

New Zealand Garden Journal

Journal of the Royal New Zealand Institute of Horticulture (Inc)



Syzygium acris

Notable Trees New Zealand • From the Herbaceous Border
Our Nearest Neighbour, New Caledonia. A Horticultural Mecca • Institute Update
Art in the Park - The Wellington Botanic Garden Sculpture Walk

Volume two, number four, December 1997

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Volume two, number four
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Cover picture: Showy flowers on the slender trunk of *Syzygium acris*, growing on hills in the southern serpentine region, New Caledonia. This is an unusual species of the large genus *Syzygium*. It has an unbranched trunk crowned with a hanging cluster of large leaves, each up to a metre and a half long by almost half a metre wide.

Photo: Rob Lucas

A New Zealand Plant Finder at long last

For those of you who have used the remarkable Plant Finder produced in the UK for many years we at last have one of our own. Gisborne member Meg Gaddum has produced the New Zealand Plant Finder, a book containing 22000 names of plant species and cultivars, and in which nurseries they can be found. The work has been a labour of love for Gaddum who worked seven days a week for several months to prepare the data for publication. It is planned to update the book at regular intervals.

This work is complimentary to the Directory of Plant Collections produced by the Institute several years ago which identified important plant collections and who held them. More recently work by Landcare Research, on contract to MAF has established a comprehensive list of exotic plants in New Zealand as part of the new biosecurity regulations. These regulations prohibit the importation of new plant species without an assessment of their weediness and potential for carrying pests and diseases not yet present here. This list is currently being circulated to interested parties for comment and to ensure it is comprehensive.

Major conifer conference in 1999

This will be one of the most comprehensive meetings in recent times totally devoted to major developments in conifers, from their botany and ecology through to their landscape and forestry uses. It will bring world experts together for 5 days at Wye College, Kent, England and is a must for all those involved with conifers. The conference is jointly sponsored by the RHS, Forestry Commission, Royal Botanic Garden Kew and Edinburgh and the International Dendrology Society. For more information please contact Miss Lisa von Schlippe, RBG Kew, Richmond, Surrey, TW 9 3AE, UK.

Interesting Garden Products

At the recent Mystery Creek Fieldday there were some interesting products that will be of interest to home gardeners. The first is of interest to people installing polythene lined, moulded plastic, or fibreglass garden ponds. It is called StoneLiner. It is a heavy polythene sheet with small stones glued on. It can be used to hide the edges of ponds, and to form features such as waterfall ls, and looks quite natural.

A range of hydraulically operated pruners recently released on the market will be of interest to all gardeners, especially those who have trouble using pruning equipment such as secateurs and loppers. The pruners are simple in operation - you hold the cutting part in either left or right hand, and in the other hand hold the handle of a pump. The base of the pump rests on the ground. To operate the pruners, just press down on the pump handle. Sound easy? Well it is! There is a range of handle lengths and shape, and various sizes of pruning head.

They offer ease of cutting with no stress on muscles or joints, and left or right hand operation.

Also on display was a range of water features based on full or part wooden barrels. They have an imitation hand pump, and a hidden electric pump to circulate water through the hand "pump". They can be used in outdoor or indoor situations, provided there is a power outlet nearby.

The same manufacturers have introduced a brazier or fire basket. It can be used for warmth, and doubles as a barbecue. The brazier looks not too much different from the ones in street scenes on some recent British TV programmes set in the mid to late nineteenth Century. No doubt they would give off a good amount of heat to warm guests at a barbeque outdoors during the cooler autumn and spring months.

The braziers are designed to burn wood. Hardwoods such as gum are the preferred fuel for giving plenty of warmth, lasting a good while, and not giving off too much smoke.

Don Estcourt, Wellington Branch Newsletter

Improved photographic record keeping of plants

Ever wondered how you can store your slides and visual images to prevent deterioration and access them easily when required? The use of the photo CD developed by Kodak offers great possibilities. This process has been used by the Devon Group of the NCCPG in the UK to store images of plants in plant collections as well as those used in their publication "The Book of Devon Plants". The discs are very versatile and can store a range of images in any order. Images can also be manipulated, parts cut out and enlarged and even text superimposed over the photo. The images can easily be added to reports, posters etc and can be downloaded onto TV or computer for easy viewing. The use of a multimedia projector can enable the images to be viewed on a large screen although the current price of these means they are not yet widely available.

Original images can be taken using conventional cameras and then scanned into the PC or one of the new digital cameras can be used with downloading directly onto the PC. Currently it has been suggested that the current images from digital cameras are not quite as good as top quality digital images but this is likely to change with new technology.

Name changes for New Zealand species

Recent taxonomic work on the genus *Pseudopanax* has resulted in the recommendation to split the three species *P. anomalus*, *P. edgerleyi*, and *P. simplex* into the genus *Raukawa*. These three widely distributed species have been found to have

Garden News

distinct morphological and anatomical differences from the other New Zealand *Pseudopanax* species.

Work on the genus *Macropiper* (Kawakawa) recommends the following species and their distributions:

- A new species, *Macropiper excelsum* subsp. *peltatum* with peltate leaves found on the Three Kings and Poor Knights Islands.
- *Macropiper excelsum* subsp. *psittacorum* is considered to be restricted to Lord Howe Island, Norfolk Island and the Kermadec Islands.
- *Macropiper melchior* from the Three Kings Islands is redescribed

These larger leaved macropiper have been increasingly grown in cultivation for their handsome glossy foliage although they are prone to frost damage. They make particularly fine container plants.

References NZ Journal of Botany Volume 35 No 3.

Major redevelopment plans announced for Otari Native Botanic Garden

The most significant redevelopment in the history of New

Zealand's only botanic garden devoted to native plants has been announced. The \$1.7million project will focus on visitor facilities and collection development and will include:

- Major new entrance with improved parking and information
- A canopy level walkway linking the major collection areas allowing the public a unique educational experience
- A major new alpine exhibit in the form of a rock mountain containing a range of habitats including herbfield, scree, alpine bog and streamside.
- Redevelopment of the Information Centre to include a lecture room, display area and new toilets
- A boardwalk into the mature podocarp forest to allow people of all ages to experience this unique forest remnant.
- Redevelopment of several plant collections including the Main Cultivar Border, Fernery, and Threatened Species Border

The project is due for completion in 1999 depending on funding. A major start has been made with the announcement of a contribution from the Charles Plimmer Bequest of \$1.1million.

For more information contact Mike Oates, Senior Asset Planner, Wellington City Council, Box 2199, Wellington

A Children's Garden is Born

A Children's Dream Garden has been developed by the staff and horticultural students of the Kapiti Campus of Hutt Valley Polytechnic. Project stage one has been developing a "Butterfly Shaped Succulent Garden" at Wesley Knight Park next to the Paraparaumu Beach Bowling Club. Horticultural students and tutor Nevan Ofsoski are developing a special garden for children where through their senses of sight, sound, smell and touch they can have fun with the natural world of plants.

Special public children's gardens exist in many overseas countries, but it is likely this is the first garden of its type in New Zealand said Nevan Ofsoski. It is hoped that the idea will spread to other areas like a "greenprint".

The horticultural students and bricklaying tutor Max Wilson, have done a fantastic job of creating a butterfly outline with schist stone framed by local quarry stone with an exposed pebble mowing strip. The succulent garden was planted up by local children, horticultural students and volunteers from the district beautification society.

Depending on local support and funding it is hoped over time to develop a fragrant garden, a rainbow garden and a "sound" garden.



The garden was funded by Debo's Tavern and the Lion Foundation Charitable Trust. Mrs Averil Lau donated succulent plants.

For more information contact Nevan Ofsoski of Hutt Valley Polytechnic Kapiti Campus, 10 Manchester Street, Paraparaumu.

More about CD ROM's

You may have seen the newly published plant dictionary *Botanica* that hit the shops recently. Quite literally it has hit the shops, being one of the largest and heaviest gardening books on the market. Another feature of this book is the free CD ROM enclosed which enables the myriad of facts in the book to be easily sorted so gardeners can choose plants for specific situations. These packages have been available for commercial landscapers for some time but the trend of providing CD ROM's either with, or as a substitute for books is increasing. The UK Plant Finder is now available on CD ROM and the recent Proceedings of the 3rd Botanic Garden Conservation Conference in Perth are only available on disc because of the expense of printing.

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RNZIH Awards and Honours

The RNZIH runs a comprehensive system of awards and honours for both members and non members. There are also two major scholarships awarded annually, each for several thousand dollars. For detailed information on these please write to the RNZIH for a copy of the Awards and Honours booklet. The cost is \$5. The awards are briefly as follows :

Associate of Honour (AHRH)

Awarded to persons who have given distinguished service to horticulture in New Zealand. Only 60 people can hold the award at any one time.

Fellow (FRIH)

Awarded to members who have made a significant contribution to horticulture and the Institute.

Sir Victor Davies Award

Awarded annually to a young person who has demonstrated an outstanding plant knowledge. The recipient receives a certificate plus monetary prize.

Plant Raisers' Award

Awarded to an individual or organisation who has raised in New Zealand a cultivar(s) of outstanding merit.

Ronald Flook Award

Awarded by the New Zealand Arboricultural Association to a person who has contributed to the advancement of arboriculture in New Zealand.

Peter Skellerup Plant Conservation Scholarship

A scholarship granted for research, field work, publication, propagation and/or cultivation of plants and any other activity likely to promote and assist the conservation of New Zealand's indigenous and exotic plant genetic resources. The award in 1998 will be up to \$5000.

**NOTE THAT APPLICATIONS FOR ALL AWARDS
CLOSE ON 31 MARCH**



Notable Trees New Zealand

There has been a disappointing lack of response to the article on Notable Trees in the September issue of the NZ Garden Journal. The RNZIH has benefited from the efforts of a few active volunteers who have registered Notable Trees. The question posed is whether it has all been worth while? Is the negativity found in some quarters of the Institute going to prevail?

We have a wonderful record of horticulture in New Zealand. The laments and wails I hear about organisations hiving off that have been parented by the RNZIH is intolerable to those who want a thriving Institute. You need to support all aspects of the Institute. It has a pre-eminent horticultural position in NZ.- an excellent Journal, prestigious awards, honours and highly qualified and respected members. Cassandra no longer cries woe but beware there are many "out there" as the politicians say, who will continue to slice off bits that have rightly belonged to the Institute.

Make a start and register your favourite tree or give news of a plant collection for members interest.

Focus on the Otago Region

There are four tree registrations from the Canterbury and Otago Regions accepted as Notable Tree NZ numbers 330, 331, 332 and 333.

18 *Pseudotsuga menziesii (douglasii)* planted in 1876 and now 121 years old.

Valetta Homestead Ashburton

Registration number 330.

Average height 35m. Average spread of canopy 28m.

Girth at 1.40m above ground level is from 4.60m to 6.80m.

Planted by The Hon. William Campbell Walker CMG.

These trees are recorded in the 'History of Ashburton' by John Brown pp.301- 306 and are the remains of a Douglas fir plantation.

Quercus robur planted approx. 1876 and now 121 years old Begg Estate, Dunedin.

Registration number 331.

Height 17m. Spread of canopy 16m.

Girth at 1.40m. above ground level is 4.55m.

Planted by GM. Thompson a well known Otago naturalist

Juglans regia planted in 1865 and now 132 years old.

Conroys Road, Alexandra.

Registration number 332.

Height 22m. Spread of canopy 35 m

Girth at 1.40m above ground level is 6.20m.

Planted by Mr. Iverson.

