Burnley Gardens

RICHMOND, MELBOURNE

By LEE Andrews





INTRODUCTION

Burnley Gardens, located in the suburb of Richmond in Melbourne, date back to 1861. From the beginning, Burnley has been involved in horticultural research and education, with the grounds first used to trial fruit varieties for introduction into Victoria. Australia's first (and for many decades only) school of horticulture was founded on this site and continues as part of the University of Melbourne. These mature ornamental gardens of outstanding landscape quality have been created over the course of one hundred and forty years and have been open to the public from the beginning. Recently Burnley Gardens have been placed on the Victorian Heritage Register as a site of state and potentially national significance.

A decision is made to establish experimental gardens

Burnley Gardens were established in 1861 as the horticultural and experimental gardens of the Horticultural Society of Victoria (HSV). The society, dating back to 1848 and John Pascoe Fawkner, had conducted horticultural experiments since 1850 on ten acres set aside in the Melbourne Botanic Gardens (Cannon 1991). However, in order to carry out the dual aims of 'introducing new plants, trees and seeds of all kinds hitherto unknown into the colonies' and 'promoting Botanical and Horticultural Science', the HSV applied for its own grant of land. In 1860, with support from the neighbouring municipal councils and a number of influential citizens, the HSV chose a 'particular portion' of the Survey Paddock in Richmond.

This site of twenty five acres on a large bend of the Yarra River contained both high ground and a large area of floodplain over basalt bedrock. The selection, with its steep river banks, was dotted with waterholes and supported a woodland of river red gums, four of which remain within the Burnley Gardens boundaries today.

In late 1860 the government granted the land to the HSV on the condition that an agreed proportion of the proposed gardens remain open to the public. Pergola to the north of the sunken garden. The wisteria was planted by Principal Jessup and his wife (1926–41). To the right are the remains of a raised garden also from this period. (L Andrews 2001)

The Native Grassland. (L Andrews 2001)

Sequoia sempervirens c.1900. Note the jacaranda (still present) and the bunya pine, removed some years ago.





Sequoia sempervirens c.1890. Note the surrounding camellias at its base, the Cedrus deodara (deodar cedar) to its left and the curved path in front. The broad expanse of path on the far bottom left is the original carriage drive inside the entrance gates.

Part of the semi-circular path system from Lynch's plan c.1890s. Note the predominant conifer plantings.

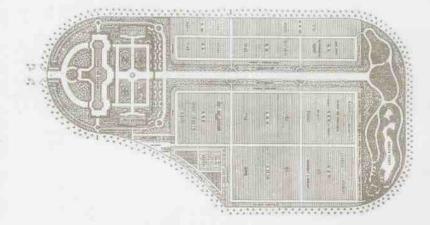
Alfred Lynch's prize-winning design for Burnley Gardens, 1861. Because much of the land to the east (RHS on the plan) was flood-prone, a large part of the design was not implemented.



Early layout of the Gardens

The HSV wasted no time and supported by similar societies in Europe, America and India it advertised a national competition for a design for the experimental gardens early in 1861. An ornate, symmetrical design by Prahran landscape gardener Alfred Lynch was chosen unanimously as the winner thus earning the £15 first prize.

Until recently, it was thought that this design had never been implemented, but a previously overlooked note on a scrap of paper in archives held at Burnley Gardens eventually led to an exciting discovery. A full explanation of events leading up to the establishment of the Gardens and a detailed description, sometimes week by week, of the initial construction and planting of the site, were found in the *Victorian Farmers' Journal and Gardeners' Chronicle*, including



'To those who have not seen the grounds we would recommend an early visit; even in their present style they are interesting and the style of the design, though now much in vogue in Great Britain is, we believe, unique in this country.' the following eye-witness account published on 26 October 1861:

