

The 2013 Banks Memorial Lecture: 150 years of botanic gardens in New Zealand

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In 1642 Abel Tasman was credited as the first European to discover New Zealand. At this time, Pisa and Padua University botanic gardens (Fig. 1) were already 97 years old, having been established in 1545 and generally credited as the first botanic gardens, although monastery and herbal gardens clearly existed before then. It was another 76 years in 1621 in England that the University of Oxford Botanic Garden was established and another 138 years in 1759 before the development of Kew Gardens. With the expansion of the British Empire and need for economic advantage and knowledge, new botanic gardens were being established in its colonies across the globe including the Royal Botanic Gardens Sydney in 1816.



Fig. 1 The Botanical Gardens of Padua University as seen in a 16th century print.

Being the last significant land mass to be colonised, the development of New Zealand botanic gardens and reserves could not begin until settlements had been established and their management and financial structures put in place. Dunedin Botanic Garden was publicly recognised on June 30th 1863, followed by Christchurch only 9 days

later. Auckland Botanic Garden, the most recent major botanic garden development, opened in February 1982.

However these gardens were not the first public reserves to be established in New Zealand. That honour belongs to Auckland Park (Fig. 2). When Governor Captain William Hobson took up residence in Auckland in 1841 he set aside 100 acres (40.5 ha) for a guest house and a park. A Government Gardener was employed in the same year and a nursery was established to grow European trees that were given away as plants, seeds and cuttings to anyone wishing to plant them. Another 96 acres (38.9 ha) were added and the whole site was then designated as Government Domain or Auckland Park.

Table 1: New Zealand domains and botanic gardens 1889, summarised from Shepherd and Cook (1988; p. 197; Table 9).

Place	Est	Description	Manager, Head Gardener or Superintendent
Dunedin	1860	A fair collection of European, American, Japanese and especially native plants	John McBean, Curator
Ngaruawahia	1883	Domain used as a race course	William Clow, Lessee
Hagley Park North & South		Pasture and plantations	J.B. Armstrong, Curator
The Domain		Ornamental grounds 1870–1881. Trees gratuitously distributed – 15,000 per year by 1885, then discontinued. Extensive collection of native plants	J.B. Armstrong, Curator
Makaraka Domain	1878	48 acres, 3 miles from Gisborne. Grass. No Trees	William Bailey
Wanganui Domain Board	1883	15 acres. A few trees. Walks gravelled	
Botanical Gardens, Napier	1872	12 acres. Plantation, ornamental grounds and nursery	William Burbon
New Plymouth Botanical Gardens		42 acres. Donations of seeds from the government were propagated and distributed. Ornamental plantations. A lake of about 4 acres. Nursery	Darby Glaffy, Head Gardener
Hamilton Public Domain Grounds	1879	500 acres	None
Onehunga-Greenhill	1881	Shelter, ornamentals, grass	Borough Workmen
Tauranga Domain	1878	Grass	John Clark, Secretary
Nelson Botanic Gardens reserve		Recreation reserve – 26 acres	None
Invercargill		Public Gardens. Nursery and Grazing. Seeds sometimes given to ratepayers	Thomas Waugh
Knottingly Park Board, Waimate		80 acres. Half planted, half leased in small sections	
Auckland Public Domain	1882	Pasture and scrub, Government grant for seeds withdrawn	William Goldie
Timaru Public Park and Domain		50 acres grazing, plantations and nursery	George Cross, Park Ranger
Ashburton	1863	First planting 1876. In English style lakes, walks etc	H. W. Charlton, Custodian
Mt Eden		70 acres. Extinct volcano. Pines and shrubs	
Wellington	1868	Extensive conifer plantings, native plants	W. Bramley, Curator

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Fig. 2 Early map of Auckland and suburbs showing Government Domain / Auckland Park as green space on the right hand side, 1867.

Remarkably, it took another 20 years before significant development of New Zealand botanic gardens.

Prior to 1900 how did New Zealand's botanic gardens stack up?

