

NEWCASTLE CITY WIDE HERITAGE STUDY

THEMATIC HISTORY

Extract from Newcastle City Wide Heritage Study by
Suters Architects, prepared on behalf of Newcastle
City Council 1996/7

digitised 2007

1.1	INTRODUCTION	1
1.1.2	The Establishment of Newcastle.....	1
1.2	NEWCASTLE'S FOUR QUARTERS	2
1.2.1	The First Quarter – Convictism and Coal	2
1.2.1.1	The Government Buildings.....	3
1.2.1.2	The Private Buildings	3
1.2.1.3	The Town Stagnates.....	3
1.2.1.4	Australian Agricultural Company Stimulates Coal mining.....	4
1.2.1.5	The State of the Town to 1846.....	4
1.2.2	The Second Quarter – The Railways and Coal.....	5
1.2.2.1	The Port Develops.....	5
1.2.2.2	Towns in the Hinterland.....	6
1.2.2.3	Local Government makes it debut.....	6
1.2.3	The Third Quarter – Steel Making Takes Up the Running.....	7
1.2.3.1	The Steelworks in Operation	7
1.2.3.2	Rapid Population Growth and the Great Depression.....	7
1.2.3.3	A Greater Newcastle	8
1.2.3.4	World War II Stimulates the City	8
1.2.3.5	Continuing Population Growth and a Post War Vision.....	8
1.2.4	The Fourth Quarter – Adjusting to a New World.....	9
1.3	HISTORIC THEMES IN NEWCASTLE'S DEVELOPMENT.....	9
1.3.1	Table of Historic Themes.....	10
1.4	Pattern of Settlement.....	23
1.4.1	Exploration.....	23
1.4.2	Aboriginal Contact.....	23
1.4.3	Convicts – The Penal Settlement, 1801-1822.....	24
1.4.4	Land tenure	25
1.4.5	The Towns	26
1.4.6	Transport.....	30
1.4.7	Migration.....	34
1.5	Economic Development.....	35
1.5.1	Pastoralism.....	35
1.5.2	Agriculture	35
1.5.4	Mining.....	36
1.5.5	Industry	38
1.5.6	Commerce.....	41
1.5.8	Science	43
1.6	Role of Government.....	43
1.6.1	Government and Administration.....	43
1.6.5	Utilities.....	47
1.7	Social Development.....	48

1.7.1	Housing	48
1.7.2	Social Institutions.....	49
1.7.3	Ethnic Influences	50
1.7.4	Cultural Sites.....	50
1.7.5	Leisure.....	51
1.7.6	Sport.....	51
1.7.7	Environment.....	53
1.7.8	Health.....	54
1.7.9	Welfare.....	55
1.7.10	Religion.....	55
1.7.11	Education	57
1.7.12	Death.....	58
1.8	Associations and Influences.....	59
1.8.1	Significant People	59

DRAFT

1.1 INTRODUCTION

The Hunter Valley is a vast catchment area, collecting rain water in immense quantities and channelling it back to the ocean. Presently, the mouth of the Hunter River is the Port of Newcastle but it was not always so. As B.Nashar explains in *The Geology of the Hunter Valley*, before the end of the last ice age,

When the shore line stood about 270 feet lower than it does now, the mouth of the Hunter River oscillated from time to time over a wide area lying between Nobby's and Morna Point and coarse shingle was spread over this plain between these two localities.

Later there was a submergence of the coastal area in which Lake Macquarie, Port Stephens, Brisbane Water, Broken Bay and Port Jackson shared. This allowed the waters of the ocean far up the old land valley... The spot on which the city of Newcastle now stands was an island. The sea cut it off from the high cliffs near Merewether in a narrow strait which ran between Merewether and Shepherd's Hill. Likewise, Nobbys and Shepherd's Hill were islands.

Subsequently silting by the river and emergence of the land to the extent of about fifteen feet, enabled the Hunter to push its delta out to the present position along the Newcastle Bight, while Shepherd's Hill became joined to Merewether by the alluvial plains which extend from Merewether beach inland to Broadmeadow, Hamilton and Waratah.

In this fashion the site of Newcastle was created in the delta of the Hunter, with a sandy peninsular to the north, a huge swamp to the north-west, hilly forests in the west with sandy plains and more forest country to the south. Outcropping on the coast were rich coal seams, destined to be the *raison d'être* of the city.

To sum up, the area around the mouth of the Hunter River was useless for agriculture, but coal rich and entirely suitable for urban development.

1.1.2 The Establishment of Newcastle

At Newcastle, where sea meets shore, the rich coal seams of the Hunter region displayed themselves in a range of cliffs, showcases to early European explorers. This spectacular display impressed the newcomers, and between 1791 and 1801 escaping convicts, pursuing naval officers, off-course fishermen and official explorers all commented on the mineral wealth of Newcastle. Not so obvious, but clearly evident to members of the first official exploring expedition in June 1801, were some of the other resources of the hinterland and the region's manufacturing potential. Thus Colonel William Paterson, the leader of the party reported to Governor King:

Government might derive many advantages by forming a small settlement at this place. In the first instance, the coals are a principle (sic) object, 2nd. Boiling Salt, which could be done with little labour, 3rd. Burning shells that are here in great abundance. Besides, salting of fish might be carried on with considerable benefit if some industrious fishermen could be found for that purpose, as the fish are plentiful and good. There is excellent pasture for cattle, but until where the rivers meet, is not fit for cultivation. What I term forest land is remarkable fine soil.

Impressed by Paterson's report, the Governor decided that a settlement should be formed immediately at the mouth of the Hunter River and the exploitation of its coal and cedar began at once. The camp at the Coal River, as it was called, was closed six months later but re-established in 1804 when the names, Northumberland for the county, and Newcastle for its capital, were adopted. Over the next two decades, while coal, lime, timber and salt were inefficiently extracted from the region by gangs of convicts, the vast agricultural potential of the well-watered, fertile Hunter Valley was revealed.

1.2 NEWCASTLE'S FOUR QUARTERS

Beginning in 1801 the abundant resources revealed to those early explorers were trapped in four roughly equal but clearly marked stages. Until the coming of the railways in 1850s exploitation was hampered by inefficient land transport, but in the era of the steam locomotive the Newcastle coalfield became the powerhouse of the Australian colonies and there were encouraging developments in smelting and manufacturing. Despite these, there were signs of decline in the city by the turn of the century as its aging collieries began to close and its principle copper smelter ceased to operate. However the year 1915 marked the end of one era and the beginning of another as the First World War disrupted the export of coal and the opening of the BHP steelworks transformed Newcastle into Australia's industrial capital. This third stage of development was marred by the Great Depression, but it culminated in a remarkable flurry of industrial activity as the region diversified to meet the needs of a nation at war once more.

As the world adjusted to a life of peace, Novocastrians anticipated a return to dependence of heavy industry, hopefully free of depression and without so much reliance on industry. To avoid this, the city planned a great expansion of its industrial district but the Kooragang project did not live up to the expectations and since 1983 the steelworks and its subsidiaries have been replacing labour with advanced technology and Newcastle has been forced into other economic activities, particularly the service industries. Each of these periods left its distinctive mark on the heritage of the region.

1.2.1 The First Quarter – Convictism and Coal

When Newcastle was resettled in March 1804 by a party of convicts and soldiers under Lieutenant CA Menzies, Governor King was still interested in the resources of the Hunter region and anxious to isolate rebellious convicts who appeared to him to be threatening the security of the colony. The "disaffected Irish, who were lately sent here for sedition and rebellion" were worrying the Governor in 1800 and this strengthened his interest in forming a coal mining settlement in the north. Its re-establishment permitted the removal of "about forty of the worst" of the Castle Hill rebels and to these "Irish", King added a contingent of English convicts who had been unruly on the voyage out but who were "not of a worst cast than people of that description generally are". This indication that the new settlement was not seen as a purely penal outpost is confirmed by King's plan to send free settlers there from Norfolk Island and his suggestion that a volunteers' association be formed to strengthen the garrison against mutiny.

However these plans were not fulfilled and until 1822 the vast majority of those who landed at Hunter's River were men and women sent to serve colonial sentences. They formed a large part of the workforce available to commandants for the settlement's major purposes – the exploitation of its resources of coal, timber, salt and lime.

For seven years after its re-establishment Newcastle's total population fluctuated around 100. Until 1808 Norfolk Island continued to recover many of those who were banished by colonial courts, but thereafter the Hunter River was the usual destination. By 1815 the population had passed 500, in 1819 it was 846 and growth was so rapid in the next two years that the total reached 1169 in 1821, a figure which was not to be exceeded for three decades.

1.2.1.1 The Government Buildings

Begun in haste, the settlement was laid out in an irregular fashion around the axis of George Street (late Watt Street) which led from the wharf to the commandant's house overlooking the settlement. Until rapid expansion after 1815, Newcastle was appropriately referred to as "the camp" and its building stock was unimpressive. Bricks were not made locally in this first decade, and most if not all buildings were of timber construction. During the commandancy of Captain James Wallis (1816-1818), bricks were made of the Hill and stone began to be quarried from the base of Signal Hill (Fort Scratchley). These materials were required for the more substantial structures for the growing population, in particular a new gaol, an enlarged commissariat store, a new hospital and the settlement's first church.

Many of these buildings were poorly constructed and within or two years of completion developed serious flaws. Though JT Bigge in 1820 criticised Governor Macquarie for these problems, there can be little doubt that the difficulty arose from the lack of a competent architect and builder in the settlement. Nor were there any trained bricklayers and in these circumstances the brick buildings attempted were too ambitious. However, the many weatherboard buildings, mainly barracks, built between 1816 and 1820 were considered by the Commissioner to be more appropriate in style and he praised Major Morisset for the simplicity of their construction. Though Francis Greenway, as civil architect in Sydney was then erecting St Matthews Church at Windsor, perhaps his greatest achievement, the buildings at Newcastle show no signs of his influence and were of such poor construction that none of them remains.

1.2.1.2 The Private Buildings

From 1804 until 1820 most of the convicts were expected to live in privately owned huts, constructed of timber or plaster with bark and shingle roofs. The property of trusted convicts whose tenure depended on the Commandant's good opinion, these huts did not long endure the penal settlement. By 1820 there were 71 dwellings of this kind, but then policy changed and barracks were built to accommodate the majority of the convicts.

Both government and private buildings were threatened by the realignment of the streets in 1822, for many of them were found to intrude onto the new streets and to cross the boundaries of the new allotments. The parsonage, for example, which was completed in 1820, intruded into Newcomen and Church Streets and the superintendent's house and store intruded into Scott and Pacific Street. None of these buildings has survived.

1.2.1.3 The Town Stagnates

Governor Lachlan Macquarie's decision to open up the Hunter Valley to free settlers necessitated the closure of the penal settlement, and during 1822 most of Newcastle's convicts were moved away to Port Macquarie. As the town was expected to serve its hinterland as a port, a government surveyor, Henry Dangar, was directed in 1823 to prepare a town plan on the site of the convict settlement.

Dangar imposed a regular grid plan on the rather haphazardly arranged settlement of 1804-1823. Making provision for a town of 190 allotments with a church enclave and market place at its centre, Dangar established the layout of central Newcastle as we know it. The existing streets were realigned and most of them were renamed. At this time much interest was being taken in the discovery of steam and six of the streets were named after engineers who had contributed in this field.

The official vision of Newcastle as the major town and port of the developing Hunter Valley was ill-conceived as Maitland-Morpeth was destined to fulfil this role in the pre-railway age. Private interests did not enter the coal industry until the end of the decade, and the Crown was forced to continue its coal mines, retaining up to a hundred convicts for that purpose and to maintain roads. The gaol also remained in use, serving the northern districts of the colony, but the buildings erected before 1823 were not maintained and there were no new government buildings until the 1840s.

1.2.1.4 Australian Agricultural Company Stimulates Coal mining

It was the development of steam navigation which began to carry Newcastle out of the doldrums in the 1830s. Firstly the A.A. Company (capital £1,000,000) which had been chartered in London in 1824, entered the coal industry with the intention of exporting coal to India for use by the steamers of the East India Company and then steamships began to appear on the coast of New South Wales, creating the first significant commercial demand for coal. To permit the Company to develop a new colliery and to provide it with adequate reserves, the British government allowed it to select 2,000 acres of coal land in any part of New South Wales. After searching unsuccessfully in the Sydney district, the Company made its selection on the western boundary of Newcastle using land set aside for the future expansion of the town. This could be regarded as the most important event in its nineteenth century history as it had profound effects on the future expansion of the town.

The entry of the A.A. Company into coalmining transformed the industry. Its first mine was equipped with the two steam engines (the first to be used for mining purposes in the colony) for raising coal and pumping water and its coal was delivered to the port, by an inclined plane which, though it relied on gravity for its power, has been recognised as the first railway in Australia. Moreover, the casting of certain metal parts for the steam engines may well have been the first occasion that such work was undertaken in this country.

1.2.1.5 The State of the Town to 1846

The A.A. Company brought stability and efficiency to the town's basic industry, but by the terms of its land grant the Company did not have the right to alienate any of its land and to the town was restricted to the land east of Brown Street until the early 1850s. This was of no great significance at that time because there was very little construction going on. Several hotels were opened and the first stores were built around Watt Street, but overall growth was so slow that Charles Wilkes described the town in these terms:

The town of Newcastle is a very small village of seventy of eighty houses, built on the side of a hill; it contains two taverns and several grog shops, a jail, convict stockade, hospital, courthouse, and a venerable looking old church. One of the neighbouring hills is a flagstaff, and on another a windmill. The business of a coal-mine and that of the building of a breakwater for the protection of the harbour, give the place and air of life and animation.

1.2.2 The Second Quarter – The Railways and Coal

In the mid-1850s, Newcastle was still a tiny place, a mere village, the home of about 1,500 people of whom some one fifth were coal miners. As such, it had few attractions for visitors and, as one naval officer remarked as he steamed away in H.M.S. Torch, he was pleased to be leaving “those shores of sand and coal dust”. However, the steam railway age was at hand.

The first stage of the great Northern Railway, between Newcastle and East Maitland, was begun in 1854 and opened by Governor Sir William Denison on 30 March 1857. That afternoon at the terminus at East Maitland 1,500 people gathered to try to take advantage of the free rides on the new train and to see His Excellency set off for Honeysuckle Point Station at Newcastle. Their interest and excitement was indication of the importance of the occasion, arguably the most important day in the history of Newcastle. As the railway was gradually extended through the Hunter Valley and into northern New South Wales, taking 25 years to reach Tamworth, Newcastle served as the Port of an expanding region. Simultaneously, private railways facilitated the transport of coal to the port, permitting the opening of new mines at Minmi, Wallsend, Lambton, and Waratah within a decade, thereby laying the foundations of Newcastle’s key role in the Australian economy.

The significant improvement the railways made in land transport would have been of little use if there had not been a parallel programme of port improvements. The railway came more suddenly as an “iron horse” should, and the fanfare was louder but the less spectacular improvement of harbour facilities was just as important.

1.2.2.1 The Port Develops

The prime concern of the newly formed Newcastle Chamber of Commerce in 1856 was to press for harbour improvements. Demanding local control of the port, the Chamber described the only public wharf as “a crumbling and shelving heap of stones” and predicted that “the port will soon have no wharfage accommodation whatsoever...” A steam tug, a properly constructed lighthouse, an increase in the number of pilots and the dredging of the shipping channels were all pressing needs and it was clear that a long term plan was required if Newcastle was to make the most of its coal. Fortunately the New South Wales Government was already moving in that direction.

A blueprint for the development of the Port of Newcastle was in preparation by Captain E.O.Moriarty, the Engineer-in-chief for Harbours and Rivers, who spoke of “a great scheme for the permanent improvement of the harbour by the erection of a pier” across Bullock Island (now Carrington) to provide much needed additional coal loading facilities. It involved the construction of a long Dyke on a tidal sand tract of some 1,600 acres to the east of Bullock Island. Initially to be formed of ballast stone, it was eventually widened, faced with a line of wharves and equipped with coal loading appliances. Dredging would create a shipping basin to the south and the facility was later linked to the Great Northern Railway to the north.

The execution of this far-sighted plan, which required the eventual removal of all coal loading from the southern side of the estuary, began in 1862 and was more or less complete in 1878 when a new system of coal loading came into operation. Designed by Sir William Armstrong, the British pioneer of hydraulic engineering, and built at his Newcastle-On-Tyne Engine Works, the cranes could lift 15 tons of coal with ease. Linked by water pipes to a powerhouse in Carrington, these appliances were the wonder of the age and “the chief glory of Newcastle”.

Additional cranes, more boilers and a new engine, larger cranes capable of “hoisting the foremost of a ship just as if it were a walking stick”, gas lights to allow night loading, extensions to the dyke, improvements to the rail network, and a northern harbour breakwater were gradually added under Moriarty’s direction. By his retirement in 1888 Newcastle had been equipped to handle a vast coal trade and his contribution to the development of its port has never been surpassed.

As the railway network developed, the Newcastle coalfield expanded both geographically and in terms of output. In 1850 the Australian Agricultural Company was the only large producer and total Newcastle output did not exceed 54,000 tons: by 1914 the 76 mines shipping through the port of Newcastle produced over seven million tons. About two thirds of this was consumed in the Australian colonies and the remainder was exported, mainly to Asian ports and to North and South America.

