

ANALYSIS AND ASSESSMENT OF GARDEN COMPONENTS AND COLLECTIONS



4.0 ANALYSIS AND ASSESSMENT OF GARDEN COMPONENTS AND COLLECTIONS

4.1 MOUNT LOFTY BOTANIC GARDEN

4.1.0 Introduction

The main public face to the Mount Lofty Botanic Garden lies in its rolling autumnal landscape character that typifies many of the characteristics of private gardens in the Adelaide Hills. There are five main garden components to the Mount Lofty Botanic Garden, and two subsidiary garden components. Unusually for botanic gardens one normally dissects the place into clearly defined precincts according to the individual species and genera characteristics of the living collection on display. But Mount Lofty Botanic Garden has different management issues and living collection strategies. This is perhaps accentuated by and underpinned in the original landscape design master plan as devised by Correy.

Accordingly, the Garden has been divided in this Conservation Study into five broad spaces that reflect the level and nature of development and character rather than by botanical characteristics. This approach enables a more cohesive landscape conservation analysis and assessment, and thereupon evolution of conservation management policies.

4.1.1 Exotic Landscape – Lower

This component encompasses the lower reaches of the Garden, below the forested slopes, where gullies have been extensively planted with exotic flowering shrubs, trees and groundcovers, as well as arboretum-like areas full of northern hemisphere tree specimens.

Key historical development phases are:

1863: Frederick Lampert acquires most the lower reaches of the Garden, and commences developing a market garden. In time he owned some 17.8 hectares, with a two-room stone house, a four-room *pisé* house, and about 3.2 hectares of market gardens.

The land is undulating, and of a lighter character than that on the flat or old swamp. The system of irrigation employed is extensive, and the perfecting of it has in the past entailed a considerable amount of time and money. One the rise leading up to the road these are several springs running from beneath a growth of bracken and timber.

Curtis family also commences market gardening and orchard activities on the lower reaches of the Garden.

1900-20: Eucalypt forest extensively clear felled, under Thomas Backhouse ownership, to provide timber for the Broken Hill Mines.

1937: LG Bonython acquires the Lampert land holdings and commences market gardening operations, including the construction of a small water storage dam and aqueduct

1948: Lothian first proposes the scenario of a Hills botanic garden

1952: Backhouse estate property comes onto the market, and the state acquires 43.35ha for the purposes of a botanic garden annexe. Rankings of cultural significance

1958: SW Mason is appointed as first ‘Gardener-in-Charge’

1959-60: Specimens obtained from gardens in the path of the proposed South Eastern Freeway

1961: Additional land acquired from LG Bonython and transferred to the Garden. The engagement of a landscape architect to prepare a Master Plan proposed and landscape architect Allan Correy appointed

1962: Commencement of plantings of *Camellia* and *Rhododendron* species in the *Rhododendron* Gully

1963: Nursery No 3 established. *Mt Lofty Annex Interim Master Plan* prepared by Correy, including a recommendation to change the nomenclature of the Garden from Mt Lofty Annex to Mt Lofty Botanic Garden

1964-65: Commencement of large-scale plantings of *Rhododendron*, *Camellia*, *Ulmus*, *Quercus*, *Fraxinus* and *Populus* species in the south-western areas of the Garden

1965: Correy tables his 'Report on the Proposed Development for Mount Lofty Botanic Garden' to the Board

1966: Newly appointed landscape architect, Mick Field, suggests the merits of acquisition of Mitchell's and Bonython lands because of their potential as venues for arboreus species. Large plantings of *Rhododendrons* occur including extensive clearance of the Gully and slopes of Third Creek. Allan Correy Drive under construction

1968: Tarn Hill cleared and plantings commenced, Nursery No 3 closed, and an extensive planting of arboreus specimens occurs around and below the original dam

1970: Extensive plantings of *Rhododendron*, *Camellia*, *Narcissus* and *Azalea* cultivars and species in progress. Fourth Creek valley cleared

1972: Lower car park first constructed

1974: Nurseries No 2 and 3 dismantled

1975: Fifth Creek gully cleared for an alpine and rock garden

1976: Sixth Creek gully cleared and plantings of *Ulmus* commence

1977: Opening of the Garden, and extensive construction works of public facilities including car parks, toilets commence in time for the opening

1979: Mitchell's land acquired

1981: Additional clear-felling works undertaken in Sixth Creek gully to enable plantings of the Fern Gully collection

1982: Duck Pond modified and planted in *Nymphaea* spp as a 'deliberate feature' in the aesthetic landscape of the Garden

1983: Ash Wednesday Fire, 16 February, sweeps westward across the Garden extensively burning most of the Australian forest, and extensively burning and damaging much of the exotic plant specimens including those in the gullies. Extensive replanting of exotic specimens including *Rhododendron*, *Camellia*, *Acer*, *Quercus*, *Platanus*, *Betula*, *Liquidamber* spp, 'so that belts of fire retardant trees can be planted at selected sites in the garden in an endeavour to prevent another fire as damaging as the one experienced in February', and Ferns undertaken

1988: Japanese Flowering Cherry grove planted. South American gully clearfelling and planting commences. Tarn Hill dam site re-structured into an enlarged *Narcissus* spp garden

1992: Renovation of the lower car park

1999: Renovation and extension of the lower carpark by Taylor & Cullity. Additional public facility renovation and construction works also undertaken

Figures 4.2 and 4.3:

Left: Exotic Landscape – Lower depicting a view from the Arboretum towards the telecommunication towers on Mt Lofty.
Right: Open woodland forest in the Arboretum.



Figures 4.4 and 4.5:

Left: View from the Arboretum lawns southwards to the Upper Car Park in winter.
Right: Fern Gully scene.



Figures 4.6 and 4.7:

Left: Narcissus Garden and vista eastwards.

Right: Syringa Gully landscape

**Figure 4.8:**

Left: Viburnum Gully scene in winter.



The Lower Exotic Landscape component has generally been the main public experience and face to the Garden since its opening in 1977. In contrast it was the upper exotic landscape that Lothian sought to first plant the foundational areas of the Garden. Notwithstanding this, the lower reaches are the most visited, most colourful in terms of autumnal colours and flowers, and is the landscape most accessible to public access and circulation through the Garden. It includes several gullies planted extensively with collections of ferns, *Rhododendron* cv and *Azalea* cv, bog garden plants, as well as expansive rolling slopes and vales that host a wider collection of generally northern hemisphere exotic deciduous and evergreen trees and shrubs including *Magnoliaceae* ssp, *Acer* ssp, *Prunus* ssp. While the majority of the northern hemisphere evergreens are in the Upper Exotic Landscape a smattering of these species also exist in the Lower Exotic Landscape including the deciduous varieties of this genera.

Interspersed within this landscape are accent plantings, indiscriminately located but sited in a way complimentary to the overall American Romantic visual composition of the Lower Exotic Landscape. There is also an extensive arboretum of deciduous trees established below the dam embankment on the former market garden soils. The *Magnoliaceae* ssp valley and the *Acer* ssp hill flank are significant collections coincidentally located on visually prominent locations in the Lower Exotic Landscape.