The late Winsome Shepherd graphically shows this in her research and contribution in the book, *The Botanic Garden Wellington – A New Zealand History 1840–1987* (Shepherd and Cook, 1988; Fig. 3). She tabulated information provided to James Hector (the then director of the Colonial Botanic Garden Wellington) from different authorities around New Zealand (Table 1). This was in response to a request from Kew Gardens in 1889 seeking information on the state of Domains and Gardens throughout New Zealand.

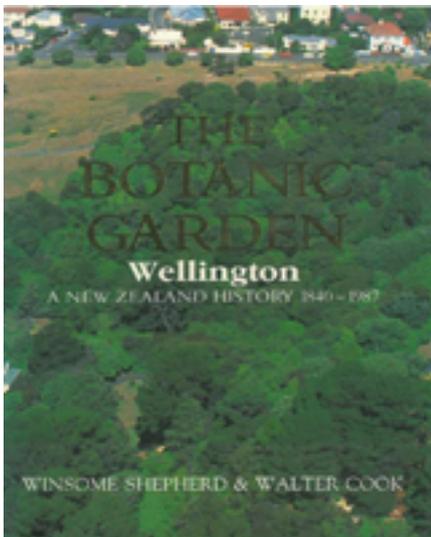


Fig. 3 Book cover of *The Botanic Garden Wellington – A New Zealand history 1840–1987*.

While there are obvious gaps in the work by James Hector, the tabulation by Winsome Shepherd provides an interesting snapshot of the state of development of the 26 public gardens and domains responding to the survey at that time.

The diversity of New Zealand botanic gardens and parks has been taken to a different level through the research and writings of Paul Tritenbach in his publication *Botanic gardens and parks in New Zealand – An illustrated record* published in 1987 (Fig. 4). This contains a comprehensive historical record of 19 botanic gardens, domains, gardens and parks – some of which also occur in the Hector survey of 1889.

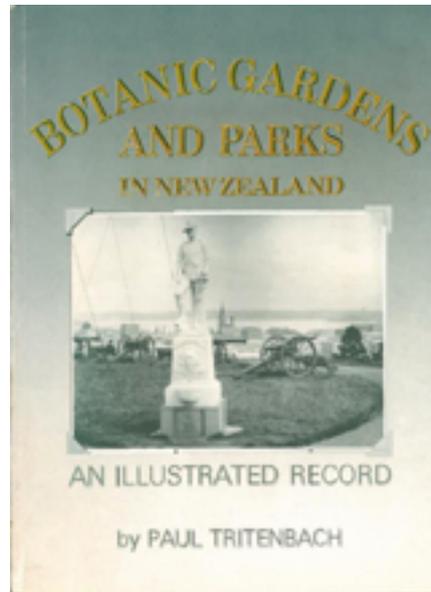


Fig. 4 Book cover of *Botanic Gardens and Parks in New Zealand – An illustrated record*.

However, Tritenbach's publication does not describe all public gardens in New Zealand, so let's look at some of those that are not mentioned in his book.

Napier Botanical Gardens

18 acres (7.3 ha) was set aside for botanical gardens in 1854 but never developed beyond appearing as an allocation of space on a very early map of an unnamed town later to be called Napier. However by 1874, at which time Napier was declared a borough, the Provincial Government had already been busy establishing the Botanical Gardens (Fig. 5).



Fig. 5 Postcard of Napier Botanical Gardens, c. 1920s. Photo courtesy of Napier City Council Archives.

Timaru Botanic Gardens

This garden was established in 1864 with 25 acres (10 ha) of land set aside for a public park. Typically, little happened in the early days (Fig. 6) but gradually progress was made and today Timaru's Botanic Gardens feature a conservatory and notable collections of roses and native tree ferns.



Fig. 6 Postcard of ornamental bridge in Timaru Botanic Gardens. Photo courtesy of South Canterbury Museum Archives (2008/107.01).

In 1948 a nationally significant New Zealand 'first' occurred at the Timaru Botanic Gardens. Seed gathered in China of the dawn redwood, *Metasequoia glyptostroboides*, and provided by the Arnold Arboretum (USA) was germinated, grown on then distributed as New Zealand's first introduction of this previously thought extinct species. While there have been other introductions of this species, most New Zealand representatives would have originated from this original seed lot.