Notes: The 'Dawson' cherry was introduced in 1860 on a neighbouring property owned by the Dawson family. This walnut was accidentally delivered amongst the cherry trees supplied from a Dunedin nursery possibly L Mathews nurseryman of that time'. Buddingh' 1997.

Cupressus macrocarpa planting date not known.

Waianakarua, Oamaru.

Registration number 333.

Height 7m. Spread of canopy 4m.

Girth at 300mm. above ground level is 1.72m.

Notes from Country Times Feb.26 1993. Report by Neale McMillan.

This 8m. "chicken" in North Otago was a 45cm. seedling when former owner Norman Clarke bought the property in 1965. Mr. Clarke decided to shape it into a chicken after the wind blew out the centre of the tree in 1978. The present owners Colleen and Barry Rusbatch bought the 20 acre property as a hobby farm a couple of years ago. At that time, Mr Clarke had more than 2000 names in the visitors book. Mr. Rusbatch has the bird trimmed four or five times a year by an Oamaru gardener. Using hand shears a trim takes about two hours.

'Barry Rusbatch now clips the chicken himself. Colleen and Barry Rusbatch purchased the property in 1991' Buddingh' 1997.

Note : There are times the owners name and address are omitted for privacy reasons.

Wanted : Dead or Alive.

Gratitude offered for up to date information on the following. Recorded by SW. Burstall in NZ Forest Service Forest Research Institute Forestry Mensuration Report no. 23 - 1972 (unpublished) Otago Region Notable Trees Section

Abies grandis - Giant fir. Wanaka Station, Wanaka.

Height 29.87m. Width not taken. Diameter at 1.4m.=1.16 in 1968

Abies magnifica - Californian red fir. Dunedin Town Belt.

Height 30.48m. Width not taken. Diameter at 1.40m = 99cm. in 1967

Abies procera - Noble fir. Wilden West Otago.

Height 26m. Width not taken. Diameter at 1.40m.=91cm. in 1967.

Acer pseudoplatanus - Sycamore. Walter Peak Station, Lake

Wakatipu. Height 27.43m. Width not taken.

Diameter at 1.2m. = 1.27m. in 1970.

Alnus glutinosa - Common alder. Nr. Leith Main Entrance, Botanical Gardens, Dunedin.

Height 19.80m Width 16.76m Diameter at 1.4m. in 1968.

Castanea mollissima Chinese walnut. Nr. Waitaki River bridge. Height 8.83m. Width not taken. Diameter at 0.90m. = 48cm. in 1970.

Cedrus atlantica 'Glauca' - Blue Atlas cedar. Wanaka Station, Wanaka. Height 18.28m. Width 13.70m. Diameter at 1.40m. = 1.42m. in 1968.

Cedrus deodara - Himalayan cedar. Wanaka Station, Wanaka. Height 32.30 Width 21.33m. Diameter at 1.40m. = 1.72m. in 1968.

Cedrus libanii - Cedar of Lebanon. Thurlby Domain, Arrowtown. Height 31m. Width not taken. Diameter at 1.40m. = 1.42m. in 1968.

Cupressus sempervirens - Mediterranean cypress. Ngapara Wind-sor District Oamaru.:

Height 18.20m. Width not taken. Diameter at 1.40m. = 48mm. in 1968.

Dendrobenthamii capitata (*Cornus capitata*) - Dogwood. Bendemeer Station, Lake Hayes nr. Arrowtown.

Height 7.30m. Width 9.14m. Diameter at 1.40m. = 66mm. in 1968.

Eucalyptus regnans. Orokanui Mental Hospital, Waitati, North Dunedin.

Height 54.86m. Width not taken. Diameter at 1.40m. = 1.60m. in 1968.

Fagus sylvatica - English beech. Botanical Gardens, Dunedin.

Height 24.38m. Width 27.40m. Diameter at 1.40m. = 1.39m. in 1968.

Fraxinus excelsior - Common ash. Skinner's Farm, Pukeuri. Height 29m; Width not taken. Diameter at 1.40m. = 1.21m. in 1968.

Fraxinus excelsior 'Pendula' - Weeping ash. Botanical Gardens, Dunedin.

Height 10.36m. Width 12.20m. Diameter at 1.40m. = 58cm. in 1968.

Picea smithiana - Himalayan spruce. Glenorchy Station, Lake Wakatipu.

Height 24.40m. Width not taken. Diameter at 1.40m = 89cm. in 1970.

Pyrus communis 'Ruby' - Pear cultivar. Psychiatric Hospital, Waikouaiti.

Height 16.76m. Width 15.24m. Diameter at 1.40m = 81cm. in 1968.

Quercus robur - English oak. Botanical Gardens, Dunedin.

Height 17.67m Width 21.36m Diameter at 1.40m. = 1.60m. in 1968.

Quercus petraea - Sessile oak. East Arum Street overlooking Oamaru harbour.

Height 7.62m. Width 21.33m. Diameter at 1.40m = 43cm. in 1968.

Information on any of the above trees would be welcomed by:

Ron Flook, 539 Rocks Road, Tahunanui, Nelson, New Zealand. Tel/ Fax 64 3 548 6539. E-mail flook@netaccess.co.nz

or send to: Enid Reeves RNZIH Exec. Secretary, PO Box 12, Lincoln University, Canterbury. Tel 033252811 X 8670 (Mondays only)

Stay of Execution for Norfolk Pines

An avenue of Norfolk Island Pines in Wairoa has been described as the "second best avenue of its type in the world". This magnificent avenue has been the focus of a dispute between residents and the local council. The council conducted a survey amongst residents living in Marine Parade because of complaints over the trees and problems of shading. Landscape architects were commissioned to assess the trees and produced a report outlining the importance of the trees, their level of shading and so on. A small group of residents came out in support of retaining the trees.



The council finally decided to remove every second tree to alleviate perceived problems.

The discussions intensified and the case was referred to the Environment Court where it recently went into its second hearing.

It was then that I was asked by the appellants to go over the evidence produced so far. I was startled to find that no arboricultural assessment had been made about the health and welfare of the trees. Nobody argued that the trees were not important, but on the other hand, nobody had investigated the condition of the trees or the effect of the remaining trees if half were removed.

The Environment Court were informed of this oversight and it was suggested a health and welfare report be carried out by the council on which future management could be based. The Environment Court ruled in favour of the appellants and a report commissioned. The report recommends that all trees be retained and that canopy thinning be carried out to relieve shading problems. The Wairoa District Council is now considering the recommendations.

The Wairoa District Council is to be commended for being prepared to look once more at the options for future management of these trees.

Frank Buddingh'
National Consultant, Notable Trees New Zealand



From the Herbaceous Border

by

Roger Springett, Mara Nurseries

In this column, I would like to discuss plants which could well be in any herbaceous border. They will range from large to small, from hardy to a little tender, from shade lovers to sun worshippers and cover the full spectrum of leaf and flower colour and form. The one consistent quality will be that, given the correct conditions, they will all be good garden plants.

The first plant in this florilegium is *Isoplexus canariensis*, a member of the Scrophulariaceae family, and, as such, related to such well known plants as Antirrhinum, Verbasicum and, most closely, Digitalis [foxglove]. It is a plant of almost shrubby habit, evergreen and attaining a mature height of around 150cm and as much across. The leaves are attractive, being fairly large [up to 25cm x 7.5cm], lance shaped, mid green above and much paler beneath. The flowers are tubular, like those of a foxglove, and carried in a spike [strictly a raceme] of up to 35cm long and borne well clear of the foliage. The flower colour is hard to describe. Reference books give it as 'yellow-brown' but, to my eyes, it is more of a tawny colour, rather like that of a lion's coat. The plant is in flower for a good long time in late summer and autumn and, although I haven't tried it myself, I think it would make a fine cut flower. The main cultivation requirement is a well drained soil. *I. canariensis* is a native of the Canary Islands and is, therefore, not fully hardy but, given good drainage, it will stand winter temperatures down to -7C. It grows well in either sun or light shade although the largest plant I have seen is growing in deep shade underneath a rhododendron tree! Propagation is by seed or by green cuttings in the spring.

It would be hard to find a greater contrast than that between *I. canariensis* and my next plant, *Hemiphragma heterophyllum*, even though they are both members of the same family, Scrophulariaceae. *H. heterophyllum* is a perennial with creeping stems which will carpet the ground over an area of up to 75cm across and never more than a centimetre or two in height. This delightful ground cover has one quite unusual characteristic and that is that the leaves on the first, main stem are round or heart shaped whilst those on subsequent, spreading stems are linear, pointed and carried in tufts. In my experience, the round leaves have disappeared by winter and all the over-wintering leaves are the linear type although I must add that this is not mentioned in any of the references. *H. heterophyllum*

flowers in the late spring or early summer with small, pink, tubular or bell-shaped flowers which are sessile [stemless] and spring from the leaf axils. The flowers are followed by round fruit which are a bright, shining sealing-wax red, making a splendid display which lasts all winter. *H. heterophyllum* is a Himalayan plant, occurring in woodland, scrub or open country at altitudes of up to 3700 metres. Given this habitat, it is not surprising that it is a hardy plant that succeeds in sun or light shade and, again, prefers a soil that is well drained and not too rich in nutrients. Propagate by division in the spring.

To round out this small selection of garden worthy plants, *Polygonum bistorta* 'Superbum' is a completely hardy and easy-going plant of great beauty. It forms a slowly expanding clump of broad, oval to oblong, wavy leaves which are highly efficient at preventing weed growth. This clump is surmounted to a height of 75cm by wiry stems bearing long, dense, bottle-brush like heads of pure pink flowers. The main flowering period is in late spring and early summer but further flowering stems will continue to appear throughout the summer and autumn. The leaves of the 'bistort' turn a rich brown in late autumn and are held on the plant for most of the winter. The flowers may be cut and dried and used for winter decoration. Grow in full sun or part shade and a soil that does not dry out in the summer will prolong the flowering period. The original species from which this plant was developed, *P. bistorta*, is found in many habitats throughout Europe and Asia. Propagate by division in the spring.

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This column is prepared by Mara Nurseries, specialist growers of perennial plants, Allen Road, RD 12, Hawera.

Our Nearest Neighbour New Caledonia A New Horticultural Mecca

By Dr John Dawson

An Australian plant collector, Alistair Watt, recently described New Caledonia as having one of the richest and most beautiful floras in the world and further stated "Since 1987, I have developed a 'love affair' with New Caledonia, much as Kingdon-Ward and Forrest felt about western China". Watt took seeds, collected during five expeditions, back to Melbourne, where a special section is now being developed at the Botanic Garden "to exhibit the best and most interesting of these new floral treasures. Some nurseries are also looking at bringing some of these novelties into more general cultivation

I have visited New Caledonia 15 times over more than 30 years to undertake botanical research, particularly into the family Myrtaceae. In 1992 and 1994 Rob Lucas accompanied me and we collected seed of a number of species of horticultural merit. This seed went to several recipients in the North Island, including Victoria University, the Wellington Botanic Garden and the Auckland Regional Botanic Garden. There are now well grown young plants of a number of species. At the Wellington Botanic Garden some of these will be tried in containers in the Begonia House and others will be planted in suitable sheltered sites in the open.

New Caledonia lies about half way between North Cape and New Guinea at 20-22.°S. The main island is long and narrow, 400 km long by 40-60 km wide, which are approximately the dimensions of the North Auckland Peninsula. New Caledonia though is more ruggedly mountainous with some peaks more than 1600 m high.