Stylistically, the Lower Exotic Landscape possesses a basic Gardenesque character. But this character is very much tempered by an American Romantic design philosophy in most areas and a typical horticultural representation of a northern hemisphere arboretum-style landscape in several precincts. Tracts of the former capture similar characteristics are contained in Central Park, Chicago Botanic Garden, Sydney Botanic Garden, many of the royal parks in London, but without the topographical setting and vista opportunities. Tracts of the latter are typical of the landscape character at Kew Gardens, Arnold Arboretum, Botanic Park in Adelaide, and Hagley Park in Christchurch, and similar places, but without the topographical setting and vista opportunities. The richness of these styles are united by virtue of the setting, the visual amphitheatre embrace of the Main Lake and the vista outwards over the upper Piccadilly Valley, and the consistent visual diversity of tree form, foliage, colour. The circulation system, embedded in the original landscape design, moves visitors through places of distinct vegetation families and displays but at the same time presents visual panoramas of this vegetation and the overall landscape.

Edges internally with the planting precincts of the Lower Exotic Landscape are more often difficult to discern as the vegetation often merges rather than having distinct breaks. The Allan

Correy Drive often serves as a physical edge between garden precincts. The most distinctive breaks are between the Lower Exotic Landscape and the Australian Forest Landscape where the former presents a green, cool, well-watered, dappled lit open to closed forest, the latter presents a semi-dry typical Australian sclerophyll forest with little understorey and a dry and warm littered forest floor.

There is historical, scientific and aesthetic significance in the Lower Exotic Landscape reflective of the Correy master plan, the deliberate planting philosophy applied and concentration of species planted in distinct locations. There is little technological significance.

Rankings of cultural significance

Exceptional cultural significance

- The Lower Exotic Landscape possesses significant collections of ferns, *Rhododendron* cv and *Magnoliaceae* spp of national significance in terms of representativeness

High cultural significance

- Significant landscape design merit as a master plan scheme that has been substantially implemented *albeit* changes in the water systems
- Strong visual characteristics and significant visual outlooks and vistas integrated within the design and overall landscape
- Significant botanical collections, of horticultural and scientific merit

Contributory cultural significance

- Significant visual setting and location in the upper reaches of the Piccadilly Valley, and the ability to be looked down-upon from several publicly accessible points around the Valley and Ranges

Intrusive

- Building and activity development in adjacent private allotments within the visual catchment of the Garden
- Unsympathetic entry approach road from Piccadilly Valley Road into the Garden
- Audible distractions from adjacent private properties and associative audible echoes drawn into the Garden's catchment due to wind movements
- Lack of clarity as to plant communities and their interpretive opportunities as sited and serviced presently
- Views of infrastructure and maintenance structures and nurseries

Alteration or loss which has jeopardised cultural significance

- Maturation of vegetation that has lessened vistas within and outwards from the Garden

4.1.2 Exotic landscape - Upper

This component encompasses the upper reaches of the Garden, above the forested slopes, where several areas of exotic trees and shrubs, including the David Thomson conifer collection, have been established.

Key historical development phases are:

1855: Mt Lofty House constructed and garden commenced development under Arthur Hardy

1863: Mt Lofty House becomes a permanent residence for the Hardy family

1867: Mt Lofty House sold to Alfred Watts

1900-20: Eucalypt forest extensively clear felled, under Thomas Backhouse ownership, to provide timber for the Broken Hill Mines. Timber also felled by the Kanmantoo Copper Mine to service their timber needs.

1939: Ethel & Felix Barton propose the gift of the former Mt Lofty House 'walnut paddock' to the state as part of the 1938 Crafers Centenary celebrations, and to be named in honour of her father, Arthur Hardy

1940: Arthur Hardy Sanctuary Reserve proclaimed

1948: Lothian first proposes the scenario of a Hills botanic garden

1952: Backhouse estate property comes onto the market, and the state acquires 43.35ha for the purposes of a botanic garden annexe. The Tourist Bureau also acquires 1.58ha comprising Somerset Rocks

1953: Somerset Rocks National Pleasure Resort proclaimed

1958: First clear-felling commence in the Garden along the southern boundary, and SW Mason is appointed as first 'Gardener-in-Charge'.

1959: Extensive firebreak cleared along the southern boundary and the first planting activities—of *Pinus* sp.--commence

1959-60: Specimens obtained from gardens in the path of the proposed South Eastern Freeway

1961: 'Regional Headquarters' sheds, workshops and office erected. The engagement of a landscape architect to prepare a Master Plan proposed and landscape architect Allan Correy appointed

1963: *Mt Lofty Annex Interim Master Plan* prepared by Correy including a recommendation to change the nomenclature of the Garden from Mt Lofty Annex to Mt Lofty Botanic Garden. Additional water storage tanks erected. Rocky Ridge Road construction commenced.

1965: Correy tables his 'Report on the Proposed Development for Mount Lofty Botanic Garden' to the Board. Arthur Hardy Sanctuary severely burnt in a bushfire, and strategic vegetation and weed clearance works commence

1966: Severe bushfire damage of western Mt Lofty slopes, but only sporadic ember damage to the Garden

1969: Construction of Allan Correy Drive and Rocky Ridge Road surfaced

1970: Extensive plantings of *Rhododendron*, *Camellia*, *Narcissus* and *Azalea* cultivars and species in progress

1972: Upper car park first constructed

1973: Arthur Hardy Sanctuary transferred to the Board, and the Crafers Quarry acquired

1975: Commencement of quarry rehabilitation works with funds from the Extractive Industries Rehabilitation Fund

1976: David Thomson dwarf conifer collection donated to the Garden, and transferrals and plantings commence

1977: Opening of the Garden, and extensive construction works of public facilities including car parks, toilets commence in time for the opening

1981: Lothian Lookout named and opened

1983: Ash Wednesday Fire, 16 February, sweeps westward across the Garden extensively burning most of the Australian forest, and extensively burning and damaging much of the exotic plant specimens including those in the gullies. Ash Wednesday fires destroy Mt Lofty House

1986: Quarry rehabilitation and planting works commence

1989: *Arthur Hardy Sanctuary (Alteration of Boundary) Act* 1989 gazetted to enable the extension and enlargement of the upper car park

1992: Renovation of the Upper car park

1999: Renovation of the Upper car park by Taylor & Cullity. Additional public facility renovation and construction works also undertaken

Figures 4.9 and 4.10:

Left: View across the Thomson dwarf conifer collection.
Right: View across the quarry garden.



Figures 4.11 and 4.12:

Left: View through the New Zealand garden.
 Right: View through the New Zealand Gully towards Mt Lofty.



The Upper Exotic Landscape component has generally been less accessible and used by the public since the Garden was opened in 1977. This is despite Lothian's initial thoughts that access points should be from the upper reaches into the Garden thus resulting in initial road access construction and infrastructure works. It was also the upper exotic landscape that Lothian sought to first plant the foundational areas of the Garden. Notwithstanding this, the upper reaches are probably the least realised sections of the Garden, that offer sweeping views down over much of the Lower Exotic Landscape, down through gullies, and upwards to points in the Mount Lofty Range and across Piccadilly Valley. Many of these points, recognised in Correy's 'Report on the Proposed Development for Mount Lofty Botanic Garden' and captured in original planting strategies, have been subsumed in the maturation of exotic vegetation and the advance of the Australian Forest Landscape. Contained within this Forest Landscape is the conifer and evergreen collections including the David Thomson dwarf conifer collection, the Texas Landscape collections, old pockets of introduced Australian forest trees as planted under Lothian's direction, and the North American woodlands.