In the second half of the last century the coal industry had more than fulfilled the hopes of Novocastrians, but the potential of their district for manufacturing was still unrealised. In the 1840s, as the Australian colonies underwent their first severe depression, the manufacture of preserved meats, pottery and woollen textiles had flourished in Newcastle. The return of prosperity after the discovery of payable gold in New South Wales and Victoria in the following decade created labour shortages and inflation which combined to destroy most of these early factories. Nevertheless, from the 1860s local manufacturers, especially those who were processing the produce of the Hunter Valley, began to recover.

The most famous of these was William Arnott, the biscuit manufacturer. In 1856 he started a small bakery in Newcastle, and within a few years was able to construct a large two-storey biscuit factory employing the most modern steam machinery where he made a wide variety of plain and sweet biscuits including the ship’s biscuits which sold for twopence a piece.

1.2.2.2 Towns in the Hinterland

With these improvements in transportation came the villages that would eventually become suburbs to the city. In the 1830s Cooks Hill and Stockton had their beginnings and in the next decade Merewether and Wickham began to shape. Waratah and Carrington followed in the 1850s and then came Wallsend and Lambton, New Lambton and Adamstown. With the exception of Stockton, Wickham and Carrington, all these towns were closely connected with the development of the coal industry and since its produce was shipped through the Port of Newcastle, the fortunes of the city and the towns were interlocked from the beginning. The three that did not depend mainly on local were based on industries which also utilised the port and so they too had close ties with Newcastle. Thus, in that sense it is erroneous to consider these places as independent towns, and yet, for most of the second half of the last century many of them did enjoy separate status. However, powerful forces were at work threatening the independence of the towns. The colliery railways had brought them close to the hub of the city and the opening of the Newcastle to Plattsburg-Wallsend tramway in 1887 was another decisive step towards unification.

1.2.2.3 Local Government makes it debut

While economic forces tended to unify the city and the towns in its hinterland, the development of local government was strengthening parochialism. Inner Newcastle (from coast to the bank Corner) accepted the need for local government in 1859 but no further councils were formed until the 1870s when Hamilton, Lambton, Waratah, Wickham,

Wallsend and Plattsburg followed suit. In the next decade Adamstown, Merewether, Carrington, Stockton and New Lambton were incorporated to create an excess of small, inefficient town councils in the area: most began with a council and a part-time Town Clerk as sole staff. By 1900 these municipalities were locally governing the lives of 50,000 people and industry promised to attract many more to the coalopolis at the mouth of the Hunter River.

1.2.3 The Third Quarter – Steel Making Takes Up the Running

In the first decade of the twentieth century, as the South Maitland coalfield boomed and the inner Newcastle collieries continued to close, it appeared that the city might have to rely on its port function but the Broken Hill Proprietary Company transformed the local economy by opening a Steelworks at Port Waratah. Famous as a silver-lead producer, the BHP moved into the new industry on the recommendation of the American consulting engineer, David Baker, who predicted

That...you can assemble at Newcastle the iron ore, coke and limestone for pig iron production at a lower cost per unit of iron produced that is possible for the United States Steel Corporation, the largest and cheapest producer in its country.

1.2.3.1 The Steelworks in Operation

Opened in the middle of the Great War, the steelworks was profitable from the beginning, and the plant expanded more rapidly than the company planned. Simultaneously, the State Government opened a state dockyard on Walsh Island, only a stone's throw from the steelworks. By 1919 these two plants had a combined labour force of 7,300. Such economic expansion created the impression that jobs were plentiful in Newcastle and migrants from other parts of Australia and overseas flooded into the Hunter, creating a housing shortage and forcing up rents. This led in turn to new subdivisions and to more intensive development of older residential areas in the 1920s.

The end of the war caused a severe contraction in the demand for steel, and as coal exports did not recover, the 1920s were marred by periods of recession. There were signs, however, that the steel industry would eventually recover. Essington Lewis, an outstanding industrialist, now head of the BHP, embarked on a programme of diversification and cost cutting.

Encouraging overseas firms, mainly from Britain, to establish steel processing plants on the fringe of the steel works, Lewis gradually expanded the demand for its produce. Thus, in the 1920s and 1930s, Newcastle acquired the works of the Titan Manufacturing Company, the Australian Wire Rope Works Company, Bullivants Australian Company, the Commonwealth Steel Company, Ryland Brothers, Lysaght Brothers and Stewarts and Lloyds. At the same time he sought to control the cost of raw materials and shipping by buying collieries and ships so that, by the 1930s, his company began to fulfil David Baker's forecast of 1912 by producing some of the world's cheapest steel.

1.2.3.2 Rapid Population Growth and the Great Depression

Stimulated by the Steel Industry, the population of Newcastle (excluding Lake Macquarie Shire) grew from 54,000 in 1911, to 84,000 in 1921 and 104,000 in 1933. With such significant industrial and demographic development, the CBD responded with new

commercial buildings, particularly hotels and stores, and Newcastle City Council constructed a town hall and Civic theatre worthy of the State's second city in 1929.

The general optimism of the 1920s was dispelled by the Great Depression which brought the construction industry to a halt and severely affected the steelworks and its dependant plants. With high unemployment, estimated at 30% of the workforce, hundreds of people moved into shanty towns at Nobbys Beach, Stockton, Carrington and Adamstown, Lambton, Waratah and Hexham. Partly because of the Depression the State Dockyard closed in 1933 but the steelworks gradually increased its production, leading the city out of the slump as the decade progressed.

1.2.3.3 A Greater Newcastle

In 1938 the eleven municipalities of Newcastle finally united to form the City of Greater Newcastle, thereby ending many decades of friction between the councils and permitting, for the first time, a city-wide approach to problem solving. From that point united action on regional issues, EG. The city of the city's airport, was possible, and the councils could no longer compete against each other in policy making or rate fixing. Achieved by Act of Parliament and finally formed on the constituents by the State Government, the amalgamation was an important landmark in Newcastle's development.

1.2.3.4 World War II Stimulates the City

World War II had a profound effect on Newcastle which became a key industrial area of great strategic importance. Anticipating the outbreak of hostilities in the Pacific, Essington Lewis began to prepare BHP for its wartime role after his 1934 overseas tour. Facilities for the production of munitions were installed at the steelworks and the Company's metallurgists had to cope with the new technologies involved in the manufacture of special alloys not previously made in Australia. Magnesium, which was vital for aircraft production, was made for the first time, and tungsten carbide, and essential cutting and shaping agent in precision engineering, began to flow from a pilot plant at the steelworks in 1941. In fact, Newcastle steel was used in the manufacture of a wide range of military items from shells to ships and the overall effect of the war was to greatly stimulate metals manufacture in the city. This was important for the war effort but it also created a base for post-war industrial expansion.

To defend the city a network of coastal fortifications was constructed with Fort Wallace as the linchpin of the system. Radar installations on Ash Island directed from a control centre in the New Lambton Primary School; anti-aircraft batteries around the port; army huts in King Edward Park; large private houses commandeered by use by the military; all these were features of the national war effort in the study area.

1.2.3.5 Continuing Population Growth and a Post War Vision

Because of the war no census was taken until 1947 when the results showed a marked population growth in the year since 1933. In Greater Newcastle lived 127,000 people, an increase of 23,000 but growth in the adjacent Lake Macquarie Shire had been more spectacular and for the city as a whole the population was 157,000.

With an economy strengthened and diversified by the war and a nation hungry for consumer goods after six years of relative deprivation, Australia's industrial capital set out to repeat the successes of the past. It launched the Kooragang Island reclamation scheme to create another

6,000 acres of first class industrial land with deepwater frontage. Perhaps the city might yet be the Pittsburg of the Pacific.

1.2.4 The Fourth Quarter – Adjusting to a New World

Since World War II the confidence of Newcastle in its secondary industry base has been shaken. After initial successes the Kooragang Island project ground to a halt and much of its land has been freed for ecological development. The population of Newcastle-Lake Macquarie has continued to grow, reaching 293,000 in 1991 but Newcastle lost about 11,000 residents between 1961 and 1994 with significant consequences for the preservation of its built environment and the survival of its historic communities.

As if these problems were not serious enough, Newcastle was hit by a severe earthquake on 28 December 1989. Estimated at 5.6 on the Richter Scale, the earthquake killed 13 people, injured about 120 and did widespread damage to buildings. Total damage exceeded \$1.2 billion and the loss to insurers made it their most expensive disaster in Australian History.¹ In heritage terms the earthquake had positive and negative effects. It provided funds for the restoration of thousands of buildings, the most outstanding being the Customs House, which cost \$4 million to restore, but it also led to the destruction of many fine structures which were too seriously damaged, or considered to be too seriously damaged for restoration.

The city is still adjusting to the long term decline of employment in its heavy industrial base. In 1983 the BHP Company announced the first stage of its restructuring, involving a \$356.m upgrade in capital equipment but marked a reduction in the numbers employed. [*Postscript 2007 - In 1999 the steelworks closed and in 2001, the site, its plant and equipment were dismantled, removed and demolished. The archival record of the steelworks and the steelmaking operation can be obtained from the Newcastle Regional Library.*]

Fortunately the Port of Newcastle has continued to increase its coal shipments but this too is capital intensive. The population of the lower Hunter continues to grow faster than the number of jobs available in the areas: Where will the people work?

1.3 HISTORIC THEMES IN NEWCASTLE'S DEVELOPMENT

In compiling this history of Newcastle, the themes have been developed to correspond to those nominated in the State Heritage Inventory Guidelines prepared by the NSW Heritage Office Department of Planning. This lists 34 themes, intended as being applicable to the assessment of all heritage items in the state. While in some areas it is likely that only a number of them will be of any great significance, in a city of the size, complexity and age of Newcastle, all the themes are relevant.

Having said this, there are five major themes which have shaped Newcastle's history, and these have been alluded to in the historic overview and the naming of the Four Quarters. That is:

- Convicts
- Coal
- The Port
- The Railways
- Heavy Industry

¹ To 1997.

These themes are interlinked and woven through almost every aspect of the city's development. A principle reason for the establishment of Newcastle as a convict settlement in the first instance was to provide a workforce to mine the coal that had been discovered. The need to ship this coal back to Sydney and elsewhere, as well as other natural resources such as timber, led to the development of the port, and later the railways as activities moved inland. The provision of this massive infrastructure in the port and the railways provided a basis for the development of heavy industry in the 20th century. Then, as the transportation and communication systems have further developed, it supports the changing role Newcastle is facing today as a regional service centre.

In order to simplify the framework of the themes, and demonstrate the connections between items, they have been arranged into four principle groups of development, and a fifth group dealing with people and events. That is:

- Pattern of settlement: this considers why the land of the city has been developed as it has, the boundaries of the subdivisions, the routes of roads and railways, the locations of the townships.
- Economic development: this considers the occupations that have been pursued in the city, the way we work and trade.
- The Role of Government: that is the provision of roads and services and the maintenance of law and order.
- Social Development: this considers the development of our social, civic and cultural development including housing, religion, welfare and leisure.

and;

- Associations and Influences: this considers the people and events that have played an important role in the city's development, and which may relate to any or all of the above groups.

These are clearly set out in the table below. Each of the 34 state themes is cross referenced to the local themes identified. Sometimes a number of important local themes have been identified in relation to each state theme. The principle activities or events that are related to each local theme is then noted, and it is these activities that we would expect to find evidence of when looking at the characteristics that make up our city today.

When assessing the heritage significance of a place, reference is made to the themes to determine it. To be significant, a place should somehow demonstrate one or more of these themes. Just because a place is "old" is not necessarily significant.

1.3.1 Table of Historic Themes

Australian Theme	NSW Theme	Local Theme	Notes	Examples
1 Tracing the natural evolution of Australia,	Environment - naturally evolved	xx	There are two aspects to this theme: (1) Features occurring naturally in the physical environment which have significance independent of human intervention (2) Features occurring naturally in the physical environment which have shaped or influenced human life and cultures.	A geological formation, fossil site, ecological community, island, soil site, river flats, estuary, mountain range, reef, lake, woodland, seagrass bed, wetland, desert, alps, plain, valley, headland, evidence of flooding, earthquake, bushfire and other natural occurrences.
2 Peopling Australia	Aboriginal cultures and interactions with other cultures	Aboriginal Contact	Activities associated with maintaining, developing, experiencing and remembering Aboriginal cultural identities and practises, past and present; with demonstrating distinctive ways of life; and with interactions demonstrating race relations.	Place name, camp site, midden, fish trap, trade route, massacre site, shipwreck contact site, missions and institutions, whaling station, pastoral workers camp, timber mill settlement, removed children's home, town reserve, protest site, places relating to self-determination, keeping place, resistance & protest sites, places of segregation, places of indentured labour, places of reconciliation
2 Peopling Australia	Convict	Penal Colony	Activities relating to incarceration, transport, reform, accommodation and working during the convict period in NSW (1788-1850) – does not include activities associated with the conviction of persons in NSW that are unrelated to the imperial 'convict system': use the theme of Law & Order for such activities	Prison, convict shipwreck, convict system document, ticket-of-leave and probationary living quarters, guards uniform, landscapes-of-control, lumber yard, quarry, gallows site, convict-built structure, convict ship arrival site, convict barracks, convict hospital, estate based on convict labour, place of secondary punishment.

2 Peopling Australia	Ethnic influences	xx	Activities associated with common cultural traditions and peoples of shared descent, and with exchanges between such traditions and peoples.	Blessing-of-the-fleet site, ethnic community hall, Chinese store, place or object that exhibits an identifiable ethnic background, marriage register, Coat of Arms, olive grove, date palm plantation, citizenship ceremony site, POW camp, register of ship crews, folk festival site, ethnic quarter in a town.
2 Peopling Australia	Migration	Migration	Activities and processes associated with the resettling of people from one place to another (international, interstate, intrastate) and the impacts of such movements	Migrant hostel, customs hall, border crossing, immigration papers, bus depot, emigrant shipwreck, Aboriginal mission, quarantine station, works based on migrant labour, detention centre.
3 Developing local, regional and national economies	Agriculture	Early farming	Activities relating to the cultivation and rearing of plant and animal species, usually for commercial purposes, can include aquaculture	Hay barn, wheat harvester, silo, dairy, rural landscape, plantation, vineyard, farmstead, shelterbelt, silage pit, fencing, plough markings, shed, fish farm, orchard, market garden, piggery, common, irrigation ditch, Aboriginal seasonal picking camp.
3 Developing local, regional and national economies	Commerce	The CBD	Activities relating to buying, selling and exchanging goods and services	Bank, shop, inn, stock exchange, market place, mall, coin collection, consumer wares, bond store, customs house, trade routes, mint, Aboriginal trading places, Aboriginal ration/blanket distribution points, Aboriginal tourism ventures

3 Developing local, regional and national economies	Communication	Communication	Activities relating to the creation and conveyance of information	Post office, telephone exchange, printery, radio studio, newspaper office, telegraph equipment, network of telegraph poles, mail boat shipwreck, track, airstrip, lighthouse, stamp collection.
3 Developing local, regional and national economies	Environment - cultural landscape	Local themes	Activities associated with the interactions between humans, human societies and the shaping of their physical surroundings	A landscape type, bushfire fighting equipment, soil conservation structures, national park, nature reserve, market garden, land clearing tools, evidence of Aboriginal land management, avenue of trees, surf beach, fishing spot, plantation, place important in arguments for nature or cultural heritage conservation.
3 Developing local, regional and national economies	Events	Local themes	Activities and processes that mark the consequences of natural and cultural occurrences	Monument, photographs, flood marks, memorial, ceremonial costume, honour board, blazed tree, obelisk, camp site, boundary, legislation, place of pilgrimage, places of protest, demonstration, congregation, celebration.
3 Developing local, regional and national economies	Exploration	Local themes	Activities associated with making places previously unknown to a cultural group known to them.	Explorers route, marked tree, camp site, explorer's journal, artefacts collected on an expedition, captain's log, surveyor's notebook, mountain pass, water source, Aboriginal trade route, landing site, map.

3 Developing local, regional and national economies	Fishing	Local themes	Activities associated with gathering, producing, distributing, and consuming resources from aquatic environments useful to humans.	Fishing boat, whaling station, marine reserve, fisher camp, seafood factory, fish shop, oyster lease, artificial reef, fishing boat wreck, mooring, dock, marina, wharf, fish farm, fish trap
3 Developing local, regional and national economies	Forestry	Local themes	Activities associated with identifying and managing land covered in trees for commercial timber purposes.	Forested area, forest reserve, timber plantation, forestry equipment, saw mill, mill settlement, arboretum, charcoal kiln, coppiced trees, forest regrowth, timber tracks, whim.
3 Developing local, regional and national economies	Health	Local themes	Activities associated with preparing and providing medical assistance and/or promoting or maintaining the well being of humans	Hospital, sanatorium, asylum, surgical equipment, ambulance, nurses quarters, medical school, baby clinic, hospital therapy garden, landscaped grounds, herbalist shop, pharmacy, medical consulting rooms.
3 Developing local, regional and national economies	Industry	Local themes	Activities associated with the manufacture, production and distribution of goods	Factory, workshop, depot, industrial machinery, timber mill, quarry, private railway or wharf, shipbuilding yard, slipway, blacksmithy, cannery, foundry, kiln, smelter, tannery, brewery, factory office, company records.
3 Developing local, regional and national economies	Mining	Local themes	Activities associated with the identification, extraction, processing and distribution of mineral ores, precious stones and other such inorganic substances.	Mine, quarry, race, mining field or landscape, processing plant, manager's office, mineral specimen, mining equipment, mining license, ore laden shipwreck, collier, mine shaft, sluice gate, mineral deposit, slag heap, assay office, water race.