The climate is tropical, although the relatively high latitude means that there is a 'winter' season that can sometimes be cool but certainly not cold. Rainfall is higher in the east than



Fig. 1— *Melaleuca quinquenervia* (*niaouli*) in the north west of New Caledonia. The white bark is thick and spongy and very resistant to the fires that periodically pass through the undergrowth.

the west, the normal pattern in the tropics, and is probably everywhere sufficient to support forest of some type, even on the mountain tops. However those arriving in New Caledonia for the first time at Tontouta Airport in the west, might wonder whether they had arrived in Australia by mistake. They see dry looking hills covered with green, white trunked trees that could be a species of *Eucalyptus*. It is in fact a very fire resistant species of *Melaleuca*, *M. quinquenervia*, known locally as 'niaouli'. However, the more observant visitor

might notice that in gullies on the hills there are patches of dense, dark green rain forest. The gullies give some protection from the fires that blaze all too frequently on these slopes. Before humans arrived with their fire some thousands of years ago, it is thought that the western side of New Caledonia was covered by dense forest. There are still extensive rain forests at higher altitudes in the mountains and on the wetter east coast, but even here there can be incursions by fire in the drier season.

The other factor that sometimes inhibits the development of forest is much more ancient and botanically more interesting, as it has led to the evolution of many unusual and sometimes

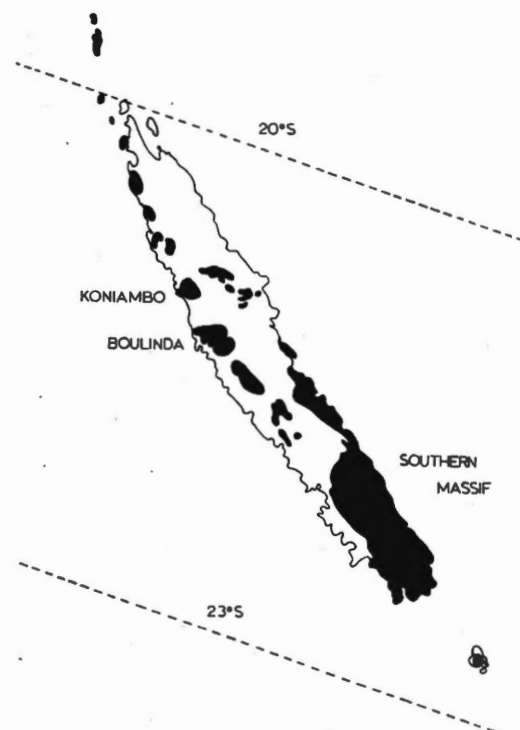


Fig. 2 — Map of New Caledonia showing areas of serpentine rock in black.

very attractive species over millions of years. This factor is serpentine rock which occupies a third of the area of New Caledonia. This rock type is very low in mineral nutrients useful to plants and is often high in toxic metals, such as nickel and chrome. The soil derived from this rock can usually only support sparse and stunted vegetation able to tolerate the infertility and toxicity. Serpentine rock is found in New Zealand on Dun Mountain near Nelson and in the Olivine Range in Fiordland.

In New Caledonia the largest serpentine area is in the southern third of the main island, where it is easily accessible from Noumea. The landscape here differs from that elsewhere in New Caledonia. There are a series of wide



Fig. 3—A scene in the southern Plain of Lakes region. The lake has formed behind a hydro dam and is much larger than the original lakes. On the right a *Casuarina* and at centre, partly against the sky, a species of *Dracophyllum*.

basins, with swamps or small lakes in their lowest parts surrounded by hills. On the level sites and the ridges of the hills there is a sometimes dense cover of shrubs or small trees, the latter often having a distinctive candelabra arrangement of their branches. In the gullies and valleys of the hills tall forests sometimes develop with some very big trees, including species of *Araucaria* and the related *Agathis* (includes our kauri). This southern vegetation is rich in species and many of them are attractively shaped and in some cases bear large brightly coloured flowers.

Plant families with a long history in the southern hemisphere are strongly represented. The conifer genera *Araucaria* and *Agathis* have already been mentioned. Species of *Araucaria* are the most distinctive trees of New Caledonian landscapes, ranging, with different species, and on all rock types, from the coast along the ridges of hills, up to the mountain tops. Along the coast the most notable species is *Araucaria columnaris* with its pencil or rocket-like shape, sometimes 70-80 metres tall by a metre or so wide. Of the 19 species of *Araucaria* in the world, 13 are restricted to New Caledonia.

There are also other conifers of the podocarp family, to which most New Zealand conifers also belong.

Among flowering plants the *Casuarina* genus is also promi-



Fig. 4 — Dense rain forest near the centre of the island, including some palms and an impressive grove of *Araucaria columnaris* on the crest of the ridge. The rock here is schist.



Fig 5—A dense community of *Casuarina* growing in a gully on serpentine rock in the north west.

ment in this southern region. The New Caledonian species are attractively shaped with densely rounded crowns. Species of *Nothofagus* are also present, although their leaves are a surprise as they are much larger than those of our species.

The *Protea* family is conspicuous and includes spindly small trees of *Grevillea* with large pink or cream inflorescences. The Cunoniaceae include species related to our kamahi, but many of them are dense, rounded shrubs with bright pink, red, or yellow flowers. Other members of this family have the flowers crowded in spherical heads. The family Myrtaceae, the largest in New Caledonia, is also strongly represented. There are relatives of our ratas with bright red flowers and many other genera with fleshy (see cover photo) or dry fruits. The most notable genus horticulturally though is *Xanthostemon*, ranging throughout the island, mostly on serpentine. The flowers of the 22 species are large and mostly bright red or yellow.

At higher altitudes on the mountains in the north of the southern serpentine region, and on island-like serpentine mountains ranging to the far north, different species or different genera appear. There are *Araucaria* of candelabra form and other species that are so short they could qualify as bonsais by comparison with the tall coastal trees. A notable incomer at these higher sites is the only other species of *Xeronema* in the world, *X. moorei*. It is often very abundant on rocky sites. It



Fig. 6—A juvenile plant of *Nothofagus baumannae*, Mt. Mou. The leaves of the adults of this species, although still large by New Zealand standards, are only about a quarter the size of those of the juveniles.

is a smaller species than ours, but still highly attractive when in flower.

Rain forests on soils derived from normal rocks, greywacke, schist etc., have a different aspect. Conifers are less conspicuous with tree ferns and palms being more prominent. Among the tree ferns are two species that may be the tallest in the world, up to 30 metres in height with trunks up to a metre in diameter near the ground. Higher altitude tree ferns are miniatures by comparison with very slender trunks. There are 36 species of palm, many of them with slender, elegant and sometimes very tall trunks.

A few botanical curiosities have evolved in New Caledonia. In the Plain of Lakes region in the far south there is a dwarf semi-aquatic podocarp conifer. Its short, often submerged trunks, at the edges of rivers or lakes, are conspicuously swollen at the base. At the same locality there is an always completely submerged species of *Blechnum* fern. It grows out from crevices in deep river pools. Most remarkable of all, however, is the only known parasitic conifer in the world, appropriately named *Parasitaxis*. It is a spindly shrub, with dark red-purple foliage, that parasitises the roots of another podocarp conifer.

Botanically New Caledonia is a fascinating place with its strong representation of ancient southern hemisphere families



Fig.7 — A view from the top of Mt. Humboldt in the southern serpentine region. The alkaline serpentine rocks weather in the same way as marble. Here there are shrubby species of *Metrosideros* and *Cunonia* with a small species of *Araucaria* appearing through the mist. In the left foreground is a clump of *Xeronema*.

as well as tropical Asian families. The evolution of distinctive and attractive species on the serpentine terrain adds a further interesting dimension.

Horticulturally too, New Caledonia has much to offer. Its potential in this respect is only just beginning to be realised.

Dr. John Dawson is Senior Associate in the School of Biological Sciences, Victoria University of Wellington. He has a particular interest in the flora of New Caledonia and has written the first of two volumes on *Myrtaceae* for the Flora of New Caledonia. He is currently working on the second volume.

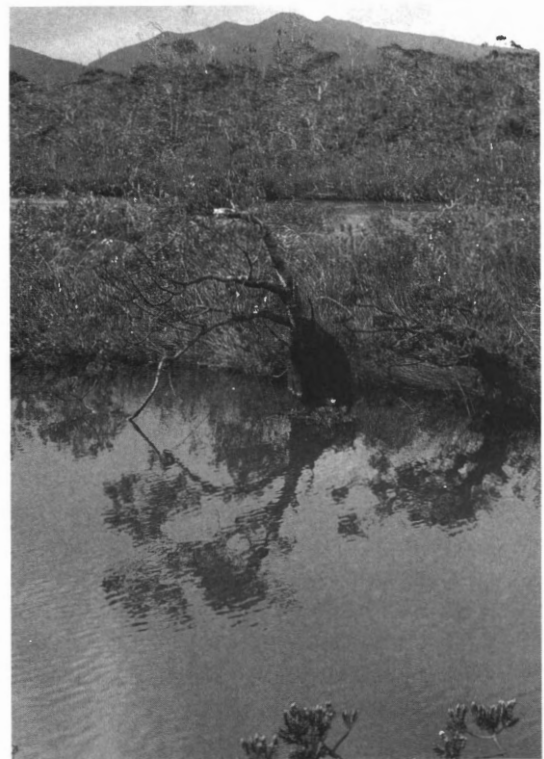
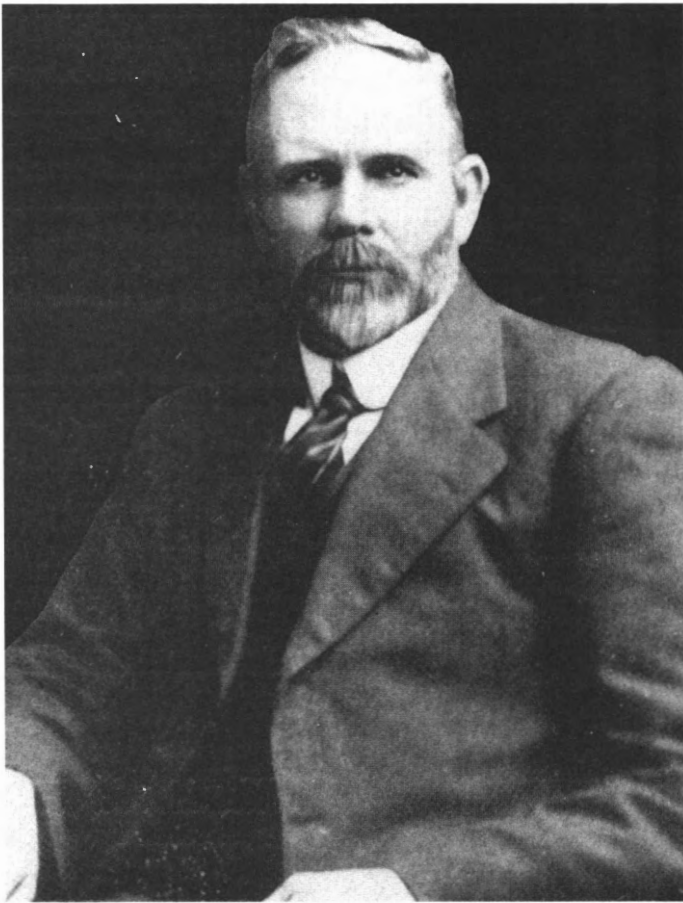


Fig. 8 — A semi-aquatic podocarp conifer, *Decussocarpus minor* growing at the edge of a deep river in the Plain of Lakes. Like its much larger distant relative the swamp cypress of the Florida Everglades, it has its trunk swollen at the base. In the background is a close cover of shrubs and small trees on the serpentine terrain.



George Archibald Green (1867-1935) NDH (NZ).