There are no accent plantings within this Landscape, no deliberately contrived planting configurations, or a cohesive planting style. In parts the American Romantic landscape design style prevails, but in other portions the arrangements are unstructured and have no design intent or philosophy.

Stylistically, the Upper Exotic Landscape possesses an abstract Gardenesque character. It exists in part but is extensively diluted by its fragmented character, the maturation of the often intruding Australian Forest Landscape, and the lack of viewpoints and vistas that enable orientation and botanical delight. Understandably this character is tempered by an American Romantic design philosophy embedded in the Correy Master Plan but it is perhaps the weakest area where this philosophy has been implemented. The circulation system, embedded in the original landscape design, moves visitors through places of distinct vegetation families and displays but lacks in most instances visual panoramas of this vegetation and the overall landscape.

Edges internally with the planting precincts of the Upper Exotic Landscape are difficult to discern as the vegetation often merges rather than having distinct breaks. The most distinctive breaks are between the Upper Exotic Landscape and the Australian Forest Landscape where the former presents a green, cool, well-watered, dappled lit open to closed forest, the latter presents a semi-dry typical Australian sclerophyll forest with little understorey and a dry and warm littered forest floor.

There is historical, scientific and aesthetic significance in the Upper Exotic Landscape reflective of the Correy master plan, the deliberate planting philosophy applied and concentration of species planted in distinct locations. There is little technological significance.

Rankings of cultural significance

Exceptional cultural significance

- The Upper Exotic Landscape possesses significant collections of conifers of national significance in terms of representativeness

High cultural significance

- Significant landscape design merit as a master plan scheme that has been substantially implemented *albeit* changes in the water systems
- Significant botanical collections, of horticultural and scientific merit

Contributory cultural significance

- Contributory visual characteristics and significant visual outlooks and vistas integrated within the design and overall landscape
- Significant visual setting and location in the upper reaches of the Piccadilly Valley, and the ability to be looked down-upon from several publicly accessible points around the Valley and Ranges

Intrusive

- Building and activity development in adjacent private allotments within the visual catchment of the Garden and adjacent to the Upper Exotic Landscape
- Audible distractions from adjacent private properties and associative audible echoes drawn into the Garden's catchment due to wind movements
- Lack of clarity as to plant communities and their interpretive opportunities as sited and serviced presently
- Visual character of the upper car park design
- Views of infrastructure and maintenance structures and nurseries

Alteration or loss which has jeopardised cultural significance

- Maturation of vegetation that has lessened vistas within and outwards from the Garden

4.1.3 Australian forest

This component encompasses the middle and upper reaches and flanks of the escarpment that envelope the Garden. It includes the middle reaches of Australian forest, along ridgelines, that separate the lower and upper exotic garden landscapes, together with tracts of Australian forest on the upper reaches surrounding the former quarry, along the Mount Lofty ridgeline and on the former Mitchell's land. It is a component principally of secondary regrowth dry sclerophyll Australian forest native to the eastern slopes of the Mount Lofty Ranges.

Key historical development phases are:

1889: Mt Lofty Park Silver-Lead Mine (later Adelaide Hill Syndicate Silver Lead Mine) operations in progress

1900-20: Eucalypt forest extensively clear felled, under Thomas Backhouse ownership, to provide timber for the Broken Hill Mines.

1962: Somerset Rocks draft Master Plan prepared by Correy

1965: Correy tables his 'Report on the Proposed Development for Mount Lofty Botanic Garden' to the Board, proposing the retention of much of the secondary regrowth Australian forest as 'fingers' to lace the overall design

1966: Severe bushfire damage of western Mt Lofty slopes, but only sporadic ember damage to the Garden. Allan Correy Drive under construction

1969: Construction of Allan Correy Drive and Rocky Ridge Road surfaced

1983: Ash Wednesday Fire, 16 February, sweeps westward across the Garden extensively burning most of the Australian forest, and extensively burning and damaging much of the exotic plant specimens including those in the gullies. Extensive tree clearance works thereafter

1985: Mine adits blasted and filled

1998: State Bank Nature Trail announced

1999: Somerset Rocks allotment proposed for sale, but refused by state government on biodiversity reasons

Figure 4.13

*Photograph of the
Australian forest by Noel
Lothian in 1977. Source:
Noel Lothian*

**Figure 4.14**

*Photograph by Noel
Lothian in 1977 of the
Australian forest looking
from the farmlands in
Piccadilly Valley. Source:
Noel Lothian.*



The Australian Forest Landscape exists as an important element in the overall landscape design of Mount Lofty Botanic Garden. It is the visual uniting elements that draws out legibility for the overall design and enables a strong visual backdrop and envelope to the site. Initially Lothian perceived little merit in the vegetation, representing secondary regrowth as a consequence of past timber felling, mining and firing events; to him it was considered a minor attribute of the botanic garden annex. In contrast, to Correy it was a major feature of the new botanic garden as it captured a precinct of mature indigenous vegetation. It had, thereby, the unusual quality of substantially representing the original vegetation community of the wetter eastern slopes of the Mount Lofty Ranges. Correy saw the merits of retaining and incorporating this vegetation community into the Garden in terms of its representativeness as well as the design possibilities that it offered in uniting the overall landscape design.

Figures 4.15 and 4.16:

Left: View of the Australian forest from the New Zealand Gully. Right: Roadscape in the Australian Forest landscape.



In many respects the Australian Forest Landscape is the least exploited in terms of interpreting its botanical and scientific properties and qualities. The Landscape includes precincts of dry sclerophyll forest, wet gullies and precincts of relatively wet sclerophyll forest. Stylistically it is an excellent representative of the Mount Lofty Ranges forested landscape, and has historically been used in the Garden to cloak internal ridgelines, watercourses and to hide infrastructure.

The most distinctive edge breaks are between the Upper and Lower Exotic Landscapes and the Australian Forest Landscape where the former presents a green, cool, well-watered, dappled lit open to closed forest, the latter presents a semi-dry typical Australian sclerophyll forest with little understorey and a dry and warm littered forest floor.

There is historical and scientific significance in the Australian Forest Landscape reflective of the Correy master plan. There is little technological or aesthetic significance.

Rankings of cultural significance

High cultural significance

- Significant landscape design merit as a master plan scheme component that has been substantially implemented *albeit* changes in the water systems
- Significant large representative tract of secondary regrowth stringybark dry sclerophyll forest of the Mount Lofty Ranges

Contributory cultural significance

- Significant botanical collections, of scientific merit
- Significant indigenous ecosystem that has evolved with its contemporary historical conservation resulting in a diverse terrestrial and avifauna community seeking habitat residency in the forests
- Contributory visual characteristics and visual outlooks and vistas integrated within the design and overall landscape
- Contributory visual setting

Intrusive

- Audible and visual distractions from adjacent private properties
- Lack of clarity as to plant communities and their interpretive opportunities as sited and serviced presently
- Views of internal infrastructure and maintenance structures and nurseries

Alteration or loss which has jeopardised cultural significance

- Maturation of vegetation that has lessened vistas within and outwards from the Garden as originally conceived by Correy, but not lessening overall views gained from the Garden outwards

4.1.4 Water systems and lakes

This component encompasses the main water storage lake together with a series of small dams, lakes and pondages and springs scattered around the wider Garden. These are spaces that are primarily water bodies but may possess aquatic plants and environments.

Key historical development phases are:

1863: Frederick Lampert commences constructing a water reticulation system to service his market gardening operations.