The road towards the gardens first crosses the Suburban Railway [still in Burnley Park] and after winding gracefully through the trees, few or none of which will be removed. the intended entrance is reached. Here we are met by a circular bed 50' in diameter. flanked by 2 beds of irregular form; a fine Taxodium sempervirens [Sequoia sempervirens or coast redwood, still present] 10 feet high, presented by Mr Rule, forms a beautiful centre object, which will, at some future period, perhaps occupy the whole area of the bed. Leaving the terrace grounds on which these beds are formed, a flight of steps will lead to the next terrace, on which the exhibition building is intended to stand, and on a further descent by similar means a third terrace is reached; but a fourth descent is required to gain the most ornamental piece of geometrical work in the garden, which when finished will be one of its most attractive features. The slopes from terrace to terrace are all planted with chamomile, the dark green of which will admirably set off the beds with their ribbon style of decoration in front. The more ornamental part of the grounds will be the 6 acres met with on entering, the remainder being chiefly designed with a view to utility. in testing the capabilities of new fruits and trees, and proving their adaptability to this colony. The design was the work of Mr Alfred Lynch, and is being carried out under his superintendence. On the right and left of the entrance it is intended to place the curator's house and the library for the use of members. Fine specimens of Araucaria. Cryptomeria and rare Coniferae are dotted about with a view to future effect, and the beds as fast as finished have been filled...

Lynch's design reflected a condition of the land grant stipulating that a substantial area of the grounds was to remain open and accessible to the public. Thus the grounds were divided into two sections: the ornamental section on the high ground open to the public and the fruit trial area, or proving ground, on lower land, reserved

for members of the HSV. Although the official opening of the Gardens would be delayed by a full year due to late planting, the ornamental part of the Gardens was open to the public daily from January 1862.

Official opening of the Gardens

By the official opening on 1 January 1863 the Gardens had been planted out with a selection of ornamental trees (mainly conifers). These were provided by Ferdinand von Mueller (a long serving member of the HSV) and by prominent nurserymen. Specimens such as *Cedrus deodara* (deodar cedar), *Erythrina caffra* (coral tree) *Ficus obliqua* (small-leafed fig) and *Chamaecyparis funebris* (mourning cypress) were planted on the high ground in the '2 beds of irregular form' either side of the *Sequoia sempervirens* (coast redwood).

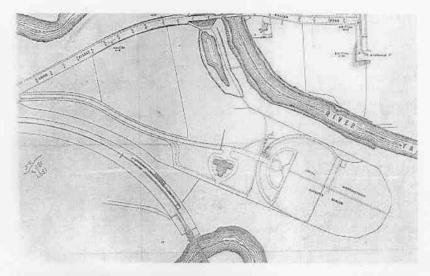
Early expeditions beyond the urban centres yielded important new plants, and many native trees were being described and brought into cultivation for the first time. *Agathis robusta* (Queensland kauri), - described in 1859 - and *Eucalyptus cladocalyx* (sugar gum) - described in 1853 - are two such Australian plants featuring in the Gardens from the 1860s and still present today.

Flooding a problem

The orchard, or 'proving ground' on the lower easterly ground was planted with fruit trees, many of which had been obtained from England by the HSV.

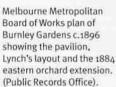
By the end of 1863 the Gardens contained 1400 different varieties of fruit. Shortly after this count was taken, however, a flood swept away the lower section of the Gardens, destroying

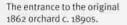




much of Lynch's lower terracing and the orchard trees growing there. The upper terrace, site of the Sequoia sempervirens, was untouched and the orchard's central axis and possibly some rock work remain to this day.

Despite this early setback, the HSV was undeterred. Over the next thirty years the HSV undertook programs in the Gardens including the acclimatisation of fruit trees to conditions in Victoria, the development of new varieties and the improvement of breeding stock. The experimental gardens were extended twice over the next twenty years, in 1865 and 1884, resulting in the HSV gaining high ground to the north and west and returning some of the original easterly flood-prone land to Richmond Park (previously known as the Survey Paddock). This extension of the orchards allowed trials with an increasing number and variety of fruits and from around 1874 vegetables were also tested. Following overseas success of its fruit in various international exhibitions, in 1873 the HSV claimed, quite possibly correctly, to have the most comprehensive range of fruit varieties outside Europe.

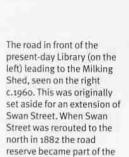






Working in the eastern orchards c. 1918. Note the distinctive skyline of the ornamental section of the Gardens, little changed today.

