

4. ANALYSIS

The following analysis of heritage values considers the University grounds in their widest historical and geographical context. Because of this, areas critical to the assessment of the grounds are discussed, and at times assessed, that do not fall within the management responsibility of the University of Sydney. In particular this includes the Colleges, Victoria Park, and Prince Alfred Hospital. These areas share, and contribute to, many of the heritage values ascribed to the University grounds, and it is necessary to include them in the analysis. However, subsequent management policy (at sections 6 and 7) is limited to those areas actually managed by the University. Recommendations are provided for the development of cooperative management approaches with neighbouring land managers where this appears necessary to ensure the conservation of shared aspects of heritage.

4.1 ANALYSIS OF DISTINCTIVE FEATURES OF THE UNIVERSITY OF SYDNEY GROUNDS

Pre-University Landscape and Features

The land occupied by Aboriginal people of the Cadigal and/or Wanngal clans on the future site of the Camperdown and Darlington campuses of the University of Sydney were among the earliest lands utilised by European settlers in Australia. 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, a residential suburb and as a University. Several sites have archaeological potential to provide further, possibly important, information about indigenous and early settler occupation of the land (see 4.4).

The basic topography within which this Aboriginal and early European history unfolded is retained, with the pre-European system of creeks running east and west from the Petersham Hill ridge. The spine of the Petersham Ridge is the most prominent feature, underlying the buildings along Eastern Avenue. The boundary demarcations between the University and neighbouring suburbs were established before the university came into being, with the alignments of Parramatta and City (Newtown) Roads. The subsequent stressing of these boundaries, by the excavation of the Parramatta Road cutting and the heavy traffic usage of City Road, has reinforced the sense of the University Camperdown campus as an island in the city. The boundary demarcation between the University and the Colleges and Prince Alfred Hospital, and between Darlington campus and the neighbouring suburbs, to a large degree reflect both the original creek system and the early European land allocation boundaries from the period before, during and after the creation of the University.

The most enduring constructed feature from the early settlement period is the lake in Victoria Park. This is a direct echo of the original creek system, and was dammed to form a stock watering hole by at least the 1840s, later being formalised as a landscape lake feature in the 1870s, complete with a bridge carrying the drive up to the Main Building.

While not within the University Grounds in a management sense, this feature is clearly related to the heritage significance of the grounds.

The Darlington campus demonstrates further layers of usage, with agricultural and pastoral pursuits being followed, on part of the area, 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 surviving 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 through which Darlington Road ran, 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.

Planning and Built Form

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 since the birth 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 and 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 Blackett's Main 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 Building along Science Road..

Blacket established the architectural style of the early University in the Main Building facing Sydney town, and in the first college building, St Paul's. The distribution of the 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 Andrews 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 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. 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 masked by vegetation growth and an encroaching building, but still survives as a recoverable planning feature.

The expansion of University buildings west from the Main 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 building alignment and architectural style (ie the Anderson Stuart Building), or it was ensured that new development did not intrude on the primary axes east and south from the Main Building. Hence the development west of the Ridge 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, though this scientific 'campus' survived as a core area for such teaching until the expansion on eastern Avenue in the 1950s and 60s, and into Darlington in the 1960s and 70s. Other disciplines then occupied Science Road, so that the only specialised campus to survive 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, but this met with only limited success, such as formalised the Science Road alignment to which subsequent buildings were oriented. It took another two decades for Vernon's aims to be realised in the work of Wilkinson.

McRae laid out the first plan for the whole University Camperdown site in 1913, though 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

Griffins principles in his 1920 plan. Again, Wilkinson's plan was not carried through to finality, though its influence lasted well beyond his period in 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 student enrolments, that trebled between 1939 and 1945, 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, all contributed to expedient planning and to building styles that were markedly different from those used before the war. However, the skeleton laid down by earlier planning decisions remained very largely in place. The main road system, and the important vistas they help 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 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 and the Grounds Form

As shown in the history at Appendix A, sport has been a dominant 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 Andrews 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 contribute 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.

Comparison with other Australian Universities

Appendix 3 outlines the development of universities in Australia. It indicates that most of the forces influencing the creation and evolution of the University of Sydney also influenced the other universities at the same period.

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, 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 continued to be the case well into the twentieth 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 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.

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 therefore not unique in its origins and development, though it was (with Melbourne) one of the leading universities in the nineteenth century, and remains so in the twenty-first century.

4.2 HISTORIC VALUE

The criteria used by the NSW Heritage Council to assess historic value is as follows.

An item [such as a site or building] is important in the course, or pattern, of NSW's cultural or natural history.

Or

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.

