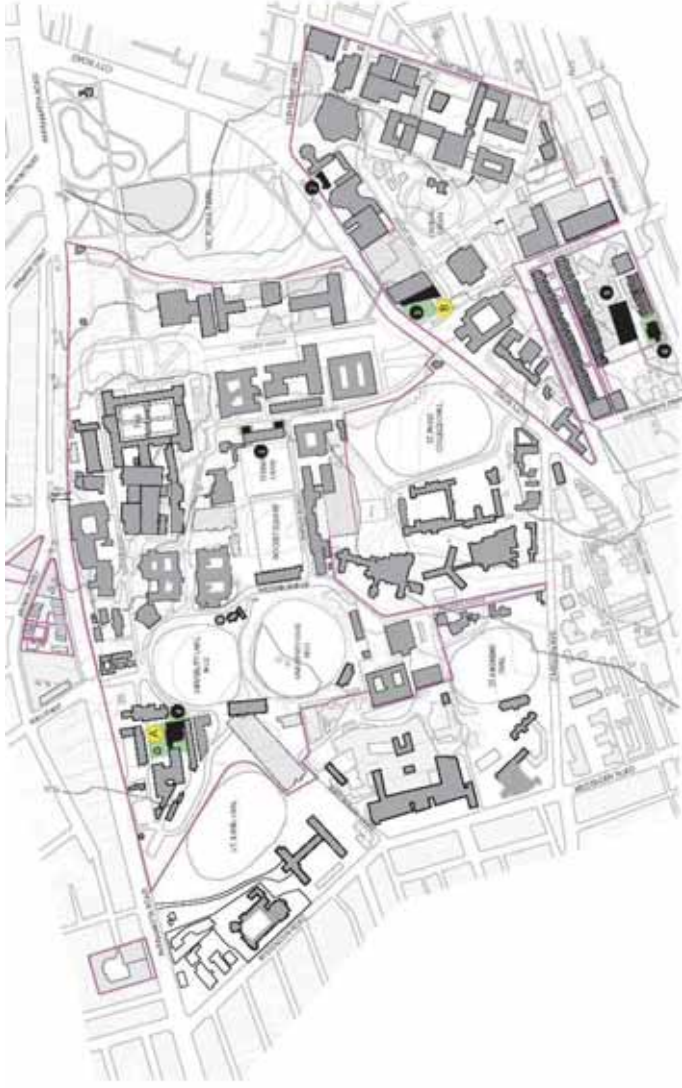




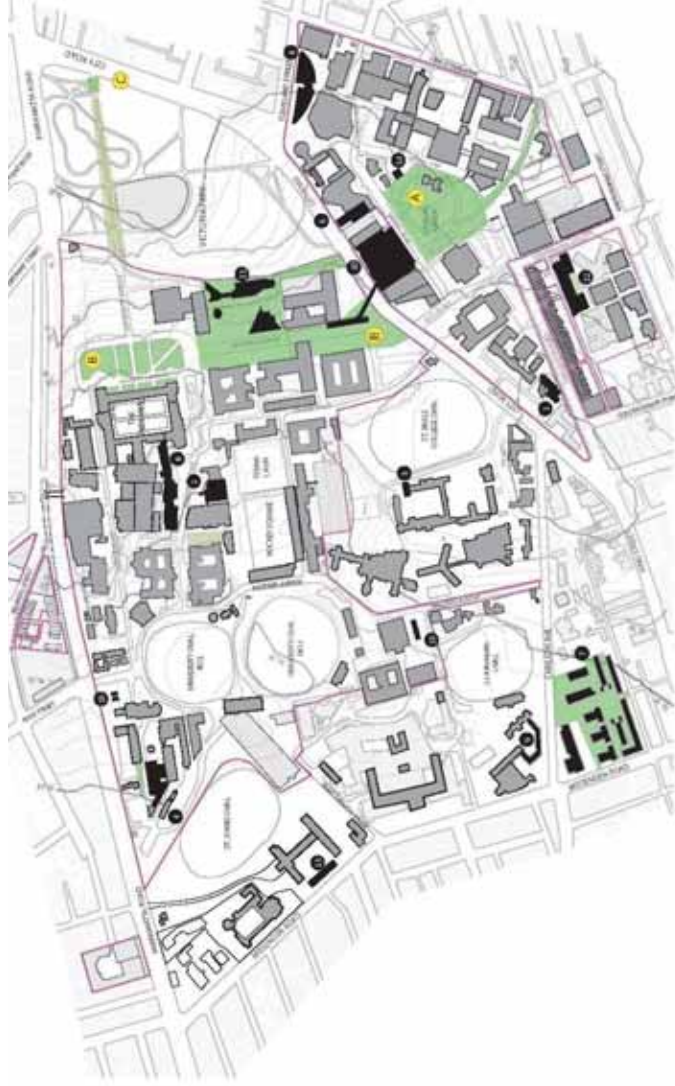
Building Development

- 1 1981 - Addition to RC north building
- 2 1984-86 - International House- WH Mace Wing
- 3 1987 - Wentworth Union Building- second stage
- 4 1988 - Veterinary Science - Conference Centre
- 5 1989 - Clark Building (Library Repository)
- 6 1990s - Shepherd Centre

Landscape Development

- A Vice Science conference centre
- B Wentworth Lawn





Building Development

- 1 1999-2002 - Darlinghurst Centre
- 2 2000 - Manning House - additions & alterations
- 3 2000 - St Paul's College
- 4 2002-03 - Valentine Charlton Cat Centre
- 5 2002-05 - Wilkinson Building Tin Shed Gallery
- 6 2003-2004 - Marjorie MacCallum Guthrie Taylor refurbishment
- 7 2003 - Sydney University Village
- 8 2002-06 - School of Information Technology (SIT) Building
- 9 2002-06 - St Andrews College
- 10 2002-08 - James Fyson Russell Building - City Road Footbridge
- 11 2009 - New Law School Building
- 12 2002 - Economics and Business Building
- 13 2009-10 - St John's College New Wing
- 14 2009 - March Lawson Marjorie Guthrie Centre
- 15 2009 - Temporary Greenhouses

Landscape Development

- A 2008 - Cadogan Green and Shepherd Street entry
- B 2008 - Eastern Avenue and University Place
- C Relocation of University gate to original location in Victoria Park



Recent Changes

Since the completion of the *CMP 2002*, the University has undertaken many projects in association with the Campus 2010 and Campus 2020 strategy plans. Projects have been focused on the eastern portion of the Camperdown Campus as this is the hub for undergraduate teaching and learning. In brief, these include:

<i>Demolition of buildings:</i> • J.R. McMillan Building (A05) • H.K. Ward Gymnasium (D08) • Edgeworth David Building (F05) (the name 'Edgeworth David' is now used for the Old Geology building (A11)) • Stephen Roberts Theatre (F06) • Keith Murray Footbridge (F16) • Tin Shed Gallery (G03) • Physics Annex (A29) • Other smaller sheds and ancillary structures.	2010 2012 2006 2006 2004 2013
<i>Construction of new buildings:</i> • New Law Building (F10) • New Law Building Annex (F10A) • Eastern Avenue Auditorium (F19) • Jane Foss Russell Building (G02) • City Road Footbridge (F20) • Extension to University Noel Martin Sports and Aquatic Centre (G09) • Charles Perkins Centre for Obesity and Cardiovascular Diseases (D17)	2009 2009 2000 2008 2008 2013 2014
<i>Landscaping Works:</i> • Eastern Avenue • City Road entry • University Avenue • Victoria Park Axis	2009 2009 2000
<i>Buildings currently under construction:</i> • Abercrombie Precinct	

Redevelopment • The Australian Institute for Nanoscience	2016
	2016

2.6 Physical Evidence

Description of the Place Generally

The main campuses of the University of Sydney are an extensive complex of buildings, sport grounds, trees, gardens, lawns, roads, car parks, fences, gates and other features. The campuses cover 72 hectares and include about 111 buildings, not including the terrace housing in Darlington and Forrest Lodge.

The topography of the place is gently undulating. There is a ridge approximating the line of Eastern Avenue on the Camperdown Campus, and land falls to the east and west away from the ridge. The Darlington Campus slopes generally to the south-east away from City Road. The current route of City Road was diverting away from the earlier Darlington Road to avoid the boggy lower ground around the headwaters of Blackwattle Creek through which Darlington Road runs.

The character of each campus varies reflecting the changing topography, their different histories, approaches to planning and development and their uses.

Camperdown Campus

The core of the University of Sydney, the Camperdown campus, displays the character of university use since the mid nineteenth century. The cultural landscape of the campus is an eclectic mix of buildings, open spaces, tree-lined avenues and internal streets and ornamental plantings. Major lawn areas include The Quadrangle (to the east of and within the Main Quadrangle Building), the Botany Lawn, the Hockey Square and the various ovals and other playing fields such as tennis courts. With increasing development of the campus the amount of open space has declined.

Darlington Campus

The character of the Darlington Campus is more mixed, retaining substantial residential, suburban and light industrial qualities of Darlington in addition to later and more substantial University elements. The physical layout of this campus is still largely defined by the original street pattern of the suburb, overlain with new institutional buildings that have largely replaced the former residential terraces and commercial and light industrial buildings, and have subsumed some of the smaller streets.

The Buildings

The University buildings are generally low to medium rise and fall into several broad categories of style/form as per the following categories (see Table 2.5). This categorisation is not intended to be comprehensive or definitive rather it provides a broad sense of the style and form of buildings on the campuses. In addition to the buildings which fall into the following categories, there are many other individual buildings which defy such an approach.

Table 2. 5: Typical building types at the University of Sydney

Building Type	Description	Example
Early sandstone buildings	Two or three storey sandstone buildings, usually with tower features and ornate carved decoration (e.g. the Main Quadrangle Building, (A14), pictured). The Madsen Building (F09) continues this form although much later. In formal terms, these early buildings are examples of the Gothic Revival style.	
Late nineteenth century/early twentieth century brick buildings with sandstone trims	Two to four storey buildings, some domestic in scale, others quite large with dark red brickwork with sandstone trims (e.g. R D Watt Building, A04 and the Holme Building, (A09), pictured). Often these buildings reflect the earlier Victorian Gothic sandstone building forms, defined by the use of steeply pitched gables. In formal terms, these buildings are examples of the Arts & Crafts style, sometimes with Gothic Revival influences.	
Early twentieth century painted render	Two to four storey buildings reflecting the Inter-war/ Mediterranean Style (e.g. Physics Building, (A28), pictured). In some cases these buildings display the use of sandstone trims which gives a sense of continuity with the early sandstone buildings and the slightly later brick and sandstone buildings.	

Building Type	Description	Example
Post 1945 temporary/lightweight buildings	Two to three storey buildings with a brick plinth and corrugated asbestos cement sheet walling and roofing (e.g. Transient Building (F12), pictured).	
1950s to 1980s glass curtain wall/exposed aggregate/off form concrete	Four to seven storey buildings reflecting a number of post War architectural styles. However, generally this group displays the use of glass curtain wall construction (e.g. Chemistry Building, (F11), pictured), pre-cast exposed aggregate panels, or rough off-form concrete (e.g. Biochemistry Building, (G08)). The formal styles are the Post-war and Late Twentieth Century International styles, and Late Twentieth Century Brutalist styles.	
Late twentieth century buildings	Two to six storey buildings displaying a variety of materials and forms but with a playful, decorated character (e.g. Gordon Yu-Hoi Chiu Building, (J14), and the Education Building and Education Annex, (A35/36), pictured). These buildings reflect the Late Twentieth Century, Late Modern and Post Modern styles.	
Contemporary buildings	Two to seven storey contemporary style buildings including the Jane Foss Russell Building (G02), New Law Building (F10) and the School of Information Technology Building (J12).	

Landscape and Vegetation

Shaping the campus landscape has been a crucial part of the development of the University grounds since 1855 when the land was first granted to the University of Sydney. Major landscape development occurred from 1855 to the outbreak of WWII in 1939, and from the late 1950s, when the Commonwealth government provide substantial infrastructure endowments.

Older parts of the Camperdown Campus are characterised by mature plantings of *Ficus* species, particularly the areas along the Parramatta Road boundary leading up to the Main Quadrangle Building (A14), along the City Road boundary near the Carslaw Building (F07) and Institute Buildings (H03), and around the university colleges.

Some plantings have been selected to complement the architectural style of their associated buildings. This is particularly evident along the main elevation of the Physics Building (A28) with its slender cypresses and box hedging.

Institutional plantings on campuses to some extent reflect contemporary horticultural fashions, with extensive use of species such as Brush Box *Lophostemon confertus* and Lombardy Poplar *Populus nigra* 'Italica' for avenue planting. The fashion for use of native plant species from the 1960s onwards is evident in the widespread use of casuarinas (eg around the Wilkinson Building, (G04), and the Seymour Centre, (J09)) and Five-veined Paperbark *Melaleuca quinquenervia* in the Darlington Campus.

In recent years there has been a trend towards simplification of the palette of species used for amenity planting on campus. Rows of the hardy *Platanus x hybrida* (London Plane) have proliferated, with screen plantings of the ubiquitous *Murraya paniculata* (Orange Jessamine) and masses of *Agapanthus orientalis* (Nile Lily) filling every available garden bed.

Recently, Eastern Avenue has been extensively re-landscaped in an overtly modern way utilising hard paving, native shrubs and trees.

Landscape development of the University grounds

The University of Sydney grounds demonstrate the historical development of ideas about the landscape, a preference for trees and particular tastes in plants. The Camperdown Campus has many significant individual trees, such as the Chinese Elm in Botany Lawn, and screen plantings such as along the Parramatta Road boundary. Some of these examples date back to the earliest days of the University, and represent the first attempt at creating a suitable landscape for the campus. The grounds also contain many plants dating from the 1920s and 1930s, a period which saw the first comprehensive use of planting and gardens to beautify the precinct; while in the 1960's a rising interest in an "Australian identity" was reflected in the planting of native gums and flora, particularly in the Darlington campus. Refer Fig 2.21.

Across the campus there are landscapes and gardens which demonstrate the following aesthetic characteristics:

- ***Picturesque (1850s-1890s)***

A park-like treatment of the grounds, characterised by asymmetrical architecture positioned in response to the topography, surrounded by rolling pastoral lawns, tree lined scholar walks and informal tree borders of mixed and exotic species. Trees were also used to define building view lines.

- ***Arts and Crafts (1890s-1917)***

A painterly approach to woodland gardens influenced by British landscape designer Gertrude Jekyll, and featuring an informality in planning and massing of soft landscape. Resurgent interest regarding a colonial planting palette was led by Prof. E.G. Waterhouse and William Hardy Wilson.

- *Georgian Revival / Mediterranean (1915-1940s)* .

A landscape influenced by formality, symmetry, axes and vistas is evident in a sequence of courtyard spaces derived from atrium building types combined with simple planting design treatments. This reflects both the simplicity of the Interwar style and the influence of Prof. E.G. Waterhouse and the ideal of the pursuit of beauty in the grounds 'as a place where scholars can dream! Planting forms were vertical, rounded and horizontal compositions; and included the use of Poplars *Populus nigra* 'Italica', Hills Fig *Ficus micocarpa Hilli* and Brush Box *Lophostemon confertus* avenues.

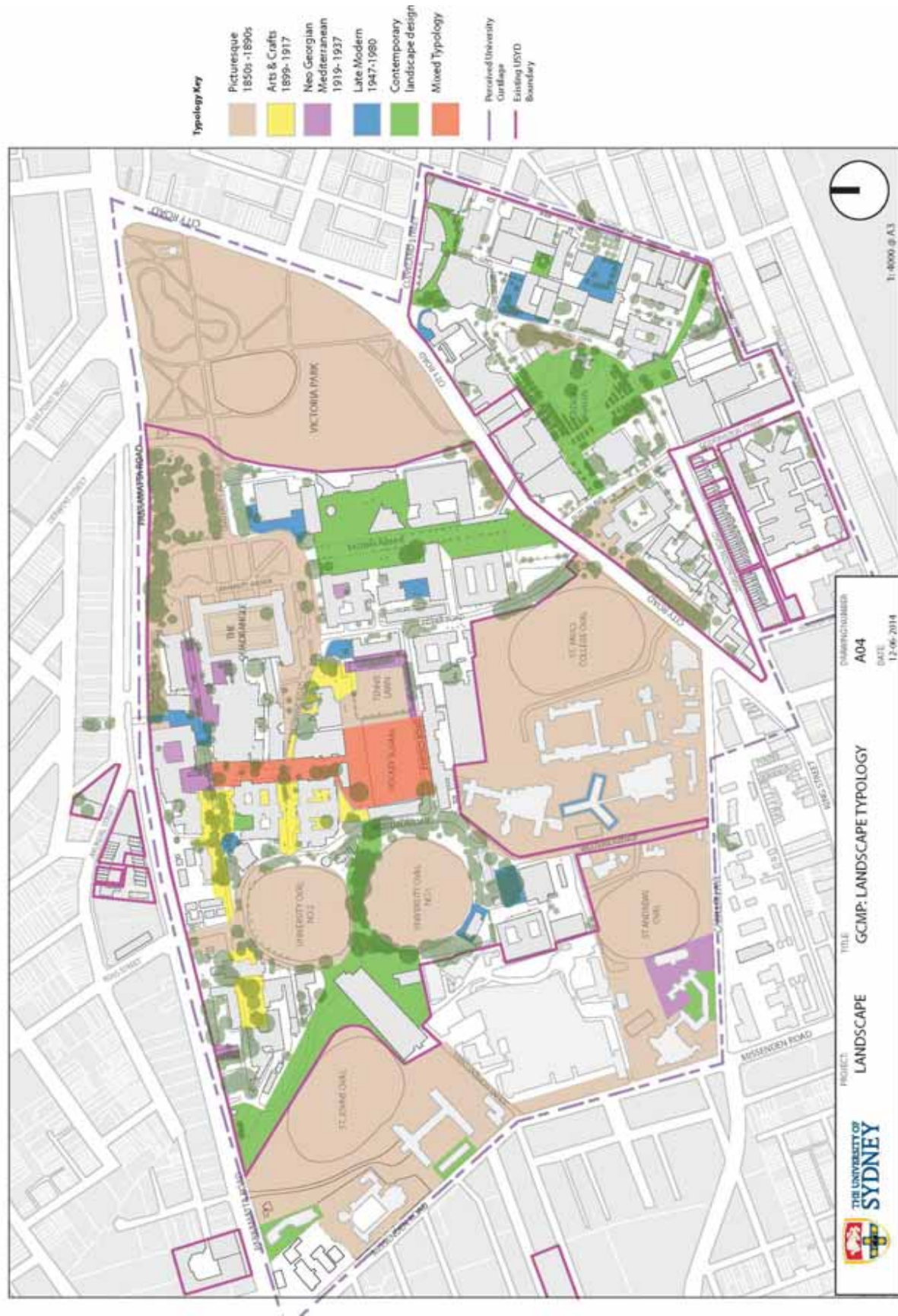


Figure 2.20 Landscape Typology

- *Modernist (1947-1980s) .*

The initial interest in a highly stylised abstract use of plants, as demonstrated in the Chemistry Building courtyard, evolved into an interest in the decorative use of Australian natives, such as the copse planting of Maiden's Gums for their feature trunks, and the use of native shrubs for their floral displays. Conifers were used to highlight building forecourts.

- *Contemporary Urban landscape design (1990s-Present)*

More recently landscape projects on campus have typically utilised a palette of local species in a decorative manner, integrating water sensitive urban design with the requirement for low maintenance, while creatively managing drainage issues.

Site Features

As a large tertiary institution with a long history, there are necessarily a range of site features located throughout the grounds that represent the many phases of development the University has undergone. The most striking of these features are the avenues of mature trees, the individual large, mature trees dotted throughout the grounds, the entry gates located on Parramatta Road and City Road, as well as the clearly defined boundaries of the Camperdown campus with retaining walls and iron palisade fencing on stone bases, such as the Parramatta Road boundary. These prominent features are also some of the earliest (mid to late nineteenth century) site features to still survive on the grounds.

Of particular historical interest are those site features that survive from the period prior to the establishment of the University in particular those associated with the suburb of Darlinghurst.

Other site features, although less visually dominant, are still able to tell the story of change and expansion that the University has experienced and are in many cases a reflection of the tastes and styles of the time. Examples of features that survive from various periods, from the late nineteenth century through to present day, include sandstone paving and kerbing to streets, stairs, pathways, lamp posts, seats and benches, retaining walls and small gardens. Other, more mundane features include traffic calming devices and signposts.

Art Works and Memorials

Throughout the grounds of the University are located various art works that have been donated, gifted or bequeathed to the university. The university's art collection began with the foundation of the University itself with one of the first acquisitions being a "clock, a portrait of Sir Francis Forbes, two maps, two blackboards with stands and a pair of large globes". Since that time, the University now holds more than 2600 artworks in their collection including a range of sculptures located throughout the grounds. The University art collection is managed by Sydney University Museums.

The University grounds are also the location of a number of memorials and commemorations that are represented in a range in forms including plaques, tree plantings, outdoor furniture as well as the naming of landscape areas, buildings and streets. Many of the memorials are to past academics, generous benefactors or to commemorate events in the life of the University itself.

Table 2. 6: Sites with archaeological potential

NO	LOCATION	COMMENT	POTENTIAL
ABORIGINAL ARCHAEOLOGY			
AA1	St John's College Sports Ground	Majority of site is located outside of University lands. Former site of Orphan School Creek. Although there is potential for Aboriginal archaeological materials to be present in this area, the level of disturbance suggests that it is highly unlikely that any deposits or materials will be <i>in situ</i> and undisturbed.	Mod- Low
AA2	Oval No. 1 and No. 2	The university ovals, which have been heavily landscaped to create embankments and the level playing fields.	Nil
AA3	Victoria Park/ University boundary	Along the Victoria Park boundary fence, where the construction of roadways and parking areas would have completely disturbed the ground.	Nil
AA4	Old Darling School Building and Gadigal Green	The early maps show one of the headwater arms of Blackwater Creek beginning in this area. It is considered highly unlikely that any undisturbed surface deposits remain in this area where the former Darlington Town Hall and many residential buildings of the suburb of Darlington have been demolished. However, there is a possibility that undisturbed buried stone artefacts or archaeological deposits occur in some parts, for example within the surviving foundations of demolished buildings.	Mod-Low
AA5	Darlington Road	There exists the possibility that undisturbed buried evidence of pre-colonial Aboriginal occupation may be present beneath the surviving terraces in Darlington Road, and possibly in their back gardens as one of the headwater arms of Blackwattle Creek originally extended up to where the present Darlington Public School has been built, and would have run almost parallel to Darlington Road.	Mod-Low
AA6	Merewether Precinct	Heavily disturbed.	Low
AA7	City Road Precinct	Heavily disturbed. Area encompasses registered PAD #45-6-2822 which has since been destroyed following further archaeological investigation downgraded the original site assessment.	Low/Nil
AA8	Engineering Precinct	Heavily disturbed.	Low
AA9	Blackburn/Bosch Precinct	Heavily disturbed.	Low
AA10	Veterinary Science Precinct	Moderately disturbed. Due to the possible depth of historical fill in this precinct, potentially intact archaeological deposits may be preserved.	Mod-Low
AA11	Macleay and Edgeworth David Buildings	Predominantly heavily disturbed.	Low

NO	LOCATION	COMMENT	POTENTIAL
EUROPEAN ARCHAEOLOGY			
EA1	St Johns College Sports Grounds / Veterinary Science faculty car park	The site of the 1840s convict road gang stockade and garden west of Orphan School Creek, is located in the north-east corner of the St John's College sports ground, and adjacent to and possibly within the Veterinary Science faculty car park.	Mod-Low
EA2	Main Quadrangle Building	Site of the Women's Common Room, which was located in what is now The Quadrangle from the 1890s to about 1917. The tennis courts in this area are not of archaeological interest. The Common Room has low archaeological potential.	Low
EA3	Victoria Park/Parramatta Road	The original Parramatta Road university gate house site, dating from about the 1870s (as distinct from the 1939 Baxter's Lodge, which occupies the same general area). This site was very close to Parramatta Road, and is likely to have been destroyed by road widening and footpath construction.	Low/Nil
EA4	University Avenue Entry	Toll gate site, circa 1840s. The nature of this site has not been identified, and as it was very close to Parramatta Road, it is likely to have been destroyed by road widening and footpath construction, so its archaeological potential is low.	Low/Nil
EA5	City Road Entry to Victoria Park	Now outside of University lands. Site of the 1898 Messenger's Lodge on City Road, removed in 1940. The stone from the building is said to have been used to construct the new Baxter's Lodge at the University Avenue entrance. It has not been determined whether the site was excavated when the building was removed, but if this did not occur, the site has moderate to low archaeological potential.	Mod-Low
EA6	Cleveland Street/	Possible housing site on Cleveland Street, north-east of the Seymour Centre. The site has moderate to low archaeological potential.	Mod-Low
EA7	Old Darlington School and Gadigal Green	Old Darlington School, Town Hall, terraces site, on the area surrounding the former Darlington School not yet developed by the University. This area has a moderate to high level of disturbance, and has moderate to low historical archaeological potential.	Mod- Low
EA8	Wentworth and Jane Russell Foss Buildings	Housing and commercial building sites between Maze Crescent and City Road, not yet redeveloped by the University has moderate to low archaeological potential.	Mod-Low
EA9	Codrington Street	Areas west of Codrington Street previously assessed by Casey and Lowe (2001), being the site of former terrace housing. The area has moderate to low archaeological potential.	Mod-Low
EA10	University Regiment Building	1840s Newtown Toll gate site. The nature of this site has not been identified, and as it was very close	Low/Nil

NO	LOCATION	COMMENT	POTENTIAL
		to City/Newtown Road, it is likely to have been destroyed by road widening and footpath construction, so its archaeological potential is low or nil.	
	Botany Lawn	An earlier configuration of Botany Lawn featured a curved carriageway enclosing a formal landscape including a quatrefoil shaped pond. The Peter Nicol Russell Memorial was originally installed in this area.	Low/Nil

3 Analysis of Significance

An assessment of the University of Sydney Grounds cultural significance has been undertaken:

3.1 Heritage Assessment Criteria

The Australian ICOMOS Charter for Places of Cultural Significance ‘The *Burra Charter*’ (2013) (see Appendix 1) defines cultural significance according to the following five types of value:

- historic
- aesthetic
- scientific
- social
- spiritual.

3.2 NSW Heritage Assessment Criteria

The assessment of the significance of a place requires an evaluation of the fabric, uses, associations and meanings relating to the place, from which a detailed statement of significance can be formulated. The following assessment of significance has been prepared in accordance with the guidelines set out in the NSW Heritage Office and Planning NSW’s publication, *Heritage Assessments* (1996, amended July 2002).

State Historical Themes

Guidelines from the NSW Heritage Office emphasise the role of history in the heritage assessment process. Local historical themes are usually identified within local heritage studies and a list of state historical themes has been developed by the NSW Heritage Council. These themes assist in determining comparative significance and prevent one value taking precedence over others. For example, themes such as *events*, *industry*, *social institutions* and *welfare* can highlight important historical and social values which may be of equal or greater significance than an item’s aesthetic or research potential.

For the list of state historical themes developed by the NSW Heritage Council, see the Appendices.

The NSW heritage assessment criteria, as set out in *Heritage Assessments* encompasses the five types of significance expressed in a more detailed form by the following criteria:

- Criterion (a) An item is important in the course, or pattern, of NSW’s cultural or natural history (or the cultural or natural history of the local area).
- Criterion (b) An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW’s

- Criterion (c) cultural or natural history (or the cultural or natural history of the local area).
- Criterion (c) An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or in local area).
- Criterion (d) An item has strong or special association with a particular community or cultural group in NSW (or local area) for social, cultural or spiritual reasons.
- Criterion (e) An item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area).
- Criterion (f) An item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the cultural or natural history of the local area).
- Criterion (g) An item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places or environments (or a class of the local area's cultural or natural places or environments).

The NSW Heritage Office recommends that all criteria be referred to when assessing the significance of an item, even though only complex items will be significant under all criteria.

The NSW Heritage Office also recommends that items be compared with similar items of local and/or State significance in order to fully assess their heritage significance.

3.3 Comparative Analysis

A comparative analysis of Australian universities demonstrates that for all universities established in the same period as the University of Sydney, many of the same factors influenced the initial establishment and subsequent patterns of development.

Of the four Australian universities established in the colonial period (Sydney 1850, Melbourne 1853, Adelaide 1874, Tasmania 1890), a common characteristic was the coalition of private and public interests in their establishment and development. The early Australian universities were urban, mostly non-residential, and focused on imparting knowledge and professional training rather than, for example, induction into a privileged culture. They were explicitly secular, in the sense that they professed secular education and were not sectarian, although often associated with denominational residential colleges, and were predominantly government funded. However, private donations were an important source of funds, especially for major initiatives, and this continues to be the case well into the twenty-first century.

Student numbers at all universities were very low until the growth in secondary education in the 1880s provided a greater number of potential university students, and a growing economy and society provided greater employment opportunities for graduates. While the Universities began with a curriculum based in arts and sciences, the University of Melbourne introduced courses in the professions of law and medicine from its foundation in 1853, whereas it was several decades before the University of Sydney offered applied or professional courses such as engineering and medicine.

Two early and continuing features of Australian universities are the presence of student unions, providing a range of services to the student body, and sporting organisations.

The University of Sydney was, not unique in its origins and development, although it was the first university to be established in Australia. Along with Melbourne University, it was one of the leading universities in the nineteenth century, and remains so today.

The first universities to be established in each state and territory in Australia are as follows:

- University of Sydney, 1850 (oldest in Australia and Oceania)
- University of Melbourne, 1853 (oldest in Victoria)
- University of Adelaide, 1874 (oldest in South Australia)
- University of Tasmania, 1890 (oldest in Tasmania)
- University of Queensland, 1909 (oldest in Queensland)
- University of Western Australia, 1911 (oldest in Western Australia)
- Australian National University, 1946 (oldest in Australian Capital Territory)
- Northern Territory University, 1989 (amalgamated as part of Charles Darwin University in 2004)

While the University of Sydney shares a number of things in common with the other Australian universities both individual histories and patterns of growth were very different. New South Wales and Victoria had the largest populations and economies, and New South Wales was the first state. Comparison is difficult and serves to show the uniqueness of the University of Sydney.

3.4 Heritage Assessment of the University of Sydney Grounds

Criterion (a) An item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area).

The grounds of the University of Sydney and the associated properties have a historical connection that dates back to the foundation of the colony. They encompass a portion of the original 1,000 acre (404.685 ha) 'Kangaroo Ground' reserved by Governor Arthur Phillip in August 1789. Inclusive of timbered land, prominent ridges, and valleys with fresh water sources, this tract of land was designated for church (400 acres), Crown (400 acres) and school (200 acres) usage. The university grounds are a vestige of the latter two areas.

Parramatta Road and City Road, the junction of which defined the north-eastern portion of Phillips' land reserve (now Victoria Park), are considered to have Aboriginal origins as local tracks. The southern track, initially named Bulanaming Road on early plans and later known as Darlington Road, lies within the Darlington Campus grounds.

Gov. Phillip's designation of the reserve land for the social, educational and spiritual needs of future generations reflected the British government's approach to colonial strategic planning. The later leasing of the part of this land to military officers (Grose Farm) and its use for agistment, agricultural experimentation, farming education and also a stockade for convicts provides an understanding of the cultural history of the local area.

Camperdown Campus

The University of Sydney is the oldest university in Australia. The Camperdown campus is significant because it is a site continuously used for university purposes and was created within a few years of the foundation of university education in Australia, and the buildings, grounds layout, and features include evidence of major changes in tertiary education, public building planning and design, landscape and streetscape design, and social attitudes to institutions over that period.

A key aspect of the heritage significance of the University grounds is the continuity of planning, development and use from the first buildings in the early 1850s to the present time. Despite expansion and infill development, many planning axes, alignments and building groupings established progressively through the nineteenth and early twentieth centuries remain as prominent and defining features of the University.

The prominence offered by the topography of the Petersham Ridge was utilised to create the first of these, with the placement of Edmund Blacket's Main Quadrangle Building on the crest of the ridge, with sweeping views up to it from the main artery leaving the city, Parramatta Road. The positioning of the building was a conscious statement of the importance of the University. The orientation of the Main Building, and the axis of the view up to it, established two of the most enduring aspects of the planning arrangement of the University, these being the prominence of the Petersham Ridge, which became Eastern Avenue, and of the east-west axis that extends along University Avenue and through Victoria Park, and west of the Main Quadrangle Building along Science Road..

Blacket established the architectural style of the early University in the Main Quadrangle Building facing Sydney town, and in the first college building, St Paul's College. The distribution of the University colleges around the periphery separated the teaching buildings from the residential, while stressing the communal nature of the University as a whole. James Barnet's design of the Anderson Stuart Building, together with the earlier work by Blacket and the architects William Wardell (St John's College) and William Munro (St Andrew's College) consolidated the sandstone Gothic and Tudor revival architectural character and the dispersed planned form of the early University. These buildings comprise what is arguably the most important grouping of Gothic/Tudor Revival architecture in Australia, and the landscape and grounds features associated with them contribute to and support the existence and appreciation of their architectural aesthetic qualities.

While Edmund Blacket established a visual axis between the Main Quadrangle Building and the first college building, St Paul's, this was lost progressively from the 1930s onwards with the growth of the University in the intervening space. Leslie Wilkinson emphasised a different visual link when he designed the Physics Building so as to retain a view from St Paul's north across the Hockey Square to the developing Science Road area. The aesthetics of this axis are currently partly masked by vegetation growth and the Denison wing (St Pauls College, Stephenson and Turner, 1948), but still survives as a recoverable planning feature.

The expansion of University buildings west from the Main Quadrangle Building emphasised the importance placed on the Petersham Ridge alignment and vistas by the University planners. The late nineteenth century developments either reinforced and extended the original Main Quadrangle Building alignment and architectural style (ie. the Anderson Stuart Building), or ensured that new development did not intrude on the primary axes east and south. Development west of the ridge proceeded along what would become Science Road.

Science Road became the main alignment for expansion, to be roughly paralleled by Manning and Physics Roads to the south in the period from the First World War through the 1930s. Expansion north of Science Road was prevented by the excavation of the ever-deepening Parramatta Road cutting

from the 1870s onwards. Science Road catered for the expansion of the scientific and professional courses offered, and this scientific ‘campus’ survived as a core area for such teaching until the expansion on Eastern Avenue in the 1950s and 1960s, and into Darlington in the 1960s and 1970s. Other disciplines then occupied Science Road, so that the only specialised precinct to survive fully is Veterinary Science at the western end of the road.

The somewhat ad hoc expansion of the university to the west, combined with more limited funding, resulted in a range of architectural styles being used, and building location and site planning was poorly controlled. The Government Architect, Vernon, made plans to impose some unifying planning and stylistic control over campus growth, such as the formalisation of the Science Road alignment to which subsequent buildings were oriented, but this met with only limited success. It took another two decades for Vernon’s aims to be realised in the work of Wilkinson.

Government Architect George McRae laid out the first plan for the whole Camperdown site in 1913, thought it failed to deal with landscaping issues, and was only partially acted upon. It nevertheless remained in use until 1917 when it was re-drawn to include completed works and refinements in planning details. Similarly, Walter Burley Griffin’s more landscape oriented plan of 1915 was not carried through, though Leslie Wilkinson adopted some of Griffin’s principles in his 1920 plan. Again, Wilkinson’s plan was not carried through to finality, though its influence lasted well beyond his period of control and is a dominant theme in today’s Camperdown Campus, as is his application of a Mediterranean inspired architectural style.

World War II marked a turning point in the planning and style of the University. The immediate need to accommodate the explosion in post-war student enrolments, the lack of a masterplan, and the post-war shortages in materials, combined with the transition of the building industry from trades-based to technology-based methods, led to expedient planning and to building styles that were markedly different from those used before the war. However, the *framework* laid down by earlier planning decisions remained very largely in place. The main road system, and the important vistas they helped to maintain, changed little. The east-west axes of University Avenue—Science Road, Manning Road and Physics Road—and the north-south axes of Eastern Avenue, Fisher Road and Western Avenue, were retained, and new construction generally augmented rather than replaced older building, so the evolved character of the Main Quadrangle Building /Anderson Stuart area, Science Road, and much of the western campus survived. Eastern Avenue became a primary teaching area, and provided an axial link into the Darlington Campus as it developed from the early 1960s.

Sport also has been an important factor in University student life and in the use of the University grounds. There are no fewer than five ovals (counting St Paul’s, St Andrew’s and St John’s Colleges), twenty-one tennis courts in four locations, three indoor gymnasiums, three indoor multi-purpose courts, squash courts and an indoor swimming pool. There are grandstands and small tennis pavilions catering to the needs of players and spectators.

The sporting facilities at the University contributed significantly to the retention of open space and green buffers between the built forms of the campus. They are traditional open spaces that are readily associated with university and college life, and they form a strong element of the traditional campus form.

Darlington Campus

The Darlington Campus demonstrates further layers of usage, with agricultural and pastoral pursuits being followed on part of the area occupied by Thomas Shepherd’s Darling Nursery, from which it is thought the later suburb of Darlington derived its name. Associations with the nursery are perpetuated by street names such as Shepherd and Rose. The area developed from 1864 as a residential,

commercial and industrial suburb and was also the location of the NSW Institution for the Deaf Dumb and Blind, the largest such institution in Australia, before being taken over by the University. Virtually the whole suburb was taken over by the University, and the suburban street pattern was imprinted on the form of the University's developments. Major streets survive, while others are echoed in building alignments and movement corridors.

A range of buildings and features survive, some of them having substantial individual heritage significance (such as the Institute Building and the former Darlington School), while others, such as the Darlington Road terraces and the various factory and workshop buildings, have significance as surviving remnants of the former suburb, giving time-depth to the built form of the campus.

Darlington Road, which follows the line of the original ('Old Newtown') road south from Sydney towards Botany Bay, has been a major planning axis through the area from the period of early settlement, even before the suburb of Darlington was created. Even when the main road alignment was moved west to the present line of City Road, to avoid the swampy land, Darlington Road survived in the planning of the new suburb. It is therefore a planning element that links the early European settlement period with the development of Darlington suburb, and since the 1950s with the planning of the University campus. Several developments, particularly the building of the Seymour Centre and the Gordon Yu-Hoi Chiu Building, block or encroach on this historical route through Darlington.

Criterion (b) An item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area).

As a long-standing tertiary institution there are necessarily a large number of people who have been associated with the place that are of importance, not only in NSW or Australia, but world-wide. In particular, there are many academics and former students that have contributed to the fields of science, history, politics, medicine and health, the arts, business, engineering and law, who have strong associations with the place. However, for the purposes of this report these associations are too numerous to mention and relate more specifically to the individual faculties located at the University.

In regards to the University of Sydney as an historic cultural landscape, there are a number of people who were involved in the initial establishment and subsequent development of the University and so have strong associations with the place. These include the following:

Table 3. 1: Persons with strong or special associations with the place.

ASSOCIATION/ CONTRIBUTION	PERSON
Part of 'Kangaroo Grounds' reserved for future church, Crown and school usage (1789).	Governor Arthur Phillip
Original leaseholder (1792)	Lieutenant Governor Francis Grose
Member of the Legislative Council who initiated the formation of the University of Sydney (1849) Great Hall and East range (1855) and St Pauls College (first stage 1857) Legislative Council	William Charles Wentworth
First Chancellor of the University (1851 -1854)	Edward William Terrick Hamilton

ASSOCIATION/ CONTRIBUTION	PERSON
First Vice Chancellor of the University (1851 -1853)	Sir Charles Nicholson
First Principal of the University, appointed to the Chair of Classics and Logic (1852-1866)	The Rev. John Woolley
Original 16 members of the Senate appointed by proclamation of the Governor. (1851)	The Rev. William Binnington Boyce The Hon. Edward Broadhurst Sir John Bayley Darvall The Rt. Rev. Charles Henry Davis The Hon Sir Edward Deas Thomson Alfred Robert Denison The Hon. Sir Stuart Alexander Donaldson Edward Hamilton The Hon. James Macarthur The Hon. Francis Lewis Shaw Merewether Sir Charles Nicholson Bartholomew O'Brien The Rev. William Purves His Honour Sir Roger Therry The Hon. William Charles Wentworth
First architect for the University of Sydney and responsible for the core buildings the Quadrangle Building. (1854-62)	Edmund Blacket (former NSW Colonial Architect)
First Director of the Botanic gardens responsible for the design of the plantings in Victoria Park and University Place in front of Quadrangle (1880)	Charles Moore
Architect for the University of Sydney and part of the Anderson Stuart Building. (1883-92)	James Barnet (NSW Government Architect)
Graduate of the University, Senate member and Member of the NSW Parliament, representing the seat of the University of Sydney (1879-80). Later, Prime Minister of Australia	Edmund Barton
Architect for the University of Sydney and responsible for the first whole of site plan for the place.	Walter Liberty Vernon (NSW Government Architect)
Architect for the University, developed a plan for the whole of the place (1914), resulting in the formalising and development of Science Road.	George McRae (NSW Government Architect)
Architect who developed a whole of site plan for the University focussing on landscape and visual and planning axes. (1915)	Walter Burley Griffin
First chair of the Faculty of Architecture and architect for the University of Sydney whose campus plan (1920) further developed Griffin's ideas for the place, many aspects of which survive today. Also integrated a diversity of buildings in Science Road.	Leslie Wilkinson

ASSOCIATION/ CONTRIBUTION	PERSON
A linguist, landscape designer and international camellia expert, Waterhouse worked in collaboration with Wilkinson. The pursuit of beauty, a guiding Interwar philosophy, informed their selection and placement of courtyard planting schemes, street tree avenue planting and character trees. (1920s-1930s)	Eben Gowrie Waterhouse
Assistant Principal of the University who developed a plan for the redevelopment of the University, including extending the campus into the suburb of Darlington.(1964) Maze Crescent is named after him.	Wilson Harold Maze
The first women to enrol (1882) at and graduate (1885) from the University of Sydney	Mary Elizabeth Brown and Isola Florence Thompson
The Tutors to Women Students: (Phillips, 1891-92) (Russell, 1892-99) (Fidler, 1899-1939) The position was established to assist women students in adapting to university life.	Helen Phillips Jane Foss Russell Isabel Fidler

In addition, there have been a large number of well-known architects and architectural firms associated with the design and construction of individual buildings, precincts and gardens that are valued as individual elements within the grounds; many of whom are worth noting (in alphabetical order):

- Allen, Jack and Cottier
- Anchor, Mortlock, Murray and Woolley
- Benjamin Backhouse
- Philip Cox and Partners
- Devine, Erby and Mazlin
- E.H. Farmer (NSW Government Architect)
- Jackson, Teece, Chesterman and Willis
- John Andrews International
- John Sulman
- Archibald Liversidge
- George Allen Mansfield
- Noel Bell Ridley Smith
- T.E. O'Mahoney
- Cobden Parkes (NSW Government Architect)
- Priestley and Lumsdaine
- Edwin Evan Smith (NSW Government Architect)
- Stafford, Moor and Farrington
- Stephenson and Turner
- Denis Winston
- Bertrand James Waterhouse

Criterion (c) An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or in local area).

The grounds of the University contain a number of aesthetic characteristics that serve to emphasise or highlight the cultural significance of the place as a whole. These aesthetic values relate to:

- Landscape and planted features, including individual specimen trees; avenues of mature trees, open lawns, designed gardens and courtyards.
- Spatial relationships between the buildings experienced via views, vistas and planned and visual axes as well as vehicular and pedestrian access ways.
- Groups of buildings either lining internal roads or surrounding courtyards or gardens.
- Site features such as the boundary treatments, gateways, artworks (sculptures) and memorials that individually and together contribute to the overall aesthetic and historic character of the University as a whole.
- Individual buildings that demonstrate high quality architectural design and contribute greatly to the overall aesthetic character of the University as a whole.

In addition, because the buildings located throughout the grounds were large for their day and were constructed for a hitherto rare function within Australia (that is, university use). It is possible that some of the building techniques involved are of technical interest; for example, the Badham Building (A16) (formerly Physics Building) is known to have been constructed on highly stable foundations in order to cater for the particular needs of the faculty.

Criterion (d) An item has strong or special association with a particular community or cultural group in NSW (or local area) for social, cultural or spiritual reasons.

The University has substantial social values for a range of affiliated communities and groups. These values are attached to the whole of the University, each of the campuses and individual faculties, as well as smaller precincts, vistas, buildings and features in the grounds of both campuses. These values may be associated with a specific building or element for a range of values as well as for the experiences and memories that these places may hold.

In some cases, these special associations and the high regard that the University is held are demonstrated in the amount of cultural material that exists for the place and by the level of involvement in the University by the broader community. For example:

- The number of artworks, media stories and publications with the University as a subject matter; and
- The use of the University grounds and buildings as a communal cultural space, including social protest (eg. Australia's involvement in the Vietnam War, and for private events and functions (e.g. weddings).

As a tertiary institution that has been in use for over 150 years, there are a large number of groups that hold the University in high regard. These include:

- staff, current and former, academic and administration/support;

- students, current and former;
- members of sporting clubs;
- University extra-curricular social and academic club members; and
- benefactors.

Criterion (e) An item has potential to yield information that will contribute to an understanding of NSW’s cultural or natural history (or the cultural or natural history of the local area).

The pre-University history of the land reflects a continuous pattern of human use and occupation, its occupation by Aboriginal people, then by Europeans for pastoral and agricultural purposes, with particular areas used as a timber yard, a convict stockade, an Orphan School and then partly, a residential suburb.

Several sites have archaeological potential to provide further information about Indigenous and Colonial occupation of the land; however because of the level of development that has occurred over the past 200 years, it is very unlikely that many, if any, undisturbed archaeological sites exist within the University grounds.

Criterion (f) An item possesses uncommon, rare or endangered aspects of NSW’s cultural or natural history (or the cultural or natural history of the local area).

The grounds of the University contain a number of buildings and landscapes that are unique. This uniqueness relates to:

- Landscape and planted features, including individual specimen trees; avenues of mature trees, open lawns, designed gardens and courtyards.
- The spatial relationships between the buildings experienced via views, vistas and planned and visual axes as well as vehicular and pedestrian access ways.
- Groups of buildings either lining internal roads or surrounding courtyards or gardens.
- Site features such as the boundary treatments, gateways, artworks (sculptures) and memorials that individually and together contribute to the overall aesthetic and historic character of the University as a whole.
- Individual buildings that demonstrate high quality architectural design and contribute greatly to the overall aesthetic character of the University as a whole.

In addition, because the buildings located throughout the grounds were large for their day and were constructed for a hitherto rare function within Australia. As the University is under constant challenge to provide up to date facilities the existing fabric that has heritage significance needs to be identified for protection.

Criterion (g) An item is important in demonstrating the principal characteristics of a class of NSW’s cultural or natural places or environments (or a class of the local area’s cultural or natural places or environments).

The University is linked to the early development of NSW and the development of the state and nation. It is an important part of the development of NSW and Australia into the country that is what we see today. It is a significant example of the influence of government funded education.

Many important events have occurred at the University. Many important people have attended or taught at the university.

The university has affected the lives of many people around the world, and is physical reminder of this continuing connection.

- staff, current and former, academic and administration/support;
- students, current and former;
- members of sporting clubs;
- University extra-curricular social and academic club members; and
- benefactors.

4 Statement of Significance

4.1 Statement of Significance

Considering the assessment in Section 3.0 Analysis of Significance, an appropriate statement of significance for the place is:

Broad scale Landscape Significance

The significance of this site lies in its topography, and the values, responses and interpretation impressed on it by its custodians and designers. Catchment landforms and ridgelines, encompassed in the university campuses 'and associated properties, are legible in its large-scale cultural landscape. This relatively intact broad scale landscape tells a significant story, in four parts, about the development of Sydney.

Firstly, the park-like grounds of the university campuses and Victoria Park are inextricably linked as adjacent valleys and ridges. Secondly, these landform units have tangible connection to Governor Phillip, First Governor of NSW, Commodore of the First Fleet, and his strategic planning and forethought during the first years of the infant colony, Sydney Town, as a vestige of his original 1,000 acres (404 ha) 'Kangaroo Grounds' reserve of 1789. Secondly the site displays an exceptional historical connection to the 18th century British government's approach to colonialism and its concept of 'terra nullius' as the foundation for dispossession of Aboriginal land in the immediate area of Sydney.

The third story relating to the significance of the site is that of Grose Farm. Reduced in size from Phillip's land claim, its adjacent catchments and ridges remained intact as a property during the colonial era of 1792-1855, its rivulets dammed to create reliable water supplies. A myriad of uses over time including as Government paddocks for grazing, an experimental farming school for boys and as a convict stockade make this an exception site demonstrating first industrial activities in the colony.

The final and ongoing story of the site is that of the University of Sydney grant (1855) a remnant of the reserve set aside by Governor Phillip sixty years earlier, transformed in line with its original purposes, for school and crown, for the greater good of the common people.

The site was granted with an allowance for the "formation of a park and garden in connection therewith." The bond between the University grounds and Victoria Park was the consequence of earlier European land management that conceived these two sites as one, initially as Phillips' reserve, then Grose Farm. The two sites, though now under different management authorities, are in many ways inseparable, with each providing 'borrowed landscape' for the other. This new planning was attribute to Edmund Blacket, as Colonial Architect (1849-54).

In 1854-62 when designing the Great Hall and East Range of the Quadrangle, influenced by the English Picturesque movement/style of the 18th and 19th centuries, Blacket utilised the prominent ridgeline and slopes of the park's catchment to provide a depth of field for the dramatic landscape presentation of the University of Sydney on approach from the city. This placement, this asymmetrical massing and Neo-Gothic architecture on a spectacular scale, formed a new context for the park as a setting and curtilage for the university. An approach road on the axis of the Quadrangle

main tower was planted with lines of figs leading to the gateway at City Road to further embellish the grounds and experience of the site.

The University of Sydney and Victoria Park as connected landscapes have tangible links to Charles Moore, Director of the Royal Botanic Gardens (1848-1896) and designers using prevalent 19th century theories of landscape design, plant material and horticultural techniques.

Landscape in response to buildings

The grounds of the University of Sydney campuses are culturally significant as evidence of the historical development of the University's architecture, landscape and urban design.

The grounds contain significant trees, some of which date back to the late 19th century and the mass planting of shrubberies dispatched from the Royal Botanic Gardens in the 1860s and 1870s. These trees represent the first attempts at creating a suitable landscape and setting for the university campus. The campus gardens also contain many plants dating from the 1920s and 1930s, a period which saw the first comprehensive use of planting and gardens to beautify the university.

Strongly associated with Professor Leslie Wilkinson and the implementation of his 1920 master plan, the University grounds, more than any other site, reflects Wilkinson's work in beautifying and unifying buildings and their settings. This pursuit of beauty can also be seen in the work of Professor Eben Gowrie Waterhouse, who made a significant contribution to the planning and planting of gardens in the Camperdown Campus in the Inter/war years.

The university grounds have a distinctive aesthetic quality. The architecture, courts and vistas combine to form an environment of immense appeal. The mature trees and gardens are a vital part of this aesthetic.

The rarity of the University grounds lies within its cultural landscapes, plantings of botanical collections and scientific origins such as camellia plantings by Waterhouse and rare cultural landscape groupings of significant trees.

Criterion A: Historical Phases and Events

The University of Sydney is the oldest university in Australia, dating from 1850. The occupation of the place by the University has seen a continuity of use and major built and historical planning elements for a period extending over 150 years.

The Camperdown Campus is significant because the layout of its buildings, grounds and associated features include evidence of the history of, and major changes in, tertiary education, landscape design, institutional design, economic development and social attitudes over that period. The University has a campus style similar to many other late nineteenth and early twentieth century universities.

Darlington Campus is historically important as a former Sydney residential and light industrial suburb and as the site of a major expansion of what was, at the time, an inner-city university. While having much in common with other now inner-urban suburbs from the mid-to late nineteenth century, Darlington is of some historical noteworthiness as probably the only suburb to be almost completely taken over for other land use purposes. The history of the suburb is reflected in surviving buildings (the Institute Building, Darlington Road Terraces, the Old Darlington School Building and a number of factory and workshop buildings); in the residual street layout together with street fencing, walls and furniture; in the alignment of buildings and movement corridors echoing earlier streets and lanes; and

in the relatively undisturbed sites of earlier buildings and developments that have archaeological potential.

The University's acquisition and development of Darlington is an example and evidence of both the expansion of the University of Sydney and tertiary education in general from the 1950s, related to the increasing role of the Commonwealth in funding the sector. The combination of these related factors resulted, in particular, to the development of Engineering and Architecture faculty precincts that achieved co-location of related subjects, a long-term but largely unachieved aim of Sydney University planners throughout the early twentieth century.

The University grounds were among the earliest lands utilised by European colonists in Australia from 1788, and have important historical associations as a result. The pre-University history of the land is echoed in subtle but distinct ways in the University grounds shown by the topography and selection of sites for the first buildings and sport fields. Several sites have archaeological potential (although of low to moderate potential) to provide further, important information about early European occupation of the land.

Criterion B: Association with historical People

The University of Sydney is associated with a large number of notable people who were involved in the development and expansion of the University, its lands, the buildings, landscape and grounds. These include the initial land owners, those responsible for and involved in the initial establishment of the University as an institution, and the architects and designers who have designed and constructed the principal buildings and landscapes throughout each campus and developed the master plans for the place. Section 3 of this report for the history of these people.

As a long-standing tertiary institution there are necessarily a large number of people who have been associated with the place that are of importance, not only in NSW or Australia, but world-wide. In particular, there are many academics and former students that have contributed to the fields of science, history, politics, medicine and health, the arts, business, engineering and law, who have strong associations with the place.

Criterion C: Aesthetic/Creative Value

The Main Quadrangle Building, the Anderson Stuart Building and the Gate Lodges, together with St Paul's College, St John's College and St Andrew's College, comprise what is arguably the most important group of Gothic and Tudor Revival style architecture in Australia, and the landscape and grounds features associated with these buildings contribute to and support the existence and appreciation of their architectural qualities.

Criterion C: Special Association with a group of people

The University has substantial social values for a range of affiliated communities and groups. These values are attached to the whole of the University, each of the campuses and individual faculties, as well as smaller precincts, vistas, buildings and features in the grounds of both campuses. These values may be associated with a specific building or element for a range of values as well as for the experiences and memories that these places may hold.

Criterion D: Science/Research Value

The pre-University history of the land reflects a continuous pattern of human use and occupation, its occupation by Aboriginal people, then by Europeans for pastoral and agricultural purposes, with particular areas used as a timber yard, a convict stockade, an Orphan School and then partly, a residential suburb.

Several sites have archaeological potential to provide further information about Indigenous and Colonial occupation of the land.

Criterion F: Rare/Endangered

The University has buildings located throughout the grounds that were large for their day and were constructed for a hitherto rare function within Australia (that is, university use). As the University is under constant challenge to provide up to date facilities the existing fabric that has heritage significance needs to be identified for protection.

Criterion F: Class of NSW cultural heritage

The University is linked to the early development of NSW and the development of the state and nation. It is an important part of the development of NSW and Australia into the country that it is today. It is a significant example of the influence of government funded education.

4.2 Summary Statement of Significance

The University of Sydney Grounds:

- With adjacent lands, is the pre-Colonial land of the local Aboriginal people, the Cadigal and/or Wannigal.
- The significance of this site lies in its topography, and the values, responses and interpretation impressed on it by its custodians and designers, which is evident across its large-scale cultural landscape.
- With adjacent lands, reflect a fulfilment of Governor Phillip's designated land reserve (1789) for school, Crown and church purposes, after an interim period of colonial usage including stock agistment, Grose Farm, convict stockade and orphan school.
- Granted with an allowance for the "formation of a park and garden in connection therewith", the University grounds are inextricably linked to Victoria Park.
- Contain the first and oldest university in Australia.
- Are the site of the higher education of large numbers of Australians and foreign individuals who have later played key roles in the history of Australia and the World.
- Are the site of many notable events, advanced research and theory development over the 150 years of its existence.
- Reflect directly, changes in tertiary education, landscape design, institutional architecture, economic development and social attitudes over a period of more than 150 years, through the layout and development of the Camperdown Campus.
- Reflect directly the influence of E.T.Blacket (1850s), W.B.Griffin (1910s), Prof. L.Wilkinson (1920s) and the Government Architect's Office (1960s) in shaping the campus layout.
- Reflect the influence on the landscape and cultural plantings of Charles Moore and Prof E.G. Waterhouse.
- With the adjacent University Colleges, contain many components of architectural and landscape merit, including groups of features, gardens, trees, roads and views and examples of the work of many notable and well-known architects and designers that gives the place its distinctive park-like setting and aesthetic character.
- Contain several buildings and landscapes of exceptional aesthetic merit. In particular, Blacket's location of the Great Hall and East Range of the Quadrangle (1854-1862) utilised the site's topography to provide a dramatic presentation of the University on approach from the city, a setting which remains today.
- Contain part of the land developed during the 19th and early 20th centuries as the Sydney suburb of Darlington. Substantial remains of Darlington survive, represented by the Old Darlington School Building (G18), terraced housing along Darlington Road, several light industrial buildings and remnants of the former street pattern.
- Contain land with some archaeological potential regarding pre-colonial and post-colonial events, ways of life and research techniques, buildings and landscape now altered.
- Are held in regard by many Australians and other individuals and groups as a place of high university education, the place of their higher education, as the site of past events, including social protest, and especially for its research potential and for its fine buildings and landscape.

4.3 Grades of Significance

The significance of the University grounds is complex. This is because the grounds are extensive and contain a large number of buildings and landscape features. In addition, these features may have individual significance, significance as part of a group, precinct or linear feature (such as an axis or view), as well as significance to the whole University grounds. In addition, site features, landscape elements and buildings might be part of overlapping precincts.

Another dimension to this complexity is the range of values embodied: aesthetic, historic, scientific and social. Within each of these values, each feature may have differing expression of the value as well as the significance of the value. In some instances, the values relate to the core University story historical and significances, in other cases there are other stories and values (such as suburban Darlington). These latter values are not necessarily lesser simply because they are not part of the core University story, they are just different.

Given this background, a simplified approach to significance must be treated with great care or else the particular quality and complexity of heritage values may be lost. Bearing this caution in mind, **five levels of significance** have been identified, to assist in understanding both the elements of overall heritage significance, and to identify ways in which individual components contribute to the overall significance of the University's Camperdown-Darlington campus.

All the components of the place have been ranked to correspond to the NSW Heritage Office's recommended gradings of significance. For a detailed explanation of the levels of significance, refer to Table 4.1.