Entrance to Burnley
Gardens (c.1890) from the
carriage drive,. The
Curator's Cottage, on the
left, was demolished in 1897
and the new Principal's
House built in its place. The
Sequoia sempervirens can
be seen at the right rear.



Gardens.



Crime prevention

Although the orchards in the Gardens were fenced and not open to the general public, they presented an irresistible cornucopia to many Melbourne residents. In 1877 nearly all of the stone fruits were stolen, causing the curator to recommend the construction of a 'watch-box' during the fruit season, from which he or an assistant could keep some control over this part of the Gardens (T Kneen 1948). In 1886, an immense African boxthorn hedge was planted around the entire perimeter of the eastern orchard and its new extension to deter theft. Even this thorny obstacle did not always deter determined thieves, who were known to back trucks up to the hedge and, by placing some form of protective platform on top of the hedge, remove copious quantities of fruits and vegetables.

By 1884, the Gardens had reached maximum size, with boundaries that would remain virtually unchanged for one hundred and ten years. By 1888 the ornamental gardens were surrounded by orchards in which 2235 varieties of fruit and vines were cultivated.

The lower (eastern) orchards were surrounded by a paling fence and the boxthorn hedge, enclosing fruit trees (dwarf and full size), vegetables, vines and bramble fruits. Entry to these orchards was through a vine-covered arch from the ornamental section. This afforded access along the geometric path layout constructed by Lynch and still evident today.

'A pleasant resort'

The original ornamental section of the Gardens, with the early Curator's Cottage, remained fenced with white painted pickets and a set of



double gates delineating the 1861 boundary. However, with various land acquisitions, the ornamental section had been extended towards the west and featured beds filled with a variety of trees including the still extant *Ficus macrophylla* (Moreton Bay fig), *Cupressus torulosa* (Bhutan cypress), *Quercus suber* (cork oak), *Araucaria cunninghamii* (hoop pine) and *Phytolacca dioica*.

This new section also contained a pavilion in which the HSV could hold its annual horticultural shows. Constructed of stone-coloured weatherboards and featuring two large arched entrances, its surrounds were planted with lawns and shrubberies. Further to the west and north of the pavilion was another extensive orchard, in use until the 1930s.

Around 1882, the Gardens also officially acquired a slice of land containing an early unformed pedestrian extension of Swan Street which had been edged with a row of elms by the HSV in 1865. Two of these elms (the most westerly specimens) can still be seen today. During this time an ongoing program of ornamental tree planting, often with the trees planted in pairs, as was routinely the practice in the orchards, had been carried out so that the ornamental section of the Gardens was 'a pleasant resort' for visitors.

The gravelled carriage drive of 1861, lined with eucalypts and *Pinus radiata* (Monterey pine), which wound from Bridge Road through Richmond Park to the Gardens, was re-aligned and a new entrance made into the Gardens in 1884. The location of this entrance, in use up until the early 1920s, can still be made out. It is marked by a single *Pinus radiata* and remnants of a cypress hedge on the corner of Madden Grove and Swan Street near the railway crossing.

In 1885, the HSV was granted a Royal Charter by Queen Victoria, and was henceforth known as the Royal Horticultural Society of Victoria (RHSV).

The government takes over

The work of the experimental gardens continued to incur heavy expenses and with the onset of the severe economic depression in 1890, the RHSV, unable to repay its building loan, was forced to declare bankruptcy. In 1891 the Victorian Government took control of the experimental gardens at Burnley, discharging the RHSV debts and placing the Gardens under the auspices of the Department of Agriculture. That year the Royal Horticultural Society of Victoria's former experimental gardens became the site of the first school of horticulture in Australia.

Known as the Royal Horticultural School,
Burnley–Department of Agriculture, Victoria the
school was officially opened in May 1891 with an
initial enrolment of fourteen male students.
George Neilson, the curator of the Gardens for
the previous nineteen years, was appointed
senior officer in charge of the school. The
pavilion was used for classrooms and storage
and the Gardens for practical work.