Historic value may arise in several ways:

- from association with important events, activities or movements;
- from association with important persons or groups; or
- as the result of a place demonstrating particularly well former philosophies, customs, designs, functions, techniques, processes, and uses.

The degree of the historic value will depend on the importance or length of an association, or the extent to which a place demonstrates a rare or representative history or use, and how important that history or use was in the scheme of Australia's history.

Historic value may be recognised through a number of means:

- through the analysis of the written historical record;
- through the study of the photographic and map record;
- through the recollections of individuals (oral history); or
- through the study of the physical evidence of a place.

There are obviously very many aspects of Sydney University grounds that have historic significance, as can be seen in history and analysis above. The scope of places with potential historical value is seen in the following, table. It should be remembered that the assessment is about the places as part of the significance of the Grounds, rather than as individual heritage buildings or items in their own right.

Table 4.1 Features of Historic Value

Name	Components	Discussion of Value
High Historic Value		
Main Building Quadrangle lawns	<ul style="list-style-type: none"> • Quadrangle lawns • Main Building including later Quadrangle buildings • Vice Chancellor's Courtyard and garden 	<ul style="list-style-type: none"> • Australia's first university; • major example of Gothic architecture in Australia, and the pre-eminent component of the largest collection of such architecture in the country • close and demonstrable associations with a number of prominent architects and academics • major expression of the social, educational and civic aspirations of 1850s Sydney, and respect for that aspiration in later planning and construction.
Anderson Stuart Building	<ul style="list-style-type: none"> • Anderson Stuart building and extensions 	<ul style="list-style-type: none"> • major and last extension of the Gothic style along Petersham Ridge. • shows prominence of Medicine as one of the first professions to be accommodated in university training.
Hockey Square, Womens' tennis courts (University Avenue), and Oval 1 and 2	<ul style="list-style-type: none"> • Hockey Square sports field, and open space • Womens' Sports Centre • Hockey Square tennis courts and pavilion • Womens tennis courts, Eastern front • Ovals 1 and 2 	<ul style="list-style-type: none"> • close association with development of mens' and womens' sport in the university and NSW generally. • survival of earlier and historically important planning approaches to the university.
Science Road	<ul style="list-style-type: none"> • Science Road buildings and landscaping • Veterinary Sciences precinct • Wilkinson 'Mediterranean' style buildings and landscape features 	<ul style="list-style-type: none"> • first extension west of Main Building to cater for expanding range of courses. • location of buildings reflected the consciousness of the prestige of the Gothic image for the university. • major extension to the west from 1900 to cater for increasing teaching in the sciences and vocational training (including Teachers College), reflecting growth in the colony and nation. • The Veterinary Science facilities and Agriculture building have been continuously used for those subjects since their construction. The Veterinary Science precinct is the only faculty grouping which has remained wholly in its original location, and its enclosed 'quad' character emphasises its dedication to one discipline. • Wilkinson's stylistic designs and additions are evidence of one of the strongest planned developments of the campus, add unity to Science Road, and link it stylistically to the other Mediterranean style buildings: Physics, Edward Ford and RC Mills Buildings.

Name	Components	Discussion of Value
Commonwealth Research Facilities	<ul style="list-style-type: none"> • School of Public Health and Tropical Medicine • McMaster Laboratory • Madsen Building • aeronautics wind tunnel, engineering (Woolley Building) 	<ul style="list-style-type: none"> • Associated with the University's involvement in areas of national importance. • Representative of a period of co-operative ventures between the University and Government agencies in the late 1920s to 1940s. • Representative of University's increasing emphasis on research as a priority. • Siting of Madsen Building (National Standards Laboratory) reflected its prestigious status. • Siting of Tropical Medicine at the time was intended to be a prominent position on a major axis. • birth of aeronautics as branch of engineering to support war effort.
Holme Building	<ul style="list-style-type: none"> • Union building and additions 	<ul style="list-style-type: none"> • first permanent purpose-built facility for male students. Representative of the growth and vitality of the student body. • together with the Engineering School, Veterinary Science School and Agriculture buildings, forms part of what is possibly the largest collection of Federation Arts and Crafts style buildings in one place in Australia. • location on Science Road demonstrates the important role which that precinct had in the University's history, being a major thoroughfare and hub around which several academic and recreational facilities were located.
Manning House	<ul style="list-style-type: none"> • Women's Union building 	<ul style="list-style-type: none"> • significant as the first permanent union building for women students. The fact that a separate facility was needed reflects the initial policy of segregation of male and female students in areas of University life other than academic instruction. • value possibly diminished by recent additions.
Colleges	<ul style="list-style-type: none"> • St. Paul's, St John's, St Andrew's, Wesley, Women's and Sancta Sophia Colleges and grounds. 	<ul style="list-style-type: none"> • integral to the historical and social development of the university • St. Paul's, St John's, St Andrew's part of major group of university Gothic buildings.
Road alignments	<ul style="list-style-type: none"> • Science Road • Manning Road • Physics Road • Western Avenue • Eastern Avenue • University Avenue • Parramatta Road and City Road as boundaries 	<ul style="list-style-type: none"> • reflect the original development of the university and later phases of planning.
Historic buildings and associated landscapes, Darlington Campus	<ul style="list-style-type: none"> • Old Darlington School and associated school and Town Hall curtilage • Lawns and trees around the Old School Building • Institute Building and Press Building • Darlington Road terraces • Darlington Road/southern Maze Crescent alignment. 	<ul style="list-style-type: none"> • evidence of the history of the suburb.