Gisborne Botanical Gardens

Gisborne Botanical Gardens is Gisborne's oldest reserve. In 1874 an area of 2.55 hectares was set aside beside Taruheru River as a recreational reserve. Later this was extended and now occupies 5 hectares.

In earlier years (Fig. 7) it was described as being developed as formal botanical gardens, with ornate grand entrance gates, wide pathways and rows of flower beds. In another phase, during the late 1960s, council decided it was to be managed as a park. However in the 1970s the Gardens were shifting back to a 'Botanic Garden' style management.

In more recent times the Gisborne District Council, Friends of the Botanical Gardens and the Gisborne Sister Cities Committee have been working collaboratively to improve and develop these gardens.



Fig. 7 A view across Gisborne Botanical Gardens with a large crowd gathered in the background to welcome a visiting dignitary, c. 1920s. Photo courtesy of Gisborne District Council.

There were other efforts to establish botanical reserves such as One Tree Hill Domain. For this, The Auckland Provincial Council set aside 10 acres (4 ha) of Crown reserve on the East Crater for a Provincial Botanical Garden in 1871 with a plan to lease the remainder to provide revenue to develop and maintain the Garden. This didn't progress any further when Provincial Councils throughout New Zealand were abolished in 1876.

Then there are botanic gardens in essence but not in name.

Pukekura Park

Pukekura Park was established in 1875 through the last public act of the Taranaki Provincial Council when they passed the 'Botanical Gardens and Public Recreations Grounds Bill'. This was ratified by the National Parliament a year later with the passing of the Taranaki Botanic Garden Act. That same year (1876) three exotic trees and a native pūriri were planted during a public ceremony in recognition of the establishment of the Taranaki Botanic Garden and Recreation Ground (Fig. 8). In 1908 this reserve was renamed Pukekura Park which of course remains under that name today albeit with the Brooklands estate added.



Fig. 8 Early postcard of "New Plymouth Recreation Grounds" showing the lower end of the main lake with the band stand (completed 1891) centre right and on the extreme right the first tea house (1905). Photo courtesy of New Plymouth District Council Archives.

Eastwoodhill

Eastwoodhill (Fig. 9) is now recognised as the National Arboretum of New Zealand. Plantings commenced several years after the property was purchased by Douglas Cook in 1911 and the collection continued to develop under the ownership of Bill Williams. In 1975 'The Eastwoodhill Trust Act' (1975) came into being. The Arboretum was designated as the National Arboretum of New Zealand for the purposes of scientific and educational purposes, and for the enjoyment of the people of New Zealand. Eastwoodhill is widely reported to have the largest collection of trees and shrubs native to the northern hemisphere that are cultivated in the southern hemisphere.



Fig. 9 Entrance to Eastwoodhill Arboretum. Photo courtesy of Eastwoodhill Arboretum.

Otari Native Botanic Garden and Wilton's Bush Reserve

Originally called Otari Open-Air Native Plant Museum, the area was renamed Otari Native Botanic Garden and Wilton's Bush Reserve. The botanic garden part (Fig. 10) is a five hectare garden dedicated to the cultivation of New Zealand native plants and, by its presence within Wilton's Bush Reserve, oversight of a further 100 hectares of native forest; forest which has some of Wellington's oldest trees, including 800-year-old rimu.



Fig. 10 Otari Native Botanic Garden showing the native plant parterre, designed and installed by Otari staff in the lower collections area, 2012. Photo courtesy of Otari Native Botanic Garden.

The plant collections were established in 1926 by eminent New Zealand botanist Dr Leonard Cockayne. His aim was to establish a collection of solely New Zealand native plants. Otari Native Botanic Garden and Wilton's Bush Reserve (Otari-Wilton's Bush) is the only public botanic garden in New Zealand dedicated solely to native plants.

Hamilton Gardens

The first development of these gardens began in the early 1960s at what had been the city's waste disposal site. The first significant development was the Rogers Rose Garden which opened in 1971.