Table 4. 1: Levels of Significance

LEVEL	EXPLANATION	STATUS
Exceptional	A component of the University grounds that has itself an exceptional level of significance for its historical, aesthetic, social, scientific values and/or rarity. Elements in this category stand out as exceptional for being valued for a number of criteria together, are key aspects of the history or character of the place, are highly intact, are held in high regard for their aesthetic and/or social significance and are considered rare.	Fulfils criteria for National and State listing
High	A component of the University grounds that has itself a high level of significance for their historical, aesthetic, social or scientific values. Elements in this category stand out as high as they directly reflect key aspects of the history or character of the place, and/or are held in high regard for their aesthetic values or for their historic associations.	Fulfils criteria for State listing.
Moderate	A component of the University grounds that has itself a moderate level of significance for their historical, aesthetic, social or scientific values and/or are representative of a particular aspect of the heritage values of the place as a whole. Elements in this category might contribute to the significance of the	Fulfils criteria for State or Local listing.

LEVEL	EXPLANATION	STATUS
	grounds as a whole or to specific precincts without having high significance in their own right. The contributory significance might be that the component adds to the understanding of the historical, aesthetic or social heritage values of the place, while not being essential to that understanding.	
Little	A component of the University grounds that has itself some level of significance for their historical, aesthetic, social or scientific values. Elements in this category might relate to aspects of the significance of the place, without being critical to the understanding of that significance. They might also have some association with components or precincts of greater significance.	Does not fulfil criteria for Local listing.
Intrusive	A component of the University grounds that has no significance. Elements in this category may have historical associations with the place as a whole while not having heritage values in themselves.	Does not fulfil criteria for any listing.

Grades of Significance for Components of the University of Sydney

The following figures use the above ranking systems to give an indication of the relative levels of significance of components at the place as a tool for planning. This is to provide a better understanding of significance, especially in the context of some overview or framework of the University of Sydney grounds and buildings.

Legend

E	Exceptional Significance
H	High Significance
M	Moderate Significance
L	Little Significance
In	Intrusive
N/A	Significance not assessed

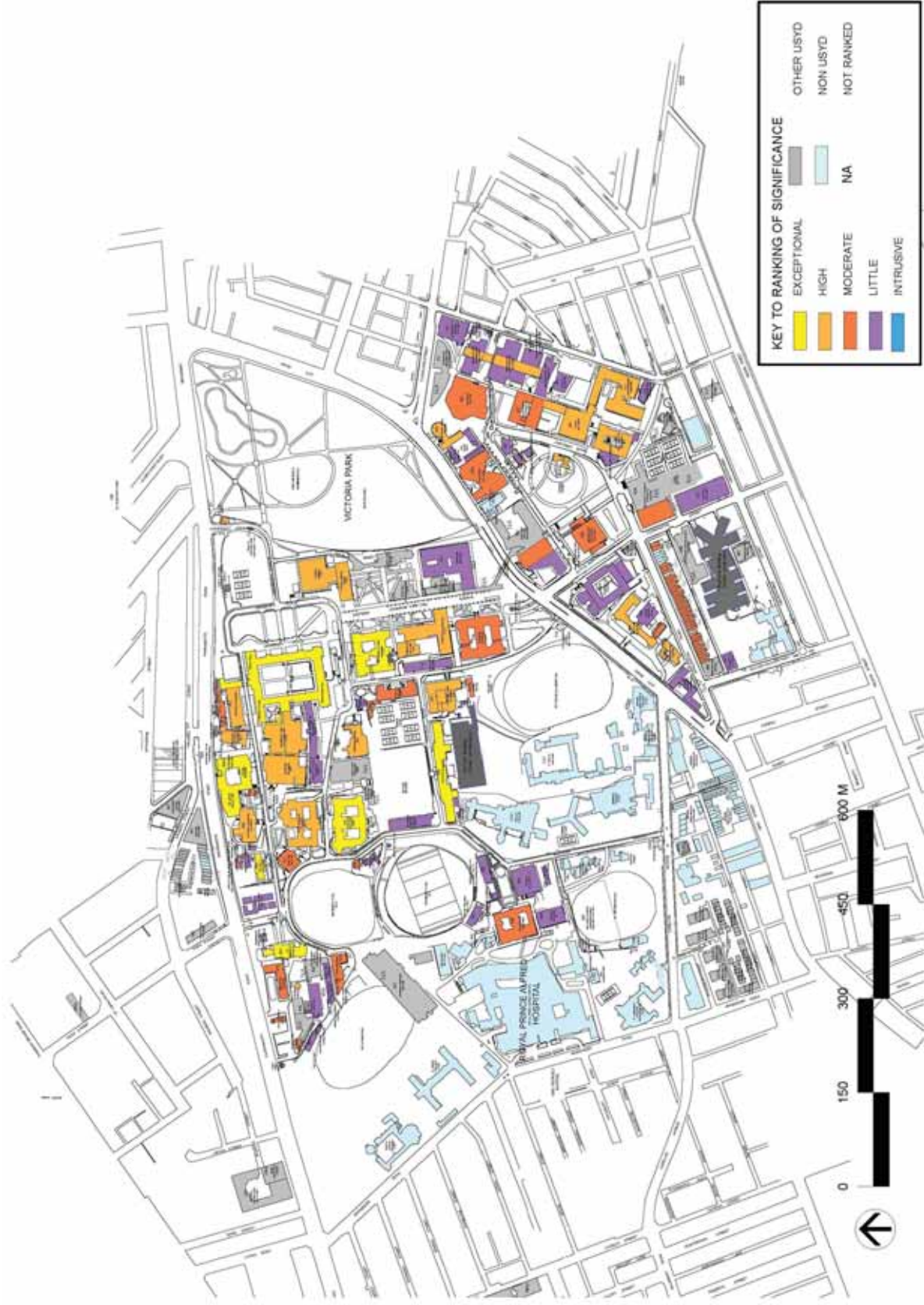
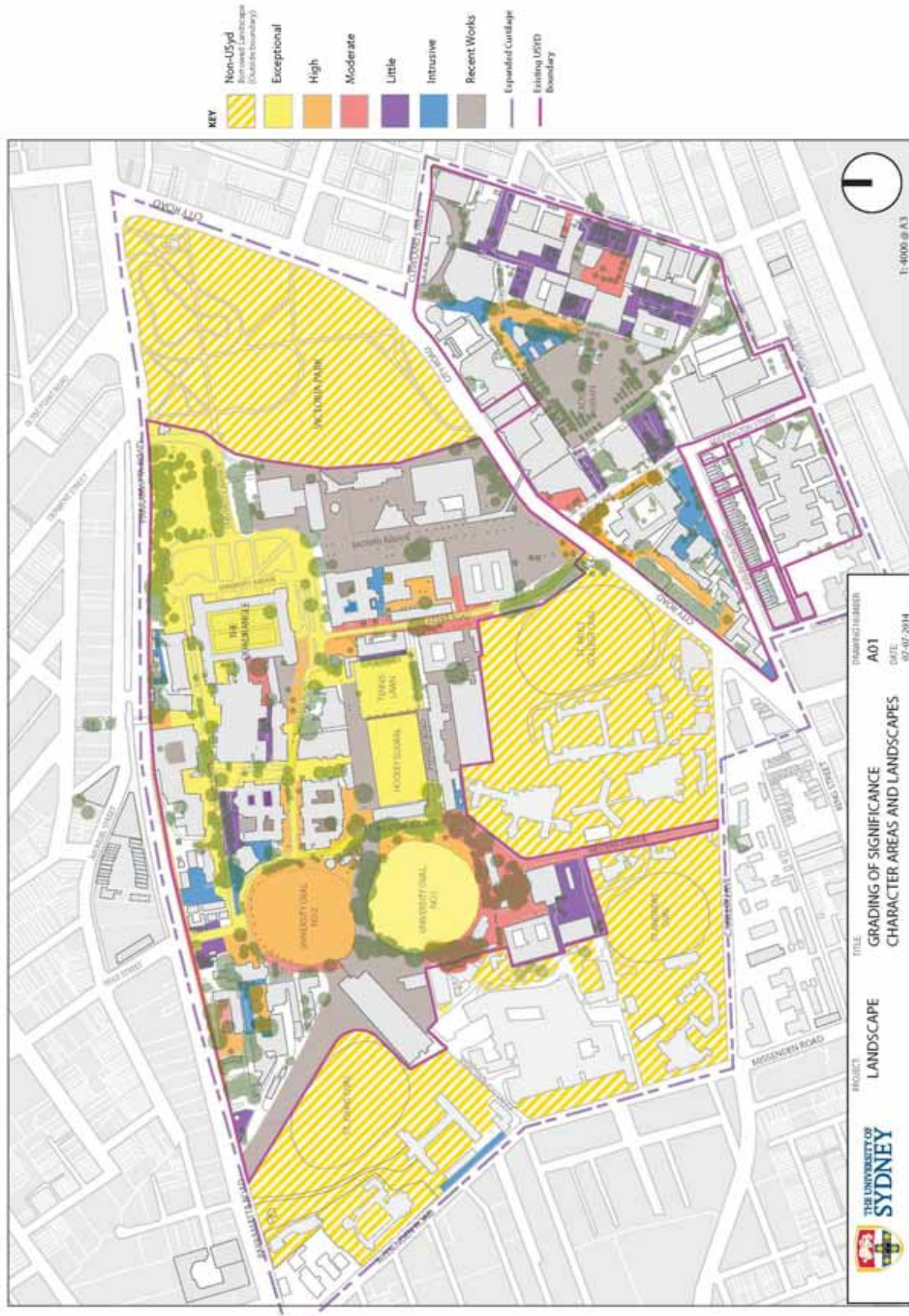


Figure 4. 1: Significance Ranking of the Buildings (Part 1)



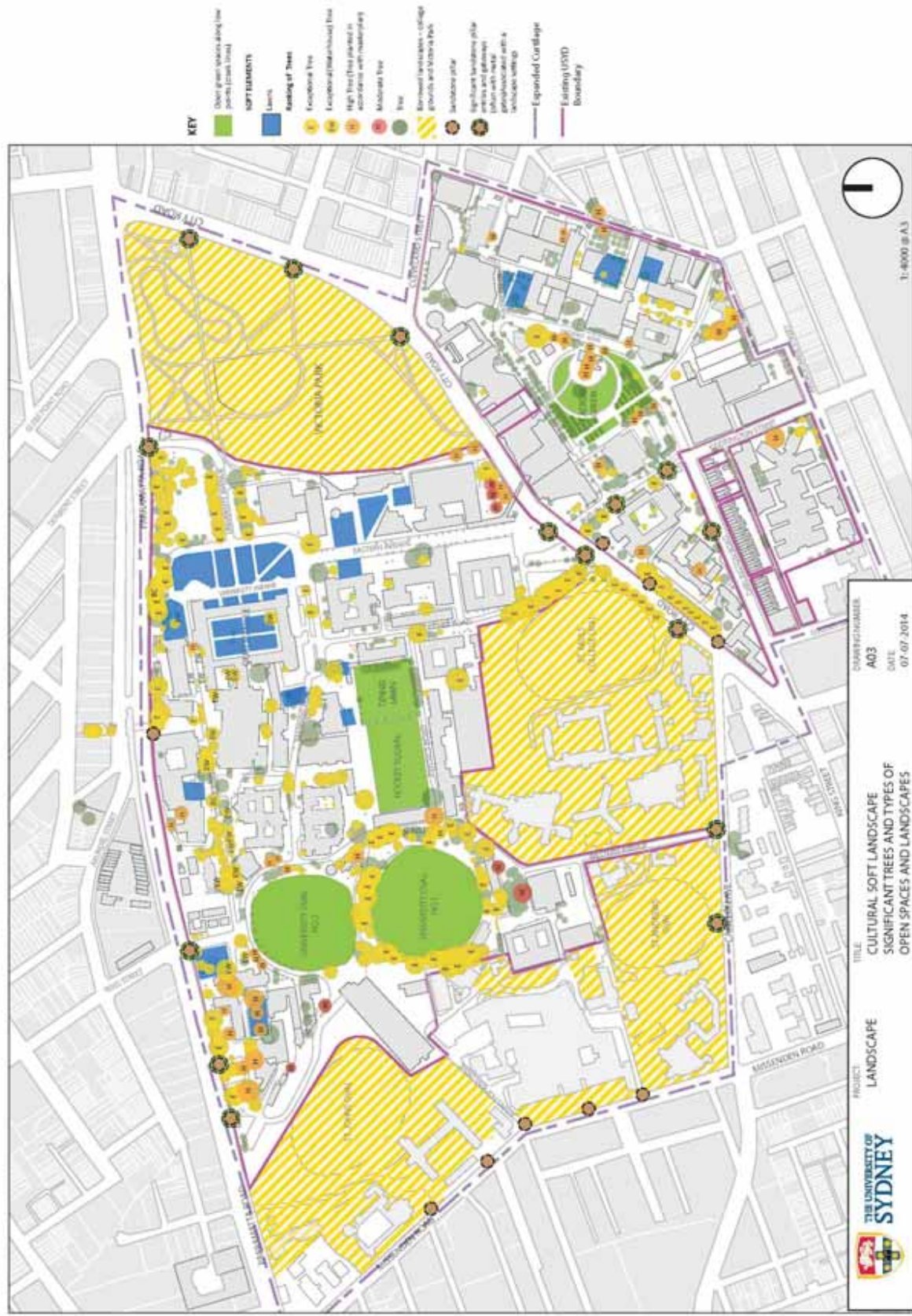


Figure 4.3 Cultural soft landscape: significant trees and types of open spaces and landscapes

5 Constraints and Opportunities

The significance of the place creates obligations and opportunities regarding its treatment. In addition, many other factors are relevant to the development of appropriate conservation policies for the place. These are discussed below.

5.1 Obligations and Opportunities Arising from Significance

The following ideals are derived from the main issues raised in the Statement of Significance. *While not all of these ideals will necessarily be achievable in conservation policies* when other issues are taken into consideration, the goal should be to work toward satisfying as many as possible.

5.2 Procedural Constraints Arising from Significance

Because the University of Sydney is of exceptional cultural significance, works at the place should be carried out in accordance with a recognised cultural conservation methodology such as that of the Australia ICOMOS *Burra Charter*. The following procedures are recommended:

- Significant fabric, uses, associations and meanings should be preserved and conserved. (Article 3, *Burra Charter*)
- Works to the fabric should be planned and implemented taking into account the relative significance of the elements of the place. Unavoidable intervention should be carried out on elements of lesser significance in preference to those of higher significance. Alterations to interior spaces, such as removal of original finishes, partitioning or construction of new openings and installation of new services should be carried out in spaces of lesser significance to those of higher significance. (Article 5.2, *Burra Charter*)
- Uses should, if possible, be related to the cultural significance rather than uses that do not take advantage of the interpretative potential of the place. (Article 7, *Burra Charter*)
- If possible, items of significance should be interpreted by either introduced interpretative devices or applicable restoration and reconstruction. (Article 25, *Burra Charter*)
- The use of the place should be organised to minimise the removal or concealment of significant fabric due to statutory requirements including the need for new services, provision of fire egress and access for disabled people. (Article 7.2, *Burra Charter*)
- All alterations and adaptations of the significant fabric should be clearly identified by means of introduced devices or by method of style of construction, as new work. (Article 22.2, *Burra Charter*)
- Work should be carried out by personnel experienced in conservation, both professional disciplines, and building and engineering trades. (Article 30, *Burra Charter*)

- Work should be carried out by qualified persons, landscape architects, heritage conservation experts, arborists, landscapers and gardeners.
- Appropriate recording and documentation procedures should be carried out before any works. (Article 27.2, *Burra Charter*)
- Conservation guidelines for the place should be prepared, adopted and implemented. (Article 26.2, *Burra Charter*)

5.3 Present Condition

The condition of the components of the place is generally good with ongoing maintenance, and repair and restoration works being undertaken periodically.

5.4 Integrity

The effect of the integrity of the place on significance was previously emphasised when addressing procedural constraints. Overall, many features of the University of Sydney retain their integrity from the date of their establishment. Such features include the alignment of the site boundaries and their treatments, the internal layout of many of the roads, the configuration of buildings and gardens and the uses of a number of the buildings and precincts.

As it is still in its original use and continually evolving, discussion of the integrity of the Camperdown Campus to its 'original' or 'fully developed' configuration is not all that useful.

With the Darlington Campus, there is a distinction to be made regarding the extent that the features of the old suburban configuration of the area have survived the university-related development. As discussed above, generally the old road pattern survives and is evident, as does terrace housing in Darlington road and a small number of light industrial buildings.

Study of the fabric of the place and the related documentary evidence indicates that most of the components of the place could be restored or reconstructed to an earlier known configuration *if this was considered appropriate*.

5.5 Statutory & Non - Statutory Heritage Constraints

The statutory and non-statutory heritage status of the University of Sydney and its components according to the following organisations is described in the table below:

Abbreviations Used in Table 5.1

LEP	Local Environmental Plan
S170	S170 Heritage Register
SHI	State Heritage Inventory
NT	National Trust of Australia
RNE	Register of the National Estate
AIA	Australian Institute of Architects
AHPI	Australian Heritage Places Inventory
AHD	Australian Heritage Database

Note: The description of the buildings, site features and precincts listed below are as per the actual listings (statutory or non-statutory) and are sometimes unclear or repetitive.

Table 5. 1: Statutory and Non-Statutory Heritage Listings

DESCRIPTION*	STATUTORY LISTINGS		NON-STATUTORY LISTINGS					
	LEP	S170	SHI	NT	RNE	AIA	AHPI	AHD
As per Listing								
University of Sydney (Camperdown and Darlington Campuses)		YES						
University of Sydney Conservation Area (Camperdown Campus only)	YES							
PRECINCTS								
Hockey Square		YES						
Veterinary Science Precinct		YES						
Mallett Street Campus		YES						
Darlington Conservation Area					YES		YES	YES
BUILDINGS								
86- 131 Darlington Road				YES				
“Roma” and “Frelin”, 86–87 Darlington Road	YES							
88 Darlington Road	YES							
90–93 Darlington Road	YES							
94 Darlington Road	YES							
95 Darlington Road	YES							
96–103 Darlington Road	YES							

DESCRIPTION*	STATUTORY LISTINGS		NON-STATUTORY LISTINGS					
	LEP	S170	SHI	NT	RNE	AIA	AHPI	AHD
As per Listing								
104–123 Darlington Road	YES							
“University Terrace”, 124–131 Darlington Road	YES							
Administration		YES				YES		
Aero Mechanical						YES		
Anderson Stuart Building	YES	YES		YES	YES	YES	YES	YES
Animal House		YES						
Badham Building	YES	YES						
Bank Building	YES	YES						
Blackburn Building		YES						
Botany Building	YES	YES		YES	YES	YES	YES	YES
Bulli Soil Shed						YES		
Chemical Engineering Building						YES		
Civil Engineering Building						YES		
Old Darlington School	YES	YES		YES				
Edward Ford Building	YES	YES						
Electrical Engineering Building						YES		
Fisher Library & Bookstack		YES						
General Lecture Theatre 1		YES						
Gordon Yu-Hoi Chui Building						YES		
Heydon-Laurence (Zoology) Building	YES	YES						
Holme Building (Union)	YES	YES				YES		
Institute Building and Grounds (including the Darlington Centre)	YES	YES			YES	YES	YES	YES
J.D. Stewart Building	YES	YES				YES		
John Woolley Building	YES	YES				YES		
MacLaurin Hall		YES						
Macleay Museum	YES	YES			YES			
Madsen Building		YES						
Main Quad / East Face of Western Tower		YES						
Main Quad / East Range and Great Hall		YES				YES		
Main Quad / North & North-west Ranges		YES						

DESCRIPTION*	STATUTORY LISTINGS		NON-STATUTORY LISTINGS					
As per Listing	LEP	S170	SHI	NT	RNE	AIA	AHPI	AHD
Main Quad / South Range & Cloisters		YES				YES		
Main Quad / South-west Range		YES						
Main Quad/ Additions & Quadrangle, Manning Rd					YES		YES	YES
Main Quad/ Additions-paving and grass to quadrangle				YES				
Main Quad/ Main Building and Quadrangle group	YES			YES	YES	YES	YES	YES
Main Quad/ North & northwest Ranges						YES		
Main Quad/ South-west range and west face of Western Tower					YES		YES	YES
Main Quad/ Stone retaining wall, fence and steps	YES							
Main Quad/ Vice Chancellor's Quadrangle		YES						
Main Quad/ East face of Western Tower & Cloisters						YES		
Manning Building		YES						
Madsen Building						YES		
Materials & Structures Laboratory						YES		
McMaster Laboratory		YES						
Old Geology Building	YES	YES						
Old Sydney Teachers College		YES				YES		
Peter Nicol Russel Building						YES		
Pharmacy Building		YES						
Physics Building	YES	YES			YES		YES	YES
Press Building		YES						
R C Mills Building		YES				YES		
R M C Gunn Building						YES		
R.D. Watt Building	YES	YES				YES		
Refectory Building, including interior, forecourt and loggia	YES	YES						

DESCRIPTION*	STATUTORY LISTINGS		NON-STATUTORY LISTINGS					
As per Listing	LEP	S170	SHI	NT	RNE	AIA	AHPI	AHD
Round House						YES		
Science Road Bridge		YES		YES	YES		YES	YES
Science Road Bridge, including roll of honour	YES							
Seymour Centre						YES		
Shepherd Street Parking Station						YES		
Wallace Theatre						YES		
Science Road		YES			YES		YES	YES
LANDSCAPE & SITE FEATURES								
University Ovals 1 & 2		YES						
Site landscaping, perimeter fencing and gates	YES							
Milestone Sydney II (2 Miles)		YES						
Gate Keeper's Lodge, City Road Fencing & Gates		YES			YES		YES	YES
Gate Keeper's Lodge, City Road	YES							
Gate Lodge & Gates (Parramatta Road)	YES	YES			YES		YES	YES
Doric Columns		YES						
Substation No.54 & Switch Room		YES						
MOVABLE FABRIC								
School Of Civil Engineering: Greenwood & Batley Materials Testing Machine (now held by the Powerhouse Museum)				YES				
Macleay Museum Collections		YES		YES				

Table 5. 2: City of Sydney Significant Tree Register

Tree Register								
City of Sydney Register of Significant Trees								

5.6 Statutory Heritage Provisions

Local Environment Plans (LEPs), Local Government Councils

*A number of buildings and site features **are included** in the City of Sydney Council LEP as heritage items (refer to Table 5.1).*

*The University of Sydney **is located** in a Conservation Area included in the City of Sydney Council LEP.*

Under the *Environmental Planning and Assessment Act* (1979), local councils are required to identify and manage heritage items in their areas. They do this by means of local heritage studies and heritage schedules within LEPs.

Standard heritage provisions in LEPs require that councils must consider heritage issues when assessing development applications to listed items. Development refers to alterations, additions and demolition, damage to, defacement, or moving of heritage items and may also refer to development in the vicinity of a heritage item, and development affecting relics, identified and potential Aboriginal and archaeological deposits, trees and landscape items.

LEPs also designate ‘conservation areas’ within local council areas. While buildings within conservation areas do not usually have the same statutory protection as individual items, local councils are still obliged to consider heritage issues when assessing development applications for places within such areas.

Local councils can usually require the submission of heritage impact statements and in some cases can require the submission of conservation management plans with development applications for LEP-listed items and places located within conservation areas.

Development Control Plans (DCPs) prepared by local councils may also contain heritage planning policies which councils endeavour to implement within their boundaries.

Where items are also included on the State Heritage Register, an Integrated Development Application (IDA) is required (see under State Heritage Register (SHR), NSW Heritage Council, below). In such cases, in accordance with Section 92 of the *Environmental Planning and Assessment Act 1979*, the consent authority (being the council) must not refuse the Development Application on heritage grounds.

In addition, the Minister for Planning may authorise a council, pursuant to Section 25 of the *Heritage Act 1977*, to make Interim Heritage Orders for items in the council’s area. Some councils throughout Sydney and NSW have been given this authority. A council authorised under this section may make an Interim Heritage Order for a place, building, work, relic, moveable object or precinct in the council’s area that the council considers may be of local heritage significance and the council considers it is being or is likely to be harmed. This extends councils’ existing powers and allows them to quickly respond to an item or items under threat.

Non-inclusion of a place on a local heritage schedule or within a conservation area does not imply the place is of no cultural significance. The place may have as yet unrecognised cultural significance, or non-inclusion may reflect administrative policy, inactivity or lack of resources.

State Environment Planning Plans (SEPPs), NSW Department of Planning

*The University of Sydney is **not included** in any SEPP as a heritage item.*

State Heritage Register (SHR), NSW Heritage Council

*The University of Sydney is **not listed** on the State Heritage Register.*

Section 170 State Agency Heritage Registers under the Heritage Act 1977

*The University of Sydney and a number of individual buildings, precincts, site features and components **are listed** on the S170 Register for the University of Sydney (refer to Table 5.1).*

Under Section 170 of the *Heritage Act 1977*, NSW State Government agencies are required to compile a list of heritage properties owned and managed by the agency. This Register includes details of each item of the environmental heritage which:

- are listed as heritage items under an environmental planning instrument;
- items that are subject to an interim heritage order;
- items that are listed on the State Heritage Register;
- items identified by the government instrumentality concerned as having State heritage significance; and
- in the case of a statutory body, is owned or occupied by the statutory body; or
- in the case of a Department Head, is vested in or owned or occupied by, or subject to the control of, the appropriate Minister or the Department.

Government agencies are required under the Heritage Act to:

- review and amend, if required, the Register not less than once a year;
- supply the NSW Heritage Council with the Register; and
- make the Register available for inspection by the public.

The NSW Heritage Council has a policy of including all items appearing on S.170 Registers with a significance level of state or higher on the NSW State Heritage Register (SHR).

Management of heritage items by government agencies is legislated under Section 170A of the Heritage Act, which requires all items listed on a S.170 Register, as well as all items listed on the State Heritage Register which are under a state government agency's care, control, or management to be maintained with due diligence in accordance with State Owned Heritage Management Principles.

Agencies must notify the Heritage Council of their intent to remove an item from the S.170 Register, transfer ownership of an item, end their occupation of, or demolish an item on the S.170 Register or listed on the State Heritage Register no less than 14 days prior to the action.

Annual reports of state government agencies must include a statement as to the condition of items listed on S.170 Registers or the State Heritage Register. The Heritage Council may also direct government agencies to include particular information in their annual reports with respect to their S.170 Registers.

Non-inclusion of a place on an agency's S.170 Register does not imply that the place is of no cultural significance. The place may have as yet unrecognised cultural significance, or non-inclusion may reflect administrative policy, inactivity or lack of resources.

Interior Heritage, NSW Heritage Council & LEPs

The City of Sydney Council's LEP includes the Planning NSW's Standard Instrument in relation to Heritage assessment (see below).

*The City of Sydney Council LEP **has identified** interior features or fittings as part of its statutory listing.*

The NSW Heritage Office SHR listings automatically include the interiors of the buildings (see below).

Under the NSW *Heritage Act 1977*, when a building is listed as an item of state heritage significance, that listing applies to the whole of the site, including the interiors of a building. Consent from the NSW Heritage Office may be required for works to the interior of a building, including the repair or renovation, or the painting, plastering or other decoration, of the listed building or place. In addition, requirements for essential maintenance and repair include interior finishes and details.

The heritage provisions contained under Clause 5.10 of the NSW Planning Department's *Standard Instrument- Principal Local Environmental Plan (LEP)*, requires development consent only for changes to the exterior of a heritage item, internal structural changes or for making changes to anything inside that is listed in Schedule 5 (Environmental Heritage) of the LEP in relation to the item. Some councils have adopted the Standard Instrument in their LEP thus reducing their ability to consider proposed non-structural internal changes when assessing an application.

As many listed heritage items have significant interiors, some local councils may include a description of significant internal features and details as part of an item's individual listing in their LEPs, thus increasing their ability to consider proposed internal changes when assessing an application unless the interiors are specifically listed.

Non-inclusion of interior features and details as part of the significance of a place does not imply they are of no cultural significance. They may have as yet unrecognised cultural significance, or non-inclusion reflects administrative policy, inactivity or lack of resources.

Movable Heritage, NSW Heritage Council

The contents of the MacLeay Museum is identified as an item of cultural significance under the S.170 Register of the University of Sydney.

The NSW Heritage Act defines 'movable heritage' as any natural or manufactured object of heritage significance. It does not include archaeological relics found underwater or underground.

Movable heritage ranges from significant everyday objects to antiques and may be a single item, a group of items or a whole collection, and can include machinery, furniture and domestic collections, transport items such as trams and ferries, religious or ceremonial objects, fossils and botanical specimens, and museum objects and collections.

Movable heritage is easily sold, relocated or thrown away during changes of ownership, fashion and use. For this reason, movable heritage is vulnerable to loss, damage, theft and dispersal, often before its heritage significance is appreciated.

The NSW Heritage Branch does not maintain a separate list of movable heritage items. Very important collections or objects can be registered as individual items on the State Heritage Register, but generally movable heritage items are protected via their inclusion within an inventory or schedule as part of the statement of significance for a place or large item. Some government agencies maintain registers of movable heritage as part of their s170 Registers.

Non-inclusion of movable heritage items as part of the significance of a place does not imply they are of no cultural significance. They may have as yet unrecognised cultural significance, or non-inclusion reflects administrative policy, inactivity or lack of resources.

Archaeological Heritage, NSW Heritage Council

Known and potential archaeological sites may be identified in local heritage studies and may be included as heritage items in LEPs.

*The University of Sydney **is not** an identified archaeological site.*

*The University of Sydney **does not** lie within a known archaeological area.*

*Because of the history of the site, the potential to discover relics during intervention at the University of Sydney **is low to moderate**.*

Non-indigenous archaeological sites and relics (historic and maritime) are protected under the *Heritage Act 1977* (as amended). The Act is administered by the NSW Heritage Council. A non-indigenous archaeological relic is defined as:

any deposit, artefact, object or material evidence that relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement; and is of State or local significance.

This means that depending on the history of a place, most occupied land could potentially contain relics.

All Aboriginal objects and places in NSW are protected under the *National Parks and Wildlife Act 1974*, administered by the NSW National Parks and Wildlife Service. The *NSW Heritage Act 1977* protects the State's natural and cultural heritage and Aboriginal places or objects that are listed on the State Heritage Register.

Development proposals that affect archaeological sites and deposits may need to include an excavation permit (Section 140 permit) from the Heritage Council of NSW to disturb or destroy any known or potential site or relic. A local council cannot grant consent to a development proposal unless it is satisfied that the likely impact upon an archaeological site has been assessed, the NSW Heritage Council has been notified and comments received (within 28 days), have been taken into consideration, and the necessary permit has been obtained. These provisions also apply to sites of potential archaeological significance not yet identified in any planning instrument but are reasonably likely to have non-Aboriginal heritage significance.

Many councils (eg City of Sydney and Parramatta) have prepared archaeological zoning plans to help assess and control development applications within known sites of significance.

Non-inclusion of a place in the SHR, a LEP or other planning instrument does not necessarily imply that the place does not contain relics of state or local significance. The place may have as yet unrecognised cultural significance, or non-inclusion may reflect administrative policy, inactivity or lack of resources.

An excavation permit issued by the Heritage Council of NSW is required if the owner knows or thinks that a relic may be disturbed as a result of excavation.

National Heritage List (NHL), Australian Heritage Council

*The University of Sydney is **not included** on the National Heritage List.*

Commonwealth Heritage List (CHL), Australian Heritage Council

*The University of Sydney is **not included** on the Commonwealth Heritage List.*

Indigenous Heritage, Officer of the Environment and Heritage Aboriginal Heritage Information Management System (AHIMS)

*Three sites located in or near the University of Sydney **are recorded** on the Office of the Environment and Heritage AHIMS.*

The Office of the Environment and Heritage (including the NSW National Parks and Wildlife Service) has the legal responsibility to protect Aboriginal heritage sites and relics under the *National Parks and Wildlife Act* (1974).

An Aboriginal site or relic is defined as:

any deposit, object or material evidence (which may consist of human remains) relating to Aboriginal habitation of an area whether before or after its occupation by persons of European extraction.

The Office of the Environment and Heritage maintains a register of identified Aboriginal sites throughout New South Wales. Development applications affecting listed Aboriginal sites require a permit from the Director-General of the Office of the Environment and Heritage to disturb or destroy any known Aboriginal site or relic. A local council cannot grant consent to a development proposal unless it is satisfied that the likely impact upon an Aboriginal site has been assessed, the Director-General of the Office of the Environment and Heritage has been notified and comments received (within 28 days), have been taken into consideration, and the necessary permit has been obtained.

Non-inclusion of a known Aboriginal site or relic does not imply the place is of no cultural significance. The place may have as yet unrecognised cultural significance, or non-inclusion may reflect administrative policy, inactivity or lack of resources.

5.7 Non-Statutory Heritage Provisions

The non-statutory heritage status of the University of Sydney and its individual components according to the following organisations is identified in Table 5.1.

State Heritage Inventory (SHI), NSW Heritage Council

*The University of Sydney and a number of the individual buildings, precincts, site features and components **are listed** on the State Heritage Inventory (see Table 5.1).*

The State Heritage Inventory is an electronic database of all heritage items listed in NSW statutory schedules and registers. The database is managed by the NSW Heritage Branch and includes heritage items listed in local council LEPs, state government agencies' Heritage and Conservation Registers, as well as places listed by the Heritage Council of NSW itself.

Places listed may be protected by the local council (see above), the Heritage Council of NSW (see below), or both.

Listing requirements for items on the State Heritage Inventory are consequently the same as for heritage items in local LEP heritage schedules, and local councils must consider heritage issues when assessing development applications to listed items.

Although every effort is made by the Heritage Branch of NSW to keep the data contained in the SHI up to date, the SHI cannot be relied upon to contain all local council or state government agency listings. These sources should be consulted directly for confirmation of the heritage listing status of an item.

Non-inclusion of a place on a local heritage schedule or within a conservation area does not imply the place is of no cultural significance. The place may have as yet unrecognised cultural significance, or non-inclusion may reflect administrative policy, inactivity or lack of resources.

Register of the National Estate (RNE), Australian Heritage Council

*A number of the individual buildings and site features of the University of Sydney **are included** on the Register of the National Estate (see Table 5.1).*

The Register of the National Estate is an Australia-wide reference database that operated from 1976 to 2007. A place is included in the Register of the National Estate where it has been assessed to have natural, cultural or indigenous value at a local, state, national, or international level and this significance is considered to have value for future generations.

On 19 February 2012 statutory references to the RNE in the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the *Australian Heritage Council Act 2003* were repealed. This means the register ceased to be a statutory heritage list, although it continues to exist as a (closed) inventory of Australian heritage places that were registered between 1976 and 2007.

The *EPBC Act 1999* now provides protection of heritage on Commonwealth land and from Commonwealth actions on other places, as well as targeted protection for nationally significant places found on Australia's National and Commonwealth Heritage Lists (refer to above).

The Register remains publicly available as an information and educational resource only on the Commonwealth web site.

National Trust of Australia (New South Wales)

*A number of individual buildings, site features and precincts located at the University of Sydney **are included** on the Register of the National Trust of Australia (NSW) (see Table 5.1).*

The register lists those buildings, sites, items, and areas which, in the Trust's opinion, fall within the following definition:

components of the natural or the cultural environment of Australia, that have aesthetic, historical, architectural, archaeological, scientific, or social significance, or other special value for future generations, as well as for the present community

The purpose of the register is to alert responsible authorities, property owners and the public so that those concerned may adopt measures to preserve the special qualities which prompted the listing.

When the significance of a place is under threat, the National Trust will take whatever action is deemed appropriate to ensure its protection, including giving advice to the property owner and seeking the use of the NSW *Heritage Act* or local government planning powers. For the purposes of such action, the National Trust makes no differentiation between classified and recorded listings in its register.

Inclusion does not have any legal effect, but the register is widely recognised as an authoritative statement on the significance of a place.

Non-inclusion of a place does not imply the place is of no cultural significance. The place may have as yet unrecognised cultural significance, or non-inclusion may reflect administrative policy, inactivity or lack of resources.

Australian Heritage Places Inventory (AHPI)

*A number of individual buildings, site features and precincts located at the University of Sydney **are included** on the Australian Heritage Places Inventory (see Table 5.1).*

The Australian Heritage Places Inventory is managed by the Australian Heritage Council within the Department of Sustainability, Environment, Water, Population and Communities and is a cooperative project between Commonwealth, State and Territory Governments.

The Inventory contains summary information about places listed in State, Territory and Commonwealth Heritage Registers and Lists and information from these sources is used to maintain the Australian Heritage Inventory. These sources should be consulted directly for confirmation of the heritage listing status of an item.

Australian Heritage Database (AHD)

*A number of individual buildings, site features and precincts **are included** on the Australian Heritage Database (see Table 5.1).*

The Australian Heritage Database is managed by the Australian Heritage Council within the Department of Sustainability, Environment, Water, Population and Communities and contains information about more than 20,000 natural, historic and Indigenous places. The database includes:

- places in the World Heritage List
- places in the National Heritage List
- places in the Commonwealth Heritage list
- places in the Register of the National Estate
- places in the List of Overseas Places of Historic Significance to Australia
- places under consideration, or that may have been considered for, any one of these lists.

The legal status of a heritage place describes its position in the heritage listing assessment process. Examples of types of legal status include nominated, rejected, and listed. Each list has its own types of legal status. Places with a legal status of 'Indicative' or 'Nominated' have not been assessed and the data in reports relating to these places will reflect the views of the nominator, not necessarily the view of the Council or the Minister. The original sources should be consulted directly for confirmation of the heritage listing status of an item.

Register of Twentieth Century Buildings of Significance, Australian Institute of Architects

*A number of buildings located at the University of Sydney **are included** on the AIA Register of Twentieth Century Buildings of Significance (see Table 5.1).*

The Register of Twentieth Century Buildings of Significance is maintained by the Architectural Conservation Committee of the Australian Institute of Architects (NSW Chapter).

A place or item is included on the register if it is judged to be representative of architectural excellence between 1890–1950 and may include:

- the most significant examples of the work of leading architects
- those buildings that are recognised as important landmarks in the development of architecture, and
- those buildings which, because of their quality and siting, make a contribution to the environment.

Inclusion does not have any legal effect, but the register is widely recognised as an authoritative statement on the significance of a place.

Non-inclusion of a place does not imply the place is of no cultural significance. The place may have as yet unrecognised cultural significance, or non-inclusion may reflect administrative policy, inactivity or lack of resources.

5.8 Interpretation

Because of its significance and the amount of documentary information available about the place held by the University of Sydney Archives as well as the individual faculties, the place has considerable potential to be explained to visitors by appropriate interpretation. This is already being done in a number of ways including the publishing of books, historic information being made available on the University's website, various interpretation signs located throughout the place, as well as some of the contents of the University's archive collection being available electronically.

5.9 Owner's Requirements

The University of Sydney has provided the following information in relation to their current requirements for the University of Sydney grounds:

The University of Sydney's Campus Improvement Program (CIP) sets out a seven year (2014-2020) program for the delivery of new development, access, public domain and infrastructure works to accommodate the strategic direction and delivery of the University and its programs. The CIP has been informed by a number of University strategies that aim to position the University as the leading teaching, learning and research institution in Australia.

The CIP is driven by the University's identified needs to:

- Provide state of the art teaching and learning facilities;
- Enable cutting edge research;
- Promote collaboration between faculties and achieve greater efficiencies of use across the Camperdown /Darlington campus;
- Provide increased and affordable student accommodation on campus;
- Conserve indigenous and non-indigenous heritage on the campus; and
- Provide a campus that is accessed by both the University community and wider resident community for the mutual benefit of both: (Cadigal Green, Noel Martin Centre, Womens Gymnasium, Hockey Ground, Tennis Courts, Ovals 1 and 2.)

The CIP applies to the University's Camperdown and Darlington Campuses within the City of Sydney Local Government Area. Pending Senate endorsement of the CIP, the University will continue this program of strategic review with similar campus improvement programs for the University's regional campuses during 2014.

The CIP projects this review of strategic opportunities commencing with the three transformational projects currently being undertaken on the Campus, including the Charles Perkins Centre, Abercrombie Business School, and Australian Institute of Nanoscience. The completion of these projects will facilitate the decanting of existing buildings on the campus, allowing for the staged roll out of new teaching research and student accommodation facilities.

The CIP delivers on the University's adopted strategies and findings of *The University of Sydney White Paper*, *Health and Medical Research Strategic Review* ('The Wills Review'), *Student Accommodation Review*, and *The University of Sydney Disability Action Plan 2013*. It also reflects and coordinates the delivery of a number of strategy overlays to improve overall campus functioning and give strategic direction to University land uses (including integrated learning and research facilities, student accommodation, sport and recreation, museum, exhibition and event space, waste management

and service distribution centres), security, transport and accessibility, Aboriginal and non-Aboriginal heritage significance, use of open space, sustainability, infrastructure, and information & communications technology.

The CIP proposes specific development precincts for the location of new buildings and facilities. These precincts include:

Precinct A – City Road West, Darlington campus (Regiment to Maze Crescent car park): A mixed use precinct which will incorporate, but not be limited to, the Faculty of Arts and Social Sciences, Sydney College of the Arts, shared teaching and learning spaces, student accommodation, retail, conference, and parking facilities.

Precinct B – City Road East, Darlington campus (Wentworth Building to International House): This precinct currently accommodates existing Faculty of Architecture Design and Planning (Wilkinson), student accommodation (International House) and administrative functions and libraries in the Jane Foss Russell and Wentworth buildings. This future of this precinct will define building envelopes addressing the campus length of City Road and Victoria Park to the north, Cadigal Green to the south, and the inter-relationship and connection between future site developments. The building envelopes are designed to accommodate a variety of future uses incorporating faculty, student accommodation, professional service units, retail and amenities.

Precinct C – Engineering, Darlington campus: The precinct is bounded by Shepherd Street, Cleveland Street (Shepherd Street car park), and the eastern edge of the campus' Cadigal Green. The systematic refurbishment and redevelopment of the existing Engineering precinct is proposed to deliver world class teaching learning and research facilities over time.

Precinct D – Health, Camperdown campus: The new Health precinct incorporates redevelopment of the Blackburn-Bosch group of buildings for the proposed co-location of the Sydney Nursing School and Faculties of Health Sciences, Medicine, Pharmacy, and Dentistry. The precinct will accommodate a mixed use development containing health clinics, shared teaching and learning spaces, library facilities, some residential accommodation, and basement parking. The precinct will also address future connections to the adjoining Royal Prince Alfred Hospital west of the precinct, and the Charles Perkins Centre north of the precinct.

Precinct E – Life Sciences, Camperdown campus: The new 'Life Sciences' precinct is bounded by the current Veterinary Science precinct including the area between McMaster Building to RMC Gunn Building and the Ross Street entry area (temporarily occupied by demountable buildings), and the rear of the RD Watt building. This new precinct will accommodate the co-location of a number of faculties and schools including but not limited to, Faculty of Veterinary Science, Faculty of Agriculture and Environment and the School of Biological Sciences. Basement parking will be provided for in this precinct.

Precinct F – Cultural Precinct, Camperdown campus: The cultural precinct seeks to convert the heritage significant Science Road area into a principal visitor destination precinct accommodating cultural, museum and heritage components. The precinct will be reinforced by the internal refurbishment of the Macleay and Edgeworth-David buildings in developing a museum and cultural exhibition centre, and incorporating minor building additions.

Precinct G – Sports Grandstand, Camperdown campus: The University's sports facilities will be further enhanced by the construction of a Grandstand to Oval No.2 incorporating indoor sports and ancillary facilities and a raked outdoor seating facility.

The CIP envisages the relocation of three satellite campuses into the Camperdown-Darlington campus including the Sydney Nursing School from Mallet Street Camperdown, the Sydney College of the Arts from Callan Park, Rozelle, and Faculty of Health Sciences from Cumberland campus. The relocation of these faculties will drive the next generation of collaborative precincts at the Camperdown-Darlington campus.

University Policies

The University of Sydney has a number of policies guiding the management of the place, including some that impact on the culturally significant components of the place. These include:

Infrastructure Policies

- Traffic and Parking Policy 2012
- Traffic and Parking Procedures 2013
- University of Sydney (Campus Access) Rule 2009

Environmental Policies

- Bird Control with University Grounds Policy
- Environmental Policy
- Tree Management Policy

Land and Buildings Policies

- Advertising on Campus Policy
- Air Conditioning Policy
- Approval and Management of Building Works Policy
- Campus Names Policy
- Heritage Management Policy
- Naming of Buildings and Other Significant Physical Assets Policy
- Space Management Policy 2012
- Tree Management Procedure

5.10 Other Interested Individuals and Groups

As a functioning tertiary education institution, the University of Sydney has academic and professional links with a range of other institutions and organisations throughout the world. In addition there would be a range of other interested individuals and groups with links to the University, including current and former students, staff and academics, visitors and members of clubs, associations and societies affiliated with the University both past and present.

While this plan does not directly affect planning within the adjoining college lands it does make assessments that link the heritage significance of the colleges with that of the University grounds. There may be an opportunity to develop a better dialogue between the colleges and the University about heritage planning issues.

5.11 Other

Planning Controls

The place is located within City of Sydney Council area (the local government area) and is subject to local and state planning controls applicable to this locality.

The City of Sydney LEP 2012 contains an incentive provision relating to heritage items which permits non-complying uses at the discretion of the council.

Building Controls

The place is subject to the provisions of the National Construction Code (NCC), including the *Building Code of Australia* (BCA). The BCA contains 'engineered solutions' provisions which may allow some non-compliance, provided the place can be shown to meet the objectives of the BCA.

Disability Discrimination Act

The Commonwealth *Disability Discrimination Act* 1992 (DDA), as amended 2013, contains equitable access requirements for persons with a disability which applies to all buildings, new and existing, except where unjustifiable hardship in providing access can be demonstrated. In a legal sense, the DDA will normally override other Commonwealth and state heritage legislation, and solutions must therefore be found to provide dignified access to heritage buildings whilst minimising impacts on heritage values.

The University of Sydney operates under its own *Disability Action Plan (2013-18)* that sets out the University's strategy for providing a learning and working environment that is inclusive and accessible for all students, staff and visitors.

Current Uses

Apart from the use of the place as a tertiary education institution catering for a range of academic disciplines, the place is also used for a range of sporting and cultural events and as a venue for functions such as weddings, conferences and corporate events.

Current Leases

The Camperdown Campus is NSW Crown Land, administered via the *University Act 1900* and governed by the University of Sydney Senate, the Chancellor, Vice-Chancellor and Principal. The Darlington campus is owned by the University of Sydney.

Excluded from these lands are the public roads defining the boundaries of the place including Parramatta Road, City Road, Darlington Road, Codrington Street, Raglan Street, Lander Street and Cleveland Street as well as Boundary Lane and Darlington Lane.

We are advised that no current leases affect the control of the lands of the Campuses as a whole.

Parking

Areas of the Camperdown and Darlington Campuses are designated ticketed parking areas for use by staff, students and visitors. The demand for parking within the boundaries of the place is increasing.

Public Access

Public access is available to the University of Sydney grounds and buildings. The University provides a range of services particularly for the public (i.e. other than services for students and staff) that include public lecture series, tours, access to the museums and art galleries, concerts and performances as well as the use of the various sporting facilities.

Legal Constraints

Apart from the general laws of the land and planning controls no particular legal constraints on the use of the land have been identified.

Traffic

Bounded by two main arterial roads, Parramatta Road and City Road, the University of Sydney is somewhat constrained by these busy roadways and in response have constructed pedestrian bridges over each to provide access from the Camperdown Campus to the Darlington Campus and to the neighbouring suburb of Forest Lodge.

Other roads, including Carillon Avenue, Butler Avenue and the suburban roads of Darlington and Chippendale experience less traffic. These secondary roads tend to service traffic accessing the University, surrounding colleges, the RPA Hospital, as well as the residences and businesses in the immediate locality.

Public Perceptions

Because of its status as Australia's first university and, for a long time, the only university in Sydney, the quality of the architecture, the high calibre of many of its alumni and teaching staff (past and present) and its long history as a tertiary institution, the University of Sydney is likely to be held in high regard by the broader community of NSW and Australia.

Security

The security of students, staff and visitors to the University is an important consideration in the daily activities of the place, for the use of the existing buildings and grounds, and for the planning of new buildings. The University provides services to support safety on the Camperdown and Darlington campuses including a security service patrolling the grounds and a free shuttle bus service between the University and Redfern Railway Station during semester times.

6 Development of Conservation Policies

This section outlines the conservation policies to conserve and protect the heritage values of the University of Sydney Camperdown and Darlington. These policies address the use, conservation of the fabric, curtilage, setting, vistas, management, ownership, heritage interpretation and future uses. This section also identifies further research and a timetable to implement and review the policies.

6.1 Definition of Terms

Many of the words used below have special meanings defined by the Australia ICOMOS *Burra Charter* (see Appendices).

6.2 Preamble

A conservation management plan should provide a clear set of policies derived from an understanding of the place in order to guide the future care of the place.

Conservation policies for the place can be developed in regards to :

- treatment of the fabric
- interpretation of the place
- use of the place
- intervention in the fabric identified to be conserved
- adaptation of the fabric identified to be conserved
- new landscape elements
- conservation procedures and practice
- adoption and review of the proposed conservation policies

Such policies can operate at the level of the landscape of the whole of the place, at the level of precincts or areas within the place and at the level of the components of the place, such as individual buildings and structures, contents, vegetation and other site features.

Not all these policies will necessarily be achievable in a management plan for the place when other external matters, including the owner's finances, are taken into account.

The following section describes the main concepts involved in the development of appropriate conservation policies for both the whole place and components of the place.

6.3 Defining the Place

Extent of the Place

For clarity and planning purposes the extent of the place should be clearly defined. Ideally the place should include all of the University's Sydney campuses. However in this case, for practical reasons the study area for this report is taken as the Place; that is the Camperdown Campus and the Darlington Campus. This has some justification as these campuses can be seen as the core campuses of the University.

Policy 1: The extent of the Place, that is the University owned land across the Camperdown - Darlington Campus, is defined by the red line as shown in Figure 1.3. on page 5

Definition of the Expanded Curtilage and Visual Setting

From a visual and historical perspective the curtilage of University of Sydney is perceived by the community to encompass an area far greater than the boundaries of its titled land. The expanded curtilage includes the University lands, the University Colleges, Royal Prince Alfred Hospital and Victoria Park. (see Section 1.7)

For clarity and planning purposes the extent of the visual setting of the place should be clearly defined. Given the level of significance of the University, the setting should be considered the area in which development may have an adverse impact on the place.

- To the east views of the University are available throughout the suburbs of Darlington and Chippendale and down Broadway from the city of Sydney.
- To the west views of the University are available from along the length of Missenden Road in the suburb of Camperdown.
- Missenden Road is an historic road and defines the broader site boundary of the University encompassing the Royal Prince Alfred Hospital and a number of residential colleges.
- To the north views are available from a substantial distance given the placement of the Main Quadrangle Building and Eastern Avenue buildings on the top of a ridge. In addition, Parramatta Road forms part of the historic boundaries of the place with areas of development and expansion historically associated to the University.
- To the south, the setting of the place encompasses the suburb of Darlington including Darlington Campus and extends further south to include areas of development to the north historically associated with the University.

As the identified setting of the place is a large area, encompassing residential and commercial areas throughout a number of suburbs in the district, it is known to contain a range of other heritage items (of local and state significance). Although not necessarily related to the University of Sydney, these other items of cultural significance should be recognised by the University in any future planning for the place.

Policy 2: The expanded curtilage of the Place is defined by the blue line as shown in Figure 6.1, whereas the visual setting of the place is defined by the purple line.

Policy 3: The managers of the place should attempt to recognise and respect any culturally significant attributes that the Expanded Curtilage and the Visual Setting contain.

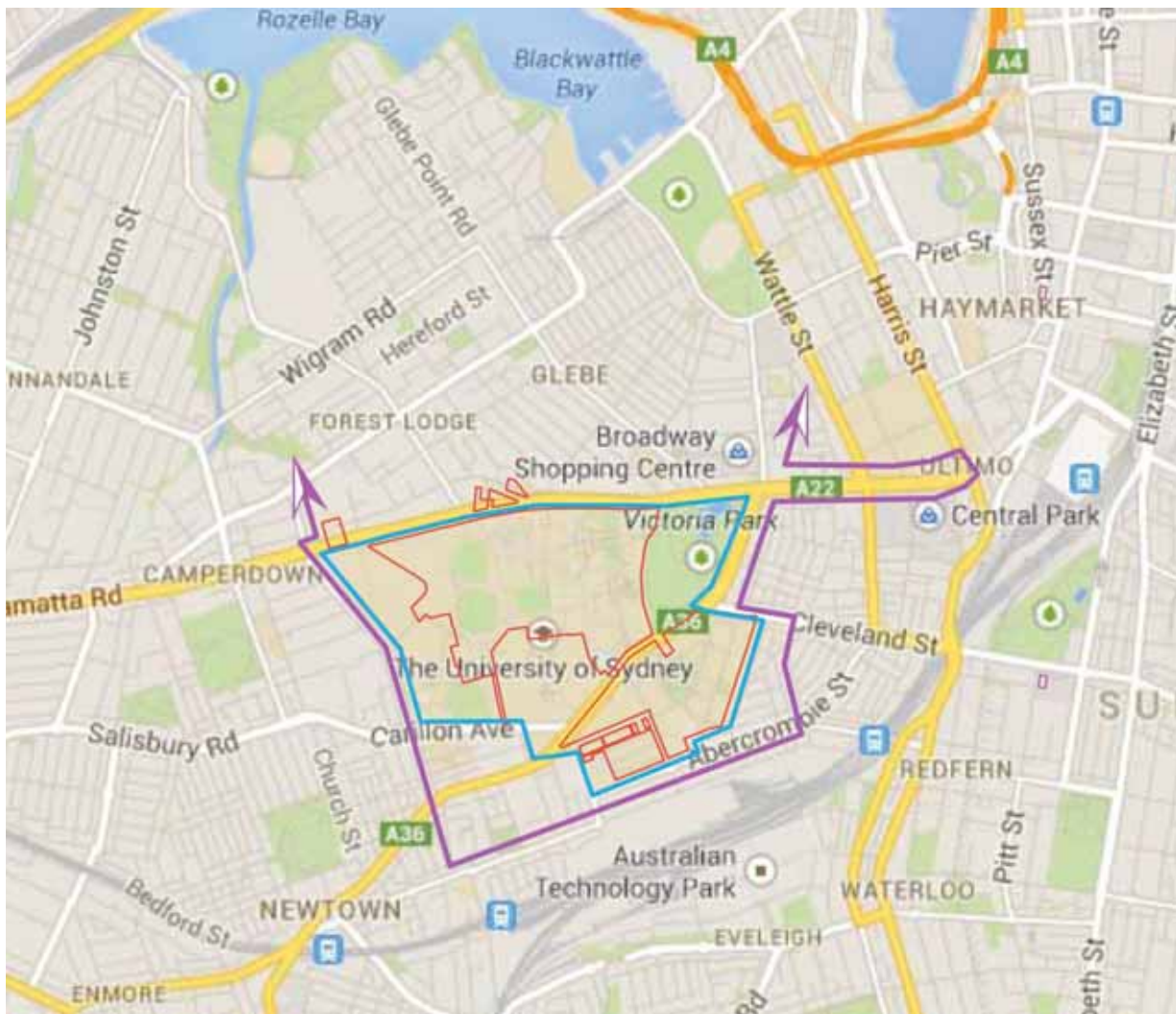


Figure 6.1: Definition of the University, the Expanded Curtilage and its Visual Setting and relevant considerations (the location of each campus is outlined in red).

Identification of Associated Places

For clarity and planning purposes places associated with the place, historically, or for other reasons, should be identified.

In this case the whole of the University of Sydney is formed by a group of places, including other campuses, student housing, teaching establishments, teaching hospitals, research stations as well as properties not necessarily used for educational purposes.

For the purposes of this report, associated places of relevance are those that have historic associations (pre-1975) with the University, and used for educational purposes, or were part of the early development of the place.

Policy 4: Places associated with, but not part of the place, include:

- Sydney Grammar School, College Street, Sydney (original teaching location)
- St James Campus (Sydney Law School), Sydney

- Sydney Dental Hospital, Chalmers Street, Surry Hills
- Mallet Street Campus, Camperdown
- Royal Prince Alfred Hospital, Camperdown
- Royal North Shore Hospital, North Sydney
- Crommelin Field Station, Woy Woy, NSW
- St Paul's College, St John's College, Wesley College, Women's College, St Andrew's College, Sancta Sophia College, Moore Theological College and St Michael's College

Identification of Associated Objects

The range of significant objects and collections associated with the University of Sydney is extensive and includes items of outstanding cultural significance. However, for the purposes of this report, individual components, movable fabric and contents are not addressed, as they are (or should be) included within the conservation management plans for the individual components of the place (refer to Appendix 3).

Regardless, there are a number of objects that are associated with the initial incorporation and establishment of the University which are of exceptional historic significance and should be conserved and continue to be held at the University of Sydney.

Policy 5: Objects associated with the incorporation and establishment of the place that should continue to be held by the University and conserved include:

- Government Gazette supplement dated 24th December 1850 appointing the original Senate (held by the University archives)
- The University of Sydney Senate mace.

6.4 Hierarchy of Conservation Planning Documents & Further Research

This CMP is for the place as a whole. It contains policies for the care of the whole place and attributes that extend beyond individual buildings. It covers building groups, character areas, significant landscapes, visual and planning axes, use precincts and roads. It also covers smaller components, called site features, not generally included in assessments of individual buildings and general views to and within the place.

A number of the individual components of the place (including buildings, precincts and site features) have had conservation management plans prepared and in these instances, decisions regarding the care of an individual component should also consider the conservation policies contained within these individual reports (refer to Appendix 3).

Regardless, there are a number of components (including buildings, precincts and site features) where conservation management plans have not to date been prepared. Many of these individual components could be considered to be of moderate or higher significance and as such, conservation management plans should be prepared for those components that currently do not have conservation management plans. In particular, further research and a detailed analysis should be undertaken of the following precincts: the Eastern Avenue precinct (University Place, Quadrangle and Vice Chancellor's Courtyard); sports ground precinct (Ovals 1 & 2, Western Avenue, Hockey Ground and Tennis Courts); and the Engineering precinct.

- Policy 6:** These conservation policies should be considered applicable to the place as a whole and to building groups, character areas, significant landscapes, visual and planning axes, use precincts, roads, site features and general views to and within the place.
- Policy 7:** The relative significance of components included herein should be taken into account when making decisions about the place involving more than one component.
- Policy 8:** Conservation Management Plans (including a Fabric Survey) should be prepared for the individual components (both built items and landscape precincts) of the place ranked in this report as being of Moderate significance or higher in order to establish detailed policies for the care of these components.
- Policy 9:** Further research should be undertaken into character areas, significant landscapes and site features, such as the Engineering Precinct, prior to works being undertaken.