Name	Components	Discussion of Value
Planned axes and alignments	<ul style="list-style-type: none"> • Petersham Ridge/ Eastern Avenue axis • Science Road axis • Manning Road Axis • Physics Road axis • Western Avenue/Ross Street axis 	<ul style="list-style-type: none"> • axes of development that established the historical form of the University.
Medium Historical Value		
Stone entrance gates, fences and gate lodges	<ul style="list-style-type: none"> • gates, fences and lodges off City Road and Parramatta Road, and gates at west end Physics Road. 	<ul style="list-style-type: none"> • demonstrate importance and dignity of the university to past communities. • gates, fences and lodges provide remnant landmarks demonstrating continuity of and changes to historical access
Pre-university landscape remnants	<ul style="list-style-type: none"> • creek lines through Camperdown and Darlington campuses • Petersham Ridge line • Victoria Park Lake 	<ul style="list-style-type: none"> • symbolic reminders of Aboriginal and pre-university European occupation. • potential sites of Aboriginal and early European archaeological interest in several locations
Remnant industrial buildings, Darlington	<ul style="list-style-type: none"> • former box factory (UoS Services Building G12) • former IXL factory (University Gargae H07) • Joiners' Shop (H05) • Civil Engineering Workshop (J06) • Rose Street Building (J04) 	<ul style="list-style-type: none"> • Association with industrial history of suburb.
Temporary buildings	<ul style="list-style-type: none"> • Ross Street Building • Transient building, Fisher Road. 	<ul style="list-style-type: none"> • Demonstrates war-time austerity and the growth of student numbers
Blackburn Building, Bosch buildings and surrounds	<ul style="list-style-type: none"> • Blackburn Building • Bosch buildings 	<ul style="list-style-type: none"> • Associated with significant private benefactors – Rockefeller Foundation and George Bosch.
Eastern Avenue precinct	<ul style="list-style-type: none"> • Chemistry, Carslaw, Stephen Roberts, Edgeworth David, and Fisher Library building. 	<ul style="list-style-type: none"> • historically important in development of the university in boom period of 1950s-60s • illustrate post-war absence of a unifying planning and design concept for the university, in face of pressing need for accommodation.
Engineering and architecture precincts, Darlington	<ul style="list-style-type: none"> • collection of engineering buildings between Shepherd St and Maze Cres. • Architecture faculty off City Road 	<ul style="list-style-type: none"> • a major teaching complex marking a long-held university planning objective of co-locating elements of faculties, while at same time abandoning old facilities in Camperdown. • reflects major growth of science and technology post WWII
Remnant Street alignments, Darlington	<ul style="list-style-type: none"> • Northern Maze Crescent alignment • Codrington Street/Butlin Av. • Rose St, Darlington Lane, Boundary Lane 	<ul style="list-style-type: none"> • Association with early road alignments and pre-university suburb planning. • demonstrates persistence of planned landscape and movement corridors.
University Place	<ul style="list-style-type: none"> • lawns east of Main Building 	<ul style="list-style-type: none"> • site of 1960s-70s student protests • open space preserving only remaining long views of Main Building, a major feature of the original university design and a planned statement of

4.3 AESTHETIC VALUE

The criteria used by the NSW Heritage Council to assess aesthetic value is as follows.

An item [such as a site or building] is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW.

Aesthetic value may arise in several ways or be recognised through a number of means:

- from a formal system of assessing aesthetic value, such as a visual management system;
- from adherence to a particular recognised style with its attendant aesthetic value;
- as a result of a community valuing a particular place for aesthetic reasons, this being related to social value; or
- as a result of an expert judgement involving an experiential approach with a less formal methodology.

