Section 3.0

THEMATIC ANALYSIS AND ASSESSMENT

Figure 3.1. *Opening ceremony at Mount Lofty Botanic Garden in 1977. Source: Noel Lothian.*

3.0 THEMATIC ANALYSIS AND ASSESSMENT

3.1 INTRODUCTION

This section discusses Mount Lofty Botanic Garden in Australia, generally, and places the Garden in context.

It also discusses and reviews landscape design themes prevalent at the Mount Lofty Botanic Garden.

3.2 ROLE OF MOUNT LOFTY BOTANIC GARDEN IN AUSTRALIA

3.2.1 History and analysis

Botanic gardens in Australia have traditionally been viewed as major venues for horticultural and botanical display enveloped in an aesthetically pleasing landscape that enables passive recreation and study.

There are two generations of botanic gardens in Australia. The original, colonial gardens established to address economic botany and scientific objectives within the newly established colonies. Von Mueller, in Victoria, extended this role to enable regional centres to be parties to this intellectual advancement, and Schomburgk and John Ednie Brown carried forth a similar vision in South Australia by promoting and enabling the planting of many park lands in country towns with specimens that they supplied from their nurseries and as part of their advocacy activities. New Zealand and Queensland also established a series of regional centre botanic gardens. These gardens tended to have master plans or designs but were substantially modified by progressive directors in the 1870s-1930s period. Several have been subject to conservation studies and landscape master plans in the last 20 years enabling their cultural significance and history to be better qualified and for future activities to be undertaken in sympathy with their cultural significance.

The second generation of botanic gardens occurred in the 1960s onwards where many botanic garden directors perceived the need to establish annexes or satellite botanic gardens. The general reasoning for these gardens was to display and increase their living collections of species that would otherwise not climatically or physically grow or be accommodated in the city centre botanic gardens. Gardens at Cranbourne in Victoria, Mount Annan and Mount Tomah in New South Wales reflect this movement of which Mt Lofty was the South Australian equivalent. These gardens have had master plans generally prepared by landscape architects and are still seeking to enable the fruition and implementation of the full intent of the design and plan.

As Mount Lofty is part of the second generation of botanic gardens in Australia, it is worthwhile considering their role and contribution as a layer in the overall history and significance of botanic gardens in Australia.

In the second half of the twentieth century there was renewed interest in botanic gardens in Australia resulting in the development of Kings Park in Perth and the Australian National Botanic Gardens in Canberra. While Kings Park has historical and botanical associations reaching back to its establishment as a public park in 1872, it was not until 1961 with the appointment of Dr John Beard as the first Director that the seventeen hectare botanic garden was developed. The Garden drew upon the landscape character of Kings Park and also stressed display, propagation and research into Western Australian flora in particular. In Canberra, the Australian National Botanic Gardens developed from the initial ideas of Walter Burley Griffin for botanical reserves together with Dr BT Dickson's feasibility study for a botanic garden, before Professor Lindsay Pryor was appointed Superintendent of Parks and Gardens in Canberra in 1944. Pryor selected the present site and developed the Gardens including a range

of different microclimates and topographical precincts, and drawing inspiration from the Santa Barbara gardens in California that was devoted to specific floras. At Canberra, Pryor prioritized the use and display of Australian flora, with the Gardens being opened in 1964 and officially in 1970.

These two gardens marked the end of the first generation botanic gardens—one main garden for every capital city. The second wave involved the development of satellite gardens that enabled the display and curatorship of living collections that could otherwise not reside in the main garden due to microclimatic, soil, and space requirements. These new gardens often provided space for the growing of Australian native plants. Satellite gardens included Mount Lofty, Mount Tomah, Mount Annan, Mount Coot-tha, Cranbourne, and also coincided with the growth of a series of regional gardens including the North Coast Regional Botanical Garden (Coffs Harbour), Australian Arid Lands Botanic Garden (Port Augusta), Australian Inland Botanic Gardens (Mildura), and the Monsoon Tropical Botanical Gardens (Mareeba, Qld) that enabled more specialized and localized living collections to be developed.

Mount Tomah commenced development in the early 1960s with public access in 1987 in the Blue Mountains. It placed an emphasis upon the plants of the southern hemisphere, especially where associated with Gondwana, and where floristic associations occurred with South American and New Zealand flora. Mount Annan, opened in 1988, specialised in Australian plant species and featured three themed gardens—Bottlebrush, Wattle, and Banksia—that contained extensive collections of these species. Mount Coot-tha developed from site investigations in 1968 by the Brisbane City Council, with initial development in 1971-73 resulting from dissatisfaction and flood risk issues with the main Brisbane Botanic Gardens, to accommodate a very wide living collection with an emphasis upon Australian and exotic rainforest plants. Cranbourne developed as an annexe to the Royal Botanic Gardens, Melbourne, following land acquisition in 1970 and prioritised the growth and display of Australian native plants.

Contextually, each of the second generation of gardens has had a clear intent in display specialization often with a preference towards Australian specimens, were developed in the mid 1960s to mid 1970s, and all possess a landscape master plan prepared by a landscape architecture practitioner or practice.

Mount Lofty, in contrast to these second generation gardens, was earlier in its conception, and development, and was envisaged by Lothian and Correy to embrace thematically cool climate living collections.

3.2.2 Education and interpretation

The Mount Lofty Botanic Garden has historically been used as an informal venue for interpretation and for horticultural display as part of its formal social entertainment functions. It has no tradition of education or a formal interpretive role. Notwithstanding this, it is clear that Lothian, Correy and Morley all intended that the Garden would host educational and interpretive activities and events. Morley succeeded in establishing nature trails to enable this objective, and supported this objective with the publication of several pamplets profiling several of the living collections contained in the gullies. But the absence of a visitor centre, extensive interpretative signage and facilities, and a clear pedestrain circulation system has hampered the advancement of this goal.

3.2.3 Experimentation

There is no visual evidence of horticultural experimentation in the Mount Lofty Botanic Garden. This is despite the important 'collecting' and propagating roles the Garden undertook in the 1960s-1970s, and the extant glasshousing in the Nursery complex which is visually obscured from visitor gaze.

3.2.4 Botanical research

There is no evidence of botanical research in the Mount Lofty Botanic Garden. This is despite the important 'collecting' and propagating roles the Garden undertook in the 1960s-70s, which

dramatically increased the Garden's living collections, that has left the Garden with extensive collections numerically but uncertainty as to provenance and true botanical origin. Extensive botanical research by Herbarium staff was undertaken in the 1970s to qualify the Australian native species extant in the Garden, however little research has been undertaken to further extend this inquiry.

