager for the AA Company, told the 1908 Royal Commission on Earth Subsidence at Newcastle that there did not appear to exist any complete plans of the convict collieries. His company had been given the sole right to mine coal in Newcastle from 1828. It sank a group of vertical shafts and Mr Harle deposed that the company's miners had found other vertical shafts, which must have been convict-made. They had clearly been sunk for ventilation, as they showed no sign of having been used for haulage. The original Colliers Point entrances must have been used for many years as the point of entry and exit.

A report on the state of the Newcastle mines by an ex-colliery manager, surveyor and civil engineer, John Busby, dated May 5, 1824, was read to the 1908 Royal Commission. What it reveals about working methods would apply to the whole time of convict working up to 1824.

As the coal seams dipped farther from the surface the shafts put down to them became progressively deeper. Water running out of the strata gravitated to the working faces at the lowest point where it made conditions very difficult for the miners. The only way to drain the mines was by hand baling into casks. In some places the tunnels broke out into the cliffs above the sea, thus letting some of the water out of the workings.

No gunpowder was used at convict-Newcastle, either for mining or shaft sinking. All the coal was won by picks. Tool making and repair was thus an important activity at the settlement.

Eventually other convict-worked mines were developed away from Colliers Hill, near Merewether. In the 1940s, these workings were entered for the first time since their abandonment and Jim Comerford (*Coal and Convicts*, Chapter 15) quotes extensively from the descriptions and interpretations of them made by Glenrock No 2 mine manager Jim Anderson. Evidence remained in the mines of the lighting used and the use of wooden rails to carry coal skips.

Examination of the tunnels beneath Fort Scratchley should indicate if coal skips on rails were also used there. At first, basket-carriers conveyed the coal from the Colliers Point mines, to where it was to be shipped. Cartage was then improved by using wheeled barrows and later carts drawn by oxen. The route ran west from Colliers Point and terminated near where Newcastle Customs House building now stands and is depicted on Jeffries' 1816 chart of Newcastle and the harbour, also appended, Illustration 1.

Following the withdrawal of this first attempt at settlement, the years from 1802 to 1804 was another period of unsuppressed and unregulated coal exploitation. The private operators caused a great deal of damage to the mine workings.

The period 1804 to 1821 began with the re-establishment of a settlement at Newcastle. The settlement was to supply coal, timber and lime for government use and for sale and also serve as an isolated place of punishment for Irish political prisoners who took part in the Castle Hill uprising and other convicts who offended against the laws of the colony. 1804 to 1821 were Newcastle's years as a penal settlement, a goal within a goal, the 'Botany Bay of Botany Bay' and the first such place in Australia.

The outpost was placed under the command of a new Commandant and military detachment. John Platt was again placed in the position of Chief Miner and much labour was necessary to repair the tunnels damaged by improper coal extraction. In the meantime, Platt opened a new drive into the coal seam so that production could begin.

Comerford's study analyses John Platt's role at Newcastle amid the complex context of colonial and convict society in New South Wales. How many years he remained at the settlement is not known. Comerford notes that the 1806 New South Wales Muster shows John Platt as 'Emancipated Convict, Miner, Self Employed'. In October he petitioned the governor for a full pardon, being successful in 1809. ... He died in Sydney Hospital on June 10, 1811, aged 48 years, from 'asthma', a non-specific early name for one of the fatal respiratory diseases of miners.²⁶

How does modern Newcastle acknowledge the contribution of this man to its primary primary industry? In no way whatsoever.

Towards the end of Governor Macquarie's term of office John Thomas Bigge was appointed by the Imperial Government to inquire into the administration of the colony of New South Wales, which he did between 1819 and 1820 and his reports were subsequently submitted to the British Government, and published in 1823.