The grounds of the University offer a range of aesthetic experiences, some of which are also heritage values. In general terms, these aesthetic and heritage values relate to:

- landscape and planted features, including:
 - individual specimen trees;
 - rows of mature plantings/trees;
 - lawn areas, such as ovals, playing fields and ornamental lawns;
 - gardens;
 - as well as combinations of these features;
- the relationships between buildings including the spaces, views and axes they create or relate to;
- spaces, views and axes; or
- other constructed elements in the grounds such as sculptures, fences, gates and columns.

Some of these experiences are seasonally dependent, such as the flowering of a Jacaranda.

Particular aspects of the grounds which have aesthetic value, and the nature of that value, are provided in the following table.

Table 4.2 Features of Aesthetic Value

Name	Components	Discussion of Value
High Aesthetic Value		
University Avenue/ Main Building Landscape	<ul style="list-style-type: none"> • University Avenue Axis (A1) • University Avenue plantings • Views along University Avenue Axis (V1) • University Place lawns • Lawns and plantings north of the Great Hall 	This extensive formal landscape is centred on the University Avenue axis and focuses on the Main Building (A14) at one terminus. The plantings either side of the avenue help mark the axis and frame the views, and the lawn areas create a grand arrival space with clear views of the dominant east elevation of the building. The dense planting north of University Avenue along the Parramatta Road boundary helps enclose the axis and maintains the sense of insularity of the precinct. The rising land from Victoria Park to the Main Building emphasises the building on the one view and provides an attractive vista down to the park on the other view. The Main Building itself makes a major contribution to this landscape because of its design quality, massing, siting on a ridge, and that it terminates a major vista.
Main Building Quadrangle lawns	<ul style="list-style-type: none"> • Quadrangle lawns • Main Building North/South Axis (A2) 	Although a simple lawn area and pathways, their formal setting enclosed within the grand Main Building (A14) provides a strong aesthetic impression. Again, the Main Building provides a major contribution to this lawn area because of its encircling form, scale and quality of design.
Vice Chancellors Courtyard	Vice Chancellors Courtyard	This enclosed, somewhat intimate garden of mature flowering shrubs contrasts with the large open area of the nearby Quadrangle lawns. It is a very attractive garden arising from these enclosed and intimate qualities, as well as the limited range of mature flowering shrubs, the provision of pathways, sculpture and seating. The encircling wings of the Main Building contribute significantly to the quality of the courtyard.
Trees along boundary of St Paul's oval	Trees along boundary of St Paul's oval (part of the University?)	These large mature trees provide a strong and attractive planted edge to this boundary of the University.
Specimen tree on corner of Fisher and Physics Roads	Specimen tree on corner of Fisher and Physics Roads	This large single specimen tree has some landmark qualities at a road junction otherwise dominated by buildings.
Jacaranda tree in the back of the Edward Ford Building	Jacaranda tree in the back of the Edward Ford Building	This large Jacaranda tree provides a dominant planted element in the courtyard behind several buildings on Physics Road, and is especially attractive when in flower. The view of the tree glimpsed between the two buildings on Physics Road provides a sense of surprise.

Name	Components	Discussion of Value
Hockey Square Landscape	<ul style="list-style-type: none"> • Hockey Square Axis (A4) • View along Hockey Square Axis (V5) • View from terrace adjacent to MacLaurin Hall (part of Main Building (A14)) (V2) • View from Tennis Pavilion (V4) • Azalea and gardenia plantings along Physics Road 	<p>This landscape focuses on Hockey Square and its encircling buildings, and has a number of related features . There is the remnant axis linking the Physics Building (A28) and the Union Refectory (A09A) and the associated view from in front to the Physics Building north across Hockey Square. In addition there are attractive southwesterly views across the square from several vantage points, with the long northern façade of the Physics Building as the backdrop. Finally, there are attractive ornamental shrubs lining Physics Road, these being of particular interest when in bloom.</p> <p>The buildings which enclose Hockey Square make a significant contribution to the landscape as they provide a sense of enclosure. In addition, the long, medium scaled elevation of the Physics Building enhances the landscape through the quality of its design.</p>
Western Avenue/Ovals Landscape	<ul style="list-style-type: none"> • Trees, lawns and shrubs along Western Avenue adjacent to Wesley College (though perhaps strictly outside the core university area • Trees, agapanthus and gardenias along Western Avenue adjacent to Oval 1 • The whole of Ovals 1 and 2 and their encircling tree plantings • Araucarias on Western Avenue next to the Chaplaincy • Wesley College • Views into University Oval No 1 from Western Avenue (V8) • Views into University Oval No 2 from Western Avenue (V9) 	<p>This extended and extensive landscape comprises the elevated, winding, tree lined section of Western Avenue which borders the tree-ringed, sunken ovals. The landscape has a number of appealing qualities including the:</p> <ul style="list-style-type: none"> • winding tree and shrub lined road; • elevated views into the grassed expanse of the ovals, through the trees ringing the oval and with the trees on the far side of the oval as a backdrop; and • the contribution of the grand Wesley College building and plantings to a section of Western Avenue (although the College is not part of the core study area).
Specimen tree at the corner of Western Avenue and Manning Road	Specimen tree at the corner of Western Avenue and Manning Road	A large single specimen tree which has some landmark qualities being located at a road junction.
Old Darlington School Building Landscape	<ul style="list-style-type: none"> • Lawns and trees around the Old School Building • Views towards Old School Building (G15) (V13) • Street trees along the north arm of Maze Crescent 	<p>These lawns and trees are set in a bowl with the Maze Crescent street trees on the high side, and the Old Darlington School Building (G15) is located at its focus. The extensive landscaped area contrasts with the encircling building development and hard finishes in the vicinity. The landscaped area is the largest on the Darlington campus. The aesthetic values relate to these qualities, and to the attractive, sometimes elevated views into and across the area. The street trees add particular interest in spring when they are in blossom.</p> <p>The Old School Building is an attractive feature of</p>