3 Developing local, regional and national economies	Pastoralism	Local themes	Activities associated with the breeding, raising, processing and distribution of livestock for human use	Pastoral station, shearing shed, slaughter yard, stud book, photos of prize-winning stock, homestead, pastoral landscape, common, fencing, grassland, well, water trough, freezer boat shipwreck, wool store.
3 Developing local, regional and national economies	Science	Local themes	Activities associated with systematic observations, experiments and processes for the explanation of observable phenomena	Laboratory, experimental equipment, text book, observatory, botanical garden, arboretum, research station, university research reserve, weather station, soil conservation area, fossil site, archaeological research site.
3 Developing local, regional and national economies	Technology	Local themes	Activities and processes associated with the knowledge or use of mechanical arts and applied sciences	Computer, telegraph equipment, electric domestic appliances, underwater concrete footings, museum collection, office equipment, Aboriginal places evidencing changes in tool types.
3 Developing local, regional and national economies	Transport	Local themes	Activities associated with the moving of people and goods from one place to another, and systems for the provision of such movements	Railway station, highway, lane, train, ferry, wharf, tickets, carriage, dray, stock route, canal, bridge, footpath, aerodrome, barge, harbour, lighthouse, shipwreck, canal, radar station, toll gate, horse yard, coach stop.
4 Building settlements, towns and cities	Towns, suburbs and villages	Local themes	Activities associated with creating, planning and managing urban functions, landscapes and lifestyles in towns, suburbs and villages	Town plan, streetscape, village reserve, concentrations of urban functions, civic centre, subdivision pattern, abandoned town site, urban square, fire hydrant, market place, abandoned wharf, relocated civic centre, boundary feature, municipal Coat of Arms

4 Building settlements, towns and cities	Land tenure	Local themes	Activities and processes for identifying forms of ownership and occupancy of land and water, both Aboriginal and non-Aboriginal	Fence, survey mark, subdivision pattern, land title document, boundary hedge, , stone wall, shelterbelt, cliff, river, seawall, rock engravings, shelters & habitation sites, cairn, survey mark, trig station, colonial/state border markers.
4 Building settlements, towns and cities	Utilities	Local themes	Activities associated with the provision of services, especially on a communal basis	Water pipeline, sewage tunnel, gas retort, powerhouse, County Council office, garbage dump, windmill, radio tower, bridge, culvert, weir, well, cess pit, reservoir, dam, places demonstrating absence of utilities at Aboriginal fringe camps
4 Building settlements, towns and cities	Accommodation	Local themes	Activities associated with the provision of accommodation, and particular types of accommodation – does not include architectural styles – use the theme of Creative Endeavour for such activities.	Terrace, apartment, semi-detached house, holiday house, hostel, bungalow, mansion, shack, house boat, caravan, cave, humpy, migrant hostel, homestead, cottage, house site (archaeological).
5 Working	Labour	Local themes	Activities associated with work practises and organised and unorganised labour	Trade union office, bundy clock, time-and-motion study (document), union banner, union membership card, strike site, staff change rooms, servants quarters, shearing shed, green ban site, brothel, kitchen, nurses station, hotel with an occupational patronage.
6 Educating	Education	Local themes	Activities associated with teaching and learning by children and adults, formally and informally.	School, kindergarten, university campus, mechanics institute, playground, hall of residence, text book, teachers college, sail training boat wreck, sportsfield, seminary, field studies centre, library, physical evidence of academic achievement (e.g. a medal or certificate).

7 Governing	Defence	Local themes	Activities associated with defending places from hostile takeover and occupation	Battle ground, fortification, RAAF base, barracks, uniforms, military maps and documents, war memorials, shipwreck lost to mines, scuttled naval vessel, POW camp, bomb practice ground, parade ground, massacre site, air raid shelter, drill hall,
7 Governing	Government and administration	Local themes	Activities associated with the governance of local areas, regions, the State and the nation, and the administration of public programs – includes both principled and corrupt activities.	Municipal chamber, County Council offices, departmental office, legislative document, symbols of the Crown, State and municipal flags, official heraldry, ballot box, mayoral regalia, places acquired/disposed of by the state, customs boat, pilot boat, site of key event (eg federation, royal visit), protest site, physical evidence of corrupt practises.
7 Governing	Law and order	Local themes	Activities associated with maintaining, promoting and implementing criminal and civil law and legal processes	Courthouse, police station, lock-up, protest site, law chambers, handcuffs, legal document, gaol complex, water police boat, police vehicle, jail, prison complex (archaeological), detention centre, judicial symbols
7 Governing	Welfare	Local themes	Activities and process associated with the provision of social services by the state or philanthropic organisations	Orphanage, retirement home, public housing, special school, trades training institution, employment agency,
8 Developing Australia's cultural life	Domestic life	Local themes	Activities associated with creating, maintaining, living in and working around houses and institutions.	Domestic artefact scatter, kitchen furnishings, bed, clothing, garden tools, shed, arrangement of interior rooms, kitchen garden, pet grave, chicken coop, home office, road camp, barrack, asylum.

8 Developing Australia's cultural life	Creative endeavour	Local themes	Activities associated with the production and performance of literary, artistic, architectural and other imaginative, interpretive or inventive works; and/or associated with the production and expression of cultural phenomena; and/or environments that have inspired such creative activities.	Opera house, theatre costume, film studio, writer's studio, parade tableau, manuscripts, sound recording, cinema, exemplar of an architectural style, work of art, craftwork, and/or public garden, bandstand, concert hall, rock art site, rotunda, library, public hall; and/or a, particular place to which there has been a particular creative, stylistic or design response.
8 Developing Australia's cultural life	Leisure	Local themes	Activities associated with recreation and relaxation	Resort, ski lodge, chalet, cruise ship, passenger rail carriage, swimming pool, dance hall, hotel, caravan park, tourist brochures, park, beach, clubhouse, lookout, common, bush walking track, Aboriginal Christmas camp site, fishing spot, picnic place, swimming hole.
8 Developing Australia's cultural life	Religion	Local themes	Activities associated with particular systems of faith and worship	Church, monastery, convent, rectory, presbytery, manse, parsonage, hall, chapter house, graveyard, monument, church organ, synagogue, temple, mosque, madrasa, carved tree, burial ground
8 Developing Australia's cultural life	Social institutions	Local themes	Activities and organisational arrangements for the provision of social activities	CWA Room, Masonic hall, School of Arts, Mechanic's Institute, museum, art gallery, RSL Club, public hall, historical society collection, public library, community centre, Aboriginal mission hall or school room.

8 Developing Australia's cultural life	Sport	Local themes	Activities associated with organised recreational and health promotional activities	Oval, race course, swimming pool, bowling club, bowling green, trophies, calendar of fixtures, cricket set, yacht pens, tennis court, rugby field, speedway, sporting equipment, bocce court.
9 Marking the phases of life	Birth and Death	Local themes	Activities associated with the initial stages of human life and the bearing of children, and with the final stages of human life and disposal of the dead.	Birth control clinic, maternity hospital, nursery, baby clinic, baptism register, circumcision equipment, and Hospice, nursing home, funeral parlour, grave furnishings, cremation site, cemetery, burial register, disaster site, memorial plantings, shipwreck with loss of life,
9 Marking the phases of life	Persons	Local themes	Activities of, and associations with, identifiable individuals, families and communal groups	A monument to an individual, a family home, a dynastic estate, private chapel, a birthplace, a place of residence, a gendered site, statue, Coat of Arms, commemorative place name, place dedicated to memory of a person (e.g. hospital wing).

Following is a summary of the historic themes that have been identified in Newcastle.

<i>Group Theme</i>	<i>State Theme</i>	<i>Local Theme</i>	<i>Principle Subjects</i>
Pattern of Settlement	Exploration	Exploration	Maritime Exploration Pursuit of Resources
	Aboriginal Contact	Aboriginal Contact	Early Liaisons Missions Reconciliation
	Convicts	Penal Colony	The First Penal Settlements Secondary Punishment Allocated Labour
	Migration	Migration	Coal Mining Origins British Dominance until

			1960s
	Land Tenure	Land Tenure	Aboriginal Tribal Boundaries Land Grants for Development Dangar's Town Plan AA Company Land Sales Garden Suburbs
	Townships	Townships	Government Towns 1823-1853 Mining Villages Transport Corridors AA Company Land Sales Garden Suburbs Inner City Revival
	Transportation	Shipping	Development of the Port Shipwrecks River Boats
		Railways and Trams	Early Private Railways The Great Northern Railway Tramways
		Road Transport	Lack of Early Road Links Later Road Transport Inter-City Connections
		Air Transport	Air Transport
		Transport Corridors	Mining Villages
Economic Development	Pastoralism	Early Farming	Cattle Grazing
	Agriculture	Early Farming	Mixed Farming Market Gardens & Orchards
	Mining	Coal Mining Quarrying	Coal Mining Stone Quarrying Clay Pits
	Fishing	Fishing	Estuary Fishing Oyster Farming Dee Sea Fishing Fish Marketing
	Industry	Early Manufacturing & Processing	Lime, Salt and Timber Early Engineering Brickworks and Potteries Soap and Candles Early Boatbuilding
		Shipbuilding	State Dockyards Copper and Tin
		Metal Smelting	Steel

			Flour Milling
		Food & Beverage	Food Processing
		Processing	Brewery
	Commerce	The CBD	Establishment of Town Centre Shipping Trade Western Growth of CBD
		Suburban Centres	Origins as Isolated Villages Growth Along Transport Routes
		Wholesaling	Markets
		Inner City Revival	Changing Role of the City
	Technology	Industrial Technology	Railways Shipping Smelting and Steelmaking
	Science	Applied Science	Industrial Development of X-Rays
Role of Government	Government	Colonial Government	Administrative Centre
		Local Government	Merging of 12 Early Councils Regional Administration Centre
	Law & Order	Penal Colony	The First Penal Settlements Secondary Punishment
		Industrial Disputes	Riots and Marches
	Defence	Defence	Coastal Defences Signing on for the War Supplies and Services Memorials Post War Convalescence
	Communication	Communications	Newspapers Telegraph and Telephone Postal Services Radio Television Publishing
	Utilities	Utilities	Gas Production Water Distribution Sewerage Electricity Hydraulic Power
Social Development	Housing	Housing	Gentleman's Residences Workers Cottages Garden Suburbs Inner City Revival
	Social Institutions	Social Institutions	Friendly Societies Trade Unions

			Co-operatives Service Clubs
	Ethnic Influences	Ethnic Influences	Coal Mining Origins British Dominance until 1960s
	Environment	Environmental Awareness	Industrial Pollution Pollution Controls Flora and Fauna Conservation
	Cultural Sites	Cultural Sites	Aboriginal Ceremonial Sites Parks and Reserves Early hotels Halls and Institutes Trade Union Halls
	Leisure	Leisure	Parks and Reserves Water Sports Theatre and Cinema
	Sport	Sport	Early Boating Horse racing Cricket Clubs Surf Clubs Lawn Bowls Soccer, Rugby and League Boxing
	Health	Health	Convict Health Medical Benefits Societies Industrial Accidents Public Hospitals Private Hospitals Post War Convalescence
	Welfare	Welfare	Benevolent Societies Fund Raising Unemployment Institutes & Missions Community Health
	Religion	Religion	Early Land Grants Coal Miners Origins Diversity of Denominations Health and Welfare Community Health
	Education	Education	Early Schools State Schools Private Schools Technical Education Universities & Colleges
	Death	The Life Cycle	Aboriginals Convicts Industrial Accidents Shipwrecks

			Church or Private Graveyards Public Cemeteries Crematorium
Associations and Influences	Persons	Prominent Individuals	Prominent Individuals
		People	Social Classes Racial Groups Womens' Roles
	Events	Natural Disasters	Earthquakes Floods Fires
		Workplace Accidents	Industrial Accidents Shipwrecks
		Commemorative Events	Memorials

1.4 Pattern of Settlement

1.4.1 Exploration

The first Europeans into the Hunter region, apart from escaping convicts of whom the best known was famous Bryant party in 1791, were mariners. Port Stephens was visited twice in 1795, Lt. John Shortland officially discovered the Hunter River and its coal two years later and then Sydney merchants began to send small ships to the area for coal and timber. In 1801 Governor King despatched Colonel William Paterson to make an official survey of the lower Hunter Valley and his favourable reports led to the first settlement on the site of Newcastle. This did not last but Newcastle was established in 1804 as a convict settlement, a role it played until 1822.

Exploration by land of the interior of the Lower Hunter Valley was carried out by parties from Newcastle seeking timber, hunting game and pursuing convicts.

Because of the rugged sandstone country to the north of Sydney explorers were slower to reach the Hunter region by land. John Howe in 1818 and again in the following year, when he was accompanied by Benjamin Singleton, was probably the first to reach the plains of the Hunter near Jerrys Plains. This was a circuitous route from Windsor via the Colo River but it enabled him to bring the Cattle into the Hunter. A more direct route via the Wollombi to Wiseman's Ferry on the Hawkesbury was pioneered by Major JT Morisset in 1823 and then improved by John Blaxland in the same year.

Physical Evidence

Exploration is a transitory process and leaves few physical signs of the passage of the explorers. Shortland's map and the journals and maps of the Paterson expedition remain, but many of the place names they chose have been discarded.

1.4.2 Aboriginal Contact

From 1801 when the first settlement was made at the mouth of the Hunter River, the Aboriginals of the area were exposed to while settlers with disastrous results for the tribes.

During the convict period the Aboriginals were not deprived of their tribal lands on the massive scale that occurred elsewhere but they were already falling victim to European diseases and to the brutality of the whites who had been brutalised themselves by the transportation system. Aboriginal women were exploited and men who attempted to defend them were beaten by the convicts. On the other hand the blacks skilfully recaptured many escaped convicts in return for rewards of tobacco, corn and blankets. This would not have endeared them to the convicts and it added to the conflict between the groups.

After the convict settlement was wound down in the 1820s, the Rev. Lancelot Threlkeld established a mission to the Aboriginals at Lake Macquarie and his correspondence records the decline of their way of life. In 1854 Harry Brown, who was regarded as the “last of the Newcastle tribe”, died and Margaret, considered “the last of the Awabakal”, died in 1900. However, the local Aboriginals have intermarried with European Australians and their descendants continued to live in the region, usually in an unobtrusive way, working in the timber industry of the railways or in similar occupations.

When the Board for the Protection of Aborigines began to set aside land for reserves for the areas where Aboriginals lived in considerable numbers, it bypassed the Newcastle area but created reserves at Karuah and Singleton. It is likely that Aboriginals from Newcastle lived in these locations.

As the economy recovered after the 1930s depression, Aboriginals began to secure the jobs in the Newcastle industries and on the railways and some of them lived on the Platts Estate at Waratah. In 1960 the Newcastle Trades Hall created a committee for Aboriginal Advancement, an important early development in the improvement of relations between the races.

The Awabakal, Koompahtoo, Bahtabah and Worimi Aboriginal Land Councils were formed in 1984 to control the purchase of property by local Aboriginals. Since then other agencies have begun to offer health and welfare services to Aboriginals.

Physical Evidence

Although there are many references in historical records to Aboriginal activity in the colonial period, they are rarely, if ever, detailed enough to allow the sites to be identified. However, there is documentary evidence of camp sites on the harbour foreshores, the islands of the Hunter River and at Newcastle Beach.

1.4.3 Convicts – The Penal Settlement, 1801-1822

For two decades after its permanent occupation as a penal settlement in 1804, Newcastle accommodated prisoners from New South Wales and Tasmania. Its population was relatively small until about 1814, with around 100 convicts and guards, but in the next few years it became the principal penal settlement of the Australian colonies, housing up to one thousand prisoners at a time but very few female convicts.

The settlement was regarded as an industrial camp fit only for the punishment of the convicts as a source of raw materials (timber, coal, salt, lime) for use elsewhere. Accordingly, there were no large buildings until 1816 and brick and stone were not used for building purposes until then. When major buildings of stone and brick were erected (gaol, church and hospital) the lack of a skilled workforce condemned them to a relatively short life and only foundations remain from this period. *See Newcastle Archaeological Management Plan 1997 for more information on this topic.*

Watt Street (then known as George Street) roughly bisected the settlement with the parade ground, the flagstaff, superintendent of convict's house, the guard house, the boat house, the sand pits, the lumber yard, the officer's barracks, the hospital, the surgeon's quarters, a coal mine, the stone quarry, the gaol and the signalling post all lying to the east of the sandy track. At its northern end lay the wharf, the first stage of the substantial port improvement programme that has been progressively implemented.

The breakwater linking Nobbys to the mainland was begun in 1818 and completed by 1846, a monument to convict labour. The Crown continued to operation the Newcastle coalmines with the convicts until 1830 and after the transfer of the collieries to the Australian Agricultural Company in that year it, too, used a convict labour force.

Given the presence of so many convicts, the Government maintained a military detachment in the town until the early 1850s. The gaol also remained in use until 1848, serving the northern districts of the colony until the prison at East Maitland opened in that year.

Newcastle had a continuous convicts experience for about half a century. Moreover, the proportion of convicts to free people was very high: in 1820 about 670:140; in 1836, 426:278.

Physical Evidence

Although the Nobbys breakwater has been much altered since the convict period, it is a potent reminder of those days. The site of Fort Scratchley, where there were two stone quarries, and the Nobbys breakwater are testimonials of the convict pick. The army barracks in Watt Street and some of the stone walls in its vicinity date from the convict era and there are also some houses from that period, eg Claremont and Toll Cottage (also known as Rose Cottage). Recent scientific investigations have led to the identification of first operating coal mine in the Australian colonies - underneath Fort Scratchley. The Convict Lumber Yard is a potent and significant site containing evidence of the first industrial work place in Australia.