PART 1: The City Beautiful and Countryside Beautiful.

By John P. Adam.

Introduction.

George Archibald Green played an important role in the foundation of a number of professional horticultural organisations including the Royal New Zealand Institute of Horticulture and the Nursery and Garden Industry Association in the early years of this century.¹ He was a prolific communicator throughout his life using skills probably learnt from his father. A typewriter he used is still a treasured family possession. His known horticultural interests that he published focused on the history of Citrus and the Radiata Pine. He travelled widely in New Zealand and Australia. He had a radio programme on 1YA and was a correspondent for the New Zealand Herald.

This article will examine the emphasis placed on aesthetics within his profession over the first third of this century. Part two, to be published next year, will document his scientific interests and places where George Archibald Green worked and where his family settled at Dairy Flat, near Albany, North Auckland.

The Family

As the Institute of Horticulture reaches its 75th anniversary, one man who contributed a considerable amount of time and

energy to its foundation and development was George Archibald Green (1867-1935), Archie to his family. He was probably born in Auckland although Dairy Flat, just north of Albany, is given in some records. He was the eldest of five children (Adelaide (Matthews), Margaret (Leman), Henry, James and George Archibald) from the marriage of George and Dinah, nee Steel.

George Green (1840-1925) and his wife Dinah (1837 - 1912) both came from Worcester, England on the ship the "Winterthur" as part of the Albertland settlers in 1866.² They married just before they departed - missing a boat heading for their preferred destination South Australia.³ The conditions of the Albertland settlement at the "time were not too inviting, having sized the position up..." and he "decided to settle nearer the city... When the Coromandel and Thames goldfields opened in 1867, he joined in the rush, first at Coromandel and then at Thames..."⁴ He started a business as a barber in Coromandel and acted as a correspondent for the New Zealand Herald.⁵ He signed his land grants of 80 acres at Dairy Flat in 1870. In 1872 he entered into an agreement to proceed to Hawkes Bay to take charge of some extensive plantation work being carried out at that time. Here the experience gained in one of the large nurseries of his native city served him in good stead, for

though he was in the service of the Imperial Post Office for the last six years of his life in England, he had previously learned the nursery work...".⁶ About 1875 George returned with his family to Dairy Flat, where he entered the orchard and nursery business, "which he conducted with fair success for about 30 years, during which time he became one of the pioneers in citrus culture and joined in the first export of apples to London..." in 1892.⁷

George Archibald Green

His youngest son George Archibald began his career as an apprentice to his father between 1880 and 1885 and followed on for three years as Foreman in his father's Nursery and Orchard. Late in 1888 he "studied business methods and salesmanship under... A. F. Porter of Canada..." and the following two years he became a "Wholesales traveller for E. M. Porter and Co". At age 23 he was writing articles on citrus culture for the New Zealand Herald. He would act as a correspondent for this daily paper "for many years".

By 1891 he became "Sales Foreman in charge of assembly Packing and dispatch of Nursery orders for E. M. Porter and Co..."⁸ Between 1893 and 1896 he was a Nurseryman and Orchardist on his own account at Birkdale, on the North Shore of Auckland. This was followed by a short spell as Foreman for D. A. Hay of Montpellier Nursery near Hobson Bay, Remuera in 1896. The following year he began a five year partnership with Francis Bennett as Nursery and Sales Manager. His nursery was in Khyber Pass near Huntley Avenue, Newmarket which had been established in 1876 by W. Palmer.⁹ He moved to New Plymouth in 1902 as "Managing Partner" for Morshead Nursery Co. It was while he was at New Plymouth that he became involved in the official organisation of his profession. On the 17 March, 1904 he was present at a "social meeting" of the Normanby Horticultural Society's Show as the Manager of Morshead Nurseries, New Plymouth where a resolution was passed after an address by T. W. Kirk, Director, Horticulture Division, Wellington, which led to the formation of "The N. Z. Nurserymen's and Seedsman's Association".¹⁰ He returned to Auckland in 1906 to form a series of business partnerships with Frank Bennett. First as Managing Director for Bennett and Green Ltd. Nurserymen, Auckland until 1914 and then as Director of Bennett McDonald Ltd. Nurserymen, Auckland until 1920. In 1908 the Bennett and Green nursery was called "Central Nurseries" and the business offered Florists¹¹ and High Class Landscape Gardening in all Branches...".¹²

In 1909 Green was elected the Honorary Secretary of the nurserymen's national association called the New Zealand Horticultural Trades Association which the Auckland Association "took ... up on Dominion lines...".¹³ Green's "enthusiasm and dynamic personality" would largely organise the "nurserymen and later... seedsmen... florists"¹⁴ and landscape gardeners into the Horticultural Trades Association known today as the Nursery and Garden Industry Association.¹⁵

Green spoke at the first New Zealand Town-Planning Conference and Exhibition held in Wellington in May 1919 shortly after the first World War. Green said he was representing

"nurserymen of the Dominion" and confirmed the ideals of the international City Beautiful movement's strong aesthetic vision that his own nursery profession was practicing, especially in the larger towns and cities. He said that "His fellow nurserymen were naturally trained on aesthetic lines ; their work so molded their minds that they loved the beautiful in nature, and it was to such men that town-planning authorities would have to look for the knowledge and assistance which would enable them to so beautify the works of man by natural growth as to give the Dominion's cities the right touch of colour to make them worthy of the town-planning scheme...". Green understood the new town planning ideals for he said "Previous speakers had referred to the necessity for having engineers, architects, and surveyors to carry out these schemes but no delegate had mentioned the honorable profession of nurserymen and horticultural gardeners, the members of which would be required to do their part if the city beautiful and the countryside beautiful were to become accomplished facts...".¹⁶ Green finally recommended that "Living memorials in the form of trees should be planted in honour of New Zealand's fallen soldiers...".

It could be argued that it was the increasing influence of the urban beautifying societies who began forming in the main town and cities as early as the late 1880's [Dunedin Amenities Society, 1888; Taranaki Scenery Preservation Society, 1891; Christchurch Beautifying Association, 1897; Wellington Scenery Preservation Society, 1895; Auckland Scenery Conservation Society, 1899], and who then evolved and began to support a modern "town planning" movement that was to contribute to the formation of the New Zealand Institute of Horticulture in 1922. Green appears to have supported many of their values. The first New Zealand Town Planning Act was passed in 1926 after an abortive attempt in 1911.¹⁷ The Institute of Horticulture at both a National Executive and District Council level discussed the representation of the Institute on the new Town Planning Board and other planning matters.¹⁸

The Institute's official history by M. J. O'Sullivan says that the formation of the Institute came about through the "quieter persistence" of Mr A. H. Shrubshall and George A. Green's "strong personality" and his "determination to see bud selection established and horticulture given a recognised status, his energy and his ability to inspire enthusiasm, his perseverance which made strong men give way and drove the less strong ones to evasion, triumphed at last and established almost what he wanted...".¹⁹

One of Green's obituaries said that "Through his connection with nurserymen, he had a unique opportunity, when travelling, of meeting horticulturists and finally assisted mainly in the formation of the New Zealand Institute of Horticulture...".²⁰ He served as the "Organiser" of the New Zealand Institute of Horticulture from 1922 to 1935 and as the "Dominion Secretary" for the same organisation from 1922 to 1927.

Aesthetics

I have always been puzzled why Allan M. Hale said so

little about George Green in his book *Pioneer Nurserymen of New Zealand* published in 1955. Hale did tend to overlook, from a northern New Zealand perspective, a large number of important Auckland, Bay of Plenty and Waikato seedsmen, gardeners including landscape gardeners and nurserymen [ie Frederick Forester; Andrew and William Goldie; Charles W. S. Purdie; William Wells; W. Morgan; Henry J. Hawkins and T.E. Pearson.] One of the reasons for the scarcity of career detail about George A. Green is perhaps because of the "private circulation" of the *Souvenir Record of the Jubilee Celebrations of the New Zealand Horticultural Trades Association* in 1954 that contained some historical details of Green's association with the NZHTA.²¹ Another could have been his disinterest in garden design and landscape aesthetics?

Having just read Michael Pollan's book *Second Nature* where he examines American attitudes to garden design in his final chapter and asks why there are "inhibited" attitudes "talking about the design of... gardens - about gardens as places, and not just collections of plants?". Americans, Pollan says "feel uncomfortable talking about aesthetics - about the look of our gardens, and how that is achieved."²²

Allan Hale makes little if any comment about the design function of many of the horticulturists he recorded in his book. That they designed both private and public gardens -the latter mostly competitively- is not stated. The Nursery business that Green was directly involved in saw him advocating a professional aesthetic ideal of his time. Read any garden column from last centuries New Zealand daily newspapers and there is considerable comment on the changing garden design ideals written by nurserymen like Green. Hale did not.

Green addressed the committee of the Tauranga Beautifying Society in September, 1923. The Bay of Plenty Times carried an account of the meeting. It said,

"Mr Geo. Green, of Auckland, addressed the committee of the Beautifying Society, when he spoke on the relation of the New Zealand Institute of Horticulture to horticultural development, town planning and beautifying, afforestation and the production of forests, historical trees and places, education both theoretic and practical, and many other phases of urban, suburban and country life. He dwelt on the importance of cultivating the aesthetic in life and thus maintaining the high ideals for which the best of our race have always stood.

Mr Green urged that the only way for horticulture to assume its right place in the thoughts of the people and to obtain the degree of governmental recognition it was due, was by unity, and the best way of attaining this and thus obtaining the ability for national action was by affiliation with the insititute. This was open to all public and private orders, as well as individuals who wished to see the objects of the Institute a power in the land. All desired to advance, assist and promote horticulture aesthetic, as well as commercial.

He spoke of the need of the Beautifying Society with the aid of other orders bestirring themselves with the view of the

protection of some of the historical trees of the town, instancing the large aspen (poplar) [historically associated with The Elms property nearby] opposite the post office and the large Martin (sic) Bay fig in Devonport Road. He also referred to the giant pohutakawa(sic) on Mayor Island.

This mutilation of the street trees by the telegraph and electric line company was referred to and Mr Green said this was a matter in which all could assist in producing. The State should start a branch of the tree surgery and an experienced tree surgeon should be in charge of all topping and trimming needed in the streets so as to ensure that no injury was done to the trees..."²³

A few days earlier in August 1923 George A. Green established a Tauranga branch of the Auckland Forestry League.²⁴ He said, as a member of the Auckland Executive at the meeting to launch the branch, that,

"The League exists to create a sentiment in favour of the conservation and regeneration of the last remains of our native forests and for the planting, wherever possible, by the Government, local bodies and private settlers of areas with suitable exotic trees of commercial value..."²⁵

George is known to have "planned out" the garden at the second family home in Dairy Flat. The garden was designed in front of the house.²⁶

He was married in 1896 to Miss Lillian Winifred nee Smith. They had three children, Faith E. E. Green, Wilf [G.T. W.] and E. H. R. Green.

Mr Green was a keen Bible Student and a frequent speaker at religious gatherings throughout New Zealand. He was a member for 40 years and a elder for 25 years of the West St. Church of Christ in Onehunga.

He was "laid to rest on the hill overlooking the Manakau Harbour (sic), a wonderful vista of sea and landscape" in the Hillsboro cemetery.²⁷

Acknowledgments

Mrs Kath Fotheringhame, Helensville; Mrs I. Brock, Whangarei; Mr D. and Mrs E. Hopkins, Maraetai; Monty Foster and Jan Kelly, Dairy Flat, Albany.

John Adam is a garden historian based in Auckland with a particular interest in amenity horticulture and landscape management. He works for the Grounds Department of Auckland University.