		this landscape both because of its siting at the focus of the landscape as well as the picturesque qualities of its design.
Historic gateposts, gates, fences and walls	<ul style="list-style-type: none"> • University Avenue gates and gatehouse • City Road gates (three sets) and gatehouse • Ross Street gates • Institute Building site fence, gates and wall • Old School Building gates • Victoria Park fence 	These historic features have several heritage values including an aesthetic value. Some of them are quite ornate involving carved sandstone and wrought iron decoration. In addition, all of these historic features contribute a feeling of the history of the grounds, and the ornate features impart a sense of the grandeur of former times.
Science Road Landscape	<ul style="list-style-type: none"> • Trees, shrubs and lawns and supporting walls along Science Road • Science Road Axis (A7) • Views along Science Road Axis (V11) • Science Road Buildings 	The Science Road Landscape is a complex feature of buildings, gardens and lawns arranged along the sloping length of the road. Its appealing qualities relate to the: <ul style="list-style-type: none"> • rising/falling nature of the road; • range of mature plantings and shrubs along its length, some of which provide seasonal colour; • varied urban form created by the way many of the buildings address the road at an angle; and • the design quality and scale of the buildings.
Medium Aesthetic Value		
Eastern Avenue Landscape	<ul style="list-style-type: none"> • Eastern Avenue plantings • Eastern Avenue Axis (A3) • Views along Eastern Avenue Axis (V3) 	This landscape has some appealing qualities as a long rising/falling road which is lined with trees. It also provides a view towards University Place.
Lawns and plantings south of the Carslaw Building	Lawns and plantings south of the Carslaw Building	This is an attractive garden area comprising mature trees, flowering shrubs and lawns.
Plantings along Fisher Road in front of Edward Ford Building	Plantings along Fisher Road in front of Edward Ford Building	This is an attractive garden area comprising mature trees and shrubs set on a steeply sloping site between the road and the building.
Trees in the chemistry courtyard	Trees in the chemistry courtyard	This stand of mature trees provides an attractive quality to the otherwise hard surfaces of this courtyard.
Western Avenue Landscape between Carillon Avenue and the laneway to the parking station	<ul style="list-style-type: none"> • Lawns, trees and shrubs along Western Avenue between Carillon Avenue and the laneway to the parking station • Western Avenue Axis (A5) • Views along Western Avenue Axis (V6) 	This landscape features attractive camellia hedge plantings along the west side of the road for an extended length from Carillon Avenue, along with mature, though discontinuous, tree plantings on both sides.
Tree bordered lawn south of Bosch Building 1A	Tree bordered lawn south of Bosch Building 1A	This area has some appeal because of the mature trees which encircle a lawn.
Blackburn Building Landscape	<ul style="list-style-type: none"> • Trees and grass in front of the Blackburn Building • Blackburn Building Axis (A6) • View along Blackburn Building (D06) Axis (V7) 	This area has some appeal because of the mature trees and lawn/grass area which are set on the Blackburn Building (D06) axis. The Blackburn Building closes the vista through the landscape.