6.5 Treatment of the Fabric

Significant Fabric

Much of the significance of the place is embodied in its fabric. The fabric includes the landform, landscape (including gardens), vegetation, building(s), building elements (components), building contents, site features (including road and fence alignments), subsurface remains of buildings and occupational deposits (archaeology). It also includes significant landscapes, character areas and the physical manifestation of visual and planning axes which are defined by fabric. For clarity and planning purposes the significant fabric should be clearly identified.

In this case, as the place continues in its historic use, the whole of the fabric can be said to reflect aspects of its history and is to some extent culturally significant.

For the purposes of this report a nominal ‘cut-off’ date of 1975 has been selected as buildings and site features constructed or introduced after this date are too recent to be considered “heritage”, although they may have social and/or aesthetic interest and may, in time, be judged to have heritage values.

Likewise, in terms of archaeological remains, although part of the historical use of the place, subsurface remains and occupational deposits introduced since 1950 are often common place and are therefore not considered significant.

- Policy 10:** The extent of the significant fabric should be identified as:
- The landform of the place.
 - All of the landscape (including gardens), vegetation, buildings, contents and site features (including road and fence alignments) introduced to the place prior to 1975, including significant landscapes, character areas and the physical manifestation of visual and planning axes.
 - The subsurface remains (archaeology) of former landscape, vegetation, buildings, contents and site features introduced prior to 1950.
 - The occupational deposits (archaeology) beneath and around the above introduced to the place prior to 1950.

Nature of Fabric

In the physical survey for this report it has not always been possible to determine the age and history of some components and care should be taken that these items are not inadvertently damaged or removed if they are significant.

In the first instance, existing conservation management plan documents for individual components should be consulted (refer to Appendix 3).

Policy 11: Where the nature of a component of the place is uncertain, it should be further investigated by documentary and physical research, prior to carrying out work or removal.

Fabric to be Conserved

Conservation policies for the place should recommend the extent of retention and conservation of the significant fabric.

The most significant fabric should be retained and conserved in accordance with recognised conservation principles and procedures such as that included in the Australia ICOMOS *Burra Charter*. Such conservation includes maintenance, preservation and interpretation including restoration and reconstruction. It also includes adaptation which means modifying a place to suit proposed compatible uses.

In this case, as discussed above, fabric introduced since 1975, although significant as part of the history of the place, is historically commonplace and need not be conserved as culturally significant.

Policy 12: The following fabric should be retained and conserved:

- All fabric identified as being of exceptional, high and moderate significance introduced prior to 1975 (including fabric denoted EN, MN, LN, ET, MT in surveys in this report)
- All fabric recorded in this report as previous reconstructions unless replaced by a better reconstruction
- All fabric reconstructed (in the future) in accordance with these policies.

Changes to Fabric

There are sometimes cases where fabric that otherwise should be retained and conserved needs to be altered or removed for good reasons. In this (and most) cases some parts of external fabric and vegetation will eventually need to be replaced for maintenance reasons.

As the University of Sydney is of outstanding significance, some fabric is so significant that it should be changed only in extraordinary circumstances or as a result of a major 'historic' event such as war or the result of climate change.

As the University continues to function in its original use as a tertiary institution, the continuation of this historic use of the place is also of high significance. As such, there may be circumstances where the removal or alteration of some fabric could be justified in order to maintain the continuing historical use of the place as a whole.

Considering the relative significance of components listed in Section 4, the following policies are considered appropriate:

Policy 13: The following fabric should be retained and conserved with the qualification indicated:

Fabric	Qualification
All fabric identified to be conserved graded 'Exceptional' (see Section 4.0)	Except where alteration or removal is brought about by <u>extraordinary or major 'historic' events</u> , or <u>essential</u> for the maintenance of the place, or to make a better reconstruction of a component previously reconstructed.
All fabric identified to be conserved graded 'High' (see Section 4.0)	Except where alteration or removal is <u>essential</u> for continuing historical use as a University, <u>essential</u> for the maintenance of the place, or to make a better reconstruction of a component previously reconstructed.
All fabric identified to be conserved graded 'Moderate' (see Section 4.0)	Except where alteration or removal is <u>important</u> for continuing historical use as a University, <u>important</u> for the maintenance of the place, or to make a better reconstruction of a component previously reconstructed.
All fabric identified to be conserved graded 'Little' (see Section 4.0)	Except where alteration or removal is <u>necessary</u> for continuing history use as a University, <u>necessary</u> for the maintenance of the place, or to make a better reconstruction of a component previously reconstructed.
All fabric graded 'Intrusive' (see Section 4.0)	Alteration or removal is acceptable where it is <u>wanted</u> for the viable use of the place as a University, <u>wanted</u> for the maintenance of the place, or to make a better reconstruction of a component previously reconstructed.

Removal of Fabric

Fabric not identified above to be retained and conserved, could be removed.

Policy 14: Any fabric other than that listed in Policy 12 and 13 could be removed without reducing the cultural significance of the place.

Fabric that Should be Removed

At some places of significance recent developments have introduced fabric that detracts from the significance of the place.

In this case several items have been identified as detracting from the grounds of University and should be removed or made sympathetic when circumstances permit. In particular, intrusive elements have been identified that have a negative impact on historic precincts/landscapes within the grounds, on important vistas, or that do not relate to the history or development pattern of the University as a whole.

Intrusive elements to individual buildings or precincts are also addressed in the conservation management plans for the individual components of the place (see Appendix 3).

Policy 15: Items identified in the GCMP as being Intrusive should, when the circumstances permit, be removed or made sympathetic.

Maintenance – Building Fabric

Generally, while any significant fabric is in existence it should be maintained, which means continuous protective care. Reconstructed fabric is of interpretive value (see Policy 12) and also should be maintained. However, specific reference should be made to the Conservation Management Plan for each individual heritage building for detailed policies regarding the maintenance of that building.

Policy 16: The following fabric should be maintained (have continuous protective care):

- all significant fabric (see above identification) except that listed in Policy 15.
- all fabric recorded in this report as a previous reconstruction.
- all fabric reconstructed (in the future) in accordance with these policies.

Maintenance – Landscapes and Open Spaces

In the case of landscape and garden fabric this includes vegetation, the layout of components including clearings in vegetation and the modified landform. Maintenance of landscape elements and vegetation should address the following:

- regular maintenance of tree canopies and shrubs to maintain and protect the significant lines of vistas and views as identified;
- thinning of tree canopies and shrubs that screen or mask significant architectural features, as identified in the CMPS of built items identified; and
- gradual removal of weed tree species and replacement with suitable species as identified in the Concept Landscape Plan (2014)

Policy 17: Where trees (with the exception of weed tree species, see above) or other plants die of disease or old age or become senescent, they should be replaced with matching species in the same location in accordance with this CMP, precinct CMP and landscape masterplan. A replacement strategy for mature and significant trees that have reached the end of their life or have become senescent should be developed as a part of the overall maintenance strategy for the place.

The removal of any significant tree or vegetation, as identified in the *Cultural soft landscape: significant trees and types of open spaces and landscapes* (Fig 4.3), should be in accordance with the University's Annual Tree Pruning and Removal Permit, as issued by the City of Sydney.

Views

Although not strictly fabric, the views to the place and views within the place that are defined by fabric can be identified as contributing to the significance of the place and either protected from change or re-established.

As the place is a landmark, identified views to the place should be preserved.

In addition, as the University grounds now consists of a number of notable buildings and historic streets/roads, character areas, landscaping and site features, the place as a whole has developed its own particular urban landscape character and vistas throughout the grounds allow for clear understanding of the history and architectural significance of the place as whole.

The continuing historic use of the place has also relied on visual connections between different buildings at the place and these include both internal views between faculty buildings (within the University grounds), as well as external views to and from the surrounding residential colleges and grounds (the expanded curtilage) to the Main Quadrangle Building (A14).

Other views of significance include those that were formed as a result of the historic master planning of the place, in particular the work implemented as a result of the Griffin master plan and the Wilkinson master plan.

As for fabric, the blocking or alteration of a view may be justifiable if it is to continue the historical use of the place as a whole, although there are some views that are so significant that they should only be disrupted in extraordinary circumstances or as a result of a major 'historic' event.

Policy 18: Significant views to and from the expanded curtilage and internal views within the University grounds (as shown in Figures 6.1) should be retained and if possible enhanced.

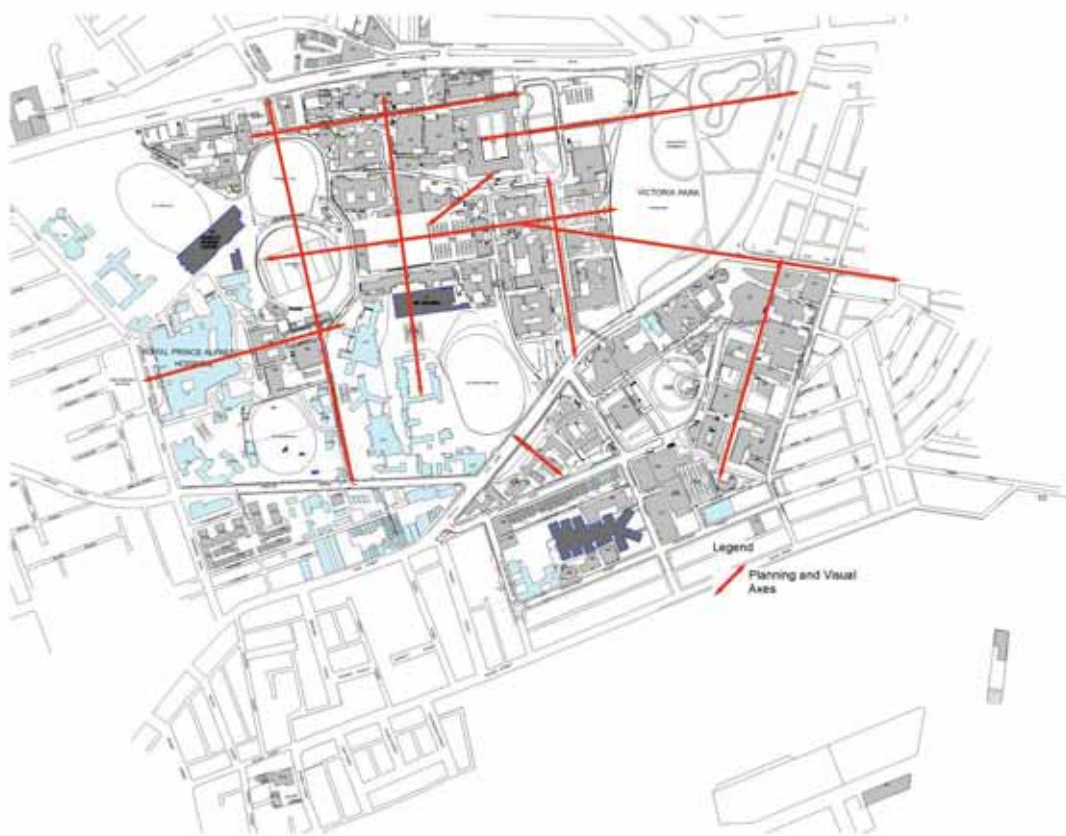


Figure 6.1 Planning and Visual Axes

6.6 Interpretation of the Place

Generally

As the place is of outstanding significance there are many opportunities to interpret the place and its history to visitors.

The University of Sydney already has in place many interpretative strategies and devices including the museums, naming protocol for buildings, streets and gardens, the publication of books, the inclusion of histories on the University website, on-line exhibitions, special events, visitors tours, interpretive signage at the place and electronic access to the University archives. The continuation of all of these strategies should be encouraged.

Nevertheless, as the place has evocative character, care should be taken not to detract from the character of the place or the high quality of the architecture by the introduction of detracting interpretive devices.

Policy 19: An Interpretation Strategy should be prepared for the Place. The Interpretation Strategy should include all of the aspects of the place included in the Statement of Significance, as well as the indigenous and non-indigenous heritage significance of the various Landscapes and Open Spaces outlined in Fig. 4.2 and 4.3 on page 87 and 88.

Restoration/Reconstruction Works

Another way to interpret the place is to carry out selected restoration and reconstruction works. These terms are defined in the *Burra Charter*. Restoration and reconstruction cannot in themselves increase the cultural significance of a place, but can promote understanding of the former arrangement of components of the place.

The architecture and planning of the place as a whole has been very well considered and generally well maintained. However, opportunities do exist to restore or reconstruct internal views to significant buildings in order to benefit their interpretation. There are also opportunities to restore/reconstruct visual axes and historic roadways in order to better explain the earlier, historically significant phases of development.

A list of the appropriate opportunities is provided in the policy below.

Policy 20: As opportunities arise selected components of the place could be restored/reconstructed to the date/configuration indicated subject to the qualifications indicated:

Element	Date	Qualification
Science Road, Western Avenue, Fisher Road and Manning Road	N/A	Adjust landscape to show significant buildings to their best advantage and to enhance internal view lines.

Element	Date	Qualification
Visual Axes (A5)	Pre-1958	Reinstate view north down Western Avenue across Oval No.1 and 2 to Ross Street entry gates.
Vet Science Courtyard (P8)	Pre-1959	Remove southwest addition to the J.D Stewart building (B01)

Note that the restoration and reconstruction works to the buildings and precincts are (or should be) addressed within the conservation management plans for the individual components of the place. See Appendix 3.

Essential Restoration/Reconstruction Works

In some cases restoration/reconstruction work is essential to any proper understanding of the place. In this instance, no essential work has been identified, apart from the removal of detracting elements described in Policy 15.

Provision for Future Restoration/Reconstruction

It is desirable that present or short-term activities do not prejudice future opportunities for interpretation by restoration/reconstruction, ie. the works should be *reversible* in accordance with the Burra Charter guidelines.

Policy 21: Where components of the place are not selected for restoration /reconstruction, the place should, if possible, be managed in a way that will not preclude restoration/reconstruction of the component at a future date.

Identification of Adaptations

In accordance with proper practice and to avoid misinterpretation, restoration/reconstruction works at the place should be identifiable as such at close inspection and adaptation works should be clearly identifiable as new work.

Policy 22: All works, be they restoration/reconstruction or adaptation, introduced pursuant to these guidelines should be identifiable on close inspection, by method and/or style of construction, as being introduced.

6.7 Use of the Place

Historical Uses and Land Use that should be Continued

The University continues to undergo much change, and continues to be under pressure to accommodate increased student numbers, changing approaches to tertiary education and the need to house new technologies for research and teaching purposes.

In order to accommodate the changing needs of the various faculties and to support the ongoing use of the place as a tertiary institution, the University currently has a policy to share the use of buildings between faculties as much as possible. Regardless, consideration should be given to the continuation or reinstatement of the historic use of significant buildings and precincts. Where feasible, shared use of the individual component is acceptable, as long as the original use and/or faculty continues to be associated with the building/s, at least in part.

Policy 23: When planning new buildings in an established precinct of historic continuing use the traditional use of the precinct should be taken into account.

Organisation of the Uses and Activities at the Place and Setting

The circulation pattern and uses of parts of the place and within its setting should be arranged so as to involve the least intervention in the fabric identified to be conserved.

Policy 24: The use of the place and activities at the place and if possible within its setting should be organised in a way that allows the conservation of the fabric in accordance with the Policy for the Treatment of the Fabric including considering:

- the effect of traffic control and car parking
- the effect of intensification of use on landscape elements and building fabric
- the effect of providing safety and security
- the effect of statutory requirements
- the effect of service installations
- the effect of structural loadings
- the effect of providing access for people with disabilities

Inappropriate Uses and Activities within the Place and its Setting

When organising or allowing activities within the place, components of the place and its setting, care needs to be taken not to obscure or confuse its significance. This includes the practice of re-naming the principal significant buildings and other components in line with a new use or amalgamating names of buildings.

Policy 25: Uses, activities and naming of things within the place, components of the place and within its setting, which lessen, obscure or confuse its historical associations and meanings, should be discouraged.

Uses and Interpretation

Choice of uses can help promote the interpretation of the place and its components and conservation guidelines should address this.

Policy 26: Uses of the place related to the cultural significance of the place and the specific location within the place related to that significance should be encouraged. Conversely, uses of the place that do not take advantage of the interpretation potential of the place and the specific location within the place related to that significance should be discouraged.

6.8 Intervention in the Fabric Identified to be Conserved

Appropriate Intervention

At places of cultural significance, there was always pressure to make changes (interventions) for many practical reasons. These include maintenance, access and improvement of services. At important sites, there is often also a need to intervene for research purposes. A conservation policy should identify what types and degrees of intervention are appropriate.

Policy 27: Work to significant fabric identified to be conserved should be limited to:

- stabilisation and maintenance.
- restoration and /or reconstruction in accordance with the Policy for Interpretation.
- adaptation in accordance with the Policy for Adaptation of the Fabric (see below).
- introduction of interpretative devices in accordance with the Policy for Interpretation
- other reasons only as listed below.

Areas of Historical Archaeological Importance

Conservation guidelines should identify areas of archaeological potential and indicate the degree of professional involvement appropriate to any disturbance.

Based on previous reports, and given the amount of development that has occurred at the place, the potential for archaeology, either Aboriginal or European is considered to be low and over the majority of the Camperdown and Darlington campuses, ground disturbance could proceed without any archaeological supervision. However, a small number of places have been identified as having low to moderate archaeological potential. These are:

- St John's College Sports Ground and western section of the Veterinary Science Precinct
- Old Darlington School Building and Gadigal Green
- Darlington Road terraces
- Veterinary Science Precinct
- City Road Entry to Victoria Park (although no longer within the University Grounds)
- Cleveland Street
- Wentworth and Jane Foss Russell Buildings
- Codrington Street

Policy 28: The historical archaeological (including Aboriginal or European) potential of parts of the place should be managed and conserved in accordance with the archaeological provisions of the NSW Heritage Act 1977

Further Research and to Guide Conservation

Investigation to increase knowledge of Australian history and/or to aid conservation work at the place should also be addressed. Investigation includes documentary and archival research as well as physical and potentially invasive research.

Policy 29: Investigation of the place for research should identify further areas of research to increase knowledge of Australian history and other aspects of the occupation and construction of the place. Such investigations should be guided by specific and scrutinised research goals and when there are adequate resources available to undertake, complete and publish results of the study.

Areas for further research, amongst others, include:

- the archives of all faculties and buildings associated with the Place
- the community's attitudes to and social values of the Place
- extant original street furniture
- the historical background of various moveable heritage
- the influence of historical figures associated with landscaping the Place
- the cultivar names of early 19th century plantings, and;
- the original design of the Pleasance (garden), within the Holme Building.

6.9 Adaptation of the Fabric Identified to be Conserved

Most extensive intervention at a place will occur during adaptation work to accommodate the expansion of existing uses or introduction of new uses. Depending on significance, different types of alteration may be appropriate.

For example, in the case of the University grounds, these types are usually:

- Dividing of spaces and areas by new construction or the introduction of site features
- Joining of spaces and areas by openings, through demolition or reconfiguration.
- Introduction of new vehicular roads and pedestrian walkways and paths
- Introduction of, or removal of landscaping
- Covering of significant fabric (e.g. external elevations concealed from view as a result of additions)
- Minor changes to significant fabric
- Substantial changes to significant fabric
- Retention of only the concept and idea of the significant fabric
- Complete removal of significant fabric
- Installation of new elements or construction of new buildings
- Installation of new services

For planning purposes it is useful to relate such types of alterations to the relative significance of the affected elements.

Adaptation of Landform

Altering the landform of the place is a substantial intervention but may be nevertheless appropriate.

In this case, the natural topography of the land had some influence on the initial layout of the University grounds in the 1850s; most notably the Main Quadrangle Building was purposefully constructed on Petersham Ridge to allow clear views to the place from the east. Likewise, Oval No. 1

and Oval No. 2 were development on the low lying areas of the campus lands where the Orphan's School Creek originally ran.

Because the University of Sydney is a big institute and large buildings and structures will be constructed at the place, there is the potential to obscure the natural topography of the land and this should be carefully considered.

Policy 30: Changes to the place should be made in such a way that the original topography of the place remains evident. Regrading of the ground plane should be avoided unless absolutely essential.

New Development

Even at places of outstanding significance there are usually areas where new developments, buildings and features can be placed without detracting from or reducing the significance of the place. The impact of such adaptations depends on their bulk, form, height, proportions, scale, materials, colours etc. and the creativity of their design.

In this instance the configuration of the place has many attributes of high significance making any more than minor changes inappropriate in many areas.

There are also several areas within the place that contain buildings of only little or some significance where substantial new buildings and changes to the landscape could be constructed and the adjacent landscape adjusted to suit, provided they are of an appropriate design.

Because the place contains areas and groups of buildings which have high historical continuity there are locations where new buildings and plantings should be of traditional character and not be of overtly modern design.

The policy below identifies a range of locations and suitable treatments for new work.

See also *Section 6.10: New Landscape Features*.

Policy 31: Development of new buildings and other features at the place (adaptation of parts of the landscape and vegetation) should be made taking into account the significance rankings in Section 4 and Policy 13.

Adaptation of Exteriors of Buildings

When considering the whole of the grounds of the University of Sydney, the exteriors of buildings and adjacent landscaping are also an essential component of the overall character of the place. As a result of the dominant architectural styles in use at the place (Gothic Revival, Arts & Crafts, Mediterranean etc.), the University has an accepted 'heritage' character that has aesthetic value and is held in high regard.

In some case, groups of architecturally distinguished buildings and adjacent landscaping form notable streetscapes or contribute to the significance of views of the place. As such, consideration of the form, scale and use of materials to be used for adaptations of the exteriors of buildings and adjacent landscaping should take into account the contribution the building and landscaping makes to the overall character of the place (refer to Appendix 3).

Policy 32: The adaptation of the exterior of an individual building or other component of heritage significance should be guided by the conservation management plan prepared for that building or component.

When considering adaptations of the landscape adjacent to individual components, the overall architectural character of the University of Sydney grounds should be taken into account, including the provisions of Policy 31.

Adaptation for Structural, Service, Statutory and Hazardous Materials Reasons

Adaptations for practical reasons need to be addressed as part of the management of the place. Specific reasons may include:

- For structural reasons
- For replacement of existing services
- For installation of new services and equipment
- To meet safety and security requirements
- To meet fire safety and other statutory requirements
- To deal with asbestos and other hazardous materials
- To provide access by people with disabilities

The desire for new air conditioning equipment or additional service hubs has the potential to clutter the campus landscape, and be unsympathetic to the aesthetic qualities of the place and should be controlled and limited. In the first instance, existing service structures should be adapted for new services. However, should new service structures be needed, they should not be located in front of significant buildings. Over time existing services should be relocated away from the facades of significant buildings to be included within less visually intrusive new structures.

Policy 33: Adaptation of fabric to prevent structural failure of existing fabric is appropriate, provided alteration of fabric identified to be conserved is minimised.

Policy 34: Replacement of existing services is appropriate, provided that work is planned and carried out to minimise damage to fabric identified to be conserved and that, as a general rule, building services are concealed within buildings in spaces of lower significance and exterior services are located in inconspicuous positions and designed and finished to be self-effacing.

Policy 35: The installation of new services and equipment in the place in connection with maintained uses or introduced in accordance with Policy for Use is appropriate, provided that:

- equipment is installed in areas and spaces of lower significance in preference to those of higher significance
- that the installation is designed and constructed in a way that causes minimum damage to fabric identified to be conserved and is removable without further damage to significant fabric
- the work is planned and carried out with regard to the underground, inter-floor and roof space archaeology of the place.

Components of the place that accommodate existing services (e.g. substations and air conditioning hubs) should be adapted and reused as first preference, rather than the construction of additional structures.

Policy 36: Alteration of fabric identified to be conserved in order to:

- comply with the spirit of fire safety;
- remove hazardous material;
- facilitate disability access; and / or
- improve safety and security

is appropriate, but only after investigation of alternative strategies and designs in order to minimise impacts. Alterations should be located in spaces of lower rather than higher significance, minimise damage to significant fabric and provide for the removal of the alterations without further damage to retained fabric.

6.10 New Landscape Elements

At most important places, changes can be made to the landscape without detracting from the character of the place, but should be controlled.

When considering the addition of new elements to the landscape, the existing conservation management plans for individual components should be consulted in the first instance (refer to Appendix 3).

Policy 37: New elements including planting within the place are appropriate provided they are in accordance with:

- the campus landscape masterplan;
- the Interpretation Strategy (Policy 19);
- Intervention Policy (Policy 27);
- Adaptation Policy (Policy 30); and / or
- items of a minor nature associated with an existing use or for a new compatible use, such as fences, paths, pump houses, service lines, signposts, provided they are designed and located to cause minimal intrusion or for the purposes of water and land conservation and other critical landscape management procedures

Unavoidable Intervention

In many cases some detracting intervention is unavoidable and the policy should address this.

Policy 38: Unavoidable intervention should be located in areas of lesser cultural significance in preference to those of higher cultural significance.

Mobile and Temporary Structures for Associated Uses

In most places of significance the introduction of temporary and mobile structures for good reason is acceptable, provided they are capable of easy and quick removal.

However, given the level of significance of the University as a whole and the potential to detract from views of buildings, character areas, significant landscapes and historic roads, the placement of mobile and temporary structures in external spaces and on axes ranked of Moderate significance or higher, should be capable of daily removal.

- Policy 39:** The erection of mobile or temporary structures within the place for ceremonial purposes, the distribution of information, sales of goods, etc. is appropriate, provided the mobile and temporary structures erected in front of buildings or on axes ranked of Moderate significance or higher, are capable of daily removal.
- Policy 40:** The erection for limited periods of exposition type structures for festivals and the like is appropriate provided they are designed to be sympathetic with the character of their immediate locality and are scheduled for removal at the close of the event.

Outdoor Furniture, Rubbish Bins, Signs and Other Facilities

The University grounds already has a large amount of site elements provided for the practicalities of using the place, such as outdoor tables and chairs, rubbish bins, signs, lamp posts etc. Some of these elements are significant for their historic and aesthetic values.

The accumulative impact of additional small site elements has the potential to clutter the landscape and detract from the overall character and significance of the place. As such, preference should be given to replacing existing site elements of little significance with new, or adapting existing site elements of higher levels of significance to a new use or for upgraded services, rather than adding more components to the place.

In this case, such new features should not include larger, more permanent structures that will detract from the exceptional significance of the place.

- Policy 41:** The introduction of outdoor seating, garbage receptacles, lighting, vehicle barriers, etc. associated with compatible uses identified in the Policy for Use is appropriate provided they are designed and located to provide minimal visual intrusion.
- Policy 42:** Such facilities should not be erected directly in front of the main elevations of buildings ranked of Moderate significance or higher.
- Policy 43:** The replacement of existing site elements of little significance should be given preference to the adaptation or replacement of site elements of higher significance.
- Policy 44:** The erection of large outdoor facilities normally found in public parks including fixed cooking facilities, picnic pavilions and amenity blocks is not appropriate, except where in accordance the campus landscape masterplan or other policies for the place.

Roads and Parking Areas

Vehicular traffic is rapidly increasing and needs to be controlled in accordance with the level of significance of the place. Although much work has already occurred to limit vehicular access (e.g. Eastern Avenue is now a pedestrian only thoroughfare), further opportunities exist to limit vehicular access within the principal, historic areas of the Camperdown Campus.

Ideally, the existing number of on-street car parking spaces within the place should be reduced, and car parking bays and facilities for bicycle parking, while the latter is to be encouraged, should be located away from the front facades of significant buildings.

- Policy 45:** A Vehicular Access Strategy should be prepared for the place, and should include the following principles:

- limit vehicular entry points onto campus;
- locate new underground car parks around the perimeter;
- avoid the creation of new roads, except in essential circumstances;
- avoid the establishment of new surface car parking; and
- remove car parking and bicycle facilities from in front of buildings ranked of Moderate significance or higher when the opportunity arises

Floodlighting

Because of the significance and location of most important places, flood lighting is appropriate provided it does not reduce the amenity of the place in a way that weakens its economic viability.

In this case, flood lighting is appropriate for the University grounds in order to provide up-lighting to architecturally significant buildings as well as a means of lighting public spaces (i.e. the ovals) and to provide security throughout the grounds (in particular along the boundaries of the place).

Policy 46: The introduction of floodlighting for a specified purpose is appropriate, provided the service is designed and constructed in a way to cause minimal visual intrusion and light spill.

Intervention in Setting and Expanded Curtilage

New structures, buildings and features and other activities within the setting of the place or the expanded curtilage (associated places) may also be detrimental to the place and should be addressed in the conservation guidelines.

Policy 47: Works and activities within the University grounds and the expanded curtilage, particularly on the boundary of the place should, if possible, be controlled to minimise visual intrusion and misunderstandings about the associations and meanings embodied at the place.

6.11 Conservation Procedures and Practice at the Place

Procedures

Because the place is of outstanding cultural significance, procedures for managing change and activities at the place should be in accordance with recognised conservation methodologies such as that of Australia ICOMOS *Burra Charter*. Issues to be addressed by conservation policies should include:

- management and conservation philosophy
- the setting of the place and the expanded curtilage (associated places)
- professional advice
- trade skills
- documentation
- archaeological finds
- site recording.

Policy 48: *Burra Charter*. The place should be treated as of outstanding cultural significance, and consequently activities at the place should be guided by the philosophy of the Australia ICOMOS *Burra Charter* (see Appendix 1).

Policy 49: *Management*. The place should be managed in a way which permits the maximum number of these policies included in this report to be followed.

Policy 50: *Setting and Expanded Curtilage*. The management body of the place should if possible involve itself in the protection of the setting of the place and the expanded curtilage and objects from inappropriate uses and activities.

Policy 51: *Professional Conservation Team*. Personnel with demonstrated skills and experience in disciplines of conservation practice at a professional level should be engaged as appropriate to advise on and implement conservation aspects of the place.

Policy 52: *Skilled Trade Team*. Skilled and experienced traditional building and engineering trades should be engaged as appropriate to advise on the conservation of the place and to carry out all conservation aspects at the place.

All building, trades people and specialist professionals working on heritage items or in areas of heritage significance within the University should undertake an induction program, which includes receiving a copy of the relevant policies taken from this GCMP.

Policy 53: *Reference Documentation*. Copies of all known historical illustrations and the major written primary and secondary records relating to the place should be assembled, catalogued and made readily available, in a permanent archive.

Policy 54: *Archaeological Finds*. All archaeological finds that have been or are in the future removed from the place should be assembled, catalogued and safely housed. These should be stored in the one place, apart from individual items that might be distributed to repositories elsewhere for particular research or interpretative reasons.

Policy 55: *Systematic Photographic Survey.* Systematic photographic surveys of the place should be carried out before, during and after any works and the results catalogued and archived.

Practice

Because of the significance of the place it is important that the proposed changes are achieved involving a high standard of conservation practice.

Policy 56: Changes at the place should be achieved in the following way:

- (a) *Conservation Guidelines:*
 - Proposals for the place should be assessed in the light of what is recommended in this report and any other conservation management plans that may exist for components of the place. It may be necessary to carry out further research in order to assess and implement the proposed work to a high standard.
 - Research can include physical intervention, for example a search for former decorative surface finishes.
- (b) *Configuration Survey:* Before commencement of work to a component of the place, a full photographic and measured survey should be carried out. Recording should:
 - identify the extent and nature of the fabric; and
 - if possible, the age of each part of the fabric.

This information should be reproduced in a report with a copy held at the archive for the place, as recommended above.
- (c) *Documentation of Conservation Works:* Proposed work to a component should be documented for implementation in a way that allows the scrutiny of others before the work is executed and also for posterity. A statement setting out the precise aims of the work should be made. The documentary or physical evidence upon which restoration and reconstruction decisions are made for each component should be cited. A copy of the documentation, including schedules and plans, should be held at the archive for the place.
- (d) *Preservation of Fabric and Patina:* During documentation of proposed work to a component of the place, and during the work, the maximum amount of significant fabric and patina should be retained consistent with the preservation of the element and in relation to the relative significance of the element. Replacements, no matter how accurate, should be considered of far less heritage value than the existing fabric.
- (e) *Information Revealed during Conservation Work:* New information about the materials, configuration, use, age, evolution, etc. of a component of the place that comes to light during the work should be recorded in a report, a copy of which should be held at the archive of the place.
- (f) *Identification of Personnel:* Personnel involved in the documentation and implementation of works to components of the place should be recorded for future reference.

6.12 Adoption and Review of Conservation Policies

Conservation policies should include recommendations about their adoption, review and compliance.

- Policy 57:** *Adoption of Conservation Guidelines.* These policies should be adopted by the Director of the Campus Infrastructure Services, as delegate of the University Vice-Chancellor, as the Conservation Management Plan for the place, to guide the operation of the management body. If not adopted, these policies should be revised and then adopted before further works or activities are carried out at the place.
- Policy 58:** *Amendment of other Plans.* Any master development plan or management plan that may exist for the place should be revised to be consistent with these policies.
- Policy 59:** *Compliance with Conservation Management Plan.* Works and activities at the place should be in compliance with the adopted Conservation Management Plan.
- Policy 60:** *Proposals that are not in accordance with the Conservation Management Plan should only be implemented following a revision of the whole of the Conservation Management Plan which results in the conclusion that such proposals are consistent with the revised plan. Ad hoc changes in Conservation Management Plans should be avoided.*
- Policy 61:** *Review of Conservation Management Plan.* The Conservation Management Plan should be reviewed at regular intervals, suggested, seven years from its adoption.
- Policy 62:** *Distribution of Conservation Management Plan.* Unless for reasonable security reasons, copies of the Conservation Management Plan should be held at the archive for the place and be made available to local and other public libraries and be freely available for public inspection.

Appendix 1

Australia ICOMOS Charter for Places of Cultural Significance

The Burra Charter

Considering the International Charter for the Conservation and Restoration of Monuments and Sites (Venice 1964), and the Resolutions of the 5th General Assembly of the International Council on Monuments and Sites (ICOMOS) (Moscow 1978), the Burra Charter was adopted by Australia; ICOMOS (the Australian National Committee of ICOMOS) on 19 August 1979 at Burra, South Australia. Revisions were adopted on 23 February 1981, 23 April 1988, and 26 November 1999.

The Burra Charter provides guidance for the conservation and management of places of cultural significance (cultural heritage places), and is based on the knowledge and experience of Australia ICOMOS members.

Articles

Article 1. Definitions

For the purposes of this Charter:

1.1 *Place* means site, area, land, landscape, building or other work, group of buildings or other works, and may include components, contents, spaces and views.

1.2 *Cultural significance* means aesthetic, historic, scientific, social or spiritual value for past, present or future generations.

Cultural significance is embodied in the place itself, its *fabric, setting, use, associations, meanings, records, related places and related objects*.

Places may have a range of values for different individuals or groups.

1.3 *Fabric* means all the physical material of the *place* including components, fixtures, contents, and objects.

1.4 *Conservation* means all the processes of looking after a *place* so as to retain its cultural *significance*.

1.5 *Maintenance* means the continuous protective care of the *fabric* and *setting* of a *place*, and is to be distinguished from repair. Repair involves *restoration* or *reconstruction*.

1.6 *Preservation* means maintaining the *fabric* of a *place* in its existing state and retarding deterioration.

1.7 *Restoration* means returning the existing *fabric* of a *place* to a known earlier state by removing accretions or by reassembling existing components without the introduction of new material.

1.8 *Reconstruction* means returning a *place* to a known earlier state and is distinguished from *restoration* by the introduction of new material into the *fabric*.

1.9 *Adaptation* means modifying a *place* to suit the existing use or a proposed use.

1.10 *Use* means the functions of a place, as well as the activities and practices that may occur at the place.

1.11 *Compatible use* means a *use* which respects the cultural *significance* of a *place*. Such a use involves no, or minimal, impact on cultural significance.

1.12 *Setting* means the area around a *place*, which may include the visual catchment.

1.13 *Related place* means a *place* that contributes to the cultural *significance* of another place.

1.14 *Related object* means an object that contributes to the cultural *significance* of a *place* but is not at the place.

1.15 *Associations* mean the special connections that exist between people and a *place*.

1.16 *Meanings* denote what a *place* signifies, indicates, evokes or expresses.

1.17 *Interpretation* means all the ways of presenting the cultural *significance* of a *place*.

Conservation Principles

Article 2. Conservation and management

- 2.1 *Places of cultural significance* should be conserved.
- 2.2 The aim of *conservation* is to retain the *cultural significance* of a *place*.
- 2.3 *Conservation* is an integral part of good management of *places of cultural significance*.
- 2.4 *Places of cultural significance* should be safeguarded and not put at risk or left in a vulnerable state.

Article 3. Cautious approach

- 3.1 *Conservation* is based on a respect for the existing *fabric, use, associations* and *meanings*. It requires a cautious approach of changing as much as necessary but as little as possible.
- 3.2 Changes to a *place* should not distort the physical or other evidence it provides, nor be based on conjecture.

Article 4. Knowledge, skills and techniques

- 4.1 *Conservation* should make use of all the knowledge, skills and disciplines which can contribute to the study and care of the *place*.
- 4.2 Traditional techniques and materials are preferred for the *conservation* of significant *fabric*. In some circumstances modern techniques and materials which offer substantial conservation benefits may be appropriate.

Article 5. Values

- 5.1 *Conservation* of a *place* should identify and take into consideration all aspects of cultural and natural significance without unwarranted emphasis on any one value at the expense of others.
- 5.2 Relative degrees of *cultural significance* may lead to different *conservation* actions at a *place*.

Article 6. Burra Charter Process

- 6.1 The *cultural significance* of a *place* and other issues affecting its future are best understood by a sequence of collecting and analysing information before making decisions. Understanding cultural significance comes first, then development of policy and finally management of the *place* in accordance with the policy.
- 6.2 The policy for managing a *place* must be based on an understanding of its *cultural significance*.
- 6.3 Policy development should also include consideration of other factors affecting the future of a *place* such as the owner's needs, resources, external constraints and its physical condition.

Article 7. Use

- 7.1 Where the *use* of a *place* is of *cultural significance* it should be retained.
- 7.2 A *place* should have a *compatible use*.

Article 8. Setting

Conservation requires the retention of an appropriate visual *setting* and other relationships that contribute to the *cultural significance* of the *place*.

New construction, demolition, intrusions or other changes which would adversely affect the setting or relationships are not appropriate.

Article 9. Location

- 9.1 The physical location of a *place* is part of its *cultural significance*. A building, work or other component of a *place* should remain in its historical location. Relocation is generally unacceptable unless this is the sole practical means of ensuring its survival.

9.2 Some buildings, works or other components of *places* were designed to be readily removable or already have a history of relocation. Provided such buildings, works or other components do not have significant links with their present location, removal may be appropriate.

9.3 If any building, work or other component is moved, it should be moved to an appropriate location and given an appropriate use. Such action should not be to the detriment of any *place* of *cultural significance*.

Article 10. Contents

Contents, fixtures and objects which contribute to the *cultural significance* of a *place* should be retained at that place. Their removal is unacceptable unless it is: the sole means of ensuring their security and *preservation*; on a temporary basis for treatment or exhibition; for cultural reasons; for health and safety; or to protect the place. Such contents, fixtures and objects should be returned where circumstances permit and it is culturally appropriate.

Article 11. Related places and objects

The contribution which *related places* and *related objects* make to the *cultural significance* of the *place* should be retained.

Article 12. Participation

Conservation, *interpretation* and management of a *place* should provide for the participation of people for whom the place has special *associations* and *meanings*, or who have social, spiritual or other cultural responsibilities for the place.

Article 13. Co-existence of cultural values

Co-existence of cultural values should be recognised, respected and encouraged, especially in cases where they conflict.

Conservation Processes

Article 14. Conservation processes

Conservation may, according to circumstance, include the processes of: retention or reintroduction of a *use*; retention of *associations* and *meanings*; *maintenance*, *preservation*, *restoration*, *reconstruction*, *adaptation* and *interpretation*; and will commonly include a combination of more than one of these.

Article 15. Change

15.1 Change may be necessary to retain *cultural significance*, but is undesirable where it reduces cultural significance. The amount of change to a *place* should be guided by the *cultural significance* of the place and its appropriate *interpretation*.

15.2 Changes which reduce *cultural significance* should be reversible, and be reversed when circumstances permit.

15.3 Demolition of significant *fabric* of a *place* is generally not acceptable. However, in some cases minor demolition may be appropriate as part of *conservation*. Removed significant fabric should be reinstated when circumstances permit.

15.4 The contributions of all aspects of *cultural significance* of a *place* should be respected. If a place includes *fabric*, *uses*, *associations* or *meanings* of different periods, or different aspects of cultural significance, emphasising or interpreting one period or aspect at the expense of another can only be justified when what is left out, removed or diminished is of slight cultural significance and that which is emphasised or interpreted is of much greater cultural significance.

Article 16. Maintenance

Maintenance is fundamental to *conservation* and should be undertaken where *fabric* is of *cultural significance* and its *maintenance* is necessary to retain that *cultural significance*.

Article 17. Preservation

Preservation is appropriate where the existing *fabric* or its condition constitutes evidence of *cultural significance*, or where insufficient evidence is available to allow other *conservation* processes to be carried out.

Article 18. Restoration and reconstruction

Restoration and *reconstruction* should reveal culturally significant aspects of the *place*.

Article 19. Restoration

Restoration is appropriate only if there is sufficient evidence of an earlier state of the *fabric*.

Article 20. Reconstruction

20.1 *Reconstruction* is appropriate only where a *place* is incomplete through damage or alteration, and only where there is sufficient evidence to reproduce an earlier state of the *fabric*. In rare cases, reconstruction may also be appropriate as part of a *use* or practice that retains the *cultural significance* of the place.

20.2 *Reconstruction* should be identifiable on close inspection or through additional *interpretation*.

Article 21. Adaptation

21.1 *Adaptation* is acceptable only where the adaptation has minimal impact on the *cultural significance* of the *place*.

21.2 *Adaptation* should involve minimal change to significant fabric, achieved only after considering alternatives.

Article 22. New work

22.1 New work such as additions to the *place* may be acceptable where it does not distort or obscure the *cultural significance* of the place, or detract from its *interpretation* and appreciation.

22.2 New work should be readily identifiable as such.

Article 23. Conserving use

Continuing, modifying or reinstating a significant *use* may be appropriate and preferred forms of *conservation*.

Article 24. Retaining associations and meanings

24.1 Significant *associations* between people and a *place* should be respected, retained and not obscured. Opportunities for the *interpretation*, commemoration and celebration of these associations should be investigated and implemented.

24.2 Significant *meanings*, including spiritual values, of a *place* should be respected. Opportunities for the continuation or revival of these meanings should be investigated and implemented.

Article 25. Interpretation

The *cultural significance* of many *places* is not readily apparent, and should be explained by *interpretation*. Interpretation should enhance understanding and enjoyment, and be culturally appropriate.

Conservation Practice

Article 26. Applying the Burra Charter process

26.1 Work on a *place* should be preceded by studies to understand the place which should include analysis of physical, documentary, oral and other evidence, drawing on appropriate knowledge, skills and disciplines.

26.2 Written statements of *cultural significance* and policy for the *place* should be prepared, justified and accompanied by supporting evidence. The statements of significance and policy should be incorporated into a management plan for the place.

26.3 Groups and individuals with *associations* with a *place* as well as those involved in its management should be provided with opportunities to contribute to and participate in understanding the *cultural significance* of the place. Where appropriate they should also have opportunities to participate in its *conservation* and management.

Article 27. Managing change

27.1 The impact of proposed changes on the *cultural significance* of a *place* should be analysed with reference to the statement of significance and the policy for managing the place. It may be necessary to modify proposed changes following analysis to better retain cultural significance.

27.2 Existing *fabric*, *use*, *associations* and *meanings* should be adequately recorded before any changes are made to the *place*.

Article 28. Disturbance of fabric

28.1 Disturbance of significant *fabric* for study, or to obtain evidence, should be minimised. Study of a *place* by any disturbance of the fabric, including archaeological excavation, should only be undertaken to provide data essential for decisions on the *conservation* of the place, or to obtain important evidence about to be lost or made inaccessible.

28.2 Investigation of a *place* which requires disturbance of the *fabric*, apart from that necessary to make decisions, may be appropriate provided that it is consistent with the policy for the place. Such investigation should be based on important research questions which have potential to substantially add to knowledge, which cannot be answered in other ways and which minimises disturbance of significant fabric.

Article 29. Responsibility for decisions

The organisations and individuals responsible for management decisions should be named and specific responsibility taken for each such decision.

Article 30. Direction, supervision and implementation

Competent direction and supervision should be maintained at all stages, and any changes should be implemented by people with appropriate knowledge and skills.

Article 31. Documenting evidence and decisions

A log of new evidence and additional decisions should be kept.

Article 32. Records

32.1 The records associated with the *conservation* of a *place* should be placed in a permanent archive and made publicly available, subject to requirements of security and privacy, and where this is culturally appropriate.

32.2 Records about the history of a *place* should be protected and made publicly available, subject to requirements of security and privacy, and where this is culturally appropriate.

Article 33. Removed fabric

Significant *fabric* which has been removed from a *place* including contents, fixtures and objects, should be catalogued, and protected in accordance with its *cultural significance*.

Where possible and culturally appropriate, removed significant fabric including contents, fixtures and objects, should be kept at the place.

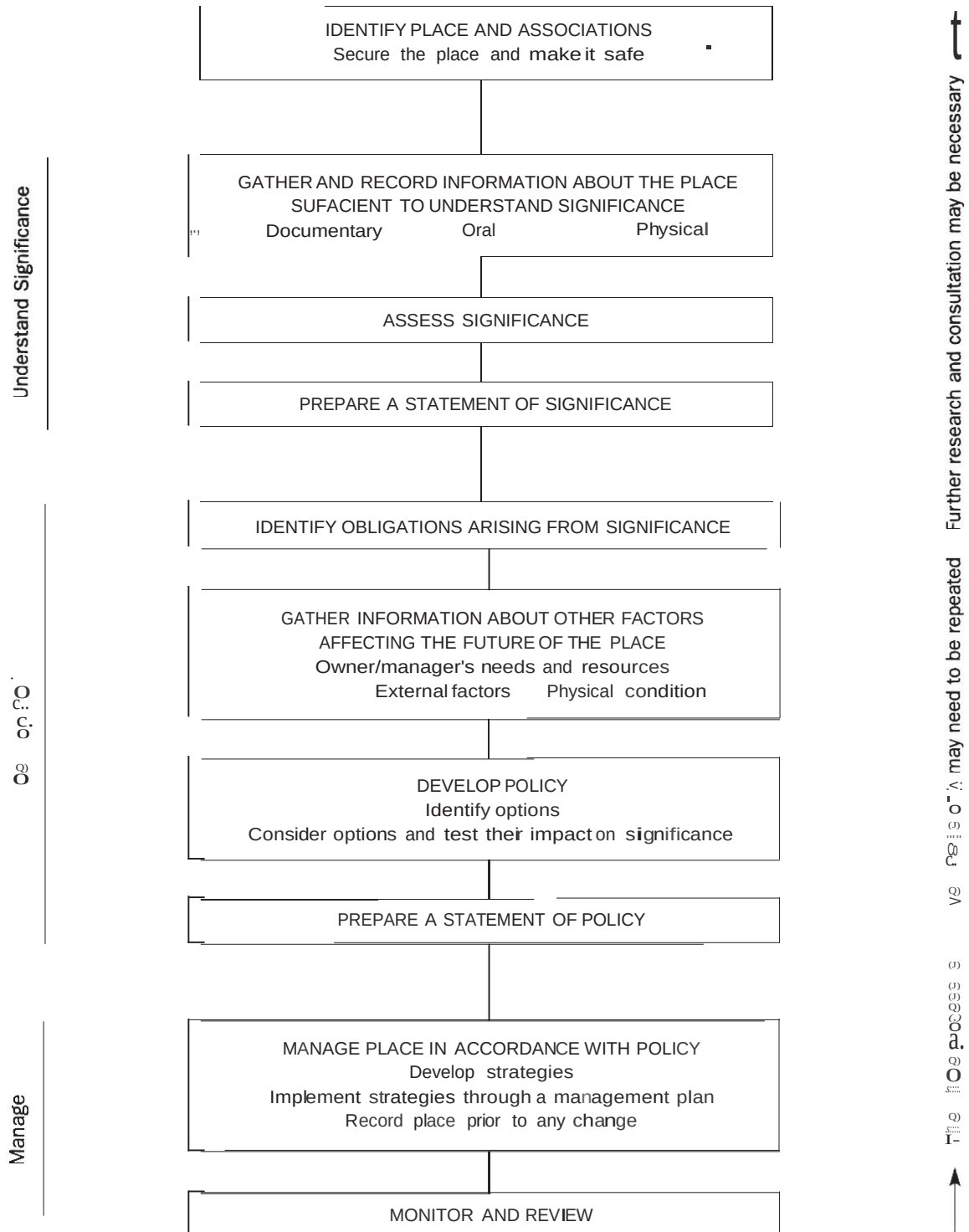
Article 34. Resources

Adequate resources should be provided for *conservation*.

Words in italics are defined in Article 1.

The Burra Charter Process

Sequence of investigations, decisions and actions



Appendix 2

University of Sydney Overview History

(Extract from the *University of Sydney Grounds Conservation Plan*, 2002:
Appendix A- University of Sydney Overview History)

THE PHYSICAL DEVELOPMENT OF BUILDINGS AND GROUNDS

Prepared by

Rosemary Kerr
(Sue Rosen & Associates)

With

PRE-COLONIAL HISTORY AND DESCRIPTION

by

Dr Val Attenbrow, Australian Museum,
and Cheryl Stanborough

SUMMARY OF PLANNING AND BUILT FORM DEVELOPMENT

by

Donald Ellsmore

OVERVIEW OF THE DEVELOPMENT OF AUSTRALIAN UNIVERSITIES

by

Duncan Marshall

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1. INTRODUCTION

1.1 Authorship

This history was prepared by Rosemary Kerr in consultation with Sue Rosen of Sue Rosen & Associates, Heritage Assessment And History. The pre-colonial history and description was prepared by Dr Val Attenbrow, Australian Museum, with input by Cheryl Stanborough.

1.2 Using the History as a Management Tool

Organising an overview history of the physical development of the University of Sydney poses problems due to the diversity of buildings, sporting and leisure facilities which were constructed and modified over a long period of time in response to changes in the University's teaching requirements, planning philosophy and external influences.

For those concerned with managing the physical resource of the University, this overview history has been organised according to the following major chronological periods which reflect particular phases in the construction of buildings and facilities and the development of grounds: Foundation and Early Development, 1850-1880; Development of Medicine and the Sciences, 1880-1900; the Vernon and McRae Period, 1900-post WWI; the Wilkinson Era, 1920s - WWII; the Impact of WWII, 1945 - late 1950s; Transformation and Expansion, late 1950s - 1975; Reorganisation of the University System, 1975-present. Discussion of particular buildings and facilities has been where possible, arranged according to precincts, such as the main Quadrangle, Science Road etc., and by the type of facilities such as student union buildings, sporting facilities and grounds.

The table of contents encapsulates the overall structure of this history of physical development of the University. The design is intended to ease identification of data pertaining to specific periods and / or specific places relevant to management decisions. At the same time the broader issues impinging on developments have been identified and their impact addressed.

2. PRE-COLONIAL INHABITANTS AND LAND USE

The University of Sydney grounds are located on the northern slopes of a broad ridge forming the watershed between Port Jackson (Sydney Harbour) and Botany Bay. The grounds are about 3 km from Sydney Cove where the British established their first settlement, Sydney town, in 1788. To the first colonists the grounds were part of a large area they called 'the Kangaroo Ground' (Fig. 1#), which stretched from Parramatta Road southwards towards Botany Bay and the Cooks River. It was described as being one of the few areas between Botany Bay and Broken Bay that was suitable for cultivation (Tench [1793:161]1979:261, Collins 1798[1975]:225, 575n).

About two years after colonisation, part of the 'Kangaroo Ground' near the present-day junction of Parramatta and City Roads was set aside as reserves for Crown, church and school purposes, (Fig. 2#). In 1792, Lieutenant-Governor Grose was granted 30 acres out of the 400 acre Crown reserve on which to build a house, though he later changed the purpose of the lease to farming. Subsequently, leases were granted in the reserve and general district to several other officers for cultivation (Campbell 1925:119, 1930:274-276). Grose sold his lease to another officer when he left the colony at the end of 1794, but the area that is now the University grounds became known as Grose Farm and is marked as such on maps until the mid-1800s.

Aboriginal people were thus alienated from the lands that are within and around the University grounds very early in the history of British colonisation. The historical records provide many descriptions and observations about the people who lived around Port Jackson at the time of British colonisation. However, none of the records identify any definite associations with the land that was set aside as the site for the University of Sydney, or activities that were specifically undertaken on this land. In addition, no archaeological evidence relating to pre-colonial Aboriginal occupation or use of the area has been found within the University grounds, and there are no detailed descriptions of the vegetation and animal communities that inhabited this district. The following portrayal of the pre-colonial occupation and use of the Sydney University grounds is thus speculative, being based on a reconstruction of the original pre-1788

environment, an extrapolation from general historical descriptions or specific observations about the people who lived around Port Jackson and Botany Bay, and archaeological evidence from adjacent areas.

2.1 People – The Original Inhabitants

The tribe¹ of Cadi inhabit the south side, extending from the south head to Long-Cove; at which place the district of Wanne, and the tribe of Wangal, commences, extending as far as Par-ra-mata, or Rose-Hill. (King in Hunter 1793[1968:412])

From the entrance of the harbour, along the south shore, to the cove adjoining this settlement the district is called Cadi, and the tribe Cadigal; the women, Cadigalleon. The south side of the harbour from the above-mentioned cove to Rose Hill, which the natives call Parramatta, the district is called Wann, and the tribe Wanngal. (Phillip 13 February 1790[1892:309])

In these two quotes which set out the extent of the country associated with two of the Port Jackson clans, the Cadigal and Wanngal, their common boundary is in different places. Phillip Gidley King placed the boundary at Long Cove – presently known as Iron Cove. If this was the boundary between the two groups, the University grounds are within Cadi. This would also be the case if the boundary was along the ridgeline forming the eastern watershed to Iron Cove (in many parts of Australia ridgelines and watercourses form/formed the boundaries between cultural areas).

If the ‘the cove adjoining this settlement’ referred to by Governor Arthur Phillip is Darling Harbour, and the boundary between the Wanngal and Cadigal is taken as either the ridgeline between Darling Harbour and Blackwattle Bay or the creek running into Darling Harbour or even Blackwattle Creek, then the University grounds are situated at the eastern end of Wanne.

To the south, the Kameygal lived around the shores of Botany Bay, known to them as Kamay. It is possible that the ridge of high land between Port Jackson and Botany Bay (along which King Street, Newtown, now runs) formed a boundary between the Kameygal and the Wanngal / Cadigal.

2.2 Subsistence and material culture

The people living around Port Jackson and Botany Bay gained their foods by fishing, hunting land animals and gathering shellfish and plants (Attenbrow in prep; Turbet 1989). Fishing appears to have formed a greater part of subsistence activities around the harbour mouth and Botany Bay, more than it was along the Parramatta River. However, hunting land animals, catching birds and collecting small animals were also important, particularly during periods of cold or inclement weather when fish were scarce. Shellfish and plant foods were probably also important components of the diet, though there are very few observations of these activities by the early colonists.

Many different tools and weapons were used in obtaining food and raw materials, for carrying small items, making equipment, and for defensive and offensive purposes. These included fishing and hunting spears, spear-throwers, fishing hooks and lines, stone hatchets, shields, clubs, digging sticks, baskets, net bags and other containers, as well as canoes, animal traps, torches, small adzes and scrapers, awls, ‘pounding and beating stones’, stone wedges and fire. Unmodified shells and stones were used opportunistically on some occasions as cutting or adzing tools and missiles.

Tools, weapons and other objects were made from a range of natural products – wood, bark, reed and other plant materials, as well as bone, shell, animal skins, sinew and stone. The early colonists’ observations suggest that coastal groups used stone as implements less often than hinterland groups (e.g. those on the Cumberland Plain), and that bone or shell was used in its place for items such as spear barbs, adzes and scrapers (Hunter 1793[1968]:519; Collins 1798[1975]:488).

¹ Many of the early writers referred to these named groups as ‘tribes’, but they were not tribes in the current anthropological sense of the word. The groups were clans or in some cases bands.

2.3 Locational Details and Reconstruction of Pre-1788 Environment

Topography and geology

The University grounds are on part of a broad ridge system which forms the watershed between Port Jackson and Botany Bay, an arm of which extends north from the watershed down between Blackwattle Bay and Rozelle Bay and their respective tributaries. At its highest points in this area the ridgeline is between 30 m and 40 m above sea level. The high land in the north-eastern corner of the University grounds around the Main Quadrangle, which was earlier known as Petersham Hill, overlooked the lower reaches of Blackwattle Creek.

These broad ridge tops are capped with Wianamatta shales. These are underlain by Hawkesbury sandstone, which is exposed around the foreshores of Port Jackson in the north, the cliffed coastline in the east, and along part of the Cooks River in the south-west. Quaternary sediments in the form of dunes or sand-hills cover a large expanse of land to the south-east as far as the shores of Botany Bay. The University grounds are wholly on the Wianamatta shales, and there is no outcropping sandstone.

The geology of the district is important as the distribution of Aboriginal archaeological sites in the Sydney region is very much associated with the distribution of the particular geological formations that dominate different parts of the countryside. The absence of Hawkesbury sandstone within the University grounds means that Aboriginal sites that are associated with sandstone formations would not have been present. Such sites include rockshelters (which contain pigment images, shell midden or archaeological deposit), rock engravings which occur on open rock platforms, and grinding grooves which occur on rock surfaces associated water sources (creek lines, rock pools on rock platforms or driplines in rockshelters).

Associated with the Wianamatta shales, buried silcrete bodies have been identified at Newtown (in the block between King, Eliza, Mary and Lennox Streets), less than 1 km to the south west of the University grounds (Byrnes 1982:9-10). The silcrete bodies are part of a Tertiary period palaeochannel, the exact course of which is presently not mapped – but it is possible it extends within the University Grounds (Tessa Corkill pers. comm).

The potential presence of silcrete and its possible accessibility and quality is of interest as it is one of the most commonly used rock types for making small flaked implements in the Sydney region. Although historical observations indicate that stone was infrequently used by coastal people in 1788, assemblages from coastal archaeological sites of the Sydney region indicate that small stone implements were used throughout the pre-colonial periods.

Waterways and water sources

The upper reaches of several creeks running into Port Jackson have their headwaters on the watershed ridge between Port Jackson and Botany Bay. Most of these creeks are now concrete canals or landscaped, particularly in their upper reaches, so that they are no longer recognisable as creeklines. Blackwattle Creek, which runs into Blackwattle Bay, began in a swampy area where Darlington School now stands. It ran north-east through what is now the Engineering Faculty towards Victoria Park and Chippendale, where there were several other freshwater swampy areas, before it ran into the estuarine Blackwattle Swamp at its mouth. On the western side of the University grounds were the upper reaches of watercourses running into Johnstons Creek, in particular Orphan School Creek which started where No 1 and 2 ovals were built. Thus, while the University grounds are on a ridge top, freshwater sources and swamps were present in or in close proximity to most parts of the grounds.