The Bigge Report describes the various labour done by the convicts at Coal River, which he obtained from evidence collected from selected witnesses, and notes:

*Another species of work at the Coal River consists of hewing and raising coal in one coal mine that is now worked there. Until the year 1817, coal was obtained at this settlement by a drift made on the sea shore, and level with it, penetrating a seam of coal that showed itself under the large mass of superincumbent sandstone that forms the south headland of the entrance to Hunter's River. The depth of the seam is three feet and one inch and it is the same that is now worked by a perpendicular shaft of 111 feet, and a common windlass turned by convicts. The water found in the present coal mine is carried off by the old drift to the sea shore.*²⁷

In underground mining terms, a 'drift' is an approximately horizontal passageway. Bigge's statement suggests that the preferred seam of coal was mined westward from the sea cliff. The ventilation shaft reached this coal seam and the underground workings here joined with

²⁶ Jim Comerfors, p. 112

²⁷ *The Bigge Reports*, Australiana Facsimile Editions No 68, p 115

the drift (or drifts) that had been worked back from the coast. Water that accumulated in the shaft was ‘carried off by the old drift to the sea shore’.

The Bigge Report supported Macquarie’s opinion that by 1820, Coal River was a more appropriate place for free settlement and that the penal function should be removed to a more remote location, Port Macquarie.

Coal mining by a convict workforce continued at Newcastle after the penal settlement moved to Port Macquarie and until the AA Company took over the industry from the government. Their first coal won from new mines was exported in 1831. Convicts labour was assigned to the Company and professional engineers using up-to-date equipment introduced pumps to remove water and an inclined railway to transport coal. After their monopoly was curtailed in 1850, many private venturers opened other mines surrounding Newcastle.

Another reference to tunnels under Signal Hill is contained in colonial secretary correspondence concerning the renewal of breakwater building in the 1830s. The engineer in charge of these works Major George Barney wrote in 1837 that:

the whole of the old line of breakwater at Newcastle has been made good and strengthened to nearly an additional third. The late heavy gales have made no impression. At the commencement of the year there were four large breaks through the work. Two lines of railroad have been formed and cranes constructed to work two quarries. A tunnel has been cut (of upward of 100 feet in length) through the rock for the purpose of obtaining access to a large portion of good material. The extension of the breakwater is only now commencing but its progress will after this be expedited. The rail road and machinery admit of 200 ton of stone being daily deposited on the continuation of the line of breakwater.²⁸

This report indicates tunnels cut for the extraction of stone rather than coal

1.4 Evidence of the coal workings revealed

The coal seam at approximately sea level beneath South Head was mined from about 1799. When Newcastle was settled, the summit of the headland was chosen as the best place for some guns to discourage convicts from stealing boats and trying to escape to sea, the best place for some navigation signals, and the best place for a rudimentary ‘lighthouse’. The lighthouse function moved to Nobbys Headland in 1857. Most navigational signalling moved there also. The harbour master Captain Allen then occupied a home on the hill and houses were built there for the harbour pilots and boatmen. The hill was isolated from the town and hard to reach because of the intervening sand drifts

In 1877, Imperial military engineers and strategists Sir William Jervis and Colonel Scratchley visited Newcastle and inspected and reported upon the best site for building substantial fortification ‘to defend the harbour and city from attacks, in case of war between England and any other power’.²⁹ Newcastle was then the largest coaling station in the Southern Hemisphere and therefore a likely target of any aggression. Hence the need for defences.

²⁸ Colonial Secretary correspondence, 37/9684

²⁹ *Newcastle Morning Herald*, 15 May 1877

The principal sites inspected were ‘Captain Allen’s Hill, Nobbys, and the cliff opposite the Asylum for Imbeciles’. It is of interest that this cliff is depicted as the site for a flagstaff in Bauer’s painting of Newcastle c. 1804. The flagstaff is close to the Commandant’s house and its purpose was probably to communicate shipping information from the harbour entrance, and indicate the presence of the Commandant ‘at home’.

Captain Allen’s Hill was chosen as most suitable for the fortifications.