The school soon began to focus on agriculture. In 1891 the Gardens became home to a herd of cows, and slowly the site began to take on the appearance of a small farm.

Charles Bogue Luffman-first principal

After the death of George Neilson in 1897, the Government appointed Charles Bogue Luffman as the school's first principal. A new house was built for him and his wife on the site of the old Curator's Cottage and material from the

cottage's demolition was re-used in the construction of a stock-keeper's residence in the far north-west corner of the Gardens.

Luffman, an English landscape designer with an impressive background in the fruit industry, is credited with designing the 'old' ornamental garden as it remains today, using his substantial new residence as the focal point. The fence (c.1862) which encircled the original western boundary of the Gardens was removed, allowing the 1861 and 1870s sections of the ornamental gardens to be treated as a whole.

Luffman considered that the natural, informal garden style suited Australia and so re-formed many of Lynch's 1862 geometric lines, creating informal sweeping paths and wide curved borders full of shrubs and flowering trees such as Japanese crab apples, cherries and maples. Within these shrubberies he formed narrow winding paths and small open spaces with informal 'wild' flowers, in the style of English landscape designer and noted plantsman William Robinson (Watts 1981). Believing that shady cool areas were vital in the hot Australian climate he constructed ornamental ponds in the centre of the Gardens, adjacent to the carriage drive which led, not to the old Curator's Cottage, but to his new house built in its place. Paths were sunk until they were invisible when looking across from one area to another (Mordaunt 1937).

These devices, Luffman believed, helped the ornamental gardens at Burnley 'come nearest to the finest expressions of nature' (Winzenried 1991). Many of the remaining original deciduous trees and shrubs in the Gardens, such as Salix fragilis (crack willow), Prunus serrulata (flowering cherry), Prunus persica (flowering peach), Ulmus parvifolia (Chinese elm), Sparmannia africana 'Flore Pleno' (double



Looking across Luffman's Lily Ponds towards the Pavilion c.1915.

Luffman's Lily Ponds c.1900. Note the Sequoia sempervirens in the centre background. Looking south east along Luffman's Lily Ponds c.1916. The ponds were constructed along the original 1862 carriage drive leading to the Gardens' entrance gates. The deciduous tree in the left foreground is the crack willow (Salix fragilis), thought to have been planted by Luffman.

Women students tending the orchard border in 1900. The arched entrance is visible on the left. (Principal's Annual Report 1899 held at the State Library).



flowered sparmannia) and Corynocarpus laevigatus (New Zealand laurel) are thought to date back to Luffman's time.

Education for women

Luffman was also responsible for the formal inclusion of women in the student intake at Burnley. Although 'ladies' were invited to the free lectures offered by the school from its inception in 1891, formal training was offered only to men. When Luffman became principal in 1897, he particularly encouraged the admission of women to the school and initiated the radical move to allow their full time enrolment, which was achieved in 1903. This represented a significant new opportunity for Australian women workers of all classes and at the school at Burnley demand exceeded places and many were turned away. By 1914, Burnley Gardens was well known for its provision of full time tertiary training for women and until the 1970s women outnumbered men in the school.

This radical inclusive policy proved highly significant, as the decision to admit women to Burnley laid the foundation for the careers of a number of female students who later had a profound impact on the development of garden design in Australia. These included Olive





Holttum (Mellor) (1891-1978), Emily Gibson (1887-1974), Edna Walling (1896-1973), Mervyn Davis (1916-1985), Margaret Hendry (1930-2001) and Grace Fraser (1921-).

Horticulture to agriculture

During Luffman's time as principal of the school, however, the Gardens had begun to reflect a shift in focus from horticulture to agriculture, and the school became known as Burnley School of Horticulture and Small Farming from c. 1903.

By 1910, the ornamental gardens featured extensive flower gardens, lawns and a 'native border' filled with Australian shrubs and trees. The two orchards (east and west) comprised fourteen acres of fruit trees and vegetables; the fully-bearing collection of fruit trees, with more than 600 varieties of apples and 300 of pears, was reportedly unrivalled anywhere in Victoria. Scions for grafting continued to be available to the public as they had been for decades and fruit and vegetable growers from all over the State came for advice and to learn from the methods used at Burnley.