The system of irrigation employed is extensive ... On the rise leading up to the road there are several springs running from beneath a growth of bracken and timber. The opening up of some of these served to supply the original portion of the garden and the homestead, water being conveyed by means of iron piping. On the extension of cultivation of the southern slopes an increased supply was necessary, and a more extensive opening up of the springs was resorted to ... At the lower end of the tunneling are two curved dams or reservoirs, 9 feet (2.7m) wide and 132 feet (40.2m) long, and from them the water is conveyed in open trenches to plots on both sides of the reservoirs.

1937: LG Bonython acquires the Lampert land holdings and commences market gardening operations, including the construction of a small water storage dam and aqueduct

1960: Spring Dam embankment increased and strengthened. Grant obtained to construct and install several water storage tanks throughout the Garden, including the Lothian Lookout tanks, and the installation of an electric pump to the Spring Dam

1962: Works to extend the water supply to the Garden plantings commenced

1974: Duck Pond enlarged

1975: Duck Pond retaining wall height increased

1977: Opening of the Garden, and extensive construction works of public facilities including car parks, toilets commence in time for the opening

1978: Main Lake excavated and constructed necessitating the removal of the original smaller water storage dam

1982: Duck Pond modified and planted in *Nymphaea* spp as a 'deliberate feature' in the aesthetic landscape of the Garden

1983: Ash Wednesday Fire, 16 February, sweeps westward across the Garden extensively burning most of the Australian forest, and extensively burning and damaging much of the exotic plant specimens including those in the gullies. Additional water storage tanks erected

1987: Spring Dam drained and enlarged

1994: Main Lake drained and renovated

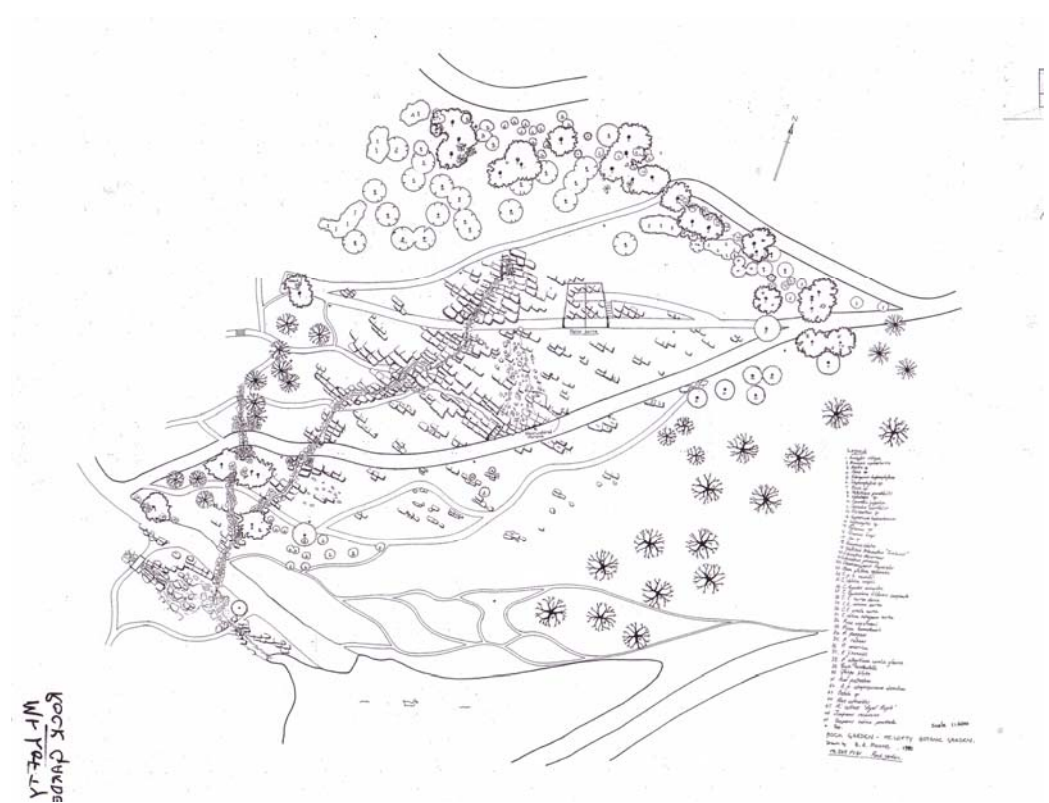


Figure 4.17: Design for the Rock Garden as prepared by Brian R Moore in 1981. Source: Botanic Gardens Archive.

Figures 4.18 and 4.19:

*Left: Main Dam embankment wall looking west.
Right: Water overflow channel from Main Dam*



Figures 4.20 and 4.21:

*Left: Dam above the Works Administration complex.
Right: Water tanks hidden in creeper.*



Figures 4.22 and 4.23:

Left and Right: Water tanks in the Australian Forest.



The Water Systems and Lakes Landscape component are precincts where many points of the Garden's interpretation and circulation systems are oriented. The Main Lake, since its creation, has been a central visual amphitheatre for most views in the Garden. Around its edges, many of the pathways, plantings and landscape treatments have been positioned to enable views over the Lake, and from across the Lake to other precincts of the Garden. Within the Garden, several small dams have been enlarged creating important visual and nodal points, and have served the focus of particular important collections of plants as well as portion of the Australian Forest.

Water bodies were integrated with the overall 'Report on the Proposed Development for Mount Lofty Botanic Garden'. Correy however perceived the Main Lake to be constructed with two levels and water bodies in a more contrived design configuration rather than the present Main Lake that nestles into the contours of the landscape rather than reshaping the landscape. This strategy repeated the American Romantic landscape design style. But the end product reflects a conventional engineering approach in creating a water-retaining dam. Smaller water bodies were envisaged by Correy to be kept, retained, enlarged, and integrated within the planting strategies in the Master Plan. Most of these have been shaped and crafted in line with the 'Report on the Proposed Development for Mount Lofty Botanic Garden' philosophy and detailed plan, fitted within the contours of the landscape in contrast to Correy's vision of the Main Lake(s).

Figures 4.24 and 4.25:

Left: Alpine Garden.
Right: Bog Garden



The edges of the Main Lake are poorly resolved today compared to the more carefully crafted edges and lawns that Correy envisaged in the Master Plan. In comparison the edges of the smaller water-bodies are more successfully resolved.

There is historical and aesthetic significance in the Water Systems and Lakes Landscape partially reflective of the Correy master plan. There is little scientific and technological significance.

Rankings of cultural significance

Contributory cultural significance

- Contributory landscape design merit as a master plan scheme that has been substantially implemented *albeit* changes in the water systems
- Contributory visual characteristics and visual outlooks and vistas integrated within the design and overall landscape
- Contributory visual setting and location in the upper reaches of the Piccadilly Valley

Intrusive

- Building and activity development in adjacent private allotments within the visual catchment of the Garden
- Audible distractions from adjacent private properties and associative audible echoes drawn into the Garden's catchment due to wind movements
- Poorly resolved and planted edges to the Main Lake
- Lack of public access to the edges of the Main Lake
- Views of infrastructure and maintenance structures and nurseries

Alteration or loss which has jeopardised cultural significance

- Design and implementation of a Main Lake that lacks the strength of presence and design resolution as originally set out in the Master Plan

4.1.5 Administration, works depots and facilities

This component encompasses the administrative and utility spaces, and building complexes that service and enable the maintenance and operations of staff in the Garden. Most are concentrated around the Main Administration Complex, but there are several out-station maintenance facilities and nurseries that are included in this component, including public car parking facilities.