3.2.5 Recreation/leisure

While the chief function of the Mount Lofty Botanic Garden has been as a botanic garden, it has increasingly been viewed by the community as a venue for passive recreation and gatherings, particularly by Adelaide Hills residents. This latter function was clearly understood by Correy in developing the Master Plan, incorporated in the Master Plan in the design of circulation systems, interpretive and recreational facilities, and venues for events. But this recognition was not seen as a high priority by Lothian and the Board, until more recently as visitation numbers has escalated and the intensity of use has become more evident.

Rankings of cultural significance

High cultural significance

- First of the second generation of botanic gardens for Australia;
- Significance in the landscape design of the Mount Lofty Botanic Garden that has largely been adhered to historically by successive Garden administrators, managers and landscape architects

Contributory cultural significance

- Significant open space component of the Adelaide Hills landscape
- Significant discreet living collections, particularly Ferns, *Acer* ssp, *Magnoliaceae* ssp, *Rhododendron* cv, and heritage *Rosa* ssp.

No appreciable cultural significance

- Outbuilding, infrastructure and water systems
- Main lake

Alteration or loss which has jeopardised cultural significance

- Change of main lake system design, edge treatment
- Positioning of car park areas and visitor facilities
- Positioning of service infrastructure and facilities often in visually exposed or intrusive locations
- Lack of complete implementation of the original circulation system

3.3 SETTING AND LANDSCAPE DESIGN

3.3.1 Siting within the Mount Lofty Ranges and Piccadilly Valley

The siting of Mount Lofty Botanic Garden is significant. While the actual acquisition of the land holdings is arbitrary, the overall site offered an immediate aesthetic quality. Positioned within the upper reaches of the Piccadilly Valley, to Lothian, the Board and Correy, it offered excellent views over the Valley landscape and down from the ridgeline road of the Mount Lofty Summit Road.

These are important ingredients that these individuals recognised immediately once presented with the site. Correy, in the Master Plan, thereupon sought to accommodate major viewpoints into the design both for visitor interpretation purposes as well as to exploit this advantage. Lothian at one stage even sought the development of a restaurant upon the crest of a ridgeline to exploit the views northward much to the consternation of Correy who was still trying to come to grips with the master plan and to rationalise public facilities and amenities into least sensitive locations.

Piccadilly Valley is a significant cultural landscape in South Australia. This conclusion was identified in the *Mount Lofty Landscape Study* (1972) undertaken by staff from the Monarto Development Commission, and was collaborated in successive landscape planning assessments that pertain to the Adelaide Hills including contemporary research work by Dr Andrew Lothian.

The implicit characterisation of the Piccadilly Valley, as a significant 'patchwork quilted landscape' is also quietly embedded in the *Adelaide Hills Council Development Plan* (2005) and was validated in the *Adelaide Hills Townships Character Study* (2001). As a landscape it is unique in possessing a rich semi-geometric tapestry of market gardens and orchards draped across a wide, often rolling, valley that is edged in a rising escarpment cloaked in dark Australian eucalypt forest. Continuity of use, function, boundary demarcations, intimacy of style and building developments, continuity of family occupancy, all validate and substantiate this conclusion. Conceptually, Mount Lofty Botanic Garden is well sited within this 'tapestry' and possesses and harnesses many of these vernacular characteristics without comprising the essential characteristics of the Valley and its position on one of the major escarpment backdrops.

Several points are relevant as to the setting of the Garden. The Garden is:

- positioned within a defined upper valley of Piccadilly Valley;
- part of the overall visual catchment of views down from the Mount Lofty Summit Road;
- a dark backdrop to one portion of the Piccadilly Valley;
- relatively accessible from the South Eastern Freeway and the internal primary road system of the Adelaide Hills region;
- an integral part of the Piccadilly Valley cultural landscape.

Several points are relevant as to the design of the Garden. Correy:

- deliberately tried to accommodate visual delight, viewpoints and vistas into the Master Plan where they did not compromise the larger design and did not impinge upon views upwards from the Garden floor;
- sought to conserve the Australian forest ridgelines and 'fingers' of vegetation in the landscape so to accentuate and contrast the dark and massed Australian forest as against the newer exotic, often deciduous, and colourful foliage;
- recognised the qualities of the Piccadilly Valley cultural landscape in his research, and sought to accommodate this quality in the Master Plan.

Rankings of cultural significance
Contributory cultural significance

- Piccadilly Valley is a significant cultural landscape in the Adelaide Hills, and the Mount Lofty Botanic Garden sits well within this 'patchwork quilted' landscape of productive spaces and paddocks interspersed with fragments of Australian forest enveloped within sharply rising escarpments.
- Visual setting and position at the head of Piccadilly Valley.

Intrusive

- Immediate hobby farm and building developments downstream of the Garden may impinge upon important vistas from and to the Garden;
- Uncontrolled or poorly designed developments along the edges of the service roads leading to the Upper and Lower Car Parks may compromise the greater and quality sense of arrival to the Garden.
- Inappropriate building or infrastructure developments on the Mount Lofty ridgeline that scar the upper visual catchment of the Garden.

3.3.2 The Designs of Allan Dale Correy

In discussing the landscape design for Mount Loft Botanic Garden there are two aspects to consider. First, the actual 'Report on the Proposed Development for Mount Lofty Botanic Garden' (1965) document that was prepared for the project, represents a historical document in its own right. Second, the landscape design that was actually executed and whether it accords with the intent and philosophy of the 'Report on the Proposed Development for Mount Lofty Botanic Garden' (1965) design as laid out by Correy.

The context and stylistic forms of Correy's landscape design work in South Australia are set out in various articles (Jones 1997, 1998, 2002). What is clear is that a fascination and respect for Australian flora is imbedded in most designs. Where possible a naturalistic semi-bush style was

employed using latter popularised materials including rocks, railway sleepers, groundcover mats of creepers, strong use of Australian trees to display texture, and a play with Australian shrubs for colour and animal-life. Many of his private domestic commissions reflect these qualities including the gardens of Le Mercier, Wilson, Clarke, David, and Bonython. In urban public projects this style changed to more crafted shapes and forms that drew reference to European urban landscape inquiries, including the Western Wild Garden in the Adelaide Botanic Garden, the Transport SA car park at Walkerville, the former Sculpture Garden at the Art Gallery of South Australia, and several public domain school projects.