The site of the convict settlement is also rich in archaeological remains from the 1801-1822 period. [Postscript 2007 – for further information on the archaeological layout of the city dating from the convict era see the Archaeological management Plan 1997.]

1.4.4 Land tenure

Before white settlement two Aboriginal groups inhabited the lower Hunter Valley with the river forming a rough boundary between the territories of the Worimi to the north and the Awabakal to the south. These two tribes or sub-tribes divided up into clans or hordes, extended family groups which were identified by white observers with particular geographical areas. Thus, as the missionary Lancelot Threlkeld understood the situation, three clans of the Awabakal lived in or near the site of Newcastle. They were the Five Islands people at the northern end of lake Macquarie, the Pambalong clan on the western side of the river and the Ash Island Clan. In addition, there were the Garagal clan of the Worimi whose territory was the coastal strip from Stockton to Port Stephens. Although these groups lived in separate areas because of their hunter-gathering economic system, they came together on ceremonial occasions and made regular visits to each others' territories. The establishment of a convict settlement at the mouth of the Hunter River interfered with the tenure of those Aboriginals who used the site to obtain food, for camping and for ceremonial purposes.

When the valley was open to free settlers in 1821, interference with the tribal life of the Aboriginals became more widespread as land was granted away in relatively large acreages by the Crown.

In the early 1820s the Government created a plan for the development of the Newcastle area. Based on principles laid down by Governor JT Bigge, it provided for large land grants in the interior to proprietors with the capital to develop then using convict labour. Newcastle was seen as the seaside town of the region and each proprietor was allowed to select an allotment there on which to build a townhouse. These lands were free except for a quit rent and the town lots were conditional upon the construction of a substantial house within a specified time.

The town plan prepared by Surveyor Henry Dangar reserved the land on the west side of Newcastle for its further expansion but the Australian Agricultural Company was allowed to occupy 2,000 acres in this location for coal mining purposes in 1829. A town common adjoining the western boundary of the AA Company's grant and stretching from Broadmeadow to Wallsend was set aside in 1849 but most of this was alienated by the Government to individuals who squatted on it after the development of collieries in the area. However, ownership of the railway lines through the Pasturage Reserve eventually reverted to the Crown, as did the mining leases. Many of the best recreational areas in the Newcastle region, such as the District Park Complex, Newcastle International Sports Centre and Lambton and New Lambton Parks, the sites of large schools, including Broadmeadow High and the John Hunter Hospital, now occupy parts of the Pasturage Reserve.

Physical Evidence

Of thousands of years of Aboriginal tenure there is abundant archaeological evidence though only few sites have been excavated. Evidence of Surveyor Dangar's layout remains with most of the city centre still arranged to this grid, and the area set aside for the market place is today used as a retail centre. The layout of Newcastle suburbs and the continued presence of open space provide ongoing evidence of past land use practice.

1.4.5 The Towns

In 1822 when it was planned, Newcastle was intended for the regional capital of the Hunter Valley, having the advantages of established buildings and the sea highway to Sydney. However, steamships made Morpeth-Maitland the dominant town until railways developed to tip the balance back towards Newcastle and in the second half of the century the population of the city and the towns within a ten mile radius of the Port reached 50,000. By then it was unmistakably the major urban centre with a developed industrial base and comprehensive transport systems.

Newcastle went into decline when it ceased to be a penal colony and its population did not reach 3,000 until the late 1850s. Consequently, its building stock from the first half of the last century is very small. Growth from that point was continuous except for setbacks in the 1890s and 1930s. The most rapid population growth occurred after heavy industry developed from 1913.

1.4.5.1 The Government Town, Newcastle 1823 to 1853

Governor Lachlan Macquarie's decision to open up the Hunter Valley to free settlers necessitated the closure of the penal settlement and during 1822 most of Newcastle's convicts and to provide seaside residences for wealthy settlers raking up large land grants in the interior. Accordingly a government surveyor, Henry Dangar, was directed in 1823 to prepare a town plan on the site of the convict settlement.

As was usual, Dangar set aside land for churches, schools, and government buildings and planned a market square in the centre of the town. The streets of the convict settlement were realigned and land was reserved on the western side for its future expansion.

Free settlers were allowed to select a town allotment and land was also offered for sale. However, Newcastle stagnated in the 1820s because the settlers were preoccupied with the development of their estates and because they preferred to do business in Sydney which was only 60 sea miles further away.

To permit the A.A. Company to develop a new colliery and to provide it with adequate reserves, the British Government allowed it to select 2,000 acres of coal land in any part of New South Wales. After searching unsuccessfully in the Sydney district, the Company made its selection on the western boundary of Newcastle, using the town reserve. This could be regarded as the most important event in its nineteenth century history as it had profound effects on future development.

By the terms of its land grant the Company did not have the right to alienate any of its land and the town was restricted to the east of Brown Street until the early 1850s. This was of no great significance at that time because the population, was only 1,400 in 1846 but thereafter the Company's land sales policy dominated the development of the central business district.

1.4.5.2 A.A. Company Land Sales

Much of the grant had to be retained for collieries and railways and large sections were swampy but in 1853 the Company began to plan its first land sale. The Company's pioneer surveyor, G.E. Darby, provided for quarter acre allotments along Lake Macquarie and Maitland Roads and on parts of the Company's high land at the east end of its estate and made available the lower land to the west for gardening in portions of from one to ten acres.

The first action in 1854 was very successful. There were sales to miners and other A.A. Company employees on both sides of Darby Street but along Blane Street (late Hunter Street west), the lots were bought at higher prices (about 50%) by businessmen including butchers, shoemakers and publicans. This tended to become the pattern of future sales but Darby Street was also favoured by hoteliers and Blane Street contained a high proportion of residences, albeit some were combined commercial-residential premises.

Some of the larger allotments were taken up for market gardening by Chinese who formed a well recognised minority in Newcastle by the 1880s. However, much of this lower portion of the Company's estate was destined to become parkland when the remainder of it was opened up later in the century.

To make the best of its assets the Company adopted a policy of periodic releases for auction sale, followed by sale by negotiation for lots not sold at auction. It also offered leases of particular sites, presumably those judged to have exceptional commercial value. Early in the 20th century the company embarked upon large scale selling of its remaining residential lands in Newcastle and Hamilton. This acceleration was prompted by increasing municipal rates and the Federal Land Tax of 1912. There were releases at The Junction in 1908, at Cooks Hill from 1912, at Shepherds Hill from 1915 and at Bar Beach in 1924. From 1914 onwards the Company was selling its Hamilton Garden Suburb Estate of 300 acres and it was able to take advantage of the enormous population growth resulting from the development of the steelworks.

1.4.5.3 Railways Open Up the Hinterland

A network of private colliery steam railways and the Great Northern Railway permitted the rapid development of the Borehole mines and their associated townships in the following decade. Minmi (1856), Waratah (1856), Wallsend (1859), Plattsburg (1861), Lambton (1863) and New Lambton (1867) joined the older centres of Merewether (1849) and Hamilton (1849) to create Newcastle's first ring of colliery towns.

The layout of these private colliery townships was a matter for the proprietors, usually the mining companies who sold off their land subject to their coal and transport needs and the demand for commercial and residential sites.

Wallsend

Wallsend began as two mining towns separated by the Newcastle-Wallsend Coal Company's railway, Wallsend on the south and Plattsburg on the north. The former developed first and the two towns were separated by Nelson Street.

Waratah

Waratah began as a railway navvy's tent town in 1856 when the Great Northern Railway was being put through a large hill near Thomas Grove's farm. Coal was discovered and the enterprising Groves opened a hotel, sold land for home sites and became a pioneer of the Waratah Coal Company in 1862. The Company built up an estate of 1467 acres which became the town of Waratah.

Lambton

Lambton was the creation of the Scottish Australian Mining Company which developed a colliery on 1280 acres in 1862. In the September of that year 25 acres were cleared for a town site and this area was later extended to the northern boundary of the Company's estate, thereby encompassing the Newcastle to Wallsend Road. The first land sale of 90 lots, was held in June 1864.

Merewether

Merewether takes its name from the Merewether Estate, originally the property of A.W.Scott and James Mitchell but passing into the possession of E.C.Merewether through marriage to Augusta Mitchell in 1860. In the 1840s Mitchell began to build a copper smelter on Burwood Beach and coal mines, potteries and a railway followed, creating a need for a town in the area. However, Mitchell and his heirs refused to sell portions of their estate until 1910 so that Merewether, like Minmi, began as a leasehold town. The town took shape around Mitchell Street which was the gravelled drive to the Merewether's house and first known as "the Red Road". Though the area was incorporated in 1885 the streets were not dedicated until the lots were sold – if they were leased from the Estate, they remained in its hands.

Cooks Hill and Hamilton

Cooks Hill and Hamilton were the result of the A.A.Company's coal mines in two localities. The first houses in Cooks Hill were a row of collier's huts near the present Brooks Street. Land sales in Cooks Hill began in 1854 when many lots were sold in Darby Street. Hamilton began similarly with company owned slab huts on the high ground close to the "D" and "E" pits. Known as the "Borehole", this settlement became part of Pit Town where the first land sales occurred in 1857. The small lots near the pits appear to have been the sites of the Company's slab huts.

Minmi

Minmi began as a cattle station in the 1830s but coal was produced there from about 1850, first by John Eales, who built the Minmi-Hexham railway, and then by J. & A. Brown: their successors, Coal & Allied Industries, still own extensive land holdings there.

Minmi was a private town and only the school site, Masonic Lodge site, the court house site and one or two other the church sites were permanently alienated by the Browns. The most permanent title available to residents was a lease and so there was always a possibility of an eviction by the proprietors. Although other coalfields landowners applied similar leasehold policies at Merewether and Stockton, no one persevered with them as long as the Browns.

In the absence of any town plan, Minmi developed around the roads leading to Maitland, Wallsend and West Wallsend and they were the main streets. After flourishing in the early 1860s, the town virtually closed between 1865 and 1870, then grew to about 5000 in 1895 before a rapid decline after 1913.

According to the census of 1911 there were 1708 people living in Minmi and this figure was reduced to 832 at the next census in 1921. A decade later the police estimated that there were 472 residents in the district, a total very similar in 1950. The sharp decline between 1921 and 1931 may be attributed to the closure in 1925 of the last Minmi mine.

Being entirely in the hands of the coal owners, the town had no form of local government before 1938.

Hexham

Hexham had a curious development, beginning in one location and moving to another. Locating at first in the Ironbark Creek area where the Church of England was built c.1849, the village moved to the north in response to the development of coal shipments from the banks of the Hunter River, close to the junction of the Minmi to Hexham railway. Thus by 1880 it was described as "a postal town of 160 people 10 miles north of Newcastle in the centre of an agricultural and grazing country where the Messrs. Brown ship coal from their Minmi mines". In 1891 it received a considerable boost when the Brown Brothers transferred their Minmi engineering works to Hexham.

New Lambton

Five years after Lambton was pioneered, James and Alexander Brown opened a new mine adjacent to the Lambton Colliery, calling it New Lambton. The first sod on the site (between Oxford Street and St James Road) was turned early in 1868 and a railway line built across what is now New Lambton Park and Royal Street. By September 1869 there were about 100 houses, three stores, two churches and several hotels on the New Lambton Estate.

Jesmond

Originally known as Dark Creek, Jesmond sits on land grants to William Steel, (80 acres) and Daniel Jones (50 acres) about half a mile north west of Lambton. Jones' eastern boundary was George Street and his land extended to the west to meet Steel's boundary. The village developed around Steel's steam saw mills and residents also found employment in local orchards, stone quarries and the Lambton mines. By 1883 there were 600 residents, two churches and a school. In the 1880s John Campion opened soap works at Jesmond and by 1907 it was well known in NSW as the source of "Cat" brand pumice soap.

By far the largest development in the area was the Woolworths shopping centre, which opened in 1964, the first regional shopping centre to be established in the Newcastle area.

1.4.5.4 Twentieth Century subdivisions

Early this century the Garden Suburb idea influenced large subdivisions at Hamilton, Stockton, Birmingham Gardens, and Kotara.

Hamilton

The A.A. Company's plan for developing 121 hectares in Hamilton was prepared by John Sulman and John Hennessey in 1912 and sales began in 1914. There were 1,300 residents by 1921: 5,300 by 1933: red brick bungalows with tile roofs predominated.

North Stockton

At North Stockton a government owned garden suburb was planned in 1918 for 400 houses: according to J.C. Docherty, only 61 were built but the plan provided for "ample recreational spaces and an imaginative layout."

Birmingham Gardens

The Birmingham Gardens project of 785 lots was offered in December 1922 and by 1924, 600 lots had been sold. However, an anticipated railway station in the suburb did not eventuate and few houses were constructed after 1912.

Kotara

Kotara, a project of the Scottish Australian Mining Company, was intended to create "a garden suburb and a covenant intended to achieve high quality housing applied to all lots sold. Of 191 lots offered for sale in 1925, 178 were sold by 1932 and only 14 houses had been built. There were still only 52 by 1940 but Kotara developed rapidly after 1947.

Tarro-Beresfield

Often described as twin towns, Tarro and Beresfield are relatively modern creations, the first residential subdivision in the area occurring in the 1920s. Granted originally to Edward Sparke, who received 2,000 acres at Hexham-Tarro in 1825, the district remained rural until a subdivision named "Beresford" was offered for sale in the 1920s. Described as a "Newcastle extension" and a "new model suburb", it was a short walk away from the proposed railway station to be known as Beresford. However, to avoid confusion with another Beresford elsewhere, the Railways called its station Beresfield. Development was slow until after the second world war when Tarro and Beresfield began to attract Newcastle workers looking for cheap land. Originally part of the Lower Hunter Shire, they became part of the City of Newcastle in 1938.

1.4.6 Transport

1.4.6.1 Shipping

As a penal colony, Newcastle relied on small sailing ships for transport and communication with Sydney, and sail continued to play a major role in the development of the coal industry right up until World War I. In the 1920s Newcastle became one of the last ports of call for large sailing ships in commercial use. The "mosquito fleet", a collection of small sailing craft engaged in the coal trade to Sydney and some other colonial ports, was a distinctive feature of Newcastle's maritime history.

In 1831 when the first steamship came to Australia, it began to serve the Hunter Valley through the port of Newcastle. Used at first for passengers and more valuable freight, steam navigation gradually took over from sail and for several decades Morpeth was the principle port of the region with Newcastle playing a secondary role. However, in the second half of

the last century Newcastle was rapidly developed into busy coal port serving the Australian colonies and the Pacific Rim countries.

From a dangerous river estuary, a port capable of handling 4,000 ships a year by 1900 was gradually created by huge expenditures on breakwaters, light houses, dredging and wharfage facilities. In boom periods of when industrial disputes caused a build up of shipping, there could be as many as 100 vessels in port at one time in the late nineteenth century.

A port as busy as this required all the usual service industries including ship building and repair facilities, sail making, ships chandlery, butchery, biscuit making, hotels and boarding houses for sailors, seamen's missions, consular services and shipping agents. As one observer summed up Newcastle in 1866z, "It was essentially a seaport and a coaly seaport...every third house sells slops or ropes or blocks or some of the many other articles required by those who go down to the sea in ships".

In the present century the number of ships calling at Newcastle has greatly diminished but their size has been increased to a degree thought inconceivable only a few years ago. Thus coal exports have increased to over 47 million tonnes per year and the mining industry depends on shipping as it did in 1801. Nevertheless, larger faster vessels and quicker turnarounds have reduced the demand for shipping services and the waterfront areas of Newcastle no longer have such an intimate connection with sailors and ships.

Apart from the coal trade, the port has played a vital role in the development of metals smelting from copper in the 1850s, silver lead in the 1890s, iron from 1915 and aluminium from the 1960s. Various manufacturing industries have also been served by, and left the imprint of the special needs on, the port.

Physical evidence

The Port of Newcastle
The breakwaters
Macquarie Pier
Nobbys Lighthouse
Moriarty's Dyke
Cornish Dock and boat harbour
Wharf structures

1.4.6.2 Railways

Colliery Railways

The prime influence on the development of Newcastle was the Hunter River access to deep water loading for the ships that carried coal to inter-colonial and international markets – it was the city's *raison d'être*. However, railways were also highly influential and their location helped to shape the city. When the A.A. Company chose to locate its grant adjacent to the town, the Government was careful not to allow it to monopolise the Newcastle waterfront. Hence, its 2,000 acre grant included only enough harbour land for its coal loading plant and associated offices, workshops, etc.

As it happened, this portion was crossed by the Maitland Road and it was inevitable that, when a railway was built to link that centre with the Port of Newcastle, it would also have to traverse the Company's land. Moreover, as the Company's grant cut off future colliery proprietors establishing to the south and west of Newcastle from the deep water section of the Port, they too, would have to cross its grant. The eventual result was a concentration of

railways in one location with unfortunate consequences for the town, the Company and its rivals.

Although the A.A. Company resisted, the Government used its legislative powers to open up the Company's corridor to the Burwood coal producers in 1851 and in 1854 the Hunter River Railway Company acquired land for its intended Honeysuckle Point Railway terminus. These lines and the A.A. Company's own railways from its D and F Pits all crossed the Maitland Road near its junction with Lake Macquarie Road, causing a serious bottleneck.