Key historical development phases are:

1959: Nursery No 1 and Nursery No 2 established to accommodate plants and specimens obtained from gardens in the path of the South Eastern Freeway. Two storage sheds erected

1968: Nursery No 3 closed and Tarn Hill Nursery commenced

1969: Main Administration complex, including office, workshops, storage yards, etc constructed, and complex opened by Board Chair AH Peters. *Phytophthora cinnamomi* discovered in Nursery N 1

1972: Lower and Upper car parks first constructed

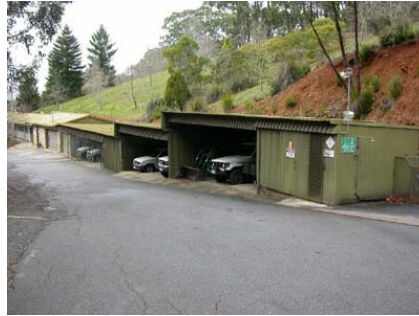
1974: Extensions to the Administration complex

1977: Opening of the Garden, and extensive construction works of public facilities including car parks, and toilets commence in time for the opening

1982: Extensions and changes to several structures at the Administration complex

1984: Storage compound in Mitchell's land erected

Figures 4.26 and 4.27:
Left: Works Depot sheds
Right: Administration Centre.



Figures 4.28 and 4.29:
Left: Upper works centre
Right: Bore No. 2



Figures 4.309 and 4.31:
Left: Plant nursery sheds.
Right: Pump.



Figures 4.32 and 4.33:
Left: Staff car park area below the Main Administration centre.
Right: Toilet block in the Upper Car Park.



Figures 4.34 and 4.35:
Left: Toilet block and information signage.
Right: Toilet Block.



The Administration, Works Depot and Facilities Landscape component are precincts where most of the infrastructure and maintenance facilities, including public car parks and toilets, are

located. Their siting was accommodated in the Correy Master Plan but their locations and strategic treatment has not been executed. Perhaps the rushed excavation and construction of such facilities, in part to meet the 1977 opening deadline of the Garden, and subsequently the dearth of funds available for quality works, has meant that many facilities are visually noticeable, have a poor integration with the overall landscape, and have been sited to satisfy utilitarian imperatives rather than the vision of the Master Plan or a consistent design style. Subsequent redesign of the car parking areas and toilet facilities has partially resolved this deficiency.

There is little significance in the Administration, Works Depot and Facilities Landscape.

Rankings of cultural significance

Intrusive

- Poorly resolved building and facility placement that often fails to be integrated within the overall Master Plan or the existing landscape
- Views of infrastructure and maintenance structures and nurseries

Alteration or loss which has jeopardised cultural significance

- Lack of a consistent design approach in building, facilities, toilet, car park, roadscape, signage, etc., treatments and structures

4.1.6 O'Leary farmland

This component encompasses a tract of land to the immediate east of the Mount Lofty Botanic Garden. Contained within a separate valley and water catchment, it has long been used for market gardening, orchards and animal agistment. The O'Leary landholding reflects much of these traits, but is also physically and visually separated from the Garden. This presents different landscape design opportunities but this portion was never envisaged in the original Correy Master Plan.

Key historical development phases are:

1999: Land bequeathed to the Board upon the demise of O'Leary

The O'Leary Farmland Landscape component is a distinct former intensive farmland landscape visually separate from the overall Garden. There is considerable evidence of this tradition of land use, but the substance of this use and its physical evidence is poor compared to other and perhaps older market gardening and orchard vernacular landscapes in Piccadilly Valley. The architectural evidence is also of a poor quality and condition compared to other extant assemblages in Piccadilly Valley.

There is little significance in the O'Leary Farmland Landscape.

4.2 STATUARY, ORNAMENTAL GARDEN FURNITURE AND HISTORIC FEATURES

This component encompasses historic or artistic features that had been appropriated into the Garden, or added to the Garden at a later date.

Key historical development phases are:

1860s: Former aqueduct and irrigation infrastructure

1863-80s: Small dam and the Spring Dam established by the Lampert family in conjunction with an irrigation or aqueduct network along the contours to service the market garden fields

1889: Mt Lofty Park Silver-Lead Mine (later Adelaide Hill Syndicate Silver Lead Mine) incorporated and commenced activities

1890-93: Adelaide Hill Syndicate Silver Lead Mine mining exploration activities over the site

1900-20: Timber felling activities undertaken by the Kanmantoo Copper Mine Company including a series of timber tramlines over the site to extract the felled timber

- 1960:** Three concrete watertanks installed on the site of the Lothian Lookout
1977: Opening of the Garden—5 November 1977—memorial in the Upper Car Park
1976: Erection of the Lothian Lookout
1980: 'Between the Sky and Earth' sculpture by Greg Johns installed
1981: Lothian Lookout named and opened
1983: Timber pergola erected by G Barker near the David Thomson conifer collection
1983: Coral Sea Memorial Trees planted and plaque unveiled
1987: Greg Johns sculpture, 'Guardian Figure', placed near the David Thomson conifer collection
1989: Owen & Sarah Crompton Memorial Gates opened.
1994: 'Balancing Peace Figure' by Greg Johns installed
1996: Colin Robjohns gates by Greg Johns, and pillars erected and opened

The historical mining and agricultural features are discretely hidden within the Garden and over the years have been extensively modified or changed due to roadways, the need to ensure public safety, and the need to increase water holding capacity of dams. This has resulted in a severe deterioration of any historical, pre-Garden development, features in the Garden. The known mine site openings have been dynamited for public safety but their sites can be interpreted from the earthworks. Tramline routes can be partially identified but progressive growth of forest foliage, and earthworks due to irrigation installation and roadways, has erased much physical evidence. There is little merit in the Garden ornamentation and structures less the Greg Johns sculpture collection which is the largest public collection of his work in Australia.

Figures 4.36 and 4.37:

Left: Greg Johns sculpture installation; 'Guardian Figure'.

Right: Greg Johns sculpture installation: 'Between Earth and Sky'.



Figures 4.38 and 4.39:

Left: Collin Robjohns Gates.

Right: Opening of the Mount Lofty Botanic Garden memorial stone and plaque.



Figures 4.40 and 4.41:

Left: Original Lower Car Park.

Right: Additional Lower Car Park.



Figures 4.42 and 4.43:
Left: Memorial stone and plaque at Collin Robjohns Gates.
Right: Garden pergola in the Upper Exotic Landscape.



Figures 4.44 and 4.45:
Left: Site of the Silver Lead mine adit.
Right: Upper Exotic Landscape summerhouse.



Figures 4.46 and 4.47:
Left: Lothian Lookout and the hidden water tanks.
Right: Plaque on stone to honour a donation by Lady Bonython that facilitated the construction of a floating bird structure.



Figures 4.48 and 4.49:
Left: Upper Car Park Owen & Sarah Crompton Memorial Gates.
Right: Coral Sea Memorial plaque.



Figures 4.50 and 4.51:
Left: Upper Car Park.
Right: Footbridge in the Viburnum Gully.



Figures 4.52 and 4.53:

Left: New stone retaining roadside walling in the Australian Forest.