Contemporary observations made by *Newcastle Morning Herald* journalists about building the fort on Captain Allen’s Hill provide further confirmation of the convict coal mining tunnels beneath. The sea face of the hill was to be escarped ‘to render it unapproachable in case of any attempt to scale; whilst the inland approach was to receive ‘all the latest defence protection’.

*The old coal working beneath the hill, it has been found, are not likely to prove dangerous, and will consequently be filled in, in place of being brick tunnelled, as at one time suggested.*³⁰

‘Filling in’ of the old coal workings discovered under the site, and the removal of the harbour master and pilots residences, extended the contractor’s work time about 12 months.

As the fortification works neared completion, Colonel Scratchley, the mayor and city engineer examined the hill for a propose carriageway around its base. Although intended for the pleasure of the townspeople, Scratchley believed that such a road would also be advantageous in the event of any military manoeuvres.

By mid-1884, the fortifications were ready to occupy but another six months work occurred before the ‘fortification wall’ was complete.

*For some time past the work of constructing a concrete retaining wall around the base of Fortification Hill has been completed. The job seems to be a thoroughly lasting and creditable one. Those of the public who used to find their way thereabouts will recollect that the foot of the hill (‘Captain Allen’s Hill’) was formerly riddled with broad drives, which had been put in to admit of examination being made of the old coal workings underneath the hill, with a view to ascertain whether their existence was likely to prove prejudicial in after days to the heavy fortification works and masonry overhead. All necessary precautions having been taken, by means of filling in or roofing the many underground passages and chambers, their entrances were finally blotted out of sight forever by a deep thick wall of solid concrete and masonry. The discovery made at the time of a number of leg-irons, manacles, and other articles too strongly suggestive of the horrors and tyrannies enacted thereabouts in days gone by will be fresh in memory. The underground dungeons and abodes of wretchedness then exposed are now, happily, forever closed from human sight.*³¹

Another four years passed before the carriage drive around the fort was built and beautification works undertaken about Parnell Place, making the area a ‘charming resort and promenade’.³² A brick retaining wall was constructed at the base of the hill to edge the carriage drive.

³⁰ *Newcastle Morning Herald*, 25 February 1882, p. 5

³¹ *Newcastle Morning Herald*, 29 January 1885, p. 2

³² *Newcastle Morning Herald*, 16 November 1889, p. 3

An illustration of Fort Scratchley appeared in the *Newcastle Morning Herald* in December 1894 and the accompanying description of the landmark says in part:

In the early days the hill was undermined by the extraction of the coal seams underneath it, so that when forming the fort it was found necessary to fill up the denuded strata by means of rubble and cement.

Official and public interest in the convict coal workings was again raised in the early 20th century when the Hill area of the city was disturbed between 1906 and 1908 by mine subsidence, called ‘Creeps’. A Royal Commission in 1908 looked into the matter of earth subsidence at Newcastle. Evidence was presented to the Commission that between 1800 and 1826, the output of coal was estimated at about 30,000 tons, and a further 70,000 tons were extracted to 1831 when the AA Company took over mining from the government. This represented mining in an area of about 40 acres, much of which extended about the locations of the various airshafts, which were west of Fort Scratchley.

A copy of a map reproduced from the Royal Commission’s Report is appended. (Illustration 8) It does not extend easterly enough to include Fort Scratchley, which area has not been mapped for mine workings. The map does indicate the Market shaft, the Asylum shafts and the bowling green shaft, all of which are part of the convict era workings. (See also Illustration 9)

H W H Huntington, who was employed in the Justice Department of the Public Service and was appointed Registrar at Newcastle Court and Assistant Clerk of Petty Sessions (1885 to 1894), was also a noted historian. Amongst his many historical writings is a compilation and interpretation of historical records of Newcastle to 1850. Huntington expected to be called as a witness to the Royal Commission and prepared historical material about early government coal mining. The Commissioner did not call upon him for any evidence. A letter is extant written by Huntington to Mr Sparke, indicating the lines of research he pursued to compile evidence for the Commission. He refers to the 1818 survey of Deputy Surveyor Meehan, the 1823 reports and surveys (and possibly field books) of Henry Dangar, and the 1826 Report by surveyor and civil engineer John Busby who prepared a report on Newcastle’s coal deposits for the AA Company. These sources may provide further references of convict-worked mines under Fort Scratchley.