Name	Components	Discussion of Value
Plantings to the east of the Teachers College	Plantings to the east of the Teachers College	This is an attractive garden area with some mature trees.
Lawn and trees around the Round House	Lawn and trees around the Round House	This area has some appeal because of the mature trees and lawn, encircled by buildings which provide a sense of enclosure, and with the Round House (B11) providing a focus.
Trees and lawn north of McMaster Building	Trees and lawn north of McMaster Building	These mature trees and lawn have an appealing quality and relate to the north-south axis of the McMaster Building (B14).
Trees north of the Incinerator	Trees north of the Incinerator	This is a stand of attractive mature trees.
Plantings west of the H K Ward Gym	Plantings west of the H K Ward Gym	This garden area has some appealing qualities.
Trees in front court of the Seymour Centre	Trees in front court of the Seymour Centre	The stand of trees in the front court provide an attractive entry to the Seymour Centre (J09) in contrast to the otherwise hard surfaces of the court.
Melaleucas in lane to the east of the centre	Melaleucas in lane to the east of the centre	These Melaleucas are impressive for their size and are an appealing contrasting/unusual planted feature.
Casuarinas to south of the Wilkinson Building	Casuarinas to south of the Wilkinson Building	This is an attractive stand of mature Casuarinas.
Poplars behind the Art Workshop	Poplars behind the Art Workshop	These mature Poplars have some appeal given their size and form.
Vestigial street trees along Darlington Road	Vestigial street trees along Darlington Road	These remnant mature street trees provide are appealing through their softening of the otherwise built form of the street.
Plantings in front of the Institute Building	Plantings in front of the Institute Building	These are attractive mature trees and shrubs which combine with the boundary fence and Institute Building (H03) to establish and overall landscape with some aesthetic appeal.
Park at the north end of the Mills Building	Park at the north end of the Mills Building	This is an attractive small park featuring mature trees, lawn and a memorial seat.
J D Stewart Building Landscape	<ul style="list-style-type: none"> • J D Stewart Building Axis (A8) • View along J D Stewart Building Axis (V12) 	This small landscape has some appeal deriving from the axial approach and vista towards the J D Stewart Building (B01) from Western Avenue. The design quality of the building contributes to this appeal.
Manning Road Vista	Manning Road Vista (V10)	This is an attractive view from the western end of Manning Road towards the elevated western end of MacLaurin Hall (part of the Main Building (A14)).

4.4 SCIENTIFIC VALUE

The State Heritage Register criterion for Scientific value is that the place is:

an item [which] has potential to yield information that will contribute to an understanding of NSW's cultural or natural history.

Scientific value may arise because physical evidence exists at a place:

- that can provide information not available from other source (such as historical documents);
- that can provide information not available from any other place; or
- that can provide information in either of the above categories that is believed to be important in answering worthwhile questions. (see Bickford & Sullivan 1984)

The physical evidence having scientific significance might exist as artefacts, building components or environmental information that have been buried (ie archaeological sites), or in some cases might be part of standing structures, though this is generally the case only where buildings are poorly supported by plan and written evidence and unusual aspects of a place's construction, materials or contents are suspected to exist.

In the University of Sydney grounds, scientific value is most likely to be found in the archaeological potential of particular areas. 'Archaeological potential' refers to the likelihood of a site containing meaningful archaeological relics and information. On the campus the potential exists for relics of the European settlement period, and to a lesser extent of Aboriginal occupation of the area. Aboriginal archaeological relics are protected under a number of Acts, discussed at Appendix B, and post-colonisation relics older than 50 years by the *Heritage Act 1977*.

The assessment of archaeological potential is based on an understanding of the land use history of the site or area. The presence of an earlier use on a site likely to result in relics can, in many cases, be determined from the historical record, or in the case of Aboriginal sites, predicted from knowledge of land use activities in the general area ('predictive modelling'). The probability of such relics surviving is in large part influenced by the nature of subsequent redevelopment or disturbance of the site. Sites with intensive or multiple phases of building, demolition and rebuilding, or sites with substantial excavation or soil disturbance, are not likely to contain undisturbed archaeological deposits or relics.

Aboriginal Archaeological Potential

The review of historical documents and reconstruction of environmental conditions prior to 1788 suggest the University grounds would have been land on which hunting land animals and gathering plants for food and raw materials would have taken place, and possibly the collection of silcrete for stone implements. (see 3.2 above)

However, the plant and animal resources in the University grounds were probably less abundant than those that occurred in the surrounding estuaries and bays, along the sandstone foreshores and gullies to the north, and the sandhill country to the east. It is therefore unlikely that major campsites would have been established in the area, such places being focussed most probably around the foreshores of Port Jackson and Botany Bay, along the coastline, and adjacent to the lower reaches of creek-lines with more permanent water sources than were likely to have occurred in the ridge-top forests. In addition, the lack of sandstone bedrock means there are no rockshelters (a common focus for habitation in the region) or rock platforms on which engraved figures and grinding grooves were produced.