The estuarine foreshores and waters of Port Jackson are little more than 1 km distance in Darling Harbour and Blackwattle/Rozelle Bays. To the south, somewhat further away, but still within 6 or 7 km, is Botany Bay, as well as Cooks River and Sheas Creek (the latter now called Alexandra Canal). Consequently, estuarine resources such as fish and shellfish are available in relatively close proximity to the University grounds.

Soils and vegetation communities

Stretching along the higher ground from Hyde Park to the south-west through Chippendale to Newtown, St Peters and Glebe, and as far west as Auburn, the clayey soils of the Wianamatta shales were covered with Turpentine-Ironbark Forest, with trees up to 20-30 m tall in an open forest structure (Benson & Howell 1990:17-18, 44). Except for William Bradley's (1786–92[1969]:232B) March 1791 report in which he states that the 'Brown Bark'd Gum Tree ... grows in the Kangaroo Ground ...', there are no historical descriptions

detailing the nature and species composition of the vegetation that existed on the University grounds before it was cleared. The following information comes from early descriptions around Annandale and small remnant patches of Turpentine-Ironbark forest in the inner western suburbs (Benson & Howell 1990:46-47, 61).

In addition to Turpentine *Syncarpia glomulifera* and Grey Ironbark *Eucalyptus paniculata*, other large trees grew in these forests; these included White Stringybark *E. globoidea*, Blackbutt *E. pilularis*, Red Mahogany *E. resinifera*, Scribbly gum *E. haemastoma* and Red Bloodwood *Corymbia gummifera* (previously *Eucalyptus*), as well as Smooth-barked Apple *Angophora costata*. Understorey species in the Turpentine-Ironbark Forest included species listed in Table A1 which have edible and/or useful parts.

The swampy sections of Blackwattle Creek where it ran through Chippendale were described as ‘boggy, in part rich soil, suitable for intensive agriculture’ (Fitzgerald 1990:14). Its swampy headwaters were also likely to have been poorly-drained ground rather than swamps with standing water. As such they are unlikely to have had reeds such as *Eleocharis sphacelata*, *Phragmites australis* and *Triglochin procera* (Doug. Benson pers. comm.), which have edible roots and tubers, and which grow in the freshwater Botany and Lachlan Swamps nearer the coast. Its vegetation is likely to have been similar to the swampy headwaters of the Tank Stream, which was at the boundary of the sandstone and Wianamatta shales, and is assumed to have included Scribbly Gum *Eucalyptus racemosa*, banksias *Banksia spinulosa* and *B. oblongifolia*, bottlebrush *Callistemon citrinus*, ti-tree *Leptospermum flavescens* (now *polygalifolium*), and paperbarks *Melaleuca decora* and *M. styphelioides* (Benson & Howell 1990:42; Campbell 1924:67).

Of those plants listed in Table A1, only a few have been identified as food plants referred to in the early historical sources of the Sydney region. Native cherry *Exocarpus cupressiformis* is possibly the fruit described by Governor Phillip as:

... another fruit, which, when ripe, is of a transparent red colour, about the size of a currant, and shaped like a heart: it has an agreeable flavour, leaving an astringency on the palate, and cannot be otherwise than wholesome, as the settlers had ate great quantities of it at times, without any pernicious consequences. (Phillip in Hunter 1793[1968]:478-479)

The colonists referred to Banksia flowers generally, but not by species name. They observed the local inhabitants collecting them for their nectar from which a sweet drink was made by soaking them in water (Collins 1798[1975:462-463]; Bellingshausen 1820 in Barratt 1981:35). The ferns referred to by the early colonists may have been *Blechnum cartilagineum* and the orchids could have been several of those that grow in coastal Sydney:

... they were frequently found gathering a kind of root in the woods ... This root appears to be a species of the orchis, or has much of its nutritive quality. ... those roots which appear to be a great part of their subsistence during the winter. (Hunter 1793[1968]:80-81)

I have several times met with small parties of them seeking roots and spungy [sic] substances which grow on some of the Trees & yield a small seed and sweet juice ...: the Fern & some other roots they prepared by moistening & beating between two stones a considerable time before they use it ... (Bradley 1786-1792[1969]:134-135)

The other plants listed in Table A1 were reported as being eaten in other parts of eastern Australia, and thus could have been eaten in the Sydney region too.

Some plant materials used in making tools and equipment were also available in the areas of Turpentine-Ironbark forest. Bowls, referred to as *Goo-lime* were made from the hollowed knots (gnarls) of a large tree (Smith & Wheeler 1988:Plate 50 inscription; White 1790[1962]:157), which was possibly the Smooth-barked apple *Angophora costata*. The bark of ‘tea-trees’, which were probably paperbark trees *Melaleuca* sp. was reported to have been used around Port Jackson as a ‘blanket’ in which a newborn baby was wrapped (Phillip in Hunter 1793[1968]:544; Collins 1798[1975]:465,612,note 14), and in other parts of the Sydney region as bedding and a torch (Barrallier 1802[1975]:48; Phillip in Hunter 1793[1968]:514 respectively).

In other parts of south-eastern Australia, the leaves of other *Lomandra* species were used for basket work (Maiden 1889[1975]:634), and those of *Lomandra longifolia* may have been used in Sydney region for such purposes.

There were thus both food and raw material plant resources that would have attracted people to the Turpentine-Ironbark forests, though none of these plants are restricted in distribution to only this association. These forests do not appear to have been as resource-rich (at least in terms of diversity of species, and possibly abundance) as the extensive heath and swamp communities of the sand-hills between Bondi and Botany Bay which were only a few kilometres to the east, or the fringing communities that grew along the small sandstone gullies, such as the Tank Stream which ran down into Port Jackson (Benson & Howell 1990:42; Campbell 1924:66-69). This perception, however, may be due to the lesser knowledge available about the plant communities of the Turpentine-Ironbark forest.

Animal communities

Again, there are no detailed accounts of the animal communities that lived in the Turpentine-Ironbark forest or the small swamps and creeks that occurred on the Wianamatta shale in this part of Sydney. The fact that the University grounds are part of an area that was known as ‘the Kangaroo ground’ indicates such animals inhabited the district. Many other animals would have inhabited this district too – wallabies, possums, gliders, bandicoots, native cats, flying foxes, marsupial mice, water rats, native rats, numerous birds (including emus), goannas, blue tongue lizards, and tortoises – all of which were included in the diet of the pre-colonial inhabitants.

Fish and shellfish of edible size or quantity may have not inhabited the sections of the freshwater creeks and swampy areas within the University grounds, but the nectar-producing plants of these habitats would have attracted many birds such as parrots and parakeets, which were eaten (Franklin 1802 in Ross 1976:25). The adjacent estuary and its shorelines, with its abundant fish and shellfish may have provided the main focus for gaining animal foods, except in cold or bad weather when fish were scarce or when a change in diet was sought.

Table A1. Plants with edible and useful parts that are likely to have grown in the Grounds of Sydney University and likely to have been used by local pre-colonial Aboriginal inhabitants

Scientific name	Common name	Edible parts	Useful parts
Turpentine-Ironbark Forest			
<i>Acacia decurrens</i>	Black Wattle, Green Wattle	Gum soaked in water as drink (Vic. Bunce 1859 in Robinson 1994:62). Seeds ? gum ? (Acacia sp. NSW south coast. Lampert & Sanders 1973:104)	
<i>Acacia falcata</i>	Hickory, Sally Wattle	Seeds ? gum ? (Acacia sp. NSW south coast. Lampert & Sanders 1973:104)	Bark used to stupefy fish (Counties of Cumberland and Camden. Maiden 1889[1975:149])
<i>Angophora costata</i>	Smooth-barked Apple		Hollowed bark/gnarl used as container (Port Jackson area, Smith & Wheeler 1988:Plate 50 inscription; White 1790[1962]:157
<i>Astroloma humisifusum</i>	Native Cranberry	Fruit (NSW south coast, Lampert & Sanders 1973:104)	
<i>Billardiera scandens</i>	Apple Dumpling	Berries (NSW south coast, Lampert & Sanders 1973:105; Port Stephens, Scott in Bennett 1929:22)	
<i>Blechnum cartilagineum</i>	Gristle Fern	Rhizomes (Moreton Is, SE Qld, Backhouse 1843:363, 371)	
<i>Cissus hypoglauca</i>	Water Vine	Fruit; water from vine? (NSW south coast, Lampert & Sanders 1973:106)	
<i>Clematis glycinoides</i>	Old Man's Beard	Scent from crushed leaves used for head-aches (no area, Cribb & Cribb 1976:221)	
<i>Clerodendrum tomentosum</i>	Hairy Clerodendrum	Fruit (of <i>Clerodendru inerme</i> , nth Qld, Roth 1901:10)	
<i>Corymbia gummifera</i> (prev. <i>Eucalyptus gummifera</i>)	Red Bloodwood		Gum/sap (used on NSW south coast to treat fishing lines to stop them fraying. Lampert & Sanders 1973:108)
<i>Dianella caerulea</i>	Blue Flax Lily		Fibre of leaves (of <i>D. longifolia</i>) used to make baskets (no area, Maiden 1889[1975:621])
<i>Dianella revoluta</i>	Flax Lily		ditto
<i>Exocarpus cupressiformis</i>	Native Cherry	Fruit (Port Jackson area ?, Phillip in Hunter 1793[1968]:478-479; NSW south coast, Lampert & Sanders 1973:106)	

<i>Eucalyptus</i> spp	Ironbarks	Nectar (of ironbarks, Vic. Sir Thomas Mitchell in Cribb & Cribb 1974:182)	
<i>Geranium homeanum</i>	Northern Granesbill	Swollen taproot (of some <i>Geranium</i> spp. Vic. Hope & Coutts 1971)	
<i>Glycine tabacina</i>		Root (no area, Cribb & Cribb 1974:142)	
<i>Kennedia rubicunda</i>	Running Postman	Nectar (of <i>K.prostrata</i> , NSW south coast, Lampert & Sanders 1973:105)	Stems of <i>Kennedia prostrata</i> used as string (NSW south coast, Lampert & Sanders 1973:108)
<i>Leucopogon juniperinus</i> ?	Native Currant, Bearded-Heath	Fruit (of <i>L. parviflorous</i> , SE South Australia, Cleland 1966:134)	
<i>Leucopogon lanceolatus</i> ?		ditto	
<i>Lissanthe strigosa</i> ?	Peach Heath, Prickly Heath	Fruit (no area, Maiden 1898:353)	
<i>Lomandra longifolia</i>	Spiny-headed Mat Rush Long-leaf Mat Rush	Nectar (of several species, Vic. Brough Smyth 1878:213)	Leaves (of <i>Lomandra</i> spp. for making baskets Maiden 1889[1975:634])
<i>Morinda jasminoides</i>		Fruit (of <i>M. citrifolia</i> , Nth Qld, Maiden 1889[1975:45])	
Orchids, various species	various	Tubers (Port Jackson area, Hunter 1793[1968]:80-81)	
<i>Oxalis corniculata</i>	Clover Sorrel	Leaves and roots (Vic. SA, Cleland 1966:135, Hope and Coutts 1971)	
<i>Rubus parvifolius</i>	Native Raspberry	Fruit (NSW south coast, Lampert & Sanders 1973:106)	
<i>Smilax glycyphylla</i>	Sweet Sarsaparilla	Leaves sucked, perhaps medicinally (NSW south coast, Lampert & Sanders 1973:106)	
FRESHWATER SWAMPY AREAS			
<i>Banksia oblongifolia</i> (prev. <i>B. asplenifolia</i>)	Banksia	Nectar of banksia (Port Jackson area, Collins 1798[1975:462-463]; Bellingshausen 1820 in Barratt 1981:35)	
<i>Banksia spinulosa</i>	Hair-pin Banksia	ditto	
<i>Melaleuca decora</i>	Paper bark. White-feather Honeymyrtle		Bark of <i>Melaleuca</i> . spp. used as – wrap for baby (Port Jackson area, Phillip in Hunter 1793[1968]:544; Collins 1798[1975]:465,612,note 14); – torch (firestick) (Hawkesbury River, Phillip in Hunter 1793[1968]:514); – bedding (Nattai district, Barrallier 1802[1975]:48; ditto
<i>Melaleuca styphelioides</i>	Prickly-leaved Paper bark		

3. EARLY HISTORY OF GROSE FARM AND DARLINGTON

3.1 Church, School and Crown Land

When Governor Phillip explored the countryside surrounding the initial settlement at Sydney, he selected an area around Petersham Hill, then known as the “Kangaroo Grounds” for church, school and Crown purposes. The arrangement was formalised when in August 1789 one thousand acres was divided as follows: 400 acres on the north fronting the harbour was designated as church or glebe land; 200 acres on the south for the maintenance of a schoolmaster; and 400 acres between, for the Crown.² Under Phillip the land was used as pasturage for horses and draught cattle employed in works at Sydney. Beyond this area his officers were encouraged to take up small farming tracts. The site on which the first campus of the University of Sydney developed formed part of the 400 acre Crown Reserve, while what later became the Darlington area was situated within the 200 acres of School Reserve. (See Map A in Campbell, p.275).

3.2 Grose Farm

Lieutenant-Governor Francis Grose of the NSW Corp set his sights on the Petersham Hill area as the ideal location for a country residence and in late 1792 he was granted a fourteen year lease of 30 acres within the 400 acres Crown Reserve. The Orphan School Creek and valley augured well for agriculture and provided Grose with the opportunity of supplementing his salary by supplying produce to the Commissary. In 1794 Captain James Foveaux was granted 30 acres adjoining *Grose Farm* on the south. Nearly four years later a another lease of 28 acres was granted to Quartermaster Thomas Laycock, adjoining *Grose Farm* on the east. When Grose retired to England, it is surmised that his farm temporarily reverted to Laycock but eventually *Grose Farm* reverted to the Crown.³

3.3 Surrounding Area

Land surrounding Petersham Hill Reserve and Camperdown Park on the west were cultivated for grain and other crops; intrusions were also made to the south; then gradually land on the northern side of Parramatta Road was alienated for cultivation, however, farming was not the only activity carried on in the area. In what became known as the Orphan School Creek Valley convicts and other workers were employed in forming a timber yard in 1793; nine huts were built for labouring convicts and ‘60 acres of government ground cleared of timber, 20 acres of which were sown with Indian corn.’⁴

Parramatta, Newtown and Missenden Roads were bush tracks, with their route partly determined by various stream crossings where water was available for thirsty travellers. Missenden Road, may have been named after the stretch of road joining the villages of Great and Little Missenden, Buckinghamshire, England.⁵

²J.F. Campbell, “The Early History of the Sydney University Grounds,” *Royal Australian Historical Society Journal and Proceedings*, Vol. 16, Part IV, 1930, 274-292, pp.274-276, 282.

³Campbell, *op. cit.*, pp.277-278.

⁴Campbell, *op. cit.*, pp.278-279.

⁵Campbell, *op. cit.*, p.278.

3.4 Female Orphan Institution

In 1801 a Female Orphan Institution was established in Sydney and located in a house on the corner of George and Bridge streets.⁶ Among several grants vested in the trustees of the Institution at various times was an area of 500 acres in the district of Petersham, which encompassed all the land formerly reserved for school and Crown purposes south of Parramatta Road, with the exception of Major Foveaux's leased allotment of 30 acres, but including Laycock's *Grose Farm*, which by then had increased to 58 acres. Eventually the name, *Grose Farm* was generally applied to the area between the Newtown and Parramatta Roads. The purpose of the grant was to provide the Orphan Institution with land for raising and maintaining stock and to be otherwise disposed of for the Institution's benefit. In 1806 the land was advertised to be let for three years and was described as,

comprising 500 acres, about 50 acres of which are cleared; together with a commodious farm residence, and out-buildings, and two good gardens.⁷

While Norman claims that the institution was established on the banks of a creek, almost opposite the site of the present Prince Alfred Hospital and contributed its name to the creek and valley,⁸ the exact location of the farm buildings has not been substantiated. It is possible that the School made use of and extended buildings that existed on Grose's farm, in the area now occupied by St John's College grounds and possibly part of the Veterinary Sciences precinct.

3.5 Subdivision

In August 1806, with the consent of the trustees, Governor King granted 220 acres of that area to his successor, William Bligh for the purpose of a private residence. This was subsequently increased to 240 acres and encompassed that portion of the Orphan School grant lying to the south-west of the (later) University reserve together with a triangular area bounded by Orphan School Creek on the north-east and Johnstone's Creek on the north-west. Bligh named his grant, *Camperdown*.⁹

There was a long delay in validating Bligh's grant and subsequently his legatees subdivided and sold part of it. The remainder, comprising 280 acres, was re-invested in the trustees of the Orphan Institution and remained in its control until 1823, when, it again reverted to the Crown.¹⁰

Major George Druitt, inspector at *Grose Farm* from 1817, gave evidence before Commissioner Bigge in November 1819 during Bigge's inquiry into the affairs of the colony. *Grose Farm* was described as being of inferior quality due to its heavy, adhesive clay which required much work. Since 1819, when the Female Orphan School was removed to Parramatta upon completion of its new premises, the land at *Grose Farm* was gradually cleared of trees and stumps. The old dwelling house which stood on the land when it was in possession of the Orphan Institution was enlarged, farm buildings added and convict accommodation built, including a stockade to accommodate over 100 convicts, men and boys employed in agriculture on government account; the convicts' lodgings consisting of one large house and two smaller ones. The stockade was described as standing well back from the old Parramatta Road midway between the present entrance gates to St. John's College. A surveyor's sketch dated 1827 shows structures on St John's college land which is probably the stockade site.¹¹ (See Surveyor's Sketch of 'Grose Farm' in 1827 and Campbell, Map B, p.283)

A series of tanks had been formed by 'deepening and widening the course of a small rivulet that traverses a portion of the farm' and a reservoir was made in the lowest part where it adjoined the public road (Parramatta

⁶J. A. Tunnicliffe, "Grose Farm" Part VI in *Hermes*, 1921, 260-264, p.260; F.M. Bladen (ed.), *Historical Records of NSW*, Vol. IV, 1800-1802, Lansdown Slattery & Company, Sydney, 1979, p.133.

⁷Campbell, *op. cit.*, pp. 279-280.

⁸L. G. Norman, *Historical Notes on Newtown*, Council of the City of Sydney, Sydney, 1963, p.4.

⁹Campbell, *op. cit.*, pp.280-281.

¹⁰Campbell, *op. cit.*, p.281.

¹¹John Ritchie (ed.), *The Evidence to the Bigge Reports, NSW Under Governor Macquarie, Volume 1 the Oral Evidence*, Heinemann, Melbourne, 1971, pp.31-32; Campbell, *op. cit.*, pp.282, 283; Tunnicliffe, *op. cit.*, pp.262, 264; SR: Surveyor's Sketchbooks, Vol. I, Folio 7, Sketch by Surveyor P. Elliott, "Grose Farm" 10 December 1827.

Road). The site once occupied by the weir and part of the large dam which supplied water to Grose Farm is buried at least twenty feet beneath the new Parramatta-road and the buildings extending back to the old Parramatta Road, now Arundel Street.¹² Vegetable gardens for use of the convicts were laid out on the banks of Orphan School Creek, although the farm's produce was consumed chiefly as green food for the draught cattle employed at Sydney. The old fence surrounding the farm was replaced by a four-rail fence and efforts were made to make *Grose Farm* an example of the best methods of English modes of agriculture and husbandry through use of the best labourers and implements.¹³

3.6 Pastoralism

When *Grose Farm* reverted to the Government in 1823 an attempt was made to instruct the male orphans in cultivation of vineyards, with a view to introducing their cultivation in the colony. However, with little prospect of return this idea was abandoned and it was decided to break up the establishment and to use the greater part of the area for pastoral purposes only.¹⁴

In order to secure it for the agistment of horses and cattle it was necessary to fence off the Parramatta, Newtown, St Paul's and Missenden Roads. This reduced the enclosed area to 194 acres, including Foveaux's lease. The marginal area to the south-east which later developed into the part of the suburb of Darlington was then granted to various individuals.¹⁵

In the early 1830s when extensive improvements were made to the road system, part of *Grose Farm* was utilised as a stockade for convict road gangs, by the Surveyor-General, Major Mitchell. The stockade already existing on the land where St John's College now stands was probably used by the road gang (see Campbell, Map B, p.283 and Surveyor's Sketch of 'Grose Farm' in 1827). Eventually the farm buildings became obsolete and disappeared. During the 1850s the course of Parramatta Road was altered and the cutting through which it now passes was created. The old road, now Arundel Street, once passed very close to the site on which the Botany buildings are now located. It is possible that remnants of the old road may be found beneath this area.¹⁶

In 1832 consideration was given to allocating *Grose Farm* for use of the Governor as a rural retreat. However Governor Gipps objected, claiming that the farm's proximity to Sydney and the fact that streets were about to be laid out through part of it meant that it would be absorbed by the town of Sydney within a few years. At the time it was 'divided into grazing paddocks and let in eight lots to the butchers of Sydney.'¹⁷

In the early 1850s some small grants were dedicated to the Church of England and Roman Catholic Church for purposes of schools, parsonage and presbytery, however no building took place and the area remained very much a wasteland, used for grazing. Between 1855 and 1856 approximately 126 acres were granted to the University of Sydney (See Campbell, map C).¹⁸ The University grew and expanded over this area until the late 1950s when additional land was sought across City Road.

¹²Tunnicliffe, *op. cit.*, p.264.

¹³Campbell, *op. cit.*, p.282.

¹⁴Campbell, *op. cit.*, pp.283-285.

¹⁵Campbell, *op. cit.*, pp.283-284.

¹⁶Campbell, *op. cit.*, pp.286, 291; SR: Surveyor's Sketchbooks, Vol. I, Folio 7, Sketch by Surveyor P. Elliott, "Grose Farm" 10 December 1827; David Curtis, "The University of Sydney Grounds & Gardens >From Bushland to the Present Day," unpublished manuscript, 1981, (SUA: R.387), p.17. Curtis cites Sam McKay, an ex-collector of the Botany Department as his informant re the possibility of finding remains of the old Parramatta Road under the Botany precinct.

¹⁷Campbell, *op. cit.*, pp.285-286.

¹⁸Campbell, *op. cit.*, p.287.

3.7 Darlington Area

During Governor Macquarie's administration, when land in the *Grose Farm* area was fenced for pastoral purposes the land to the south-east of Newtown Road was granted to various individuals. William Hutchinson received 52 acres, known as *Golden Grove*. The *Golden Grove Estate* was also known as the 'Bullock Paddock' as it was used to pasture cows destined for the Sydney meat market. Thomas Shepherd received 28 ½ acres and Robert Cooper, 17 ½ acres on which he established a brewery. The remainder of the area was included in William Chippendale's grant. (See Map B, Campbell p. 283). The soil in the general area was rich and suitable for intensive agriculture. Chippendale ran cattle and grew potatoes and barley on his grant.¹⁹

Shepherd was a botanist, who was originally attached to a party of colonists heading for New Zealand, however the project was abandoned and they landed in Sydney. By 1827 Shepherd had begun to establish a garden and nursery business at Darlington and named his property the *Darling Nursery*, presumably in honour of the then incumbent Governor Darling. The Nursery became a landmark in the area and is commemorated by the streets named Shepherd, Pine, Ivy, Vine, Myrtle and Rose. It is believed that the name Darlington was derived from Shepherd's Darling Nursery.²⁰ (Map in Fitzgerald, *Chippendale*, p.29 shows plan of area with Grose Farm, Shepherd' and Cooper's land c. 1850; a sketch on p. 34 shows a view from the University c. 1855 looking towards Chippendale, on the right can be seen Shepherd's house and nursery.)

The Black Wattle Swamp Creek line marked the southern boundary of Darlington, rising out of swampy ground in what became the grounds of Darlington Public School at the corner of Golden Grove and Abercrombie Streets. The first section of the old Newtown Road followed what is now Darlington Road, however, in later years a new track was formed around the head of Blackwattle Creek by people who had difficulty in passing over the boggy crossing on the old road; the new route formed the present line of City Road. This resulted in an area being excised from a farm paddock; the remaining 9 acres was fenced off and ultimately granted to E. S. Hall. This land lay between City Road and Darlington Road, excluding the later site of the Deaf, Dumb and Blind Institute and was subdivided in 1856. A grant of 9 acres to a Mr O'Brien, which was disposed of during the Crimean War, in the 1850s resulted in the streets called Alma, Raglan and Codrington, commemorating two British generals and a famous battle.²¹

3.8 Subdivision and Residential Development

The 1850s saw the beginnings of residential development in the area and the establishment of hotels and commercial buildings. The municipality of Darlington was established in 1864, its boundaries being Blackwattle Creek, Cleveland Street and Codrington Street. At the time its population was 700 and it contained 169 houses and five miles of streets. The area grew steadily between 1864 and 1876. In 1879 the 'Golden Grove' Estate was subdivided into 36 sections for housing.²²

With the construction of the Eveleigh Workshop in 1882, the population increased dramatically; and by 1883 there were 490 houses. By that time the Shepherd Nursery had been broken up. Increasing industrial activity was a major factor in the suburbanisation of the area during the 1880s and²³by 1890 industries operating in Darlington included a jam factory, iron foundry, a zinc and brass works, two cabinet factories, a cordial factory, a portmanteau factory and other small industries. The residential areas of Darlington expanded in response to the demand for workers in these industries and the population reached 3,020 with 725 houses in 1890. Such an environment also encouraged further sale of the 'Golden Grove' Estate. Commercial activities developed as the residential population increased and several shops and small businesses formed part of the area.²⁴

¹⁹Casey & Lowe Associates, *Archaeological Assessment Sections of the Darlington Campus, University of Sydney*, Unpublished report for University of Sydney, n.d., p.9; Campbell, *op. cit.*, pp. 283-284; Shirley Fitzgerald, *Chippendale, Beneath the Factory Wall*, Hale & Iremonger, Sydney, 1990, pp.13-16.

²⁰Norman, *op. cit.*, p.45; Ann Sutherland, *Darlington Public School, 1878-1978*, Darlington Public School Parents & Citizens Association, Sydney, 1978, p.7.

²¹Casey & Lowe, *op. cit.*, p.9; Campbell, *op. cit.*, p.284; Norman, *op. cit.*, pp. 6, 46.

²²Sutherland, *op. cit.*, p.7; Casey and Lowe, *op. cit.*, pp.9, 11.

²³Casey and Lowe, *op. cit.*, p.14.

²⁴Casey and Lowe, *op. cit.*, pp.9-10; Sutherland, *op. cit.*, p.11.

By 1891 the population of Darlington had increased to 3,500, giving it the highest population density of any suburb, outstripping Paddington, Redfern and Newtown. The area remained fairly stable into the twentieth century, with the population in 1918 being 3,920. Fitzgerald contrasts the suburbs of Darlington and Camperdown, which were primarily industrial, working class and Irish to neighbouring Newtown, in which there was a high proportion of native born and English and more skilled and self-employed traders. Streets in Darlington and Camperdown were narrow and the terraces mean, while Newtown contained some free-standing houses and terrace construction houses.²⁵

Since the 1920s there had been an increase in low-level industrial buildings in the suburb. By the beginning of World War II many families whose men folk had joined the forces moved to country areas to be closer to relatives, however, in the post-war period migration brought new settlers to the inner-city, close to factory employment; many Aboriginal families had also returned to the area.²⁶

3.9 Institute Building and Darlington School

As well as residential, industrial and commercial development, two other institutions formed a significant part of the history of the area and were associated with important community activities. These buildings were partly incorporated into the expanded University campus. They were the Deaf, Dumb and Blind Institute and the Darlington Public School.

Deaf, Dumb and Blind Institute

The Institute Building was built on five acres of land granted on the Newtown Road in 1870 to the NSW Institution for the Deaf, Dumb and Blind. This institution had begun in 1860 when Thomas Pattison founded the first school for the deaf in Australia. It became a public charity in 1861, then in 1870, with the inclusion of blind children, became known as the NSW Institution for the Deaf, Dumb and Blind. After a limited architectural competition, Benjamin Backhouse was appointed architect for the first stage of construction to accommodate 70 children. The high Victorian institutional building was constructed in three phases: 1870-1872, 1878-1879 and 1883-1884. An associated Superintendent's residence was built in c. 1886-1891.²⁷

The grounds of the Institute encompassed most of the triangular block fronting City Road and were originally bounded by a picket fence. Permanent fencing was erected around the entire curtilage, first on the Newtown Road frontage in 1878, followed by Codrington Avenue in 1883, and the stone piers of the fence feature the signature motif of architect, Benjamin Backhouse. Some of the fencing survives as an important indication of the original boundary.²⁸

During the influenza epidemic following World War I it was used as an emergency hospital. In World War II it was occupied by the RAAF between 1942 and 1944. For nearly a century this was the largest institution for deaf, dumb and blind children in Australia and a successful public charity.²⁹

Darlington Public School

The school was opened in 1878, located on half an acre next to the Town Hall on the Old Newtown Road. It provided a much needed local school for the growing population in Darlington. The school was designed by George Allen Mansfield, architect to the Council of Education. The continued subdivision and increasing population density caused almost continual overcrowding and further school buildings and a teacher's residence were erected in the 1880s, on land next to the original school, purchased from a Roman Catholic trust.³⁰

²⁵Casey and Lowe, *op. cit.*, pp. 10, 13; Shirley Fitzgerald, *Rising Damp, Sydney 1870-90*, Oxford University Press, Melbourne, 1987, p.34.

²⁶Sutherland, *op. cit.*, p.11.

²⁷DPWS Heritage Design Services & Otto Cserhalmi & Partners Pty Ltd., *The University of Sydney Section 170 Register*, 2000, Item 4726050.

²⁸*Ibid.*

²⁹DPWS, *op. cit.*, Item 4726012.

³⁰Sutherland, *op. cit.*, pp.8-9.

Between 1900 and 1920 the school became a practice school for the Teachers' College. As insufficient space prevented the addition of new buildings, two of the existing buildings were remodelled to two-storeys; a room was rented in the Council Chambers and the Headmaster's residence was used for school activities.³¹

During World War I the school began a garden on a vacant piece of ground at the back of the Council Chambers, to provide flowers and vegetables. In the following decade memorial gates were placed at the entrance to the school for local citizens who served in the War. The school's front fence was subsequently rebuilt in stone to match the gates. Another memorial was erected in 1929 by Alfred Edward, who wished to have a drinking fountain built near the gates to commemorate his parents who were two of the original citizens of the district. The fountain was to be reinstalled as part of the University's renovation of the school building.³²

During the Depression the school was used increasingly by the community. A soup kitchen was set up, funded by the Darlington-Golden Grove Benevolent Society, to provide hot lunches for the children. Free milk was distributed each morning to the families of the unemployed. Following the installation of electricity, the school was used as a meeting place for the Girl Guides and the local branch of the A.L.P.³³

3.10 University Extension into Darlington

Following the adoption of the Cumberland County Planning Scheme the State Government re-zoned part of the Darlington area as a 'special uses' or University Extension Area, enabling the University of Sydney to extend its campus across City Road into Darlington. This expansion, which began in the late 1950s and continued throughout the next decades resulted, despite increasing community opposition and resentment, in the loss of about 650 dwellings as well as shops, factories, bank, post office, Town Hall and other amenities, which were demolished. Roads and lanes were progressively closed or removed and the population of Darlington decreased by about 2,000. The surviving parts of Darlington now comprise some terrace houses, the Institute Building and a section of the original Darlington Public School.³⁴

³¹Sutherland, *op. cit.*, p.11.

³²Sutherland, *op. cit.*, p.11.

³³Sutherland, *op. cit.*, p.11.

³⁴Sutherland, *op. cit.*, pp.11-12.

4. UNIVERSITY OF SYDNEY FOUNDATION AND EARLY DEVELOPMENT 1850-1880

4.1 Background to Foundation

The founding of the University of Sydney in 1850, Australia's first, took place within the context of national and international developments during the second quarter of the nineteenth century. Among these, on a national level, were the growing social and political influence of an urban middle class which emerged as the numbers of free settlers increased in New South Wales and as Sydney developed as a major port and centre of commerce. The interests of this group influenced the development of a system of national secular education in the 1840s which led to publicly funded primary and secondary schools. Eventually, the rising class of bankers, manufacturers and professional men saw a growing need for the state to provide a higher level of education:

by which men may be fitted to discharge the duties and offices belonging to the higher grades in society; to enable her citizens to become enlightened statesmen, useful magistrates, learned and able lawyers and judicious physicians.³⁵

Interest in establishing an institution of higher learning was by no means universal. Among many sections of society there was a general apathy towards learning and a lack of means to undertake it. Many believed that the idea of establishing a university was premature. Nevertheless, strong impetus came from the professional classes, particularly the legal and medical professions due to the need to provide a local means for preparing candidates in those fields. William Charles Wentworth, colonial landowner, editor and lawyer, former radical and later Whig aristocrat, played the predominant role in initiating the foundation of the University of Sydney. He gained government support and while the initial Bill to incorporate the University of Sydney failed in the Legislative Council in 1849, an Act to incorporate and endow the University of Sydney was passed on 1 October 1850.³⁶

The University's structure and teaching philosophy were influenced by international debates which had occurred in Britain and North America over the preceding decades. There too, a changing social order challenged the traditional idea of universities, epitomised by Oxford and Cambridge, as the domain of the privileged classes, strongly aligned with Church and State, offering a liberal arts education focussing on the classics and mathematics. Newer institutions emerging in Durham, London, Ireland and Scotland offered a wider section of the community a non-denominational, non-residential education in fields more appropriate to the commercial, scientific and professional interests of an industrial democracy. The University of Sydney drew on aspects of the London, Irish and Scottish models in that it was a non-sectarian, non-residential teaching institution founded and endowed by the State, able to award secular degrees in Arts, Law and Medicine. While students were not required to reside in colleges, Churches were able to establish independent denominational colleges to provide accommodation for students who attended the professorial lectures of the University; in this aspect the institution was unique. Yet it also emulated the traditions of Oxford and Cambridge in its initially narrow curriculum. In its first years it taught only undergraduate Arts courses in Classics, Mathematics, Chemistry and Experimental Philosophy; Geology was added in 1870. The University's desire to emulate the traditions of learning and scholarship of the ancient British universities was expressed in its motto, adopted in 1856, "Sidere Mens Eadem Mutato", meaning, "though the constellation has changed, the spirit remains the same." Tension between adherence to tradition and the demands for a more relevant, professionally oriented institution is a recurring theme throughout the University's history and is reflected in its physical development.³⁷

³⁵Clifford Turney, Ursula Bygott, Peter Chippendale, *Australia's First, A History of the University of Sydney Volume 1 1850-1939*, University of Sydney in association with Hale & Iremonger, Sydney, 1991, p.4.

³⁶Turney, Bygott, Chippendale, *op. cit.*, pp.27,33-34, 52.

³⁷Turney, Bygott, Chippendale, *op. cit.*, pp.7-8, 27-28, 92, 117; Rosemary Annable, Ken Cable, *Draft Heritage Register Thematic History*, 2000, paras. 1.3, 1.7, 2.5; Bertha McKenzie, *Stained Glass and Stone, The Gothic Buildings of the University of Sydney*, Sydney University Monographs, Number 5, University of Sydney, 1989,p.26.

4.2 Establishment of University at Grose Farm

The University began its teaching in 1852 with 38 students and three academic staff using a building in College Street formerly occupied by the Sydney College. In 1853 the University was able to purchase the Sydney College and its lands, however this was only intended as a temporary measure and a Senate committee was appointed to investigate a suitable site for a permanent, purpose-built university campus. F.L.S. Merewether, a member of the committee suggested vacant land at Grose Farm.³⁸

It was estimated that between 120 to 150 acres would be required to accommodate the University, residences for the professors, and four colleges with grounds for students' recreation and so that each college might have a garden. In July 1854 the Senate was authorised to take possession of 120 acres of the land at Grose Farm as a site for the University and Colleges. Upon inspection, it was found that an extra 6 acres would be needed to allow the University's building plans to be realised, particularly the siting of buildings on the summit of a hill. 126 acres was formally conveyed by Deed of Grant from the Crown on 18 January 1855. The site was bounded by the Parramatta Road on the north, St. Paul's Road (Carillon Ave) on the south, Newtown Rd (City Rd) on the south-east, by a curved line of fence running from Newtown Road to the Parramatta Road and adjoining what is now Victoria Park on the east, and by Missenden Road on the west. Another 5 acres, initially dedicated for an Episcopal residence was added to the University's lands in 1856.³⁹ (Refer to Map C in J.F. Campbell, "Early History of Sydney University Grounds", *JRAHS*, Vol.16, Part IV, 1930, p.288.)

4.3 Initial Building Program

A Building Fund had been established in 1853, providing for £50,000, originally to be paid in instalments of £5,000 to £10,000 per annum, suggesting that a prolonged period of construction was contemplated. However, in 1855, the restrictions on the instalment amounts were waived, enabling the buildings at Grose Farm to be completed more rapidly than originally planned. While it was always intended to build on a grand scale, it was recommended that initial construction be limited to buildings that were essential for the working of the University - a library, lecture rooms, a laboratory, apartments for an office and residence for the Registrar and a room for meetings of the Senate. More elaborate parts, such as a hall 'capable of containing 2,000 persons' could be added as funds became available. The Elizabethan style of architecture was recommended as it could be extended without damaging the appearance of the whole. The committee also recommended that Mr Edmund Blacket, Colonial Architect, 'whose great ability and taste in Medieval Architecture is widely known' should be commissioned as Architect for the University.⁴⁰

Blacket had trained as an engineer in England, later becoming a skilled draftsman and surveyor. He took a year's leave from paid employment to sketch and record details of English medieval architecture. He arrived in Sydney in November 1842, and was introduced to Dr Charles Nicholson, who became the University's first Provost. After some years Blacket established a modest architectural practice, securing the post of Diocesan Architect and earning a reputation for sound work and a remarkable knowledge of Gothic styles. In 1849 he was appointed Colonial Architect, a post which he held until 1854, when he resigned to take up the invitation to design the buildings of the University of Sydney. Blacket responded to the invitation by expressing his entire readiness to engage in this, 'most important work ever attempted in the Colony.'⁴¹

4.4 Great Hall and East Wing of Main Building

When Blacket laid his designs for the University buildings before the Senate in June 1854, in contrast to their initial recommendations, it was decided that a Great Hall should form part of the principal design and be constructed simultaneously with the remainder of the building. Blacket envisaged that an enclosed Quadrangle

³⁸Turney, Bygott, Chippendale, *op. cit.*, pp.95, 98; Annable, Cable, *op. cit.*, Table of themes 1850-1880; Orwell & Peter Phillips Architects and Wendy Thorp, *The Main Quadrangle Conservation Plan*, commissioned by Woods Bagot Pty Ltd for the University of Sydney, 1995, p.2.

³⁹Turney, Bygott, Chippendale, *op. cit.*, pp.96-97; Campbell, *op. cit.*, p.291.

⁴⁰Turney, Bygott, Chippendale, *op. cit.*, pp.98-99.

⁴¹Turney, Bygott, Chippendale, *op. cit.*, pp.99-101.

would eventually be built, however the initial phase constructed to his designs comprised the Great Hall and East Wing, built between 1855 and 1863. These first buildings provided the lexicon of the rest of the Quadrangle buildings and several other substantial buildings later constructed on the campus.⁴²

The design, in Gothic Revival style, was intended to create a complex that echoed the form of the great English universities and that would dominate the city, with the main building on the eastern hill and colleges to occupy the southern and western ridges. In Blacket's revised plans, one side of the Quadrangle was deleted, its compartments added to the front of the building and the size of the lecture rooms was enlarged, thereby extending the external facade to create an even more imposing and ornate appearance. It was proposed to construct an open archway under the tower, instead of a narrow doorway as originally planned so that the University buildings would command a vista of the future avenue which would lead to the affiliated colleges. Such lavish plans were made possible by the Gold Rush of 1851 which had increased the population and filled the Government's coffers.⁴³

Work on ground clearing and laying part of the foundations began by January 1855. While the original plans envisaged that bricks would be used for constructing the buildings, Blacket found that the clay in the Sydney area was too light in colour to allow contrast between the dark brick wall and light stone dressings, a chief part of the style. It was therefore decided that the whole structure be built of stone, and Pyrmont stone was selected for use in the buildings. While some materials such as Caen sandstone were imported, there was extensive use of local products including timber such as Australian hardwood and cedar from the Richmond and Tweed River areas for the roof beams and other woodwork in the Great Hall.⁴⁴

The years 1855 to 1857 represented the major period of construction. During 1855 the walls of the Great Hall were completed to a height of 21 feet. By the end of 1856 work had commenced on the whole of the eastern front, comprising five compartments: the Great Hall; the compartment between the Hall and tower; the centre tower; the compartment on the other side of the tower; and the compartment containing the laboratory at the south eastern corner of the building.⁴⁵

The laboratory compartment was one of the first sections to be finished in late 1857. The ground floor rooms in this compartment housed the chemistry and physics laboratories as well as their instruments and storerooms. Rooms in this section of the building were also used for lectures in mathematics, chemistry and experimental physics. Also completed in 1857 was the Great Hall and the compartment between the Hall and the tower, designed to provide accommodation for the classical lectures, library, Office of the Registrar and retiring rooms for professors and undergraduates. Teaching began in the Michlmas term of 1857 though some sections were not completely finished. The remainder of the buildings were brought into use between 1857 and 1862.⁴⁶

Between 1855 and 1863 several minor outbuildings were also built around the main buildings. These included stone-built privies and temporary structures such as stables and huts with paling and rail fences to keep out livestock which grazed in the grounds.⁴⁷

By 1857 the Senate, faced with a shortage of funds, approached the Government for an additional grant of £30,000 to complete the entire eastern front and to erect three houses for the professors. The University faced damning criticism over the costs of the buildings which by 1859 had reached £150,000. A Select Committee of the Legislative Assembly, established in 1859 to inquire into the University considered the building grandiloquent and forced several design economies to be made. Times were now less opulent than in the gold rush days when the University was founded, and it was not until January 1859 that a grant of £10,000 was approved to complete the building, though the professors' residences were not completed. While an earthen

⁴²Phillips, Thorp, *op. cit.*, p.3; Turney, Bygott, Chippendale, *op. cit.*, p.101.

⁴³Annable, Cable, *op. cit.*, para. 2.2; Phillips, Thorp, *op. cit.*, p.6. Turney, Bygott, Chippendale, *op. cit.*, p.101.

⁴⁴DPWS *op. cit.*, 4726003; Turney, Bygott, Chippendale, *op. cit.*, pp.101-102; Phillips, Thorp, *op. cit.*, p.7; Bertha McKenzie, *Stained Glass and Stone, The Gothic Buildings of the University of Sydney*, Sydney University Monographs, Number 5, University of Sydney, 1989, p.12.

⁴⁵Turney, Bygott, Chippendale, *op. cit.*, p.102; McKenzie, *op. cit.*, p.14..

⁴⁶McKenzie, *op. cit.*, pp. 85,99.

⁴⁷Phillips, Thorp, *op. cit.*, p.7; McKenzie, *op. cit.*, p.18.

platform for whole Quadrangle had been raised no further additions were made after 1861.⁴⁸ A plan laid before the Senate in 1857 shows the entire Quadrangle outlined as well as the planned professors' residences to the north of the main buildings, with plantations along Parramatta Road probably intended to provide privacy and insulation from noise.⁴⁹

The buildings were officially opened on 18 July 1859 at the Annual Commemoration, a ceremony at which degrees were conferred and an important annual event in the life of the early university. In general, the buildings were acclaimed by the press for their architectural splendour, especially the Great Hall.

In 1860 funds were used to house a collection of antiques donated by Dr Charles Nicholson, containing items from the Etruscan, Greek, Roman and Egyptian civilisations. The collection formed the basis of a museum and three rooms were prepared for its display at the southern end of the building, where it was available for public access and for the illustration of the classical lectures. This was the foundation of the Nicholson Museum.⁵⁰

Not until 1862 did the University receive an additional grant of £5,000 to permit the completion of the tower and rendering the interior available for use. Cloisters were to extend inside the Quadrangle on all four sides, but were not built initially due to lack of funds. Turrets of the great tower were the final part of the early building to be completed in 1862. A single clock face, made by John McLeod of London was mounted on the east face of the tower. It has since been removed to the south wall of the Woolley building facing the Teacher's College. At the time of its completion, the tower was a landmark on the top of the hill. Various gargoyles and grotesques around the tower draw on local flora and fauna. The old pump in the archway was used in the early years to provide water drawn from an underground tank fed from the roof of the main building.⁵¹

Externally and internally the buildings reflected the founders' affection for and allegiance to a British heritage and their aspirations to follow in the tradition of the great universities of Oxford and Cambridge. The stained glass windows in the Great Hall include the Oxford, Cambridge and Royal windows, while stone carvings bear images of Queen Victoria and the Prince Consort. The initials, 'VR' for Victoria Regina, together with the royal motto and emblems such as the crown and Tudor rose occur repeatedly throughout the early buildings. The buildings were intended to be a statement of the high value to be placed on learning and the idea of the university as an ancient and influential symbol of the established order.⁵²

The main entrance to the University was also intended to create an impression of grandeur. It was planned that an imposing carriageway and walkway shaded by a double avenue of trees on each side would lead up from a main gateway on the Newtown road (City Road) directly to the clock tower. While in April 1859 land from the recreation reserve adjoining the University was requested for this purpose, it was not formally dedicated until 1863 and the planting of trees did not occur until 1870.⁵³ (Picture in Turney et. al. Vol. 1, p.176 shows main building and entrance drive).

4.5 Development of Colleges

Between 1856 and 1876 the colleges of St Paul's, St John's and St Andrew's were built within the University grounds by the Anglican, Roman Catholic and Presbyterian churches respectively. The buildings were of stone and echoed the Gothic Revival style of the main University building. St Paul's was the first to be built between 1856 and 1859 toward the eastern side of Grose Farm near Newtown Road; followed by St John's in 1863 towards the corner of Parramatta and Missenden roads; then St Andrew's in 1876 in the south-western extremity of the University on the corner of Bligh Street (Carillon Avenue) and Missenden Road. All colleges suffered

⁴⁸Phillips, Thorp, *op. cit.*, p.5; Turney, Bygott, Chippendale, *op. cit.*, p.102; Annable, Cable, *op. cit.*, para. 2.4.

⁴⁹Plan titled, 'Land at Grose Farm University of Sydney' laid before Senate 1857 (SUA: Group G.074, Series 1, Folder 1).

⁵⁰Turney, Bygott, Chippendale, *op. cit.*, p.104.

⁵¹Turney, Bygott, Chippendale, *op. cit.*, pp.104-105; McKenzie, *op. cit.*, pp. 18, 88-90.

⁵²Turney, Bygott, Chippendale, *op. cit.*, pp.103-104, 110; Annable, Cable, *op. cit.*, para. 2.4.

⁵³Turney, Bygott, Chippendale, *op. cit.*, p.102; McKenzie, *op. cit.*, pp.88-90; Annable, Cable, *op. cit.*, Table of themes 1850-1880; DPWS, *op. cit.*, Item 4726009.

from financial difficulties and lack of patronage in their early years, however St Andrews was comparatively more prosperous and provided a more collegiate atmosphere.⁵⁴

4.6 Grounds and Sporting Facilities

The first plantings in the University grounds took place in the late 1850s and included Port Jackson Figs and pines in a large plantation which stretched along Parramatta Road from the site of the Old Geology building to the corner of City Road. Young trees for this plantation and the avenue of trees lining the main drive were raised in a nursery on the site of the present Veterinary precinct.⁵⁵

Tradition has it that the first University sporting club formed was the football club dating from 1863. A cricket club was founded 1865 and in 1866 the Senate resolved that part of the University grounds be reserved temporarily as a cricket ground. The area chosen (now No. 1 Oval) was in a low lying part of the grounds between Orphan School Creek and the water course which fed into it on the east side and which formed the northern boundary of the grounds of St Paul's College.⁵⁶

5. DEVELOPMENT OF MEDICINE AND THE SCIENCES 1880-1900

5.1 Expansion of Curriculum

Since the mid 1870s the Senate had agreed to the need to expand the curriculum dramatically. While classical studies continued to be highly valued, the governing body felt that 'in an industrial community the University should be more relevant to the needs of its students in preparing them for the occupations in which they would be employed.' The University wanted to provide for 'all the educated professions and for those technical occupations which are associated with science.'⁵⁷

Melbourne University, founded in 1853 had concentrated on offering a wider range of subjects than Sydney, and by the 1860s it had a medical school; engineering and law courses; and a more 'modern' Arts curriculum. However the greater gold rush experienced in Victoria meant that Melbourne's population was larger and more diverse than Sydney's. At the University of Sydney a scheme for expansion drawn up in 1876 provided for the introduction of courses in mental philosophy, law, history and English literature; a medical school; courses in natural philosophy, mechanics, engineering, organic chemistry, metallurgy and biology during the 1880s and 1890s. However, priority was given to the establishment of the faculties of Medicine and Science.⁵⁸

By 1880 the idea of the University had moved from that of a 'gentleman's university' to that of a 'professional university' founded on the principle of the social utility of higher learning and its availability to a wider section cross-section of society. Other measures to achieve this included the introduction of evening lectures in 1884 to enable those who worked during the day to undertake degrees part-time; then in 1886 extension lectures were introduced whereby courses were open to anyone upon payment of a fee.⁵⁹

5.2 Challis Bequest

Major physical expansion of the University in the 1880s and 1890s was facilitated by an increase in its Government endowment, but in particular by the Challis bequest. John Henry Challis, a retired merchant and friend of Sir Charles Nicholson, had contributed funds for the stained glass windows in the Great Hall and donated the 'Royal Window' in 1859. On his death in 1880 it was revealed that he had provided for his entire estate to eventually pass to the University upon the death of his widow, with certain conditions. Challis's widow

⁵⁴Turney, Bygott, Chippendale, *op. cit.*, pp.105-110, 162-164.

⁵⁵Curtis, *op. cit.*, p.26.

⁵⁶Annable, Cable, *op. cit.*, para. 2.8.6; Turney, Bygott, Chippendale, *op. cit.*, pp.137, 166; DPWS, *op. cit.*, Item 4726008.

⁵⁷Turney, Bygott, Chippendale, *op. cit.*, pp 156-157, 170, 181.

⁵⁸Turney, Bygott, Chippendale, *op. cit.*, pp 156-157, 170, 181; Annable, Cable, *op. cit.*, para.2.7.

⁵⁹Turney, Bygott, Chippendale, *op. cit.*, pp 156-157, 170, 181, 189-190, 194-195; Annable, Cable, *op. cit.*, para.2.7.

died in 1884, making the funds available to the University sooner than expected. The major portion of the bequest, comprising about £200,000, was handed over to the University in early 1890; a further £25,000 was added the following year.⁶⁰

5.3 Establishment of a Medical School

The establishment of a medical school had been one of the University's objectives since the late 1850s. In April 1873 an agreement was ratified between the University and Wesleyan and Presbyterian bodies of the Prince Alfred Hospital by which eleven acres of land at Grose Farm were to be made available for the Hospital, which was built on the western side of the campus from 1876 to 1882. Two to three of the eleven acres were to be reserved for the establishment of a Medical School in connection with the University. However, it wasn't until the early 1880s, with the promise of increased endowment and the Challis bequest that the Senate was able to hasten the School's establishment.⁶¹

Thomas Peter Anderson Stuart was appointed to the Chair of Anatomy and Physiology in 1882. A graduate of Edinburgh University, Anderson Stuart was held in high esteem by the leaders of the medical profession in Scotland and England. He began teaching in 1883 in a small four-roomed cottage which had been hastily constructed for the purpose on the site of what is now the Old Geology Building (A11). The building was damp and cramped as two of the rooms were used for teaching botany and zoology. Subsequently an annexe (a detached three-room range between the cottage and Parramatta Road) was built for a lecture room and dissecting room, which served until the School moved into its new building in 1889.^{62,63}

The Anderson Stuart Building (F13)

Stuart soon sought Senate and Government support for increased staff and a suitable building for the Medical School as student numbers grew; in 1884 the Senate resolved that a Medical School be erected without delay. The building was designed by Colonial Architect, James Barnet, to a specific brief from an academic committee and its development was supervised by Stuart, who ensured that the building would be not only functional but stylistically impressive to rival Blacket's main buildings to reflect the high status of Medicine as a profession.⁶⁴

The site of the School, determined in 1885, was to the south of the main buildings; its eastern facade aligned with the Great Hall. Originally a chemical department was to be built with the School but was eventually located elsewhere. It was considered essential that the new structure be in harmony with the main building and it was built in the Gothic style and clad in Perpendicular Gothic motifs taken from the main building.⁶⁵

While presenting a striking Gothic facade, the school conformed strictly to the requirements of those who worked in it, representing a breakthrough in the University's architecture. Anderson Stuart insisted on a high degree of ventilation control as well as large rooms and twenty-foot ceilings, which were to be a feature of the building. The entry and spinal passageways of the original building are key elements in establishing the character of the place as well as providing ample circulation.⁶⁶

The Medical School experienced remarkable growth and by 1886 there were 39 students, including 20 in first year. The building was completed externally by April 1889 and was able to be occupied, though much internal finishing and furnishing continued for the next few years. On the eastern gable a statue of Asklepios stands above a raven-like bird over which are the initials 'AS'. The bird, with a prominent beak is a reference to Anderson Stuart, who had a large pointed nose himself. Stained glass windows, made in England, depicting various figures of significance in the history of medicine, were donated by a number of individuals. Inside, the

⁶⁰Turney, Bygott, Chippendale, *op. cit.*, pp.181-183.

⁶¹Turney, Bygott, Chippendale, *op. cit.*, p.211; Peter Stanbury & Julian Holland (eds.), *Mr Macleay's Celebrated Cabinet. The History of the Macleays and their Museum*, The Macleay Museum, The University of Sydney, 1988, p.65.

⁶²Turney, Bygott, Chippendale, *op. cit.*, pp.212-214; James Semple Kerr, *Anderson Stuart's Medical School, A Plan for its Conservation*, Commissioned by Australian Construction Services for the University of Sydney, 1992, p.3.

⁶³Turney, Bygott, Chippendale, *op. cit.*, p.212.

⁶⁴DPWS, *op. cit.*, Item 4726007; Kerr, *op. cit.*, pp.1-2; Turney, Bygott, Chippendale, *op. cit.*, pp.214, 216-217.

⁶⁵Kerr, *op. cit.*, pp.5-8; McKenzie, *op. cit.*, p.101.

⁶⁶Annable Cable, *op. cit.*, para. 3.7. Kerr, *op. cit.*, pp. 5, 8-11; DPWS, *op. cit.*, Item 4726007..

corridors were lined with busts of eminent medical men, donated by benefactors. These busts, as well as paintings, carvings and other decorative elements are in keeping with the 'cult of the hero' which was a major factor in neo-classical art and British culture since the eighteenth century, providing a sense of continuity and building on the past. The exceptional scale, patterned marble paving and fine joinery were intended to reflect the status appropriate to such an institution.⁶⁷

The Anderson Stuart Medical School was one of the first two medical schools in Australia, the other being in Melbourne; and the first to be associated with a teaching hospital. The site, architectural style and quality of workmanship and appointments, externally and internally reflected the dominance and prestige of medicine as an academic discipline. This dominance was an important feature of the organisation of the University as a whole for a prolonged period.⁶⁸

Medical School Gate Lodge (F18)

The erection of the Medical School extended the campus perimeter towards Newtown Road (City Road) and remained the only building in that area for some years. In 1898 a gate lodge was erected near the second entrance to the University from Newtown Road and is unusual in that it features Art Nouveau and Romanesque motifs whereas most gate houses in Sydney are inspired by English Gothic. This lodge was known as the Medical School lodge due to its proximity to the School and is thought to have been used for the receipt of cadavers before they were transported to the Medical School. It was subsequently extended (c. 1925) on the west side in the style of the original.⁶⁹

5.4 The Macleay Museum

The other major building to be erected close to the main buildings, to the north-west of the Great Hall was the Macleay Museum. It was built between 1886 and 1887 to house the natural history collection of the Macleay family, accumulated over almost one hundred years and considered to be of international importance. The Hon. William Macleay, pastoralist, politician and patron of science in New South Wales, who was also a Fellow of the University Senate, proposed to present the collection to the University as soon as a suitable building be erected to receive it. The Macleay Museum was thus unique as the only building within the University to have been erected at the instigation of a private individual.⁷⁰

It was to be constructed of non-inflammable material, possibly in response to the Garden Palace fire of 1881 which had devastated the records of the library of the Linnean Society of NSW. A leading private architect, George Allen Mansfield, was appointed to design the museum. Among the many other buildings designed by Mansfield was the Royal Prince Alfred Hospital and Darlington Public School. It was constructed predominantly of brick and iron in a simplified Gothic style, and while the bricks blended with the main University buildings, it was much less elaborate in style. It is a very early example of brick cavity-wall construction which was evolving in Australia at the time as a means of preventing the penetration of damp. The building was put to immediate temporary use for holding Civil Service and Articled Clerk's examinations. When the interior was completed in 1888, transfer of the collections began and the museum was opened to the public in 1891.⁷¹

5.5 'Temporary' Buildings for Sciences and Engineering

Science subjects had originally been taught as part of the Bachelor of Arts program and were mainly theoretical with only minor involvement of laboratory work. However, with the higher profile given to the sciences in response to Australia's increasing industrialisation and great mineral wealth, a Faculty of Science was

⁶⁷Turney, Bygott, Chippendale, *op. cit.*, p. 214; Kerr, *op. cit.*, pp.11-12, 14; McKenzie, *op. cit.*, pp.101-114; DPWS, *op. cit.*, Item 4726007.

⁶⁸Kerr, *op. cit.*, pp.23-45; DPWS, *op. cit.*, Item 4726007.

⁶⁹DPWS, *op. cit.*, Item 4726011.

⁷⁰Turney, Bygott, Chippendale, *op. cit.*, pp.267-268; DPWS, *op. cit.*, Item 4726005.