W J Goold, writing in the *Newcastle and Hunter District Historical Society Journal* July 1953, page 153, noted that in 1881:

when the contractor James Russell was excavating for the foundations of the Defence Works at Fort Scratchley, he came across the tunnels and drives made by the convict miners in the early days. Mr McKenzie, Examiner of Coal Mines, and an old miner named Thomas Mills examined these tunnels some of which were seven feet high and others four to five feet. In one of the cuttings, or drives, a number of leg irons or shackles were discovered.

Any reports made by Mr Mackenzie at the time and probably held in Mines Department archives would provide further evidence of the state of the tunnels in the 1880s and possibly some further observations about the miners and their working environment.

Jim Comerford (*Coal and Convicts*) notes that no systematic archaeological investigation of the convict-worked mines at Newcastle has been carried out and they have only been

intermittently re-entered, particularly during excavation for the foundations of new buildings over their sites. For the South Head mines, this was in the 1880s during the construction of Fort Scratchley and the fortification wall.

When, in the 1980s, underground works were carried out in association with the old Watt Street hospital site, Mr George Oldham, a retired hospital plumber, told a *Newcastle Herald* journalist that the hospital grounds ‘held many secrets’. ‘The place is honeycombed with tunnels. Many of them are ratholes off the old mine workings’, he said.

The historic plaque outside the hospital’s Watt Street entrance says a shaft sunk there in 1817 just inside the gates was the first one in Newcastle. But it’s wrong. At least that’s what we were told by a mines inspector who was here with an old map after the Obelisk water tank explosion took place. The Watt Street shaft is just an air shaft. The tunnel entrance was a walk-in where Newmed is now. The old Beach Hotel once stood on the Watt and King Streets site and a large ‘cave’ beneath it was discovered during demolition in 1978.³³

Mr Oldham was aware of others shafts in the hospital grounds. The Watt Street shaft had ‘come to light by accident many years ago’ when a hole appeared in the road. Another was near the Medical Superintendent’s cottage, one near the lawn tennis courts, and another discovered when the new police station was built. He stated that before miners entered the mine, a fire was lit at the entrance creating hot air drafts that would expel the foul air inside, the shafts working like chimneys.

The observations of Mr Goold and Mr Oldham also indicate sources of further documentary evidence of the network of tunnels beneath Fort Scratchley and extending west towards the Hill, the hospital grounds and King Edward Park.

For many years, the building of medium to high-rise structures in parts of Central Newcastle had been prohibited because of old coalmine workings (in particular the Yard Seam) 23 m below ground. No maps of these 1830s workings existed and additionally there was a second mine (the Borehole Seam) a further 42 metres beneath the Yard Seam.

In recent years, large building projects have been able to go ahead because of new techniques in the construction of foundations, for example, for the building of the Taxation Office on the corner of King and Darby Streets, and the nearby Telstra Building. A paper presented to the 1988 Conference on Buildings and Structures Subject to Mines Subsidence (Institute of Engineers Australia) ‘Investigation and Backfilling of Early Workings, Yard Seam, for Construction of High Rise Building, Burwood Street Newcastle’, by Pells, Openshaw, Love and Pedersen described the technique used to create a map of the workings and how the workings were filled to enable building to proceed.

A number of boreholes were drilled on and around the site with most striking open workings, which were filled with water. A special underwater TV camera was then used to probe and record on video the old mine workings. The filming was then translated into 3-D sketches, which enabled the present state of the mine workings to be measured and analysed.

Special techniques were then used to fill the working to meet specifications for foundations that allowed the tall buildings to be constructed.