Right: The Wollemi Tree (*Wollemia nobilis*) within its security enclosure.



Rankings of cultural significance

Contributory cultural significance

- Significant examples of the work and craftsmanship of Greg Johns positioned with care in an outdoor landscape
- Important remnants of the original horticultural irrigation system including an aqueduct providing evidence of the original landscape

Intrusive

- Poorly resolved design and positioning of non-sculptural elements in the Garden

Alteration or loss which has jeopardised cultural significance

- Lack of a consistent design approach in building, facilities, toilet, car park, roadscape, signage, etc., treatments and structures

4.3 OUTBUILDINGS AND STRUCTURES

This section summarises architectural heritage assessments of structures within the Mount Lofty Botanic Garden. Specific assessments are contained in the Appendix.

Collin Robjohns Gates: an important example of the typical sculptural design and craft by Greg Johns with moderate social significance in commemorating the role and contribution of Dr Collin Robjohns. Minor aesthetic significance.

Garage, near Campbell Avenue: constructed as part of the original infrastructure of the Garden but demolished in *circa* 1980. No appreciable significance.

Gazebo, upper level near Thomson conifer garden: a timber framed structure, with shingle and slatted timber batten roof, constructed by G Barker in 1983 in a 'pagoda' form. No appreciable significance.

Regional Headquarters: constructed in *circa* 1980 as the 'upper garden depot' with face brown brick walls and corrugated iron roof sheeting, and subject to subsequent modifications and changes. No appreciable significance.

Administration Building Complex: originally constructed in 1969 to plans by Dean Berry of Berry Gilbert Barger & Polomka to serve as the administration center for the Garden, and with extensions and changes in 1974 and 1981. No appreciable significance.

Nursery Complex: originally known as 'Nursery No 1', established in 1959 by Lothian with site selection and the erection of the first structures. Successive additions, structures, in 1963, 1985, 1989, and 2000 changed the integrity and form of the complex. No appreciable significance, but the glass house has a minor historical significance to the University of Adelaide and the Adelaide Botanic Garden.

Fern Gully Depot: constructed in *circa* 1959 as a toilet facility, and modified in 1985 into a storage shed and staff lunch room; of split face painted concrete brick walls with a steel framed flat roof. No appreciable significance.

Toilets – Lower Car Park: erected in 1977 (northern) and 1998 (southern) respectively of split face painted concrete brick walling with steel framed flat roofs. No appreciable significance.

Toilets – Upper Car Park: erected in 1977 (adjacent to the car park) and 1998 (further away from the car park) respectively of split face painted concrete brick walling with steel framed flat roofs. No appreciable significance.

Toilets – Woodland Garden: erected in 1977 of split face painted concrete brick walling with steel framed flat roofs. No appreciable significance.

Mitchell's Land Storage Shed: erected in 1997 and with a second open shed in 2001 of steel portal frames clad in colourbond steel sheeting. No appreciable significance.

Noel Lothian Viewing Platform: erected in *circa* 1970 as a treated pine timber deck over 4 concrete water tanks, and with the decking restored and reduced in area in the late 1990s. Commemorates the work of Noel Lothian. No appreciable significance.

Rankings of cultural significance

Intrusive

- Poorly resolved and positioned buildings and infrastructure structures and places that impact upon the visual integrity of the landscape

Alteration or loss which has jeopardised cultural significance

- Lack of a consistent design approach in building, facilities, toilet, car park, roadscape, signage, etc., treatments and structures

4.4 LIVING COLLECTIONS

4.4.1 Extant Living Collections Patterns

As a course of this study a comparative assessment and cursory evaluation of the living collections of the Garden was undertaken. This was undertaken to enable a gauge as to the species composition, the comparative significance of collections having regard to other botanic gardens and living collections in south-eastern Australia, the historical layers, and to consider any aesthetic, social, scientific and historical values of the main trees and vegetation precincts.

Of the collections four introduced genera are considered of significance in the Garden. They are collections that have often been colloquially pointed to as possessing significance without any substantive evaluation and cross-comparison. These living collections include:

- Ferns,
- Roses (*Rosa* spp),
- the Magnolia (*Magnoliaceae* spp) family,
- the *Rhododendron* cv family, and
- the Maple (*Acer* spp) family.

While the discussion below considers their significance, the tabulations in the Appendix quantify their position in comparison to comparable collections in the Adelaide Botanic Garden, Royal Botanic Garden Melbourne, Mount Annan Botanic Garden, Emu Valley Botanic Garden, the National Rhododendron Garden in the Dandenong Ranges, and Piranda Garden in the Dandenong Ranges.

Key conclusions from this cross-comparison are that:

- Mount Lofty Botanic Garden has the largest living collection of ferns in Australia; of national significance
- An important collection of heritage roses has been established at Mount Lofty Botanic Garden but it minor compared to the collection at the National Rose Garden in the

Adelaide Botanic Garden and private collections in South Australia. It could be strengthened with specimens from the National Rose Garden; of state significance

- The *Magnoliaceae* ssp living collection is the largest and most extensive representative Magnolia collection in Australia; of nationally significant
- The *Rhododendron* cv collection is one of the most extensive representative collection of Rhododendrons of Australia's botanic garden and private collections but it lacks an adequate data base to substantiate, document, and a basis in which to expand and enhance the collection; of state significance
- The Maple (*Acer* ssp) living collection is perhaps the largest representative collection in an Australian botanic garden; should be documented and expanded further; of national significance

Further,

- the Garden hosts an Australian forest living collection. Herbarium surveys in the 1980s-90s pointed to a substantive and important living collection, including a indigenous vascular plant collection; of local importance

These living collections are discussed below.

4.4.2 Ferns

Scientific value: the largest collection of species, subspecies and varieties within the Australian botanic garden system. Well exceeds collections in Sydney and Melbourne botanic gardens. The collection comprises 453 species, subspecies and varieties. Private collections interstate and the Sydney botanic garden fernery will be important in assessing the Mt Lofty collection.

Historic value: there is an historic link with the Adelaide Botanic Garden as part of its collection was transferred to Mt Lofty because of the adverse growing conditions and lack of opportunities for display. The Mt Lofty collection dates from about 1979.

Aesthetic value: the collection covers an extensive area known as Fern Gully where the plants are displayed in a landscape setting under the canopies of secondary regrowth Messmate Stringybark (*Eucalyptus obliqua*). A partial canopy is provided by *Dicksonia* and tall *Cyathea* including *C. brownii*, *C. cooperi* and *C. medullaris*.

The plantings feature the largest collections of *Blechnum* (27 species), *Cyathea* (35 species), *Dryopteris* (48 species), *Pteris* (20 species) and *Asplenium* (43 species, subspecies, and varieties). The Gully provides good conditions for the culture of temperate and subtropical ferns but it comes at the cost of high water usage. The area, if further developed with a greater emphasis on rare, endangered and threatened species, will be one of the significant features of the Garden both collection-wise and landscape-wise.