1. L. H. Green is sometimes associated with George A. Green but is not believed to be related to him. L. H. Green established a nursery on Campbell Road, One Tree Hill, in 1870. [Another Green family with horticultural interests

- settled near Matakana near Warkworth.] See: Rice, W. H. 1957: Early Pioneers. Synopsis of Address Given at Annual Conference. Official report of the Annual Meeting and Conference - New Zealand Horticultural Trades Association. 50th. pp24-28.
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 3. According to his great granddaughter Mrs Edna Hopkins, Maraetai.
 4. Obituary. Mr George Green. Pioneer Fruit Grower. The Auckland Star, 16 May 1925. P11 C8
 5. Mrs E Hopkins, 1997. Personal Communication.
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 7. Obituary et al.
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 9. Rice, W. H. 1957 Early Pioneers. Synopsis of Address Given at Annual Conference. Official report of the Annual Meeting and Conference - New Zealand Horticultural Trades Association. 50th. p 24.
 10. Anon. 1954: Official Report of the 47th Annual Meeting and Conference. Private circulation only. Appendix's P43
 11. *The New Zealand Graphic* 2 March, 1907, P13.
 12. *The weekly Graphic* 2 March, 1907, P13
 13. Anon. 1954: Official Report of the 47th Annual Meeting and Conference. Private Circulation Only. P44. [The national association failed to register after the 1907 conference. The Auckland District and Southland Association had. National registration occurred in 1911.]
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 15. The Landscape profession is today represented by the N. Z. Institute of Landscape Architects, est 1974 and the Landscape Industries Association of New Zealand formerly the N. Z. Landscape Guild est c1984.
 16. Official Volume of Proceedings of the First New Zealand Town-Planning Conference and Exhibition. 1919. Government Printer. P 249-250
 17. Unsuccessful attempts at passing into law Town Planning legislation, drafted by the Hon. George Fowlds in 1911, as acting Minister of Public Health, included clauses for the, "preservation of objects of historical interest or natural beauty....". See: Statutes of New Zealand, 1926. Schedule. Item 4. "The Preservation of objects of historical interest or natural beauty...".
 18. O'Sullivan, M.J. 1955: History of the Royal New Zealand Institute of Horticulture. P21 and 24
 19. O'Sullivan, M. J. 1955: History of the Royal New Zealand Institute of Horticulture. p4.
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 25. Fruit growing and Forestry Affairs. Interesting Interview with Mr Geo. Green FRHS. The Bay of Plenty Times, 30 August, 1923.
 26. Mrs E Hopkins, 1997. Personal Communication
 27. Noted Horticulturist. Typescript. Family Papers, Mrs Hopkins, Maraetai. 2p.

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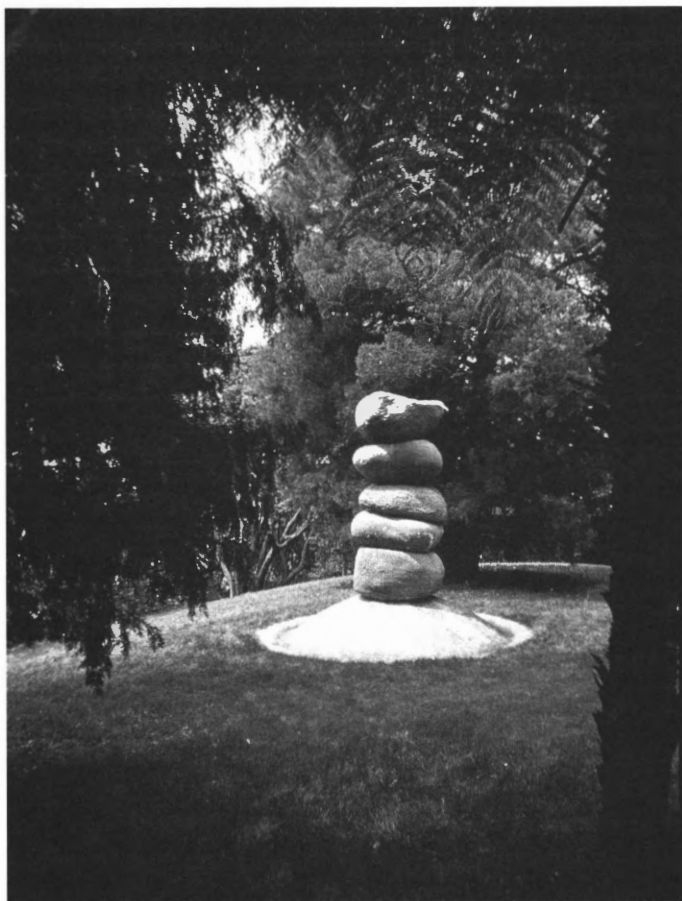
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'Peacemaker' by Chris Booth

by Peter Kundycki and Michael Oates

The history of sculpture as a design element in gardens goes back centuries. Each phase of garden sculpture is culturally specific, determined by a whole congeries of ideas and events, few of them explicitly horticultural or architectural: they may be political, social, economic, religious. However, early garden designs did incorporate sculptural elements purely for functional and religious purposes. Examples include fountains as part of irrigation systems, lanterns, bridges and ceremonial structures. During the 18th and 19th centuries these objects took on a decorative role in the picturesque landscape designs fashionable at the time. In the twentieth century we have seen sculpture give up figurative subjects and the narrative content that once assured its position in the public space (and a decorative role in architecture). The development of larger numbers of large high quality contemporary sculpture created a demand for pieces to be exhibited in a suitable environment either temporarily or permanently. From this, sculpture gardens and parks, designed to exhibit a range of pieces in a suitable scaled landscape developed as well as the development of site specific commissioned sculptures.

In New Zealand the use of sculpture in public parks and gardens is relatively recent. During the 1980's the Wellington City Council developed an Arts Bonus Scheme Provision in the

Art in the Park - The Wellington Botanic Garden Sculpture Walk

District Plan which required inner city developers to provide sculpture in public spaces in exchange for variations to building bulk and height restrictions. Since the early 1990's exhibitions of temporary sculpture have been held in Christchurch, Dunedin, and Auckland Botanic Gardens. However, Wellington Botanic Garden has been the first Botanic (public) garden to have on permanent display a series of site specific sculptures that has evolved into a sculpture walk.

The placing of Henry Moore's "Bronze Form" in Midland Park was one of the first initiatives of the Wellington Sculpture Trust, an organisation established as a charitable trust by a group of Friends with an interest in sculpture and the arts. Their objective was to place high quality sculpture in public places and so increase the public's appreciation of art. Their first commissioned piece was Albatross by Tanya Ashken on the Wellington waterfront. It was handed over to the city in 1986. Soon after this, discussions began with the then Director of Parks Richard Nanson regarding the siting of contemporary New Zealand sculpture in the Wellington Botanic Garden.

In 1991, the year celebrating one hundred years of Council ownership of the Wellington Botanic Garden, the

first piece was installed. Peacemaker by Northland artist Chris Booth had been made for an exhibition in Rotorua. The Sculpture Trust purchased the piece and the position was chosen by the artist after discussions with the Trust and Botanic Garden staff. From this beginning arose the proposal to develop a sculpture walk containing contemporary sculpture by New Zealand sculptors. After discussions with the Trust the Botanic Gardens Sculpture project was established. The objective was to install at least 3 additional pieces to complete the walk.

The Walk would start at the Lady Norwood Rose Garden and rise quite steeply along the Salamanca Lawn to the MetService building. Then along Remembrance Ridge to Druid Hill and back via the Herb Garden to the Rose Garden. The Walk was about 1 km in length and would take about 30 minutes giving time to view each piece. The route offered a range of spaces from open lawns to small bush pockets where pieces would be suddenly encountered when rounding a corner. It also allowed space for large pieces that could be viewed from a distance.

Work started in 1993. The process for selecting each of the three pieces varied slightly but was basically as follows:

1. All the art galleries, art dealers, and sculptors from across New Zealand were requested to submit portfolios of sculptors work. Over 70 portfolios were received which demonstrated the depth of artistic talent in New Zealand
2. A group of six sculptors was selected and asked to develop proposals for a specified site.
3. The proposals were evaluated by an advisory panel appointed by the Sculpture Trust. The panel included WCC Landscape Architect Peter Kundycki, University Art Lecturer Jenny Harper, City Art Gallery Director Paula Savage, and a local artist, initially John Drawbridge and later Tony Lane.
4. The panel chose a piece based on its artistic merit and responsiveness to the site. Discussions then took place with the Curator to ensure practical issues were addressed such as maintenance, vandal resistance and so on. The Friends of the Garden were also consulted on position and selection.
5. The Sculpture Trust and the chosen artist finalised the design and costs.
6. Funding was raised from a variety of sources.

The funding was the responsibility of the Trust and they worked tirelessly to raise money from a variety of sources: including members funds, grants from Creative New Zealand, and WCC Community Grants. The Botanic Garden also provided on site assistance and was responsible for final site work.

The timetable for installation was as follows:

- Listening and Viewing Device by Andrew Drummond

Installed on Druid Hill in 1993.

- Body to Soul by Mary -Louise Browne. Installed adjacent to the Norwood Path in 1996
- Rudderstone by Denis O'Connor. Installed adjacent to Manuka Way in 1997.

During the development of the Sculpture Walk an opportunity arose to add an additional sculpture. Bronze Form by Henry Moore was presented to the City by Fletcher Challenge in 1988 as part of the Arts Bonus Scheme previously described. At that time many people including members of the Sculpture Trust felt the piece would be better appreciated in a larger, more natural space. In 1993, when proposals emerged to redevelop Midland Park it was proposed that it be moved to the Cable Car entrance of the Botanic Garden. After discussions with the Sculpture Trust, however, it was decided it should become part of the Sculpture Walk, rather than stand alone. To assess its final position, a life size Marquette was made and positioned in different sites. A site was chosen on the Salamanca Lawn overlooking the Lady Norwood Rose Garden. and in December 1995 it was finally moved to its new site.

The installation of sculpture whether on a temporary or permanent basis is always going to create interest. The Wellington Botanic Garden has had its share of controversy with the installation of art dating back to the 1930's. The installation of Joy Fountain in the Main garden took 12 years because of a series of controversies surrounding its artistic merit, and lack of unanimity amongst staff and Councillors about what constituted art. Today it is hard to imagine the controversy surrounding a piece that is now an integral part of the Garden's structure.

Installation of sculpture is sure to generate a range of opinions from outrage through to amazement!! We had to ensure that all pieces were well sited and that they reflected something of the environment in which they were installed. Of course one had to make decisions on gut feeling and without the usual consultation used for major new projects in the Garden. Trying to get unanimity on such a project would have been impossible. Now that the project is nearly complete it is very satisfying to look back at the benefits to the Garden and the City in displaying quality sculpture in an environment where they are fully appreciated at the same time as adding to the existing structure of the Garden. At times it felt like an impossible balancing act, and thick skin was often required from the comments received. However, on a recent guided tour of gardeners from the UK, two comments summed up the value of art and its place in gardens.

- Person 1 - Wow isn't that amazing
- Person 2 - Oh my god!!

Peter Kundycki is a landscape designer and sculptor. He is currently an urban designer with the Wellington City Council. Mike Oates is a Senior Asset Planner with Wellington City Council with responsibility for the botanic gardens and inner city horticulture.

Listening and Viewing Device

This imposing sculpture towers 6 metres above Druid Hill and was in many ways the most demanding installation. Demanding because of its sheer size and presence on site, demanding because of the difficulties getting it installed and demanding to the many people who over the ensuing months stumbled across it or noted it from afar across the skyline of the Garden.