Fig. 11 Indian Char Bagh Garden, Hamilton Gardens. Photo courtesy of Hamilton Gardens.

Today Hamilton Gardens (Fig. 11) is described as not being a traditional botanic garden with conventional plant collections but rather its purpose being "to promote the appreciation and understanding of gardens, their history, context and meaning".

And more succinctly put as "The relationship between people and gardens" as described in the *Operative Management Plan; Adopted by Council 15 December 1999*.

What of our other New Zealand public gardens and domains?

In this brief history of New Zealand botanic gardens we should also acknowledge the contribution other public gardens and domains have made in terms of the development of New Zealand's botanic gardens.

Queens Park in Invercargill and Ashburton Domain provide examples that have challenged our larger gardens in wealth and diversity of their plant collections, the development of horticultural expertise and practices; these have frequently been the training grounds of future managers and horticulture staff. For example, in 1918 Mr J. G. McKenzie was appointed Director Botanic Gardens and Reserves in Wellington and then

in 1928 Mr M. J. Barnett moved to take up the position of Superintendent of Parks and Reserves in Christchurch. Both men were early curators at Oamaru Public Gardens.

What of our more recent botanic gardens?

Bason Botanic Gardens

At Wanganui the Bason Botanic Gardens (Fig. 12) is an interesting addition to the network of New Zealand's botanic gardens. In 1966 the late Stanley and Blanche Bason offered their 25 hectare farm and homestead garden as a gift to the city. Typical of the period there were some vigorous discussions in the Councils debating chamber with concerns of affordability and an over-extension of land holdings; however the gift was eventually accepted.



Fig. 12 Early photo of the Bason Farm, c. 1960s. Photo courtesy of the Bason Botanic Gardens Trust.

Stanley Bason had a dream and was quite definite in what his gift was to be used for: "It is to be a botanic gardens not a park, largely for scientific purposes, catering for both utility and aesthetic interests, a place for study not just for pretty flowers."

Auckland Botanic Garden

Discussions on creating a botanic garden in Auckland may have first started in the late 1920s but there was little progress until the 1960s. A group of like-minded people formed a committee to locate suitable land for a new botanic garden. A block of land owned by the university at Tamaki was considered but later discounted and then in 1964, an 82 hectare block of land in Manurewa, the Nathan Estate was considered.

In a joint purchase the Auckland Regional Authority bought 42 hectares, and the Manukau City Council purchased the remaining 40 hectares. The land was grazed until 1970. The Auckland Regional Authority then purchased a further 20.5 hectares of this land from

Manukau City who at the same time gifted 2.2 hectares to provide the garden with a northern road frontage. On February 19, 1973, Auckland City Councillor, Tom Pearce, turned the first sod and nine years later on 23 February 1982 the Garden was officially opened by New Zealand Governor General Sir David Beattie (Fig. 13).



Fig. 13 Opening ceremony of the Auckland Botanic Garden, 23rd February 1982. Photo courtesy of Auckland Botanic Garden.

The established botanic gardens

Wellington Botanic Garden

In 1839 the New Zealand Company directors advised the Surveyor General, Lieutenant Mein Smith RA, that in his survey of the new settlement of Wellington he was to make adequate provision for reserves including cemeteries, a market place, a wharf and a botanic garden.



Fig. 14 Historic photo showing "Entrance to Botanical Gardens - looking towards Karori". Photo courtesy of Alexander Turnbull Library.

In 1844, 12 acres (4.9 ha) of Town Belt land beside Karori Road was set aside by the government for a botanical reserve. The following year this 12 acres, plus an additional one acre, was identified on a plan and described as a Botanical Reserve; however it wasn't until 1869 that the Garden was developed (Fig. 14). Under James Hector's stewardship, The Colonial Museum and the New Zealand Geological Survey became manager of the New Zealand Institute in 1867. The New Zealand Institute was given authority to establish a botanic garden but only after long-time supporter of a colonial botanic garden Alfred Ludlum

successfully introduced the 'Botanic Garden Bill' to Parliament.

Christchurch Botanic Gardens

In 1847 the Canterbury Association in London was formed to establish a Church of England settlement in New Zealand and shortly after Captain Joseph Thomas was sent to New Zealand to select a site for the settlement.