Documentary evidence indicates that the contractor for building Fort Scratchley, James Russell, did fill with rubble and seal with concrete some part of the coal mines under the hill,

³³ *Newcastle Herald*, 4 July 1988

probably that part of the workings directly beneath the part of the hill that supported the heavy guns and principal buildings only. There is no reason to doubt that open workings remain in the state that they were left over 180 years ago beneath un-built on areas of Signal Hill and techniques such as that described above are available, which would provide an authentic dimension to Newcastle's significance in Australia's mining history.

If a 'Coal River Interpretation Centre' was developed in the vicinity of Fort Scratchley, permanent boreholes that reach into the convict coal workings, containing video cameras, could continuously transmit images to a screen above, allowing visitors a direct experience of this historic subterranean environment.

Tunnels beneath Nobbys

The seam of coal visible to early mariners approximately at sea level at the base of Nobbys Island is depicted in TW Edgeworth David's diagram as the Nobbys Seam. This is a different seam to the one mined at approximately sea level beneath South Head – the lower split of the Dirty Seam.

The early visitors to Coal River found navigating the entrance to the river difficult. The ships of the 1801 exploration party waited at sea while Grant and Harris using a small boat, landed on Coal Island. They climbed to the top and set up the new Union flag – said to be only the second time this flag was set up in New South Wales. On this occasion the flag was a signal for the ships of the expedition to enter the harbour and move to a safe anchorage. This was the beginning of one of the most enduring uses of the island – as a signal station.

Lt Menzies, following his arrival in 1804, looked about for a place of confinement for the worst of the convicts. One of the estuary islands in the river was considered but rejected. However, Menzies decided that:

Coal Island will answer much better as a place of confinement, from which it would be impossible to effect their escape; but I trust there will not be any occasion for a place of that description.

His hopes were not answered. Lt Menzies soon had to isolate some rebellious convicts on Nobbys, in double irons, after their primary punishment of 200 lashes, thus beginning a long relationship of convicts with Nobbys.³⁴ This was another use of the isolated and inhospitable rock. When the convict population of Newcastle increased significantly, from 1816, the island was inadequate as the settlement's place of confinement and Commandant Wallis had the convicts work at building a traditional goal where the worst of them could be confined, especially at night. However, this building was taken as a hospital instead, a more humanitarian priority, and building a goal had to wait until Commandant Morisset's term, which began in December 1818.

Some convicts worked at fishing for the settlement and they won a good catch at Nobbys.

It is noted elsewhere how work progressed building Macquarie Pier until the closure of the convict era in 1855. In 1839, a gang of men were stationed on Nobbys, working on the breakwater from that end. A Government Order prohibited unauthorised persons from

³⁴ J Commerford, *Coal and Convicts*, p. 150

landing there.³⁵ Accommodation for a large number of men, and security, were generally poor. Money was voted by the government to continue with the work and convict numbers fluctuated greatly during the years to mid-1846 when the breakwater wall was completed enough to allow communication with the mainland.³⁶ Storms regularly caused breaches in the wall, washing away stones and the tramroad, and requiring continual repairs to maintain its completeness. A survey of the harbour by Colonel Barney in 1849 indicated that the breakwater had improved the depth of the channel and ships drawing 20 feet could navigate it.

Captain Alexander Livingstone, who came to the Hunter in 1822 and was later appointed the first harbour master, gave evidence to a Select Committee on the Newcastle Lighthouse in 1852 and amongst his evidence is the statement:

When we were working coal on the island we had a quantity of water in the tunnel springing from below. I believe there is a spring; but they never found water when the prisoners were stationed there.

During the gathering of evidence from key witnesses to determine the place for the Newcastle lighthouse, knowledge and opinions about the island were presented to the commissioners. There was agreement then that Nobbys was the best place for the light, but not about the height that the island should be cut down to to create a platform for the light tower. Livingstone suggested 25 to 30 feet, or to ‘the height where the inclined plane begins to descend – a small place cut where there is a tramroad’. He suggested that the light be 50 feet above the platform, such that the light would be 75-80 feet above sea level.