Mount Lofty represents a difference in style and also resolution for Correy. Stylistically it was different because of the scale and relative open canvas Correy was presented. Resolution-wise, Correy applied a rigorous landscape planning approach to devise the design, and this was the only time in South Australia that he was involved in what today one would call a 'landscape planning' project. These differences enhance and heighten the cultural significance of the design of the Garden.

3.3.3 The 'Report on the Proposed Development for Mount Lofty Botanic Garden' (1965)

The 'Report on the Proposed Development for Mount Lofty Botanic Garden' (1965) is a fascinating document. The 'Report' constitutes a 'Landscape Master Plan' today. It was, at its time in South Australia, the most comprehensive landscape master plan prepared, and was not matched by anything prepared by the South Australian Housing Trust in its activities in developing and planting Elizabeth, or in any other state or local government agency in South Australia.

The only equivalent preceding document in South Australia is John Ednie Brown's (1848-99) *A Planting System for the Adelaide Park Lands* (1880) that set forth a detailed landscape evaluation of soils, drainage, existing plants, and proposed a master vision for the Adelaide Park Lands, per block, including detailed plant lists and specific designs. The significance of the 'Report on the Proposed Development for Mount Lofty Botanic Garden' (1965) however is in its clear methodological basis, its more detailed resolution, its comprehensiveness, and its intellectual rigour that was informed by a greater body of research and theory.

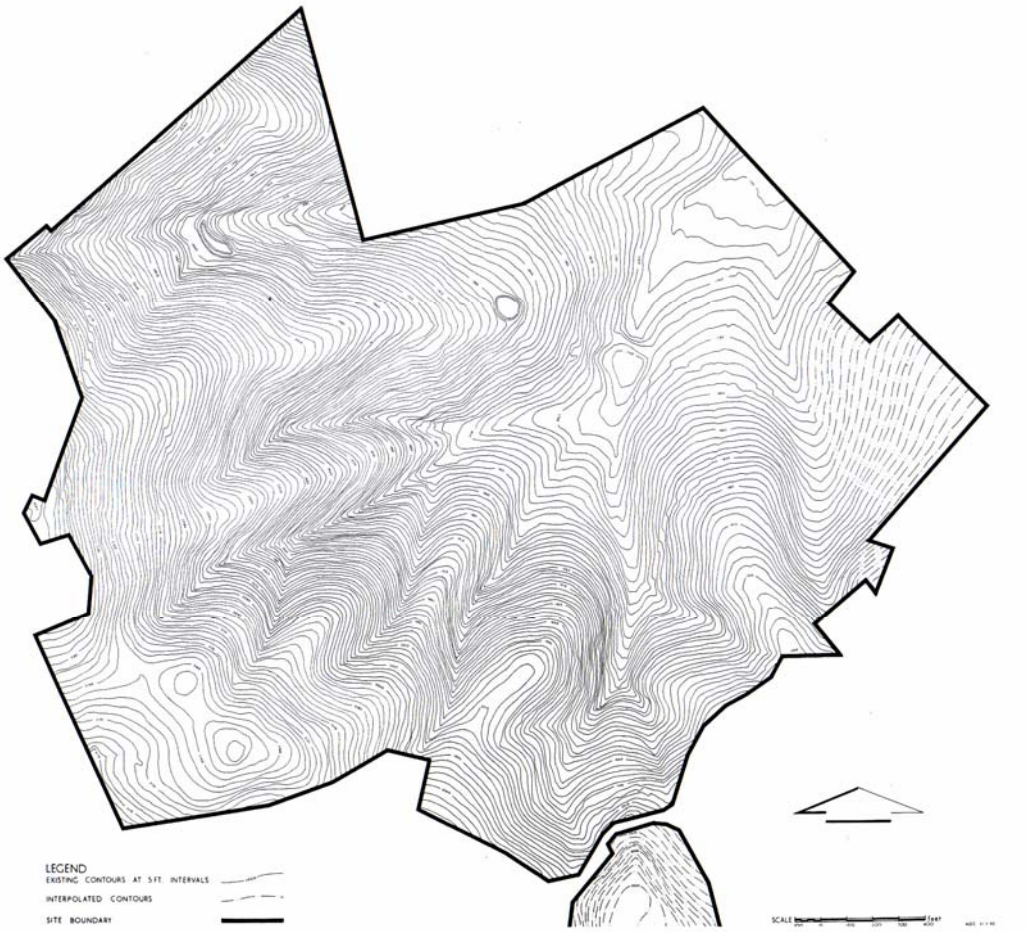

Figure 3.2:
Contour plan of Mount Lofty Botanic Garden prepared by AD Correy in 1965. Source: 'Report on the Proposed Development for Mount Lofty Botanic Garden' (1965).

In terms of its position in Australia, it is viewed as a significant landscape architecture document but is preceded in standing and substance by similar reports and plans that were being prepared by reports by landscape architect's Richard Clough (b.1921) and Peter Spooner (b.1919) in Canberra and New South Wales associated with the work of the National Capital Development Commission (1959-81) and the NSW Highways Department (1960-69) respectively.

Importantly, Correy (b.1931) is the first professionally trained landscape architect to practice in South Australia. Holding undergraduate and postgraduate tertiary qualifications in landscape architecture, his intellectual and design contribution to the state in 1961-67 is significant. He also had an important role in introducing the discipline to established professions in South Australia, and to legitimatise the discipline within the state's public service.

Associated with the document are a series of large plastic see-through maps that were created by Correy to record, map, and synthesise information much along the principles espoused by Professor Ian McHarg in *Design with Nature* (1965) and used in the courses that Correy undertook in Illinois under Professor Pierce Lewis. These are a valuable and important record of the process used in devising and validating the design and planning conclusions and recommendations of the Master Plan.

Rankings of cultural significance
High cultural significance

- An important document within the state context as illustrating the birth, legitimacy and purpose of the profession of landscape architecture in South Australia

- Authorship of the document by a significant contributor to the emergence of the landscape architecture discipline in South Australia and Australia

Contributory cultural significance

- A document integral to the development of the Mount Lofty Botanic Garden.

Alteration or loss which has jeopardised cultural significance

- Curatorial deterioration of extant Master Plans and associated plastic maps that has not warranted them as significant documents to date
- Lack of follow through in design development of the original lake system and pedestrian circulation system, and thereby visitor infrastructure and facilities as proposed in the Master Plan design

3.3.4 Mount Lofty Botanic Garden Design: Origins and Vision

While we can attribute the authorship of the 'Report on the Proposed Development for Mount Lofty Botanic Garden' (1965) to Allan Dale Correy, its context and logic was very much informed by the landscape itself and the vision set by Noel Lothian that underpins the rationale behind the Plan.