Hunting and gathering activities in the forests could have been undertaken during day trips out from base camps along the coast and estuarine shorelines, and there probably would have been hunting and butchering sites, and possibly silcrete 'quarry' sites in the area. If overnight camps were made within the area (associated with the foregoing activities, or even by people passing through the countryside) they are more likely to have been located on well-drained ground adjacent to water sources – i.e. around the swampy areas and along creek-lines. Hunting and gathering sites, however, could have been anywhere within the University grounds, and the possible silcrete 'quarries' would depend if and where Tertiary palaeo-channels occur.

It is unlikely that stone implement manufacturing would have been undertaken at campsites in these situations or at hunting/butchering sites, although tool maintenance may have occurred. Thus, flaked or ground artefacts may be present, but only in small numbers. If reasonable quality silcrete was available and accessible, primary working areas, to test the cobbles and boulders or break them into portable pieces, could be represented by larger numbers of artefacts. However, this would depend on the size and nature of the silcrete bodies, if present. As such, the archaeological representation of any sites associated with the foregoing activities would be small in scale. Any materials to survive would probably consist of sparse scatters or isolated specimens of stone artefacts.

Because of the developments that have occurred over the past 200 years, it is very unlikely that many, if any, undisturbed Aboriginal archaeological sites exist within the University grounds. Even areas where potential archaeological deposits may occur have been disturbed to varying degrees. Such disturbances include the initial clearing of the forest vegetation; early colonial farming activities with vegetable gardens and animal husbandry, as well as the building water retaining systems along the creeks, farm buildings and convict barracks in the present St Johns sports field area (see Appendix A history). Since 1850, there has been the on-going construction works associated with development and expansion of the University. Potential areas along the Orphan School Creek tributaries have been sculpted or thickly covered with spoil to create the current sports ovals and Hockey Square. Though there is potential for undisturbed sub-surface deposits to exist between the footings of demolished and extant buildings in the Darlington campus, if present they will be discontinuous and small in area.

Because of these factors, the probability of finding any Aboriginal sites or artefacts is low, and, although some undisturbed buried archaeological deposits may exist, such as near the Orphan School Creek on the eastern side of what is now St John's College sports fields, and the grounds of the former Darlington School and surrounding former residential area, such as the Darlington Road terraces, the probability of finding any undisturbed archaeological deposits is low. On these grounds, the scientific/archaeological significance of areas identified as archaeologically sensitive (potential archaeological deposits) is considered to be low.

Historical Archaeological Potential

The potential for important archaeological evidence of the post-European settlement period is discussed at 3.2 above, with 10 areas of potential identified. While the potential exists at these sites, and probably at a number of sites of former buildings now overlaid by standing buildings, there are no sites identified that have high potential for archaeological (scientific) significance.

Table 4.3 Features of Scientific Value

Name	Components	Discussion of Value
Medium-low Scientific Value		
St John's College sports ground/ Veterinary Sciences faculty area	<ul style="list-style-type: none"> • potential for Aboriginal sites • site of the 1840s convict road gang stockade and garden west of Orphan School Creek 	<ul style="list-style-type: none"> • a somewhat disturbed former creek environment with a relatively low likelihood of archaeological evidence surviving. • however, there is a slight potential for intact archaeological remains of a place-type being actively researched (convict work sites), giving medium to low archaeological research potential to the site;
Site of the 1898 Messenger's Lodge	<ul style="list-style-type: none"> • City Road, Victoria Park 	<ul style="list-style-type: none"> • Lodge removed in 1940. 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 scientific value.
Darlington School area	<ul style="list-style-type: none"> • Darlington School, • Town Hall, • terraces site • Aboriginal sites 	<ul style="list-style-type: none"> • area not yet developed by the University. This area has a moderate to high level of disturbance, and has moderate to low historical archaeological potential. It also has a low potential for Aboriginal sites.
Area between Maze Crescent and City Road	<ul style="list-style-type: none"> • Housing and commercial building sites 	<ul style="list-style-type: none"> • not yet intensively redeveloped by the University. Has moderate-low archaeological research potential.
Areas west of Codrington Street	<ul style="list-style-type: none"> • site of former terrace housing • possible Aboriginal evidence in less disturbed areas. 	<ul style="list-style-type: none"> • previously assessed by Casey and Lowe (nd), The area has moderate to low archaeological research potential.
Cleveland Street, north-east of the Seymour Centre	<ul style="list-style-type: none"> • Possible housing site 	<ul style="list-style-type: none"> • The site has not been investigated, but may have moderate-low archaeological research potential.
Low scientific value		
Main Quadrangle	<ul style="list-style-type: none"> • Site of the Women's Common Room 	<ul style="list-style-type: none"> • was located in what is now the Quadrangle from the 1890s to about 1917. • has low archaeological research potential.
Parramatta Road gate house site	<ul style="list-style-type: none"> • lodge site 	<ul style="list-style-type: none"> • 1870s gatehouse, now demolished. Potential for early study of university staff conditions. • This site was very close to Parramatta road, and is likely to have been destroyed by road widening and footpath construction, so its archaeological research potential is low or nil.
Toll gate sites	<ul style="list-style-type: none"> • Parramatta Road, opposite Glebe Point Rd • City Road, cnr Darlington Road 	<ul style="list-style-type: none"> • The nature and detailed location of these sites has not yet been identified, though as both were very close to the roadways, they are likely to have been destroyed by road widening and footpath construction, so their archaeological research potential is low or nil.