In 1855 the Superintendent of the Province and 'founder of Christchurch', John Robert Godley, was given permission to set aside land to make plantations and gardens. Approximately 500 acres (202.3 ha) was selected for Hagley Park. In so far as development of the botanical reserve, there was little progress until 1864. Significantly, the year before, the Albert Edward oak had been planted to commemorate the wedding of the Prince of Wales and this subsequently become the official founding date of the Botanic Garden.

At a public meeting in 1864 to discuss the formation of the Canterbury Horticultural Society and Acclimatisation Society it was agreed that Hagley Park was a suitable place for a botanic garden (Fig. 15). After approaching the Provincial Government a Commission was appointed, "to promote the cultivation and planting of the Government Domain - the Botanical Garden in connection with the objects of the Acclimatisation Society."



Fig. 15 Entrance to the rose garden, Christchurch Botanic Gardens, c. 1909. Photo courtesy of Christchurch Central Library, published in *Canterbury Times*, 19th July 1912.

Dunedin Botanic Garden

The original public reserve identified in the 1848 survey was of nine acres (3.6 ha) and through it ran the 'quiet' Waters of Leith. This site was increased to 11 acres (4.5 ha) and by November 1864 the entire garden had been developed and laid out in formal beds and the Garden was well advanced (Fig. 16).



Fig. 16 Dunedin Botanic Garden at its original Albany Street site prior to being devastated by flooding in 1866. One of the Royal Oaks can be seen in the circular bed. Photo courtesy of the Dunedin City Council Archives.

However in 1868 the Garden was decimated when “the quiet little stream that could not be improved on” flooded and washed away the greater part of the Garden including one of the Royal Oaks planted (like the planting in Christchurch) to commemorate the marriage of the Prince and Princess of Wales in 1863.

The Provincial Council who had only just recently regained control of the Botanic Garden from the Dunedin City Council started to look further afield for a more secure site. Domain land to the north, occupied in part by the Acclimatisation Society, was soon designated for this purpose (Fig. 17). Development started in earnest from 1869 and many of the surviving trees from the old botanic garden site, including the remaining Royal Oak, were relocated.



Fig. 17 The new Dunedin Botanic Garden site, photographed in the mid-1870s, looking out over the formally laid out lower garden area. The roof of the rustic pavilion (built 1873) can be seen centre right. Photo courtesy of the Hocken Library.

A closer look at New Zealand's botanic gardens

Management and control

Provincial Councils throughout New Zealand were abolished on 1st November 1876, and this had a profound effect on New Zealand's developing gardens. The immediate consequence was the loss of what

had been a relatively secure source of funding. Control of those botanical gardens and reserves administered by Provincial Councils was divested to boards of control in the case of Christchurch and Dunedin Botanical Domain Boards.

Income for maintenance and development was to come from Government subsidies and endowment properties and rentals from reserve lands. However these were to soon prove unsustainable and inadequate.

Early on, the financial pressure on the Dunedin Botanic Garden Domain Board was to prove too much and in 1884 negotiations with the Government and the City Council led to the resignation of the Board and the appointment of the Dunedin City Council as the 'Botanical Domain Board'.

Other gardens were also suffering from the financial hardships of the 1880s and all were to receive another setback when the Government ended all annual grants to botanic gardens in 1885.

Such changes didn't affect Wellington as it was already under management of a board of control having had no previous link to a Provincial Council. Elsewhere the 'Botanical Gardens and Public Recreations Grounds Bill', the last act of the Taranaki Provincial Council, was passed in 1875 with a Board already established and ratified by Parliament.

The Christchurch Domain Board weathered the financial hardships and continued to manage the Botanic Gardens right through to 1946 when it was dissolved and the Botanic Gardens placed under the control of the Christchurch City Council.

Today our botanic gardens are supported and managed by Local and Regional authorities and funded through local body rates. However, despite this supposed security, there has always been an air of vulnerability, both politically and financially, and this is unlikely to change at any time in the foreseeable future.