As part of the research undertaken for this Conservation Study the consultants sought out the advice and ideas of Allan Correy, bringing him back to Adelaide to walk and discuss Mount Lofty Botanic Garden, to enable a first hand perspective and understanding of the intentions behind the design. Correy also prepared a short review paper as to the objectives he sought to achieve in the design, and this is contained in the Appendix to this Study. This involvement respects recent designer moral rights obligations now required of practitioners as set out on the Australian *Copyright Act*.

In searching out a suitable site to implement his 1947 announced vision, Lothian keenly explored much of the Mount Lofty hillscape to find logical existing public land holdings or possible large private land holdings for acquisition. The Garden site was discovered at an opportune time and presented a mixture of open cleared land and native forested land and an existing water system nestled in the lee of the Mount Lofty ridgeline.

Lothian's immediate action was to commence further clearing to lay the foundations for a botanic garden annex.

> *The valleys were gradually cleared and planted, but it was decided very early to have a continuous strip of native vegetation left throughout the whole area. This was done firstly to preserve the ecotypes and secondly because at that stage we knew of one or two colonies of bandicoots and other marsupials which inhabited those areas. We felt that if the whole area was cleared out it would prevent continuation of native animals and birds* (Lothian 1994: 3).

But somewhere during this tree clearance activity the notion of the need for a master plan occurred. Whether this came specifically from Lothian or from a member of the Board or from an associated state government official or member is unclear. Certainly, much of the activities of the South Australian Housing Trust (SAHT) in establishing Elizabeth from 1949 onwards was predicated upon plans, but whether this activity had any bearing upon the decision is unclear. Contemporary articles conclude that the idea came from Lothian, but it is also clear that several government officials through reports and associated with the land holding allotment program, pointed to the need for a master plan.

The need to engage a suitably qualified 'landscape architect' came from Lothian. It drew upon his exposure with such individuals during his time in New Zealand where the landscape architecture profession had matured quicker than in Australia. This title was relatively unknown in South Australia in the 1950s, as there was no practitioner in the state using the title, the Australian Institute of Landscape Architects was still in its conceptual infancy, there was no specific government nomenclature or category for a 'landscape architect' although the terms 'technical assistant' and 'landscape technician' existed, and despite the use of the term formally and informally by Gavin Walkley in his SAHT working years and his subsequent attempt to

create a landscape architecture program at the then South Australian School of Mines & Industries. As it is the appointment of Correy was left to Lothian, although he appears to have argued the concept of such a title and individual during the advertising and appointment phases, and thereupon Correy argued for changes in the public service categories to legitimise the title. This was despite the term 'landscape technician' being used in the original job advertisement for which Correy was successful.

Upon appointment in December 1961, Correy commenced discussing with Lothian the terms of reference for such a master plan. The brief for the Garden master plan was compiled in February 1962 and required that:

> *The landscape architect shall make a detailed examination of the Mount Lofty site, determine the site potential and prepare a plan and report indicating the measures which should be taken to ensure that the rear is developed in the best way. The master plan shall indicate, in broad outline, proposals for the overall development of the site, and detailed drawings shall be prepared, from time to time, of such sections which the designer feels warrant detailed design treatment. The report shall correlate with and explain proposals laid down on the master plan and shall be regarded as supplementary thereto. The report shall include, also, recommendations for the phasing of the various operations required in the implementation of such a scheme, and any other general matters which, in the opinion of the landscape architect, are necessary for implementing the proposals recommended* (Correy 1965: 2-3).

In approaching this brief, Correy sought to address five design issues:

- *the primary function of the area shall be a Botanic Garden;*
- *a large proportion of the area shall be given over to the establishment of exotic plant material of temperate to sub-alpine spaces, acrid soils and sandstone flora;*
- *general vehicular traffic shall not be allowed to circulate within the site, but service roads will be necessary;*
- *as much of the construction work, as can reasonably be expected from unskilled labour, shall be carried out by Botanic Garden staff;*
- *within reason, proposals are to be as economical as possible* (Correy 1965: 3).

Underpinning Correy's thoughts was his exposure to botanic gardens in Sydney, the United Kingdom and much of the eastern seaboard and mid west of the United States of America. It also drew from his theoretical and practical learning's as part of his apprenticeship in Sydney, and his formative training at Durham under Dr Brian Hackett and Urbana-Champagne in Illinois under Professor Pierce Lewis. Ancillary to this was the shear responsibility of having to design a botanic garden that led him into the library collections of the Adelaide Botanic Garden and the University of Adelaide's Barr Smith Library, and with numerous discussions with Adelaide Botanic Garden's staff and people in Adelaide familiar with botanic gardens. The libraries were a constant source of references, as illustrated in the strong theoretical chapter in the 'Report on the Proposed Development for Mount Lofty Botanic Garden' that drew upon contemporary publications from the United States, Europe and the United Kingdom.

A central question in this inquiry was 'what design philosophy should set the tone or character of this botanic garden?' The sloping hillsides provided opportunities for a range of landscape design styles but at the same time several were not conducive for their purposes in this endeavour nor would embrace the Australian vegetation and the characteristics of this site that Correy perceived.

Eventually the design for Mount Lofty Botanic Garden drew together the 18th century English Picturesque and 19th century American Romantic design philosophies. To reach this amalgam of styles, Correy struggled with the patchwork of the former orchard and forested landscape dotted with bore holes, forest segments, creek lines, and design considerations including creating a permanent water storage and respecting the high propensity to Adelaide Hills to bushfires. Fingers of stringybark bushland crested the space like waves, and each small valley and ridgeline was designed with a different botanical agenda in mind. While Correy had experienced many botanic gardens in Britain and the United States, and the large public parks

crafted by Frederick Law Olmsted (1822-1903), Humphry Repton (1752-1818) and Lancelot 'Capability' Brown (1715-83), it was to the inspirations of the Royal Botanic Gardens, Sydney, and the Royal Botanic Garden in Melbourne that he was drawn. Part of this influence was also due to contemporary Australian attitudes of Board members and Lothian who could only relate to established exemplars like Sydney and Melbourne, and the Victorian-influenced Adelaide Botanic Gardens.