⁷¹Stanbury & Holland, *op. cit.*, pp.59-68; DPWS, *op. cit.*, Item 4726005.

established in 1882. The first engineering lectures began in 1883 and the degrees of Bachelor and Master of Engineering were introduced in 1884. From 1889 students could enter three year degree programs in science and engineering directly upon matriculation. The expanded curriculum meant that additional accommodation and equipment was required for laboratories in which lectures and practical classes could be held. From the mid 1880s to 1894 a number of new ‘temporary’ purpose-built facilities for professional subjects were out of sight of the main building. As they were strictly functional and made no pretensions to contribute to the University’s architecture, they were ‘hidden’ so as not to disfigure the grand buildings of the main complex. The buildings constructed in this period formed the genesis of what was to become Science Road, lined with science facilities.⁷²

Physics Laboratory (Badham Building (A16))

The first of the purpose-built facilities was the Physics Laboratory, constructed in 1886-1887. Specifications for the laboratory, its equipment and fittings were drawn up by newly appointed Professor of Physics, Richard Threlfall and designed by the Government Architect’s branch. It was located adjacent to the then west gate of the University and was a single storey rendered masonry building with a slate roof. Features specific to laboratory needs included deep foundations to eliminate vibration, non-magnetic materials (evidence of both survives) and exposed surfaces for easy access. A tower with parapet to the west of the building formed the main entrance and also served a practical purpose to enable the time ball at Sydney Observatory to be viewed. Services included gas, water, steam, electricity, gas and electric lighting, air blast oxygen and vacuum pumps. A battery room was included to produce the electricity.⁷³

Chemistry Laboratory (Pharmacy Building (A15))

The Chemistry Laboratory, which had originally been housed in the main buildings had moved in 1885 due to overcrowding and the danger of fire. A new facility was built in 1888-1890 adjacent to the Physics Laboratory by the Government Architect’s branch under James Barnet, to the design of Archibald Liversidge, Professor of Chemistry. Liversidge also designed the fittings and equipment which represented the best in international contemporary practice in laboratory design.

Particular attention was paid to adequate ventilation and lighting.⁷⁴ The building provided,

two laboratories for Practical Chemistry capable of accommodating over one hundred students at one time with the necessary separate rooms for spectroscopy and gas analysis, balance rooms etc., and also two lecture rooms capable of seating two hundred and one hundred respectively.⁷⁵

Additions were made between the late 1890s to 1902 and in 1905 a balance room, to Liversidge’s design was added to the east side of the building.⁷⁶

Temporary Engineering Building

Engineering had originally been housed in the main building, but moved in 1885 to temporary premises south-west of those buildings to a low white building with a verandah facing Parramatta Road where the Union now stands. One student recalled that the Engineering quarters comprised: the Professor’s room, students’ lunch room, lecture room, drawing office and a machine shop.⁷⁷

School of Mines (Old Geology Building (A11))

In the 1890s, given the importance of mining in Australia, moves were made to establish a school of mines, after the commencement of lectures in mining and metallurgy. The University received a special grant of £10,000 in 1893 to establish the school. A School of Mines was erected on the site that had been occupied by

⁷²Annable, Cable, *op. cit.*, Table of themes 1880-1910; Turney, Bygott, Chippendale, *op. cit.*, pp.257-265, 267-268, DPWS, *op. cit.*, Item 4726015.

⁷³DPWS, *op. cit.*, Item 4726015.

⁷⁴Turney, Bygott, Chippendale, *op. cit.*, p.268.

⁷⁵DPWS, *op. cit.*, Item 4726020.

⁷⁶*Ibid.*

⁷⁷Turney, Bygott, Chippendale, *op. cit.*, pp.247-249.

the small cottage and associated building used as the temporary medical school. Plans were prepared by Government Architect in 1893 and the building was completed for use at the beginning of 1895. The School of Mines was typically functional, built of stuccoed brick and unornamented design and provided accommodation for geology, mining and mineralogy. At the back was a large lecture theatre capable of seating 250.⁷⁸

Milling Building for Metallurgy (Bank Building (A15))

In 1899-1900 a milling building, furnace room, stack and roaster for metallurgy were built by the Government Architect's branch to the design of Professor of Chemistry, Archibald Liversidge. The former battery room of the physics laboratory was incorporated into the milling building. Both the mining and metallurgy buildings represent the expansion of the University's teaching into areas of particular relevance and concern to Australia.⁷⁹

5.6 Student Facilities

The initial scarcity of students inhibited the growth of facilities, although there was provision for student recreation in the main building. In 1874 a debating society, the beginning of the Sydney University Union was formed and based on the Oxbridge model. However, it was predominantly a graduate organisation which met in the city; no separate facilities yet existed on the campus.⁸⁰

During the 1880s and 1890s student numbers increased as secondary education expanded and as the University extended its availability and relevance to colonial society. While numbers fell during the depression of the 1890s they quickly recovered by the turn of the century. The increase in enrolments was accompanied by a flourishing of student life with the foundation of clubs and societies and the launch of the first student magazine, *Hermes*, published by the Medical Society in 1886. The student body was more articulate, concerned and united than in the early years and this gave impetus to the development of non-academic facilities.⁸¹

In 1884 a men's common room was provided near the main Quadrangle, however, by the late 1880s this had become inadequate with insufficient ventilation, space and furniture. In 1888 the Sydney University Association petitioned the Senate for a new suite of rooms, one of which would be allocated to the University Union for meetings. A larger weatherboard building was erected adjoining the existing common room and, while this fell short of the students' requests, it was welcomed and provided temporary relief.⁸² (See Good, *Holme Sweet Holme* p.3. for picture of common rooms).

Admission of Women

In 1881 the Senate decided unanimously to admit women to the University on equal terms with men, as had occurred in Britain and other countries. The arrival of women greatly influenced the development of recreational and sporting facilities. One of the basic requirements for the admission of women was the provision of 'a suitable retiring room and other necessary conveniences set apart exclusively for female students.' The Senate intended to erect a small cottage at the rear of the main buildings, however, this did not eventuate and for the first few years after their admission, women had use of a room in the tower. In 1885 they were given partial use of a temporary weatherboard building that had been built as a laboratory for classes in practical chemistry. In 1889 this building was handed over completely to women as the 'New Ladies Common Room.' Situated in what is now the south-eastern end of the Quadrangle, the building contained a reading room, a common room used for lunches, debates and meetings, tutor's room, kitchen and a small dressing room with lockers.⁸³ (See Turney et. al. Vol. 1, p.313 for picture of tennis courts and women's common room. Also, Good, *Manning House*, p.3 for good picture of common room).

⁷⁸Turney, Bygott, Chippendale, *op. cit.*, pp.250-251; DPWS, *op. cit.*, Item 4726019.

⁷⁹DPWS, *op. cit.*, Item 4726040.

⁸⁰Annable, Cable, *op. cit.*, para. 2.8.6; Table of themes 1850-1880; Turney, Bygott, Chippendale, *op. cit.*, pp.137-138.

⁸¹Turney, Bygott, Chippendale, *op. cit.*, p.309.

⁸²Annable, Cable, *op. cit.*, table of themes 1880-1910.; Turney, Bygott, Chippendale, *op. cit.*, pp.315-316.

⁸³Turney, Bygott, Chippendale, *op. cit.*, pp.183-185.

A college for women was established in temporary premises in 1892. Women's College opened in its own building within the University grounds, near Carillon Avenue in 1894.⁸⁴ The College's first principal, Louisa MacDonald, an Englishwoman with a Master of Arts degree from the University of London, was an avid supporter of all women's activities at the University and was involved in the larger social movements for female emancipation. Under her leadership the Women's College became a central focus for feminist ideas at the University.⁸⁵ (See photo of Women's College - Turney et.al. Vol 1, p.339.)

5.7 Sporting Facilities

In the 1880s many new sporting clubs were founded, including the Boat Club in 1884 and the Athletic Club in 1885. The most successful of the new clubs was the Tennis Club, also founded in 1885. The club was allocated four grass courts where the Quadrangle was situated, close to the Men's and Ladies' common rooms, allowing the men to watch the women playing and make disparaging comments on their game. In 1887 a separate Ladies' Tennis Club was formed, the first women's sporting club at the University.⁸⁶

Between 1884 and 1890 a cricket ground (now Oval No. 1), originally set aside in 1866, was properly formed during improvements to the University grounds carried out as part of unemployment relief works at the instigation of Chancellor, Sir William Manning. With a team of about 60 men under the supervision of the Yeoman Bedell the ground was levelled, cut back, sloped banks built, drained and turfed.⁸⁷ In 1886 new north-to-south turf wickets were laid.⁸⁸

In 1886 the Senate constructed for the Football Club a level ground for a playing field close to the colleges midway between the Prince Alfred Hospital and the new Medical School, as it was impressed with the success of the clubs. A map of the University c. 1890s shows the Football Ground located in approximately the same area that became the Hockey Square in later years.⁸⁹ (See SUA Plan 413/165/003).

5.8 Grounds

The University grounds in the 1880s remained very rough. In the gully behind the University a creek ran through paddocks from below St Paul's College to Parramatta Road, in some places forty feet wide and eight feet deep. The greater part of the land between the University and the colleges had been let to a dairy proprietor for grazing purposes. Some students surmised that the grounds leased for grazing must have included the football field since 'the lowing herd preferred this sequestered spot to any other in their wide domain.'⁹⁰

Improvements were made to the main approaches to the University in the 1880s with the construction of lodges and gates: Between 1883 to 1885 two lodges, for the gardener and messenger, were built. They flanked the grand drive from Newtown Road which had been planted with fig trees and aligned on the central archway of the main building. However, the road leading from the entrance was rugged and strewn with loose stones and pebbles. This track led past the partially completed front lawn to the portico of the centre tower.

Other works were carried out in the grounds during the 1890s as part of the unemployment relief scheme, involving at least 150 men. The plantation to Derwent Street was widened and more shrubs planted. On each side of the main entrance avenue fig trees were cut down; later, the pines were removed and replaced with Port Jackson Figs. Beside the main road trenches were dug for drainage and borders were planted with shrubs from the Royal Botanic Gardens and Chancellor Manning's own garden. Paling fences were replaced with iron fences. The pond at the bottom of Victoria Park that had once been a stock watering hole, was turned into a

⁸⁴Annable, Cable, *op. cit.*, Table of themes 1880-1910.

⁸⁵Annable, Cable, *op. cit.*, Table of themes 1880-1910; Sonja Lilienthal, *Newtown Tarts, A History of the Sydney University Women's Sports Association 1910-1995*, Allen & Unwin, St. Leonards, 1997, pp. xiv, 9-10.

⁸⁶Turney, Bygott, Chippendale, *op. cit.*, p.312; Lilienthal, *op. cit.*, pp.3-7.

⁸⁷DPWS, *op. cit.*, Item 4726008.

⁸⁸Turney, Bygott, Chippendale, *op. cit.*, p.312.

⁸⁹SUA: Plan 413/165/003, Group G.074, Series 1, Folder 1.

⁹⁰Turney, Bygott, Chippendale, *op. cit.*, p.175.

large ornamental lake by deepening and raising the water level. A bridge across the lake carried the entrance drive up to the main buildings. Moreton Bay and Port Jackson Fig trees were planted to line the lake and Parramatta Road.⁹¹

6. THE VERNON AND MCRAE PERIOD 1900-POST-WW I

6.1 Overall Planning of the University

The question of an overall plan for the future development of the University had first been considered in 1891 when deliberations over possible sites for the Women's College forced the University to address its own needs for the future. While the first known plan for the completion of the Quadrangle and other buildings was prepared in November 1890 by J. L. Bruce, foreman of works in the Government Architect's Branch of the Public Works Department, it was never used. However, in 1891 Bruce was involved in assisting the Buildings, Grounds and Improvements Committee with planning. The Committee resolved to reserve the area between the proposed roadway from the Ross Street entrance and the University buildings. Bruce provided advice and pegged out sites for the Committee's deliberations. However, it was not until the early twentieth century that further thought was given to overall planning of the University.⁹²

In 1904, when plans were prepared for the new Engineering School, a 'general plan prepared by the Government Architect for future extensions of the University buildings' was also submitted by the Building, Grounds and Improvements Committee to the Senate. It is not clear, however, whether the plan was for extensions to existing buildings only. In November 1907 the Government Architect was asked to prepare a 'general survey of the whole university grounds showing proposed roadways and sites that could be used for future additional buildings or extensions of existing buildings including also portions of the grounds of St Paul's and St John's colleges at present unused.' By April 1910 a general plan for the development of the University grounds had been prepared by W. L. Vernon and approved by Senate. However, no surviving drawn plans from the period 1907-1910 have been located.⁹³

A plan of the whole University 'showing existing and suggested future buildings in conjunction with the layout of the grounds' was prepared in 1913 by George McRae, who succeeded Vernon as Government Architect. This plan was refined and re-drawn in 1917 by Gorrie Blair of the Government Architect's Branch. It is possible that these plans were developments of an earlier scheme.⁹⁴

In 1914 the Buildings, Grounds and Improvements Committee turned its attention to landscaping issues and recommended that a landscape architect be engaged to advise on the best method of laying out the grounds, including sites for buildings, roads and areas for playing fields. This was the first occasion on which planning for the whole area bounded by Parramatta Road, City Road and Missenden Road was addressed. The adviser appointed was Walter Burley Griffin, who presented a master plan in 1915. The plan was considered 'an admirable harmonious scheme', however, it was criticised on the grounds of practicality and cost. While the scheme was not implemented it influenced later planners, particularly Leslie Wilkinson, who embraced parts of Griffin's plan in his work as University Architect in the 1920s.⁹⁵ A detailed analysis of the planning and built form of the University by Donald Ellsmore is presented in Section 11.

⁹¹Curtis, *op. cit.*, p.34.

⁹²Rosemary Annable, *A History of the Pharmacy, Badham and Bank Buildings in the Science Road precinct and of the adjacent part of the Main Quadrangle surrounding the Vice-chancellor's Garden*, for the Office of Facilities Planning, University of Sydney, 1995, pp.14-15.

⁹³Annable, 'Pharmacy, Bank, Badham', p.15; Minutes of the Buildings, Grounds and Improvements Committee 15 July, 1904, 7 November 1907, 21 April 1910 (SUA: G1/5/1).

⁹⁴Annable, 'Pharmacy, Bank, Badham', p.15, plans 13 and 14. Refer to Appendix 4 for a detailed analysis of these plans.

⁹⁵Annable, 'Pharmacy, Bank, Badham', pp.16-17.

6.2 Fisher Library and Extension of Quadrangle

Architecturally, the period from 1900 to just after World War I was characterised by the work of the Government Architect's office, first under Walter Liberty Vernon, then by his successor, George McRae. One of the first projects undertaken after 1900 was the construction of a separate purpose-built library.

By the 1880s the University's growing library was housed in various locations in the main building and there was a need to unite the collection in one place. The building of a separate library was made possible by the bequest of Thomas Fisher, a retired businessman who had lived in Darlington and frequently walked in the University grounds and attended Commemoration Day functions. In his will he bequeathed the majority of his estate of some £30,000 to be applied in 'establishing and maintaining a library for the use of the University.' Fisher died in 1884 and his bequest provided funds for book purchases and a building fund. Finally it was decided that the government would fully fund the building, leaving the Fisher Fund as a perpetual endowment for library purposes.⁹⁶

Built between 1902 and 1909, the Fisher Library occupied part of the south side of what was to become the Quadrangle. The new library was designed by the Government Architect's branch under Walter Liberty Vernon, William Mitchell and George McRae, 'with a view to the advancement of art education of the people.' as well as for its main purpose. The ground floor accommodated the Nicholson collection; the first floor contained a large reading room for 150 readers; while a refectory and service rooms occupied the basement. Six floors of book stacks at right angles formed part of the west side of the Quadrangle. While the design followed the European Gothic tradition, the building is more ornate in its decorative carving than the first buildings as though the architect and builders tried to outdo the first great hall. The best Australian materials were used and the library featured a magnificent cedar hammer beam roof. At the time of the library's construction cedar was fast disappearing on the east coast of Australia and its use here was intended as an enduring example and memento of one of the finest and most distinctive materials of early settlement. The design places the University within the tradition of British universities, however there was also the desire to demonstrate the quality of workmanship displayed by Australian craftsmen.⁹⁷

One aspect of the Government Architect's plan approved in 1910 involved the completion of the main Quadrangle. In 1913 building began on the south range of the main Quadrangle, the section now known as the Professorial Boardroom, with cloisters running from the eastern tower, round the south range to the north end of the book stack. By this time George McRae had succeeded Vernon as Government Architect. McRae had been Vernon's principal assistant on the library project and he continued the style and design of the earlier work. This was completed around 1918 with the Nicholson gateway and the first part of the cloisters. The vestibule and staircase were cut into the original east range. Decorations on this section of the building reflect the University's loyalty and support for the British war effort and include panels reading 'Our Navy heroes' and 'Our Army heroes' carved during WWI and bearing the dates '1914-1915' later excised.⁹⁸

6.3 Medical School Extensions

Plans for extending the school to provide increased accommodation were made in 1906. Two extensions were completed under separate contracts between 1907 and 1912 to the design of W.L. Vernon. The first was the addition of an "L" shaped range to the north-west and was completed in 1910; the second extension involved another range to the north-east, completed in 1912. Part of the second contract for additions included a spiral staircase projected into the north courtyard and was a rare early example of the use of reinforced concrete; and a four-bay cloister leading from the future north facade across an internal courtyard to the centre of the building.⁹⁹

⁹⁶Turney, Bygott, Chippendale, *op. cit.*, pp.196-197; DPWS, *op. cit.*, Item 4726044.

⁹⁷ McKenzie, *op. cit.*, p.118; DPWS, *op. cit.*, Item 4726044.

⁹⁸ McKenzie, *op. cit.*, p.128; Annable, Cable, Table of themes 1880-1910. & 1910-1940; Phillips, Thorp, *op. cit.*, p.4; DPWS, *op. cit.*, Item 4726045.

⁹⁹DPWS, *op. cit.*, Item 4726007; McKenzie, *op. cit.*, p.102.

Both additions harmonised with the original building, as this remained a major concern of both the Senate and Government Architect's office, however, the junction of the old and new work is deliberately discontinuous to emphasise that the new works are, in fact, additions. The dress of the walls slowly moves from the Perpendicular Gothic of the original School to later stylistic treatments, such as lower windows breaking into Elizabethan elements. On the north facade of the north range of additions, completed by 1912, the stylistic character is slightly later again: the Elizabethan of a large English country house.¹⁰⁰

6.4 Expansion of Professional Education

The new century saw a continuation of the University's expansion and a strengthening of its vocational and utilitarian role. A number of new programs were introduced prior to World War I, many of which led to their own degrees, in dentistry, agricultural science, veterinary science, architecture, economics and commerce, education, and military studies. The great pastoral and agricultural expansion of the preceding decades had stimulated the need for highly trained people in agricultural and veterinary science. In particular, the experience of the disastrous drought which followed the depression of the 1890s, emphasised the importance of managing the land with care, forethought and planning. The need for veterinary training was prompted by the national economy's substantial dependence on grazing. Simultaneously, the related growth of commercial enterprises in the cities highlighted the need for people trained in commerce and economics. The generally expanded population created the need for improved and increased provision of dental, housing and educational services.¹⁰¹

By 1914 enrolments had reached 1,674. While the War slowed progress, it was not entirely halted. In fact, by 1918 enrolments had increased to 1,995, with the number of women students almost doubling to 641, while men slightly decreased in number. Staff numbers also grew from 68 to 100 full time academics and several new chairs were created, including Mechanical Engineering (1915), Architecture (1916), Pharmacology (1917) and Oriental Studies (1918).¹⁰²

6.5 Expansion to the west of Main Buildings, down Science Road

Between 1901 and 1910 the Government Architect's office under Walter Liberty Vernon, developed a plan for the University which involved expansion to the west of the main buildings. Part of the plan included the demolition of the temporary science facilities that had been constructed in the 1880s and 1890s and an attempt to bring that part of the campus extending along Science Road, into harmony with the general design of the main complex. This represented a significant change in the perception and use of Science Road from an area in which 'temporary' facilities could be hidden to its incorporation as an integral part of the University, reflecting the ever increasing emphasis placed on the scientific and professional disciplines which were housed in that area. Science Road itself was created when the paths around the 'temporary' science buildings built between 1899 and 1916 were replaced by a straight line of road running from the Macleay Museum to a proposed entrance opposite Ross Street. Newer buildings were aligned to this frontage.¹⁰³

Biology (Zoology (A08))

The first of the buildings designed by W.L. Vernon, which extended the campus in this area was the Biology Building, built in 1900-1903 at the western end of Science Road; It was a single-storey face brick building with a larger lecture theatre to the west; it also provided a museum for Professor Haswell's teaching collection and preparation rooms. Its entrance was on the north side so that the dominant feature of the Science Road elevation was the large laboratory with its tall, double-storey south facing windows.¹⁰⁴

¹⁰⁰Kerr, *op. cit.*, pp.14-17.

¹⁰¹Turney, Bygott, Chippendale, *op. cit.*, pp.346-347, 358.

¹⁰²Turney, Bygott, Chippendale, *op. cit.*, pp.412-413; Annable, Cable, *op. cit.*, Table of themes 1910-1940.

¹⁰³DPWS, *op. cit.*, Items 4726014 & 4726018.

¹⁰⁴DPWS, *op. cit.*, Item 4726016.

Engineering School & Workshops (John Woolley Building (A20))

Construction of a new building for an Engineering School was made possible by donations from Peter Nicol Russell, who had owned his own engineering works and retired a wealthy man. He made two gifts of £50,000 to the University in 1896 and 1904, the first provided for teaching, while the second was made on condition that the Government provide £25,000 to be used for the extension of buildings and equipment of the Engineering School.¹⁰⁵

The Peter Nicol Russel School of Engineering, (1906-1908) and detached workshops (1907-1909), consisted of a two-storey Federation Arts and Crafts style building constructed of face brickwork with stone dressings. This building was the first of a series of unusual and carefully detailed Federation Arts and Crafts style Science facilities to be constructed along Science Road prior to WWI by Vernon, who was one of the leading practitioners of the Arts and Crafts style. Its size reflected the strength of the three subject areas in the faculty: civil, mechanical and electrical engineering.¹⁰⁶

Veterinary Science School (J. D. Stewart (B01))

This was the second in the group of Federation Arts and Crafts style brick and sandstone buildings designed by Vernon, built between 1910 and 1912. The School was situated in an area which fronted Parramatta Road near St John's College, probably chosen to provide a secure and quiet environment for the veterinary hospital where the occupants would not disturb other users of the University grounds. It contained purpose-built facilities specifically designed for the teaching of Veterinary Science and equipped with special laboratory apparatus purchased overseas. In subsequent years foundations were laid for other permanent buildings around the spacious Quadrangle, however, building activities were halted by the outbreak of WWI, and so temporary weatherboard buildings were erected instead and continued to function over many years. A lodge (B03) and observation box (B11) were added to the precinct by Leslie Wilkinson, University Architect, in 1920-1921.¹⁰⁷

Agriculture (R.D. Watt Building (A04))

The Agricultural Science School was one of the last in the series of buildings designed by the Government Architect's branch prior to WWI in the Federation Arts and Crafts style. While Vernon influenced the design of the building, it was completed by George McRae. Robert Watt, who took up the first Chair of Agriculture in 1910, was also involved in designing the building. Work began on the foundations in 1911-1912 but building did not commence until 1914, was completed in 1916, but not properly equipped until 1920. It has been in continuous use by Agriculture since 1916 and has not been extensively altered.¹⁰⁸

Electricity Substation

The proliferation of science laboratories in the area necessitated extensive power supplies. Around 1913 Sydney City Council erected an electric light and power substation on land between the area proposed to be used by the Department of Agriculture and Parramatta Road. The land was leased to the City Council at nominal rent for a period of 25 years. The substation and switch room is a single storey brick building with sandstone detailing, a slate roof and exposed timber eaves. It was designed using similar materials to the Science Road facilities as they were intended by Vernon, thus demonstrating the desire for architectural harmony in that area.¹⁰⁹

Organic Chemistry laboratory and Applied Science Laboratory (Administration (A14))

Part of Vernon's master plan for the University involved a new physics and chemistry complex along Science Road. However the only part of this complex to be built was the Organic Chemistry and Applied Science Laboratories, to the north-east of the Chemistry Laboratory, between 1915-1917. The building, in face brick with stone detailing, consisted of two main floors and an attic. The plan for the new science complex was abandoned following the appointment of Leslie Wilkinson as University Architect in 1918.¹¹⁰

¹⁰⁵Turney, Bygott, Chippendale, *op. cit.*, pp.253-254.

¹⁰⁶DPWS, *op. cit.*, Item 4726014.

¹⁰⁷Turney, Bygott, Chippendale, *op. cit.*, pp.360-362; DPWS, *op. cit.*, Items 4726038 & 4726023.

¹⁰⁸Turney, Bygott, Chippendale, *op. cit.*, p376; Annable, Cable, *op. cit.*, para. 4.4; DPWS, *op. cit.*, Item 4726021.

¹⁰⁹DPWS, *op. cit.*, Item 4726030.

¹¹⁰DPWS, *op. cit.*, Item 4726041.

Macleay Museum Extensions

Other work along the Science Road precinct completed between 1906 and 1918 involved alterations to the Macleay Museum. Almost as soon as the Museum was completed, there was pressure for it to be used by other departments. By 1907 it was partly occupied by the Geology Department. Demands for use of the building increased until 1914 when it was planned to alter the building to provide temporary accommodation for the Department of Botany; these alterations, which included a ground floor laboratory and classroom, were carried out in 1915. Between 1915 and 1918 a bridge was built over Gosper Lane, connecting the Museum to the Old Geology Building. In 1918 further alterations were made in response to demands from the departments of Geology and Botany for additional space; a series of two-storey-high columns was erected in the centre of the building and a new first floor built from gallery to gallery. A new second floor gallery was inserted and the Museum's collection moved there, accessible only by a timber staircase. The interior court was then completely lost.¹¹¹

6.6 Establishment of Teachers' College

Since the late nineteenth century there had been concern for improved teacher training and stronger University involvement, which resulted in the establishment of Blackfriars Training College, converted from the Blackfriars school building near the University. Students could undertake two years of professional education at the College with an opportunity to graduate at the University or pursue further study. Alexander Mackie, a Scottish lecturer from Bangor University College Wales, was appointed as Principal. Mackie was made Chair of Education at the University in 1910, and in 1911 the University's Diploma in Education began, providing a one year full time program of professional training in the principles and practices of education for primary or secondary teaching for graduates in Arts or Sciences. Shortly thereafter, moves were made to have a new college built in the University grounds. A site of about 3 ½ acres was granted between the Women's college and University oval, with the land and buildings vested exclusively in the Minister for Public Instruction.¹¹²

Mackie was involved in planning the building with the Government Architect's branch under Vernon, and later McRae and the design was influenced by the Teachers College in Sheffield. The foundations were completed in 1913-1914, however progress was delayed by the War. Work proceeded on the eastern wing in 1916-1917 and this part was ready for occupation in 1920. Work on the second stage was not completed until March 1925 when the College was officially opened.¹¹³

The Old Teacher's College (A22) is a three storey Gothic Revival style building designed to complement the other brick and sandstone science faculties which lined nearby Science Road and continues the architectural vocabulary established by Vernon at the adjacent Engineering School, but lacks the elaborate stone carvings of the facilities constructed before the War. The design of the College reflects Mackie's philosophy of teacher training, combining a functional, efficient building with pleasant surroundings. Built on a square to accommodate 600 students and staff, around an inner courtyard, the College was totally self-contained with its own library and book stack, classrooms, common rooms, gymnasium, science laboratories, a large workshop in the basement for testing and design of scientific apparatus, a large assembly hall and facilities for social activities. Departmental classrooms and other facilities, including the courtyards, were segregated, men on the east side, women on the west, separated by the central block. Mackie believed that young minds should be brought into regular contact with objects of beauty and he encouraged staff to collect paintings, sculptures and objects of historical interest, which were displayed around the College in the hope that this would arouse among the students a life-long interest in cultural matters. He also attempted to beautify the surrounds of the building by carefully planned gardens. Mackie obtained permission to build six grass tennis courts on land located on the eastern side of the College, which was carried out in 1921.¹¹⁴

The new building meant that for the first time in the College's history all students and staff were brought together under one roof, enabling Mackie's vision of teacher training to be more fully realised. Staff and students could work together in a collegial atmosphere designed to serve professional, intellectual and social

¹¹¹Stanbury & Holland, *op. cit.*, pp.68, 71; DPWS, *op. cit.*, Item 4726005.

¹¹²DPWS, *op. cit.*, Item 4726017; Turney, Bygott, Chippendale, *op. cit.*, pp.399-405.

¹¹³DPWS, *op. cit.*, Item 4726017.

¹¹⁴DPWS, *op. cit.*, Item 4726017; Brian H. Fletcher, "From Mackie to McRae, 1920-1947" in G. Boardman et. al., *Sydney Teachers College: a History 1906-1981*, Hale & Iremonger, Sydney, 1995, pp.60-61.

ends, while also sharing in the intellectual atmosphere of the University.¹¹⁵ It was the first modern style teacher training institution in NSW and a leading institution in the history of the teaching profession in NSW.¹¹⁶

6.7 New Union Buildings

The flowering of student activities that had begun in the 1890s continued in the next century. Several new clubs and associations were founded including the Evening Students' Association and the Volunteer Rifle Corps in 1900; the Law Society in 1902; the Science Society in 1904 and the University Club in 1905. Wesley College was opened in 1917, so that the four religious denominations colleges now had colleges as originally planned. The increasing student numbers added to pressure on existing facilities and led to the establishment of new buildings for both the men's and women's unions.¹¹⁷

Union Building (Holme A09)

As early as 1899 it was proposed that a 'Union Building' in the style of the Oxford Union, which would 'serve as the centre of university life by providing amenities to foster social intercourse among all members of the University,' be constructed. In 1907 it was decided to fund the building from the Challis bequest. The site chosen included the site of the University's old botanical gardens adjoining Parramatta Road near the old Engineering School, which was demolished in 1910.¹¹⁸

The Union Building was built between 1910-1912 and a tea room was added in 1913. Plans for a wing which would house a dining room and kitchens were drawn up but the War delayed construction. It was the first permanent purpose-built building for the men's student union and its design and facilities, including billiards room, reading room and common room, reflected the men's club ethos of the Oxbridge Union model. The Union Hall or theatre was completed by architects, B.J. Waterhouse and H.V. Vernon, in 1916. The first stage of the building is of brick with sandstone detailing, in the Federation Arts and Crafts style with Gothic Revival style detailing, although the carved decorative detail is in Arts and Crafts / Art Nouveau style. Together with the Engineering School (John Woolley Building), Veterinary Science School and Agricultural Science School, the Union Building is part of possibly the largest collection of Federation Arts and Crafts style buildings in close proximity in Australia.¹¹⁹

The siting of the Union Building reflects Science Road's place as the hub of University life by 1917 as the majority of the student population worked in the vicinity. The Union steps were built between 1910 and 1912 from Parramatta Road, leading to the new Union Building, making Science Road the main pedestrian entrance to the University from Parramatta Road as well as a major thoroughfare.¹²⁰

Manning House

In 1908 the Women's Association was reconstituted as the Women's Union and launched a campaign with the Women Undergraduate's Association to have a new and extensive building erected to replace the temporary wooden cottage used as a common room, which was now inadequate due to the increasing number of women students. In 1913 the Senate agreed to allocate funds for construction of a union building for women students. It was decided to name the new building 'Manning House' in tribute to the former Chancellor who had been responsible for the admission of women to the University.

A site was chosen in 1915, behind the Medical School and opposite Fisher Library near the road leading from the main entrance. Part of a design by architectural firm, Waterhouse and Vernon, was built in 1916-1917 providing a common room, reading room and assembly hall with a dining hall, committee room and second common room in a temporary weatherboard extension. The building was opened in March 1917. It is a two-storey Gothic Revival style building with sandstone dressings and eclectic detailing, thus continuing the style

¹¹⁵Fletcher, *op. cit.*, p.61.

¹¹⁶Fletcher, *op. cit.*, p.61; DPWS, *op. cit.*, Item 4726017.

¹¹⁷Annable, Cable, *op. cit.*, Table of themes 1910-1940.

¹¹⁸William Good, *Holme Sweet Holme. The Story of the Holme Building*, University of Sydney Union, Sydney, 1985, p.31.

¹¹⁹Good, *Holme Sweet Holme*, p.20.; DPWS, *op. cit.*, Item 4726036.

¹²⁰DPWS, *op. cit.*, Item 4726018.

established in the 1850s by Blacket. The opening of Manning House revitalised the social life of women students; lectures, addresses and debates were held regularly as well as other social events. It is associated with many notable women, some of whom were commemorated in the naming of rooms in the building.¹²¹ (See picture in Good, *Manning House* p.8.)

6.8 Women's Sporting Facilities

The development of women's sport at the University must be understood in terms of changes within the women's movement and girl's secondary schools. Between 1907 and 1910 the female students arriving at the University differed from their predecessors in sporting experience as girl's secondary schools were breaking with tradition by emphasising competitive sport rather than social pleasantries. Many of the girls matriculating were thus able to contribute to the sporting life of the University. Women's participation in sport at the University flourished in the early twentieth century and in 1910 the Sydney University Women's Sports Association (SUWSA) was founded. Shortly thereafter a campaign began for grounds and facilities for women's sports.¹²²

Tennis Courts

Following its inaugural meeting on 5 August 1910, the general committee of the SUWSA appointed a special grounds committee to approach the Senate again -after previous failures - to request land on which to build tennis courts. At this time the only facilities available were tennis courts at Women's College and the use of space marked as a tennis court in the main Quadrangle with a net across it.¹²³

In November 1911 the Buildings Grounds and Improvements Committee of the University recommended that three tennis courts be constructed for the women students in a position to the east of the main front and between the curved path from the Derwent St entrance and Parramatta Road (on the sloping ground in front of the main building). The Senate granted not only the land but the cost of constructing the courts and also building, plumbing and outfitting the adjoining dressing room (later known as the Clubhouse). The courts were ready for play by 1913. These were the first purpose-built sporting facilities built specifically for the use of women.¹²⁴ (See picture, Lilienthal, *Newton Tarts* p.21.)

Hockey Square

The Hockey Club was formed in 1908 and in 1914 the SUWSA began a campaign to acquire a hockey ground. The need for the ground was exacerbated by the increasing number of women entering the science and medical faculties, who had little time during the week to exercise. It was thought that a hockey ground for use of the women students would be a great asset to the SUWSA and to women's sport in general. In 1916 the Senate granted the SUWSA's application, allowing 'use of the sparse and lumpy piece of ground known as the Square, which lay between the Oval and Manning House.'¹²⁵

Progress in developing the ground was delayed by the War, however, after WWI the SUWSA grounds committee organised the work to transform the area into a hockey square, including fencing, building, levelling, draining and top dressing. By 1921 the Hockey Square was ready for use, available at all times to the women's sports clubs, it was also hired out on Saturday afternoons to provide a further source of income to the Association. In the long vacation of 1922 a dressing shed was erected at the end of the Square nearest the Medical School to provide facilities for meetings, dressing and showering.¹²⁶ (See picture in Lilienthal, *Newtown Tarts* p.23.)

¹²¹William Good, *Manning House, the Women's Preserve*, University of Sydney Union, Sydney, 1985, pp.5, 11; Turney, Bygott, Chippendale, *op. cit.*, pp.317-318; DPWS, *op. cit.*, Item 4726026.

¹²²Lilienthal, *op. cit.*, p.15; Annable, Cable, *op. cit.*, Table of themes 1880-1910.

¹²³Lilienthal, *op. cit.*, pp.18, 20.

¹²⁴Lilienthal, *op. cit.*, pp. 20-21.

¹²⁵Lilienthal, *op. cit.*, pp.21-22.

¹²⁶Lilienthal, *op. cit.*, p.22.

7. THE WILKINSON ERA - 1920S - WWII

7.1 Recovery after WWI

Once the Spanish influenza epidemic had subsided, the University recovered quickly from World War I with a dramatic increase in enrolments, a return to normal staffing arrangements and the continuation of the building program that had been interrupted by the War. The unprecedented growth in enrolments put a strain on accommodation and teaching resources. Total student numbers in 1919 were 2,764 (2,016 men, 748 women); by 1920 the student population was 3,356, however this fell away to 2,688 in 1924. In the 1920s the University sought stability rather than expansion.¹²⁷

7.2 Professor Leslie Wilkinson

Leslie Wilkinson was appointed to the first Chair of Architecture in 1918. Born in London in 1882 Wilkinson had trained in the School of Architecture at the Royal Academy and had studied architecture extensively in England and on the Continent. While teaching at the University College London he also carried on his own architectural practice and completed a number of important works. In 1919 Wilkinson was appointed as University Architect, and in 1920, when the School of Architecture was given faculty status, Wilkinson was elected Dean.¹²⁸ Wilkinson was instrumental in shaping the physical character and development of the University campus during the 1920s. Even into the 1930s and early 1940s, when Wilkinson no longer officially held the position of University Architect, his designs influenced subsequent buildings.

7.3 Plan for the University

In 1919 it had been agreed that Wilkinson with Assistant Professor Madsen of the School of Engineering and A.D. Craig, Lecturer in Surveying, should advise on the general layout of the University grounds. Their report was presented to the Senate in 1920 and some of the recommendations included: keeping roads narrow like park drives, planting trees, placing wires underground, providing fences and keeping out grazing animals. It also reviewed the accommodation needs of all departments and located spaces for them. However, its overriding purpose was to introduce 'a sense of unity, order, convenience and...eventually, beauty, into the University quarters treated as a whole.' This was to be achieved by establishing definite quarters or precincts for the various faculties, schools, colleges and other activities and 'to establish axes and open attractive views from many points.' Wilkinson believed that 'the peaceful order of good buildings in beautiful surroundings is of paramount importance in creating the right environment for University life.' He envisaged vistas created by carefully placed axes, with sequences of enclosed and open courts. While some of his plan was implemented, the pressures for growth in the post-World War II period meant that much of it was lost.¹²⁹

In 1919 a six year grant of £50,000 per year was approved by the Government for additional buildings. During 1920 a sub-committee of the Senate's Buildings and Grounds Committee, which included Professor Leslie Wilkinson, recommended that the grant be spent on the following eight building projects as soon as possible to alleviate the most pressing needs for accommodation:

1. Lecture room for applied chemistry
2. New building for Department of Physics
3. Additional building for Mechanical Engineering
4. Completion of Quadrangle for administration and Arts
5. New building for the Department of Chemistry
6. Completion of gap in north end of Medical School for pharmacology
7. Department of Anatomy: Dissecting room and examination hall (for whole University)
8. Cloisters in Quadrangle.¹³⁰

¹²⁷ Annable, Cable, *op. cit.*, paras.4.7, 4.8; Turney, Bygott, Chippendale, *op. cit.*, pp.431-432, 435, 443.

¹²⁸ Turney, Bygott, Chippendale, *op. cit.*, pp.393-395.

¹²⁹ M. Dupain, P. Johnson, G. Molnar, D. Wilkinson, *Leslie Wilkinson, A Practical Idealist*, Valadon Publishing, Sydney, 1982, pp.66-67.

¹³⁰ Annable, Cable, *op. cit.*, Table of themes 1910-1940; Turney, Bygott, Chippendale, *op. cit.*, p.443.

By 1927 the majority of the above projects had been completed except for the Chemistry Department, Anatomy facilities and cloisters. Wilkinson's work in the Quadrangle area, the Medical School and additions to the Macleay Museum were intended to preserve the integrity of those buildings and to harmonise disparate elements of various periods of architecture.¹³¹

Organic Chemistry Lecture Theatre (General Lecture Theatre 1 (Part A14))

The first building designed by Professor Leslie Wilkinson, was the Organic Chemistry Lecture Theatre, a narrow single storey building that forms the southern side of the Vice Chancellor's Quadrangle extending to form part of the main Quadrangle to the east. It was completed in 1922 and provided a lecture theatre to seat 300, a laboratory and research rooms. The building is an example of the incorporation of different styles of architecture, a device used by Wilkinson in a number of locations within the University to harmonise various architectural elements. The north side was of stuccoed brick with stone detailing and small paned windows like the existing Organic Chemistry building (now Administration), while the south had additional classical stone detailing and a stone parapet to be more in keeping with the proposed western gateway of the main Quadrangle. The design may have been intended to screen the older 'temporary' buildings in Science Road when viewed from the south.¹³²

Main Quadrangle - North and North-West Ranges and South-West Range

The north and north-west ranges of the main Quadrangle were designed by Wilkinson in association with the firm of Wilson, Neave and Berry. Begun in 1921, the first part to be constructed was the north-west corner between the site of the proposed western tower and the west end of the Great Hall, for Arts and administration, including the Vice-Chancellor's office. The rest of the north-west corner was constructed in 1923-1924. The style of the work is very restrained in detail compared to the earlier stages of the Quadrangle. Plans for an impressive vestibule and staircase outside the Vice-Chancellor's office did not eventuate. Wilkinson also prepared several designs for the continuation of the cloisters around this part of the Quadrangle, but these were deferred due to lack of finance.¹³³

While work was proceeding on the north-west corner of the main Quadrangle approval was given in November 1923 to Wilkinson's proposal to extend the 1902-1909 book stack. Work proceeded in 1926 to complete the gap between the book stack and the north-west corner to provide three floors for book stacks and accommodation in the attic level for the Faculty of Architecture. The style continues the Gothic Revival architecture established by Blacket. The scheme also included construction of the western tower, however only the west face was completed at this time due to insufficient funds. Modelled on the tower of Jesus College, Cambridge, the tower was designed to look down a long vista to the west, parallel with Science Road, part of the 1920 master plan which did not eventuate.¹³⁴

In the 1920s an appeal had been launched for a War Memorial Carillon, which was originally planned for the clock tower, however it was subsequently decided that a separate building, a campanile, or bell tower would be more appropriate. Drawings and plans for a tentative design of the campanile were prepared by Leslie Wilkinson and John Moore. After much delay and controversy the War Memorial Carillon was installed in the tower and was inaugurated on Anzac Day 1928.¹³⁵

Medical School Extensions

Wilkinson's extensions to the Anderson Stuart Medical School consisted of the addition of a centrepiece to infill the north facade and completed the north range in 1922. He used the Elizabethan Revival style of the late sixteenth century to enrich a slightly earlier Elizabethan establishment. Thus the extensions demonstrated a

¹³¹Annable, Cable, *op. cit.*, Table of themes 1910-1940; Phillips, Thorp, *op. cit.*, p.5.

¹³²DPWS, *op. cit.*, Item 4726042.

¹³³DPWS, *op. cit.*, Item 4726046.

¹³⁴DPWS, *op. cit.*, Item 4726047.

¹³⁵Turney, Bygott, Chippendale, *op. cit.*, pp.470-472, 483.

deliberate and progressive recapitulation of the development of English architecture from Perpendicular Gothic to late Elizabethan.¹³⁶

Macleay Museum Extensions

Wilkinson designed a new two-storey sandstone building with a Gothic facade which was added to east end of Museum, providing a strong visual link with the Great Hall. In the process the east front of the Macleay Museum was hidden, removing its separate identity. The combined building, including the east end of the Macleay building became known as the Botany Building. A connecting archway across Science Road was only partially built in 1924-1925, leaving unfinished buttresses. The building was intended to be viewed from Parramatta Road and to screen the utilitarian Macleay Museum and provides another example of Wilkinson's plan to bring into unity disparate elements of various periods' architecture. This building, among others, brought Wilkinson into conflict with the University administration as he did not submit the plans to the Building and Grounds Committee for approval and the resulting structure provided little accommodation for considerable cost.¹³⁷

Science Road Precinct

Part of Wilkinson's plan to bring harmony to various elements of the campus, included the modification of many of the facilities in Science Road. In this precinct, Wilkinson used his favourite 'Mediterranean' style to reface or extend buildings, partly due to the need to reduce costs by remodelling rather than building new facilities. Wilkinson's use of a Mediterranean style of architecture broke new ground in this area as Wilkinson believed that the style typified Australian conditions and wanted to implement it rather than continue the Gothic and Federation styles of existing buildings. Science Road also became part of Wilkinson's axial arrangements; the road was straightened and some buildings were re-oriented to face the road.¹³⁸

Instead of proceeding with the construction of a new Chemistry building as per the 1920 plan, the existing laboratory was remodelled in 1923-24 with the addition of a second storey at the front and changes in fenestration at the north-east corner. The building was also stuccoed in the Mediterranean style, creating a neoclassical style frontage to Science Road.¹³⁹

Other buildings treated in a similar fashion included the Physics Laboratory, which also had a second storey added in 1923-1925. A terracotta roof was added and a new porch, to the north-west of the tower formed an entry from Science Road.¹⁴⁰

The old Geology building, which housed the School of Mines and Department of Geology, underwent alterations which included raising the roof over the centre of the building for a new lecture theatre and single-storey extensions. The front of the building was drastically altered by the replacement of the original hipped roof by three gables, the removal of the porch and the addition of a balcony.¹⁴¹

The Biology Building (Zoology) was the building most drastically altered by Wilkinson as part of his Mediterranean scheme. A second storey was added, the east end consolidated as a three-storey block and the entrance changed from the north to the south side, fronting Science Road, totally re-orienting the building, which was also stuccoed in Mediterranean style. Further additions were completed at the west end of the building in 1939-40 to designs by Wilkinson, probably as part of his 1920s scheme.¹⁴²

Wilkinson also designed additions to the Union building in the 1920s, including kitchens behind the tea rooms in 1921. In 1923-1924 substantial dining extensions comprising a refectory, withdrawing room, bevery, kitchen and storage areas, were made by Wilkinson with Waterhouse and Lake, architects. The additions were of

¹³⁶Kerr, *op. cit.*, pp.14-17; DPWS, *op. cit.*, Item 4726007.

¹³⁷Stanbury & Holland, *op. cit.*, p.71; DPWS, *op. cit.*, Item 4726037.

¹³⁸Dupain, Johnson, Molnar & Wilkinson, *op. cit.*, p.72; Phillips, Thorp, *op. cit.*, p.5..

¹³⁹Dupain et. al., *op. cit.*, p.72; DPWS, *op. cit.*, Item 4726020.

¹⁴⁰DPWS, *op. cit.*, Item 4726015.

¹⁴¹DPWS, *op. cit.*, Item 4726019.

¹⁴²DPWS, *op. cit.*, Item 4726016.

Mediterranean style, set back from Science Road between the west end of the original Union building and Zoology and were opened in March 1924. The forecourt and loggia, built between 1939 and 1941, were part of Wilkinson's axis concept, designed to enjoy a vista across the campus, including the newly built Physics building and St Paul's College.¹⁴³

Another characteristic of Wilkinson's architecture was his practice of re-using historical fabric. An instance of this is his incorporation of the facade of the Commercial Banking Company's George Street / Barrack Street branch, designed between 1854 and 1864, which was donated to the University in 1923. In 1923-1924 Leslie Wilkinson planned a new building linking Physics (A16) and Chemistry (A15) to provide additional accommodation for Chemistry. The original intention was to remove the furnace room and stack, previously used for metallurgy, and to make the south facade of the new building a focal point of the view from St Paul's College. However these structures were not removed. The milling building was replaced by the new link building in 1925-1928, and parts of the earlier structures may have been incorporated into the basement level or survive under the forecourt. A forecourt was created in front of the building, which is the termination of a vista from the walkway to the Union Steps. Wilkinson added timber eaves and a lantern to the roof of the building, the lantern being characteristic of his work and functioning to admit light and ventilation. The building remained unfinished for several years and the inability of the University to complete this work marked the termination of Wilkinson's employment as University Architect and reflects the financial difficulties faced by the University in the late 1920s - 1930s. A branch of the Commonwealth Bank was established in 1938.¹⁴⁴

The re-siting of a pair of fluted Doric columns as pergola columns is another example of Wilkinson's re-use of historic materials in an effort to create a Mediterranean atmosphere in Science Road. It is not certain when the columns were erected, but it may have been at the same time as the re-erection of the CBC Bank in the mid-1920s.¹⁴⁵

Physics Building (A28))

The Physics Building, which Wilkinson worked on in collaboration with architect, Keith Harris, represented the first major extension of the University buildings beyond the main Quadrangle and Science Road. The site chosen, in line with the 1920 master plan, belonged in part to St Paul's College. One of the conditions for the exchange of land was the retention of a direct view between the College and Science Road, necessitating the lowering of the central part of the building. A number of other modifications were necessary to limit costs which exceeded budget, however, the building was completed in 1925. The design of the building preserved St Paul's College's northern view and also created a pleasant view from Manning Road to the Physics Building, where the College can be seen nestling on the slope above. The building is of brick, rendered and painted cream, with sandstone used around the major doorways to the wings and pavilions to the east and west. The stylistic details are characteristic of Wilkinson's work, derived from Italian villas. This is the largest of the new buildings designed by Wilkinson in the distinctive Mediterranean style. The building forms a boundary to the hockey field precinct, continuing the traditional pattern of buildings surrounding grassed spaces. It is an example of the precedence Wilkinson gave to picturesque principles over functional requirements.¹⁴⁶

A frieze along the central section of the Physics building acknowledged the history of physics, containing the names of former physicists from antiquity to the 1920s. Each tower contained medallions bearing likenesses of Archimedes, Galileo, Newton and Maxwell. Albert Einstein and Ernest Rutherford were invited to the opening, and while Einstein was unable to attend, Rutherford visited in September 1925.¹⁴⁷

¹⁴³DPWS, *op. cit.*, Items 4726035 & 4726036.

¹⁴⁴DPWS, *op. cit.*, Item 4726040.

¹⁴⁵DPWS, *op. cit.*, Item 4726022.

¹⁴⁶DPWS, *op. cit.*, Item 4726013.

¹⁴⁷Turney, Bygott, Chippendale, *op. cit.*, p.468.

7.4 Grounds

Vice-Chancellor's Quadrangle

As well as designing buildings, Wilkinson also played a major role in shaping the grounds of the University. His concept of small scale areas of visual interest or 'courts' is exemplified by the Vice-Chancellor's Quadrangle, plans for which were approved in 1926. Its four sides are formed by: the chemistry laboratory (1888), the organic chemistry department (1915-1917), the organic chemistry lecture theatre and laboratory (1921-1922) and the north-west corner of the main Quadrangle building. Within the Quadrangle is the balance room, built for the chemistry laboratory in about 1905. Its paths of re-used stone, probably from Darlinghurst Gaol, were laid in 1927. At the request of Vice-Chancellor, Sir Mungo MacCallum, a garden was designed by Professor Eben Gowrie Waterhouse, a staff member, linguist and camellia expert who made substantial contributions to the improvement of the campus. The garden included azaleas, fuchsias in black and white tubs, camellias, hydrangeas, oleanders and Christmas bush.¹⁴⁸

Union Pleasaunce

Within the Union Building complex a courtyard was formed by extensions made during the 1920s and the area was known as the Union Pleasaunce. From 1924 until 1952 the gardens in the Pleasaunce were extensively cultivated and well maintained under the supervision of Professor E. G. Waterhouse. Over the years, however, the pressure of growing student numbers meant that the Union's building began to encroach more and more on the Pleasaunce until little of the original remained.¹⁴⁹

New Entrance on Parramatta Road

In 1924 the University exchanged 7 3/4 acres of lake and main drive with the Municipal Council of Sydney for 9 acres of Victoria Park in the Eastern Avenue area as this provided more suitable land for building extensions. A condition of the exchange was that the lake remain as an ornamental feature and that the land exchanged be used by the Council for park purposes. . When the Council decided to fill the lake and chop down the Moreton Bay figs lining Parramatta Road a public outcry forced it to change its plans, however many of the trees were lopped.¹⁵⁰

A new entrance gate and two-storey lodge, designed by Leslie Wilkinson in 1939-1940, were built on Parramatta Road to create a new formal entrance to the University. The new lodge is thought to have been constructed using some of the stone from the messenger's lodge, which was one of two lodges flanking the original City Road entrance, and was demolished in 1939. A single-storey bedroom extension was built on east side in 1958. Baxter's Lodge is named after the Yeoman Bedell who lived there.¹⁵¹

Other Areas

By 1925-1926 the main responsibility for the alignment of roads and planting of shrubs rested with Professors Madsen and Waterhouse. The plantings that occurred during the 1920s represented the first attempts at beautifying areas of the campus other than the main approaches. Waterhouse was responsible for many of the plantings in front of the main building and down Science Road including camellias, azaleas and Japanese Maples. He also planted white cedars, poplars, oaks and jacarandas, including the one in the Main Quadrangle; much of the work being prompted by the proposed visit of the Duke of York in 1927. Funds were provided for the improvement of paths and unemployment relief was used for works in the Main Quadrangle.¹⁵²

¹⁴⁸DPWS, *op. cit.*, Item 4726049.

¹⁴⁹Good, *Holme Sweet Holme*, *op. cit.*, p.31.

¹⁵⁰Turney, Bygott, Chippendale, *op. cit.*, p.469.

¹⁵¹DPWS, *op. cit.*, Item 4726009.

¹⁵² Curtis, *op. cit.* p.54; Annable, 'Pharmacy, Bank, Badham,' pp.29-30

7.5 Expansion of Medical Facilities

The Faculty of Medicine had become increasingly departmentalised in the post World War I period as it became apparent that the needs of the profession and the community would be best served by the creation of clinical departments with academic heads. Four new part-time Chairs had been established between 1918 and 1922: Pharmacology (1918), Medicine (1920), Surgery (1921) and Psychiatry (1922). Other Departments to emerge or gain separate status in the 1930s included: Biochemistry, Pathology, Obstetrics and Bacteriology. Between 1928 and 1939 the Medical School experienced a period of consolidation. Generous support from the Rockefeller Foundation and George Bosch in the 1920s and 1930s ensured continuous development. In 1928 Bosch donated £250,000 for medical research, which funded Chairs in Medicine, Surgery and Bacteriology, while in 1930 the Rockefeller donation of £100,000 provided funds for laboratory facilities and helped to fund a new medical school building, a significant boost to medical facilities in a time of Depression.¹⁵³

New Medical School / Rockefeller Foundation Building (now Blackburn Building D06)

The new building was begun in 1931 and located on a site formerly occupied by tennis courts, close to the teaching hospital, Royal Prince Alfred, to which it was connected by a covered way (since demolished). It was designed by the Government Architect and is influenced by American Art-Deco style architecture. The building is constructed on a rectangular plan with a central octagon and two light courts and housed the clinical school and research facilities with teaching laboratories and theatres for senior medical students (years 4, 5 and 6) on the west side and research laboratories on the east. The central octagon housed the library, pathology museum and animal house. It opened in 1933 and was originally known as the Rockefeller Building; the Anderson Stuart building thereafter was known as the Old Medical School. In 1941 a new post-mortem room was constructed in the basement of the new building. The building was a catalyst for future development of associated medical facilities in this area of the campus.¹⁵⁴

7.6 University's Role in Research of National Importance

While the Depression of the 1930s was a blow to the University, bringing its momentum in both building activity and employment of staff to a halt due to cut backs in public funding, it withstood these years and was able to build on previous advancements in the years prior to World War II. Once prosperity returned, major growth occurred in the professional faculties and departments. As professional knowledge accumulated at an accelerated rate and as governments and the wider community began to acknowledge the practical importance of research findings, the professional disciplines experienced the need for greater compartmentalisation and specialisation. New departments and chairs had to be created and additional research became a recognised priority, necessitating a growth of facilities and staffing. Research was given a higher priority within the University and more attention was directed at post-graduate study. In the late 1920s until- 1940 Universities were increasingly being used for projects of national importance, through co-operative ventures with Commonwealth Government agencies and a number of facilities were constructed at the University of Sydney through such ventures.¹⁵⁵

School of Public Health and Tropical Medicine (Ford Building (A27))

In 1925 a Federal Royal Commission on Health recommended that the Commonwealth provide a training school in health administration. Australia's proximity to Asia made it a suitable location for research and in November 1927, it was decided that a School of Preventive Medicine and Tropical Hygiene be established within the University. Under the agreement, the Commonwealth would construct and maintain the facility while the University would retain control of all academic matters and ownership of the building. The was designed by the Commonwealth Department of Works in collaboration with the Department of Health from sketches drawn by Leslie Wilkinson. It was a T-shaped building of rendered brick with stone detailing and a tower in the same style as Wilkinson's Physics building, adjacent to which it is situated. It was opened in March 1930; an animal house associated with the School was built under a separate contract in 1930.¹⁵⁶

¹⁵³Turney, Bygott, Chippendale, *op. cit.*, pp.549-555; Annable, Cable, *op. cit.*, Table of themes 1910-1940.

¹⁵⁴DPWS, *op. cit.*, Item4726028.

¹⁵⁵Turney, Bygott, Chippendale, *op. cit.*, pp.492-493,502, 544; Annable, Cable, *op. cit.*, para. 4.15.

¹⁵⁶DPWS, *op. cit.*, Items 4726034 & 4726043.

McMaster Laboratory (B14)

The Council for Scientific and Industrial Research (CSIR) was established in 1926 to address problems of primary industry. In 1928 the CSIR recommended that a Division of Animal Health be organised and an appeal was made to the pastoral industry to share research costs with the Government. Sir Frederick McMaster, a noted pastoralist and foundation member of the State committee of CSIR, responded with an offer of £20,000 for the erection of an animal health research laboratory at Sydney University. An agreement was made between the University and the CSIR in 1929 under which the latter would fund equipment and staff. The building, designed by Samuel Lipson of the Commonwealth Department of Works was constructed facing Parramatta Road on in-filled land, where the Orphan School Creek once ran, now part of the Veterinary Science precinct. It is neoclassical in style, perhaps influenced by contemporary American designers as Lipson followed overseas trends. It also echoes the architectural vocabulary of Wilkinson-designed Science facilities in Science Road. The McMaster Laboratory gained an international reputation as a centre for research into diseases of sheep and maintained important connections with the scientific community in Australia and overseas.¹⁵⁷

Madsen Building

In 1938 the CSIR, which in 1937 extended its assistance to secondary industries, agreed to locate its National Standards Laboratory at Sydney University, in accordance with the CSIR policy of establishing laboratories in different places in the Commonwealth where the necessary facilities, contacts and conditions could be found. The building was located on the ridge to the south of the main Quadrangle, attesting to its prestigious status and was designed by the Department of the Interior in simplified Gothic Revival style with sandstone facing on the eastern facade to blend with existing buildings, although the detailing and form reflects the influence of the Art Deco style. Stages 1 and 2 completed a Quadrangle and Stages 3 and 4, finished by 1944 formed a figure of eight plan. The building was named after Professor John Percival Vissing Madsen, Professor of Electrical Engineering at the University, who advocated the development of a complete range of scientific standards for Australia. It housed the National Standards Laboratory's work in meteorology, physics and electro technology and the Division of Radio physics. Many internal features were purpose-designed specifically for the Laboratory's research work and included a 130 foot tape tunnel, air conditioning to maintain a constant temperature at bench height and particular attention to electrical cabling. The Laboratory became a centre of scientific excellence. Research conducted by the Laboratory was of importance to the war effort in World War II. The building continued to be used by the CSIRO until 1979 when it was converted for University use.¹⁵⁸

7.7 World War II

Development of Aeronautics

The increasing likelihood of another world war intensified the Commonwealth Government's increasing interest in scientific and industrial research. With the emphasis on defence spending directed towards air rather than naval power, the Government was faced with initiating aeronautical research, training engineers and pilots and building and maintaining aircraft. It was recommended that a Chair and Department of Aeronautics be created at a university and that the Government seek the co-operation of the universities in research and study. Both the Universities of Sydney and Melbourne had taken steps to enter the field of aeronautical studies, with facilities more fully developed in Melbourne, however the Government decided to establish the Chair in Sydney.¹⁵⁹

Government funding also provided for the modification of the School of Engineering for aeronautical training. The site was excavated by Relief Labour in April 1940 and by 1944 a substantial addition of reinforced concrete with brick walls and sandstone dressings, to harmonise with the existing facades, was built across the whole south side of the original buildings to provide aerodynamics and hydrodynamics laboratories. The tower housed vertical wind tunnels.¹⁶⁰

¹⁵⁷DPWS, *op. cit.*, Item 4726027.