Many of our contemporary projects, from one end of the country to the other, have only been possible with outside help – from financial supporters and through volunteers.

Gardens management has actively sought to develop and strengthen alignments with community groups, businesses and individuals and they have pursued the formation of Friends groups to give gardens another voice and a vehicle of support. Those with strong focussed memberships have been providing invaluable support to their gardens.

Evidence of these contributions is demonstrated at Auckland Botanic Garden with the establishment of a significant library with Friends support and The Potter Children's Garden (Fig. 18), made possible by generous funding from the Frederick Potter Trust.



Fig. 18 The entrance way to The Potter Children's Garden, Auckland Botanic Garden. Photo courtesy of Auckland Botanic Garden.

In Dunedin there is the Information Centre staffed by the Friends of the Botanic Garden and a bequest for the development of the Clive Lister Garden (Fig. 19).



Fig. 19 The Clive Lister Garden within the Dunedin Botanic Garden. Photo courtesy of Dunedin City Council.

Acclimatisation Societies in New Zealand

Acclimatisation Societies played a parallel role in the early introductions and establishment of plants (and animals). New introductions imported from around the world were being evaluated for their recreational and economic value to settlers in the colonies. Many Societies shared or leased land in public Domains (Botanic Gardens) and for some Gardens this provided an income. In Christchurch it

is recorded that the first trees planted in the Domain were groups of pines (*Pinus radiata* and *P. pinaster*). In Dunedin the Acclimatisation Society had already been developing the site including the acclimatisation ponds. Later the Society also was to become a source of income as they were required to pay a lease.

An interesting observation was printed in the *Otago Daily Telegraph* in 1864, concerning a discussion on the establishment of the local Acclimatisation Society. Quoting a letter from the *National Review* that said: "Botanists are of the opinion that in several countries many of the native plants have been destroyed by the introduction of foreign species", the letter writer predicted a similar fate for New Zealand's fauna. As it eventuated, nothing could have been closer to the truth.

Prison labour

Prisoners were a valuable source of labour used extensively by some gardens. For the price of a warder's wage a great deal was achieved that would not have ordinarily been possible.

In Dunedin prisoners were engaged from the very early days, when the garden was establishing in 1863, and this continued to be a significant part of the workforce for a further 15 years. This workforce included a contingent of Māori who were sent to Dunedin as a result of the unrest in Taranaki. While there, they carried out a huge volume of work reshaping stream banks to prevent flooding and forming tracks and cutting out stumps during the establishment of the new Garden.

In Christchurch prisoners were used in the Domain and in 1882 they broke in the land to establish a nursery for the growing of economic plants.

In Timaru this ready-made labour force was utilised in the plantings of large tracts of pine on its reserves.

New Zealand's 'National' Botanic Garden

James Hector (later Sir James Hector) became one of the most influential figures in the development of the Colonial Botanic Garden in Wellington.

In 1865, when the Government established the New Zealand

Institute and placed Hector in charge, he was already the Supervisor of both the Colonial Museum and the New Zealand Geological Survey. When, in 1867, the New Zealand Institute was given the authority to establish and manage a botanic garden, James Hector was in the unusual position of directing and supervising the development of all four institutions.

If ever there was a time or opportunity for the establishment of a New Zealand Botanic Garden or National Botanic Garden as a fully functional scientific and economic resource like those of overseas models, this was possibly it. With the existing Colonial Museum already having its own established library and herbarium, and with no apparent moves to redistribute or rationalise any of the roles undertaken amongst these institutions by James Hector, the opportunity was lost. However considerations of a National Botanic Garden of New Zealand for instance were not laid to rest by any means.

David Tannock, Curator of Dunedin Botanic Garden (from 1903 to 1940), was a strong advocate for the establishment of a National Botanic Garden and in a report to the Dunedin City Council he suggested: "It does appear desirable that there should be one Botanic Garden in New Zealand, and Dunedin seems to be the most suitable place to establish it. The gardens are near the University, and the soil and situation so varied that a large collection of plants could be grown with the minimum of expense and effort. We should also be getting together as complete a collection of the native plants as possible." In another report to Council in 1930/1931 he confidently claimed that "it is now the most complete in the Dominion."