The piece weights over one tonne and is made of copper. It was constructed in Christchurch in two pieces and transported to Wellington by truck. The site did not allow truck access so the piece was lifted into place by helicopter amidst towering radiata pines dating back to the gardens establishment in the 1870's. The original plan to lift the two pieces into place with the Westpac helicopter had to be called off when it was found the its weight was greater than estimated. An Iroquois had to be called in from Taranaki to finish the job.

Andrew Drummond the sculptor made the following statements about the piece:



“I call it what it is, a device, so I’m not mystifying it at all. It’s a device for viewing and listening. You can grab hold of it, you can get inside it and look up at it, you can move it round.....”

The piece grabs attention. It can’t be ignored and has an imposing presence on site.

Body to Soul



This staircase of black granite is set in the curve of Norwood Path between the Lady Norwood Rose Garden and the Metoffice. It is a small, intimate piece that the visitor does not see until they are right upon it. The thirteen steps are engraved with a word sequence from Body to Soul.

From the Artists statement

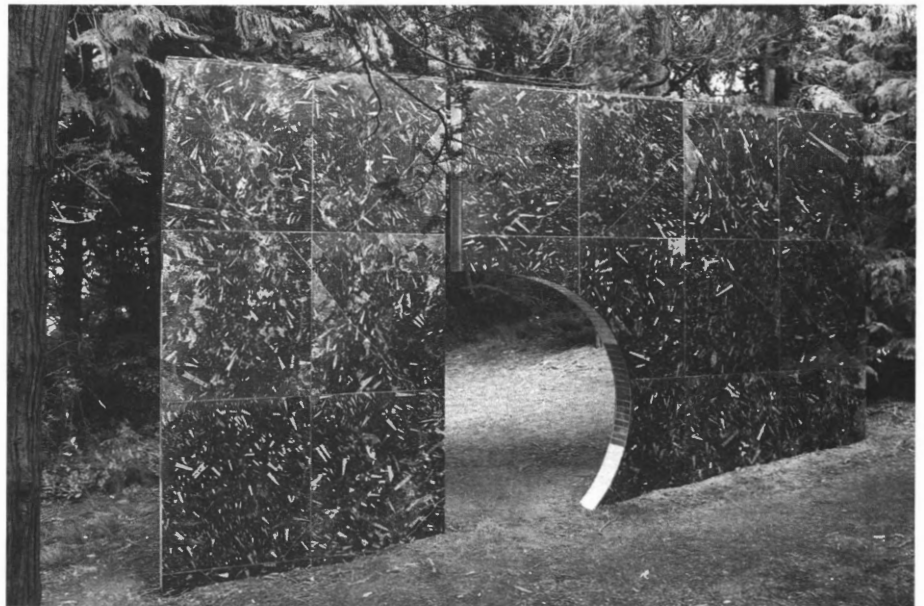
“Although the staircase will be reminiscent of memorials and there is an obvious allusion to mortality and an afterlife, on this site it is positioned as an invitation to climb and to read. Visitors who make the climb are prompted to think about the balance or imbalance between psyche and nature”

Rudderstone

The final piece in the walk is situated just below the Garden of Remembrance in a grove of old cypress trees, part of the original boundary of the Garden. The sculpture is a 3 metre high wall with a doorway in the centre formed as a rudder. The front of the wall is clad in black fossil marble representing a magnified view through a stone. Once through the rudder one sees the vivid blue and white stripes of Azul marble from Brazil and carrara marble from Italy. This represents panoramic abstract streams of sea and sky so familiar to Pacific coast dwellers and maritime voyagers. Denis O'Connor says

“ the void of the doorway is in a rudder formation and symbolically memorialises the migrant cultures of our country.....My dictionary defines rudder as the guiding

principle and the device that steers us on our journey. To virtually walk through this rudder image engages the body in a metaphor for the journey those migrants embarked on, the journey that I think the New World we live in challenges us to make”



Postscript

The Sculpture Trust intends to continue to play a role in the development of high quality outdoor sculpture in Wellington.



'Bronze Form' by Henry Moore



RNZIH AGM and Conference in Christchurch

David Shillito stepped down from the chair at the 75th Anniversary Conference and AGM in October. His reasons were due to the need for relief from what has been a most difficult time in 75 years of our great horticultural influence and contribution to the history of New Zealand. Our finances under his meticulous control were managed in a way that few would have known about apart from the Executive Members. His stringency has placed us today in a challenging position. He has accepted the portfolio of financial control while relinquishing the daily administration of the Institute. We all owe David our very grateful thanks.

I was startled but accepting of my election to the Chair of the Royal New Zealand Institute of Horticulture. I feel particularly honoured to be not only elected in 1995 as an Associate of Honour but also now to administrate and help in our future directions. We have a team on Exec. which is well experienced-and has persevered through a very difficult period. We look forward to continuing the RNZIH role in the furtherance of Horticultural excellence in this country.

Portfolio Holders

John Taylor President	Awards and Millennium Projects.
Richard Nanson	Fund raising
David Shillito	Finance Control
Dr. Ross Ferguson	Professional Activities
Graeme Mander	Hort. Standards
Annie Fullerton	Education
Michael Ayrton	Amenity Horticulture
Frank Buddingh'	Arboriculture & Notable Trees NZ
Ron Flook Chair	Registrar Notable Trees
NZ Garden Journal	Mike Oates & Sarah De Renzy Editors [ex officio Exec.]

The choice of portfolios has been closely coordinated to gain maximum cohesion in developing minuted major initiatives. This is so members can review progress through reports in the Journal and at each Annual General Meeting.

Office administration will be managed by Enid Reeves as Executive Secretary from our office within the campus at

Lincoln University. Enid has always provided willing and greatly appreciated efficiency in spite of difficult times.

Michael Ayrton was elected on to Executive at the 1997 AGM. Michael has been a keen follower of the Institute and has a great interest in Amenity Horticulture. He is the Park Director of The Cornwall Park Trust Inc. Epsom Auckland. He manages the entire domain including One Tree Hill including a large staff comprising arborists, horticulturists and a farm manager. He will bring great expertise to his portfolio of Amenity Horticulture.

The new National Executive met at the 10th Anniversary Conference of the Arboriculturists in Hamilton (November 20 to 23) by the kind invitation of the NZ Arboricultural Association. Our President John Taylor was a guest speaker at the invitation of the NZAA at their Power NZ Conference dinner.

It is planned to offer topical issues for the 'RNZIH Column' in future. Amongst the next topics will be the Department of Conservation publication 'Maori Customary Use of Native Birds, Plants and Other Traditional Materials'. This document, which also has a very useful summary called Finding Common Ground - He Rapunga Tahitanga', is available from DOC. Wellington. We are in arrears with this submission (by grave omission of notice from DOC.) but one Hui has already been attended in the Nelson Region. This provided much food for thought particularly how we can make a positive contribution towards joint future management of our flora and fauna. Comments from members after perusing the document will be most welcome.

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or

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Tel 033252811 X 8670 (Mondays only)

Update



Institute Update

Notes from the 75 th Anniversary RNZIH Conference in Christchurch

The conference was initiated by John Taylor who felt that our special year should be recognised despite the needs for economy. Together with David Shillito and David Moyle they organised a very enjoyable one day conference with part sponsorship by the Dept. of Farm and Hort. Management of Lincoln University. With a safe budget forecast and low costs for delegates it proved to be a pattern for the future. High outgoings and dwindling delegate attendances observed in other organisations should be a salutary warning to us to retain these affairs to a modest scale.

The spring day showed Christchurch at its best. The city was in gala mood having just won the Garden City of the World.

The first speaker was Joe Cartman of Christchurch City Council's Linwood Nursery who discussed the production of indigenous plants for revegetation of waterways. The techniques and speed with which thousands of plants are produced showed how very efficient Christchurch had become in a determined effort to make the best of having a major waterway in the city.

This was followed by Di Lucas a well known landscape architect who gave a talk based on the working relationships with community groups. This is becoming the requirement of communities who wish to provide for and manage their environment in their way for their own use. Di Lucas has an extensive knowledge and interest in indigenous plants, landscape values and understands the patience needed for consultations with community based projects. This talk was illustrated by working drawings which showed her warmth for her subject.

Two NDH Thesis students followed morning tea break. Maria Adamski gave an intriguing talk on 'An analysis of the visitors to the Christchurch Botanic Gardens'. This was an exercise which proved its value by turning some standard ideas into dreamtime. Maria was known as 'the lady of the clipboard' and was noted for her thorough approach to the project. Bede Nottingham followed with a talk on the 'Effect of Sulphur and Potassium Chloride on black spot of modern rose cultivars'. His technical description on overhead projections and enlightening graphs was very educative. The message to celebrities must surely be "have your name associated

with proven cultivars". Some well known people would not be pleased with Bede!!.

Ron Flook presented a thoughtful talk with illustrations of the markings on our landscape made by trees which were planted (either exotic, indigenous or self seeded) to mark cultural or family events. Wakefield, a village located in the Tasman Region, was used as an example.

Roy Edwards, the well known plant scientist from Lincoln University discussed the merits of growing trees in geo-textile bags described as 'in ground fabric containers'. Roy has exhaustively tested the technique and in spite of 'vandal' attacks by the elements or fauna proved conclusively that the method did not work. Roy provided bags and illustrations to make the point.

The cultivation and development of the Kiwi fruit or Zespri for market appeal was described by Dr Ross Ferguson of HortResearch, Mt Albert, Auckland. Ross showed how painstakingly thorough the work has to be done to achieve market winners. His travels abroad were not included due to time but that would have made a fascinating travelogue of the regions where Actinidia occurs growing either in the wild or cultivation in Asiatic regions.

Dr Tony Connor from Crop and Food, Lincoln, followed with an illustrated address on the process of genetic engineering in plants. A great deal of discussion is currently taking place on the implications of this type of work and it was good to get a perspective from one of the leading scientists in the field.

The afternoon finished with our president, John Taylor, giving a "potted" history of the RNZIH. Naturally it was a difficult task to incorporate 75 years of activity into 30 minutes. John covered many of the old identities of the Institute and its ever changing roles.

The 1997 Banks Lecture was given by Dr. Brian Molloy on the "History and Sustainability of Riccarton Bush". Brian's enthusiasm for this topic and the detailed information presented made this one of the day's highlights. It was well received by the 120 people attending.

1997 RNZIH Awards

Associate of honour (AHRIH)

Awarded to persons who have given distinguished service to horticulture in New Zealand. Only 60 people can hold the award at any one time.

RODERICK LEON BIELESKI OF AUCKLAND

Dr Bieleski was born and educated in Auckland and has worked there for almost all his professional life. His first degree from Auckland University College was in botany and chemistry and his subsequent Masterate of Science was on the regeneration of kauri.

After completing his PhD at the University of Sydney on the physiology of sugarcane, Dr Bieleski was appointed to the staff of Fruit Research Division, DSIR in 1958. At that time the Division was building up its strength in basic plant physiology to support its broad program of horticultural research, centred on the apple. Dr Bieleski was asked to develop an understanding of phosphorus nutrition in plants, about which little was known at the time, and this is where his work began. In his subsequent career, now extending to just on 40 years, his work has moved away from this starting point, but has continued to be centred around understanding the nutrition of plants, allocation and redistribution of nutrients (mineral and carbohydrate), and responses to stress and senescence. Throughout his career, he remained with DSIR and now its successor, the Horticulture and Food Research Institute, except for periods of study leave at the University of California. His research career has been most distinguished, as shown by the various honours given to him, and his work has been presented in almost 90 publications. He received the Hector Medal of the Royal Society of New Zealand in 1984, was awarded a DSc by the University of Sydney in 1992, and is a Fellow of The Royal Society of New Zealand and of the New Zealand Society for Horticultural Science. He is now formally retired but works part-time on the postharvest physiology of cut flowers

Highlights from his career in research include:

1. demonstrating for the first time that active sugar transport processes occur in higher plants.
2. demonstrating that phosphate in the plant cell is apportioned into different compartments or pools which have very different metabolic characteristics.
3. studies on sugar and polyol transport and nutrition.
4. studies of the movement of metabolites from one tissue to another or from one organ to another. In this way he sought to relate nutrient uptake mechanisms to the behaviour of the whole plant.