¹⁵⁸DPWS, *op. cit.*, Items 4726034, 4726027, 4726029; Turney, Bygott, Chippendale, *op. cit.*, p.612.

¹⁵⁹Turney, Bygott, Chippendale, *op. cit.*, pp.564-566.

¹⁶⁰DPWS, *op. cit.*, Item 4726014.

University's Involvement in War

The Second World War had a far greater impact on the University than had the first. World War II depleted the student population, involved staff in major wartime research and left a physical impact on the University grounds as air raid trenches were dug around the campus. Some of the University buildings were used for war purposes, for example, the Medical School and Department of Physiology was used for the RAAF and for drug research and blood transfusions. Electrical Engineering was used for the study of radio physics; Mechanical Engineering for engineering problems. The Physics building was the scene of research for optical munitions and radio location; Zoology was used for camouflage work.¹⁶¹

Some of the colleges were also occupied by sections of the armed forces. For example a medical unit of the US Army Medical Corps was housed in St Paul's College in 1942 and the RAAF occupied the newly built Cecil Purser Wing of Wesley College in 1943.¹⁶²

7.8 Student Facilities

Colleges

Larger enrolments following WWI meant that the colleges could expand. Improvements in grounds and interiors of the buildings were made at St Andrews College in the 1920s and 1930s. In 1925 the foundation stone was laid for a new Catholic women's college, initially as part of St John's College. It opened in 1926 and later became autonomous under the name of Sancta Sophia College.¹⁶³

Union Building

Further extensions were made to the west end of the Union Building in the 1930s, including a ladies' retiring room, small committee room and non-members' entrance. (See picture in *Holme Sweet Holme* p. 14.) Between 1939 and 1941 an extension linking the Refectory block to the original building and 1934 extensions, consisted of a loggia in front of the Refectory with a luncheon room underneath (The Buttery); a Staff Common Room (The Cullen Room) and Strangers' Room (The MacCallum Room). The Cullen Room operated as a staff common room until 1961 when it reverted to the Union after the University's Staff Club opened.¹⁶⁴

7.9 Sporting Facilities

Prior to the commencement of the 1923 academic year a clubhouse was built at the end of the Hockey Square closest to the Old Medical School. A cricket pitch was made on the square to improve the letting value of the ground and the area was also used for netball. In 1924 the area was enlarged on the northern edge and made big enough for a full sized football field and additional netball courts. In 1925, following the completion of the path to the new Physics building, high banks were built around the square; the eastern boundary was extended towards the Medical School and two terraces built at the eastern end. These terraces were later levelled and turfed to make the six tennis courts that are still in existence. In 1926, the Hockey Square was restricted to the use of women students after several cricket sixes smashed the windows of the Physics building. Constant efforts were made to improve the surface of the field and to solve drainage problems so that it could remain in regular use.¹⁶⁵

In 1931 - 1932 the Women's Sports Association's basketball courts on the eastern end of the Square had to be demolished to make way for eight lawn tennis courts for the Men's Sports Union. In return, the old Hockey House was relocated to the northern bank of the Square. In October 1931 building began on a new clubhouse for the Association at the western end of the Square, the site of the current Sports Centre. The Women's Sports

¹⁶¹Annable, Cable, *op. cit.*, para.5.1; W.F. Connell, G.E. Sherrington, B.H. Fletcher, C. Turney & U. Bygott, *Australia's First, A History of the University of Sydney, Volume 2 1940-1990*, The University of Sydney in association with Hale & Iremonger, Sydney, 1995, p.11.

¹⁶²Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.371.

¹⁶³Annable, Cable, *op. cit.*, para. 4.14; Turney, Bygott, Chippendale, *op. cit.*, pp.462-465.

¹⁶⁴DPWS, *op. cit.*, Item 4726036; Good, *Holme Sweet Holme*, p.15.

¹⁶⁵DPWS, *op. cit.*, Item 4726025; Lilienthal, *op. cit.*, pp.35, 36.

Pavilion was officially opened in May 1932 and this new facility created a 'home' for the Association for many years. At this time the No. 2 oval was built to the north-east of the existing oval.¹⁶⁶

Soil relocated from the building site of the new sports pavilion was used to elevate the eastern and southern banks of the Hockey Square to improve drainage and the entire Square was top-dressed at the same time. The number of tennis and basketball courts marked out on the Square varied greatly throughout the decade depending on the amount of water on the grounds and the demand for each sport. The Square was the scene of many inter-state and international hockey matches, including games between New South Wales and an Anglo-Scots team in 1937; the USA and England in 1938.¹⁶⁷

By the beginning of World War II there were 12 member clubs in the University Sports Union, which then included baseball, boxing, golf, hockey, rifle, ski and swimming. The war period meant a falling away of competition and difficulties in obtaining new equipment. The No. 2 oval was occupied during the war by a unit of the United States Army. Some clubs closed down as members left on military service.¹⁶⁸

8. THE IMPACT OF WWII - 1945 - LATE 1950S

8.1 Pressures on Accommodation

The biggest impact of the Second World War was the massive influx of students in the years immediately following the War. In 1940, 4,000 students were enrolled at the University, a record at the time, however by 1946 enrolments had doubled to 8,000, and by 1948, had almost reached 11,000. Over half the students enrolling in the immediate post-War period were ex-servicemen, who came to the University as a result of the Commonwealth Reconstruction Training Scheme, which provided subsidies for professional and vocational training for those discharged from the services. The dramatic expansion in student numbers stretched the University's resources to the limit and from 1946 it was hopelessly overcrowded and understaffed.¹⁶⁹

In response to the urgent need for accommodation and limited resources available, large numbers of temporary structures were erected, which served as lecture rooms, laboratories and offices. They included a new Chemistry lecture hall described as 'a flimsy structure of corrugated fibro cement' opposite Manning House. The hall soon became popularly known as the 'Tram Shed.' Other 'transient' buildings included those for Biology laboratories (A03) near Ross Street and Biochemistry (F12).¹⁷⁰ Some of these buildings remain to this day.

The Commonwealth provided funding assistance for buildings and major plant necessary for Reconstruction Training. Temporary buildings were to remain the property of the Commonwealth, while permanent structures would be taken over later by the University. The Commonwealth assistance enabled construction of some permanent facilities, including a new permanent lecture theatre, opened at the beginning of the 1946 academic year and later named the Wallace Theatre (A21) in honour of the Vice-Chancellor, Sir Robert Wallace. Over the next two years further building was made possible by continued Commonwealth support. Two of the most important constructions in this period were the new Agriculture building and a new building (later known as the R. C. Mills Building), originally used for administrative purposes by the Commonwealth Office of Education, which administered the Commonwealth Scholarship Scheme then as the home of the Faculty of Economics. In 1956 a permanent wing was added to the Veterinary Science building (the McMaster Annex (B02)).¹⁷¹

The remainder of the building program during this period consisted of alterations and subdivisions to existing buildings to cope with accommodation pressures. In 1943 a new Chemistry laboratory was added in the Chemistry Building (A15). Between 1944 & 1947 additions were built to the south of Badham building. At the same a new technology department was added to south side of the Bank Building. Between 1945 and 1958 the east end of the ground floor and whole of first floor of the Botany Building (Macleay Museum) was extensively subdivided. In 1952 the School of Public Health and Tropical Medicine was extended by a new wing along

¹⁶⁶Lilienthal, *op. cit.*, p.54; DPWS, *op. cit.*, Item 4726008.

¹⁶⁷Lilienthal, *op. cit.*, p.54.

¹⁶⁸Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, pp.366-367.

¹⁶⁹Annable, Cable, *op. cit.*, paras.5.2, 5.3, 5.5; Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.32.

¹⁷⁰Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, pp.33-34, 44; Annable, Cable, *op. cit.*, para.5.5.

¹⁷¹Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, pp.33-34; Annable, Cable, *op. cit.*, para. 5.5, Table of themes 1940-1960; DPWS, *op. cit.*, Item 4726027.

Physics Road, enclosing the north side of the original building. In 1954 additional floors were added to the museum of the Biology (Zoology) building for CSIRO use.¹⁷²

8.2 Planning for the Future

In 1951 the State Government formally adopted the County of Cumberland Plan in which areas adjacent to the University in the suburb of Darlington were designated as special Zones for University expansion. In 1954 the Vice-Chancellor's Policy and Planning Committee considered the University's land requirements up to 1964 and indicated that it would need to acquire the area south and east of City Road up to Darlington Road, including the site of the Institute for the Deaf, Dumb and Blind Children as well as an area to the north of Parramatta Road up to Catherine and Beaver Streets. The Committee suggested that the land south of Darlington Street and east to Cleveland Street should also be acquired at a later date. The existing area of the University, excluding the colleges covered 81 acres; the proposed acquisitions would add about 69 acres to the campus, enabling the massive expansion of the University into Darlington that occurred in the 1960s and 1970s.¹⁷³

8.3 Expansion of Administration

By the 1950s the wave of ex-service students had departed, though while total enrolments dropped, they remained at twice the pre-war level. Staff numbers began to expand as Departments grew, replacing the traditional teaching structure of a professor with a few assistants. More administrative positions were also established to support these Departments. Accommodation for staff as well as teaching and research thus became a concern. The University's own administration was also changing, with the creation of the new position of Deputy Registrar and the employment of several administrative staff in the offices of Vice-Chancellor and Registrar. In 1954 a University Archivist was appointed and in 1955 the positions of Deputy Vice-Chancellor and Assistant Principal were created. The Administration was recognised as a distinct section of the University and its strategic accommodation became a significant issue. In 1958 the former Organic Chemistry building (A14) was remodelled to accommodate Administration.¹⁷⁴

8.4 War Memorial and Science Road Bridge

In 1952 it was suggested that an art gallery be established as a war memorial using funds raised during the Centenary Appeal. It was decided that this be created on a bridge, originally planned in 1890 and also part of Wilkinson's plan, but never completed, between north side of the Main Quadrangle and the east end of the Macleay Museum. Wilkinson's and Ashworth's design was amended to provide a double carriageway through the arch. Building work began in 1956 and was completed in 1958, constructed of sandstone and re-enforced concrete. It has two distinctly different facades designed to complement the adjacent buildings, providing a transition between the sandstone Gothic Revival buildings of the main precinct and the Mediterranean character that Wilkinson intended for Science Road. A bronze roll of honour was placed beside the Botany entrance. It was designed by Ashworth and Wilkinson and manufactured by Wunderlich Ltd. and includes the names of University personnel who died between September 1939 and September 1945. The Gallery's inaugural exhibition was held in 1959.¹⁷⁵

8.5 Union Facilities

Extensions and alterations were essential to both the Union Building and Manning House to cope with increased student numbers and at Manning House overcrowding had become unbearable. In anticipation of an increase in the number of women attending university during the war years an extension for a dining room was completed in 1941. (See picture in Good, *Manning House*, p. 12) Updated kitchens and serveries were also provided. After these alterations men were permitted to use the dining room for afternoon tea between 3.00 p.m. and 4.30

¹⁷²DPWS, *op. cit.*, Items 4726020, 4726015, 4726040, 4726005, 4726034, 4726016.

¹⁷³Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, pp.76-77.

¹⁷⁴Annable, Cable, *op. cit.*, paras. 5.7, 5.10.3, 5.10.5, Table of themes 1940-1960.

¹⁷⁵DPWS, *op. cit.*, Item 4726010; McKenzie, *op. cit.*, pp.141-143; Stanbury & Holland, *op. cit.*, p.71.

p.m. provided they used the garden door. After 1945 however, men were permitted to lunch in Manning House.¹⁷⁶

In the Refectory of the Union Building the first of three murals by artist, Vergil Lo Schiavo was donated in 1944 and awarded the Sulman Prize for 1945; it was titled “A Tribute to Shakespeare.” A second mural, “A Tribute to Dickens” was commissioned for the Western Gallery in 1951, completed in 1952. A third mural, “Mankind” was donated by the artist in 1971. Lo Schiavo had studied painting in Rome and Florence and had painted murals for banks and public buildings in Sydney before the Union gave him permission to paint the murals in the Refectory.¹⁷⁷

Sports Facilities

In 1951 the Senate agreed to the introduction of a compulsory Sports Union fee for first year undergraduates, which ensured the financial viability of the sporting clubs and allowed the Sports Union to expand its facilities. A gymnasium or recreation centre and squash courts were built near Manning House and the H.K. Ward Gymnasium was completed in 1957. At this time the Sports Union maintained two ovals, eight grass tennis courts, a boatshed, squash courts, a recreation centre and the H.K. Ward Gymnasium.¹⁷⁸

The post-war period was one of expansion and success in women’s sports. A permanent office for the Women’s Sports Association was set up in 1955 in the Guidance Hut, which contained office space for guidance counsellors appointed to advise ex-service men and women, located on Manning Road. It was moved to a position between number one and number two ovals in 1958 and remained there for the next ten years.¹⁷⁹ (See picture in Lilienthal, p. 72).

9. TRANSFORMATION AND EXPANSION - LATE 1950S - 1975

9.1 A Changing Curriculum

From the mid 1950s the curricula in all departments were modified, with a dramatic rise in the popularity of the social sciences, computing, applied mathematics and the performing and fine arts. There was also a broadening of interest beyond the traditional European-based scholarship to an appreciation of Asian, American and Canadian scholarly work and an interest in Asian cultures. Greater emphasis was also placed on the duty of academic staff to engage in productive research and there was a strong emphasis on postgraduate work.¹⁸⁰

The significance of the sciences continued to grow during the 1950s. Following the end of World War II nations turned to the building of nuclear reactors and the use of nuclear energy in industry and in the rearming of military forces. Science was seen as the future for human development and welfare. In the era of Sputnik, plastics, antibiotics and computerisation, science was becoming an increasingly important part of life and it was seen as essential to encourage teaching and research in the various sciences.¹⁸¹

The dawning of the computer age had an important impact on the University. The Adolph Basser Computing Laboratory was established within the School of Physics in 1956 and was designed to provide a high-speed electronic digital computer and courses in its programming and operation. Basser was one of the benefactors who had presented the University with £50,000 to build the computer. A Diploma course was introduced and by 1961 research and teaching had expanded to such an extent that the laboratory was given departmental status within the School of Physics and a Chair was created in Computer Science. In 1972 the Basser Department of Computing Science was separated from the service division and moved out of the School of Physics to a new complex built in the Darlington area. In 1979 the Department itself also moved out of the Physics Building to new facilities in the Madsen Building, when it was vacated by the CSIRO.¹⁸²

¹⁷⁶Good, *Holme Sweet Holme*, pp.15-16; Good, *Manning House*, pp.12-13.

¹⁷⁷Good, *Holme Sweet Holme*, p.17.

¹⁷⁸Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.367.

¹⁷⁹Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.365; Lilienthal, *op. cit.*, p.72.

¹⁸⁰Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.64; Annable, Cable, *op. cit.*, para. 6.5.

¹⁸¹Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.259.

¹⁸²Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, pp.264-265.

9.2 The Changing University Environment

The late 1950s heralded an era of permanent and growing involvement of the Commonwealth and the Universities Commission in university funding following the delivery of the Murray Report of 1958 which assessed the needs of all Australian universities.¹⁸³

During the 1960s and 1970s universities proliferated (between 1957 and 1976 the number of universities in Australia increased from 9 to 19 and the number of university students from 37,000 to 656,000). After 1965 colleges of advanced education were also created by the Commonwealth as a separate strand of higher education. The Commonwealth promoted both the universities and CAEs and both came to be extensively subsidised and almost fully funded through the Universities Commission, particularly after the abolition of student fees in 1974 and the end of the State Government's responsibility for university funding, making it a Federal responsibility. Commonwealth funding enabled the University to prepare for massive development.¹⁸⁴

With growing demand for university places, a policy of restricting enrolments came into force in 1964, when faculty quotas were introduced. The selection of students was based on their marks in the secondary school Leaving Certificate examination. With the advent of the Higher School Certificate in 1967, entry pressure remained strong.¹⁸⁵

9.3 New Plans for University Site Development

A committee was appointed by the Senate in 1957 to prepare a plan for the future overall development of the University site; this was presented in 1961. The committee pointed out that the existing arrangement of buildings was haphazard and uncoordinated. The plan for the future was based on the following four principles: the redesign of the University into functional precincts so that each faculty would have a recognisable area in which staff and related facilities could be conveniently found; buildings would cater for larger numbers of students on floors at or near ground level, while higher storeys would provide for small classes, seminars and staff offices; spaces around and between buildings were to be attractively landscaped and planted; and within the University grounds pedestrians were to take precedence over vehicular traffic. While some faculties such as Arts, Agriculture and Veterinary Science already occupied precincts, the major concern was that departments within existing precincts would not have adequate space to grow to accommodate the rapid expansion predicted for the 1960s.¹⁸⁶

Eastern Avenue Precinct

The road which came to be known as Eastern Avenue ran beside an extensive vacant area bordering on Victoria Park and ending at the City Road gates. In 1958 it was decided that this area would be used for the construction of buildings for first-year Science courses, Geology and Geophysics and for a new library block.¹⁸⁷

In 1958 a large new Chemistry School in modern architectural style was completed to the south of the Old Medical School. Professor Raymond Le Fevre, Chair of Chemistry and Head of School from 1946, and after whom the lecture theatre wing of the new building was named, contributed to its internal design. During Le Fevre's era, from 1946 to 1970 a number of specialised technical services were established in the Chemistry School and made available to other departments and research institutions. Those services, which included mass-spectrometry, polymer characterisation and helium liquefaction involved large scale advanced equipment and high level computing facilities. Between 1950 and 1990 the Chemistry School became one of the most distinguished centres of research and teaching in the University.¹⁸⁸ (See picture of Chemistry building Connell et. al. p. 78.)

¹⁸³Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.57; Annable, Cable, *op. cit.*, para.5.9.

¹⁸⁴Annable, Cable, *op. cit.*, para. 6.3, Table of themes 1960-1990.

¹⁸⁵Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, pp.70-71; Annable, Cable, *op. cit.*, para. 6.4.

¹⁸⁶Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.77.

¹⁸⁷Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, pp.77-78.

¹⁸⁸Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, pp. 254, 255-256.

In the early 1960s other science facilities were completed on the east side of Eastern Avenue including the Edgeworth David Building for Geology and Geophysics, completed in 1961. The Carslaw Building for first-year Science and Mathematics was begun in 1960 and completed in 1965, occupying the southern end of Eastern Avenue. The Stephen Roberts Theatre partly filled the space between the other two buildings by 1962.¹⁸⁹

The construction of the new Fisher Library in 1961-1962 completed the Eastern Avenue precinct. Fisher was a building of striking and innovative design for which its architects were awarded the Sulman Medal and the 1962 Royal Institute of British Architects Bronze Medal. It was considered to be the first major university library in the world to have been planned simultaneously for both undergraduates and senior scholars and at the time was the largest library in the State. The five-storey undergraduate section opened in 1963, however the nine-storey book stack or research wing and final external metal cladding was not completed until 1971. While the new library was built in close proximity to the old buildings of the Quadrangle, the University encouraged the architects to pursue a design which best suited the functional requirements of the library and expressed a contemporary architectural philosophy with state-of-the-art internal features for humidity and noise control.¹⁹⁰

By the mid 1970s as many departments and facilities had relocated to the south-east of the old campus or across City Road, Eastern Avenue became the University's main thoroughfare rather than Science Road. At one end was the Fisher Library and Front Lawn, while at the other was the Keith Murray footbridge, built in the 1960s, leading to the Wentworth facilities building and providing access to the increasingly busy Darlington side of the campus and Redfern railway station. The south end of Eastern Avenue was re-aligned during 1974.¹⁹¹

Main Quadrangle

Upon the opening of the new Fisher Library, the old library reading room in the Quadrangle was remodelled and named MacLaurin Hall in honour of Sir Henry Normand MacLaurin, during whose chancellorship the library was constructed. The hall was used for examinations and meetings. The book stacks were replaced by a staircase leading to a new entrance and the area remodelled to accommodate much of the History Department, which also spread into the Mungo MacCallum Building, built in 1960.¹⁹²

In 1963 work began on construction of the Western Tower of the Quadrangle and the extension of the cloisters up to the tower. This section of the building was faced with sandstone and five bays of cloisters were added between the western tower and south-west corner to complete the Quadrangle. Wilkinson's original designs were considerably modified due to cost, much to his dismay.¹⁹³

During the 1970s the Great Hall continued to suffer deterioration of its stonework, especially the finials at both gable ends and consideration was given to removing the entire top section of stonework, however the cost proved prohibitive. The decorative iron lacework on the ridge of the roof was removed at this time. In the early 1970s most of the gallery was rebuilt to accommodate a new organ, which had been commissioned in 1962 but was not yet installed.¹⁹⁴

Arts Precinct

Three new multi-storeyed and linked buildings were erected running east-west from near the south-west corner of the main Quadrangle. Griffith Taylor, built in 1959 housed Geography, Music, Town and Country Planning and the Co-op Bookshop. Mungo MacCallum, built in 1960 housed several Arts departments, student clubs and societies and the staff club. A third building, Christopher Brennan, completed in 1967, linked the other two buildings and housed Modern Language departments and some of the History staff.¹⁹⁵

¹⁸⁹Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.78; Annable, Cable, *op. cit.*, Table of themes 1960-1990.

¹⁹⁰Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.78; "Fisher Library Sydney University," *Architecture in Australia*, December 1963, 70-75, pp.71,74.

¹⁹¹Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, pp.78, 80; Annable, Cable, *op. cit.*, Table of themes 1960-1990.

¹⁹²McKenzie, *op. cit.*, p.118; Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.81.

¹⁹³Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.81; McKenzie, *op. cit.*, pp.138-139.

¹⁹⁴Phillips, Thorp, *op. cit.*, p.11.

¹⁹⁵Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p. 81.

Medical Precinct

The Research Institute for Mothers and Children opened in 1958 and was located behind the No. 1 Oval, not far from the precinct occupied by the Blackburn Medical School building. In the late 1960s two additional buildings, the Bosch Theatre and Bosch Building were constructed near the Medical School adjacent to the Western Avenue Underground Parking Station, which was carved out beneath the sports oval of St Andrews College. The Medical School was extended and in 1974 it was renamed the Blackburn Building.¹⁹⁶

Science Road

With the anticipated removal of whole faculties into the University extension area in Darlington it was intended that Science Road was to be an Arts-Administration precinct. However, when the removal of Biological Sciences to Darlington was thwarted due to cuts in funding, existing facilities were expanded. While some provision was made for Arts subjects, Science continued to retain a large presence in Science Road.¹⁹⁷

The Old Geology Building was vacated by Geology and converted for use by administration and Biological Sciences. Pharmacology occupied a new laboratory within the building. The Chemistry Building (A15) was converted for use by Pharmacy which also occupied parts of the adjacent Bank and Badham buildings. In the Veterinary Science precinct permanent buildings for the veterinary hospital and research purposes were constructed in the 1960s and 1970s, for example: the Evelyn Williams Hospital and Clinic (B10) in 1967; the R M C Gunn building for Veterinary Physiology and Animal Husbandry (B19) in 1974. Agriculture's premises were extended by a new four-storey annexe and by the J. R. McMillan building for agricultural research, which was begun in 1962. With the relocation of Engineering to a new site in Darlington in 1968 Peter Nicol Russell Engineering building was renamed the John Woolley Building and was vacated and converted for use by Arts and Agriculture. Alterations also took place in the Badham, Botany and Zoology buildings.¹⁹⁸

Science Road's role as a major pedestrian entrance to the University and as the hub of University life diminished with the major shift in dynamics of the campus towards Darlington and the City Road side, the relocation of the library to Eastern Avenue and the construction of new student facilities on City Road.¹⁹⁹

9.4 Extension into Darlington

In 1958 an area of some 70 acres, including a large part of the Darlington area was set aside under the Cumberland County Council Plan for 'Special Uses - Educational and Medical,' to ensure that land was available for any necessary expansion of the University into the Darlington area. The special uses zoning meant that the University became the principal buyer of land parcels when they came onto the market. Funds for land purchase came from the State Grants (Universities) Act 1958 and the Australian Universities Commission, the latter providing £400,000 for 1961-1963. In 1960 the special uses area was reduced to 35 acres, later called the University Extension Area, after opposition to the extensive purchasing program from local land owners and tenants. In 1968 the area up to Golden Grove Street was restored to the University Extension Area, and another 9 acres were added. By this time, the University had acquired about ten per cent of the area bounded by Darlington Road, Golden Grove, Abercrombie and Codrington Streets.²⁰⁰

The University's expansion into this area involved a major re-orientation of the campus and represented a departure from previous construction as for the first time, the University built a large, purpose-designed complex using state of the art architecture. In the end the new region housed a disparate collection of facilities, including modern structures, restored buildings dating from the nineteenth century and a 'tin sheds' art centre.²⁰¹

In 1959 the first building in the University extension area in Darlington was completed for Architecture and this became the first faculty to relocate to the opposite side of City Road in 1960. The eastern section of the

¹⁹⁶Annable, Cable, *op. cit.*, Table of themes 1940-1960; Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.82.

¹⁹⁷DPWS, *op. cit.*, Item 4726018.

¹⁹⁸Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, pp. 80-81; DPWS, *op. cit.*, Items 4726014, 4726019, 4726020 & 4726038.

¹⁹⁹DPWS, *op. cit.*, Item 4726018.

²⁰⁰Casey and Lowe, *op. cit.*, pp.10-11.

²⁰¹Annable, Cable, *op. cit.*, para. 6.8.

Darlington area, towards Cleveland Street, was designated for development as a large Engineering precinct. In 1963 a building for Civil and Mining Engineering was established followed by Chemical Engineering in 1964; Mechanical and Aeronautical Engineering and Electrical Engineering in 1965 and the new Peter Nichol Russell Building in 1966. By 1975 the entire Engineering faculty had been relocated to new premises in Darlington.²⁰²

The Biochemistry Department's building (G08), begun in 1970 and completed in 1973, was located behind the Wentworth Building. A University computing centre was also developed further back in the Darlington area in 1974. The Architecture Faculty remodelled and extended its buildings, which fronted City Road, over the 1960s and early 1970s and in 1976 added a substantial new building.²⁰³

While many of the new facilities employed a totally new approach to design, the University also acquired some buildings in the Darlington area dating from the previous century. In an era in which an awareness of heritage issues was beginning to take hold in the community, some efforts were made to preserve parts of the older buildings acquired by the University, though sometimes this only came after community protest.

Institute Building and Curtilage

The University acquired the buildings of the Royal NSW Institute for Deaf and Blind Children, which dated from 1870, following its removal to new premises in 1962. The main building (H03) was remodelled to provide accommodation for some Faculty of Arts departments, the student medical service and later, the Department of Geography. Other University buildings were built within the original curtilage of the Institute; these include: the University Regiment and Squadrangleron Building (H01) in 1964 and the Merewether Building (H04) in 1965, which housed the Faculty of Economics.²⁰⁴

From 1964 the Sydney University Press occupied the former Superintendent's residence (H02). This building is a two-storey bay fronted villa, typical of a suburban villa of the late 1880s, with popular decorative motifs in cast iron and render, and reflects the status associated with the position of Superintendent. The residence was probably designed by A. L. and G. McCredie who succeeded Benjamin Backhouse, the original architect, on his retirement in 1884. The residence and garden were enclosed with a dwarf stone wall and iron palisade in 1892. It was refurbished in 1990.²⁰⁵

Old Darlington School

At the end of 1975 the old Darlington School was transferred to the University. The school was designed in the late 1870s by the architect to the Council of Education, George Allen Mansfield. In 1976 several outbuildings were demolished and the site cleared in preparation for the construction of a new building for Biological Sciences, which was to relocate from Science Road. However, this plan did not eventuate when Australian University's Commission funding ended. Protests from locals and some within the University ensured that the original school building was preserved. The building was renovated for use by the Department of Music and as a theatre workshop in 1978. It now stands in a park-like setting, its original curtilage substantially altered.²⁰⁶ (See picture - Connell et. al. p.82)

9.5 Student Facilities

Heavy pressure was placed upon student facilities in this period of rapid expansion and clubs proliferated. The Union became involved in the provision of a wider range of services, for example the Union Child Care Centre was established in 1970.²⁰⁷

²⁰²Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.79; Annable, Cable, *op. cit.*, Table of themes 1940-1960.

²⁰³Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.79; Annable, Cable, *op. cit.*, Table of themes 1960-1990.

²⁰⁴Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, pp.78-79; DPWS, *op. cit.*, Item 4726012.

²⁰⁵DPWS, *op. cit.*, Item 4726031.

²⁰⁶Sutherland, *op. cit.*, pp.11-12; DPWS, *op. cit.*, Item 4726033.

²⁰⁷Annable, Cable, *op. cit.*, Table of themes 1960-1990.

Union Building

In the early 1960s the Union extended its dining and recreational facilities along land backing onto Parramatta Road. Further extensions took place during 1961 - a third floor on the western common room block was built as an extension to the Bevery. Opened in March 1962, it was named the Buttery and the old Buttery under the Refectory converted to a Jazz Cellar. In 1966-1967 extensive remodelling of the building added greatly to its capacity. The Union was renamed the Holme Building in 1975 after Ernest Rudolph Holme, who was President of the Union at various times between 1902 and 1913.²⁰⁸

A theatre building was completed behind Union 1961, then in 1972 a footbridge was built across Parramatta Road between the theatre and Old Geology Building, to provide a safer pedestrian crossing and a link with the Mackie and Walter Selle buildings. The Union's theatre was renamed the Footbridge Theatre in 1981.²⁰⁹

Manning House

Additions completed in 1957 comprised a new room for food preparation on the main floor, a large room for members opening onto a balcony, built above the existing dining room; a food service section with a store room, wash up room and small kitchen, connected to the main dining room by a goods lift. The new rooms were built on the site of the existing sun deck and verandah, so a new sun deck was provided on the roof of the extension. The new room was named the Blackburn Room in honour of the Chancellor, Sir Charles Bickerton Blackburn.²¹⁰ (See picture in Good, *Manning House*, p. 17)

In the early 1960s during the general expansion of the University, funds were raised to complete a major extension by 1963 which included a dining room annexe, coffee lounge, meeting room, enlarged kitchen, storage and toilet facilities and an extensive balcony on the north side.²¹¹

Redecoration was carried out in Manning House prior to the amalgamation of the unions in 1972. Amalgamation allowed some changes in rooms' uses. On the first floor the old Secretary's Office became a small common room known as "The Women's Room." The Isabel Fidler Room was retained as a "women only" common room, however in 1973 all restrictions on access to the room were removed.²¹²

In July 1974 a liquor bar opened in Manning House in the Blackburn Extension and became popularly known as the Manning Bar. The bar also serves as a venue for concerts and films.²¹³

Wentworth Building

A second general facilities area for students and staff was developed on the Darlington campus in the Wentworth Building, the first stage of which was completed in 1972. From the beginning of that year, all the services provided in the three main Union buildings - the Holme Building, Manning House and the Wentworth Building - were administered by a single body, the University of Sydney Union, under which the previously separate women's and men's unions were amalgamated.²¹⁴

Student Accommodation

The University's existing colleges were able to increase their capacity and upgrade their facilities following the Murray Committee's recommendation that Government funding be provided for colleges as well as the universities. Using both Government funding and their own resources the colleges undertook an extensive building program in the 1960s.²¹⁵

²⁰⁸Annable, Cable, *op. cit.*, para. 5.10.6; Good, *Holme Sweet Holme*, *op. cit.*, pp. 1, 22-23; Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, pp. 78, 81, 363.

²⁰⁹Good, *Holme Sweet Holme*, *op. cit.*, pp.22-23.

²¹⁰Good, *Manning House*, pp.16, 19.

²¹¹Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.364.

²¹²Good, *Manning House*, p.27.

²¹³Good, *Manning House*, p.27.

²¹⁴Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.78.

²¹⁵Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.372.

During the 1960s and 1970s the University became concerned with providing additional residential accommodation for the increasingly diverse student population which now included several overseas students. In 1964, W.A. Selle Student House (K02) was established in Arundel Street, Glebe, then²¹⁶ in 1967 a residential college, University House was opened. It had been built to a striking design facing City Road and accommodated both local and overseas students, indicating the growth and broadening of the student population. A new wing was added in 1979.²¹⁷

Sporting Facilities

The 1960s and 1970s were years of building and modernisation as the Women's Sports Association sought to expand its future facilities. An extension to northern end of the Women's Sports Pavilion was completed in 1956 and included a new room to provide practice space for table tennis and fencing and a bigger tea room. New South Wales members of the 1956 Olympic fencing team used the Pavilion for training.²¹⁸ (See picture in Lilienthal p. 76).

Between 1957 and 1959 extensive renovations were carried out on the Tennis Shed near the women's tennis courts. The new facility, then called the Clubhouse had a larger common room, a kitchenette and, for the first time, changing rooms for men. The front verandah of the Clubhouse was incorporated into the common room and was provided with a new roof, guttering and down pipes. It has been suggested that the original Tennis Shed was the Ladies' Common Room, moved from inside the main Quadrangle, however the exterior has been greatly altered as a result of these renovations, making it difficult to tell by comparing it to photos of the Common Room.²¹⁹

The most significant development for women's sport at the University in the 1960s was the construction of the Sports Centre. The clubhouse and dressing shed building was removed from Hockey Square in 1965 and Stage 1 of Sports Centre completed 1967. The building represented the first attempt by a university sports organisation in Australia to finance and build an indoor sports facility and demonstrated the SUWSA's evolution from being a collection of sporting clubs to an organisation offering a comprehensive physical recreation program for women. (See picture in Lilienthal p. 87).²²⁰

During the 1960s and 1970s efforts were directed towards the further development of indoor facilities. Stage 2 of the Sports Centre was completed in 1972 with the help of a grant from the Commonwealth's Australian Universities Commission. This section of the Centre contained two outstanding features never before built in an Australian gymnasium. The first was a huge mechanical folding door which divided the gymnasium into two; gym 2 contained permanently erected apparatus, while gym 1 could be used to host dance and other physical recreation classes as required. The second feature was the gymnastic landing pit, making the gymnasium a state of the art facility. A final addition was made in 1992. The new Sports Centre housed a large and small gymnasium, locker and changing areas, three badminton and two squash courts, table tennis and fencing rooms, a weight training room, physiotherapy clinic, common room, refreshment service and accommodation for the Association's administration.²²¹ (Picture in Lilienthal p.91 shows the different roof lines where Stage 1 and II are joined).

Other developments in the 1960s included the enlarging of The Hockey Square by excavating part of the Teachers' College garden and the hard tennis courts on the northern side. The remaining high ground was used to make space for two golf practice enclosures and two cricket practice wickets. In August 1965 floodlights were erected on the Square. New paths and steps were constructed to provide a more direct route to the Square from Manning House; the Teachers' College linked the high ground with the Square, which was by then used for cricket, soccer, softball and archery as well as hockey.²²²

²¹⁶Annable, Cable, *op. cit.*, Table of themes 1960-1990.

²¹⁷Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.79; Annable, Cable, *op. cit.*, Table of themes 1960-1990.

²¹⁸Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.365; Lilienthal, *op. cit.*, p.75.

²¹⁹Lilienthal, *op. cit.*, pp. 75-76.

²²⁰Lilienthal, *op. cit.*, p.83.

²²¹DPWS, *op. cit.*, Item 4726025; Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p. 365; Lilienthal, *op. cit.*, pp.83, 88, 91-92.

²²²Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p. 365; Lilienthal, *op. cit.*, p.86.

On the Darlington side of the campus the Noel Martin Recreation Centre with swimming pool and tennis and squash courts was completed by the early 1970s.²²³

9.6 Student Activism

The 1960s and 1970s were characterised by world-wide student activism and students at the University of Sydney became involved in protest activity. Students sought greater power within the University and protested over issues such as discrimination against Aborigines, nuclear power, censorship and the White Australia Policy. When Australia became involved in the Vietnam War and conscription was introduced protests became more intense and radical. The scene for much of the activity was the front lawn between the main Quadrangle and Fisher Library, where several meetings were held. Demonstrations were also held outside the buildings of the Sydney University Regiment. 1969 and 1970 saw the most spectacular protests at the University and in 1970 students took part in a nation-wide Moratorium, beginning and ending with gatherings on the front lawn.²²⁴

9.7 Grounds

During the 1950s and 1960s attempts were made at landscaping various parts of the campus however, the expansion of construction activity often meant the loss of earlier plantings. In the 1950s members of the Botany Department planted a 20 to 40 ft. wide strip of trees along the edge of Victoria Park near Eastern Avenue to provide specimens for Botany classes. This was bulldozed in the 1960s to make way for the Carslaw Building and the only surviving remnant of those plantings is a single Honey Myrtle. Prior to the construction of the new Fisher Library a large grove of trees grew on the site. Most of these were lost when the library was built, the only survivors being a pine and Moreton Bay Fig, the latter of which was labelled in 1981.²²⁵

In 1953 the Isabel Fidler Memorial Garden was constructed on the corner of Manning and Fisher Roads to commemorate Fidler, who had died in 1952. Fidler held the position of Tutor to Women Students since 1900 and had been actively associated with the University for most of her life as a powerful figure in the women's graduates' association and other women's organisations in Sydney. The garden was designed by Professor Denis Winston, Chair of Town and Country Planning, in the form of a small amphitheatre of lawn surrounded by yellow jasmine. The 'Chancellor's Garden' on the northern side of Fisher Library is another commemorative garden. It was opened in 1968 as a tribute to Sir Charles Blackburn, who was Chancellor from 1941 to 1964.²²⁶

Gardens along Eastern Avenue, which have mainly been planted since the 1960s represent a change in style from earlier gardens such as those in Science Road. Eastern Avenue plantings are characterised by a large number of natives reflecting a more modern approach to landscaping, consistent with the contemporary architectural style of that area of the campus.²²⁷

10. REORGANISATION OF THE UNIVERSITY SYSTEM - 1975 - PRESENT

10.1 Funding Cuts

The Universities faced difficult times from the mid 1970s due to cuts in Government funding and the abolition of undergraduate fees as well as public criticism of 'over education' and over production of Arts and Law graduates. In the Federal budget presented in August 1975 the Government suspended triennial grants. Student numbers were to be maintained at present levels but costs had to be contained and plans for new buildings were shelved. At the University of Sydney, from 1981 many staff positions were suspended or abolished and some course options removed due to financial stringency. Research activities became more selective as finance declined.²²⁸

²²³Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.79; Annable, Cable, *op. cit.*, Table of themes 1960-1990.

²²⁴Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, pp.353, 355-358.

²²⁵Curtis, *op. cit.*, p.125, 134.

²²⁶Curtis, *op. cit.*, pp.135, 160; Turney, Bygott, Chippendale, *op. cit.*, p.608; Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.277.

²²⁷Curtis, *op. cit.*, p.124.

²²⁸Annable, Cable, *op. cit.*, Table of themes 1960-1990.

However, the improved facilities that had been developed during the previous twenty years, together with the provision of student grants encouraged an increase in postgraduates. Postgraduate study and teaching was further stimulated by Australia's industrial development and growing population together with employment opportunities in the new universities and CAEs. Universities also began to actively recruit fee-paying postgraduate students to compensate for cut backs in other sources of funding.²²⁹

10.2 Slowing of Building

Cut backs in funding from the mid 1970s meant the postponement of major projects such as the School of Biological Sciences building and stage two of the Architecture Building. While the University's existing buildings continued to undergo maintenance and repair, this work too was impeded.²³⁰

One major new structure that was able to be completed in 1975 was the Seymour Centre, which had been funded by a bequest from a leading city retailer, Everest York Seymour. The theatre located within the University precincts on the corner of City Road and Cleveland Street and contained three fully equipped theatres and other facilities. It was designed 'for education in and for the cultivation and performance of, musical and dramatic arts.'²³¹

In 1977 a three-storey extension to the Queen Elizabeth II Research Institute for Mothers and Infants, was completed, financed by private funds. In 1978 the Madsen Building, which had housed the National Standards Laboratory, was handed over by the Commonwealth to the University and was refurbished for the Department of Education.²³²

Other works carried out in the late 1970s included reconstruction work carried out in the tower of the main Quadrangle in 1978, associated with the reinstallation of the carillon, which was recast in 1976. The Bank Building was renovated and an extension made to the Pharmacy building in 1976, which was paid for by the Bank. Around 1978 an addition was built at the south end of Pharmacy building.²³³

Following the destruction of the grandstand at No.1 Oval by fire in May 1975, the Bruce Williams Pavilion (D01) was constructed in two stages, opened in 1976 and 1978.²³⁴

10.3 Dawkins' Reforms

The major challenge to be faced by the universities in the 1980s came from the Minister for Education, John Dawkins' reforms, which initiated a policy of amalgamation whereby universities were joined with other tertiary institutions resulting in the creation of many more universities, rather than continuing the separation of universities and CAEs. This was offered as one of the solutions to a growing revenue shortage by the Federal Government. As a result, Sydney University became associated with the Sydney Teachers' College; the Conservatorium of Music in Sydney; the Institute of Education in Carillon Avenue; the Institute of Nursing in Mallett Street, Camperdown; the College of Health Sciences at Lidcombe and the Sydney College of the Arts at Glebe, White Bay and Balmain. These amalgamations led to a ballooning of student numbers and problems of maintaining these newly acquired facilities.²³⁵

In the 1980s University resources were spent on facilities at the newly acquired campuses, however provision also had to be made for construction on the traditional campus. Considerable reconstruction of older buildings occurred and, for the first time, an official policy of heritage maintenance was adopted.²³⁶

²²⁹Annable, Cable, *op. cit.*, paras. 6.10, 6.14.

²³⁰Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, pp.82-83, 382, 391.

²³¹Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.392.

²³²Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, pp. 391-392.

²³³Annable, Cable, *op. cit.*, Table of themes 1960-1990; DPWS, *op. cit.*, Item4726020.

²³⁴DPWS, *op. cit.*, Item 4726008.

²³⁵Annable, Cable, *op. cit.*, paras. 6.13, 6.14, Table of themes 1990-1999.

²³⁶Annable, Cable, *op. cit.*, para. 6.15.

10.4 Works on Campus - 1980s

The main works carried out in the 1980s involved completion of works in the main Quadrangle. The Great Hall was at last completed in the 1980s. In 1982 the steps into the Hall were replaced with grey trachyte. In 1983-1984 heraldic arms representing several universities were painted on the stone corbels supporting the roof. Finally, in 1984 sculptures of a male and female figure, representing the youth of the University were completed by sculptor, Tom Bass, who was commissioned by the artist Lloyd Rees to fill the empty niches on the eastern wall of the hall.²³⁷ (See picture Connell et. al. p.450.)²³⁸

While Stage 2 of the Architecture Building (G04) were completed in 1984, the other works carried out on campus mainly involved renovations and modifications of existing buildings for use by different subject areas. Refurbishment and fire upgrading works took place in the Pharmacy building in the 1980s. The Mills Building was renovated for Social Work and Fine Arts in 1979 -1980; two small additional wings at right angles to the original building were designed in 1984 and 1988. Renovations were made in the Blackburn Building in 1984. Changes to lecture theatres were made in the Zoology Building in 1981 and 1988. The most recent addition to that building is an example of the continuation of the Wilkinson influence in Science Road in the 1990s. Additions for a library were made in the Badham Building in 1987. The building then provided accommodation for Psychology which also spread to parts of the Griffith Taylor and Mungo MacCallum Buildings. In 1989 a Government grant was received for renovations which mainly involved the implementation of safety projects in laboratories and upgrading of lecture theatres.²³⁹

Major works carried out on Union buildings included an addition to the Wentworth Building, begun in 1987. Manning House underwent a period of alteration and redecoration during the 1980s.²⁴⁰

10.5 Developments in the 1990s

By 1989 the University's enrolment had reached 19,076 student with 3,846 full time staff. The 1990s represented a period of consolidation. The size of the teaching staff continued to be reduced; research and support staff have also suffered cuts; and financial problems have slowed the development of facilities. In 1991 an over-enrolment crisis led to a more cautious approach by which enrolments were balanced against available funds.²⁴¹

In 1990 fees were reintroduced in the form of the Higher Education Contribution Scheme, (HECS). The University also became active in seeking to recruit full-fee paying overseas students. A Community Affairs division was established to facilitate fundraising on an institution-wide scale. The search for non-government funding has placed increased pressures on the administration. Financial constraints have also reduced the depth of some research, although the range of research widened and several new centres were established including: the Women's Studies Centre; the Faculty of Health Sciences at Cumberland College and the Aboriginal Education Centre. The Government's Key Centres of Research and Training established included: the Language Acquisition Research Centre, the Australian Centre for Industrial Relations Research & Training. Collaborative research has also been undertaken with the CSIRO.²⁴²

In the early 1990s the major new addition to the campus was the new Education Building, constructed adjacent to the Teachers' College in 1990 - 1991. Its height was to the detriment of Wilkinson's earlier 'axis' concept, inhibiting a clear view across from the Union Refectory to St Paul's College. In 1998 a Veterinary Conference Building (B22) was completed. An Engineering link building, funded by sponsorship was built on the Darlington campus in the 1990s.²⁴³

²³⁷Phillips, Thorp, *op. cit.*, p.12.

²³⁸Annable, Cable, *op. cit.*, Table of themes 1960-1990.

²³⁹Annable, Cable, *op. cit.*, Table of themes 1960-1990; Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, pp.80-81; DPWS, *op. cit.*, Items 4726020, 4726024, 4726016, 4762015.

²⁴⁰Annable, Cable, *op. cit.*, Table of themes 1960-1990; Good, *Manning House*, pp. 27, 29.

²⁴¹Annable, Cable, *op. cit.*, paras. 7.1, 7.3, Table of themes 1960-1990.

²⁴²Annable, Cable, *op. cit.*, Table of themes 1990-1999.

²⁴³Annable, Cable, *op. cit.*, Table of themes 1990-1999, para. 6.15; Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.81; DPWS, *op. cit.*, Items 4726019 & 4726038.

The Anderson Stuart Building was refurbished in the early 1990s and suggestions were made for the construction of a private hospital on the campus. In 1990-1992 parts of the Macleay Museum / Botany Building were occupied by biological sciences renovated and refurbished to provide research facilities for molecular biology. In 1993 facilities were installed in the John Woolley building for the Centre for Performance Studies.²⁴⁴

Some new building took place in residential colleges and new types of student accommodation developed, for example in 1993 Darlington House opened, a new student residence funded by a levy on international student fees. There were plans for large-scale student accommodation in North Newtown. Considerable additions were made to Union buildings in the 1990s as unions consolidated their strength.²⁴⁵

The notion of the University had been transformed by the late 1990s. The acceptance among the community of tertiary education as the norm and the re-introduction of fees in the form of HECS has overturned, the idea of the University as 'elitist.' With the proliferation of universities, Sydney emerged among a small group of leaders, a long way removed from the 'gentleman's university' of the 1850s.²⁴⁶

The University's initial site at Grose Farm encompassed approximately 51 hectares in 1855. By 1990 its main site had increased to 72 hectares. In addition to the Camperdown and Darlington campus, the University possessed extensive farms and research stations for biology, astronomy, agriculture and veterinary science throughout New South Wales. In 1994 a Capital Management Plan was launched establishing priorities for capital works from 1995 to 2004, providing for \$550 million to be spent over ten years; thus the University's expansion and development continues.²⁴⁷

11. SUMMARY OF PLANNING AND BUILT FORM DEVELOPMENT

The following expands on the summary of planning development provided in the text above.

The form and planning of the University was established largely in the work of the first University architects, Blacket (1852 to 1854) and Barnet (1855 to 1890), and the first University Architect, Wilkinson (1920 to 1925). Others, including the Government Architects Vernon, McRae and Evan Smith, and the Civic Planner, Burley Griffin, made significant but lesser contributions. Architects and planners responsible for the planning and design of works undertaken since World War II have made a strong visual impact without contributing in any way to the planning or design integrity of the place.

11.1 Style and Planning

Edmund Blacket established the original style of the University in the first building on the eastern row facing Sydney town. The style is usually described as Tudor Perpendicular Gothic. This style was derived from Blacket's personal knowledge of English buildings of the Tudor period and from works published in the *Ecclesiologist*.²⁴⁸ A plan that is believed to be Blacket's original design for the University²⁴⁹ illustrates a cloistered quadrangle very similar to what was effectively built in stages over the following decades. As architect also for the first college building, St Paul's, he was able to establish the Gothic style across the campus.

James Barnet worked with Blacket on the construction of the Great Hall. Later, as Colonial Architect during the 1880s, Barnet made a major contribution in the design of the Anderson Stuart building. This work, together with the earlier work by Blacket (Main Building and St Paul's College) and the architects William Wardell (St John's College) and William Munro (St Andrews College) consolidated the sandstone Gothic character and form of the early university. Barnet also planned the original Physics and Chemistry buildings, placing them out of sight

²⁴⁴Annable, Cable, *op. cit.*, Table of themes 1990-1999, para. 6.15; DPWS, *op. cit.*, Items 4762005 & 4726014; Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.80.

²⁴⁵Annable, Cable, *op. cit.*, Table of themes 1990-1999.

²⁴⁶Annable, Cable, *op. cit.*, Table of themes 1990-1999, para. 6.16.8.

²⁴⁷Connell, Sherrington, Fletcher, Turney & Bygott, *op. cit.*, p.442; Annable, Cable, *op. cit.*, Table of themes 1990-1999.

²⁴⁸*The Ecclesiologist*, published between 1842 and 1868 was one of the official organs of the 'Gothic movement' and very influential in the work of Edmund Blacket.

²⁴⁹Plan titled Original Design, Sydney University, published in *Art in Australia*, vol. 2, 1905, p.7.

behind the eastern row, and using cheaper construction materials (mainly brick) so as to not draw attention away from the main row of sandstone buildings. These buildings were not intended to be permanent although the choice of materials and design does not suggest that they were temporary. Rather they were expedient.

Vernon and McRae, succeeding Government Architects responsible for university building, respected the design integrity of the sandstone Gothic main row although they preferred a more contemporary red brick Federation style for new buildings. They each designed major additions to the main row in complementary sandstone Tudor-Gothic detailing, and they designed new Federation Free Style face brick new buildings, placing them on the lower ground to the west, away from the more imposing sandstone Gothic eastern row.

Vernon made the first attempts to tidy up the campus through the planning of individual buildings and by the establishment of a new east west axis along which the science faculties were consolidated. The direct results of Vernon's work were limited. It took another two decades for Vernon's aims to be effected in the work of Wilkinson.

McRae laid out the first plan for the whole University site in 1913, in which he proposed new buildings in conjunction with a full layout of the grounds. His plan included demolition of Barnet's Physics and Chemistry buildings, which were to be replaced with an impressive range of Gothic style buildings, and the straightening of Science Road. The plan also included the completion of the main quadrangle, and an arch structure over Science Road to link the Macleay Building with the main quadrangle. The plan²⁵⁰ was a building master plan that failed to deal with landscaping issues. It nevertheless remained in use until 1917 when it was re-drawn to include completed works and refinements in planning details.

By 1915 the University administrators sensed the need for an over-arching landscape plan and they engaged Walter Burley Griffin to prepare such a plan for the whole campus. Town planning was then a new discipline attracting attention as a result of the international competition for a design for the nation's capital. Architects from around the world presented design schemes for Canberra that were far more than just plans showing the placement of roads and buildings. A comparison between McRae's plan of 1923 and Burley Griffin's plan of 1915 clearly illustrates the progression in approach to site planning. Although Griffin's plan was not adopted, its principals were acknowledged by the University and followed quite closely by Wilkinson, who prepared a new plan for the university in 1920, which he implemented in the program of works undertaken between 1920 and 1926.

Leslie Wilkinson assumed responsibility in 1918 when he became the first Professor of Architecture. He was appointed with the clear understanding, at least on his part, that he would also take a leading role in planning the University. He was soon appointed to the role of University Architect which gave him the authority to forge ahead to mould the campus into an exciting new form, building on the ideas proposed by Burley Griffin. However Wilkinson's management of the building budget was found to be wanting and he was asked to step aside before his plans were fully implemented.

When Wilkinson was replaced as University Architect, the NSW Government Architect, Evan Smith, chose to design in the style advocated by Wilkinson and to place the next generation of buildings according to Wilkinson's general proposals. Indeed Wilkinson continued to implement his proposals in the role of consultant to Smith on some of the buildings.

World War II marked a turning point when planning appears to have been thrown out the window and new works were constructed according to ascendant need without consideration of the overall design style or the design of the whole campus. All consideration of vistas and garden planning was put aside in order to meet the accommodation crises that emerged as student numbers ballooned and the race was on to provide accommodation for enrolments that trebled between 1939 and 1945.

The explosion in enrolments coincided with major changes in the building industry, which moved rapidly from being a crafts and trades-based industry to a technology-based industry with marked visual results. The process had commenced at the end of World War I, when the loss of manpower experienced in Europe and Australia, was countered by the introduction of new building materials, such as fibrous asbestos cement sheet, that could be erected quickly with less skilled labour. The spread of the new methods between the Wars was slow due to

²⁵⁰ University of Sydney Site Plan showing existing and suggested future buildings in conjunction with the lay out of the grounds. Drawn by Gorrie M. Blair and signed by George McRae, dated 3rd July 1913.

the lingering nostalgia for traditional methods but the end of World War II marked a headlong rush towards modernism when traditional building methods were cast aside in favour of the new, modern approach. Nowhere is the transition more obvious than at the University where the buildings built in the fifty years before the War are entirely different to those building in the fifty years since.

11.2 Blacket

Edmund Thomas Blacket (1817-1883) was the pre-eminent institutional designer in Sydney when, as new South Wales Colonial Architect, he was approached in 1854 to design the University. His experience with campus planning was then very limited indeed. His only large-scale works prior to designing the University were ecclesiastical. His largest secular building project had been the alterations to the Sydney Grammar School undertaken in 1855, when he was already engaged in designing and building the new university.

Notwithstanding any shortcomings in prior experience, Blacket was the most experienced designer around and he endowed the University and the City with a Gothic pile that is regarded by many as one of the great works of the Gothic Revival. However his planning did not extend beyond the main building, that was built as an 'L' shaped building with the intention of constructing a cloistered Quadrangle,²⁵¹ and a few scattered residences for gatekeepers, gardeners, messengers, professors and the University Principal. Sadly Blacket's drawings have been lost and so we must rely on reports by others to comprehend the extent of his planning intentions for the whole campus.²⁵² None of these refers to a total campus design.

Nevertheless, Blacket is credited with having carefully placed St Paul's College on the opposite rise from the main building with great skill.²⁵³ An early view of the campus taken from the position of the future St Andrew's College, shows the dominance of these two imposing Gothic stone piles on opposite rises in the bare landscape.²⁵⁴ Any further contribution towards the future planning of the campus appears to have been arrested by the slow growth in student numbers and in particular the painfully slow take-up of places at St Paul's College.

11.3 Barnet

James Barnet (1827 - 1904) was Colonial Architect responsible for building at the University when the next major construction on campus was considered. In 1884 he designed the Anderson Stuart Medical faculty and placed it in a position that aligned its eastern façade with the eastern façade of Blacket's Great Hall. His design for the building was chosen to be stately and sufficiently elaborate to rival, as well as complement, Blacket's main building.²⁵⁵ Thus Blacket added to and reinforced the strong sandstone Gothic style of architecture on the prominent eastern row of the University.

Blacket also designed a Physics Laboratory in 1886 in conjunction with the Physics Professor, Threlfall.²⁵⁶ The brick building was a functional, temporary building and it was placed on the western side of the main buildings. It had a tower, from which the Sydney Observatory time ball could be seen and various laboratories. The building was enlarged and expanded by Vernon, McRae and Wilkinson over the following decades. Barnet next designed a Chemistry laboratory in conjunction with Professor Liversidge in 1889.²⁵⁷ This building was also placed to the west of the main eastern row out of view from the east.

There is no evidence that Barnet planned beyond the consolidation of the prominent eastern façade and the provision of new facilities in a subordinate style to the west of the main buildings. Nevertheless, it would be surprising if he neglected to prepare a plan for the development of the University since, as assistant to Blacket

²⁵¹ See Original Design, Sydney University, published in *Art in Australia*, vol. 2, 1905, p.7.

²⁵² In 1921 Professor Leslie Wilkinson commented in an address to the Institute of Architects in Sydney that, in Blacket's day the only additional buildings contemplated appear to have been houses for professors and the Principal.

²⁵³ *Architecture*, April 20th, 1921. Record of a paper presented to the Institute of Architects by Prof. Leslie Wilkinson, p.108.

²⁵⁴ See illustration from SUA in Turney, Bygott, Chippendale et al. P. 159.

²⁵⁵ James Semple Kerr, *Anderson Stuart's Medical School, a plan for its conservation*, University of Sydney, 1992, pp. 1-2.

²⁵⁶ NSW PWD Plan U2/A3166.

²⁵⁷ NSW PWD Plan U2/A3177.

on the Great Hall, he had been there from the outset and, as Colonial Architect for thirty years from 1862, he was responsible for the University's physical form. What is more, he had laid out some very important campus-style sites at Rozelle Hospital, and at various prisons, and the Garden Palace in the Botanic Gardens amongst others. However, any plan that he might have had for the University campus has remained undiscovered.

The only other dominant building that was constructed by the University during the second phase of building, in the same year as the Anderson Stuart Building, was George Allen Mansfield's Macleay Museum on the northern flank of Blacket's main building. This brown brick building with its squat towers and coarse detailing was dismissed from the outset as a thing of little consequence. It was proposed almost from the outset to provide it with a sandstone façade in keeping with Blacket's and Barnett's buildings to the south. Meanwhile the Gothic character of the colleges was entrenched when new sandstone Gothic buildings were erected for St John's and St Andrew's.

11.4 Vernon

The next phase of development was prompted by Thomas Fisher's bequest of 1885 for the construction of a new library. The work did not commence until 1901, when Walter Liberty Vernon had taken over as Government (formerly Colonial) Architect, a position that he occupied from 1890 to 1911. Vernon's placement of the library accorded with Blacket's plan for the Quadrangle, forming its southwestern closure. It was completed in 1909.