The key aspects in his master plan implicated a sensitive approach to topography, consideration of fire and water, a planting design strategy, and a need to design the Garden for the visitor. These aspects include:

Landscape Design: an amalgam of 19th Century American Romantic and English Picturesque styles draped across the undulating landscape that embraced and used the fingers of stringybark bushland as foils to display and visually separate different valleys and their plant collections

Grand Axis: a swath of land, in an elongated rectangular form that was positioned across the middle of the design stretching across the waterbodies to enable and provide a visual focus to the Piccadilly Valley beyond

Scenic Rim: The retention and conservation of a native vegetated crest to the Garden including all ridgelines, to enable a strong aesthetic feature and 'fingers' of native vegetation dissecting the landscape;

Planting Design: plantings to follow broad geographic/ecological patterns, with flowering species planted in greater numbers in the bottomlands than upper slopes; colourful displays confined to the gullies where they are not seen as part of the overall design enabling surprise when they are entered;

Vehicular access and parking: vehicular access would be restricted internally, and egress would be obtained from three points (Summit Road, Campbell Avenue and Lampert Drive); internal public access roads needed to be two-way and bitumen surfaced; a series of small car parks to be located associated with entrances and visitor buildings; internal gravelled roads to follow the contours with restricted public vehicle access;

Pedestrian Access: pedestrian access allowed on internal roads and through a series of circular walks that followed the contours; short and long walks to be facilitated; erection of four suspension bridges to enable visitor access over the valleys and gullies;

Bridle Trails: a bridle trail to be provided from the Summit Road down to the Piccadilly Valley through the north-western tract of the Garden;

Lakes: construction of two ornamental lakes, within the topography, that also serve as water retention basins for fire retardation and irrigation purposes as well as their principle aesthetic role; lower lake some 6m lower than the upper; upgrading of the small existing dam;

Administration Buildings: erection of an administration building on the upper shore of the Upper Lake

Restaurant: erection of a restaurant sited over the Lower Lake in a sheltered and accessible location;

Tea Rooms: erection of a tea-room on the Scenic Rim enabling extensive views.

Lodges: erection of four accommodation lodges positioned near the entrances

Nurseries: development of three with one main permanent nursery sited adjacent to the depot;

Lookouts: provision of lookouts on all walking trails;

Outdoor Theatre: construction of an outdoor theatre or music bowl venue, of grassed terraces;

Outdoor Sculpture: some permanent outdoor sculpture pieces in a lakeshore setting;

While Correy was left with devising the Master Plan, Lothian hovered around seeking regular progress reports and pondering why a Master Plan could take so long to prepare. At the same time he proceded with further tree clearance activities and commenced plantings, somewhat in consultation with Correy. These two individuals conceptually agreed on the vision that was being created but disagreed in the timing of implementation, the stylistic approach, and the ingredients that were feasible. While Lothian left most of the work to Correy, certainly Correy was very much governed by satisfactorily incorporating Lothian's actions and visions where it did not compromise the Master Plan.

To a question in 1999 about the botanic garden, Lothian was asked:

> *Were there conflicting ideas between Noel and Allan Correy about what was desirable through Noel wanting something from a botanic perspective but Correy having different ideas because of design considerations?* [Lothian] … *indicated that there had not been major disagreements. Eventually they decided on a certain geographical breakdown, perhaps not as neat as Correy would have wanted but when Correy came back several years ago Noel thought he seemed 'quite satisfied' with the way that the plantings had worked out* (Lothian 1999: 21).

During 1962 to early 1965 Correy undertook extensive research into the Garden landscape seeking to create inventories, map the resources and qualities, and seeking to quantify the landscape's qualities and possibilities. This approach drew upon the foundation principles behind his education at Durham and Illinois, and involved the analysis of available data about vegetation, topography, climate, wildlife, bushfires, orchard and market gardening in Piccadilly Valley, as part of this process. But he also undertook first hand research about the site. In February 1963 Correy investigated the mine shafts, snorkelling the galleries. He noted that "much of the old workings has collapsed and the original winze has been partly filled with waste thus blocking all the lowest parts of the workings. … On average both galleries were four to six feet [1.2-1.8m] wide and eight to ten feet [2.4-3.0m] high and appeared to be in quite sound condition" (Correy 1965: 47). He also noted the discovery of an old tramline, "used to transport the mined ores out to the Piccadilly Valley", and noted its location on his site analysis plan. The analysis also considered the landscape perceptual values of the site.

To this end, Correy drew upon his studies at Durham and Illinois, robustly discussing English Picturesque and 19th Century North American landscape perception research, and concluding that the:

> … *most important landscape perceptual values of the area are the visual qualities* (Correy 1961; Correy 1965: 49, 50-51).

In introducing the 'Report on the Proposed Development for Mount Lofty Botanic Garden' Correy stated the aim of the project:

> *The aim throughout should be to design the area so that it can be regarded as supplementary to the Adelaide Botanic Garden, and fulfil all the functions of a botanic garden. At the same time the design should be such that it can harmonise with the existing surrounding landscape, and , as far as is possible, preserve and enhance the national landscape. The object should be to conceive a design, which will not only function, but which can be developed along a suitable design theme. Such a theme could act as a unifying element to hold the design together, and to serve to give the new garden an individualistic and even unique character* (Correy 1965: 25).

To Correy,

> … *it was obvious at the outset that three factors, namely climate, topography and existing vegetation would influence to a large extent any design thoughts ... To be really exciting, however, it was realised that a strong design theme was also necessary if, in fact, the new garden was ever to be an expression of South Australia and South Australians; become a botanic garden of unique style; and at the same time remain an integral part of the Mount lofty regional landscape* [sic.] (Correy 1965: 53).

In selecting a design theme, Correy considered three options. One that was "based on an altitudinal progression of species from sea level to snow line," one that was based upon a "broad regional/geographical distribution of species", and a third based upon the "modern ecological approach to landscape design" citing Brian Hackett as a proponent. While the third appeared more logical and purist, Correy, following consultation with Gardens and Herbarium staff, concluded that "both an ecological and a broad regional/geographical approach should be adopted" (Correy 1965: 53-54; Hackett 1963: 123-126).

Thereby,

> *A design based on this theme would be of benefit to the scientist, would be interesting to the layman, would be visually attractive and would aid in "fitting" the new development into the surrounding landscape in the least embarrassing way possible* (Correy 1965: 54).

In pursuing this philosophy Correy was constrained by four factors. In topography he found the greatest influence on the design, concluding that pathways and roads should run with the contours, with the 'landscape flow', and that terracing be limited. A historical precedent referred to in formulating this approach was the northern Italian Renaissance garden style, which had a renaissance in South Australia in the 1920s-30s under landscape designer Elsie Marion Cornish (1870-1946) and architect Walter Hervey Bagot (1880-1963), but declined following the Second World War.