Dr Bieleski is thus a botanist and horticulturist who has chosen to use the tools of chemistry, biochemistry and plant physiology in order to develop an understanding of the behaviour of horticultural crops and of plants in general. He also placed great emphasis on the communication of scientific results to growers through a properly organised and supported extension service and to fellow scientists through publication. His commitment to the importance of clarity in communication is shown by his work with the New Zealand Journal of Crop and Horticultural Science.

Dr Bieleski has also served on many committees and at present is a Trust Board member of the Auckland War Memorial Museum. He has long had an interest in the Auckland Regional Botanic Gardens and is currently on the Committee of the Friends. He has been a member for many years of the New Zealand Camellia Memorial Trust and is now Registrar for the New Zealand Camellia Society. He is a keen gardener and an enthusiastic grower of orchids and has thus remained aware of the behaviour of "real plants".

Dr Bieleski is a most worthy Associate of Honour of our Institute.

GEOFFREY THOMAS SANDFORD BAYLIS OF DUNEDIN

Professor GTS Baylis became a member of the Institute in 1947. Very few of our members will hope to even equal or exceed this remarkable record of a half century's membership. It is therefore fitting that we honour him as one of our members of longest standing. More important, we honour him for his contributions to New Zealand botany and horticulture.

After his education at Auckland University College and at Imperial College, London, he joined the staff of Plant Diseases Division, DSIR at Mt Albert and started their substation at Lincoln.

In 1940, he left Plant Diseases Division to enlist with the Royal Navy for the duration of the Second World War. After the war, he moved to Otago University where he succeeded the redoubtable Revd. Dr Holloway as Head of the Department of Botany. He was appointed to the newly established chair in that department in 1952, becoming the first New Zealand-born professor of botany in New Zealand. The Department was small and teaching loads were heavy: there was little technical assistance. It is therefore remarkable what Professor Baylis achieved as a research scientist during his tenure. These achievements were acknowledged by his being elected a Fellow, Royal Society of New Zealand in 1961, by being appointed Cockayne Lecturer in 1971 and by his being awarded the Hutton Medal of the Royal Society of New Zealand in 1995.

Professor Baylis retired in 1978 and was then appointed Emeritus Professor.

Although his professional training was in plant pathology, Professor Baylis soon broadened his research interests. His scientific work can be summarised under three main headings:

Arbuscular mycorrhizas. Professor Baylis was a pioneer in the field of vesicular-arbuscular mycorrhizas (beneficial root fungi) and became an early world authority. His first paper, in 1959, established clearly for the first time that arbuscular mycorrhizas enhanced plant growth through improved efficiency of phosphorus uptake.

Solanum. His taxonomic treatment of the *S. lacinatum/S. aviculare* complex depended on his cytotaxonomic studies. These were important in resolving longstanding confusion and his approach has now been followed in the Australian and New Zealand floras. The work also had economic significance because of the isolation at that time of steroid drugs from New Zealand Solanum species.

Vegetation studies. Better known to most horticulturists is Professor Baylis's pioneering studies on the Three Kings Islands and on Secretary Island. Under extraordinarily difficult conditions, long before the days of access by helicopters, he prepared a complete floristic list of higher plants for the Three Kings, adding four new endemic plants, two of which were in desperate straits as they had both been reduced to a single plant. The most important of these horticulturally is *Tecomanthe speciosa*, a notable addition to our flora and now a most desirable climber for the warmer parts of New Zealand. Other additions such as *Elingamita johnsonii* and *Pennantia baylisiana* were important botanically. Professor Baylis made comprehensive studies of the botanical history of the islands and his initial studies allowed the examination of the floristic changes that rapidly occurred following the removal of goats from the Islands. Almost as important were his studies at Secretary island in Fiordland. He described natural vegetation that had not been damaged by naturalised mammals and he was able to record the disastrous changes subsequent to the arrival of deer.

For many years he was a member of the Fiordland National Park Board. He also served for almost twelve years on the Scientific Co-ordinating Committee for Beech Research and chaired its successor, PASAC, the Protected Areas Scientific Advisory Committee.

He is a superb plantsman and has maintained a lively interest in our native flora and in an abundance of introduced plants. As a keen gardener, he is well known for his two Dunedin gardens and for his garden at Campbell's Bay in Auckland, all of which are a tribute to his energy, enthusiasm and his knowledge of plants and their environment.

Professor Baylis has always been held in high esteem by his colleagues, students and staff. He is a natural teacher and his breadth of knowledge, his infectious enthusiasm for his subject, his generosity and sheer good humour, often in adversity,

have been an inspiration to many.

Professor Baylis is a most worthy Associate of Honour of our Institute.

EDWARD DERRICK SWEETMAN OF WELLINGTON

Ted Sweetman grew up in Palmerston North. His father was a nurseryman and Ted had an interest in plants from an early age. During the war Ted's older brother went to fight and Ted stayed behind to help his father look after the family business. Unfortunately after the war the nursery was sold and so Ted had to look for work. So started a successful career in business which took him from taxi driver, coach driver through to Europa Oil and onto owning a chain of leathergood shops and later Variety Travel the largest privately owned travel agent in New Zealand at the time.

It was soon after his marriage to Alison that his interest in fuchsias began and it was Ted and Alison along with 5 other people that started the Wellington Fuchsia Society in 1977. So started an interest in fuchsias spanning more than 20 years.

He has traveled the world meeting fuchsia growers and in the late 60's traveled to the USA to start a network of contacts that has continued to the present. He has organized many trips for fuchsia lovers to Australia, USA and Europe and is currently organizing a 1998 tour to England to the diamond jubilee celebrations of the British Fuchsia Society.

He is a national and international judge and developed the constitution for judging in New Zealand after studying judging overseas. He passed the American Fuchsia Society judging exams in 1986. He has also developed the Wellington Fuchsia Show into the largest fuchsia show in the southern hemisphere and has been show manager for many years.

He has been involved in fuchsia societies at both local and national level. He was President of the Wellington Fuchsia Society 3 times: 1979-82, 1985-88, and 1995-97. He has been President of the New Zealand Fuchsia Society for 10 years and editor of the quarterly magazine 'The Link'. He has also put down on paper his lifetime of experience with fuchsias in the book "Fuchsia Growing in New Zealand", written and published by himself in 1995. In 1996 he produced a series of books titled "Fuchsias An introduction to colour". He has given literally hundreds of talks and seminars throughout the country on fuchsia growing and judging. Since 1995 he has produced a fuchsia calendar comprising photos taken by himself. This calendar has been a fund raising venture for the New Zealand Fuchsia Society and is sold in New Zealand and Britain.

Ted and Alison's garden is always full of fuchsias. He is one of three panelists who grow new hybrids for a set period before the cultivar is registered, and more recently has been collecting and growing seed of some of the 100 wild species. This work has also linked in with the development of a national fuchsia garden in the Wellington Botanic Garden. Ted has provided plant material, and advice during

the development of this garden.

Along with his interest in fuchsias is an interest in the Wellington Botanic Garden. He was a founder member of the Friends of the Wellington Botanic Garden and has served on the Executive Committee since 1990. For the last five years he has been editor of the Friends newsletter and has developed it into an interesting and informative publication.

Ted has a true love of fuchsias and has played a major role in increasing their popularity as garden plants. He is a worthy recipient of the award of Associate of Honour of the Royal New Zealand Institute of Horticulture.

Fellow (FRIH)

Awarded to members who have made a significant contribution to horticulture and the Institute. Three awards were made.

MERVYN A COX OF CHRISTCHURCH

Mervyn Arthur Cox has been a successful nurseryman throughout his life having taken over his father's bedding plant nursery in the 1970's. He expanded the business by opening a garden centre and then going into the production of house plants. His interest in tuberous begonias enabled him to open a separate business, known as Cox's Begonia World. In recent years he has been hybridising tuberous begonias and has raised many new types and in particular a scented cultivar, "Apricot Sweetie".

For many years he has been an active member of the management committee of the Canterbury Horticultural Society and has chaired several of its committees. Currently he is chairman of its Finance and Emergency Committee.

For several years, assisted by his wife, Rona, his home garden was entered into the city wide garden competitions. In 1964 their garden was first in its class and they received the Premier Award being the top garden in the competitions.

MARION MACKAY OF PALMERSTON NORTH

Marion MacKay is a lecturer in the Plant Science Department at Massey University. Her specialty area is in amenity/environmental horticulture with a personal interest in plant collections. Marion has recently completed her PhD.

Marion has been a member of the National Executive of the Royal New Zealand Institute of Horticulture for a number of years. She has made a valuable contribution to the National Executive providing fresh input during a period of change. She is a member of the Plant Collection Subcommittee which is working towards the registration of all significant plant collections in New Zealand. The data base that she has developed is invaluable in maintaining up to date information on this valuable genetic resource.

ANNIE FULLERTON OF HAMILTON

Annie Fullerton has always had a great interest in horticulture. Because of this interest Annie joined The Royal New Zealand Institute of Horticulture and became active at a local level and later was elected to the National Executive.

Annie was instrumental in the establishment of the Waikato Horticultural Society which is affiliated to the Royal New Zealand Institute of Horticulture. This horticultural society has a very active membership due to the enthusiasm of Annie and many others. Today they run a comprehensive program of talks and field trips covering all aspects of horticulture.

Since Annie's election to National Executive she has provided fresh perspectives on the role of the RNZIH and ideas to meet the many challenges that have taken place over recent years. Her support and input to the RNZIH has been invaluable.

Plant Raisers' Award 1997

FRANK SCHUURMAN OF AUCKLAND

Frank Schuurman is one of New Zealand's most successful specialist nurserymen producing roses. He has been growing roses for more than 30 years and his sons and daughters-in-law have continued in the family business, the New Zealand Rose Company. Mr Schuurman himself, although experienced in rose production, has in recent years concentrated on cut flower roses. With the encouragement of Sam McGredy, who had been using one of his greenhouses for twelve years, he has also become more interested in rose breeding, particularly to produce roses for the cut flower trade. In 1986 he made his first crosses, some thousands of crosses, between well-known cut flower cultivars and the best of the garden cultivars then available. He thought he would give it ten years just to see what would happen, and then, if he had little or no success would "give it away". Fortunately, real success came in much less than ten years and his work has resulted in the production of some outstanding roses.

'Little Opal' (SUNpat) PVR no 609 granted 26/8/1991, introduced 1992, a cross between 'White Dream' and 'Dickybird' is the best known of the "Gem" series. It has delicate soft pink petals that are slightly darker on the reverse. The plant grows well, has a strong, healthy habit, and is very floriferous with good trusses of well-spaced, well-shaped flowers. This rose was selected as Auckland's Rose of the Year at the 1992 Auckland Rose Trials and the same year was also judged the best patio rose or miniature rose.