Vernon added new facilities onto Barnett's Physics and Chemistry buildings to accommodate new facilities at the expanding university. He also designed several more buildings on campus over the next decade, placing them along the descent of the Science Road axis in an attempt to preserve the visual dominance of the Blacket/Barnett eastern row. He designed the Biology Building in 1900, the P.N. Russell Engineering Building in 1906, the Holme Building for the Union in 1910, J.D. Stewart Building for veterinary Science in 1910 and the R.D. Watt for Agriculture in 1911. The Manning (Women's Union) and Holme (Men's Union) refectory, are usually attributed to Vernon, McRae and Waterhouse, although Vernon's involvement in these lastnamed designs is not clear since they appear to have been designed after his death.

Vernon, like Barnett, had some experience in campus planning. He had laid out major hospitals for psychiatric patients at Kenmore and at Gladesville and he had planned several schools and colleges. But he did not appear to have a master plan for the University extending beyond the limited scope of the individual buildings he was designing on the eastern ridge and Science Road. However, in 1910 Vernon presented the Senate with a general plan that included completion of the Main Quadrangle, use of an area west of the main building for future expansion, demolition of the 1880s – 1890s temporary science buildings and a large new physics and chemistry complex along Science Road to be built in the style of the original buildings. The Senate adopted this plan but little subsequent progress was made with its implementation.

Vernon's work in Science road was planned about an axis at the bottom of which stood the J.B. Stewart Building, closing the vista down Science Road. The Blacket Building defined the southern boundary of Science Road at the eastern end, with The Macleay Museum opposite. The other buildings were laid out more-or-less symmetrically on both sides of Science Road.

To the south of the Anderson Stewart Building, on an axis with the Fisher Library, new buildings were planned in a dominant 'L' shape. The group across the eastern ridge forming one leg of the 'L' with the other group running at right angles down Science Road, parallel to Parramatta Road, forming the other. The plan was not inconsistent with Vernon's campus designs at Kenmore near Goulburn and at Gladesville, where there was as much symmetry as there was informality in the laying out of the vast grounds of those two large hospital complexes. In both, the emphasis was on the picturesque placement of buildings in the landscape.

11.5 McRae

George McRae succeeded Vernon as Government Architect in 1911 and continued the tradition of respectfully adding to the built form of the University. He added to the Anderson Stewart building in a matching Gothic style and he continued and completed buildings that Vernon had commenced.

In 1913 McRae prepared a master plan for the campus. The plan proposed demolition of the existing physics and chemistry laboratories (by Barnett) and the construction of the same site of an impressive range of Gothic style buildings. Science Road was to be straightened and adorned with a new archway at the eastern end running

between the Macleay Museum and the main Quadrangle. The Veterinary Science building terminated the vista down Science Road.

Another, similar plan dated 1917 drawn by Gorrie Blair,²⁵⁸ illustrates the developments that had occurred since 1913 and some changes in McRae's thinking about future developments. The plan also shows a more formal approach to the roadways and pathways and the sporting fields but, curiously, not the hockey square. The plan indicates that McRae was attempting to maintain a green buffer between the colleges and the University.

11.6 Burley Griffin

In 1914 a dispute arose regarding the use of the portion of land between the Anderson Stewart Building and the Oval, now known as the 'Hockey Square' or 'Square'. As a result the Canberra-based architect, Walter Burley Griffin was consulted on the best method of laying out the University grounds; taking into account future needs for buildings, roads, playing fields and landscaping.²⁵⁹ He was invited to design a plan for the campus grounds.²⁶⁰ By 22nd January 1915 he had presented a provisional master plan outlining a scheme for the development and beautification of the whole site.

Walter Burley Griffin (1876 – 1937) was an architect and planner of international stature. He was trained in the office of Frank Lloyd Wright where he was very influential between 1903 and 1905, designing several of the buildings and components of buildings that are now recognised as amongst the most important designs of the modern era. He left Wright's office to practise independently and, in 1912, his design won the international design competition for a new capital city in Australia and Griffin was engaged as Federal Capital Director of Design and Construction to 1920.²⁶¹ From 1914 he worked from his Canberra base and also undertook major commissions in Sydney and elsewhere in conjunction with his architect wife, Marion who managed the Sydney practice.

Griffin's plan (see illustration) retained the dominant axial alignments of University Avenue, Eastern Avenue and Science Road and overlaid a system of circular pathways bordered with dense plantings to introduce a strong landscaped garden feeling. A new east west axis was established on the alignment of the Anderson Stuart Building and down through the disputed land, which he labelled 'campus' on the plan, and terminated, in a Quadrangle on the site of ovals. It was an ambitious plan that went a little further than had been intended by the University.

At the invitation of the Buildings and Grounds Committee Griffin continued to develop his master plan, which he presented in a final draft form three months later. It was commended as an admirable, harmonious scheme although it was not acceptable because it proposed to alter the position of the oval and it also disregarded the boundaries of the residential colleges. Accordingly Griffin was invited to amend his design.

There is no record of Griffin's amended plan, assuming that he obliged the Committee, but by mid July he was advised by letter from the Registrar that the plan would not be adopted. Nevertheless, he was advised that his plan would be kept for reference and it would be a useful guide whenever fresh buildings were considered.²⁶² In fact it proved to be better than that because Leslie Wilkinson, the first University Architect embraced the plan, which he considered 'showed a fine grasp of a big problem'²⁶³ and adopted many of its principal features in the next phase of building works on campus. Wilkinson disregarded the scheme adopted in 1918²⁶⁴, which showed

²⁵⁸ Gorrie M. Blair was an assistant architect working in the Government Architect's Branch Offices of Vernon and then McRae. He signed the 1917 drawing as Principal Design Architect.

²⁵⁹ SUA. Minutes of the Buildings and Grounds Committee, 11th September 1914, p.100.

²⁶⁰ SUA. Letter from Warden and Registrar to Griffin. Letter Book, Volume 28, No. 556, 15th September 1914.

²⁶¹ The International competition for a design for Canberra was launched in 1911 and assessed in 1912. Griffin's design was the premeated design. However Griffin was required to amend and justify his proposals over a lengthy period before he was finally engaged to implement the plan.

²⁶² Letter from Warden to Griffin. Letter Book, Volume 29, No. 349, 14th July 1915.

²⁶³ Dupain, Johnson, Molnar and Wilkinson, *Leslie Wilkinson: A Practical Idealist*, Valadon Publishing, Woollahra, 1982, p.66.

²⁶⁴ This was presumably McRae's plan dated 12 October 1917.

little attempt at a comprehensive treatment, in his opinion,²⁶⁵ whereas Griffin's plan was drastic, like most good remedies,²⁶⁶ and he lamented that it had not been acted upon.

11.7 Wilkinson

Leslie Wilkinson (1882-1973) took up the newly created chair of Architecture in 1918. He soon became involved in University planning issues, including master planning.

Wilkinson's comments regarding the state of the University when he arrived are revealing. He observed that the "buildings were just dotted about, and the grounds were in an extraordinary state – buildings fenced around with iron railings with horses grazing outside".²⁶⁷ However his views were not all negative. He praised Blacket as having endowed the city with an architectural masterpiece and he conceded that the placement of St Paul's College was skilful.²⁶⁸ He was pleased by the site, with its beautiful central valley of some 20 acres surrounded by gentle rises and he especially liked the splendid avenue of figs leading to the main building. But apart from these features he found the place to be sadly wanting.

At the time of Wilkinson's arrival the Government Architect (McRae) was still the Architect for the University. The new Professor of Architecture was a mere member of the Buildings and Grounds Committee. However, this changed when, in 1919 a recommendation was accepted by the Senate that Wilkinson, with Assistant Professor Madsen of the School of Engineering and Mr A.D. Craig, Lecturer in Surveying, should advise on the layout of the University grounds. Wilkinson also accepted responsibility for the buildings to be included in the plan, involving the expenditure of the sum of six thousand pounds over a six-year period.

At the time Wilkinson took on the assignment there was no complete survey of the grounds so the first task was to obtain such a survey as a basis for the comprehensive scheme for future development. The survey exposed the poor condition of the grounds and the haphazard placement of the buildings, confirming the need for the grounds to be properly laid out and extensive planting undertaken. Wilkinson concluded that "tar paving for footpaths should be abolished. The roadways, narrow, and of the nature of park drives, should be shaded by carefully selected trees. All electric service wires should be grounded. The whole area occupied by the University, the Colleges and the Hospital should be properly fenced on the boundary with entrances controlled by lodges. Within this area, however, the individual buildings should be unfenced. Grazing and straying animals should not be allowed".²⁶⁹

Wilkinson's plan for the University and the accompanying report were completed in January 1920. They were presented to the University Senate together with the new survey plan of the existing grounds and diagrams indicating sections to illustrate the necessary adjustments to the boundaries and levels.²⁷⁰

Wilkinson described the plan in the following terms.

"In preparing the plan advantage has been taken of the attractive topography of the site, the lower part of the main traverse valley being retained for athletics, while the proposed new buildings are disposed in such a way as to form interesting sub-groups conforming to the contour of the ground, providing a maximum of southern lighting and securing pleasant prospects ... in attacking the problem three main considerations have been kept in view: -

- The preservation of existing buildings, roads and natural features.

²⁶⁵ Architecture, April 20th, 1921. Record of a paper presented to the Institute of Architects by Prof. Leslie Wilkinson, p.109.

²⁶⁶ Ibid.

²⁶⁷ Dupain, Johnson, Molnar and Wilkinson, Leslie Wilkinson: A Practical Idealist, Valadon Publishing, Woollahra, 1982, p.62.

²⁶⁸ Op. Cit.

²⁶⁹ Architecture, April 20th, 1921. Record of a paper presented to the Institute of Architects by Prof. Leslie Wilkinson, p.109.

²⁷⁰ The University of Sydney, 'Report by the Sub-Committee appointed to advise on the layout of the University grounds', January 1920.

- The introduction of a sense of unity, order, convenience, and, it may be, beauty into the University quarters treated as a whole.

- The provision of centres of interest in groups of buildings devoted to related subjects of study".²⁷¹

Wilkinson added: -

"The establishment of axis would introduce a sense of order and open up attractive views from many points. The placing of a new Science group on the south of the Medical School would complete the representation of three of the four older faculties on the main eastern terrace continued through to City Road. Thus Arts would be on the north, Science on the south, Medicine in the centre, Law being housed in the city. The other Professional Schools – ie. the Colleges, Social and Athletic activities are also grouped in definite quarters.

"Continuing the main axis of the original (Arts) building, an avenue leads down by terrace and steps past the old Science buildings and between the School of Engineering and Teachers' Training College to a court about which are grouped buildings for naval Architecture, Aviation, and a Gymnasium with baths and changing accommodation, the latter conveniently situated for the Oval and new Football grounds. These grounds it is proposed to lay out partly on the area belonging to St John's College.

"A group of new buildings, comprising a lodge and headquarters of University Scouts marks the western entrance from Parramatta Road. These buildings, with suitable setting and planting, would go far to alleviate the neglected appearance of this portion of the site. It should be noted that to travellers approaching by the main western road this is the aspect of the University and city, which creates the first impression.

"On the main axis of the Medical School, extending to the western boundary, are placed in succession the Anatomical Institute, the slightly modified Hockey ground and the Oval, the two latter forming together a fine central open space devoted to athletics ...

"The necessary additions to the Union and to the Zoology Department gives opportunity for an open Quadrangle with outlook across the main valley terminated by the buildings of St Paul's College on the opposite rise. On the south side of the Central Hockey Ground a low range of buildings for the Department of Physics is suggested at the foot of the rise of St Paul's meadow ...

"A new pedestrian entrance from Parramatta Road is suggested. Flights of steps, having waiting shelter under, would lead up through a gateway to a small Quadrangle, one side of which is formed by the flank of the Great hall and another by an addition to the Macleay Museum Building

...²⁷²

So described was Wilkinson's plan that gave the University much of the substantial order that lasted until the post World War II explosion of works and the indiscriminate placement of many buildings that are wholly out of scale with the Griffin/Wilkinson vision for the place. Nevertheless the strong features of Wilkinson's plan have survived to an extent that demands their retention in forward planning.

The east-west axis through the Anderson Stuart Building and the open Hockey Square is a feature of high significance, as is the view from the Refectory Building across the valley to his new Physics building and St Paul's College beyond. These have been debased by modern developments but their values remain substantially intact.

Some aspects of Wilkinson's plan could not be realised due to budget constraints and others were modified along the way, as the full costs of implementation became clearer. A crisis loomed midway through the implementation when, in 1923 Wilkinson suggested cost saving measures involving the Chemistry building. It was his aim to ensure that there would be enough money left for roads and grounds and the general setting of the University, which would otherwise remain in their existing untidy and neglected condition. He proposed to use the Commercial Banking Company's gift of their old George Street stone façade to create a link building on Science road and he also took steps to obtain stone from the old Darlinghurst Gaol for use in other structures to make substantial savings. These cost saving measures proved to be necessary. However they also highlighted an apparent mismanagement of the budget by Wilkinson, which resulted in a bitter struggle between him and the University. The Senate was obliged to seek extra government funding for building works on the strict understanding that the further works would be carried out under the supervision of the Government Architect and not by its Architect. Wilkinson's appointment as University Architect was terminated in April 1928.

²⁷¹ Architecture, April 20th, 1921. Record of a paper presented to the Institute of Architects by Prof. Leslie Wilkinson, p.109.

²⁷² Ibid., p.10.

The position of University Architect reverted to the NSW Government Architect who was at the time the first Australian-born Government Architect, Richard McDonald Seymour Wells.

Wells does not appear to have had any influence over planning at the University during his brief association. Wilkinson was able to continue building the works he had commenced, when the University obtained the additional funding, although he worked for a fee that clearly placed him in the role of a consultant. Wilkinson continued to advise the Vice-Chancellor and he represented the University in its dealings with the Commonwealth in regard to the School of Public Health, in particular its style and placement.

Seymour Wells retired from the position of Government Architect, in 1929 to be succeeded by Edwin Smith.

11.8 Edwin Smith and Cobden Parkes

Edwin Evan Smith was Government Architect with responsibility for University planning and building matters from 1929 to 1935. It was a period of great financial depression in the community, following the fall of the Lang Government in New South Wales, but it was a relatively productive period for the Government in terms of building. It was also an interesting period of transition regarding style as the Government Architect's Office began to embrace new design styles, in particular the early modern expressionism of the Dutch designers. It appears from *prima facie* evidence that the office might have also absorbed ideas from Wilkinson and his University buildings. There is evidence of the Mediterranean style in the design of buildings of the time and, in particular, in the design of the Quirindi Court House.

Edwin Smith arrived in Australia from Scotland and worked for the Queensland and Victorian Departments of Public Works before taking up the position in Sydney. He probably saw himself as Wilkinson's understudy at the University, at least initially. His respect for Wilkinson and Wilkinson's master planning are evident in the project to design a new medical school in conjunction with the RPA teaching hospital. The building is located in a position that was set aside by Wilkinson in his master plan for a formal garden feature and tennis courts. However it appears that the position was allocated for a building with Wilkinson's agreement since it sits within the landscaping and formal paths determined by Wilkinson and therefore accords with the plan.

The new medical school was built between 1931 and 1933 in a modern American inspired Art Deco style with funding from the Rockefeller foundation. At the insistence of the Vice Chancellor the Foundation was persuaded to allocate additional funding for the relocation of the women's tennis courts that occupied the site of the new building. In an ironic turnaround, Smith placed the tennis courts at the eastern end of the Hockey Square, in the position that Wilkinson had allocated for a new building, and built new pavilions for tennis and the women's sports, in Wilson's preferred Mediterranean style, at the eastern and western extremities of the combined tennis and hockey fields. Clearly there was a strong synergy, at least, between the thinking of Wilkinson and Smith, even though the official record would suggest otherwise. It might have been merely due to Smith's near-retirement age or his limited background in New South Wales but he built on Wilkinson's ideas knowingly or unwittingly.

Wilkinson's shadow continued to fall over the University during and after the involvement of Smith. In 1935, when Cobden Parkes became Government Architect, changes took place in the Government Architect's Branch and during the thirties not only was there cordial consultation in which Wilkinson's opinion was sought and valued, but he himself once again did work for the University.²⁷³

Cobden Parkes, youngest son of Sir Henry Parkes, became Government Architect at a mature age, having served twenty years in the Branch and he remained in the position until 1958. He enlisted in 1914 and convalesced for a lengthy period before returning to architectural duties in 1920. During his time as Government Architect he fostered interest in international styles and he presided over emergency works during World War II. He then coordinated post-War Government building programs, including the erection of aluminium pre-fabricated buildings, including the temporary buildings at the University.

²⁷³ Dupain, Johnson, Molnar and Wilkinson, *Leslie Wilkinson: A Practical Idealist*, Valadon Publishing, Woollahra, 1982, p.80.

11.9 After World War II

The University responded to the rapid growth in student numbers in the decade following the War by throwing up a number of buildings in lightweight and prefabricated materials, in places that had not been intended for construction hitherto. Some of those buildings are still standing. Their form and placement was utterly incongruous in the context of Wilkinson's plans to bring order and beauty to the University Campus. Indeed the Deputy Vice Chancellor, Major-general W.J.V. Windeyer observed in the 1950s, that the existing layout of the University had become haphazard and uncoordinated.²⁷⁴

In 1957 the University Senate appointed a committee to prepare a masterplan for the future development of the campus. At the time it was hoped, and expected, that substantial government assistance would be provided to the University over the following decade.

A plan was prepared in the office of the Assistant Principal W.H. Maze under the direction of the Architect-Planner, W.V. Abraham and presented in 1961. Its aim was to order the University into faculty precincts and to expand the potential of outdoor spaces created by grouping the buildings to form pleasant enclosed spaces that would be suitable for pedestrian movement. However the plan was somewhat flawed in that it failed to take into account the speed with which the University had grown during the 1950s when Departments were increasingly unable to fit into the faculty precincts. This pattern was certain to continue in the 1960s.

In 1958 the decision was taken to build on the land that bordered the western boundary of Victoria Park at the southern end, and City Road.

11.10 Expansion into Darlington

Immediately after the War it was assumed that the University would be able to expand across Parramatta into Glebe. The corresponding area across City Road (formerly Newtown Road) in Darlington was intended for a new University of Technology. However that institution was relocated to Kensington and became the University of New South Wales. The 50 acres that had been set aside in Darlington was then dedicated for the expansion of the University of Sydney and Royal Prince Alfred Hospital under the Cumberland County Plan. By 1958 the Darlington area amounted to 70 acres but this was later reduced to 35 acres following an adverse reaction from residents of the areas that were to be displaced. A large section was accordingly re-zoned residential.

The decision to plan for the future development of the University was made by the Senate in 1957 on the assumption that the University would obtain increased Government assistance in the period 1960 – 70.²⁷⁵ The plan that was drawn up in 1961 included new development on the 35-acre site bounded by City Road, Cleveland Street, Shepherd Street, Lander Street and Raglan Street.

In 1962 the University acquired the large Victorian Italianate building on the southern side of City Road known as the Institute. The building was constructed as the NSW Institution for the Deaf, Dumb and Blind to designs by Benjamin Backhouse from 1870 to 1884. It occupied a large triangular site that is bordered by City Road, Darlington Road and Codrington Street.

The 35-acre site together with the Institute site began to be referred to as the University Extension Area. The area was to have been covered entirely with medium rise buildings under a scheme drawn up in 1964. Fortunately the implementation of that scheme has not yet consumed the Institute site, although the Merewether building at the eastern end and the undistinguished University Regiment building at the other end have diminished the aesthetic values of the site and they have reduced it considerably in size.

11.11 Sport and the Grounds Form

Sport has been a dominant factor in University student life and in the use of the University grounds. Sport was accommodated at the University from the outset. Within ten years of the first enrolments there was a cricket ground that doubled as a rugby field and tennis venue and there were organised university clubs catering to both cricket and football (ie rugby). Shortly afterwards there was a union, a boat club, and a tennis and athletic club.

²⁷⁴ W.F.Connell, G.E. Sherington, B.H. Fletcher, C. Turney and U. Bygott, *Australia's First: A History of the University of Sydney*, Volume 2, 1940-1990, (Hale and Ironmonger, Sydney 1995), p.77.

²⁷⁵ Office of Assistant Principal, W.H. Maze, 'Development of the University Site', August 1961, p.2.

Today sport continues to play an important role in campus life and the sporting facilities are highly significant elements in the physical landscape. There are no fewer than four ovals (counting St Paul's and St John's Colleges), twenty-one tennis courts in four locations, three indoor gymnasiums, three indoor multi-purpose courts, squash courts and an indoor swimming pool. There are grandstands and small tennis pavilions catering to the needs of players and spectators.

Sport and Education

The first sporting club established at the University was the Football Club, which was formed in 1863. The Football Club introduced rugby to the University.

The Cricket Club was formed in 1865. This Club immediately lobbied for a playing facility on campus and, in 1866, the Senate decided that a portion of the University ground that had been originally allocated as a site for the Presbyterian College, but which had not been taken up in accordance with the conditions of the allocation, would revert to the Senate and that it would be temporarily reserved as a cricket ground for use by the undergraduates and other members of the University.²⁷⁶ The deal was done and the first turf was cut, also in 1866.

In 1874 the Sydney University Union was formed under the presidency of Dr Badham.

The Boat Club that was established in 1884 operated initially from a boat shed at Woolloomooloo. But it soon relocated to a more convenient location on Blackwattle Bay in Glebe, where it continues to operate to this day.

The Tennis and Athletic Club was founded in 1885.

The Ovals

No. 1 Oval was the first sporting field at the University, established in 1866. It occupies a low-lying area between the former Orphan School Creek and the watercourse that formed the northern boundary of St Paul's College. A contour plan drawn in 1917²⁷⁷ clearly illustrates that the area of No.1 Oval, marked 'Sports: Grounds' was the lowest part of the whole university site.

The area was originally intended as part of the grounds of St Andrew's College but it was given over to cricket, rugby and tennis when there were delays in the college building program.

In the early years the ground was poorly formed, although that would appear to have been consistent with most grounds of the era. In the period 1884-1890 the ground was properly formed for cricket under a program of ground improvements undertaken under a relief works scheme for the unemployed. A team of 60 men worked under the direction of Yeoman Bedell to level the ground, cut back and bank the perimeter and drain and turf the surface. The surrounding area remained largely unimproved until 1916 when spoil was brought from the open cuttings of the Sydney City Railway construction to fill and level the area around the veterinary school. Part of this area became the No. 2 Oval, when it was laid out in 1930.

Leslie Wilkinson viewed No.1 oval as an important feature of his plan for the University when he drew up a master plan in 1920. He proposed to realign the Oval on an east-west axis through an enlarged medical faculty at the eastern or top end and to terminate the view from there through the open Hockey Square, also on the axis, at the Oval. A second, north-south axis through the Oval would pick up a road from Carillon Avenue (Western Avenue) and an entrance from Ross Street. The Oval itself was to be dressed up with perimeter plantings and paths to make it a very formal feature.

²⁷⁶ H.E. Barff, *A Short Historical Account of the University of Sydney in Connection with the Jubilee Celebrations, 1852-1902*. Sydney, Angus and Robertson, 1902, p.133.

²⁷⁷ University of Sydney Site Plan, prepared by the Government Architect, dated 12 October 1917.

Hockey Square

The Hockey Square is one of two areas reserved within the University for women's sports following the formation of the Women's Sports Association in 1910. The Senate granted permission in 1916 for construction but as a result of wartime interruptions the Hockey Square was not completed until 1921.

The area appears on McRae's site plan for the University as an open area over which several later structures and paths have been superimposed, probably by Edwin Smith who built some of those structures. On McRae's 1917 site plan the area remained unformed, with contours running across the site.

In Walter Burley Griffin's plan for the University the area of the Hockey Square shows as a large formal open space on an east west axis of a symmetry, labelled 'campus'. Leslie Wilkinson adopted this idea and made the Hockey Square a formal feature at the centre of the planned university, with border avenues of trees and a formal vista through the square from the Holme building to the new Physics building and across to St Paul's College in the distance.

In 1924 the Hockey Square was enlarged on the northern edge to accommodate a full football field and additional netball courts were added. When Wilkinson's new Physics building was constructed high banks were constructed on the northern, southern and eastern sides of the Hockey Square, and two terraces were created above the eastern bank for new tennis courts. A single storey club house and dressing shed was constructed on the axis at the western end in 1923. This was removed in 1965 to make way for the new two storey Sports Centre.

In 1939 Wilkinson prepared a plan for the development of the eastern area of the campus in which he proposed a group of buildings in symmetrical order on the eastern side of the eastern row, and a new southern wing of the Anderson Stuart building, which would cause it to be balanced symmetrically on the east-west axis through the hockey square. At eastern end of the Hockey Square, on the eastern side of the tennis courts, he proposed to build a swimming pool.

Tennis Courts

The first tennis playing facilities at the University were established in the main quadrangle, where four good grass courts were laid for male and female students in 1885. The courts were enclosed with low wire mesh fences and they occupied roughly the same space as the present-day quadrangle. A small timber building was built adjacent as a Women's Common Room. The Ladies' tennis Club, which later became the Women's Sporting Club, was formed in 1887.

New tennis courts were constructed to the east of the Great Hall between main Avenue and Parramatta Road, presumably when the northwestern buildings of the main quadrangle were constructed in the early 1920s. The new tennis courts appear in a photograph taken from the Clock Tower, looking east, in the mid 1920s.

Additional tennis courts were placed between the Manning and Teachers buildings, adjacent to the Hockey Square in 1930. Tennis courts also occupied the area where the new Blackburn medical building was constructed in 1933. These courts appear on McRae's 1917 site plan adjacent to a proposed new building on the axis with the Prince Alfred Hospital.

The Blackburn building was designed by the Government Architect Edwin Smith and constructed with funding from the Rockefeller Foundation. At the insistence of the Vice Chancellor the Foundation was required to pay for the relocation of the tennis courts. Accordingly new tennis courts were established at the eastern, upper end of the Hockey Square in 1931.

The newest group of tennis courts were erected in the mid 1990s in conjunction with the Noel Martin sporting complex at Darlington.

College Grounds

The University colleges were allocated large tracts of land when the University was laid out in the 1850s. As a result the colleges have been able to dedicate large areas for sport. Today there are 'ovals' at St Paul's, St Andrew's and St John's colleges, and other facilities including tennis courts at Women's College.

The college sporting fields provide important green areas bordering the University campus. The St Paul's Oval also serves an important formal role as a home ground for university hockey, football and cricket teams.

Sporting Structures and Indoor Facilities

In 1957 the University Senate appointed a committee to prepare a masterplan for the future development of the campus. The plan was presented in 1961. Recreation concerns were to be given attention in the plan.

The landscaping of the campus was seen as important in 1957 and so too was the location of sporting facilities. The masterplan was to provide for future swimming pool, squash courts and tennis courts. The retention of the existing sporting facilities was implicit.

An indoor swimming centre and tennis courts were built in the University Expansion Area when the area was developed. These were recently incorporated into the new Noel Martin Centre, together with indoor ball courts.

The H.K Ward men's Gymnasium was built adjacent to No.1 oval and a new Grandstand was erected on the southwestern side of the Oval. A Women's Sports Centre was built adjacent to the Women's hockey field. Squash courts were built beside the tennis courts near Manning House. All of these facilities were constructed by the Men's and Women's Sports Unions.

The modern facilities on the main campus are undistinguished in their style. They do not make a positive aesthetic contribution but they unquestionably contribute a great deal to student sporting life and the continuing tradition of university sport.

11.12 Reflecting on the present day built form

The significant transformation in the built form of the university campus that has occurred since the War can be related directly to two principal developments. They were the increase in the size of the University student population and the expansion into Darlington, and the introduction of modern architectural styles.

Over the past five decades the University population has doubled and the size of the campus has almost trebled. In 1950 there was a student population of a little over 9,000 and the campus occupied an area of 140,000 square metres. In 1990 the student population had doubled to be over 18,000 and campus had grown in size to 340,000 square metres.

The changes in the built form commenced with the post War changes building industry, which moved from being a crafts and trades-based industry to a technology-based industry. New building materials, such as fibrous asbestos cement and metal cladding materials were introduced and modern design styles emerged. As a result the buildings built since the War are entirely different from those built before it. Their size is much greater and their forms are vastly different. Only a small number of the new buildings, such as the Blackburn, Madsen and McMaster Laboratory buildings, which are clad in brick and stone, relate to the earlier buildings.

The University campus now comprises three roughly equal portions, being the original campus, the colleges and the Darlington campus. The original campus and the colleges maintain a strong semblance of their traditional heritage form due mainly to the dominance of the early buildings and Wilkinson's planned form, which includes the roads, paths, sports fields and the associated landscaping. The greatest intrusions into this form have occurred in the southeastern corner of the original campus and in Darlington where most of the large new buildings have been erected.

12. OVERVIEW OF THE DEVELOPMENT OF AUSTRALIAN UNIVERSITIES

Universities were first established in the Australian Colonies during the nineteenth century.²⁷⁸ It has been argued they were 'important symbols of colonists' cultural heritage', and part of a 'liberal education' that,

²⁷⁸ This overview is heavily based on the entry for Universities in Davison and others 1998, supplemented by information from the *Australian Encyclopaedia*.

'...would nurture the moral and social improvement necessary to mediate the transition to social and political maturity.'²⁷⁹

The founding dates for the initial Australian Universities are as follows.

Sydney	1850
Melbourne	1853
Adelaide	1874
Tasmania	1890
Queensland	1909
Western Australia	1910 (1911?)

One character of the founding of the Universities was a coalition of private and public interests. Given the differing cultural backgrounds of the colonists, it is perhaps understandable they drew on the examples set by English, Scottish and Irish Universities. The Australian Universities tended to be urban, mostly non-residential, and focused on imparting knowledge and professional training rather than, for example, induction into a privileged culture.

The Australian Universities were explicitly secular, although often associated with denominational residential colleges, and predominantly government funded. While Universities received government funding, they were self-governing bodies. However, private donations were an important source of funds, especially for major initiatives, and this continued to be the case well into the twentieth century.

Student numbers were very low until the growth in secondary education in the 1880s provided a greater number of potential university students. While the Universities began with teaching general studies, arts and sciences, they quickly developed applied or professional courses such as engineering and medicine. However, some courses were expensive to teach, for example medicine, and these were restricted to the few larger/better funded Universities.

Australian Universities tended to offer only undergraduate degrees until 1939, with students having to travel overseas for a higher degree. The degree of Doctor of Philosophy was first introduced in Australia by the University of Melbourne in 1945.

Teaching was mostly undertaken by Professors who were assisted by small numbers of other staff. Research was relatively rare.

Two early and continuing features of Australian Universities are the presence of student unions, providing a range of services to the student body, and sporting organisations.

The Universities were influenced by the forces at work in the broader Australian society. So, for example, Melbourne benefited from the Victorian goldrushes during the latter half of the nineteenth century, and all Universities suffered funding cuts during the Depression of the 1930s.

With World War 2 education and research became matters of national significance, and the Commonwealth Government began to take more interest in the contribution of Universities. This interest was most direct in the case of the Australian National University which was established by the Commonwealth, and in 1951 the Commonwealth offered scholarships for University education. By the end of the decade the Commonwealth was responsible for tertiary education policy and a national tertiary sector was established.

The post war phase of establishing universities saw the creation of the following institutions.

Australian National University	1946
New South Wales	1958 (1949?)
New England	1954
Monash	1958
Macquarie	1963 (1964?)
La Trobe	1964

²⁷⁹ Davison and others 1998:657.

Newcastle	1965
Flinders	1966

Student numbers grew dramatically, and a two tiered system was introduced in 1965 to protect the elite status of universities by creating tertiary level vocational training institutions, called colleges of advanced education. By 1973 the State Governments had given complete effective control to the Commonwealth which abolished fees and provided a system of living allowances to promote equitable access for students. None the less, in most cases an obligation remains to the State and Territory Governments which have legally established the Universities.

<u>Student Enrolments</u>	
c1950	25,000
1987	c400,000
c1996	c600,000

The number of vocational institutions continued to grow and in 1988 the title of university was given to a large number of the vocational institutions. However, a number of institutions were merged and fees were reintroduced. Since then there have been continued pressures on funding universities and changes to the system of fees. By 1996 there were 36 public and 2 private universities in Australia.

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Appendix 3

Conservation Management Plans for the University of Sydney

The University of Sydney holds the following conservation management plans in relation to individual buildings and site features:

Anderson Stuart's Medical School: 'A Plan for its Conservation' (commissioned by Australian Construction Services for The University of Sydney); J.S. Kerr, 1992.

Anderson Stuart Building: 'Refurbishment Master Plan'; Australian Construction Services, 1992.

Badham, Pharmacy and Bank Buildings: 'Conservation Management Plan'; Otto Cserhalmi & Partners, 1995.

Baxter's Lodge, City Road: 'Conservation Management Plan'; Rebecca Green, Robert Newton, Anthony Sarkis, Maria Elena Ruggeri, 2006.

Blackburn Building: 'Heritage Assessment and Statement of Significance'; Clive Lucas Stapleton and Partners, 2002.

Institute Residence: 'Conservation Management Plan'; George Scoufis and Natasha Burtenshaw, 1995.

Institute Building and Superintendent's Residence: 'Conservation Management Plan'; John Graham & Associates, 1995.

Fisher Library: 'Draft Conservation management Plan'; Clive Lucas Stapleton and Partners, 2007.

Gatekeeper's Lodge, City Road: 'Conservation Management Plan'; P. Fletcher, H. Freund, G. Lynch, K. Ross, 2005.

Gatekeeper's Lodge, Vet Science: 'Conservation management Plan'; Can Deniz Ercan, Alvin Yik-ki-Lee, Craig McPherson and Damian O'Toole, 2006.

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Appendix 4

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Other NSW State Resources

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Other

Plans, notes and images provided by Campus Infrastructure Services, University of Sydney

Appendix 5

List of Tasks for Upgrading the University of Sydney Conservation Plan 2002

The following is an outline of tasks undertaken in order to revise and update the October 2002 Conservation Plan:

Generally

- Transpose and reformat October 2002 Conservation Plan into standard CLS&P template.

Section 1 Introduction

- Revise and update text.
- Include statement acknowledging substantial incorporation of October 2002 Conservation Plan.

Section 2: Summary of History

- Accept previous history.
- Include chronology of development up to date (post 2002)
- Check and add re: historical planning concepts if needed (master plans).

Section 3: Physical Description

- Check building list and update.
- Update site features list.
- Update development sequence information regarding recent developments (post 2002).
- Accept general landscape and building descriptions- minimal upgrades.
- Add some salient descriptions of site features.
- Check and add to visual and planning axes (Table 3.1)
- Check and add to views and vistas (Table 3.2)
- Accept and redraw Archaeological zoning diagram – update from recent reports.
- Add Significant Character Areas and Significant Landscapes list with descriptions.
- Add Historic Roads list with descriptions.
- Add Continuing Uses (Precincts and Buildings) list
- Accept evidence of social significance.

Section 4: Analysis

- Accept analysis, review in light of new info, CLS&P opinions, client opinions

Section 5: Statement of Significance

- Accept Statement of Significance- review in light of new information, CLS&P opinions and client opinions.
- Add table of buildings with short statements of significance.
- Add ranking diagram for precincts and buildings.
- Add table of ranking of site features.
- Add table of ranking of views and vistas.
- Add table of ranking of axes.
- Incorporate ranking of significance for City Road Precinct and Engineering Precinct (to be prepared by others).

Section 6: Constraints and Opportunities

- Generally upgrade
- Include review of current listings
- Include revised managements' requirements, aspirations and opportunities

Section 7: Conservation Policy

- Rewrite to CLS&P template including archaeological zoning plan based on Section 3
- Include development zoning plan
- Policy to be stand-alone format repeating some diagrams from Section 5.

Section 8: Recommendations

- Delete this section

Section 9: Bibliography

- Accept this section

Appendix A: University of Sydney Overview History

- Accept and repeat this section

Appendix B: Legislation....

- Delete this section

Ian Stapleton
Clive Lucas, Stapleton & Partners Pty Ltd

Appendix C

University of Sydney Campus Improvement Program Aboriginal Due Diligence Report,
prepared by Godden Mackay Logan (October 2013)



University of Sydney Campus Improvement Program

Aboriginal Heritage Due Diligence Report

Report prepared for The University of Sydney
October 2013

Report Register

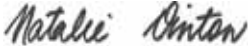
The following report register documents the development and issue of the report entitled University of Sydney Campus Improvement Program—Due Diligence Report, undertaken by Godden Mackay Logan Pty Ltd in accordance with its quality management system.

Job No.	Issue No.	Notes/Description	Issue Date
13-0398	1	Draft Report	18 October 2013
13-0398	2	Final Report	25 October 2013

Quality Assurance

Godden Mackay Logan operates under a quality management system which has been certified as complying with the Australian/New Zealand Standard for quality management systems AS/NZS ISO 9001:2008.

The report has been reviewed and approved for issue in accordance with the GML quality assurance policy and procedures.

Project Manager:	Erin Mein	Project Director & Reviewer:	Natalie Vinton
Issue No.	2	Issue No.	2
Signature		Signature	
Position:	Graduate Consultant	Position:	Senior Associate, Archaeology Manager
Date:	25 October 2013	Date:	25 October 2013

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1.0 Introduction

Godden Mackay Logan (GML) Pty Ltd has been engaged by the University of Sydney to prepare a Due Diligence Aboriginal Heritage Report to fulfil the Director General's Requirements (DGR) for the University's Campus Improvement Program (CIP). This report forms part of the Environmental Assessment for the study area prepared under Part 5 of the *Environmental Planning and Assessment Act 1979* (EPA Act). The DGRs provided, require the Environmental Impact Statement (EIS) to address Aboriginal heritage in accordance with the *Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation 2005* and *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010*.

The purpose of this report is to identify whether the study area possesses or has the potential to possess Aboriginal heritage sites, places, objects and/or values, in accordance with the *Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation 2005* Office of Environment and Heritage (OEH) guidelines for due diligence.

This report does not provide a significance assessment of any Aboriginal sites, places and/or values. This project does not include any Aboriginal community consultation. Recommendations are provided as to whether further Aboriginal heritage assessment and management will be necessary.

This report was prepared by Erin Mein, GML Graduate Consultant; with input and review by Dr Tim Owen, GML Senior Specialist Aboriginal Heritage; and Natalie Vinton, Archaeology Manager.

1.1 Description of the Study Area and Context

The University of Sydney is located in Sydney (see Figure 1.1) and is divided into two adjacent campuses—the Camperdown campus is situated on a ridge line, originally known as Petersham Hill, running north–south between Rozelle and Blackwattle Bays. The Darlington campus, located to the southeast of the Camperdown campus, is situated on the mid to lower slope of Petersham Hill and incorporates a formerly swampy valley floor at the head of the now obscured Blackwattle Creek. Figure 1.2 shows the study area with an overlay of previous archaeological work undertaken to date.

The University of Sydney has prepared a CIP which sets out a seven year (2014–2020) program for the delivery of new buildings to accommodate the strategic direction of the University and its programs. This will involve development within six precincts across the Camperdown and Darlington campuses which are identified in Figure 1.3. The University has identified maximum building envelopes and likely land uses to be accommodated (Figure 1.3). The University of Sydney proposes to lodge a major project application with the Department of Planning (DoP) for Concept Plan approval of these six development precincts. The project will then be subject to major projects approval as a State Significant Development (SSD) under the *Environmental Planning and Assessment Act 1979* (EPA Act).

As more specific plans for this development project are yet to be finalised, separate Development Applications for specific elements within the CIP Concept Plan will be lodged at a later date. The six development precincts identified in the CIP are as follows:

The Merewether Precinct

This precinct is located in the west of the Darlington campus and is bounded by City Road, Butlin Avenue and Darlington Lane. It includes the following buildings:

- Merewether Building;
- Institute Building;
- Darlington Centre School Building;
- The Darlington Centre;
- Sydney University Regiment; and
- Darlington Road Terraces.

City Road Precinct

This precinct is located in the north of the Darlington campus and is bounded by City Road, Butlin Avenue and Maze Crescent. It includes the following buildings:

- Wentworth Building;
- Jane Foss Russell Building;
- Wilkinson Building;
- WH Maze Building;
- St Michael's College;
- Wilkinson Building; and
- International House.

Engineering Precinct

This precinct is located in the east of the Darlington campus and is bounded by Cleveland Street, Shepherd Street, Maze Crescent and the raised pedestrian walkway which runs between Shepherd Street and Maze Crescent. This includes the following buildings:

- Civil and Mining Engineering Building and Workshop;
- Chemical Engineering Building;
- Gordon Yu-Hoi Chiu Building;
- PNR Building;
- Rose Street Building;
- Electrical Engineering Building;
- Engineering Link Building;

- Mechanical Engineering Building;
- Seymour Centre;
- Aeronautical Engineering Building;
- The School of Information Technologies; and
- Shepherd Street Car Park.

Health Precinct (Blackburn Bosch)

This precinct is located in the southwest of the Camperdown campus and is bounded by Cadigal Lane, Western Avenue, University Oval No. 1 and the Royal Prince Alfred Hospital. This includes the following buildings:

- Victor Coppleson Building;
- Blackburn Building;
- Bosch Building 1A;
- Bosch Building 1B; and
- The Bosch Glasshouse.

Life Sciences Precinct

This precinct is located in the northwest of the Camperdown campus and is bounded by Parramatta Road, St John's Oval, Regimental Drive, Science Road and the Heydon-Laurence Building. This includes the following buildings:

- RD Watt Building;
- Demountable Village;
- JD Steward Building (Veterinary Sciences);
- Veterinary Science Conference Centre;
- McMaster Annex;
- McMaster Building;
- Gatekeepers Lodge;
- Evelyn Williams Building (including ancillary buildings B07, B09A, B20 & B21);
- The Round House; and
- RMC Gunn Building.

Cultural Precinct (Macleay & Edgeworth David)

This precinct is located in the northeast of the Camperdown campus and is bounded by Parramatta Road, the Footbridge Theatre pedestrian overpass, Science Road and Botany Lawn. This includes the following buildings:

- Edgeworth David Building;
- Macleay Building (and ancillary buildings A13, A13A, A13B, A13C, A13D, A13E, A13F and A37); and
- The western section of the Botany Lawn.

1.2 Statutory Context for Heritage

In New South Wales, cultural heritage is principally protected under three Acts:

- *Heritage Act 1977* (NSW) (Heritage Act);
- *Environmental Planning and Assessment Act 1979* (NSW) (EPA Act); and
- *National Parks and Wildlife Act 1974* (NSW) (NPW Act).

There is also Commonwealth legislation that applies to certain heritage places. Places listed on the National Heritage List (NHL) and the Commonwealth Heritage List (CHL) are protected under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) (EPBC Act). Items of National Heritage value (defined by the EPBC Act as being of 'outstanding heritage value to the nation') are listed on the NHL and can be owned and controlled by any agency, organisation or individual. The CHL is for those places owned or controlled by the Commonwealth that have been assessed as having heritage values against the criteria established under that Act.

The Register of the National Estate (RNE) is a national list of Australia's natural, historical and cultural heritage places maintained by the Australian Heritage Council. Since February 2012, the RNE is retained primarily as an archival information resource and inclusion on it does not provide for direct legal protection or management requirements.

In September 2013, The University of Sydney made an application to the Department of Planning and Infrastructure for the Campus Improvement Program (CIP) to be assessed as a State Significant Development (SSD) Project (Application No. SSD 13_6123). As a declared SSD Project, the CIP will be assessed under Part 5.1 of the EPA Act.

The Director General's environmental assessment requirements (DGRs) for the CIP were issued on 3 October 2013 (Application No. SSD 13_6123). The DGRs, with respect to heritage, state that:

- *The Environment Impact Statement (EIS) shall include a statement of significance and an assessment of the impact on the heritage significance of the existing University of Sydney Conservation Area and existing heritage items in accordance with the guidelines in the NSW Heritage Manual.*
- *The University of Sydney Grounds Conservation Plan (2002) shall be revised and/or consolidated within a new Conservation Management Strategy prepared for the University, for endorsement by the NSW Heritage Council that includes:*

- *The identification and significance grading of items and areas of heritage significance within the Camperdown-Darlington Campus and in the vicinity, by research, field survey and mapping. Including, but not limited to, any buildings, works, relics, gardens, landscapes, views, vistas, trees, ovals or places.*
- *The identification of items and areas of heritage significance materially affected by the proposal. Including, but not limited to, any buildings, works relics, gardens, landscapes, views, vistas, trees, ovals or places of heritage significance within the Camperdown-Darlington Campus and in the vicinity, including Royal Prince Alfred Hospital, Colleges and Victoria Park.*
- *An archaeological assessment shall be carried out for each of the development sites in accordance with NSW Heritage guidelines.*
- *Where relevant, the EIS shall address Aboriginal Heritage in accordance with the Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation 2005 and Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010.*

1.3 Due Diligence Approach

As stipulated in the DGR's for this project, the University of Sydney has adopted the *Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation 2005* and *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* as management tools for potential Aboriginal heritage objects, places and values which could be associated with the project.

1.4 Limitations

This is a due diligence assessment of Aboriginal archaeological resources within the study area. As Aboriginal community consultation is not a requirement of the due diligence process, no consultation has been undertaken, nor does it constitute a significance assessment of any Aboriginal sites, places and/or values. No assessment of the historical values or any built heritage issues within the study area has been undertaken as part of this report.

The SSD Approval to be lodged with the Department of Planning is seeking approval of a Concept Plan for the CIP, i.e. building footprints, massing and volume, therefore comprehensive impacts of the proposed work could not be assessed in relation to the Aboriginal archaeology within the study area.

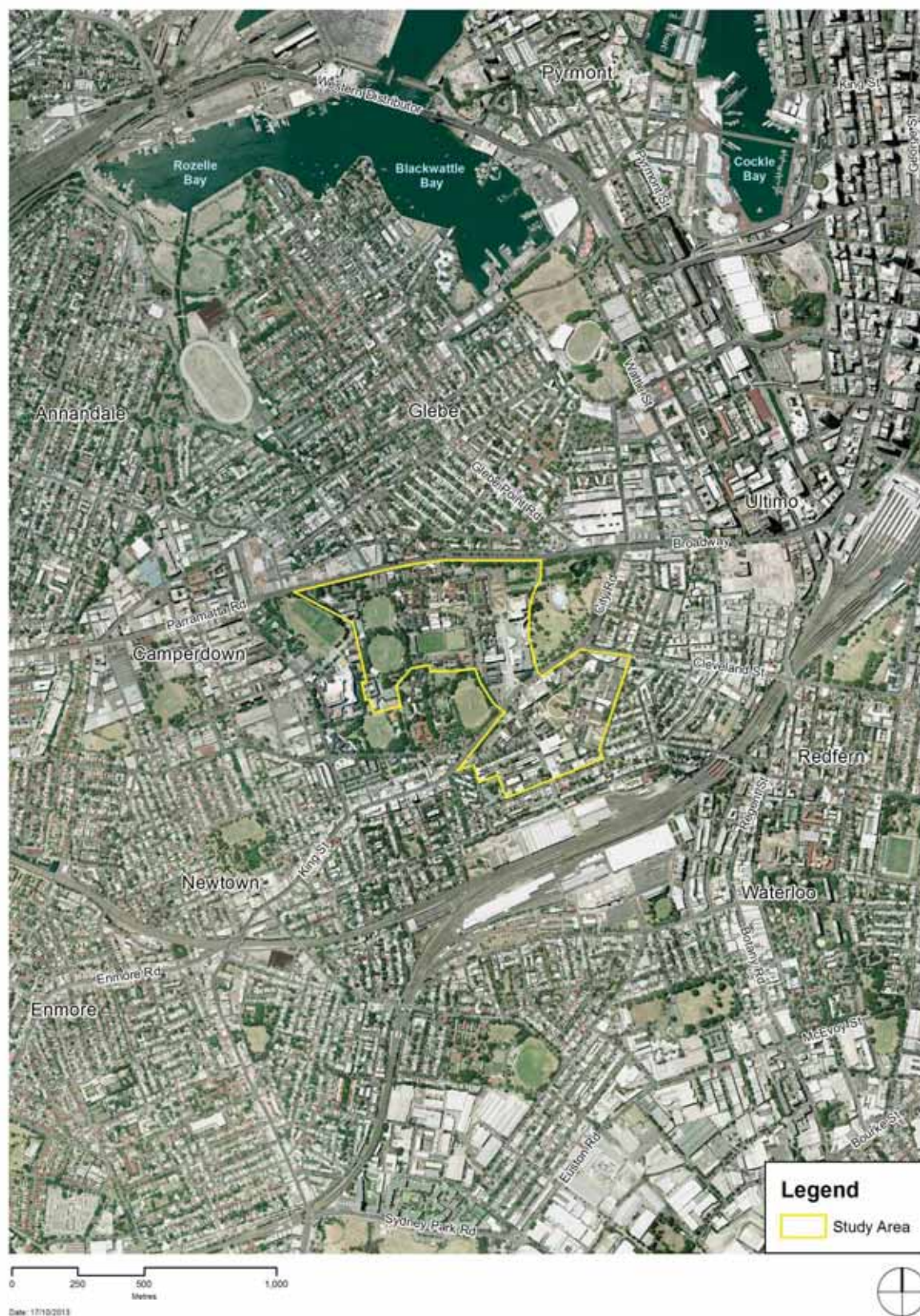


Figure 1.1 General location of the study area. (Source: <www.nearmaps.com> with GML additions)



Figure 1.2 2013 aerial photograph of the study area with the previous Aboriginal archaeological assessment study areas outlined. (Source: <www.nearmaps.com> with GML additions)

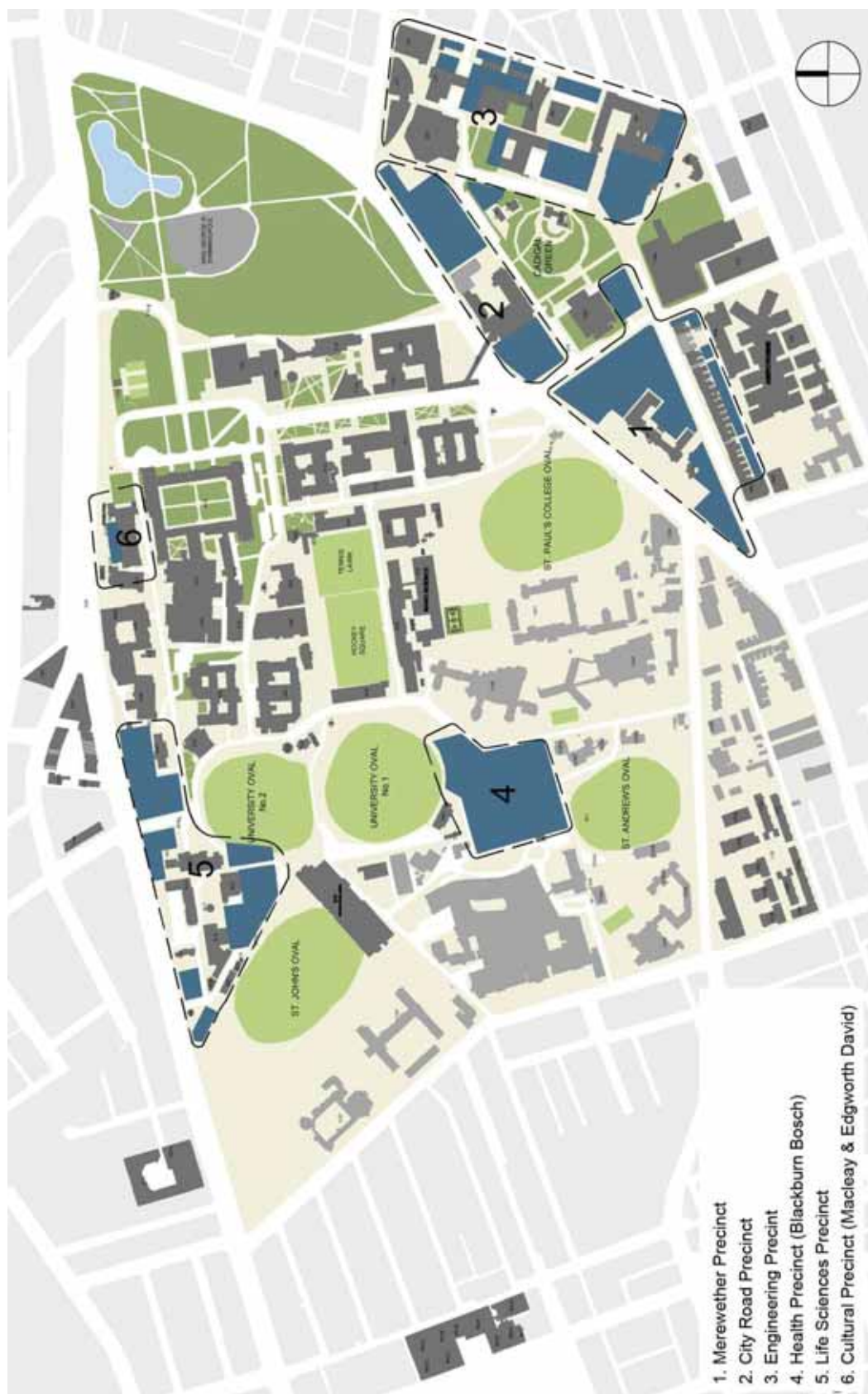


Figure 1.3 Plan of the University of Sydney with six development precincts outlined. (Source: The University of Sydney Campus Improvement Program with GML additions)

2.0 AHIMS and Environment Context

2.1 AHIMS Search

A search of the OEH administered AHIMS register for the area between -33°89'56' S, 151°17'65' E and -33°87'86' S, 151°20'35' E was undertaken on 8 October 2013 (Figure 2.1). This search covered the University of Sydney and the immediate area surrounding the study area. The results of the search are shown in Table 2.1. The search identified 11 recorded Aboriginal sites, which comprised: three stone artefact scatters or isolated finds, one shell midden, six potential archaeological deposits (PADs), and one historic site of Aboriginal Resource and Gathering (Tent Embassy). This search indicated that PADs followed by stone artefact scatters constitute the predominant remnants recorded in this area. Sites #45-6-3071 and #45-6-3064 were found to be a duplication in AHIMS of the same site. See Appendix A for results of the AHIMS search.

Table 2.1 Results of AHIMS Search.

Site Feature	Frequency	Percentage %
Stone Artefacts	3	27%
Midden	1	9%
Potential Archaeological Deposit (PAD)	6	55%
Historic Site	1	9%
	11	100%

The general patterning of Aboriginal sites in the local vicinity shows a strong association with the line of the former Blackwattle Creek and Swamp, now masked by urban development. Historical land use and intensive urban development in and around the University of Sydney can, in part, account for the low numbers of recorded Aboriginal objects and sites. However, it has been suggested that due to the poorly drained nature of the general area around the University of Sydney, this area would not have provided suitable locations for more permanent campsites; but rather would have been used ephemerally for flora, fauna and water resources.¹ Further discussion of the importance of Blackwater Creek and historical land impacts can be found in Section 2.2.

2.2 The Local Landscape Context

The purpose of this section is to provide environmental contextual information for use in developing a predictive model of Aboriginal site locations associated with the study area. Interactions between people and their surroundings are of integral importance in both the initial formation and the subsequent preservation of the archaeological record. The nature and availability of resources including water, flora and fauna, and suitable raw materials for the manufacture of stone tools and other items had (and continues to have) a significant influence over the way in which people utilise the landscape.

Alterations to the natural environment also impact upon the preservation and integrity of any cultural materials that may have been deposited; whilst current vegetation and erosional regimes affect the visibility and detectability of Aboriginal sites and objects. For these reasons, it is essential to consider the environmental context as a component of any heritage assessment.

2.2.1 Geology and Soils

The study area is located on the Blacktown soil landscape which is characterised by a friable brownish black to reddish brown loamy topsoil overlying hard setting clays, and is generally less than 100cm deep. The Blacktown soil landscape is part of the Wianamatta Group consisting of Ashfield and Bringelly Shales, and is occasionally underlain by Hawkesbury Sandstone. Outcrops of Hawkesbury Sandstone have been identified in the northeast corner of Victoria Park and sandstone bedrock was observed in 2012 in the Abercrombie Precinct (Figure 1.2).^{2 3} As no sandstone outcrops have been identified within the current study area, this precludes the possibility for it to contain Aboriginal cultural features such as rock shelters with engravings and/or paintings or grinding grooves.⁴

All six precincts identified within the CIP are located on the Blacktown soil landscape. Previous excavations within the current study area have demonstrated that a remnant Blacktown A soil horizon has been preserved under fill relating to the European settlement of Sydney.⁵ However, this A soil horizon was shown to be highly disturbed by historical land use (see Sections 2.2.5 and 3.1).

Current known sites identified in the AHIMS search have predominately been found within the neighbouring Gympsea soil landscape associated with the former Blackwattle Creek corridor. Deep alluvial sediments have been located along the former line of Blackwattle Creek; consequently, several locations are identified within AHIMS as sites of PAD.⁶ The Gympsea soil landscape is characterised by coarse sandy loam overlying clayey sands underlain by the Hawkesbury Sandstone formation. The single midden site identified approximately 700m to the southeast of the study area was located on the Tuggerah soil landscape, which is a Quaternary coastal dune system of fine to medium grained sand.

A range of raw material types were exploited for tool use by the Aboriginal people of the Sydney Basin, the most commonly used being silcrete. Other raw materials used in the Sydney region include tuff, chert, quartz, quartzite and basalt. The frequency of these raw materials at any site relates predominately to the proximity of that site to the material source. Silcrete outcrops, which are likely to have been exploited by the Aboriginal inhabitants of the local region, have been identified in the suburb of Newtown to the south of the study area.⁷

2.2.2 Hydrology, Landforms and Landscape Features

The general area around the University of Sydney consists of gently undulating rises of low relief with rounded hills of between 10m–30m. The current study area is located on a rise in the natural topography, previously known as Petersham Hill, which slopes southeast towards the first order tributaries of the Blackwattle Creek catchment. The former Blackwattle Creek once originated in a swampy area (which is now the site of the Old Darlington School) and flowed towards Victoria Park, through Ultimo and emptied into Blackwattle Bay.⁸

The Orphan School Creek is also noted in historical documents as once crossing through the northwest corner of the study area.⁹ These first and second order tributaries have since been covered over by development across the study area.