Continuous experiments relating to fungal diseases were carried out on cereals, potatoes





The Milking Shed today-

The Milking Shed c.1920. Note the silo on the left and the fencing for the Bull Paddock on the right.

now a bookshop, offices and home of the Burnley Gardens archives. It was and other root crops. Grain fields to the south of Swan Street were used in experiments that complemented William Farrer's vital work on rust-resistant wheat strains in the late 1890s. Hay and fodder crops for domestic animals were also grown in this area. The grounds also contained poultry runs, plant nursery, stables, cow sheds, dairy, barns, and later a silo.

A dairy herd grazed in the 'lagoon' paddock and paddocks at the western end of the gardens, near the stock-keeper's residence built around 1902. A bull was penned in the paddock next to the milking shed. The lagoon paddock, although now filled and levelled, still exists as grassed open space adjacent to Yarra Boulevard. The bull paddock (used for a time as a staff car park) and milking shed (now the Centenary Centre housing a bookshop and offices) also remain today.

In 1917, the site's name was changed to the School of Primary Agriculture and Horticulture. In the early 1920s the Department of Agriculture began to relocate a number of its divisions to the Burnley site. Additional rooms were created by erecting extra partitions in the Pavilion, nicknamed 'the Elephant House'. By this time, a summerhouse, still extant today, had been built overlooking Luffman's ornamental ponds, and the continued program of planting deciduous and evergreen trees resulted in a maturing and attractive garden.

With the arrival of the electric tram service along Swan Street in 1916, a new entrance to the grounds was created around 1922. This entrance from Swan Street was formalized in the 1930s after construction of a new Plant Research Laboratory, also still standing today.

Burnley rocks, more floods

After Luffman's design changes in the early years of the twentieth century the ornamental section of the Gardens changed very little during this period. This was remarkable, as all sections of the Gardens were constantly used for practical instruction by the students, who also undertook much of the Gardens' maintenance. Where major change did occur, usually in response to new building programs over the century, it always reflected and enhanced the style intention of the Luffman landscape.



The entrance to the Gardens from Swan Street c. 1937. The building is the Plant Research Laboratory.

One of the few additions to the Gardens in the 1930s was a rock garden built behind the bull paddock by Hilda Kirkhope, a landscape designer and lecturer at Burnley from 1932 to 1938. The informal landscape style she had learnt as a student at Burnley ensured that this structure complemented the existing character of the Gardens. This rock garden has recently been restored, and as late as 2002 still retained the original plantings of *Magnolia stellata* (star magnolia), *Chamaecyparis lawsoniana* 'Aurea' (golden Lawson's cypress), *Prunus x subhirtella* 'Pendula Rosea' (rosebud cherry), and *Camellia sasanqua*.

In December 1934, a severe flood washed away hundreds of tonnes of soil and almost the entire original eastern orchard leaving only a handful of trees. These are the *Morus nigra* (black mulberry) dating back to the 1870s, and two rows of *Pyrus* spp. (pears) still in the orchard (now known as the Field Station) today. Replacement fruit trees were supplied to Burnley's orchard over the next few years, free of charge, by Nobelius Nursery in the Dandenongs.

In 1936 it was reported that '24,000 cubic yards of gravel, sand and silt, mostly deposited by the big flood of 1934 had been dredged at the Como Park section of the river' (Henley 1982). Much of this probably came from Burnley Gardens.

Post war - mowing and milking

After World War II the Government funded construction of a new building in Burnley Gardens to replace the old Pavilion and house administration, classrooms and the library. Building commenced late in 1945 and was the first major public project undertaken by the Public Works Department since the end of the war (Winzenried 1991).

The Principal's Residence c.1919. Note the line of Cupressus sempervirens (Italian cypress) at the top left and the Cordyline australis at top right.

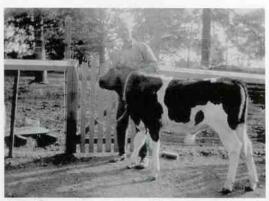
Calf in front of the Bull Paddock c. 1926.