Mr Schuurman has focused on breeding patio-sprays which are between a floribunda and a miniature in size making them ideal for patio containers and as spray roses for greenhouse production. The best-known of these is:

'Scentasia' (SUNscent) PVR no 1096 granted 27/5/1996, a cross between 'Tinkerbell' and 'Little Nugget'. It has attractive trusses of lemon/green buds which appear from early

summer and gradually unfurl to give a lemon flower which changes to cream. An added advantage is its subtle sweet scent, rather reminiscent of pineapples. 'Scentasia' was recognised as best patio rose at the Auckland Rose Trials in 1996 and the same year also received an award of merit at Palmerston North.

Mr Schuurman has also selected a number of cultivars with single-stem large blooms, the most notable being 'Player' (winner of the Best Hybrid Tea Award at Auckland in 1993), 'Happy go Lucky' (winner of the Best Floribunda Award at Auckland in 1993), 'La Parisienne' and the new golden-yellow 'Lucky Strike'.

The greatest satisfaction for any plant breeder is to have his plants grown: Mr Schuurman is therefore particularly proud that hundreds of thousands of his roses are now being grown by commercial cut rose producers throughout the world.

The Peter Skellerup Plant Conservation Scholarship

A scholarship granted for research, field work, publication, propagation, and/or cultivation of plants and any other activity likely to promote and assist the conservation of New Zealand's indigenous and exotic plant genetic resources.

RONALD HENZELL AND SHIRLEY MILLER
OF THE HORTICULTURE & FOOD RESEARCH
INSTITUTE OF NEW ZEALAND LTD

are the inaugural recipients of this award.

Project: Conservation of natural species diversity in the Whangamarino wetlands


Pussy willow (*Salix*) is an exotic invasive weed in the Whangamarino wetlands, a designated world heritage area. It is a major problem, as 50 m wide stands are observed around the perimeter of all the lakes in the area. Research trials initiated by HortResearch in 1995/96 have shown that targeted herbicide application techniques (stem injection and gel pruning) are highly effective on pussy willow trees up to about 20 cm trunk diameter, and are suitable for use in environmentally sensitive areas where spraying is unacceptable. These applicators are likely to become commercially available within the next few years. At present we have no information on the dissipation of herbicide residues following these targeted treatments. Of particular concern is the possible contamination of ground water via root exudation or vegetative decay. This could have far reaching effects on the re-establishment of desired plant species following targeted herbicide treatments.

Our interest in this area lies in defining limitations to re-establishment of natural species diversity in the Whangamarino wetlands following targeted herbicidal treatment of *Salix*. Manuka and kanuka are predominant native colonising species which begin the process of restoration of the natural vegetation. Establishment of a dense canopy of early

colonisers is important to prevent the return of invasive weeds. At the present time there is little or no information on the effects of residual herbicides on native plant species.


Within the 1997/98 season they will carry out the following:

- develop a soil bioassay to assess the sensitivity of two natural wetland species (manuka and kanuka) to the herbicides, metsulfuron methyl and picloram.
- use the bioassay to determine the efficacy and longevity of the herbicides in soils within the root zone and decay tissues (roots and stems) of treated pussy willow trees.



R.N.Z.I.H. Publications

Price List
(includes GST and postage)



Checklist of Phormium Cultivars
A comprehensive guide to, and description of flax cultivars, including those selected by Maori for cultural use :
\$8.00 each

Flowers for Shows
A practical guide for those wishing to exhibit flowers, fruit and vegetables at shows : **\$10.00 each**

History of the Loder Cup
The Loder Cup is New Zealand's premier award for plant conservation. This booklet documents its history and describes the conservationists who were awarded it : **\$15.00 each**

People, Plants and Conservation
Proceedings of the 1992 RNZIH Conference on Botanic Gardens.
Over 20 papers on the work of public gardens with particular emphasis on plant conservation : **\$20 each**

An Introduction to the Notable Trees of New Zealand
Details on over 2,000 registered notable trees : **\$38.00 each**

Available from: The Royal New Zealand Institute of Horticulture, P.O. Box 12, Lincoln University, Canterbury.

The National Rose Society Trial Grounds in Palmerston North

By Peter Elliot

Several specialist horticultural societies run trials to evaluate new cultivars and their performance under New Zealand conditions. This article on the National Rose Society Trial Grounds is reprinted from the NZ Rosarian with kind permission of the editor John Paviour-Smith

I am often asked about the Trial Grounds and how they function. The Trials have been operating for 27 years under the direction of a subcommittee, of the National Rose Society (NRC) and in conjunction with the Palmerston North City Council (PNCC). The aim of the trials is to test roses under standard conditions with a view to their release on the market for both home garden and exhibiting purposes. Many of the bushes are not released because they do not score well enough and of course those that win awards will receive more attention in the commercial world and be mentioned in rose catalogues. I'm sure you have roses in your gardens, which have won awards.

Entries are called for in May each year from breeders (amateur or professional). Roses are judged over a two-year period and the trial is much more scientific than the one conducted in Manurewa, where the bushes are judged on just one day. The bushes at Manurewa are also already on the market unlike those at the Palmerston Trial Ground.

There are five classes of entry:

Climber, Bush, Miniature type, Shrub and Ground cover. Each entry is given a code number and this is used throughout the judging period. It is important that judges are not biased by already knowing the name of the rose. Judges are keen rosarians who live close enough to Palmerston North to make regular visits to judge the plants. Judging is done at least every two weeks through the growing season for two years. This gives a pretty good indication of the capabilities of each cultivar.

The bushes are received from breeders in June and are coded and planted without delay as judging commences in November. Climbers are planted for a year prior to their first judging to let them develop more canes and this means they will stay for 3 years. The roses are watered, fertilised and sprayed in the

same manner as the other roses in the Victoria Esplanade by the PNCC gardeners. The NRS pays for materials and pruning costs as well as deadheading. In the first year, the entry is judged on the bush, flower and judges recommendation for an award. In the second year the entry is judged under a wider range of criteria which includes, habit, growth, freedom of flowering, form, disease resistance, etc. There is also a category for novelty and fragrance.

To win an award an entry needs to score an average of 70 points or 70% and this will receive a Certificate of Merit. The winner of the highest pointed rose on trial in excess of 70% is awarded the Gold Star of the South Pacific - a very coveted award. The winner of the highest pointed rose bred by an amateur is awarded the Silver Star of the South Pacific. One of the last entries to win this award was the lovely HT rose Aorangi - which is a sport of Sylvia.

The awards ceremony is usually held in conjunction with the Manawatu Rose Society Spring Show and this year is part of the National Spring Convention in Palmerston North.

At the end of the trial period the roses are destroyed and some cultivars will never be seen again if they are not being released commercially. There has been a big increase in the number of climber entries, including patio climbers and these have won major awards in the last two years e.g. Patio Honey and Good as Gold. Each year about 50 entries are received so this keeps the judges on their toes. The staff of the PNCC, and those contracted by the NRS, do a wonderful job and I always make a point of acknowledging their work at the Awards Ceremony.

Next time you hear that a certain rose was a Trial Ground winner in Palmerston North, you may have a better idea of the rigors that it has been through.

Peter Elliot is Chairman of the Trial Grounds Committee and can be contacted at 3 Rongopai St, Palmerston North

Polytechnic Chief Slams Horticultural Education System

Waikato Polytechnic Chief Executive Officer, Dr. David Lawrence spoke at the closing of the recent NZAA conference in Hamilton. It was felt that his speech was of such interest to Institute members that it is reprinted here in full.

Thank you,

Distinguished guests ladies and gentlemen, thank you for the privilege of presenting the closing remarks at what has obviously been a highly successful conference.

When Martin asked me some time ago if I would speak to the conference, I was naturally quite enthusiastic... for reasons which I will come to in a moment...

I didn't know until a few days ago that I was the closing speaker...

On the speakers' circuit, the challenges of the closing speaker are viewed with about the same degree of desirability as paying taxes. In my case the task is made doubly difficult by the excellent tone set for your conference by my colleague from Waikato University, Michael Selby, who delivered the opening remarks.

Being the Sunday pinch hitter, my task can be likened to that of the substitute vicar, who is usually called out of retirement... again... at very short notice... delivering the sermon; and I'm now at the stage of the service he knows so well.

Hence the need to be brief (which I shall be).

I have two Degrees in Botany, followed by a Doctorate in a suitably obscure branch of Biology. More that two decades of my career was spent in university teaching. I taught 13 different courses over the years, mainly in Marine and Terrestrial Botany, and Environmental Science.

I served three terms as a Dean of Science at the oldest university in Canada, carrying a full teaching load through the entire 10 years... followed by a period as Dean at a western Canadian University, then a stint as Vice President Academic, and Acting President.

For most of my life, I have lived in areas that once supported some of the most magnificent forests on the face of the earth... New England/Eastern Canada, and New Zealand... both regions profound memorials to some of the most effective environmental raping and pillaging that the world will ever see.

So I feel eminently qualified to be standing before you today to deliver a brief sermon.

Over the last decade or so tertiary education in New Zealand has developed with the divine guidance of the policy that we would have no policy on tertiary education... somehow the "Lord would provide".

Eventually the need for some order in the chaos was flagged by the advent of the NZQA.

A great need had suddenly developed to establish quality benchmarks. To make education transportable - seamless. To make qualifications somehow "talk" with one another - articulate.

To make everybody equally dumb by developing competency based assessment rather than use an empirical assessment system.

Stakeholders at all levels were introduced, and encouraged to identify themselves, which is healthy, but so unmanaged that I frequently hear around the country comments such as "what do ITO's know about the needs of this business and industry?"... "who are they talking to?"... and the providers are criticised by stakeholders from all quarters.

What a shambles!

Into this mix we introduce the notion that technical institutes (non-universities) can develop degrees...

Perhaps as a way of making universities more accountable and more relevant to the workplace...

In the course of all this we have established an education system which now spends more than 40% of class time in assessment.

We have established a system that has spent in excess of \$35 million on NZQA, and unit standards, which we cannot now sustain. The hidden costs of unit standard development will never be established.

We now have a national debate developing about the definition of a university. Should an institution other than a university be able to offer a degree? When we have more than 90 degrees being offered outside universities.

To be agricultural about the present predicament... the farm is in deep trouble ladies and gentlemen. The owner of the farm has finally woken up. NZQA has ushered in a system of development which has seen the Farm Manager develop a system of farming which amounts to nothing more than counting and weighing the flock. Every time one of the animals looks like doing some grazing, back to the counting and weighing...

And on a broader front, having given non-universities the right to offer degrees, we now find the term 'university' ringfenced, resulting in a great debate about what status non-university degrees will have... the 'parity of esteem' debate.

A bit like shutting the stable door after the horse has not only bolted, but died after departure!

Educational reputations and perceptions are everything. It takes a very long time to develop a good reputation as a provider, or as a business, or an industry, and only the twinkle of an eye to destroy it.

By analogy, look how long it took our ancestors to destroy the forests of Eastern North America, or New Zealand. There have been three great waves of extinctions on earth - the present one presided over by human beings will go down in the history of planet earth as by far the greatest. We have the responsibility to turn this educational mess around in our own hands...

In this room we have representatives of education, business, industry as well as graduates and current students, of one of the most important sectors of the economy. Without primary production, where would sit the survival of mankind?

All of the players who will reconstruct education and training in this country, for this sector of the economy, are in this room.

The professional organisations which form or maintain education and training in this sector must be at the forefront of

the debate from which we reconstruct the new education system in New Zealand.

Your clarity of vision, and the clarity with which you **articulate your** education and training needs, and the **needs of the country**, will determine for future generations whether or not you were one of the organisations which really made a difference.

The future is in your hands.