As coal mining in the inner city began to diminish at the end of the last century, the colliery railways became redundant and they were taken up. The closure of the A.A. Company's Sea Pit at Hamilton Colliery in 1920 allowed closure of its railways and a more logical arrangement of King Street.

The rail bridge across Hunter Street was also demolished in 1923 and the Government resumed from the Company its water frontage between Merewether and Brown Streets.

The Newcastle Coal and Copper Company's line between Burwood and Newcastle lasted a good deal longer, to the chagrin of motorists using King and Hunter Streets, not closing until 1954.

One important result of the demolition of the Newcastle Coal and Copper Company and the A.A. Company Hamilton lines was the freeing of the site of the junction of the two lines for a future Civic Park. Here the lines had approached each other and a Signalman's cottage was built by the AA Company, still present today in the grounds of St Andrews Church.

Physical Evidence

Railway routes evident in many locations, remnant structures, remnant railway relics:
 Signalman's cottage in Civic Park
 Railway Underpass, Laman Street Cooks Hill
 Alignment of Newcastle Coal and Copper Company railway through Cooks Hill and Newcastle, alignment of Burwood Street, Glovers Lane,
 New Redhead Estate Coal Company railway (now Fernleigh track)
 Remains of Glenrock railways and tunnels
 Minmi to Hexham railway, per way and cuttings
 Remains of colliery railways scattered throughout Newcastle

The Great Northern Railway

The Great Northern Railway began as a private venture but it was soon taken over the NSW Government which opened a line between East Maitland and Newcastle West in 1857. When it was carried on to Watt Street at the eastern end of the city a year later the line was linked to deep water and ocean going ships. However, in the process, it cut off Newcastle from its harbour frontage and created a railway corridor on the northern side of the city. This narrow strip of land was widened by reclamation to provide sites for various government building of which the most important was the railway workshops at Honeysuckle Point.

Though less obtrusive than the private railways had been, alterations to the lines and facilities on the Great Northern Railway also had a significant effect on the shape of the city. In 1929 Civic Station was opened to provide access to the City Hall and Civic Theatre and seven years later the main lines in the vicinity of Scott Street were moved to the north, making it possible to widen that street and improving the flow of traffic to it. Also with beneficial if long term, effects were the gradual winding down of the railway workshops at Honeysuckle

Point. When the Cardiff workshops were opened in 1928 the older facility was transformed into a permanent way components shop until its functions were also transferred to Cardiff in 1978. This left the way open for redevelopment of various sites on the northern side of Hunter Street, a process that continues today.

Using the Great Northern Railway to link their collieries to the port were the private railways of Lambton, Wallsend, New Lambton, and Waratah Coal Companies. In the nineteenth century they were essential to the communities they served but they were also barriers to other traffic. With the closure of the mines they became available for residential or road development.

Physical Evidence

The railway systems and sites of former rail facilities:

Honeysuckle Workshops complex

Railway lines

1.4.6.3 Road Transport

Road transport was confined to the area between Cottage Creek and the coast in the convict settlement period: there was nowhere else to go except to a group of farms at Patersons and Wallis Plains and they were more easily reached by the river. With the opening of the Hunter Valley to free settlers in 1821 the need for road transport increased but the Hexham swamps were a formidable barrier to drays and wagons bound for the interior of the Hunter Valley. Nevertheless a track was created across the swamps to Hexham (first situated on Ironbark Creek) and thence to East Maitland via Tarro. Now known as Maitland Road, this thoroughfare has tended to control urban development in the north western section of the study area.

The first road to the south was Lake Macquarie Road which, in its early section, bears some relation to Darby Street. From The Junction it proceeded via what is now Macquarie Street over the Glebe Hill to the Lake. It appears to have been pioneered by the missionary for the Aborigines, L.E.Threlkeld, who started a mission at Belmont in 1825.

The main road west of Newcastle came into being when the Wallsend Coal and Copper Company began to develop its estate in 1859. Initially access to the site of Wallsend was obtained by means of the Great Northern Railway to Waratah and then by three and a half miles of primitive track through "rough undulating country" but that was a roundabout route. Accordingly, a more direct track was made through what would be Lambton when the colliery of that name was pioneered in 1863. This became the Newcastle-Wallsend Road.

Within this road network Novocastrians struggled to develop the townships that now form the city of Newcastle. Until municipal councils were formed these roads were in a deplorable condition and even after incorporation their improvement was a slow process.

One of the most important transport developments was the construction of the Great Northern Highway between Sydney and Newcastle. Until 1925 the shortest available route between the two biggest cities in the state was the road via Parramatta, Wisemans Ferry, Gosford, Wyong, and Catherine Hill Bay, a journey of over 155 miles over several heavy gradients. By 1930 the development of the route via Berowra, with a ferry across the Hawkesbury, had reduced the distance to 105 miles with improved gradients. The continuation of this road to the north of Newcastle to become the Pacific Highway completed the main road system which would exert a powerful influence on the commercial and industrial development of Newcastle.

Physical Evidence

The roadways and road network

1.4.6.4 Trams

The Newcastle tramway system, which began with a service between Wallsend and Newcastle in 1887, was developed into a comprehensive urban network. Stretching from West Wallsend in the west to Parnell Place at Newcastle Beach, it also served Merewether to the south and Mayfield to the north. Commencing with steam trams, it was converted to electric trams in 1920. Motor buses replaced the trams in the 1950s.

Physical Evidence

Tramway routes are visible in various locations and some of the concrete road surfaces survive in Merewether and New Lambton. The bus depot in Parnell Place was a tramway depot as was the Hamilton bus depot.

1.4.6.5 Air Transport

The Newcastle Aero Club established an aerodrome at District Park, Broadmeadow in 1930 and this became the Newcastle Aerodrome two years later. By 1937 the limited size of this facility and the increasing size of aircraft caused Sydney-Brisbane services to fly over Newcastle and it was necessary to find a new aerodrome. The development of Williamtown as an R.A.A.F. base during World War II led in 1948 to its nomination as the principle airport. Aeropelican, which was used as a commuter airport until its closing in 2006, was started at Belmont in 1971 by D.L.Hinder.

Physical evidence

The airport and the former aerodrome at District Park, Broadmeadow.

1.4.7 Migration

As Newcastle was re-established in 1804 to provide a place of exile for convicts involved in the Castle Hill rebellion, its population was half Irish in the early years. Until the convict system was de-constructed the Irish presence remained strong but by 1856 it had diminished sharply. Coming from a country which was less industrialised than England, the Irish in the Hunter Valley gravitated to the farming centres, leaving Newcastle to the English and Scottish, many of whom had mining experience before migration.

Because of its dominance by coalmining, Newcastle continued to attract British migrants right through the last century and the growth of heavy industry after 1913 confirmed this trend. By 1891 about one third of Newcastle's population were British born compared to about one quarter in New South Wales as a whole. Many of these British migrants were from the north of England and Wales and the Welsh were six times more common in Newcastle than in New South Wales in the 1890s. The Newcastle and District Cambrian Society was formed in 1886. The British continued to dominate migrant arrivals in Newcastle until the 1960s when for the first time non-British migrants became significant in numbers. The Post World War II migration from southern Europe saw large numbers of people arrive, who were housed initially in migrant camps at Mayfield West and Greta.

Physical evidence

Baptist and other non-conformist churches and chapels, cemetery headstones, the names of localities and streets, and houses of British origin.

1.5 Economic Development

1.5.1 Pastoralism

The first stock to graze in Newcastle belonged to the Government. Sheep were kept during the convict settlement period but they did not flourish in the vicinity of Newcastle because of its poor soils and coastal climate. Cattle were better suited to the conditions and as the town developed, local butchers usually kept small herds on its outskirts. Bullock Island, the first name given to Carrington, is a reflection of this practice and cattle were also kept on the Glebe Land south of Newcastle. Minmi was originally used as a cattle station by A.W.Scott. The Pasturage reserve or Common, portions of which remain as parkland, was created for the use of local cattle and cattle awaiting shipment through the Port.

Physical evidence

Sections of the Pasturage Reserve in public ownership. In more recent years the Kooragang Island Nature reserve has been used as the City Farm.

1.5.2 Agriculture

In the convict settlement period the government established two farms close to Newcastle, one where the James Fletcher Psychiatric Hospital now stands and another in Hunter Street West, within the vicinity of the Palais. Governor Macquarie visited the Hunter Street West farm in 1818, reporting that it was "about one mile" from Newcastle and that he "found the farm in very good order with a neat cottage on it." Cottage Creek takes its name from this building.

When the Hunter Valley was opened to free settlers, farming commenced on several land grants along the south bank of the river and other islands of the estuary. John Laurio Platt took up 2,000 acres at Iron Bark Hill in 1822 and A.W.Scott received a similar grant on Ash Island in 1829. Many farms were also established in the Hexham, Tarro and Beresfield area, surviving to this day.

Taking advantage of river transport, these early farmers produced grain, fruit, vegetable, butter and meat for the Sydney market. After subdivision of Dempsey, Mosquito, and Ash Islands from the 1840s, small mixed farms were established there to cater for the population of Newcastle. Market gardening was practised in several locations, especially by the Chinese, with market gardens near the site of Union King Streets and orcharding became common. The Chinese gardens flourished in Mayfield, Fern Bay, Cooks Hill, and Jesmond and Waratah was an orcharding-grape growing centre in the late 19th century.

As the wooded hills west of Newcastle did not suit agriculture and the extensive Hexham swamps defied it, Newcastle has been relatively free of its influence.

Physical evidence

There is little that remains from these early farms due to reclamation to form the Kooragang industrial area and the expansion of heavy industry along the south arm of the Hunter River. Part of Platt's estate and farm survives at the intersection of Tourle Street and Industrial Highway. Some farm buildings remain on Ash Island. The Cottage Creek farm cottage footings are thought to survive beneath the Palais Royale and footway along Hunter Street adjacent to that property.

Fishing

Fishing for local consumption along the coast and lakes of the Hunter region has been continuous since the first settlement. However, the growth of the industry and its concentration in certain areas had to await methods of preservation. There is no evidence of salting, smoking or drying fish until Chinese fishermen began to work Lake Macquarie and Port Stephens after 1850. It appears they were preserving fish for sale to their compatriots in Australia but the total absence of records make it difficult to investigate their activities.

The development of steamer services on the rivers of the region after 1831 facilitated the shipment of perishable commodities but it is doubtful whether a fresh fish trade would have been viable until after ice became available in Newcastle in 1884. Thereafter the market for commercial fishermen was greatly expanded and it became possible to fish outlying waters, such as the Myall lakes, in order to supply the urban centres.

Fishermen have tended to live at Carrington and Stockton and on the river islands, storing their boats in the same area. The estuary is the source of most fish caught locally but deep sea fishing is also carried out from Newcastle.

Fish marketing has centred on the original Municipal Markets at Market Street, Newcastle, then the Western Markets (now the Palais Royale) then in Steel Street Municipal Markets until a recent move to the Carrington area.

Fourteen major species of fish, crustaceans and mollusc from the Hunter River form the base with prawns as the most valuable catch. Oysters were taken from the early days of the settlement and by the 1860s there were fears that the banks in the estuary would be destroyed by harvesting for consumption and for lime burning. Government regulations were introduced and oyster farming began under the protection of the Oyster-beds Act of 1868.

Physical evidence

Market Street marks the site of the 19th century fish market, and there was a boat harbour in this location which was later reclaimed as railway land. There is still a Boat Harbour at North Stockton and at the Pilot Station.

1.5.4 Mining

Of the many types of mining, only coal, clay and stone extraction have been important for Newcastle: the role of coal however cannot be over-stated – coal mining has been the dominant and all pervasive influence over the city's development. Clay has been the basis of brick pipe manufacture but stone has had only a local impact as the stone quarried was very soft.

1.5.4.1 The Coal Industry

The first coal mine in Australia was opened at Colliers Point (now the site of Fort Scratchley) at the mouth of the Hunter River in 1801. Its location was proven in 2005 by the University of Newcastle. From then until 1831 the Colonial Government operated several small mines in the same vicinity, using convict labour to exploit the upper seams of the Newcastle coal measures, principally the Dudley seam and the Yard Seam. Significantly, the convict miners employed the Bord and Pillar method for extraction and in this sense the industry began using the most modern methods available under the influence of Platt. However the collieries were

primitive compared with what it would become and the output was small, averaging about 3,000 tonnes a year in the 1820s. They significant in heritage terms as the first coal mines in a continent famous for its coal mining industry.

Coal mining entered a new phase when the Australian Agricultural Company entered the industry as a result of an 1828 agreement with the British Government. Opening its first colliery on a 2,000 acre grant, beginning at Brown Street in 1830, the Company employed steam engines and an elementary rail system, the first in Australia, to create an industry capable of supplying the steamships which were to play a key role in the developing economy of the eastern colonies.

The discovery by the Company in 1848 of the famous Borehole Seam at Hamilton, the richest seam of the Newcastle coal measures, ushered in a new era for the industry. Tapped by all the leading northern producers in the second half of the 19th century, this seam yielded over 140 million tons in its first century. Borehole coal was extremely valuable as it powered steam ships, gas plants, railways, smelters, factory engines and domestic fires in many parts of Australia, the Pacific Islands, North and South America and parts of Asia. Its quality and accessibility made the Newcastle coal field, within ten miles of the port, the heart of the Australia coal industry until the start of the 20th century.

The borehole seam was exploited at all the main coal towns of the Newcastle area, namely Hamilton, Lambton, Merewether, New Lambton, Stockton, West Wallsend and Wallsend. The pervasive influence of this industry is revealed by an examination of *The Newcastle Directory and Almanac* for the Year 1880 which lists 19 towns in the area of which only one, Wickham, is not described as dependent on coal mining and it became a coalmining centre shortly afterwards.

Many mines experienced loss of human life through explosions and collapse, and the Stockton disaster is particularly poignant due to the high number of fatalities with over xx miners killed or lost. The cemeteries in Newcastle, Sandgate, Minmi and Wallsend all contain memorials to those killed in mining accidents.

By the beginning of the 20th century many of the Borehole Mines were becoming exhausted and began to close. The sudden complete closure of the Stockton colliery occurred in 1907, although it was rare. It was more common that the workforce was reduced and the colliery slowly wound down. Thus the employment of miners in Newcastle fell by 1,000 between 1905 and 1910. According to J.C.Docherty's *Newcastle: the Making of an Industrial City*, Newcastle suffered a net loss of about 10,000 people between 1901 and 1911 as miners and their families drifted to the new Cessnock coal field. Inner Newcastle was ceasing its life as a coalmining area by 1910, although some collieries did continue to operate past this time.

Physical evidence

- The archaeological remains of the first coal mine in Australia underneath the modern Fort Scratchley site.
- The location of pits; eg the A,B,C,D,E,F,G, H and Sea Pits owned and operated by the Australian Agricultural Company.
- The archaeological remains at these sites including the benched area of the A Pit off Church Street Newcastle,
- Winding house remnant at 18 Bingle Street The Hill
- bridge remains at Hunter street
- Mine Manager's residence for the D Pit, 195 Denison Street Hamilton,
- Mine manager's houses throughout Newcastle and suburbs
- Miners cottages throughout Newcastle and suburbs.
- The Glebe at Merewether and the surviving miner's cottages

- The railway tunnel at South Merewether Beach and railway formations and relics

1.5.4.2 Quarrying

From 1816 the quarrying of sandstone was carried out on and around the base of Fort Scratchley. The stone extracted was used for building the first Christchurch and the gaol. This stone proved unsuitable for this purpose, wearing away very rapidly but quarrying was continued for use on the Nobbys Breakwater between 1816 and 1850. Nobbys Island was also quarried between 1840 and 1850 for the breakwater.

Stone quarrying then moved away from the coast to Lambton and Waratah where better quality stone was obtained. In 1880 H Pilkington had several men getting building stone at Lambton and there were several quarries in the Waratah municipality where the Government was extracting thousands of tones for use on the harbour breakwaters.

Physical Evidence

Many stone quarries may be seen in Lambton and Waratah. The shape of Nobbys and Fort Scratchley site testify to forty years of quarrying.

1.5.4.3 Clay Mining

Lying under much of Newcastle, particularly from Cooks Hill to Adamstown and Waratah, was a thick layer of clay well suited to the manufacture of bricks, tiles, drainpipes and range of pots for household use. This was first exploited by Page's Pottery which was established at Burwood (Merewether) in 1846 for the manufacture of bottles, jars and stronger kinds of delft, which were reported to be good quality and to sell readily in the district. The proprietor was expecting to receive from England appliances which would widen his range of products and this suggests the business was profitable. Although it was to change hands before 1849, when Samuel Welham was the proprietor, this type of industry appeared to have been established on a firm basis. The locality soon became known as "The Potteries", with some exports to New Zealand, three crates of earthenware going there in 1847, as well as shipments to Sydney. Thus at the mid-century mark a local newspaper correspondent remarked "our pottery is notorious for its manufacture".

Turton's pottery at Waratah began production about 1856 and by 1873 was the district's leading manufacturer of pipes, tiles and bricks. Pipe production continued at The Junction where the Hughes family did not close down their business until the late 1970s.

Physical Evidence

Signs of clay extraction may be seen in the vicinity of Mosbri Crescent, Newcastle.