A description of the Gardens at this time (1946) is provided by Dorothy Kneen, wife of the newly appointed principal (D Kneen 1991):

There were two large gates at the Swan St entrance with the name of the school emblazoned across the top. These were locked at 5.50 p.m. each day. From them a gravel drive meandered along past the very small Plant Research Laboratory, past the cow paddocks and the new building site with the old building still intact, along between the lily ponds and the long border to our house, which was the central and focal point of the gardens...The house was a charming pseudo-Tudor cottage with half-timbered walls and a slate roof. It was painted dark green with cream stucco work...When we first went to Burnley there were still remnants of the old avenue of Pinus radiata which had originally led to the Gardens from the Swan St railway gates [at the corner of Madden Grove]...Because we had cows we had to have a dairy and a milking shed which is still standing. It was a six stand shed and all the milking was done by hand...At the point where the present road goes down to the Boulevard [near the current Centenary Centrel there was a large silo, which was used to store fodder for the cows and horses. When we went to Burnley there were three draught horses...used for ploughing in the vegetable garden and orchard and for pulling the dray...

The lawns in the Gardens were handmown by the students for many years and each weekend were left in perfect condition for the public visiting (D Kneen 1991). In 1936, principal of the



school Alec Jessep requested that a motor mower be purchased for the school because of the increase in land area now that there were more divisions of the Department of Agriculture in the Gardens. He also pointed out that motor mowers were now commonly used and students should be trained to use them. This request was denied and it was not until 1940 that the first motor mower was finally provided for the vast expanses of lawn in the Gardens.

Emily Gibson makes her mark

The new administration building, designed by Percy Everett of the Public Works Department, was completed in 1949, and the 1884 pavilion finally demolished. Remnants of its foundations are reportedly still in situ, overlaid with lawn. The new building prompted the redesign of the adjoining beds and lawn areas and new landscaping around the building itself was needed to integrate it with the Luffman gardens.

Emily Gibson, past student at Burnley and landscape designer, undertook this task, with assistance from principal Tom Kneen. A Magnolia grandiflora (evergreen magnolia), still thriving today, was espaliered against the new building to soften its lines and a Melaleuca styphelioides (swamp paperbark, still extant) was planted in the front lawn around 1950.

Gibson also laid out two kidney shaped beds, constructing a hollow between them to suggest many years of wear. These can still be seen today, complete with many of their original plantings. The teardrop lawn, also extant, was retained to the north of the building. Also around this time, a new stone retaining wall, still evident today, was built along the Swan Street boundary of the Gardens.

No more cows

With the rise in amenity horticulture during the 1950s and 60s, Burnley Gardens ceased to function as a centre for small farming, and returned to its original horticultural focus. The school was renamed Burnley College of Horticulture in 1958.

By the end of 1966, the Gardens site was divided into two main areas – research services, carried out by the various branches of the Department of Agriculture - and horticultural education, undertaken in the classrooms and open-air laboratory of the Gardens. In 1959 the dairy herds were finally dispersed and the chicken runs and coops reduced before final removal c.1982.

Over these two decades, the building program included a new plant nursery complex for substantial research into plant biology and propagation (1966), chemistry centre (1968), technical block (1969) and student amenity centre (1973). The lagoon paddock was gradually filled between 1966 and 1977 and grassed, and a new entrance road to the Yarra Boulevard constructed (1971). Early plantings such as the 1884 boxthorn hedge around the orchard and the last remaining tree of the 1861 *Pinus radiata* avenue were removed in 1962 and 1965 respectively.

In 1962, noted landscape designer Ellis Stones, constructed a rock garden to the east of the nursery area. The volunteer group Friends of Burnley Gardens, formed in 1997, assisted with the renovation of this garden in 1999.