Captain Bull, the Superintendent of Public Works at Newcastle, took into account the nature of the rock. The top of the island was shale and he recommended removing this layer so that a firmer foundation would be available. He recommended any height to 92 feet, which was the height where the shale began. He actually suggested 65 feet above sea level and a light 40 feet above this would have brought the light to 100 or more feet. Bull recommended blasting the top in such a way that the rubble would slide eastward onto the rocks. 60-65 feet above sea level was the agreed-upon height for the platform.

Captain Bull stated that buildings already on Nobbys could be used as a cookhouse and a mess shed for the convicts who would do the work.

Apparently further discussions between 1852 and 1854 about the forthcoming interference with the island’s height involved the townspeople and the maritime fraternity and a swing of opinion in favour of ‘Beacon Hill’ being the site of the lighthouse gained momentum in the community. Even Captain Livingstone was said to have changed his mind. Petitions in support of the Beacon Hill site and calling for a further enquiry were forwarded to the government.

About July, some people noticed that the engineer superintending the work ‘was boring chambers with the intent of blowing up the whole mass with gunpowder’. Apparently two chambers were built for this purpose and 17 tons of gunpowder was requisitioned.

The Colonial Secretary replied to the petitioners that gunpowder had been resorted to because it would be quicker and less costly than manual labour – blasting taking six months to prepare the platform while cutting down would take three or four years.

By the blasting process about a third of the island would be shaken seaward, leaving a sufficient base, while the stuff cast out seaward would add to the solidity of the breakwater in

³⁵ *Government Gazette* 22 July 1839

³⁶ *Maitland Mercury* 24 June 1846

course of formation. The petitioners were ‘under a misapprehension that the whole island was to be blown up’.

The Chief Commissioner of Crown Lands Colonel Barney spoke of using the gunpowder. He said:

*the mines were at present in a fit state for use. ... By mining the lower portion of the promontory, which would be blown out seaward, the upper part would fall down, but a base perfectly sound and untouched would remain, affording sufficient space for the erection of a dozen lighthouses. The action of the gunpowder had been too well calculated to admit of the possibility of the mass forced by the blast being blown into the harbour, but on the contrary it would prove highly beneficial in reducing the expense of labour, and also afford materials for the protection of the breakwater.*³⁷

Further records of the debate in the Legislative Council 14 June 1854 may provide more details of the process intended to be used in reducing the height of Nobbys and any interference by mining or tunnelling to prepare for the gunpowder blast.

One of the townsmen, William Croasdill, opposed the gunpowder explosion on more general grounds. He spoke of the fact that ‘*the whole of Newcastle is under-riddled by mines and the water in those mines will be in communication with the water round Nobbys, so a large explosion might have the effect ... of injuring a great many houses in the town*’.³⁸

The matter of reducing Nobbys was raised again in the Legislative Council on 10 November 1854. Some of the petitioners had been consulted and the Select Committee decided to recommend that:

*the proposed lighthouse should be erected on the top of Nobbys and that the island should be merely prepared by levelling and thus making a ledge a few feet below its present summit. The adoption of this course would, it was believed, combine all the advantages which have been suggested as desirable by retaining the island as a landmark, and by placing the lighthouse not only in the most conspicuous place, but as preventing the necessity for making explosions, the idea of which had caused so much apprehension amongst the residents of Newcastle*³⁹

When the last convicts were removed from Newcastle in 1855, Mr Kemp, Foreman of Works, recommended that the remaining dilapidated (Lumberyard) Stockade buildings be ‘broken up’, the Newcastle Breakwater Stockade Establishment also be broken up, and left over stores either sold or transferred to Sydney.