A second factor was climate. This necessitated the conservation of existing native vegetated ridgelines and the use of heavy woodland areas to provide shade, shelter, cool understorey temperatures, maximum water moisture levels. This also necessitated the use of large and small water bodies for water retention and fire retardation as well as to reduce temperatures and to provide an aesthetic attraction. Again, some inspiration was drawn from northern Italian landscape design in making use of "strong contrasts of light and shade".

The third factor was soils. Correy sought to maximise plantings on the rich soils and proposed the relocation of good acid or alluvial soils where any waterbody would cover this resource.

The fourth factor was function. In this regard, Correy recognised that simply planting a collection for plants would not satisfy the visitor and user, then "certain amenities and even attractions must be "built into" the design" (Correy 1965: 57-58).

In considering the details of creating the design and the range of functions necessary to be "built into" the design, Correy set out a clear set of actions. Earth moving activities should be minimised, both stylised and naturalistic earth mounding should be employed, and all rich soils should be relocated before the lakes were created. For drainage, he required minimal changes to existing gullies and creeks, the under-grounding of all water infrastructure, and the use of lakes as both storage and cleansing purposes. For planting, appropriate soil preparation was recommended (Correy 1965: 58-59; the stylised forms relate to the design Correy prepared for the Highways Department car park in Walkerville in 1964).

To enable the engineering of the design several strategies were proposed; that access be limited to four points, and preferable two – from Summit Road and from Lampert Road; and, that internal access be restricted, with parking concentrated at the access points except a hard-paved red-brown coloured bitumen two-way internal circulation route around the two lakes. An unobtrusively positioned private vehicular circulation system, surfaced in red-brown consolidated gravel (not in white quartzite gravel) was proposed. This included small parking areas located close to the entry points, not large parking areas, and 'fitted' into the topography with optional grassed temporary parking areas.

Included was a pedestrian walking system that followed the contours, radiating out from the main car parks, and supplemented with information. Provision of a bridle trail from the Mt Lofty ridgeline down Long Ridge and into Piccadilly Valley to link with a regional bridle trail system was also envisaged. Four suspension footbridges over gullies to "enable visitors to walk from one ridge to another and to view the creeks, plantings etc from above" were also proposed.

In terms of water systems, construction of additional water storage tanks was an immediate concern, followed by the development of "an extensive artificial lake system" comprising two main lakes, with a 6m water level difference, shaped into the existing landscape topography for purposes of aesthetics and water storage. The design also included the construction of several low ephemeral pools or wetlands, the restoration of the gullies and watercourses, and the

creation of a permanent water circulation flow for the small 3m high waterfall in Fifth Creek. The creation of designated viewing points, and the under-grounding of all power lines within and across the Garden, were also included in the design (Correy 1965: 60-66).

Public amenities proposed included both facilities and information. These included an administration centre sited on the western shore of and overlooking the Upper Lake, and a restaurant sited on a peninsula of the Lower Lake. Tea rooms were proposed to be positioned on a Scenic Rim location. Four private lodges, for staff accommodation, were also proposed together with several shelters and toilets (Correy 1965: 66-71).

Key landscape elements in the design included:

- Retention of Nursery No 1 as the permanent nursery for the Garden and the removal of all other nurseries;
- Provision of trial gardens adjacent to the permanent nursery;
- Use of extant rock outcroppings as visual features;
- Use of the abandoned Silver Mine workings as historical interpretative facilities;
- Provision of an outdoor amphitheatre within Seventh Creek Valley;
- Provision of an outdoor art exhibition area on the south-western shore of the Upper Lake;
- Provision of several picnic areas throughout the Garden;
- Provision of appropriate signage and furniture;
- Provision of firebreaks on contours, ridgelines and along road corridors;
- Designation of a nature reserve, in the northwestern corner, with limited public access;
- Retention of existing vegetation as far as is possible especially along ridgelines and gully bottoms;
- A planting design strategy, using an amalgam of geographic and ecological design principles, and seeking to address visual effect and delight, enhance flowering times and displays, enabling colourful mass displays, carefully use and siting of conifers and similar to enable a dynamic effect or contrasting visual backdrop, planting of shrubs in mass displays similar to that used by landscape architect Roberto Burle Marx, use of naturalised bulbs in large informal drifts, and the provision of areas for large temporary plantings;
- Minimum provision of lawn expanses; and,
- The creation of four main planting zones (alpine zone; sub-alpine zone; cool temperate zone; and, warm temperate zone).

Within the 'Report on the Proposed Development for Mount Lofty Botanic Garden' were several bold and powerful design concepts. The provision of the Upper and Lower Lakes provided expansive aesthetically pleasing water bodies that wrapped around the natural topography. Correy proposed a broad geographic/ecological planting strategy basically to preserve character flowering species on the bottomlands rather than the slopes. Lawns were proposed to be kept to a minimum to reduce maintenance costs and watering. A vehicular and pedestrian circulation system, that respected the contours of the site, and enabled the erection of four pedestrian suspension bridges over select gullies to enable overhead inspection of their living collections was also proposed. Lastly, the creation of a SW-NE visual axis line draped across the lake system, or 'grand axis', with the Administration Building located at one and Piccadilly Valley at the other end.

In achieving the dual theme, the planting design strategy was important (Correy 1965: 72-76). The planting design strategy drew inspiration from his stylistic agenda. Like the amalgam of 18th century English Picturesque and 19th century American Romantic design philosophies applied in the overall Master Plan, the planting design approach used an amalgam of geographic and ecological design principles, and sought to address visual effect and delight, enhance flowering times and displays, enabling colourful mass displays, carefully use and siting of conifers and similar to enable a dynamic effect or contrasting visual backdrop, planting of shrubs in mass displays. An important inspiration was the planting design approach applied by

South American landscape architect Roberto Burle Marx that Correy played out in the design of the Western Wild Garden in the Adelaide Botanic Gardens in 1963-64. Marx's philosophy included the use of naturalised bulbs in large informal drifts, expansive areas of the one family or genera of species amidst undulating lawns, and the provision of areas for large temporary plantings.

In putting the final draft of the 'Report on the Proposed Development for Mount Lofty Botanic Garden', Correy included a statement accompanied by a quotation as the final imperative and justification behind the Master Plan:

> *In 1957, Frank Lloyd Wright said, "the good building is one that makes the landscape more beautiful than it was before." The landscape architect, too, has accepted this as a challenge – to design a botanic garden that will make the landscape more beautiful than it was before* (Correy 1965: 29, citing Wright 1962: 122).