Australian plants again popular

The ornamental section of the Gardens was recognised as an immensely valuable asset by principal Tom Kneen in 1966. At this time it featured extensive garden beds, lavishly and thickly planted with annuals. The Principal's Drive bed (still extant today to the north of the lily ponds) was one hundred metres long and three to four metres wide and always planted for display. The west side of the Administration Building was planted in the 1960s fashion using the native *Doryanthes* sp. (spear lily) and agaves with red scoria used as mulch. The Gardens reflected the educational needs of the students

and specific plants were planted in the Gardens on the request of lecturers. (Hipwell 1999).

This period saw another rise in the popularity of native plants, and the following trees (still extant) were planted in the native border area, and around the new Student Amenities Building: Brachychiton rupestris (bottle tree), Callitris columellaris (white cypress pine), Eucalyptus sideroxylon subsp. tricarpa (red ironbark), Eucalyptus nicholii (narrow-leaved peppermint), and Ficus rubiqinosa (Port Jackson fig).

In recognition of the need to have a planting policy to replace important signature trees when they reached senescence, a *Taxodium distichum* (swamp cypress – 1972) and *Cedrus deodara* 'Aurea' (golden deodar – 1970) were planted in the vicinity of the *Pinus radiata* specimens which had been removed from the original 1861 carriageway. A *Sequoia sempervirens* sucker from the original 1861 tree was also planted out in 1970 (Hipwell 1999).

Moving ahead

In 1980, the principal's 1897 residence, in a state of disrepair and no longer needed, was demolished despite a last minute effort to have it classified by the National Trust. The building's footprint was excavated and a sunken garden constructed here shortly afterwards by students. Remnants of raised stone beds and a stone seat dating from the 1920s and 1930s can still be found to the north of the sunken garden, in what was the principal's garden. An old wisteria now climbs over a timber trellis where it once covered a shed in this garden. The 1861 drive was also removed and the area turned to lawn.

The Bull Paddock in 2001 with Araucaria cunninghamii (hoop pine).



The entrance to the Principal's Drive with the lily ponds on the right c1930s. The Summer House is out of the picture to the bottom left.

The same view today.
The area of toppings to the lower left is the entrance to the Summer House.
(L Andrews 2001)



Reflecting Burnley's prominence in the teaching of amenity horticulture in Australia the fruit and vegetable sections of the old orchard were moved to Dookie Agricultural College in 1981.

The orchard (established 1862 and extended 1884) became known as the Field Station, used for research and amenity horticulture. In recognition of the history of the fruit tree collections, and the long tradition of fruit tree pruning demonstrations for the public at Burnley, a pruning garden for public and student demonstrations was later planted in about 1999.

The Energy Centre was built in the Field Station in 1986, and library and classrooms opened in 1981 near the lagoon paddock. The formal Rose Garden was laid out in 1981, and around this time, additional *Ulmus procera* (English elm) trees were planted to replace those in the 1865 elm row that had died during the 1969 drought. In 1985, the *Quercus suber* (cork oak) and *Agathis robusta* (Queensland kauri) in the Gardens were listed on the National Trust (Victoria) Register of Significant Trees.

Teaching requirements dictated the addition of many native shrubs and trees to the Gardens during this period. This was achieved by the development of the Rainforest Garden in 1993, and the Native Garden, consisting of a stream linking a series of ponds, an informal bush garden and an indigenous grassland which was developed between 1980 and 1992.

Along the Swan Street entrance drive, sixteen *Corymbia citriodora* (lemon scented gums) date from the early 1990s. These were grown from seed at the Gardens in an experiment using the first root control bag system (Hipwell 1999).



Looming change

In 1995 a large section of the site, owned (as Crown land) by the government and largely used for agricultural pursuits since the 1930s, was sold to a private company-AMRAD Pharmaceuticals-which built its own access road down to Yarra Boulevard. On 1 July 1997, Burnley Gardens became part of the University of Melbourne, with its official title changing to the University of Melbourne, Institute of Land and Food Resources - Burnley Campus. This caused considerable concern among Burnley staff and students who feared that the unique educational qualities of the college would be compromised and the historic gardens jeopardized by absorption into the larger institution.

In recognition of the potential heritage importance of Burnley Gardens the University of Melbourne in 2001 commissioned a Landscape Conservation Analysis for the Gardens to ascertain the site's cultural significance. This study found that the site was of historical, aesthetic and scientific (horticultural) significance to the people of Victoria and Australia (McPhee and Andrews 2002).