In April 1855, a tender was let to Mr Wright, the contractor for the Hunter River Railway Works, to cut about 25 feet off the top of Nobbys Island to make a flat surface on which the lighthouse could be erected. ‘The soil is to be thrown out to seaward to strengthen the breakwater’. A number of men, who were engaged to work building the railway, were put to work on the island.⁴⁰ This was an example of the replacement of convict labour by contract labour.

The men were still working at cutting down and levelling the island top when, in June, the government took over the building of the Newcastle to Maitland railway from the Hunter River Railway Company.⁴¹

³⁷ *Maitland Mercury* 17 June 1854, report of the Legislative Council 14 June 1854, abridged from the Sydney papers

³⁸ Quoted in Terry Callen, *Bar Safe*, p. 34

³⁹ *Maitland Mercury*, 15 November 1854, report of the business of the Legislative Council

⁴⁰ *Maitland Mercury* 28 April, 2 May 1855

⁴¹ *Maitland Mercury* 6 June 1855

In July 1855 the work was complete. Nobbys then presented a ‘strange appearance to those who knew it in its original state, or even as it was twelve months since. It is easy to see it has been done by experienced workmen and it presents a strong contrast to the garbled appearance of the Flag Staff Hill, its immediate neighbour’.⁴²

This statement appears to deride the work of the convicts and infer the superiority of contracted labour.

Tunnels beneath Nobbys appear from records to have been cut for three reasons.

- (1) They were associated with mining the seam or seams of coal apparent in early paintings and documents.
- (2) They were built by convicts for convicts as places to sleep or rest while Macquarie Pier was under construction particularly from the island end. A stockade on Nobbys associated with convict management is mentioned in the literature, - or
- (3) These tunnels, or especially cut ‘chambers’ were prepared for proposed gunpowder blasts that would expedite the ‘cutting down’ of the hill for the lighthouse.

The lifeboat was kept on the shore beneath Nobbys until the pilot station boatsheds were complete, c. 1860s. Early photographs, of a later date, show buildings and equipment at the harbour-side base of Nobbys. Any tunnels were probably made use of during subsequent maintenance or port related activities.

The ‘tunnels beneath Nobbys’ have been a topic of curiosity in recent years particularly associated with bicentenary anniversary celebrations. A 19th century photograph exists that indicates the position of a feature that has been interpreted as a tunnel entrance. It is in the north-east cliff face of Nobbys above high water mark and may have been obliterated by the World War Two defence installation nearby. (Illustration 10)

In the 1920s, tunnels on Nobbys were still open to any person who wanted to investigate them. Several boys did so who, as men in 1984, recalled their explorations within them ‘The walls were flat and smooth and some kind of seating arrangements were in the chambers’, said one of the men. ‘The tunnels were level and well formed’.⁴³

Where other tunnel entrances may be is uncertain. Probably they are obscured by fill material – sand and rock. To reveal them, ‘all that appears to be needed is the services of a small front-end loader and the assistance of a State government department’, wrote Norm Barney in the *Newcastle Herald*, 3 March 1984. Barney quoted from an 1850s Sydney newspaper report that stated that there were three explosives tunnels inside Nobbys with chambers on both sides.

Macquarie Pier and its extension seawards are Newcastle’s premier promenade. Regular visitor numbers must be high indeed. As part of on-site interpretation of Nobbys and the Pier, excavating and exposing a tunnel entrance has much appeal. An entrance could be exposed, possibly behind a security grill. Interior lighting could be installed together with some figures and tools representing men at work. Explanatory information would be available after the interior has been investigated. A footpath could be provided that detours from the existing promenade to the site if appropriate. Ideas such as these appear a possible strategy to utilise a potential major historical element that has stimulated the imagination of many people who recognise the merits of such an attraction.

Coal River sites are basically archaeological sites. Only by using clever and innovative methods can one take advantage of the latent heritage resources of Coal River.

⁴² *Maitland Mercury*, 11 July 1855

⁴³ *Newcastle Herald*, 3 March 1984

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