1.5.5 Industry

1.5.5.1 The Development of Manufacturing and Processing

Manufacturing in Newcastle began in the convict settlement when lime, salt and a variety of building materials were made by convicts, from 1804 onwards. These activities began to slow by 1829 because the town started to stagnate. However salt making was a feature of the work occurring on Fort Scratchley in the late 1820s and was also attempted by the A.A. Company on the foreshore portion of its grant in the 1830s. A.W. Scott established another salt works at Stockton in 1836 and brick making and potteries were next to appear (1840s), mainly in the

Burwood area (near The Junction) where suitable clay was found in the first half of the century when the A.A. Company established a workshop at the eastern end of its grant to service its collieries and A.W. Scott set up an engine works at Stockton in the 1840s.

Timber yards and joineries were to flourish around the port, (John Ash & Sons, 37 King Street and Steel Street, and R. Beckenridge at 31 Hunter Street West) and so did engineering works and foundries. Rodgers Foundry opened in the 1850s on the future town hall site and Gibsons was set up in Church Street West (later King Street), while E.E. Robbins worked at 103 King Street.

In the meanwhile the Great Northern Railway had necessitated the construction of maintenance facilities at Honeysuckle Point and they were in operation by 1862. Part of a large complex railway yard (which included a mortuary station serving Sandgate Cemetery until 1933), these workshops were an important source of employment and hence business for shopkeepers in Hunter Street.

So prolific a profession was engineering in Newcastle that the 1901 Newcastle Federal Directory listed more than 80 mechanical engineers, the great majority practising in the CBD. There were also civil and mining engineers involved in consulting roles.

In the other towns too there was work for engineers and foundry men. J&A Brown had a large works at Minmi which was moved to Hexham in the 1890s, and Morison & Bearby had a highly successful general engineering works at Carrington. In Wickham, the Goninan Brothers pioneered the large concern which now operates at Georgetown. In 1879 Wallsend had a foundry where "heavy and extensive castings are often successfully made for the different colliery works in the vicinity". The largest engineering works was at Wickham where Hudson Bros. produced a wide range of railway rolling stock: there Henry Lawson worked as an apprentice for 6 months in the 1880s.

Physical Evidence

Many industrial sites: the Foundry Street Wickham site of the Hudson Bros factory; Rodgers Engineering site, now the Newcastle Town Hall and adjacent park.

1.5.5.2 Brickworks and Potteries

The presence of suitable clays, often found in association with coal deposits, has supported a long history of the manufacture of bricks, earthenware pipes and domestic pottery in the lower Hunter Valley. Pioneered at Irawang, north of Raymond Terrace in the 1830s, this industry flourished at Burwood and Waratah in Newcastle. Producing continuously for local consumers these factories also supplied northern New South Wales via the Great North Railway and export markets such as New Zealand.

Physical evidence

Various sites, including the Hughes site in Railway Street The Junction

1.5.5.3 Soap and Candles

Soap and candles were manufactured on a small scale in the Wickham-Tighes Hill district from the 1860s and this culminated in the construction of a very large factory, possibly the biggest in Australia at Port Waratah. It continued to produce soap, at George Street Waratah, until after the First World War.

Physical evidence

Evidence remains on site in George Street Waratah of the Sydney Soap and Candle Making Company. This evidence is archaeological.

1.5.5.4 Shipbuilding

Shipbuilding is another of the traditional industries of the Hunter Region. Based initially on the abundant timbers of the valley of the Williams River, shipbuilding began in the Newcastle convict settlement but its commercial origins may be traced to Clarencetown where William Lowe built many vessels, the most famous being *William IV* launched in 1831. Stockton too was important in wooden ship building until the 1880s but no Hunter region shipbuilder made the transition to iron/steel ships until a State Dockyard was opened at Walsh Island in 1914. Functioning discontinuously as a shipyard, it became a general engineering works until its closure in 1933. The second state dockyard also built ships for the war effort from 1942 and the BHP Company was active in small ship construction at this time. However large steel ship construction has never been viable in peacetime conditions in the Hunter region and this dockyard ceased to build ships in 1983. Small ships continue to be built in whole or in sections in parts of the study area.

Physical evidence

Various sites including Callen Bros. Yard at Stockton and the Walsh Island State Dockyard (now part of Kooragang Island). The second State Dockyard at Carrington still exists.

1.5.5.5 Smelting

Copper smelting began at Burwood Beach (originally Smelters Beach) south of Newcastle in 1851 and continued there intermittently until early this century. Copper was also smelted at Port Waratah on the site of the former BHP Steelworks from 1866 and at Georgetown where the Goninans works now stands. Processing ore from South Australia and New Zealand as well as NSW, these works were affected by falling world copper prices and by the 1890s copper smelting had disappeared from the Hunter. Tin smelting had also been tried briefly at Stockton in 1879 but the long cherished ambitions of local people for a large scale metal works were nourished by development in the silver-lead mining in the 1890s. Broken Hill mining companies in search of economies looked to Newcastle for suitable smelting sites and in 1896 the Sulphide Corporation began operations at Cockle Creek, importing ore through its own wharf at Carrington.

In 1912 the BHP Company began to construct a large iron and steel plant at Port Waratah: it opened in 1915 and rapidly expanded, causing an employment and housing boom in Newcastle. After the end of World War I, in difficult trading conditions, the Company created a network of steel consumers, usually encouraging other companies to open plants in Newcastle. In most cases these plants were eventually taken over by BHP. Among these were the Commonwealth Steel Company (formed 1919) to manufacture railway components and other special steel products, the Australian Wire Rope Works Ltd. (opened 1924) for making wire cords and ropes, especially for mining purposes, Lysaght Bros. and Co. (opened in 1921) producing galvanised iron and Stewart and Lloyds (Australia) Pty Ltd. (established in 1929), producer of steel pipes.

Physical evidence

Many sites, including Smelters Beach, Goninans Plant at Broadmeadow (once the English Australian Copper Company site), the site of the former BHP Steelworks and remaining structures Stewart and Lloyds, the former Arnotts home on Union Street Cooks Hill.

1.5.5.6 Food Processing

Flour milling began in 1821 when the Government built a wind-powered mill on Obelisk Hill. There were no further developments until the late 1820s when J.L.Platt tried to establish a mill on Ironbark Hill and James Steel built a steam-powered mill in King Street. The first really successful mill appears to have been the Newcastle Roller Flour mills, in Hudson Street Hamilton, c.1890.

In the nineteenth century large scale manufacture of food was almost absent from Newcastle with two notable exceptions; the biscuit factory of William Arnott, and Woods Castlemaine Brewery. Arnott originally settled in West Maitland but after four floods in quick succession he moved to Newcastle in 1865 and opened a bakery in Hunter Street. Expanding his business considerably during the next decade, he built a factory in Melville (now Union Street) in Cooks Hill in 1879. Expansion of his market to Sydney saw the enterprise grow further and the firm shifted some of its manufacturing activities to Sydney after the completion of the Sydney-Newcastle railway in 1889. He ceased manufacturing in Newcastle in 1914.

From a small wine and spirits merchant business in the 1850s, the Wood Brothers, John and Joseph, prospered to the point where they were able to establish, in partnership with Melbourne interests, the Castlemaine Brewery on the Hunter Street west site, which they bought from the A.A. Company. Assisted, as Arnott's had been, by the trade of the port as well as the opportunity to exploit the Great Northern Railway, the Woods built up a large business throughout the northern districts and when a rival brewery was established in Wood Street, they closed it down.

There were other food producers, notably the Dangar Brothers' Meat cannery established at Wickham in the 1840s (one of Australia's first), and Samuel Dark's Ice Works (1912) on A.A. Company land at Honeysuckle Point but these were not on as large a scale as the Arnott and Wood businesses.

Physical Evidence

Obelisk Hill, site of the first Flour Mill
Portion of the McIntosh Mill
Platt's Flour Mill site, Mayfield
Brewery buildings in Wood and Hunter Streets Newcastle West
Hudson Street Flour mill
Arnott House, Union Street Cooks Hill

1.5.6 Commerce

Beginning in the convict settlement when some convicts became retailers, Newcastle stagnated in the 1820s but began to revive in the next decade as the Australian Agricultural Company's mines increased their output. Commercial development lagged behind that of Maitland until the Great Northern Railway extended into the Hunter Valley and mining villages were created in Newcastle's hinterland.

1.5.6.1 The Central Business District

In a sense all suburban development was supportive of the CBD as each new colliery village contributed something to commerce of Newcastle. As transport systems developed, people began to travel for business and pleasure to the older town which also benefited from the spending of ship's captains and their crews.

In the beginning passenger travel by railway was limited to special occasions but miners from the outlying towns often visited Newcastle to shop on alternate Saturdays when they were

paid. Horse-drawn bus services also developed in this period but roads were so rough that their scope was limited. Then from 1887, steam trams greatly increased the accessibility of Newcastle and its business people claimed regular customers from all parts of the Lower Hunter Valley. Moreover, gradually improving roads encouraged horse-drawn bus services and by the 1920s these services had been motorised. The electrification of trams (1923) was the next big innovation and each improvement facilitated suburban support for the CBD.

Although the growth of the population in the Lower Hunter Valley contributed to the prosperity of the original shopping centre at the eastern end of Hunter Street, its effect on the opposite end was more dramatic. With the eastern end already built up and the railways occupying the northern side of the street, businesses were forced further and further west, producing a surprisingly long main street for a city of 69,000 people (Lake Macquarie Shire and the various municipalities) in 1911.

At the eastern end were the largest retail stores, including Winns (1878), Scotts (1890) and Mackies (1896) as well as the principal professional firms such as bankers and lawyers. However, Lights Furniture Store moved from Carrington to Hunter Street west in 1894 and Marcus Clarke of Sydney opened a branch at 711 Hunter Street. Then the Co-operative Society, which came to be known as The Store, an organisation that was founded in 1898 and grew rapidly between 1905 and 1914. From 1438 members in 1911, it expanded until by 1930 there nearly nine thousand members and the co-operative had become a major force in Newcastle's retail sector.

Retailing development on this scale attracted many other commercial activities. The branch of the Commercial Bank of Australia (late NSW) at the Bank Corner is an obvious example, and government services including the Police Station and Post Office also followed.

Despite all the varied uses of the CBD for industrial, business, services and residential uses during the second half of the nineteenth century, it was the commercial element with proved dominant. The combination of growing population pressures in the Lower Hunter Valley and a communications system based on Hunter Street and Darby Street made the Hunter-King Street complex the retail centre of the region. Even the development of prosperous shopping centres in Hamilton and Mayfield early this century under the stimulus of the steel industry did not counter the attractions of the older business centre.

Physical Evidence

Numerous commercial buildings in the CBD

1.5.6.2 Suburban Commerce

In 1869 embryonic shopping centres developed in the mining villages of Wallsend, Minmi, Waratah and Lambton. Designed to cater for the basic food and clothing needs of mining communities, they were dominated by general stores and hotels. By 1879, when the *Newcastle Directory and Almanac* was compiled, Wallsend-Plattsburg, whose shopping centres were contiguous, had 33 stores, 21 hotels, 8 butchers, 8 boot shops, 5 bakers, 5 milliners, 3 tailors, 2 tobacconists and 2 newsagents. Lambton was similarly equipped but it also had a bank, the only outside Newcastle and it had the only co-operative store. Waratah was not as well developed as the above two and Minmi lagged behind Waratah because its mine had been closed between 1864 and 1870 and its proprietors refused to sell business sites, offering only 30 year leases.

The other emerging towns in the study area had fewer businesses than the mining towns because of their smaller populations or their proximity to Newcastle's shops.

Physical Evidence

Many commercial buildings in each of the town centres, mainstreets eg Wallsend.

1.5.6.3 Wholesaling

Just as Maitland had shown the way in the pre-railway age, Newcastle developed a considerable wholesaling sector after 1857. Served by railways and shipping and assisted by the lack of a railway link between Sydney and the northern districts of New South Wales, Newcastle enjoyed a significant advantage over its rivals between 1857 and 1889. Wholesalers, usually preferring the eastern end of the city for its proximity to the port, included Frederick Ash (1855), J. Burke and Sons (1877), J. Ireland (c.1877), R.Hall and Son and David Cohen. Their remaining warehouses are a very important element of Newcastle's architectural heritage.

1.5.6.4 Technology

From the opening of the A.A.Company colliery in 1831 (A Pit) with two steam engines and a funicular railway, the Newcastle district has played a lead role in the use of industrial technologies. In railways, shipping, copper, silver-lead smelting and iron and steel making its record has been remarkable in Australian terms, and occasionally, it has made its mark in world terms, eg., the Hydraulic power station at Carrington during the 1870s, the BHP B.O.S. steel furnaces of the 1960s, the present Kooragang Coal Loader, the largest in the world.

Physical Evidence

Hydraulic Power Station Carrington, Customs House Time Ball, Railway roundhouse sites at Broadmeadow, Honeysuckle Turntable at Honeysuckle, Honeysuckle Railway Yards etc. There are numerous sites which demonstrate this theme.

1.5.8 Science

In applied Science Newcastle has made a continuous contribution to Australian industry. This theme however has not been thoroughly researched and gaps remain in our understanding of this aspect of Newcastle's heritage. An example of the use of applied science is Walter Filmer's pioneering work with x-rays at Royal Newcastle Hospital in 1895.

Physical Evidence

The many industrial heritage sites throughout Newcastle.

1.6 Role of Government**1.6.1 Government and Administration**

The presence of the Colonial Government in the Hunter region was initially very strong because of the powers of the commandant of the Newcastle penal settlement. With a military detachment under his control and the power vested in him as a magistrate, this officer was entrusted with the implementation of government in the Lower Hunter until Newcastle ceased to be a penal settlement. The port of Commandant was abolished and the first police magistrate to be appointed to replace him in 1827. The police magistrates, assisted by Justices of the Peace, sat in courts of petty sessions and acted as representatives of the government. Serious offences were tried before circuit courts which also provided the settlers with an opportunity to present lists of grievances to the Governor. Initially these met in Newcastle but in 1829 East Maitland took over this role, a sign of the emergence of that district as the dominant service centre of the region. At first these courts were held in business premises,

normally hotels, but in time the government began to construct court houses in the larger towns.

Newcastle's first court house, the Sessions House, built about 1821, was replaced in 1838 by a new building on the present site of the Newcastle Post Office. The existing Newcastle court house was built in 1890.

When a partly elective legislative council was created in 1843, D'arcy Wentworth was elected to represent the towns of East Maitland, West Maitland and Newcastle.

In 1845 district councils, the first form of local government, were set up in New South Wales. Appointed to the first Newcastle district Council were A.W. Scott (Warden) and George Brooks, William Brooks, L.E. Threlkeld, Simon Kemp and Henry Boyce.

1.6.1.1 Newcastle as an Administrative Centre

Maitland overtook Newcastle in the 1830s and administrative function tended to be concentrated in Maitland for about 30 years, eg. Courts, Lands Department, police headquarters, gaol etc. When this trend was reversed there was no government land west of Brown Street for use for administrative centre, hence their predominance at the eastern end of the town. When the government needed land for post office, police station, trades hall, technical education, etc, it was forced to use the narrow strip of railways land on the north side of Hunter Street or buy back lots it had once granted to the A.A. Company. Indicative of this problem was the Hunter District Water Board's search for an adequate site for its offices. First located in a rented building in Bolton Street (45 Bolton Street), the Board then added a wing to the Customs House and was located there until 1916. However it was then forced to buy the Hunter Street West site it occupied until 2006 as the Government could not provide a suitable allotment for the Board's use.

Physical Evidence

Various Government Buildings

1.6.1.2 The Development of Local Government

In 1858 New South Wales legislated to allow the formation of municipalities in urban centres prepared to petition them. The Newcastle Council, first in the study area, was formed in 1859 to govern the area now regarded as the Central Business District. As other emerging towns followed suit, what is now the Newcastle local government area came to be governed by twelve local councils. Hamilton, Lambton, Waratah, Wickham, Wallsend and Plattsburg (now part of Wallsend) were incorporated between 1871 and 1876 and between 1885 and 1889 five more municipalities were established, namely Adamstown, Merewether, Carrington, Stockton and New Lambton.

Called into existence by their residents because of their urgent need to construct roads and provide such amenities as drains, water supplies, sewerage schemes, street lighting, control of nuisances, etc, the new councils faced great difficulties and considerable opposition. However they struggled on, often handicapped by inadequate funds and with little assistance from governments, to improve urban amenities.

By 1901 it was evident there were too many municipalities in the Newcastle area, especially as they had tended to merge as the population of the city grew. It was not until 1938 however that the movement to create a larger Newcastle local Government area succeeded. The result was Greater Newcastle. The new municipality subsumed eleven smaller ones (Wallsend and Plattsburg had amalgamated) and took in parts of two shires. It took over the assets and debts

of the constituent councils and their staffs. Greater Newcastle covered 38 square miles with 120,000 people.

As F.A. Larcombe has shown in *The development of Local Government in New South Wales* (1961), this was the first attempt at metropolitan government in the State and it has been a marked success:

The record of Newcastle has been one of substantial progress. The new authority has in the main, achieved for the purpose for which it was constituted by providing an improved and coordinated service throughout the area with financial results satisfactory to the district as a whole.

In the 1950s the Greater Newcastle acquired two further local government agencies, the Northumberland County Council and Shortland County Council. The Local Government Act of 1919 had permitted municipal cooperation in the form of county councils but they had been slow to develop. The Northumberland County Council, with headquarters in Newcastle, was a town planning agency which tried to develop a plan for the several constituent local government areas. Shortland County Council took over the role of electricity supply, a task that needed a coordinated approach.