The idea of a Dunedin based 'national' botanic garden did not receive much favour when the Dominion President of the New Zealand Institute of Horticulture, Dr Leonard Cockayne, suggested in the first bulletin of the Institute that due to the wide range of climatic conditions there was some doubt as to the desirability of such an institution and went on to define a botanic garden as "an open-air museum of living plants so arranged that they can be conveniently studied with each plant clearly but not

obtrusively labelled with its accurate scientific and popular name – and the region of its origin."

Coincidentally Cockayne had already established the Otari Open-Air Native Plant Museum by this time and Mr W. R. B. Oliver, the Director of the Dominion Museum, joined the debate giving his support to Wellington as the best location for a National Botanic Garden and to the Otari Open-Air Native Plant Museum as the best institution for such a role.

Despite the efforts of Tannock and funding constraints due to the onset of the 1929 depression, the idea of a National Botanic Garden progressed no further.

20th century Dunedin

The Tannock years 1903–1940: A period of transformation

David Tannock was educated at the public school at Mauchline and at Glasgow and West of Scotland Technical College. In 1896 he became a gardener at the Royal Botanic Gardens, Kew, and progressed to become a foreman in the tropical section. He took up an appointment as instructor at the agricultural school in Dominica, West Indies before shifting to his new position in New Zealand in 1903 (Fig. 20).



Fig. 20 David Tannock, photographed when newly appointed as "curator for the Dunedin Municipal Reserves". Photo courtesy of *Otago Daily Times*.

In Dunedin, David Tannock's first task was to prepare a report on the state of the Botanic Garden and

Council Reserves. It was obvious from the outset that he had a clear understanding of what a botanic garden needed to achieve and it was this understanding that guided him to develop the Dunedin Garden in the direction he did with foresight that has stood the test of time, surviving the challenges of financial hardships, administrative change and political apathy.

His achievements in his early years included the development of the Rock Garden, the Rhododendron Dell, the Shakespeare Garden, Australasia's first public Conservatory Glasshouses, the Winter Gardens and New Zealand's first living maze. Other significant developments at this time included the establishment of the native plant collection with a purpose-built Native Scree Garden and the development of the Geographical Collection of plants.

David Tannock was a great proponent of horticultural education, setting up public lectures at the technical school as early as 1907 and later he established a School Garden – a specialised Agricultural Garden for Teachers Training College students.

Despite early misgivings of Council to employ female staff, Tannock finally broke the deadlock in 1924 when a Joan Hogg joined the staff and by 1929 there were nine female employees.

However, there were some new additions to the Botanic Garden he was not so keen on – specifically the donation of two possums, a monkey and three deer. While promised two hinds and a stag he received two stags and hind. Talking of the stags Tannock commented in a report "...it is probably just as well that the young one escaped."

1940–1970: Decline and renewal

The depression and effects of World War II took its toll on any aspirations or design on greatness for our New Zealand gardens.

In Dunedin, borders were grassed over, the Winter Gardens were closed and little was done until the end of the war. However, from time to time, it was possible to make some progress; while unemployment was high the

corresponding Government sponsored work schemes provided opportunity. The use of this labour force was restricted though to those projects requiring minimal or no additional financial resources.

The early years in this period of the Gardens development were indeed difficult times and around the country frustrations were rife. In one such example this was graphically expressed by a Mr C. W. Corner, Superintendent of Parks and Reserves, Napier, in a report to the Napier City Council in 1947 writing: "Provision had been made for Botanical Reserves in Wellington, Napier, Christchurch, and Dunedin only. They were Botanical in name only, and I regret that this still applies to the Napier gardens. It's steep slopes, of little use for other purposes, and its horticultural interests forgotten and neglected".

There was minimal development up until the 1950s in Dunedin but a new aviary was built in 1948. New Zealand's standard of living was the envy of the world in the 1950s but this was not expressed in terms of significant development of our gardens. That being said a corner had been turned and in the 1960s the recovery had become more obvious – with a new fernery and tea kiosk. More significantly from a living collections viewpoint was production of Dunedin Garden's first *Index Seminum* (seed list), sent to gardens and botanical institutions around the world.