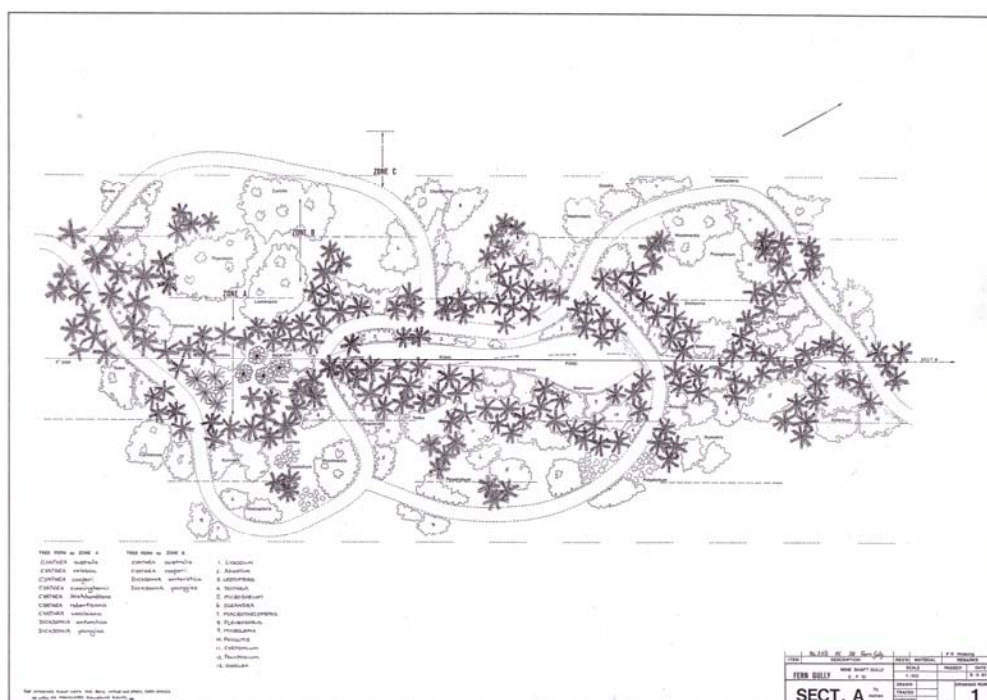


Figure 4.54: Above, one of a number of design plans for the Fern Gully prepared by RD Hosking in 1981. Source: Botanic Gardens Archive.

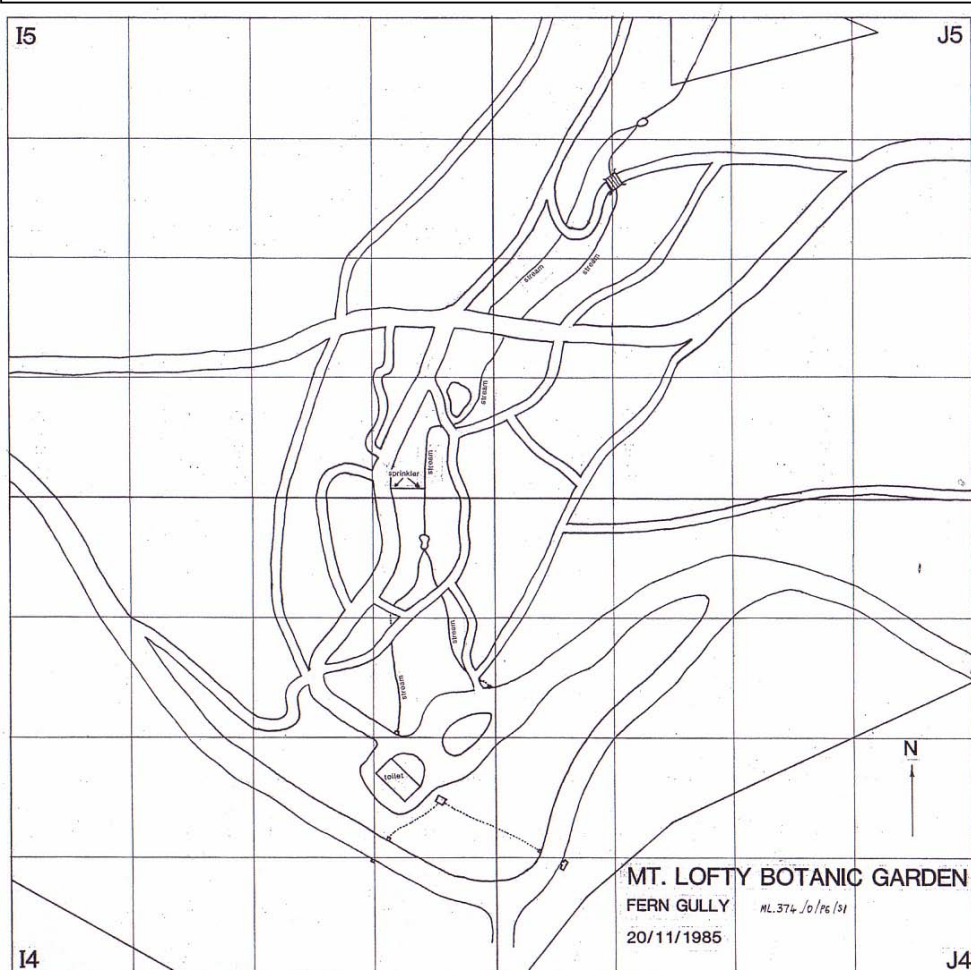


Figure 4.55: Above, the Fern Gully layout plan as prepared in 1986. Source: Botanic Gardens Archive.

Figures 4.56 and 4.57:
Left & Right: Fern Gully scenes.



4.4.3 *Rosa* ssp.

Scientific value: the Garden houses the National Rose Species Collection of 72 species. Mt Tomah also has an extensive collection. Adjacent to the species collection is the Heritage Rose Collection displaying 18 groups of historic interest. Other collections in the state include those of Walter Duncan at Hughes Park and Ross Roses at Willunga, and the larger collection in the International Rose Garden in Adelaide Botanic Garden that is both a trial and display venue for the propagation of *Rosa* ssp.

Historic value: some of the species collection came from the Adelaide Botanic Garden. A decision was made to move the National Rose Species Collection from the east side of the old Rose Garden to Mt Lofty. The Heritage Rose Collection began in the 1980s largely because of Morley's interest.

Aesthetic value: within the Heritage Rose Collection there are 11 groups. Of these, 3 groups contain the largest collection of cultivars in the Australian botanic garden system, including: *Rosa chinensis* (17 cultivars), *Rosa piminellifolia* (6 cultivars), and *Rosa gallica* (17 cultivars).

The Rose collections are displayed in two uncompromising parallel beds without consideration of design issues. They are not part of any landscape feature and not associated with any other plants – just beds in open land. The plants are in well labelled groups with informative signage but the whole area is aesthetically sterile.

4.4.4 *Magnoliaceae* ssp

Scientific value: the collection comprises 29 species, subspecies and varieties and is the largest in the Australian botanic garden system. No known private collections in S.A.

Historic value: nothing known; part of the Lothian vision to show species other than Southern Magnolia (*Magnolia grandiflora*) the only species known from early settlement to grow in the harsh Adelaide plains conditions.

Aesthetic value: the major collection is located in the protected Magnolia Gully. The trees are relatively young and still developing in mulched areas surrounded by cut grass. No doubt as the trees grow and the collection develops the grass will die out.

In the future there is an opportunity to group the plantings more into geographical regions and conserve rare, endangered and threatened species. Ultimately the area could become one of the significant landscape features of Mt Lofty.

The largest group is Japanese Magnolia (*Magnolia x soulangeana*) which contains 7 cultivars which is the largest number of this group in the Australian botanic garden system. There may be merit in expanding the collection to *Magnoliaceae*.