Physical Evidence

Former council chambers in Stockton, Carrington, Newcastle, and Lambton. Wickham, Wallsend, and Waratah. The remains of the abattoirs at Warabrook, Shortland County Council and NESCA House.

1.6.2 Law and Order

The maintenance of law and order has represented particular problems in two aspects of the life of the city. In charge of the penal colony, with over a thousand convicts at its peak, the Newcastle Commandants had to maintain law and order with no more than a handful of free officials: it was a large gaol mainly administered by serving convicts.

The other distinctive law and order issue, has arisen from the area's core role as an industrial and coalmining and export centre. With large scale industrial disputes a feature of its history, the police and army have been called on to intervene on many occasions.

Physical Evidence

Police stations and lock-ups, police residences and court houses
 Newcastle Police Station where miners leaders were charged after the 1909 riots
 Clara Street Tighes Hill, the scene of riots against evictions by police during the Great Depression
 Fort Scratchley, regarded by unionists as repressive.
 The Star Hotel, scene of riots over its closure in 1979.

1.6.3 Defence

Newcastle's association with the army goes back to the units of the NSW Corps, stationed in the convict settlement from 1804. Various other British regiments were stationed in the city until the 1850s when the Watt Street Barracks were turned over to other uses (now James Fletcher Hospital). Thereafter, colonial army units visited Newcastle, particularly after prolonged industrial disputes (1861, 1879, 1888), and from 1855 a detachment of the NSW Artillery was permanently stationed in the city to defend it in case of war in Europe.

Four 80-pdr. Guns were erected in 1878 and transferred to Fort Scratchley when it was completed in 1882. In addition, from the 1850s onwards there were various volunteer military units in the city: in 1880 these consisted of the Volunteer Artillery, the Volunteer Infantry and the Naval Brigade.

In the 1890s the Shepherds Hill was fortified. Just before World War I Fort Wallace was constructed at North Stockton. In that war, the city did not come under attack but it was active in the recruitment and training of troops, the showground being used as an army depot. Drill halls also existed in King Street and adjacent to the Pilot Station. Adamstown had a rifle range which was later replaced by Fern Bay rifle range. Newcastle had its own Infantry Battalion, the 30th.

The shocking loss of life at Gallipoli had a traumatic effect on the people at home and war memorials began to appear. The Newcastle war Memorial outside the Port Office was one of the first in Australia, being erected within a year of the assault by Anzacs in April 1915.

In preparation for World War II, Fort Wallace was developed into the key fortress of the region to defend the Port and its industrial hinterland from attack by enemy ships. Radar Unit 131 based on Ash Island and fortifications around the harbour entrance were linked to a communications centre at New Lambton Public School and the Williamstown Air Force Base. King Edward park became an army base and various private houses were taken over the armed forces.

The city was attacked by shell fire from a Japanese Submarine in June 1942, and the city's defenders returned fire from Fort Scratchley. This is the only place on the Australian Mainland that is known to have returned fire. This was closely linked to two Infantry battalions, the 2nd and the 35th.

After the war ended, the military installations were wound down and the surviving forts were closed up or turned into museums.

The memorials to the fallen of the World War II tended to be more varied than the earlier memorials. The major Newcastle memorial was the Civic Centre, a combined art gallery, conservatorium and public library and opened in 1957.

Neither the Korean nor the Vietnam conflicts had much impact on the life of the city. However, there have been moves recently to recognise their importance to those who served and the relatives of the fallen.

Physical Evidence

Fort Wallace
 Fort Scratchley
 Shepherds Hill fortifications and residence
 New Lambton Public School
 Fortification ruins at Nobbys and Shepherds Hill
 Radar Station buildings at Ash Island

1.6.4 Communications

The first newspaper was the Northern Times and Newcastle Telegraph which began publication in 1857. Newspaper production has been continuous since then. The electric telegraph reached Newcastle in 1861, being administered from its specially built premises in Hunter Street. It played a vital role in the conduct of intercolonial and foreign coal trade.

When telephones were introduced, about 1890, the switchboard was also located in the Electric Telegraph Office. By 1896 there were four switchboard operators and 88 subscribers.

The Australian Broadcasting Association began broadcasting from a studio in 1930 (2NC) and the first commercial radio station in the area was Station 2KO which opened in 1931. Television began in the Newcastle when NBN began in its present studios in Mosbri Crescent in 1962.

Physical Evidence

Former ABC Studio in Newcomen Street
2HD Studios at Hexham
Original Telegraph Office in Hunter Street
Post offices

1.6.5 Utilities

1.6.5.1 Gas

The first utility to be available to residents of the study area was gas made and reticulated by the Newcastle gas and Coke Company which was formed in 1866. From a site in Parry Street (acquired in 1869) the Company was supplying the inner city, Hamilton and Wickham by 1879 and it gradually increased its distribution system to include all the main suburbs of Newcastle, except Wallsend which was supplied by the Wallsend and Plattsburg gas Company from 1883. As late as 1897 the streets of Wallsend, Hamilton, Wickham, Waratah, Carrington and Plattsburg were lit by gas.

1.6.5.2 Water

Until 1887 Newcastle and its suburbs depended on wells and tanks for its water supply: by then its population was approaching 50,000 and a regular supply of good quality water was a matter of urgency. The Walka Waterworks on the Hunter River at Oakhampton began to provide water to Newcastle in 1887 and reticulation began to the surrounding towns soon afterwards. The first reservoir was constructed on The Hill in Tyrrell Street. Originally administered by the local municipalities, the system was vested in the Hunter District Water Supply and Sewerage Board in 1892.

1.6.5.3 Sewerage

The need for a sewerage system was so pressing that the Newcastle Council started its own system in the 1880s, disposing of its waste to the harbour without due regard to the influence of tides. This unsatisfactory venture was superseded by the Water Board which began to implement a sewerage system for the region in 1898. By 1907 it was ready to connect to parts of Newcastle, Merewether and Hamilton. The first sewage pumping station was built near the intersection of Hunter and Brown Streets and 1910. For the dates of connection of other areas see J. Armstrong, *Pipelines and People*.

Physical Examples

Underground brick tanks, wells and cesspits exist in many areas across the LGA. Reservoirs in Tyrrell Street, Waratah, New Lambton, Shepherds Hill, North Lambton, and the Water Board offices in Scott and Hunter Streets.

1.6.5.4 Electricity

Lambton Municipal Council was the first to establish an electricity supply works: installed in 1890, it was idle by 1900 because the council was in debt. The Newcastle Council installed a plant in Tyrrell Street in 1891 and began to light the city streets: by 1897 all the streets of Newcastle municipality and the wharves at Carrington were lit by electricity. The railways department also produced electricity, at first for its own purposes, and in 1915 it began to generate at the Zahra Street site which remained in use until 1976. The council continued to supply electricity under the creation of the Shortland County Council in 1957.

Physical Evidence

NESCA House
 Sydney Street site
 Railways site in Foreshore Park
 Zahra Street Power Station (site only)

1.7 Social Development

1.7.1 Housing

1.7.1.1 The Inner City

For the first two decades of the penal settlement there were two distinct standards of housing: government and private. Most of the government structures were of timber, brick or stone but they were poorly built and little survives from this period above ground. The privately owned buildings were less substantial in material and method of construction and if any survive it is only as archaeological relics (See Newcastle Archaeological Management Plan 1997).

From the 1820s onwards privately owned houses improved greatly as “Claremont” on Newcomen Street indicates. There were few residents wealthy enough to build to that standard. When the pace of development quickened after 1850, landowners in the inner city area were quick to capitalise by building as many small, cheap accommodations as possible on their lots: these did not survive the late 19th century re-building phase.

Wealthy professionals and merchants usually built large houses on The Hill but in the second half of the last century they began to move out of Hamilton and Waratah-Mayfield to villas and substantial houses in large gardens. In the late 19th century Newcastle east became available for housing after the problem of wind-blown sand was overcome. Terrace housing of two and three storeys was to dominate, with some boarding houses erected because of the proximity to the station and port. By the 1950s the area was considered to be firmly working class, but after an unsuccessful attempt by the State Government to redevelop the area, its special character was recognised. It is now protected as a Heritage Conservation Area.

After the steelworks opened there was a rush to develop housing in the Mayfield area for workers and the grounds of the villas were subdivided for cheaper forms of housing. As J.C. Docherty has shown, in the second decade of this century Hamilton and Waratah accounted for more than half the new building and one fifth went to Wickham and Stockton: by 1921, 80% of the city’s housing stock was of timber construction with four or five rooms.

There were several housing developments inspired by the “garden suburb” movement between 1910 and 1919. The A.A. Company launched its Sulman designed Hamilton Garden Suburb in 1914, marketed to the growing middle class, and by 1933 its goal of 5,000 residents had been achieved. The Government’s estate at North Stockton proceeded from 1919 and the Newcastle Wallsend Company launched Birmingham Gardens in 1922. The Scottish Australian Mining Company followed with its Kotara subdivision in 1925.

1.7.1.2 Housing in Outer Areas

The earliest areas in the mining towns were usually built by the Coal Companies to serve the nucleus of their work forces. They were simple structures, often of slab construction. At Stockton, Merewether and Minmi, the owners initially refused to sell land, forcing residents into leaseholds with the corollary that houses were often makeshift. In the other centres, the land was sold, promoting better housing and more prosperous towns. In all the mining towns managers residences were built, usually of brick or stone and very superior to other housing, reflecting the high status of their occupants.

Physical Evidence

Mine Manager's houses, including those in Lambton, New Lambton, Denison Street Hamilton, Merewether, and Waratah.

1.7.2 Social Institutions

The first social institutions to appear were the Lambton Mechanics Institute, founded in 1835, only two years after its Sydney counterpart. The first friendly society, the Loyal Union Lodge, was founded in 1842 and by 1880 there were about one hundred organisations of this type in study area. They included Masonic lodges at Newcastle, Wallsend and Minmi, the Independent Order of Oddfellows, the United Ancient Order of Druids, the Loyal Orange Institution, the Sons of Temperance, the Daughters of Temperance and many more.

The trade union, destined to be perhaps, the most influential institution in the city, began at the colliery level in the 1850s and became a district organisation in 1860. At that stage there were miners' unions at Merewether, Hamilton, Wallsend, Minmi, and Tomago and new lodges as they were known, appeared with each new mine. Usually meeting in hotels and at the mines, the lodges did not acquire buildings of their own, until the early 1900s. the first trades hall was built in Hunter street West in 1895.

Other industries also produced their own unions (eg railways, engineering, copper smelters,) but only the railways established a social-educational offshoot with physical representation: the railways institute buildings in Newcastle.

From the 1860s schools of art and mechanics institutes began to proliferate, partly as a result of the availability of government subsidies. Intended to have significant educational function, they were more important as centres of entertainment, providing games (especially billiards, chess, etc) and being community halls. They also maintained libraries for their members.

The Red Cross was active in Newcastle from World War I. The CWA, though not strong in the city, had a branch in 1929 in Newcastle and Wallsend in 1936. There was also a CWA hostel for women staying in Newcastle.

The strength of the cooperative movement among coal mining communities provided another echelon of social activity. Introduced from the United Kingdom, the movement produced a cooperative mine in 1861 and dozens of retail cooperatives came later. Funded in 1898, the Newcastle and Suburban Cooperative Society (The Store) had 95,000 members by 1978. By the 1960s it had eleven suburban branches and seven service stations, with 85 motor vehicles and 85 horse drawn vehicles. It also operated a health fund for members. These cooperatives were more than commercial organisations, depending for their success on loyalty to the movement which inspired them. The retail cooperatives did not survive the advent of competitive regional shopping centres.

Physical Evidence

Masonic halls in Adamstown, Wallsend, Newcastle, New Lambton
 Trades Hall in Newcastle West, now part of the Art College
 The Railway Institute, Newcastle West
 The Cooperative Store building, Newcastle West
 Cooperative Store Service Station, Newcastle West
 Cooperative Store Bakery complex, Hamilton North
 Newcastle School of Arts, Hunter Street
 Wallsend, Wickham School of Arts
 Lambton Miners and Mechanics Institute Lambton
 Hamilton Mechanics Institute Hamilton

1.7.3 Ethnic Influences

The population were strongly influenced by the British even during the 20th century and the recruitment of steelworkers after 1915 tended to strengthen this characteristic. However after World War II assisted immigration brought an influx of southern Europeans to the city, especially Italians, Greeks, Croatian, Poles, and Germans. The presence of their cultures has enriched the city and social life of the region. The Chinese have had an on-going presence since the mid 19th century, and their presence is still visible in Union Street Newcastle West.

Physical Evidence

Hamilton's Italian businesses
 Greek Orthodox Church, Hamilton
 Croatian Bowling Club, Wickham
 Polish Association Broadmeadow
 Mosque, Wallsend
 Jewish Synagogue, Tyrrell Street Newcastle

1.7.4 Cultural Sites

The records of the missionary Threlkeld suggest that Nobbys Island and the sea cliffs have special significance to the Awabakal people. Governor Macquarie's *Journal of His Tours* indicates that corroborees were performed on the hill at the top of Watt Street. Its role as a ceremonial site has not been confirmed.

In the early period of white inhabitancy the hotels played a leading role in cultural life, as they were the only large scale meeting places, but their function narrowed as the schools of art, churches and lodges began to emerge. The strong musical life of the city, centred on bands, choirs and concerts, in the halls, as the Temperance Movement had such a strong influence over social life.

Of special note were the parks as these were thought of as essential to town life in the 19th century. In 1880 Newcastle had a reserve (King Edward Park), Carrington has 50 acres set aside as a recreation reserve, Wickham had a reserve set aside at Islington of 11 acres and a botanic garden was planted at Waratah.

These open spaces were used for typical sporting activities and for less formal occasions such as picnics. Of special importance in the mining communities, the parks were used as a place for mass gatherings of the miners' aggregate meeting and several thousand would attend.

King Edward Park was the venue of historic occasions including the celebrations for the end of World War I; Newcastle Beach and Shortland Park were chosen for the city's 150th celebrations in 1947.

Physical Evidence

Mechanics Institutes and schools of Art
 Lambton Park, King Edward park, Centennial Park, Wallsend Park, rotundas etc
 Nobbys Head

1.7.5 Leisure

Swimming has been a popular activity since the inception of the penal settlement. Work was commenced on the Bogey Hole in 1815 and it was ready by 1818, created by convicts from a wave cut rock platform. Towards the 1850s leisure became more organised as communities developed and transport improved.

Entertainment has always been a central part of the life of the city. The first plays were performed in the courthouse in the 1850s. Roller and ice skating was an important pastime and there were several links built: the Palais Royale and Steels Garage constructed for the purposes of ice and roller skating respectively. Boxing was a favourite attraction, and the Hunter Street water board site was an open boxing area. The Newcastle Stadium, now Market-town Shopping was a significant boxing centre.

Touring theatrical entertainments were a feature of life in Newcastle as were circuses. The Victoria Theatre was constructed in Watt Street in the 1850s, then Perkins Street in 1876, and the third on the same site in 1891.

Physical Evidence

Victoria Theatre, Perkins Street
 Parks, local and city
 Beach pavilions
 Civic Theatre, Newcastle Region Art Gallery and War Memorial Cultural Centre (1957)
 Former Royal Theatre Lambton
 Lyrique theatre, Wolfe street Newcastle
 Stockton, Birmingham Gardens cinemas
 Islington Regent Theatre

1.7.6 Sport

There is no doubting the importance of sport in the history of the Newcastle area: perhaps the same could be said of all Australian cities. The people of this city have played and followed sport to a surprising degree.

Boat racing, with oared and sailing craft, and horse racing were the main sports until 1854 when the Newcastle Cricket Club was formed. The earliest matches were played on the waterfront near the AA Company's headquarters and on the parade ground at the army barracks off Watt Street. St. John's Church Green in Cooks Hill was also used until 1867 when the Newcastle Cricket Club leased another site where Corlette Street is now and developed it into an enclosed sports ground where "all the principle cricket, football, athletic, and other sporting events took place" from 1887 until 1912 when the land reverted to the AA Company which subdivided it for residential use. The pitch survives as the island in Corlette Street.

The first known reference to horse racing is the early 1840s, at the Racecourse Inn, at 65 Frederick Street Merewether. The building, still surviving in 2007, is believed to have been built between around 1846, as an inn which served Burwood racecourse set up by prominent Newcastle identities, James Hannell and Peter Fleming, in the 1840s. The last race in Merewether took place in 1856 when the AA Coy leased an area of their estate in Broadmeadow to the Newcastle Jockey Club. The Newcastle Racing Club (forerunner of the

Newcastle Jockey Club) was formed in 1865 and developed a course on land released from the AA Company at Hamilton South. This course continued in use until 1906 when the Newcastle Jockey Club moved to a new site leased from the AA Company, which they eventually purchased in 1911. The racecourse was then developed and the first grandstand dates from 1907, with a new stand in 1920.

The Broadmeadow course was well supported from the beginning, special trains were run from the Hunter Valley towns for the important meetings in 1914 the NJC arranged from the tramway to be extended to the ground. At that time it was holding 21 meetings a year and attendances ranged from 1500 to 5000. The ground was also used for Eight-hour demonstrations and for Schools Athletic Carnivals.

The Wallsend Jockey Club was formed in 1886, with a course off Minmi Road developed with two grandstands, one of which was later moved to the Crystal Palace Soccer Ground at Waratah. Special trains were run from the Hunter Valley towns for important race days in 1900. Tattersalls Club was formed in 1896.