4.5 SOCIAL VALUE

The criteria used by the NSW Heritage Council to assess social value is as follows,

an item [such as a site or building] has strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons.

Such assessments usually pay regard to the length of an association and the strength or depth of the association. After a period of years, for example 25 years, social value takes on qualities of historic value and this transformation can continue.

The University has a range of affiliated communities and cultural groups including:

- staff, current and former, academic and administration/support;
- students, current and former, residential and not; and
- nearby residents.

Given the large number of people associated with these communities and groups, and the limited project resources, the research into social value represents an initial attempt to define the nature and extent of such value related to the University grounds. Suggestions for further research are made elsewhere in this report.

The research found that the University grounds do have substantial social values for a range of the affiliated communities and groups. These values are attached to the whole of the University, each of the campuses, as well as smaller precincts, vistas, buildings and features in the grounds of both the Camperdown and Darlington campuses. The values are summarised in the following table, and are drawn from the evidence presented elsewhere in this report.

It is highly likely there are other components of the grounds which have social value, and further research is required to identify these.

Table 4.4 Places of Social Value in the University Grounds

UoS facilities reference	Place	Discussion of Social Value
-	University of Sydney, Camperdown campus	Strong association for current and former staff and students because of the feeling of the University being an island in the city
-	University of Sydney, Darlington campus	Strong association for nearby residents because of concern at the expansion of the University into the surrounding suburbs, including the treatment of residents and heritage
-	University of Sydney, both campuses?	Strong association for nearby residents because of: <ul style="list-style-type: none"> • recreational use of the grounds by both children and adults • a perception of the University being separate, and not part of the residential suburbs • a positive attitude to the University run social club, the Settlement, which was operated by the University for nearby residents
-	Eastern Avenue lawns	Strong association for current and former staff and students because of remnant green space and recreational use
-	Sandstone fencing and gates along City Road	Strong association for a broad range of people because of the experience of walking along fence
A14	Quad/Main Building/University Place, including Jacaranda Tree and Vice Chancellor's Garden	Strong associations for a variety of communities and groups because of: <ul style="list-style-type: none"> • sense of history/link to the past • location of exam results being posted • student protests • recreational use • aesthetic value • regarding the Jacaranda tree, as indicator of the passage of

		time related especially to the University calendar
Part of A14	Great Hall	Strong association for current and former students because of location of exams
Part of A14	MacLaurin Hall	Strong association for current and former students because of location of exams
-	View down University Avenue axis to Victoria Park	Strong association for a broad range of people because of the nice view/aesthetics
-	Botany lawn (adjacent to the Great Hall)	Strong association for a broad range of people because of aesthetic qualities and recreational use
-	Bass sculpture and plantings at main entrance	Strong association for current and former staff and students because of aesthetic value
-	Science Road precinct	Strong association for a broad range of people because of historic and aesthetic qualities
A15-16?	Tunnel	Strong association for current and former staff and students because of posters and graffiti which provided current information
A23	Manning House	Strong association for current and former students because of socialising, including the bar
A24	Squash courts	Strong association for squash club members because of longstanding recreational/sporting use
Tennis courts and A25	Tennis courts and pavilion	Strong association for tennis club members because of longstanding recreational/sporting use
G15	Fig trees, Post Office/Old Darlington School	Strong association for current and former staff and students because of aesthetic qualities and recreational use
Ovals No.1 and 2, probably including D1, also Sports Lane	Ovals No.1 and 2 (possibly including the Bruce Williams Pavilion (D1))	Strong associations: <ul style="list-style-type: none"> • especially for the 7 clubs/sports and their members/players which currently use the ovals; • for the Colleges who use the grounds, especially for the Rawson Cup; • possibly for schools from the surrounding suburbs who use the ovals for sports carnivals and there is a schools sports program run by the SUSU • probably for residents from nearby suburbs who use the ovals for a variety of recreational activities everyday and throughout the day