3.3.5 Mount Lofty Botanic Garden Design: Design Implemented

From 1962 onwards it appears that the initial design thoughts of Correy for the layout of the Garden held sway to a certain extent. At time the impetus was driven by Lothian simply because of events and opportunities unfolding, and his position. But in many situations Lothian and the Board deferred to Correy, and subsequently the Master Plan, for advice and direction. The impetus of the Garden opening in 1977 and associated construction of the Main Lake appears to have had the most impact upon deteriorating the overall execution of the Master Plan. Thereupon the siting of visitor facilities, Garden administration, car parking, etc., were located in different locations to that proposed in the Master Plan.

The key elements executed, that mesh with what is contained in the 'Report on the Proposed Development for Mount Lofty Botanic Garden', include the:

- general stylistic approach as proposed in the Master Plan;
- planting strategy based around geographical zones
- pedestrian and main vehicular circulation system
- retention of Australian native forests and their spatial location on ridgelines and ridge flanks
- the sense of intimacy of spaces within gullies
- general locations of extant exotic species today
- philosophical approach to colour in the landscape

Key elements of the 'Report on the Proposed Development for Mount Lofty Botanic Garden' not executed include the:

- original design of the lake system
- axis line
- suspension bridge system allied to the pedestrian circulation system
- location and design style of visitor and Garden administration facilities including car parking, road surfacing, toilets

Thus, the overarching structure and form of the 'Report on the Proposed Development for Mount Lofty Botanic Garden' has been executed, and the broad design and planting strategy implemented. However, because parts of the infrastructure have not been executed in accordance with the Master Plan that it is leading to several of the problems in the Garden. Key structural changes with the Master Plan occurred in 1977 prior to and just after the public opening of the Garden, and these have set in-train continuing problems. These appear to be:

- The lake system was proposed to be more extensive and sculptural thus enabling greater fire and irrigation water storage capacity and a more crafted suite of waterbodies and edge treatments than that today;

- The integrity of the pedestrian circulation system has been compromised by the failure to erect the suspension bridges and the failure to construct the lake system in accordance with the Master Plan thereby removing sightlines, observed destination points, a sense of fluidity of movement around the landscape, and a considered positioning of visitor facilities;
- Visitor facilities lack a way-finding system as to their location, possess poor design resolution, fail to capture views and sightlines, and have not been largely executed in accordance with locations proposed and design principles set out in the Master Plan. Thus a sense of arbitrariness is inherent, compounding the sense of visitor disorientation; key facets that underpinned the logic as to visitor facility locations in the Master Plan;
- Living collections were strongly determined by geographical principles in the Master Plan, and while much of this philosophy has been executed, it has occasionally deteriorated because of the arbitrary arboretum-style planting approach that was applied and the historical manner in which plants and specimens arrived and were thereupon replanted in the Garden;
- Administration and maintenance facilities, including infrastructure, were intended to be as least visually obtrusive as possible in the Master Plan. This has not been largely executed;
- Correy under-estimated the growth that could occur with the Garden in terms of additional land holdings that would eventually be acquired and or transferred and annexed to the Garden. Several of these land holdings, including Mitchell's, O'Leary's, Arthur Hardy Sanctuary, have had and continue to have major design and aesthetic impacts upon the Garden landscape and setting because of infrastructure that has been positioned within such landholdings or been significantly influenced by such land holdings and their time of transfer;
- The impact of any bushfire upon the landscape. While Correy perceived the potential impacts, Lothian was wary of such events in searching for a suitable Garden site, and Mason and Duverkian had a feeling for what could happen, it is true to say that nobody realised what would happen, how fire would move through the Garden, the nature of impacts it could have, how one could minimise the impacts upon exotic trees and shrubs, and how one could strategically manipulate fire to the betterment of the Garden

Notwithstanding these aspects, the underlying Master Plan still exists and is reinforcing in the general circulation system, the planting design strategy, and the design approach applied to the retention and incorporation of Australian forest.

Rankings of cultural significance
High cultural significance

- Significant landscape design and its reinforcement in circulation, planting, and sculptural use and manipulation of the landscape of the Garden

Contributory cultural significance

- A strongly developed design that draws upon 18th century English Picturesque and 19th century American Romantic design principles

Intrusive

- The resolution of the lake edges and retaining walls to the planting design
- Continued poor siting and design resolution of visitor and administration/maintenance facilities

Alteration or loss which has jeopardised cultural significance

- Failure to execute the lake system as proposed in the Master Plan
- Unsympathetic siting and design resolution of visitor and administration/maintenance facilities
- Additional land holdings being annexed to the Garden
- Lack of full execution of the circulation system as proposed
- Bushfires

3.3.6 Contemporary Stylistic Influences

History and analysis

The design of the Garden, as it stands today is an amalgam of 18th century English Picturesque and 19th century American Romantic design embraced within a strongly incised semi-temperate Australian landscape. The construction of the Main Lake in a form and spatial configuration different than that set out in the 'Report on the Proposed Development for Mount Lofty Botanic Garden', largely due to economic expediency, has impacted upon the strength of this design approach creating an image of an expansive farm dam superimposed upon the landscape. This imagery is reinforced in the poorly treated and planted water edges and embankment wall of the Main Lake.

The origins of this design approach drew from Correy's control of the overall design. He was passionate about Australian flora and landscapes but struggled to devise a design style appropriate to accommodate such a function within a strongly visual landscape. While he scanned a range of styles, literature and recalled his site visits in Sydney, the United Kingdom, and mid-West to the eastern seaboard of the United States, a number of answers came forward.

First, to address such a strong visual landscape one had to integrate a design within it rather than compromise it or place it at odds within the natural qualities it offered. This drew indirect adherence to the ideas of Brian Hackett, Sylvia Crowe, Frank Lloyd Wright, Jens Jensen, Walter Burley Griffin, to which he was exposed to in his undergraduate and postgraduate studies at Durham and Urbana-Champaign.

Second, the design needed to incorporate visual qualities and enhance them further, and thus 18th century English Picturesque offered a lot of inspiration. It was not the principles of the Prairie School landscape style he explored in this instance; but he did incorporate these in his Adelaide Plains private and public commissions.

Third, the 19th century American Romantic style offered fluidity in circulation and spatial design, enabled surprise and mystery, but was very much suited to flat to undulating landscapes of the eastern seaboard.