The NJC continued to operate successfully until the 1960s when attendances began to fall, because of the televising of races from other centres. However funds from the NSW Totalisator Board allowed a major redevelopment of the Broadmeadow course in 1895 when a new two level lounge and viewing was constructed to complement the existing stands. The track was re-surfaced, timber horse stalls were converted to brick and thirty new stalls were constructed. A woodchip training circuit was also laid down in place of the old sand circuit. Racing continues to be an important social and business activity in Newcastle.

The football association was founded in England in 1863 and soccer developed rapidly from that time. It was very popular in Scotland and the North of England and this may explain its popularity among the miners in Newcastle in the 1880s. A club was formed by five Scotsmen at Minmi in 1884 and in the following year a match between Minmi and Lambton was reported in the Newcastle Morning Herald. A northern district soccer competition was started in 1887. Lawn bowls was another popular game before 1900. In that year there were five known clubs, Newcastle, Lowlands, Waratah, Hamilton and Wickham.

The first rugby game occurred in Newcastle in May 1869 at St John's Green between the Volunteer Artillery and the United Cricket Club. The first rugby club was formed in Newcastle in 1877 at the Ship Inn and in that year visiting teams from Maitland and Sydney competed at St John's Green (now Centennial Park). A New Zealand team visited in 1884 for a match at the Newcastle Cricket Ground. War that was the first club to form from outer Newcastle and the Ferndales of Tighes Hill appeared next. Within a decade of its appearance rugby was firmly established in the Newcastle area with some teams loosely based on a colliery (the Ferndales) or factory (the Carltons from Arnotts).

Rugby League began in 1908 when a local side entered the Sydney competition. A local club competition began in Newcastle in the following year and the game has been popular ever since. Matches between Newcastle and visiting international teams have proved the strength of local rugby and many Newcastle players have been selected for Australia. Clive Churchill, a local, captained the Australian team in six test series.

According to Peter Corris' history of prize fighting in Australia, Lords of the Ring, the era of bare knuckle fighting in Australia lasted from 1814 until 1884 when the Marquis of Queensbury rules began to apply. Contests under the earlier system occurred from time to time but in the late nineteenth century boxing began to boom in the Newcastle area. As Bob Power has shown, there were scores of "proving grounds" in and around the city early this century when fights were arranged in sheds, halls, and hotels. Les Darcy fought some of his

early bouts in Newcastle in this period. The Imperial Stadium was the main venue from 1918 to 1923, then a building in King Street took over until the Greater Newcastle stadium was opened by Hughie Dwyer in 1936. It was there that many of Australia's leading fighters including Dave Sands and four of his brothers, received their initial training and many state championships were arranged there.

The Federal Directory of Newcastle and District for 1901 dedicated only one page to sporting information, featuring the Northern District Bowling Association and the Port Hunter Sailing Club. Nevertheless, a great many sports were being conducted in the district.

Physical Evidence

Newcastle Sports Ground, National Park and No.1 Sports Ground, Western Suburbs Rugby Oval (Lambton), District Park Tennis Club (Broadmeadow), Northern NSW Soccer Club (Birmingham Gardens), the site of the Newcastle Gymnasium in King Street Newcastle, Palais Royale Ice Skating Rink. And many more

1.7.1 Environment

By modern standards, Newcastle had appalling environmental problems by the 1850s, when one sea captain wrote "Goodbye to those shore of sand and coal dust." There were days in the 1870s when the lighthouse was obscured by smoke from the Port Waratah copper furnaces and in 1874 a resident of Merewether complained "What with bad roads, deficient drainage and brick kiln smoke, we are anything but happily situated."

By the end of the nineteenth century, the environment of Newcastle had been transformed by human action, particularly through port development and coal mining, but also through extensive construction and urbanisation. Urban development at the expense of tree cover and widespread underground mining had transformed the site discovered by John Shortland. Much of the surface land in the city and the mining towns had subsided as a result of coal extraction and port dredging and the concomitant reclamation of shallow areas of the harbour had made the 1797 estuary unrecognisable.

Despite these drastic changes, Novocastrians did not challenge the presence of industry, and the prospect of enormous industrial development on Kooragang Island in the 1960s was accepted in the same spirit by many, as the coming of the steelworks a century earlier.

From the establishment of the steelworks in 1915, air and water pollution worsened and by the 1940s the city was notorious in this regard. The Newcastle City Council took the first major step towards a remedy by the formation of a Smoke Abatement Advisory Panel in 1947. The first panel of its kind in Australia, it managed to reduce fall-out from 87.25 tons of insoluble solids per month in 1951 to 23 tons per month in 1961 and by 1976 there had been a further reduction to 10 tons per month.

This impressive achievement came long before Novocastrians responded to world wide pressures for environmental reform and in 1968 when the Newcastle Flora and Fauna Society was established "those interested in conserving the natural environment were considered to be a fringe element." As the conservation movement developed, many other more specialised conservation organisations appeared, spawning a variety of publications dedicated to the cause and by 1992 the Society's message had been so well learned that the parent body ceased to exist.

Physical Evidence

Historic images of Newcastle showing the city in various stages of its development, including paintings depicting the working harbour and images of pollution.

1.7.8 Health

The health of the convict workers in Newcastle was not as good as that of the general population of NSW because their rations consisted of grain and salted meat and they suffered from occupational hazards associated with coalmining, lime-burning, and salt making. Moreover the convict hospital was not as well supplied as the Sydney hospitals were.

After the closure of the convict settlement, there would have been some improvement in the health of residents as the variety and quantity of food improved. In the 1840s, a friendly society began to offer medical assistance and health insurance to its members: this was one of the first of kind in Australia.

After 1850 as coalmining became the staple occupation, certain diseases became endemic, particularly lung complaints, as the collieries were poorly ventilated. Eye problems were also common as flickering lights were used in the mine. There were also many injuries from falling coal and runaway wagons etc. To cope with these problems, doctors were hired by the miners' union to attend to their members. Newcastle hospital which had operated since the convict days, was housed in a new building in 1866 and doubled in size twenty years later.

To assist with the health problems of the mining communities, a new hospital was opened at Wallsend in 1894: it was funded by contributions from the miners' wages. The Newcastle and Northern Benevolent Society opened an asylum (Later the Western Suburbs Maternity Hospital) at Waratah in 1885.

For want of medical records it is difficult to comment on the general health of the community until late last century but there were some indications of poor health compared to some other communities. With settled populations of several thousand people living fairly close together and sewage disposal by pan collection or cesspit, there were bound to be intestinal diseases. These were worsened by the lack of a clean water supply until the late 1880s. Burials in close proximity to wells used for drinking water were believed to be an additional hazard until Sandgate Cemetery was opened in 1883.

Early in the 20th century, when infant mortality statistics became available, it became clear that the Newcastle district had a comparatively high infant death rate compared to Sydney. The first baby health centre was opened in the city in 1914. As Docherty has said, before 1930 around 1/5 to 1/3 of infant deaths resulted from preventable gastroenteric diseases which he linked to poverty, poor living conditions and working class attitudes.

The Mater Hospital was opened by the Sisters of Mercy at Waratah in 1921.

Another distinctive feature of the health history of Newcastle is the outstanding record of Royal Newcastle Hospital under the leadership of Dr Chris McCaffrey in the Post World War II period. By administrative ability of the highest order, he made the hospital famous not only in Australia but overseas. A medical administrator of genius, he created a unique institution offering hospital treatment of the highest quality to rich and poor alike.

Private hospitals, particularly for maternity cases, became common in the 20th century and after World War II they prospered, offering general hospital facilities to those who could afford them.

Physical Examples

Royal Newcastle Hospital, nurses' home
Former Wallsend Hospital at Wallsend

St Josephs' Home for the Aged (Sandgate)

1.7.9 Welfare

From 1804 until the 1840s the Government maintained hospitals in Newcastle as it did in other convict settlements: in 1820 there were three; one for the military; one for sick male convicts and a lying in hospital for convict women. A wounded Aboriginal was offered treatment in one of these in 1820 but declined. By the middle of the century as the convict system was being phased out the Government closed its hospital and the only one remaining became privately supported with some Government assistance.

In the 1840s friendly societies in Newcastle began to offer an elementary form of insurance against unemployment and incapacity. They also employed a doctor to treat their members in one of the nations' first medical benefits schemes. These became a feature of life in the mining communities.

The Newcastle hospital was run by a committee and financed by subscriptions with some funds from the government. Fund raising included concerts, fetes etc. and when the miners established a hospital at Wallsend in 1893, it was financed in part by deductions in their wages.

In the second half of the 19th century the Benevolent Society, a government agency, offered support to the destitute and the aged and the churches also assisted in welfare work. For a brief period in the 1860s the Government conducted reformatory in the Watt Street army barracks, taking in girls from all over the colony to house them, feed them and give them some training for future employment. When this failed, the buildings were used as a hospital for the insane.

In the 1930s depression, one third of the workforce was unemployed, and the State was forced to provide some relief. This was through construction projects administered by local government.

After the 1939-45 war, as State social services developed, there was less need for charitable institutions to provide welfare services but the churches continue to do so as do voluntary private societies.

Physical Examples

Salvation Army Nursing Home at Hillcrest, Merewether
 Catholic Murray Dwyer Orphanage at Waratah
 Newcastle and Northumberland Benevolent Asylum, Waratah
 Wallsend Mining District Hospital (1892)
 Stockton Quarantine Station (1900)
 Seaman's Missions at Wickham, Newcastle and Stockton
 Waratah Deaf and Dumb Institute (1886)
 Merewether Ocean Baths (Depression relief scheme)

1.7.10 Religion

1.7.9.1 Religion in the city

Religion has always played an important role in the life of the region. The construction of church buildings began in Newcastle in 1816 and still continues. The Church of England had a virtual monopoly of formal religion until around 1830 but from then onwards the Catholic

Church and other Protestant denominations also became active. There tended to be a majority of Methodists and Baptists because of the amount of British migrants attracted to employment opportunities in the coal mines.

The government encouraged the Church of England, the Catholic Church, the Presbyterians and the Methodists by granting sites in the original township. Religious groups arriving later on the scene had to acquire their sites from the AA Company. In 1856 it donated the site and the money for the erection of St John's Church and school in Darby Street Cooks Hill, however the generosity shown in the 1850s was not emulated and other churches seeking sites were offered a reduced price, not free land. Nonetheless there were several churches opened in western sector of the CBD to complement those already established at its eastern end.

The Salvation Army, which began its work in Newcastle in 1883, built its first citadel in Auckland Street. By 1922 there was a new citadel and young people's hall on the corner of Hunter Street and Jubilee Lane but a few years later they relocated once more, to the corner of King and Gibson Streets. Its five storey hostel was erected before 1929 at the rear of its King Street citadel.

Finding their St Andrews Church in Watt Street too small, the Presbyterians bought the Laman Street property where St Andrews now stands. They also opened the Chinese Presbyterian Church in Devonshire Lane, a location chosen to suit the Chinese whose business centred on Steel Street.

After using the Oddfellows' hall on the corner of Laman and Darby Streets for many years the Newcastle Baptists bought their Laman Street site in 1885 and the Tabernacle, designed by Frederick Menkens was in use by 1890. The Congregationalists also used hired premises before building in Brown Street in 1853.

Methodism progressed through two other churches before building the Central Methodist Mission and Social Hall in King Street in 1902. At the western end of the CBD following the establishment of the Sisters of Mercy in 1889, the Catholic Church built its St. Aloysius Church and School complex in 1916.

A particular feature of the religious life of the city was the provision for seamen visiting the port. The Coult's Sailors Home, 88 Scott Street, was named after the Rev. James Coult, M.A. a minister of St. Andrews Presbyterian Church from 1860 until his death in 1884. Concerned for the welfare of sailors, who were often exploited and sometimes shanghaied in the hotels of the port, Coult donated £1000 towards the cost of this home, opened in 1883. Missions were established at Stockton and Wickham, the one at Wickham still operates.

Physical Evidence

Countless places of religious life survive throughout the city, including Christchurch Cathedral, Baptist Tabernacle, St Andrews Church, the Synagogue, St Mary's Star of the Sea, St John's etc.

1.7.9.2 Religion in the Other Centres

The importance of religion in the mining towns may be gauged by the large number of churches recorded in the Newcastle Directory and Almanac for 1880. Lambton, with a population of 4000, had nine churches, Wallsend-Plattsburg had nine and Waratah four. The fact that the Directory chose to list all of the various churches and their denominations is an indication of the prominence of religion at that time. In the present century, while some of the older established churches are in decline, others are gaining and consequently building new churches and schools.

A mosque was established in a house in Silsoe Street in Mayfield but demolished after the earthquake: another is planned for Wallsend.

Physical Evidence

Fine churches exist in most suburbs, many have been demolished. St John's Anglican Church Cooks Hill is one of the oldest (1856) but several others are nearly as old including St Augustine's at Merewether, St Peters at Hamilton, Marist Brothers Monastery at Mayfield, former Catholic Deaf and Dumb Institute at Waratah, and the Marist Brothers Monastery at Hamilton, all outstanding examples.

1.7.21 Education

The first school in Newcastle, founded in 1815 in a convict settlement, was one of the earliest state schools in Australia: it continues to exist though not on the same site. The first private school opened in 1838 and in the next decade several denominational primary schools came into being in the town. A small school existed at Hamilton in 1854 and National Schools began to appear in the district, competing with the denominational primary schools already established. The larger mining towns, Minmi, Plattsburg, Wallsend, Lambton, Waratah and The Junction, all had a school by the 1860s.

The 1901 population of the study area exceeded 50,000 but there was no high school. However, the larger public primary schools, known as Superior schools, offered some junior secondary education to those who decided to stay at school. The Hill school in Tyrrell Street was superior in this sense. Minmi became a superior school in 1892 and Wickham Superior school was opened in 1906.

Before 1906 when the infants portion of the Newcastle Hill school became a high school, those who wished to give their sons a full secondary education sent them to Maitland daily by train or boarded them there. The first high school for boys was built at Waratah in 1930 and for girls at Hamilton in 1929.

By the 1940s there was a well developed system of public high schools and intermediate high schools (three years of tuition) as well as a Catholic high school at Hamilton run by the Marist Brothers and the Newcastle Church of England Grammar school. In the 1950s the Education Department began to organise its network of comprehensive suburban high schools.

1.7.12.1 Technical Education

In 1894 the Government began to build a technical college in Hunter Street West and when it opened in 1896 classes were offered in plumbing and gas fitting, chemistry, metallurgy, mineralogy, geology, art, mechanical drawing, steam engines, boiler making and dress cutting: and had an enrolment of 350. The next major development in technical education was the construction of a major college at Tighes Hill beginning in 1936.

1.7.12.2 College and University Education

From the 1890s the University of Sydney offered occasional adult education and extension lectures in Newcastle and the formation of the Workers Educational Association about 1915 boosted this type of learning. There was much talk of the need for a university from the 1920s onwards but the Newcastle teachers College came first, opening in 1949. The movement to

establish a university college developed strongly in the early 1950s and Newcastle University College took its first students in 1954, using the Newcastle Technical College at Tighes Hill as its first campus. It became autonomous in 1964 and moved to the Shortland site in 1965.

Physical Evidence

Numerous school and school sites exist throughout all suburbs
 Newcastle West College
 Tighes Hill TAFE college
 Newcastle University

1.7.13 Death

The threat of death by accident is always present, even if denied, in mining communities: the same is true among those who daily endure the dangers of metal smelting and these two industries have dominated Newcastle for much of its history. The cemeteries of Newcastle are sprinkled with the memorials of those who died as coal miners, smelters, either by industrial accident or from injuries suffered at work. Unhealthy sanitary disposal systems and shortages of clean water in the developing urban area in the 19th century also claimed many thousands of lives particularly among children and the graveyards testify to the high infant mortality rare of the era.

In the early convict period burials appear to have occurred in the centre of the settlement around the present Thorn Street but there are no records kept from that site. With the construction of the first Christ Church in 1818 burials ought to have occurred on that site but the earliest records date from 1825. Christ Church Cemetery was the first official cemetery until the 1840s when the Presbyterians and the Catholics were allocated ground for burial purposes on the harbour side to the east of Cottage Creek and the Wesleyans obtained a cemetery site at Wickham. These cemeteries were closed in 1883 as opposition to intramural burials mounted and the Sandgate Cemetery was opened for general use.

This massively scaled cemetery (50,000 burials by 1992), witnessed its first funeral in 1881 and the Christchurch, West End and Wickham cemeteries went into decline or were closed from that time.

Because the Port of Newcastle was one of the world's greatest coal ports from the 1850s, many foreign seamen were buried at Sandgate which also contains the memorials of prisoners of war from World War II.

A special feature of the Sandgate Cemetery was its link to the railway system, burial by train being the norm until well into the 20th century. In the outlying suburbs graveyards existed at Wallsend, Stockton, and Minmi (from 1863).

Physical Evidence

Christchurch Cathedral Graveyard, burials and monuments
 Newcastle West Cemetery, below ground burials
 Sandgate Cemetery
 Minmi Cemetery
 Wallsend Cemetery

1.8 Associations and Influences

1.8.1 Significant People

The difficulty, if not impossibility, of preparing a list of important people for a city two centuries old and with a population of more than 250,000 will be obvious. Any such list based on existing research would also be unfair to certain groups. Nevertheless the best available source is the Newcastle Region Library's *List of Personal Names in the Newcastle Morning Herald Index 1861-1965*. This compilation is 177 pages and is comprised of 8,000 entries concerning people who were given individual attention in the city's principal newspaper.

DRAFT