Figures 4.58 and 4.59:

Left: *Magnolia Gully* looking southwards/uphill.
Right: *Magnolia Gully* looking northwards/downhill.

**4.4.5 *Rhododendron* cv**

Scientific value: a wide collection of 292 species, subspecies and varieties (this is a very different figure to the c.500 listed in Spencer). The largest collection (not including cultivars) in the Australian botanic garden system, easily exceeding Mt Tomah and Melbourne collections. No knowledge of private collections in SA.

Historic value: Little known; part of the Lothian vision. Many New Guinea species will have come from field trips into the wild by John Womersley (brother of Brian) stationed in the Forests Dept at Lae.

Aesthetic value: the collection is in 2 areas – Rhododendron Gully and the Asian Flora section. The steep Gully makes the plantings a spectacular feature when in flower under the canopy plantings of trees such as *Betula* and *Acer* ssp. The *Vireya* group from New Guinea is represented by *Rhododendron aurigeranum*, *R. jasminifolium*, *R. konoii*, *R. laetum*, *R. loranthifolium*, *R. McGregoriae*, and *R. zoeleri*.

Future directions could be to concentrate on conserving rare, endangered and threatened species and also displaying *Rhododendrons* in geographical groups where possible. The Rhododendron Gully will be one of the great landscape features of the Garden. Access is not particularly easy for many people.

**Figure 4.60**

Photograph of a *Rhododendron* species by Noel Lothian in 1977

4.4.6 *Acer* spp

Scientific value: a collection of 54 species, subspecies and varieties. It comprises the largest collection in the Australian botanic garden system. Melbourne has a good species collection and Mt Tomah a large collection of Japanese Maples (*Acer palmatum*) cultivars. No known private collections in S.A.

Historic value: nothing specific; originates from the Lothian vision for the Garden.

Aesthetic value: plants still in developing stages. The bulk of the collection is grouped together but some are associated with the Rhododendrons in Rhododendron Gully. Asian species dominate the collection but there are some European and North American examples. Within the collection is a selection of 10 Japanese Maple (*Acer palmatum*) cultivars that produce spectacular autumn colour. There are also 6 Norway Maple (*Acer platanoides*) cultivars.

4.4.7 *Australian Forest*

The 1991 plant catalogue prepared for Mt Lofty Botanic Garden has an appendix listing the indigenous vascular plants naturally occurring in Mt Lofty Botanic Garden. There does not appear to be any management plan for this collection. There is a 'Nature Trail' of 800 metres near the top car park but the trail is not being adequately maintained, eg. timber walkways in some areas are in poor condition. There is value in developing, interpreting and managing the Australian forest collection.

4.5 SIGNIFICANT TREES AND PLANTS

Given the age of the Garden there are very few specimens that are associated with cultural events in the Garden. An evaluation of significant botanical or horticultural specimens has not been undertaken because these reflect the overall family and genera assessments.

On 5 November 1977, his Excellency the Governor of South Australia, Keith Seaman OBE, opened the Garden to the public. Seaman unveiled two commemorative plaques, one by the lookout and a second by a Redwood (*Sequoia sempervirens*) that he planted (Roberts 9 November 1977: 1, 29; Duvergier 1978: 3).

During 1988 some 150 Japanese Flowering Cherries (*Prunus* spp.) were received via quarantine. In November 1988 a Japanese Flowering Cherry tree planting ceremony and commemorative plaque unveiling took place at the Garden to celebrate sister state links with the Okayama Prefecture and the port of Mitsushima in Japan.

The Australian-American Association provided a plaque to accompany a palisade of Sweet Gum *Liquidambar* spp trees along Mawson Drive that were planted in the autumn of 1984 (Lothian 1999: 19; Morley 14 May 1984; Lothian 1994: 2).

At the lower end of the valley, a *Rhododendron* '*Yakusimanum*' was planted as a memorial to Abe Ketedromo by his father.

A summary assessment is tabulated below.

4.0 ANALYSIS AND ASSESSMENT OF GARDEN COMPONENTS AND COLLECTIONS

<i>Scientific Name</i>	<i>Common Name</i>	<i>Location</i>	<i>Age</i>	Historic (H) Botanic (B) Aesthetic (A) Social (S) Significance
<i>Sequoia sempervirens</i>	Redwood	Lower Car Park	1977, by Seaman, 5 November	B Low S Low
<i>Prunus</i> ssp.	Japanese Flowering Cherries	Arboretum	1988, November	S Low
<i>Liquidambar styraciflua</i>	Liquidambers / Sweet Gum	Mawson Drive	1984	S Low
<i>Rhododendron</i> <i>'Yakusimanum'</i>	Rhododendron	Rhododendron Valley	1981	B Low

4.6 SIGNIFICANCE OF COMPONENTS AND ITEMS

The following table summarises the above review.

Mount Lofty Botanic Garden Item / Component / Place	Existing: Register of the National Estate	Existing: State Heritage Register	Existing: Adelaide Hills Council Development Plan	Existing: National Trust of South Australia / Significant Tree Register	High Significance	Medium Significance	Low Significance	Vulnerable	No Appreciable Significance	Recommended: Register of the National Estate	Recommended: State Heritage Register	Recommended: Adelaide Hills Council Development Plan	Recommended: National Trust of South Australia / Significant Tree Register
Mt Lofty Botanic Garden Overall:	X				X						X	X	
Lower Exotic Landscape						X							
Upper Exotic Landscape						X							
Australian Forest Landscape							X						
Water Systems and Lakes Landscape							X						
Administration, Works Depot & Facilities Landscape									X				
O'Leary Farmland Landscape									X				
Sculpture, Ornamental Furniture & Historic Features													
Lothian Lookout & Viewing Platform									X				
'Between the Sky and Earth', Greg Johns							X						
'Guardian Figure', Greg Johns							X						
Collin Robjohns Gates, Greg Johns							X						
'Balancing Peace Figure', Greg Johns							X						
Timber Pergola, Upper Exotic Landscape									X				
State Governor Seamen Plaque, Lower Car Park									X				
Lady Bonython bequest memorial									X				
Collin Robjohns' Gates Plaque									X				
Owen & Sarah Crompton Gates, Upper Car Park									X				
Coral Sea Memorial Plaque									X				
Outbuildings and Structures:													
Collin Robjohns Gates, Greg Johns							X						
Timber Pergola, Upper Exotic Landscape									X				
Regional Headquarters									X				
Administration Building Complex									X				
Nursery Complex									X				
Fern Gully Depot									X				
Toilets – Lower Car Park									X				
Toilets – Upper Car Park									X				
Toilets – Woodland Garden									X				
Mitchell's Storage Sheds									X				
Lothian Lookout & Viewing Platform									X				
Living Collections Overall:													
Ferns					X								

4.0 ANALYSIS AND ASSESSMENT OF GARDEN COMPONENTS AND COLLECTIONS

<i>Rosa</i> ssp							X						
<i>Magnoliaceae</i> ssp					X								
<i>Rhododendron</i> cv.					X								
<i>Acer</i> ssp					X								
Australian Forest collection							X						
Significant Trees and Plants:													
Seaman tree (<i>Sequoia sempervirens</i>), at car park									X				X
<i>Prunus</i> ssp.									X				
<i>Liquidambar styraciflua</i>									X				
<i>Rhododendron</i> 'Yakusimanum'									X				