It was also clear that a radical design, drawing inspiration from the European Expo's of the 1950s was not appropriate nor would have been received well by Lothian and Board. Indeed, much of Lothian's landscape design understanding for botanic gardens drew from their arboretum-like settings, and from expansive private gardens in the semi-temperate cool slopes of the Dandenong Ranges and Macedon Ranges.

Thus an amalgam of two styles unfolded and provided the easiest answers. Perhaps part of the acceptance of this amalgamated stylistic approach drew from visits to other Adelaide Hills large estates and private gardens, where 18th century picturesque was often employed, capturing views, but imposing a Gardenesque planting approach due to the scientific botany inquiry that was pursued by many of the original owners of these gardens and estates. In many of these examples, the horticulturally-rich gardens existed within the valleys and gullies, the ridges were enveloped in Australian semi-temperate forests or in plantations of newly planted pines (*Pinus* spp) and conifers (*Cupressus* ssp), views were sought after and captured, colour and Asian plants were delighted in, and expansive lawns were in dispersed by cool northern hemisphere-like forests. Such was typical at properties in the Hills such as 'Carminow', 'Eurilla', 'Mt Lofty House', 'Wonnaminta', 'No. 9', 'Beechwood', 'Panmure', 'Thorpe', 'Forest Lodge', 'Wairoa', etc (Beames & Whitehill 1981). The conclusion can be drawn that the character of Mt Lofty Botanic Garden is in many ways an expansive version of a typical 19th century private estate of the Adelaide Hills but with a greater sense of geographical planting and a less intimate and intricate circulation system.

Rankings of cultural significance

Contributory cultural significance

- A strongly developed design that draws upon 18th century English Picturesque and 19th century American Romantic design principles

Alteration or loss which has jeopardised cultural significance

- Deterioration of the overall 18th century English Picturesque and 19th century American Romantic style as a consequence of the Main Lake design and execution
- Bushfires

3.3.7 Engaging with the Australian flora

History and analysis

There has been, and continues to be, a strong engagement with native Australian flora on the site.

While the majority of the landscape consists of secondary regrowth, due to extensive clear-felling and associated bushfires, much of this regrowth has enabled the re-establishment of a viable wet-dry sclerophyll forest that originally cloaked these slopes. While evidence is limited as to the actual species that inhabited these slopes and watercourses, existing Australian forests and tracts along watercourses in the Garden mirror vegetation communities recorded elsewhere on the dry and wet slopes of the Mount Lofty Ranges that have not been extensively affected by bushfires.

In reviewing the attributes of the prospective site, Lothian noted the existence of secondary regrowth Australian forest but did not dwell upon it until Herbarium species surveys started recording significant remnant ground and lower storey specimens. Correy however realised the potential the regrowth offered to the overall collection and potential of the Garden. He deliberately sought to exploit this vegetation by seeking to conserve existing forest 'fingers' along ridgelines and tops, to conserve remnants along watercourses, and to capture and exploit them as part of the overall dramatic backdrop to the Garden and as a vehicle for demarking exotic living collections. He also recognised that they represented, and could he harnessed, as one important living collection within the overall Garden.

This vision has been maintained *albeit* the dilemma of bushfires. Subsequent Botanic Garden's landscape architects and directors, and Mount Lofty Botanic Garden's staff, has recognised the attributes the forested areas represent, the important plants and animal species that now reside within these forests, and the visual and management attributes they offer.

Rankings of cultural significance
Contributory cultural significance

- The Australian forests present an important living collection feature of the Garden
- The Australian forest provides the underlying backbone to the overall master plan for the Mount Lofty Botanic Garden

Alteration or loss which has jeopardised cultural significance

- Poor management approaches that lessen the visual strength and biodiversity integrity of the Australian forests
- Bushfires

3.3.8 Gardening under glass

History and analysis

Propagation and the cultivation of plants has been an important activity at Mount Lofty Botanic Garden. Over the years several propagation nurseries were established around the site before being removed as the Garden matured and it neared time to publicly open the Garden in 1977. Of these, only one nursery exists today, possessing a mixture of glass and shadehouses from various sources and ages, but possessing continuity of use from the Garden's infancy.

There is minimal evidence of the original sites of the other nurseries. Only several mature trees, which grew from specimens left within the dismantled nurseries, mark the locations today. There is no visual evidence of their existence or original scope.

Rankings of cultural significance
Intrusive

- Visual presence of such infrastructure in the landscape

Alteration or loss which has jeopardised cultural significance

- Continued infrastructure development in the same locations

3.3.9 Ornamentation

History and analysis

While Correy proposed the incorporation of art and sculpture in the Garden, it was not carried through by Lothian and the Board. Indeed, no sculptural items were added until Morley became director, and then Morley applied a restrained, careful and sympathetic public art policy in the Garden. Both approaches reflect the same manner in which art and sculpture was dealt with and considered in the management of Adelaide Botanic Gardens.

The approach taken by Morley has left a suite of sympathetic art pieces, by one artist, in unobtrusive locations within the Garden.

Rankings of cultural significance
Contributory cultural significance

- Important contributory exemplars of the craft and work of Greg Johns

3.3.10 Manipulation of water

History and analysis

In acquiring the main portions of the Mt Lofty Botanic Garden, the Garden inherited a small dam, a large farm dam, and a small Spring Dam. The former was enlarged and partially reconfigured and is a major aesthetic feature of the Garden today. The farm dam was bulldozed and the existing main lake crafted upon its site. The Spring Dam was enlarged in holding capacity to assist irrigation and nursery work but is visually spatially unconnected to the Garden today.

Historically a series of channels fed water from the Spring Dam and other undetected dams and springs, down into the market garden paddocks of the lower reaches of the Garden. These largely disappeared with changes of ownership and the initial development works of the Garden. Most creek watercourses have been retained and incorporated in to the overall design and planting strategy applied.

Figure 3.3:
Plan: Mount Lofty Botanic Garden Water Supply, 1984, by RD Stokes Engineer. Source: Gardens' Archives.

In the 1969s the Garden constructed much of its irrigation system infrastructure, with the main lake being created in 1976. With the Ash Wednesday bushfires the water supply system of the Garden was reviewed with the objective of increasing capacity and serviceability and many works were carried out as a consequence over the ensuing years.

Rankings of cultural significance
Intrusive

- Main Lake spatial and edge design

Alteration or loss which has jeopardised cultural significance

- Changes in the water system design different to that set out in the Master Plan