2.2.3 Geomorphology

Current geomorphological activity within the study area is minimal due to the low relief as well as the degree of coverage by concrete, bitumen and/or turf. Prior to this, some erosion including sheet

wash and colluvial movement of soil downslopes is likely to have occurred, particularly after forest clearing in the early nineteenth century.¹⁰

2.2.4 Fauna and Flora

Prior to clearing in the early nineteenth century, the study area would have been covered in tall open forest and woodland dominated by Sydney Blue Gum (*Eucalyptus saligna*) and Blackbutt (*Eucalyptus pilularis*), Ironbark Eucalypts (eg *Eucalyptus crebra*) and Grey Box (*Eucalyptus moluccana*) with shrubbery including *Acacia*, *Dononea* and *Kennedia* species.¹¹

The terrestrial fauna of Sydney, exploited by Aboriginal people at the time of European settlement, is well documented and includes many species which are still present on the Cumberland Plain today. These include kangaroo and wallaby, wombat, echidna, possums, flying fox, emus and quolls. Historically, the area now occupied by the University of Sydney was called the 'Kangaroo Grounds', suggesting that this species was frequently available in the area.¹²

The presence of the Blackwattle Creek and Swamp system within and around the current study area would have also provided a valuable economic resource for Aboriginal inhabitants of the area. A range of economic aquatic plants such as sedges from the *Epacridaceae* and *Cyperaceae* families, as well as bulrushes (*Typha*) which were exploited for their starchy and fibrous roots, were likely to have been found and used in this area.¹³

The study area is currently located within 1km of Blackwattle Bay; however, this distance would have been even less prior to land reclamation, which has obscured potentially economically important mudflats in the bay.¹⁴ The bay and associated mudflats would have provided Aboriginal people with access to marine and estuarine resources such as fish, shellfish and other crustaceans.

2.2.5 Land Use and Disturbance

The area occupied by the University of Sydney has undergone extensive clearing and development since European settlement. The following timeline presents a summary history of the land use and associated impacts across the current study area since 1788.

- 1790s—previously known at the 'Kangaroo Grounds', the study area was originally set aside as Crown Reserve before being subdivided into four lots.¹⁵ Leases were granted to Lieutenant Governor Francis Grose, Captain Foveaux and Quartermaster Laycock; with the remaining land to the east preserved as Crown Reserve (Figure 2.2). During this time, the land was cleared for farming and grazing, with roads and a timber yard constructed (resulting in topsoil stripping and some erosion).
- 1800–1850s—over the next 50 years, the study area continued to be used for cultivation and grazing with a number of structures including convict stockades, farm buildings, gardens and dams being constructed (Figure 2.3). Johnston's Creek was channelised and the Johnston's Creek Stormwater Channel (SWC) was run through the northwest corner of the University grounds.¹⁶ The Darlington campus was used to pasture cows for the Sydney Market.
- 1850s–1900—in 1855, 126 acres to the north of City Road, formerly occupied by Grose Farm was granted to the University of Sydney; and in 1878 the Darlington Public School was constructed at Maze Crescent in the swampy area at the headwaters of Blackwattle Creek. During this time several University and school buildings, botanical gardens and recreation ovals were constructed across the site. Residential housing and industry was developed in

neighbouring Darlington with the construction of terrace housing and the Eveleigh railway workshops in the 1880s. Development of the University and the public school involved further disturbance of topsoil sediments due to landscaping, the demolition of existing structures and the insertion of footings and foundations of new buildings. In addition, extensive landfill was introduced as levelling fill as well as for raising the area previously covered by the Blackwattle Swamp to make it feasible to construct the public school and surrounding residential housing.

- 1900–1950s—Orphan School Creek flats in the northwest corner of the University were covered with 3m–5m of fill using spoil from the construction of the city railway during the 1920s.¹⁷ During World War II, a number of air raid shelters were constructed across the open areas of the University grounds and Victoria Park (Figure 2.5). In 1958 residential sections of the suburb of Darlington were rezoned for University use, resulting in the demolition of original terrace housing and replacement with University buildings in the later twentieth century.
- 1960–present—the University of Sydney has continued to grow and much of the once open ground within the current study area has now been developed and redeveloped.

Due to the long history of land use and development across the study area, it is clear that the majority of the natural ground surface has been subject to extensive disturbance due to cutting and filling activities associated with the ongoing development and redevelopment of the University and its grounds. As such, any Aboriginal sites within the study area are likely to have been affected in some way. Following JMcDCHM 2004, three general categories of land disturbance are used in this report¹⁸:

- *Heavily Disturbed*—areas with constructed landforms, buildings and constructed surfaces, in particular areas which include late twentieth-century buildings and roads which generally involve significant earthmoving during construction; as well as grading, levelling, introduction of road base and installation of services such as water, power and sewerage. Archaeological evidence such as artefacts may be present here but it would not be possible to determine their origin or context. Many artefacts occurring in this zone may have been destroyed by these processes. This zone includes areas subject to construction, erosion and landscaping works, dams, drainage basins and graded tracks.
- *Moderately Disturbed*—areas with natural landforms but with disturbed soils. Archaeological evidence such as artefacts may be present but may have been moved from their original locations. This zone includes areas which have been cultivated continuously and unformed vehicle tracks.
- *Lightly Disturbed*—areas with natural landforms, which appear from current aerial photographs to be original land surfaces. Archaeological deposits may be present in fairly undisturbed physical condition. This zone includes areas that may have been cleared of timber, grazed or ploughed minimally.

A 2004 JMcDCHM survey which encompassed part of the current study area (Figure 1.2) concluded that no areas could be categorised as lightly disturbed, rather the majority of the area could be classified as heavily disturbed.¹⁹ See Section 3.1 for a discussion of these investigations.

2.3 Aboriginal Ethnohistory

This section reproduces the ethnohistorical background provided in JMcDCHM 2005.²⁰

The Aboriginal people that lived in the area now occupied by the University of Sydney were either Cadigal or Wan(n)gal. These groups are local descent groups, otherwise referred to as local clans

or territorial clans. Some confusion remains as to which clan is associated with what are now the grounds of the University of Sydney, arising from conflicting information contained within two historical quotes:²¹

The tribe of Cadi inhabit the south side, extending from the sought head to Long-Cove; at which place the district of Wanne, and the tribe of Wangal, commences, extending as far as Parra-mata, or Rose-Hill. (King in Hunter [1968: 412]).

From the entrance of the harbour, along the south shore, to the cove adjoining this settlement the district is called Cadi, and the tribe Cadigal; the women, Cadigalleon. The south side of the harbour from the above-mentioned cove to Rose Hill, which the natives call Parramatta, the district is called Wann, and the tribe Wanngal. (Phillip 13 Feb 1790 [1892: 309])

The original inhabitants of the Sydney region relied on food gained through fishing and hunting, and the gathering of plants and small animals. The land and its rivers and estuaries were the source of a range of plant and animals for food, medicines; and raw materials for tools, weapons, shelters and body decoration.^{22 23 24} Inhabitants of the current study area would have exploited both freshwater fauna and flora from the Blackwattle Swamp, as well as marine resources from the nearby Blackwattle Bay and associated mudflats (now covered by Wentworth Park). A variety of technology was used for obtaining food and raw materials, carrying small objects, and equipment making. Weapons were required for either offensive or defensive purposes.²⁵

Ultimately, the process of colonisation was one which saw the inhabitants of the study area dispossessed of their lands and of the food and plant resources that the lands provided very early in the establishment of Sydney. Steele suggests that the Aboriginal population of the area occupied by the Cadigal/Wan(n)gal, which included the study area, was reduced in number from approximately fifty individuals in 1788 to only three by 1790.^{26 27} The decimation arose from impacts of dispossession, introduced disease, loss of access to traditional lands and resources, inter-tribal conflict, starvation, and the breakdown of traditional cultural practices.²⁸

2.4 Synopsis of the AHIMS Search and Landscape Context

Based upon the AHIMS search, it can be stated that the current study area does contain two recorded Aboriginal sites, with one falling within the City Road Precinct (#45-6-2822) and the other outside of any of the proposed development precincts (#45-6-2745). See Figure 2.1.

The assessment of the environmental context in which the study area is located suggests that Aboriginal sites and/or places were likely to have been located within the University campuses. Given the proximity of the study area to permanent freshwater resources at the former Blackwattle Creek and Swamp, the former Orphan School Creek, marine resources at Blackwattle Bay and silcrete outcrops in nearby Newtown; it is highly likely that Aboriginal inhabitants of the Sydney area regularly visited the study area. This area would have provided a wide range of valuable faunal, floral and lithic resources which are likely to have been exploited by Aboriginal people in the past.

However, extensive earth disturbing land use including farming, grazing, landscaping, filling, residential housing and multi-storey building development across the study area over the last 200 years has significantly reduced the potential for the preservation of surface sites and/or subsurface archaeological deposits within the relatively shallow Blacktown soil landscape.²⁹

Overall, it may be stated that the study area does contain previously recorded Aboriginal sites (#45-6-2745 and #45-6-2822). While it is possible that some remnant soil profiles with the potential to

contain Aboriginal objects may be preserved in small pockets across the study area, it is likely the historical land use has removed or redeposited and damaged most, if not all Aboriginal sites and/or objects from their original contexts, thereby reducing the research potential of such sites. Therefore, the environment and historical context of the University indicates that the study area has low potential for the preservation of Aboriginal objects and/or undisturbed archaeological deposits below the current surface level.

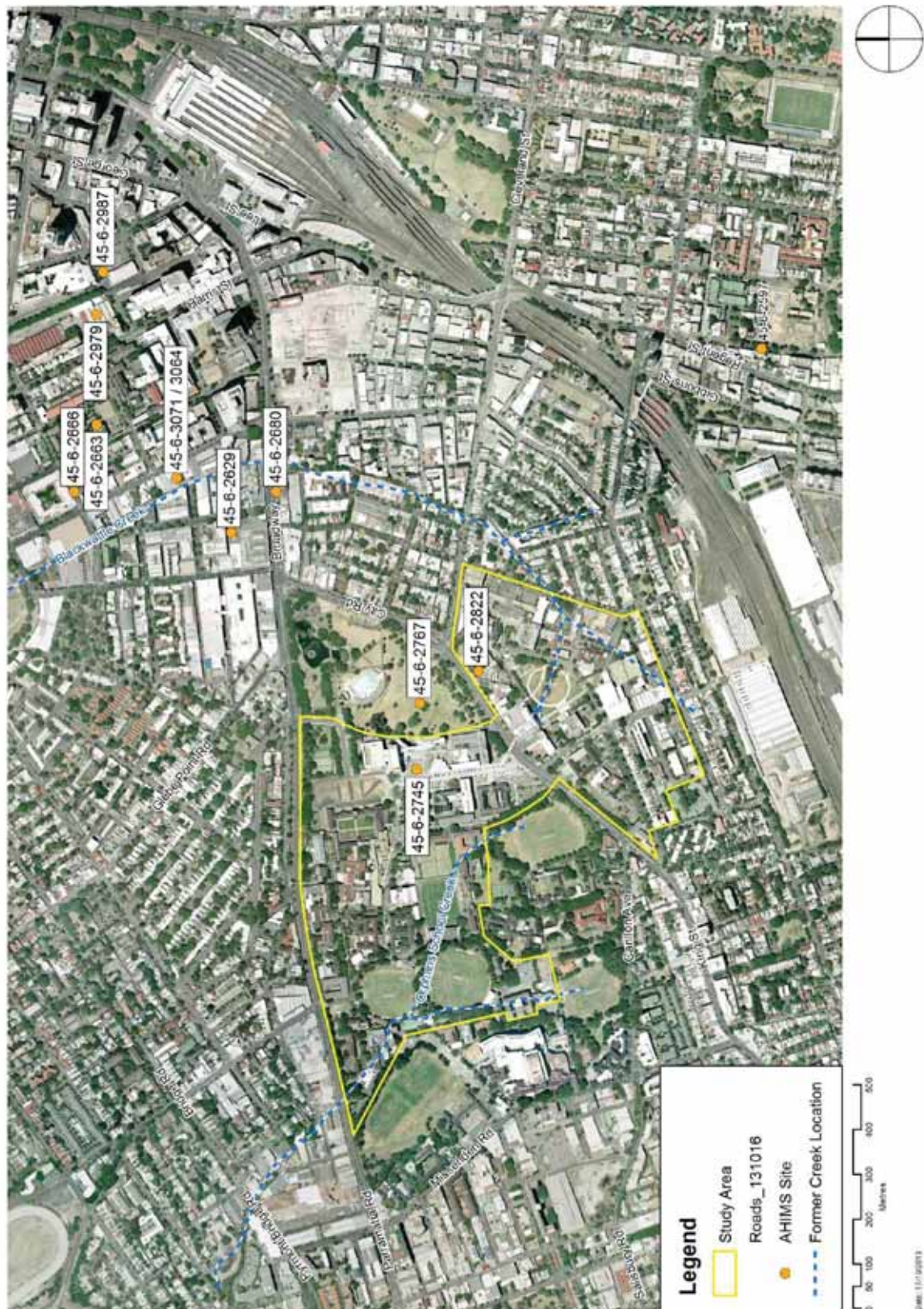


Figure 2.1 Map of the known Aboriginal sites in the study area and surrounds, showing the course of the former Blackwattle and Orphan School Creeks based on historical documents. (Source: <www.nearmap.com> with GML additions)

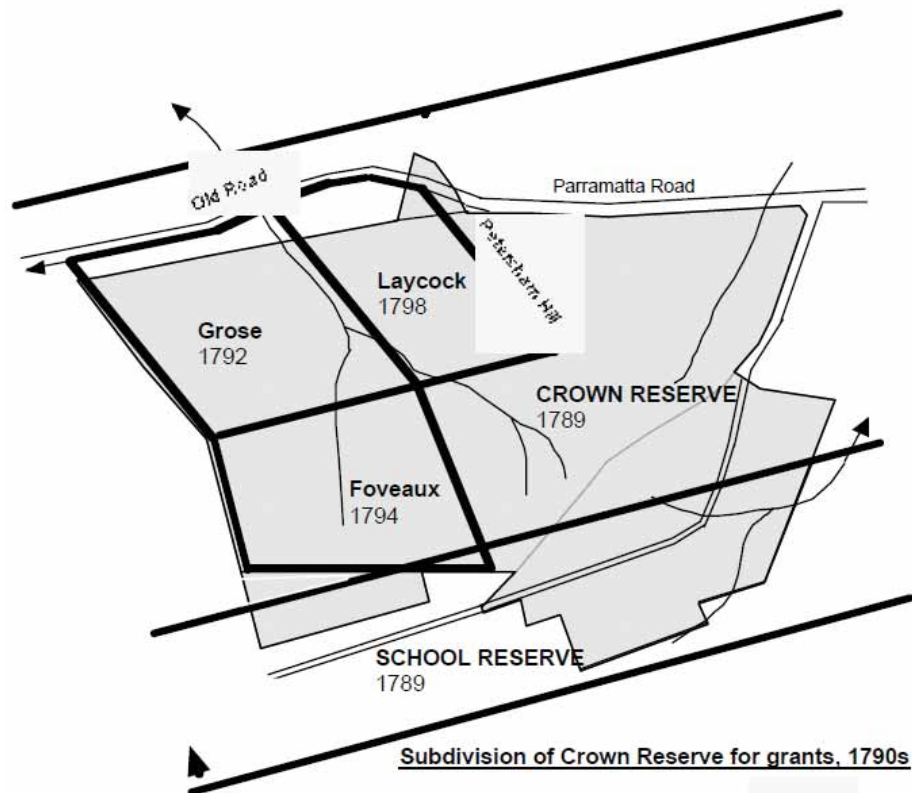


Figure 2.2 Plan of the original 1790s subdivision of the 'Kangaroo Grounds'. (Source: University of Sydney Grounds Conservation Plan—Chapter 2).

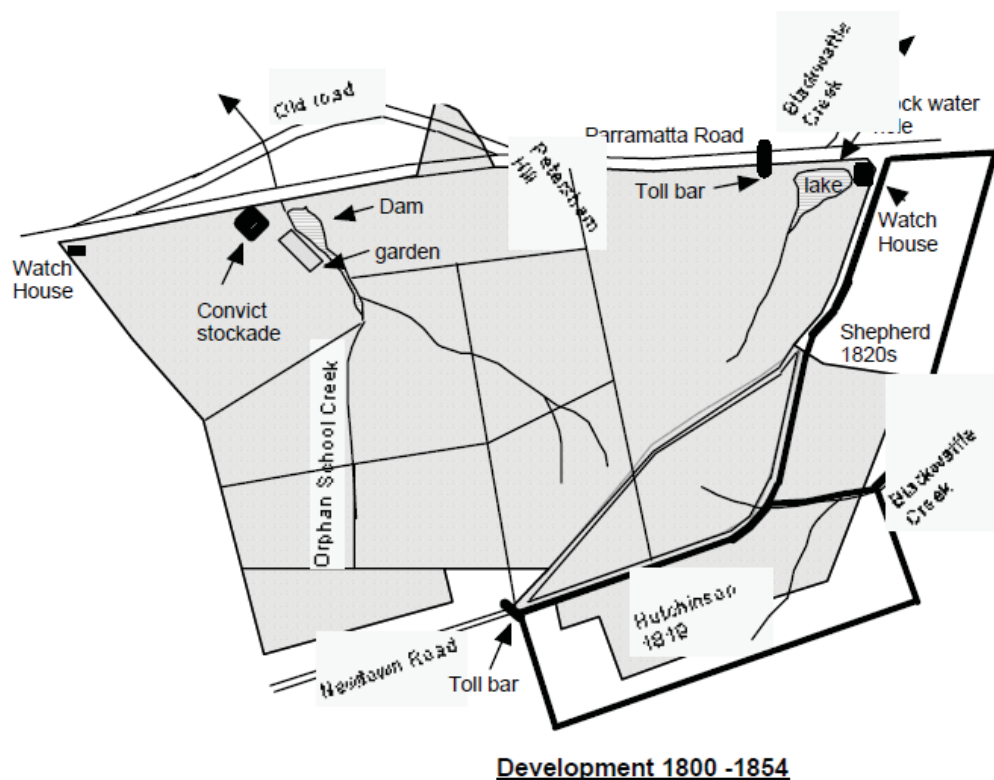
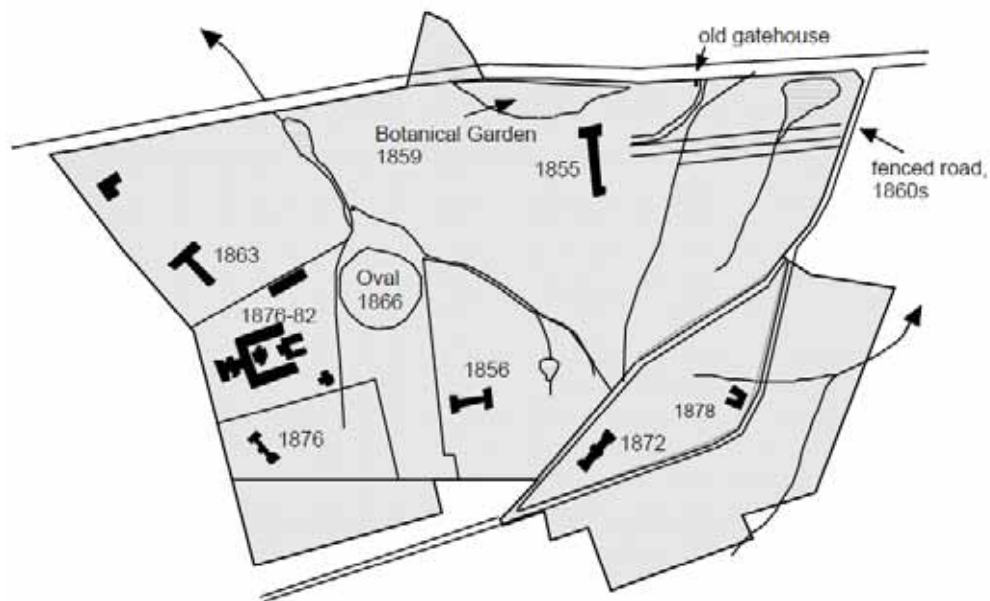


Figure 2.3 Plan showing development of the study area prior to land being granted to the university, 1800–1854. (Source: University of Sydney Grounds Conservation Plan—Chapter 2)



Development of University 1854-1880

Figure 2.4 Plan showing initial development of the study area after land is granted to the university, 1854–1880. (Source: University of Sydney Grounds Conservation Plan—Chapter 2)

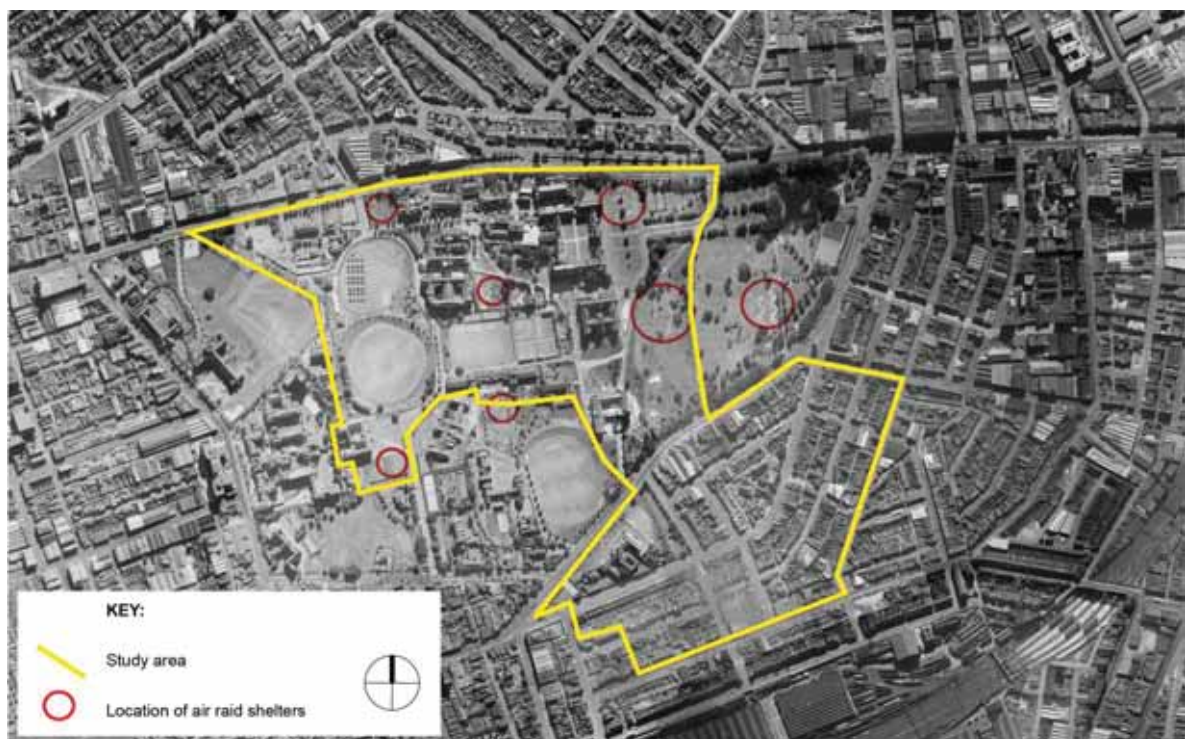


Figure 2.5 1943 aerial photograph of the study area showing the extent of development in the vicinity and air raid shelters. (Source: Six Maps with GML additions)

3.0 Aboriginal Heritage Desktop Assessment and Visual Inspection

3.1 Relevant Local Literature

A number of archaeological studies have been prepared that include the study area and immediate surrounds. Those works and reports of direct relevance to this due diligence assessment are detailed below.

University of Sydney Grounds Conservation Plan 2002

The University of Sydney Grounds Conservation Plan was developed in 2002 to define the heritage significance of the grounds of the University's Camperdown and Darlington campuses, and propose management policies for the conservation of that significance. Due to the degree and nature of development on the site over the past 200 years, undisturbed Aboriginal archaeological sites were deemed highly unlikely to be preserved within the University grounds.

The Conservation Plan identified four areas of open land which were assessed as most likely to preserve PADs;

- St John's College Sports Ground in association with the now filled Orphan School Creek;
- areas around University Ovals No. 1 and No. 2;
- areas adjacent to the boundary fence between the University grounds and Victoria Park; and
- within open areas around the Old Darlington School.

Subsequent archaeological investigations of St John's College Sports Ground, the University ovals and the areas around the Old Darlington School have demonstrated that no potential archaeological deposits have been preserved in these locations or, where remnant soil horizons are preserved, they are highly disturbed and of low archaeological potential (see overviews of JMcDCHM 2004 to 2009 below).

Dominic Steele 2002—The Quadrant Site, Broadway

The Quadrant site, 500m from the current study area on the corner of Broadway and Mountain Street, was the subject of archaeological testing by Dominic Steele Consulting Archaeology in 2001 and 2002. Blackwattle Creek originally passed through the Quadrant site, which was also a natural swamp.

Excavation revealed that in a portion of the site natural soil profiles had been preserved beneath a capping of introduced fill, although these were truncated and disturbed. The soil profiles present at this site comprised of a deep alluvial deposit, with the upper layers consisting of a Blacktown soil landscape.

Excavations during 2001 and 2002 uncovered a small remnant patch of sandy loam covering an area of approximately 5m x 10m, which contained 14 Aboriginal flaked stone artefacts from three of the 16 trenches excavated. This site was registered in AHIMS as site #45-6-2629 (Figure 2.1). Consent to destroy the site was granted with the requirement for monitoring works; however, no further artefacts were located.

The artefact scatter was interpreted as a background distribution of stone artefacts in a landscape only sporadically visited by Aboriginal people. Steele concluded that the limited Aboriginal archaeological evidence encountered at the Quadrant site was the product of two factors. The first was the significant disturbance across the site in the historical period. The second was the way past Aboriginal people were likely to have utilised the natural environment:

The poorly-drained nature of the landscape at the Quadrant site is one possible explanation for the absence of more substantial Aboriginal archaeological remains identified during the investigation program. It is reasonable to assume that Aboriginal people in the past may have exploited the various resources available within these environments, but it is unlikely people established long-term occupation sites on them. (Steele 2003: 56)

The report identifies that beyond the creek line and swamp, more elevated portions of the site located on Hawkesbury Sandstone would have been more favourable for Aboriginal occupation with a less ephemeral archaeological signature. Steele notes that these locations have generally experienced such a degree of historical development that the natural A horizon soils capable of bearing artefacts and archaeological deposits have been removed or heavily disturbed.

JMcDCHM 2004, 2005 & 2006—Reports Prepared for the Campus 2010 Project

Jo McDonald Cultural Heritage Management (JMcDCHM) undertook an Aboriginal heritage assessment of a portion of the University of Sydney's Camperdown and Darlington campus as part of upgrades and construction undertaken during the Campus 2010 project. This study area is shown in Figure 1.2. A survey was conducted across the study area in 2004. No Aboriginal objects and/or landscapes were identified or assessed to be of high archaeological significance or potential. Four areas of PAD were recorded as having low–moderate potential to contain intact archaeological deposits, and if in situ material was found it would be of high archaeological significance due to its rarity within the general location of the study area.

A program of archaeological testing was implemented at two of these PADs in 2005. The first was located at the former Geology Lawns (now the site of the Law Building); the second was at Maze Green, adjacent to the Old Darlington School (Figure 1.2).

Testing at the Geology Lawn revealed between 75cm and 160cm of fill had been introduced above the A horizon soils. The A horizon was a sandy clay loam between 30cm and 50cm thick, and moderately disturbed as indicated by the presence of historical materials. One piece of flaked silcrete debitage was the only artefact retrieved from eight test trenches at the Geology Lawn.

At Maze Green, test excavations revealed that a fill layer between 15cm and 110cm deep had been introduced above the A horizon soils. Natural soil profiles consisted of a 15cm–25cm deep fine sandy clay loam A horizon grading to a yellowish brown clay B horizon. The soil profiles were significantly disturbed by historical activity. One test pit, close to the Old Darlington School, revealed sediments that appeared to represent a still, shallow freshwater pond and may be associated with early European occupation of the area prior to significant modification of the Blackwattle Swamp. One silcrete artefact was retrieved from disturbed overburden during testing; no artefacts were recovered from natural soil profiles.

JMcDCHM 2007 & 2009—Centre for Obesity, Diabetics and Cardiovascular Research (CODCD) Project

In 2007 JMcDCHM undertook an Indigenous Archaeological Assessment of the proposed ARC Medical Building development (see Figure 1.2) to determine the nature, extent and integrity of Aboriginal relics and PADs within the study area. Due to the extensive land disturbance which had

previously occurred in this study area, no sites or surface artefacts were identified and no areas were assessed as having high potential for intact archaeological deposits. Geotechnical investigation indicated that the original swampy stream line of the Orphan School Creek may be represented in organic deposits beneath fill between 3m to 5m deep.

Ground truthing downgraded the archaeological potential of two areas of PAD identified in the *University of Sydney Grounds Conservation Plan* along the northeastern margin of St John's Oval and within Oval 2. These areas were reassessed as having low archaeological potential.

Further investigation was recommended should the RMC Gunn Building, Veterinary Science Building and the HK Ward Gymnasium Building be demolished as their demolition may reveal intact archaeological deposit. The HK Ward Gymnasium Building has since been demolished to make way for the Charles Perkins Centre which is currently under construction at the time of writing this report.

Godden Mackay Logan + JMcDCHM 2012—Abercrombie Street Precinct

In 2012 GML + JMcDCHM was engaged to prepare a Preliminary Aboriginal Archaeology Assessment Report for the redevelopment of the Abercrombie Street Precinct within the Darlington campus of the University of Sydney (Figure 1.2). No landscape features associated with Aboriginal archaeological objects or potential Aboriginal archaeological objects were identified within the study area. Due to extensive twentieth-century construction and landscaping within the precinct, the potential for subsurface archaeological deposits was assessed as low.

Biosis Pty Ltd 2012—Wattle Street PAD

In 2012 Biosis Pty Ltd was engaged to undertake an Aboriginal Cultural Heritage Assessment at 445–473 Wattle Street, Ultimo, to determine the archaeological potential of the project area. The study area was bounded to the east by Blackwattle Lane which roughly follows the original line of Blackwattle Creek. Geotechnical investigation determined that historical fill layers extended to a depth of 2.5m below the current ground surface. This fill was found to be capping intact alluvial soils extending to a depth of at least 7m despite being located within the area of disturbed terrain mapped by Chapman and Murphy.³⁰

The considerable depth of these alluvial soils indicates that they may be preserved across the extent of the 2012 study area and potentially further afield. The alluvial sediments were interpreted as potential natural topsoils in association with the Blackwattle Creek banks. This association with a permanent freshwater resource (Blackwattle Creek) is significant as current modelling for Aboriginal sites predicts that the density and complexity of sites will increase with stream order. The area was registered on AHIMS as site #45-6-3064 as a PAD with high to moderate potential to contain Aboriginal sites and/or objects, with the recommendation for testing and monitoring should works impact on the alluvial soil deposit (Figure 2.1). No artefacts were recovered during the geotechnical testing of these sediments.

Mary Dallas Consulting Archaeologists 2013—St Paul's College

In 2013, Mary Dallas Consulting Archaeologists (MDCA) undertook a Preliminary Due Diligence Aboriginal Heritage Assessment for St Paul's College for the area covering the St Paul's Oval and college buildings (Figure 1.2). St Paul's Oval was constructed in the 1920s by levelling and filling using the same spoil from construction of the city railway as was used to fill the Orphan School Creek flats.³¹ Land use history in this study area was found to have significantly modified and filled

original land surfaces as well as caused significant ground disturbance due to several phases of college building development. Therefore, the potential for subsurface archaeological deposits to be preserved in situ was assessed as low across the majority of the study area.

An area was identified to the north of the study area in which remnants of the Orphan School Creek course and banks may have been preserved below the current ground surface, therefore presenting the potential for preserving archaeological deposits associated with the watercourse.

3.2 Visual Inspection of the Study Area

A visual inspection of the six development precincts was undertaken by Erin Mein and Diana Cowie, GML Archaeologists, on 15 October 2013. The development precincts were inspected for visible archaeological remains, evidence of ground disturbance and the nature and extent of the extant built environment.

The site inspection was informed by site plans, aerial photographs, previous heritage investigations and an understanding of the area's environmental and archaeological context. During the inspection various aspects of the development precincts were recorded, including topography, areas of exposed soil, age and fabric of built environment and the presence of subsurface services. The following observations were made:

Merewether Precinct

- The precinct is located midway down the natural slope of Petersham Hill, with the land falling away to the southeast.
- Subsurface services including stormwater drains, electrical and communications services are evident across the site.
- The precinct is occupied by a range of multi-storey buildings, bituminised roads, car parks and landscaped open areas.
- With the exception of the Darlington Road Terraces and the Institute, the majority of the buildings in the Merewether Precinct had been constructed in the last half of the twentieth century.
- The Merewether Building is four-storeys high which would have required significant footings to ensure its structural integrity—this would have involved significant cutting and levelling across the footprint.
- The Institute Building (former Deaf, Dumb and Blind Institute), constructed in 1872, has been terraced into the natural slope of the ground surface.
- The Darlington Road Terrace houses have also been terraced into the natural slope of the ground surface.
- A small substation is located on the corner of Butlin Avenue and Darlington Road.

City Road Precinct

- The natural topography of the land in this precinct falls away to the northeast towards Victoria Park as well as immediately to the southeast towards Cadigal Green.

- Subsurface services including stormwater drains, electrical and communications services are evident across the site.
- The precinct is dominated by three large multi-storey buildings between five and seven storeys high, the Wentworth Building, the Jane Foss Russell Building and the Wilkinson Building; all of which were constructed between 1960 and 1975.
- The remaining area within the precinct is either paved, bituminised or landscaped.

Engineering Precinct

- The land in this precinct falls away to the northeast towards Ultimo following the original line of the Blackwattle Creek.
- The precinct is predominately composed of multi-storey buildings between three and twelve storeys high, constructed in the mid-1960s with 1970s and 1990s additions.
- Basements have also been excavated in some of the engineering buildings such as the Civil and Mining Engineering Building (Figure 3.4).
- Subsurface services including stormwater drains, electrical and communications services are evident across the site.
- Open areas have either been paved, bituminised or landscaped.

Health Precinct (Blackburn Bosch)

- This precinct is situated on a gradual slope which rises between the University Oval No. 1 and Cadigal Lane.
- No evidence of original Blacktown soil profiles were evident in the banks surrounding University Oval No. 1 to the immediate north of the precinct (Figure 3.6). Instead these banks appeared to be constructed of relatively clean sandy fill with some shale and gravel inclusions.
- The buildings within this precinct were between two and six storeys high and, with the exception of the Blackburn Building in 1933, were constructed during the late 1950s to 1960s, suggesting that significant foundation trenches would have been excavated into the subsurface soils during their construction.
- The main open area within Blackburn Circuit had been bituminised and landscaped.
- Subsurface services including stormwater drains, electrical and communications services are evident across the site.

Life Sciences Precinct

- This large precinct is relatively flat with a slight slope up to the east following the line of Science Road.
- The area to the east of the Ross Street gate was occupied by several demountable buildings on top of a bituminised surface with subsurface drainage and services.

- The area immediately to the west of the Ross Street gate was occupied by the Veterinary School buildings. The majority of these buildings were constructed between the end of World War II and the late 1980s—the exceptions being the Gatekeepers Lodge (1898), the JD Stewart Building (1910), and the McMaster Building (1931).
- The area has extensive landscaping with bituminised roads and established gardens, particularly around the JD Stewart Building.
- Subsurface services including stormwater drains, electrical and communications services are evident across the site.
- The Charles Perkins Centre which was under construction at the time of the site visit borders on the Life Sciences Precinct. This new construction has involved significant earthworks including levelling and filling of the ground surface. Figure 3.10 shows the extent of the fill to the east of the centre.

Cultural Precinct (Macleay & Edgeworth David)

- This precinct is situated on the top of Petersham Hill overlooking the original Blackwattle Creek catchment to the north.
- The land on the top of Petersham Hill has been terraced to accommodate structures including the Quad and the Macleay Building and associated lawns and roads (Figure 3.12).
- The precinct is bounded to the north by Parramatta Road which has been cut through the original ridge line. A possible remnant Blacktown soil was identified on a northern exposure overlooking Parramatta Road. Figures 3.15 and 3.16 show a rubble filled overburden layer overlying a more compacted sedimentary profile. This correlates with excavation reports for the northwest region of the Camperdown campus in which an introduced fill between 0.75m to 1.6m overlies remnant, disturbed A soil horizons.³²
- The three-storey Macleay Building is constructed of sandstone masonry—dating to 1887, it is one of the earliest extant structures on the University campuses.
- The Botany Lawn shows evidence of having been levelled as part of the terracing activity, and subsurface services including stormwater drains and electrical services have been installed within and immediately adjacent to it.
- The three-storey Edgeworth David Building is a rendered building constructed in the postwar period.
- The remaining area within this precinct was paved and/or bituminised.

3.3 Synopsis of the Archaeological Context

The desktop assessment and visual inspection indicates that there is low potential for in situ Aboriginal objects within three of the development precincts; and low to moderate potential within the remaining three development precincts. The Merewether, Life Sciences and Cultural Precincts can be assessed as having low to moderate potential to preserve intact subsurface archaeological deposits below building foundations and in open areas. The City Road, Engineering and Health

Precincts can be assessed as having low to no potential to preserve intact subsurface archaeological deposits.

Results of the AHIMS search demonstrated that current known material evidence of Aboriginal occupation in the general vicinity of the University is limited. While four PADs are identified on the AHIMS register, only two are registered as being known to contain artefacts and only three stone artefact scatters are registered within 2km of the current study area. This is partly due to the very high degree of earth disturbing development which has occurred in this inner city area over the last 200 years which has resulted in poor preservation of subsurface archaeological deposits. However, 2012 geotechnical investigations have revealed that deep alluvial deposits associated with Blackwattle Creek are still in existence below historical fill and modern development.³³ In addition, organic deposits interpreted as the former Orphan School Creek have also been located below a deep capping of historical fill.³⁴ This indicates that some subsurface archaeological deposits may be preserved in areas associated with the Blackwattle Creek and Swamp and Orphan School Creek.

It has been suggested by Steele that low artefact densities in the vicinity of the University may also reflect the nature of past landscape use by Aboriginal people.³⁵ Synthesis of archaeological investigations across the wider Sydney region demonstrates that campsites, where Aboriginal people stopped to cook, make tools, talk and participate in ceremony and other social activities, are generally located close to freshwater resources as well as estuaries and marine shorelines. The most important freshwater resource for the current study area would have been Blackwattle Creek which was also surrounded by a swampy, poorly drained landscape unsuitable for long-term habitation. It has therefore been suggested that parts of the study area in Darlington, which are associated with the former Blackwattle Swamp, are unlikely to have been a favourable location for camping but rather would have been visited occasionally by Aboriginal people collecting plant material, gathering freshwater fauna and hunting.³⁶ These activities are ephemeral and would have left little archaeological signature, thereby accounting for the low density of Aboriginal cultural material found within and around the current study area.

Further away from the formerly swampy areas in Darlington, Petersham Hill may have provided a more favourable location for habitation by Aboriginal people. While still within 400m of the freshwater resources of Blackwattle Creek, this low rise would have provided dry habitation sites with potential views over the swamp. Test excavations by JMcDCHM on the ridge line of Petersham Hill have demonstrated that some disturbed remnant A soil horizons do exist below layers of historical fill; however, the density of Aboriginal artefacts is so low that their potential to reveal information about past Aboriginal inhabitants is limited. Further to the west, geotechnical investigations indicate that the historical fill is significantly deeper around the former Orphan School Creek than on top of Petersham Hill. This suggests that Aboriginal archaeological deposits may have been preserved by the capping of the natural ground surface in the 1920s.

The following provides a synopsis of potential for archaeological deposits within each of the six development precincts:

Merewether Precinct

This precinct has been heavily disturbed and has low potential to preserve subsurface Aboriginal archaeological deposits below the foundations of the Darlington Road Terraces and the Institute Building. Previous archaeological investigations in the vicinity have indicated that historical fill was introduced to terrace and level the Blackwattle Creek catchment area in Darlington. Depending on

the depth of the foundations of the terrace houses and Institute Building, there exists some potential for natural soil profiles to be preserved. However, it is likely that these profiles would be highly disturbed and discontinuous; and that any Aboriginal objects would not likely be found in situ. The archaeological significance of any Aboriginal objects out of context would be very low.

City Road Precinct

This precinct has been heavily disturbed and has low to no potential to preserve subsurface Aboriginal archaeological deposits. Having already been investigated by JMcDCHM in 2005, this area has been revealed as heavily disturbed with very low archaeological significance.³⁷ It is highly unlikely that any in situ soil profiles would remain below the Wentworth, Jane Foss Russell or Wilkinson buildings due to the extensive foundations required by modern building engineering for structures of this height. Some Aboriginal objects may be contained within these disturbed deposits; however, the archaeological significance of any such objects would be very low.

Engineering Precinct

This precinct has been heavily disturbed and has low to no potential to preserve subsurface Aboriginal archaeological deposits. As with the neighbouring City Road Precinct, extensive multi-storey, modern construction has occurred across the entire precinct, including the installation of basements. This is likely to have removed any remnant natural soil profiles along with any Aboriginal objects they may have contained.

Health Precinct (Blackburn Bosch)

This precinct has been heavily disturbed and has low to no potential to preserve subsurface Aboriginal archaeological deposits. While the precinct is located in close proximity to the headwaters of the former Orphan School Creek and may have been constructed on top of deep historical fill, previous archaeological research in the study area and wider Sydney Basin suggests that the density and complexity of sites near such first order streams would be low to nil.^{38 39} In addition, the nature and extent of twentieth-century development within the precinct would have further reduced the potential for subsurface archaeological deposits to be preserved.

Life Sciences Precinct

This precinct has been moderately disturbed and has low to moderate potential to preserve subsurface Aboriginal archaeological deposits. According to historical documents, this precinct overlies the line of the second order tributaries of the Orphan School Creek (Figure 2.1). Geotechnical investigations indicate that creek line deposits are preserved below three to five metres of fill introduced during the 1920s. This indicates that Aboriginal objects may be contained within natural soil profiles associated with the creek.

As outlined by JMcDCHM in 2007 and 2009, archaeological deposits containing Aboriginal objects may be preserved beneath the foundations of structures within this precinct.⁴⁰ This includes the JD Stewart Building (Veterinary Science Building), RMC Gunn Building, McMaster Building and the Gatekeepers Lodge.

Cultural Precinct (Macleay & Edgeworth David)

This precinct has been heavily disturbed, however, retains low to moderate potential to preserve subsurface Aboriginal archaeological deposits within some areas. Previous investigations along the Petersham Hill ridge line indicate that some remnant A soil horizons are preserved below 0.75m to

1.6m of historical fill. It is likely that the foundations required for the Macleay and Edgeworth David Buildings would have either completely removed or significantly disturbed any remaining natural soil profiles. However, historical mapping of the development of the University grounds, as well as 1943 aerial photographs, indicate that no construction has occurred on the Botany Lawn in the eastern section of the precinct. Botanical gardens were developed in this location during the late nineteenth century. Visual inspection of the lawn indicated that the lawn had been filled and levelled with subsurface electrical services installed. If the fill used to level the lawn area follows the depths identified nearby by JMcDCHM, natural soil profiles with the potential to contain Aboriginal objects may still be preserved with minimal impact from the installation of subsurface services.

Conclusions and recommendations for Aboriginal Heritage Management for each development precinct based on the potential for subsurface archaeological deposits to be preserved are discussed in Section 5.0.



Figure 3.1 Darlington Road Terraces, Merewether Precinct. (Source: GML 2013)



Figure 3.2 Cadigal Green, showing interpretation of the former Blackwattle Swamp. (Source: GML 2013)



Figure 3.3 Cadigal Green, showing interpretation of the former Blackwattle Swamp. (Source: GML 2013)



Figure 3.4 Basement of the Civil and Mining Engineering Building, Engineering Precinct. (Source: GML 2013)



Figure 3.5 Civil Engineering Workshop, Engineering Precinct. (Source: GML 2013)



Figure 3.6 Filled bank of University Oval No. 1 immediately north of the Victor Coppleson Building, Health Precinct. (Source: GML 2013)



Figure 3.7 Built up land surface against the north wall of the Victor Coppleson Building, Health Precinct. (Source: GML 2013)



Figure 3.8 Life Sciences Precinct, showing filled and levelled land to the southwest with rising Science Road in the foreground. (Source: GML 2013)



Figure 3.9 Science Road looking east showing the rising natural topography. (Source: GML 2013)



Figure 3.10 Charles Perkins Centre showing construction fill. (Source: GML 2013)



Figure 3.11 Charles Perkins Centre, under construction. (Source: GML 2013)



Figure 3.12 Terracing of natural hillside to the east of the Cultural Precinct. (Source: GML 2013)



Figure 3.13 Levelled Botany Lawn looking back towards Macleay Building, Cultural Precinct. (Source: GML 2013)



Figure 3.14 Parramatta Road to the north of the Cultural Precinct, showing cut into natural topography. (Source: GML 2013)



Figure 3.15 Soil exposure overlooking Parramatta Road, showing potential remnant Blacktown soil A horizon under rubble filled overburden. (Source: GML 2013)



Figure 3.16 Soil exposure overlooking Parramatta Road, showing potential remnant Blacktown soil A horizon under rubble filled overburden. (Source: GML 2013)

4.0 The Proposed Works and Potential Impacts

The SSD Approval to be lodged with the Department of Planning is seeking approval of a Concept Plan, i.e. building footprints, massing and volume within the development precincts identified in the CIP (Figure 1.3). As the proposed works are yet to be finalised it is not possible to address specific impacts to Aboriginal archaeology within the study area. However, it is understood that the general construction work proposed under the CIP will involve the following ground disturbing activities:

- demolition of existing structures;
- construction of new buildings and possible basement levels;
- landscaping and/or road paving; and
- installation of subsurface services and infrastructure.

The depth of excavations required to construct new buildings within the CIP would need to be considered in relation to the varying depths of fill which have been introduced to different locations across the study area. In particular those locations which have been identified in this report as having low to moderate potential to preserve Aboriginal archaeological deposits will need to be considered once impacts have been identified as part of the design process.

5.0 Conclusions and Recommendations

5.1 Conclusions

The following conclusions can be drawn regarding the Aboriginal archaeology of the study area:

- Past Aboriginal inhabitants are likely to have used the study area for the collection of resources rather than more permanent campsites, in particular the area consisting of the Darlington campus which is associated with the former Blackwattle Swamp. This type of past landscape use would have been ephemeral and unlikely to leave a strong archaeological signature.
- Extensive earth disturbing development has occurred continuously for over 200 years since European settlement of Sydney town. This includes forest clearance, farming, grazing, construction of gardens, roads and buildings, the introduction of fill to level and terrace the natural topography of the land, as well as the landscaping and paving of ground surfaces.
- Since 1950, extensive multi-storey development has occurred across five of the six development precincts identified in the CIP. Given the nature of modern engineering and construction methods, the excavation of strip footings and foundations required for large multi-storey buildings is likely to remove any in situ subsurface archaeological deposits.
- No areas within the current study area can be categorised as lightly disturbed.
- Previous archaeological investigations have revealed extremely low artefact densities are contained within archaeological deposits in the general vicinity of the current study area.
- As the quantity of in situ artefacts from the vicinity of the University is extremely low, any in situ artefacts or sites found within the University would be extremely rare and would therefore have high archaeological significance.
- Several areas of deep alluvial sediments with the potential to contain Aboriginal objects have been identified in association with Blackwattle Creek and Swamp in close proximity to the current study area.
- Previous archaeological investigations within the current study area have shown that some remnant natural soil horizons are present below historical fill layers on Petersham Hill and within the Darlington campus. However, the historical land use has disturbed the A soil horizons to such an extent that any Aboriginal objects are unlikely to be in situ, therefore reducing their archaeological significance to very low.
- Geotechnical investigations have indicated that natural soil horizons may be preserved below 3m–5m of historical fill in the area associated with the former Orphan School Creek.

5.2 Recommendations

The purpose of this report is to identify whether the study area possesses or has the potential to possess Aboriginal heritage sites, places and/or objects. The potential for Aboriginal archaeology to exist within the current study area relies on a balance between the nature of past landscape use, and the extent and nature of historical disturbance.

In some locations, such as the Life Sciences Precinct, historical land use may have inadvertently resulted in the preservation of natural soil profiles containing Aboriginal artefacts via a capping of historical fill. However, the current state of knowledge about the nature of past Aboriginal landscape use in the study area suggests that only few traces of these past inhabitants may be visible in the archaeological record. This result is a low potential for the preservation of in situ Aboriginal archaeological deposits within the study area; however, if found these deposits would be of high archaeological significance due to their rarity.

The following recommendations are made as part of the Aboriginal heritage management requirements for each development precinct within the CIP:

Merewether Precinct

- Heavily disturbed with low potential to preserve intact subsurface Aboriginal archaeological deposit.
- Proceed with caution.
- Should Aboriginal objects be located during the course of any future development within this precinct, work should cease immediately and an archaeologist should be contacted to document and assess these finds. The objects must be reported to the OEH under Section 90 of the NPW Act.

City Road Precinct

- Heavily disturbed with low to nil potential to preserve intact subsurface Aboriginal archaeological deposits.
- Encompasses registered PAD #45-6-2822 which has since been destroyed under a Section 90 consent to destroy after further archaeological investigation downgraded the original site assessment.⁴¹
- Proceed with caution.
- Should Aboriginal objects be located during the course of any future development within this precinct, work should cease immediately and an archaeologist should be contacted to document and assess these finds. The objects must be reported to the OEH under Section 90 of the NPW Act.

Engineering Precinct

- Heavily disturbed with low potential to preserve intact subsurface Aboriginal archaeological deposits.
- Proceed with caution.
- Should Aboriginal objects be located during the course of any future development within this precinct, work should cease immediately and an archaeologist should be contacted to document and assess these finds. The objects must be reported to the OEH under Section 90 of the NPW Act.

Health Precinct (Blackburn Bosch)

- Heavily disturbed with low potential to preserve intact subsurface Aboriginal archaeological deposits.
- Proceed with caution.
- Should Aboriginal objects be located during the course of any future development within this precinct, work should cease immediately and an archaeologist should be contacted to document and assess these finds. The objects must be reported to the OEH under Section 90 of the NPW Act.

Life Sciences Precinct

- Moderately disturbed with low to moderate potential to preserve intact subsurface Aboriginal archaeological deposits.
- Due to the possible depth of historical fill in this precinct, potentially intact archaeological deposits may be preserved. Therefore, it is recommended that archaeological monitoring should be undertaken on the areas under the foundations of any buildings within this precinct that are proposed to be demolished.
- If the proposed work in this precinct includes excavation to a depth greater than 3m, it is recommended that a program of archaeological test excavation be carried out prior to the commencement of works, followed by archaeological monitoring of the proposed excavation.
- If any Aboriginal objects are located during the course of archaeological monitoring and/or test excavations these objects should be documented and recorded by an archaeologist and reported to the OEH under Section 90 of the NPW Act.

Cultural Precinct (Macleay & Edgeworth David)

- Predominantly heavily disturbed with low potential to preserve intact subsurface Aboriginal archaeological deposits.
- If the proposed work will impact on the Botany Lawn, it is recommended that archaeological monitoring be undertaken during this work.
- In all other areas within this precinct, proceed with caution. However should Aboriginal objects be located during the course of any future development in these areas, work should cease immediately and an archaeologist should be contacted to document and assess these finds. The objects must be reported to the OEH under Section 90 of the NPW Act.

6.0 Endnotes

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7.0 Appendices

Appendix A

AHIMS Search

Appendix A

AHIMS Search

Godden Mackay Logan Heritage Consultants

Date: 08 October 2013

78 George Street
Redfern New South Wales 2016

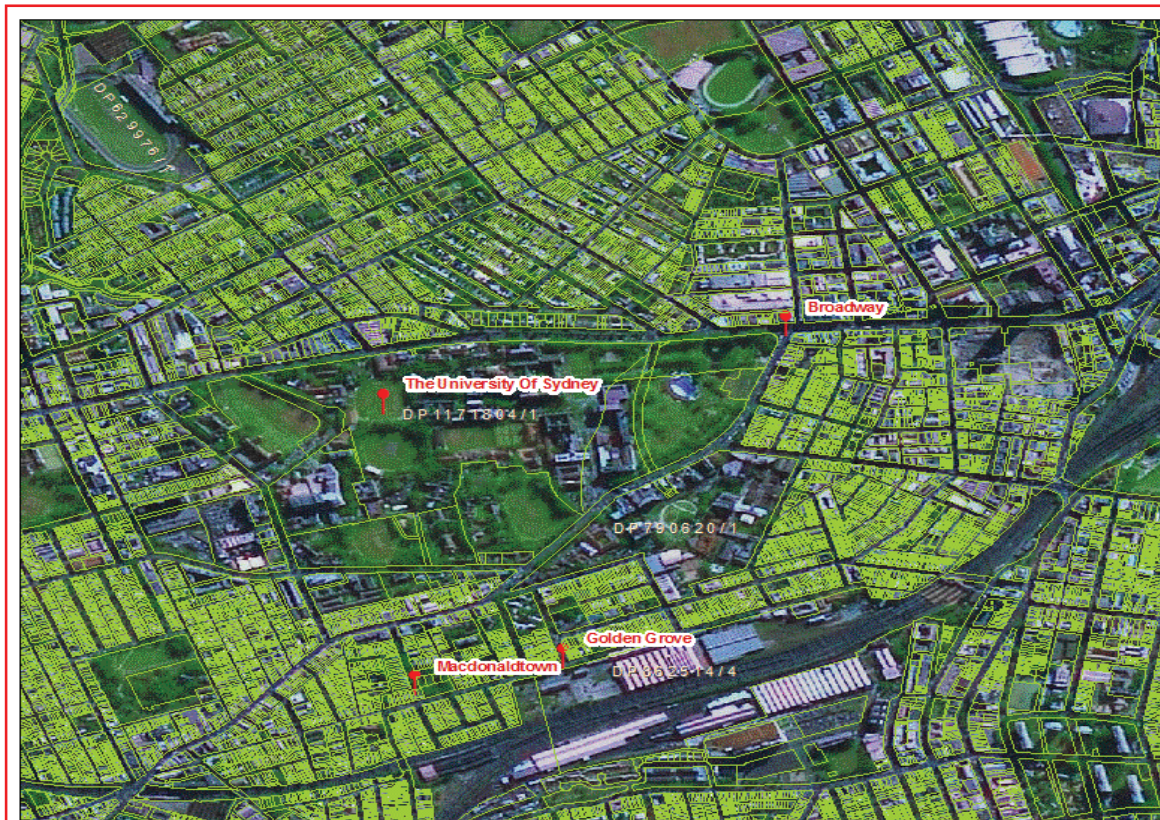
Attention: Erin Mein

Email: erinm@gml.com.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lat, Long From : -33.8956, 151.1765 - Lat, Long To : -33.8786, 151.2035 with a Buffer of 50 meters, conducted by Erin Mein on 08 October 2013.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

12	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the [NSW Government Gazette](http://www.nsw.gov.au/gazette) (<http://www.nsw.gov.au/gazette>) website. Gazettal notices published prior to 2001 can be obtained from Office of Environment and Heritage's Aboriginal Heritage Information Unit upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Office of Environment and Heritage and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date .Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

<u>SiteID</u>	<u>SiteName</u>	<u>Datum</u>	<u>Zone</u>	<u>Easting</u>	<u>Northing</u>	<u>Context</u>	<u>Site Status</u>	<u>SiteFeatures</u>	<u>SiteTypes</u>	<u>Reports</u>
45-6-2597	Wynyard St Mid den	AGD	56	333469	6247920	Open site	Valid	Shell : -, Artefact : -	Midden	102494,10276 3,102765
<u>Recorders</u> Mr.D Coe <u>Permits</u>										
45-6-2629	Broadway 1	AGD	56	333060	6249100	Open site	Valid	Artefact : -		102494,10276 3,102765
<u>Recorders</u> Dominic Steele Archaeological Consulting <u>Permits</u> 1299										
45-6-2666	Wattle Street PAD 1	AGD	56	333150	6249450	Open site	Valid	Potential Archaeological Deposit (PAD) :-		102494,10276 3,102765
<u>Recorders</u> Dominic Steele Archaeological Consulting <u>Permits</u> 1738										
45-6-2663	Mountain Street Ultimo	AGD	56	333300	6249400	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) :-		102494,10276 3,102765
<u>Recorders</u> Mary Dallas Consulting Archaeologists <u>Permits</u> 1719										
45-6-2680	Broadway Picture Theatre PAD 1	AGD	56	333150	6249000	Open site	Valid	Potential Archaeological Deposit (PAD) :-		102142,10249 4,102763,1027 65
<u>Recorders</u> Jim Wheeler <u>Permits</u> 1854										
45-6-2745	University of Sydney Law Building PAD	AGD	56	332350	6248740	Open site	Valid	Potential Archaeological Deposit (PAD) :-		102201,10249 4,102763,1027 65
<u>Recorders</u> Doctor:Jo McDonald <u>Permits</u> 2153,2320,2443										
45-6-2767	Tent Embassy	AGD	56	332680	6248680	Open site	Valid	Aboriginal Resource and Gathering : 1		102494,10276 3,102765
<u>Recorders</u> Bill Lord <u>Permits</u>										
45-6-2822	USYD: Central	AGD	56	332750	6248550	Open site	Valid	Artefact : -		100302,10249 4,102763,1027 65
<u>Recorders</u> Jo McDonald Cultural Heritage Management <u>Permits</u> 2554										
45-6-2979	UTS PAD 1 14-28 Ultimo Rd Syd	GDA	56	333650	6249590	Open site	Valid	Potential Archaeological Deposit (PAD) :-		102494,10276 3,102765
<u>Recorders</u> Dominic Steele Archaeological Consulting,Mr.Dominic Steele <u>Permits</u> 3458										
45-6-3071	445-473 Wattle Street PAD	GDA	56	333285	6249412	Open site	Valid	Potential Archaeological Deposit (PAD) : 1		
<u>Recorders</u> Biosis Research Pty Ltd Sydney Office <u>Permits</u>										
45-6-2987	Poultry Market 1	GDA	56	333746	6249575	Open site	Valid	Artefact : 1		102494,10276 3
<u>Recorders</u> Ms.Samantha Higgs,Biosis Research Canberra Office <u>Permits</u> 3506										

Report generated by AHIMS Web Service on 08/10/2013 for Erin Mein for the following area at Lat, Long From : -33.8956, 151.1765 - Lat, Long To : -33.8786, 151.2035 with a Buffer of 50 meters. Additional Info : Due Diligence Report. Number of Aboriginal sites and Aboriginal objects found is 12

This information is not guaranteed to be free from error omission. Office of Environment and Heritage (NSW) and its employees disclaim liability for any act done or omission made on the information and consequences of such acts or omission.

<u>SiteID</u>	<u>SiteName</u>	<u>Datum</u>	<u>Zone</u>	<u>Easting</u>	<u>Northing</u>	<u>Context</u>	<u>Site Status</u>	<u>SiteFeatures</u>	<u>SiteTypes</u>	<u>Reports</u>
45-6-3064	445-473 WATTLE ST PAD	GDA	56	333285	6249412	Open site	Valid	Potential Archaeological Deposit (PAD) : 1		102763
<u>Contact</u>		<u>Recorders</u>		Biosis Research Pty Ltd Sydney Office				<u>Permits</u>		

Appendix D

University of Sydney Buildings Aboriginal Heritage Due Diligence Report, prepared by GML
Heritage (September 2015)