1970–2000: Redevelopment and expansion

This was an exciting and significant era of development for the Dunedin Botanic Garden. Over this period there had been a gradual and determined effort to put the 'Botanic' into the garden.

Dunedin Botanic Garden's first Curator was appointed in 1974 followed in 1979 with the recruitment and appointment of a Botanist. The responsibilities and diversity of these positions were further strengthened with on-going development of the International Seed Exchange programme, the commissioning of BG-BASE (a computerised plant records management database)²,

and membership to the international conservation group Botanic Gardens Conservation International.

In the mid 1970s the 'Reserves Act' was introduced which required Management Plans to be developed to provide for, and to ensure the use, enjoyment, maintenance, protection and preservation of a reserve, and provide for appropriate development. All such plans are public documents to be updated every 10 years.

The plant accessions diversified significantly with the addition and enhancement of several significant plant collections including the herb garden, alpine house, the native wetland, alpine scree, the Herbaceous Borders, Camellia Collection, Rock Garden, Rhododendron Dell and others. Other significant projects included the construction of the Information Centre, the Clive Lister Garden and the Otaru Teien (Otaru is Dunedin's sister city in Japan, and 'Teien' is Japanese for garden).

In the late 1980s and early 1990s central government forced several changes on local authorities, requiring separation of operational and planning roles. It also introduced privatisation of training support institutions and completely restructured the qualifications framework. Councils initiated a range of philosophies to meet governments' demands and their own needs.

One area to suffer and threaten the very foundation of botanic gardens was the delivery of quality trade training, and ability to support a meaningful qualifications structure. Although central government recognised that trade training was in crisis, this recognition was unfortunately 10 years too late. They introduced financial incentives to encourage an increase in industry training, but by this time the damage had already been done and the industry is still faced with a significant gap in skilled horticultural tradespeople throughout the country.

The 21st century: A period of consolidation and enrichment

The last 13 years has generally been one where the large city botanic gardens have forged ahead mainly in a catch-up mode with significant

² Outlined by Tom Myers and Yvonne Etherington in *The New Zealand Garden Journal*, Vol. 12, No. 2: pp. 18–20.

development proposals to replace ageing and irrelevant infrastructure.

Christchurch unveiled their plans for a new information centre, nursery and staff facilities and these are now in construction. In Dunedin in 2006 the Development Plan was launched for their Garden, which detailed a short, medium and long term approach to Gardens development for the next 5–30 years. Not all proposals can be expected to meet everyone's approval. What may seem a common sense proposal can create controversy, debate and isolation. The Lovelock Avenue Realignment project may be a visionary proposal but questions have been raised about its impacts on safety and traffic flow in the Dunedin Botanic Garden.

Full advantage has been taken of state supported (and sponsored) apprentice training programmes with a renewed vision and commitment to quality. This has endeared botanic gardens to become centres of excellence for trade training.

Regional networks such as Botanic Gardens of Australia and New Zealand (BGANZ) are actively developing strong representative groups for Gardens and professionals here and in Australia. This provides peer support and encouragement for regional development and emerging Gardens professional development, plant collections management, collaborative conservation projects and community outreach.

I believe there has never been any other time in the past where there has been such strong collaboration and focus by botanic gardens in New Zealand to deliver and collaborate to the very best of their capability. However, this has not been possible without the foundation laid down by our predecessors. Challenges will persist and change will be inevitable but as we know, out of change comes opportunity – and, from opportunity, success.

What of the next 150 years? I leave you with this thought reproduced from Mr John Tait's report to Oamaru Council on the *History and Development of Gardens and Reserves: Oamaru*, dated 20th January 1941:

"Never by any chance can the word 'finis' be applied to Gardens, perhaps this is its greatest fascination. It is better, we are told, to travel than to arrive and so in respect of gardening it is probably better to strive after perfection than to achieve it. Not that your true gardener ever achieves perfection; always he hopes to do better than his previous best, however unsurpassable that may appear to others".

References and further reading

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