As a result, Burnley Gardens was registered with Heritage Victoria in December 2003. However, with the sale of the AMRAD site to developers earlier that year, Burnley Gardens came under threat from further development. The planned multi-storey development by United States-based finance giant GE on the site indirectly threatened the Gardens with overshadowing and encroachment by new buildings and inevitable over-use of the grounds by an additional 1500 staff. It was feared the proposed development would also compromise the many

valuable environmental and recreational qualities of the surrounding Yarra River corridor and parkland.

Efforts by concerned residents to object to the planned development were effectively curtailed, with the normal state planning process bypassed and planning authority resting solely with the Victorian Planning Minister (Slamet 2003). It is fervently hoped that the developers and the state government will take some account of the community's concerns and achieve an outcome that recognises the continuing importance of the Gardens and surrounding parkland.

All those who visit Burnley Gardens find it enchanting and memorable. The proximity of the old orchard, still in use as a research station, allows an appreciation of the horticultural experimentation carried out at Burnley Gardens for over 140 years. The ornamental section of the Gardens, featuring many separate spaces and experiences, ensures that it is in the literal sense of the word very much a 'pleasure' garden, and continues to provide, as intended from the outset, an area of peace and tranquility in a densely populated urban environment.

Reference material

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The lawn and Lily Ponds at sunset 1916.



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TREE PLANTING - AN OVERVIEW

The ornamental trees on the site include both exotics and natives planted from 1861 to the present day. The earliest trees form a living link with similar trees in a myriad of Victoria's public parks, botanic gardens and private mansion gardens which were obtained and disseminated by Ferdinand von Mueller from overseas supplies or were propagated by him as a result of expeditions into the Australian bush.







Looking towards the Lily Ponds, 2001. (L Andrews 2001)

Looking south-west towards the Lily Ponds 2001. (L Andrews 2001)

Looking towards the Lily Ponds 2001, The Administration building is to the right. (LAndrews 2001) Analysis of the extant trees in the Gardens shows that planting has occurred in a series of 'waves' and the remaining trees clearly illustrate this.

- Trees in the initial period of planting in Burnley Gardens were almost exclusively evergreen.
 Most were conifers, with some rainforest species. Elms, a bush willow and a single oak were the only recorded deciduous trees.
- With extra land available, planting in the second wave occurred outside the original western boundary of the gardens. Trees included similar species as before, with cedars and cypresses dominating, but as the period progressed, palms, cordylines and flowering trees were added.
- The Luffman period from c.1900 saw the third wave of planting. The establishment of the School of Horticulture in the Gardens and its formalized use of the grounds for teaching resulted in changes in design and planting. Many deciduous flowering trees and shrubs were planted in the redesigned grounds with newly created garden beds and a new principal's residence as the Gardens' focus.
- The fourth wave of planting occurred in the period from 1910 to 1930. Australian native trees, always represented in planting before, had become very popular and the planting in the Gardens during this period reflected this.

- The fifth planting wave occurred during the 1930s and 40s and was largely a response to opportunities created by major building construction in the grounds. Trees included Australian natives and later, flowering deciduous and evergreen specimen trees and shrubs which would harmonize with the older plantings then extant in the Gardens.
- From the 1960s to the 1980s native trees and shrubs were extensively planted, reflecting the rise in popularity of these species and a growing recognition of their importance in the environment.
- The final period of planting has concentrated on maintaining the balance between mature and sometimes senescent coniferous species intrinsic to the character of the Gardens and the lighter and more delicate deciduous plantings and native species. Maintaining the diversity of the tree varieties is vital as the Gardens continue to be heavily utilized as a living and changing teaching resource.

The Victorian Branch of the Australian Garden History Society has funded this article. The Society was formed in 1980 to bring together those with an interest in the various aspects of garden history and to promote research into historic gardens and commitment to their preservation.

For further information about the Society, phone (03) 9650 5043 or Toll free 1800 678 446 or visit the website www.gardenhistorysociety.org.au