PAUCKland Garden Newsletter of the Auckland Botanic Gardens and Friends











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Contributions to the newsletter are welcome

Material for the September 2024 issue should be submitted by 3 p.m. Friday 2 August 2024 to the Editor ross.ferguson@ plantandfood.co.nz



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Images Front cover: Stropharia rugosoannulata.

Opposite page, clockwise from top: *Miscanthus sinensis; Allium* in Piet Oudolf design, Scampston Hall, UK; *Stropharia rugosoannulata; Cynara cardunculus*.

Front Cover: Stropharia rugosoannulata

The photograph by Jack Hobbs is of a particularly impressive fungus commonly known as the wine cap mushroom or "garden giant", amongst other names. As mentioned in Jack's update it was found in mulch in the Native Plant Ideas Garden. The "garden giant" can grow to more than 20 cm high with a reddish-brown, convex to flattening cap up to 30 cm across, certainly enough to support quite a large fairy. Jack asked that his favourite gnome be included – 22 cm tall – so this

specimen clearly lives up to its name of "garden giant". An earlier photograph, also by Jack, of the fruiting body is inside the front cover

It is prized as an edible mushroom and is now cultivated extensively. China leads the world with annual production of more than 400,000 tonnes. In New Zealand starter kits of spawn are available commercially.

Buchanan Award 2024

The Buchanan Award this year goes to Mich Newton and Barbara Wheeler who made a joint application to attend the 8th Global Botanic Gardens Congress at Singapore, 6–9 August 2024. The theme of the Congress is "Botanic gardens – people and plants for a sustainable future" and the aim is to explore innovative approaches for botanic gardens to fulfil their missions in research, conservation, education, and outreach.

Mich will give a talk describing how the Auckland Botanic Gardens uses various media to deliver key messages that encourage a connection with plants and nature and inspires action in the community; Barbara will provide an Auckland and New Zealand perspective on the challenges that botanic gardens face in growing the people that grow the plants. Both want to network and get new ideas on conservation, new technologies and leadership challenges, particularly on how to strengthen interactions with the community.

We are delighted that two senior members of staff will be attending the Congress. We wish them a successful trip and hope that they will come back enthused and with plenty of new ideas. That was the intention of the Friends in establishing the Buchanan Award.

Viv Canham

Jack's update



In late April we held a wonderful working day with the artists selected for *Sculpture in the Gardens*. Thirteen of the fifteen selected artists turned up to meet the curators, engineers, our organising committee and, of course, most importantly, each other. Several commented that no other exhibition has such a get together, and that it sets the tone for a wonderful exhibition. They thoroughly enjoyed themselves. There will be sixteen artworks in the exhibition (Chester Nicholls has two) which opens on Saturday 16 November.

The theme for this year's *Eye on Nature* was conservation of the Puhinui Forest and Te Puhinui Awa. It was successfully held in March with 21 staff from the Gardens, 50 volunteers and 237 adult helpers supporting the Beautification Trust to deliver the event to 1231 enthusiastic school children.

The *Mushroom and other Fungi* exhibition of watercolours by New Zealand mycologist Marie Taylor (28 April 1930 – 24 April 1999) has proved extremely popular with visitors since opening in

early March. Paul Swift has done a great job working in partnership with Landcare Research's New Zealand Fungarium to get this organised. At the exhibition opening it was a great thrill for me to renew my friendship with Lawre Taylor, husband of the late Marie. Some years ago, we spent a memorable month together in Mongolia and Siberia, and we shared many fond memories.

Image above, left to right: Renton Campbell, Jack Hobbs, Terry Urbahn, Linda Tyler, Catherine Hamilton, Hayley Govorko and Micheline Newton at the Artists Working Day. Image below: Jack Hobbs and Lawre Taylor.



The display of live mushrooms in the atrium has proved particularly popular. When I tried to photograph the oyster mushrooms (*Pleurotus ostreatus*) recently I had to wait some time while several women photographed each other with them. These are grown from commercially available kits that just need the plastic wrapping punctured, water added and occasional misting to grow. When they do emerge it is with startling speed, they have a glorious couple of days then just as quickly they are gone.

I am most captivated by the Garden Giant mushrooms (*Stropharia rugosoannulata*) that were collected from our Native Plant Ideas Garden where Paul Swift and others found them growing in mulch. They look like they belong in a fairy tale, and apparently are delicious too.

It was sad to see the house and the outbuildings at 120 Hill Rd (ex-Nathan property) being deconstructed in late March, but there was little choice given

the presence of asbestos and serious vandalism. Recycled materials include the roofing material, kauri roof trusses, rimu floors, doors, windows and bricks and blocks. The cedar shed has been gifted to the Growing Friends for storage of items.

The upside of the deconstruction is it does provide a blank canvas for the Master Plan team to work with. Consultation on this project has commenced including a site visit from Ngāti Tamaoho and a visit to the Pourewa Māra kai, the Ngāti Whātua Community Garden at Ōrākei designed and run by my former manager Rob Small. Rob employed me as manager of the Gardens in 1997, and although I was somewhat hesitant at the time I am now extremely grateful.

We are excited that finally the project to construct a whare pora (weaving platform) in our pā harakeke is finally underway. Richard Shortland Cooper has prepared draft designs for and made a model of the structure after consulting



with weavers who harvest from our harakeke. The Friends dedicated seed funding for this project some years ago. and Council is providing the balance of funds required to construct the platform.

Thanks to the generosity of the Friends three staff attended the 53rd New Zealand International Plant Propagators' Society conference (IPPS) conference in Timaru from 4-7 April. They have asked me to thank the Friends for this support.

Lenny van Heugten has sadly resigned from her part time role as a Visitor Services representative to pursue her passion for her Community Conservation Coordinator role in the Hunua Ranges. Pleasingly, she has agreed to stay on as a casual so we will still be seeing Lenny, just not as often as we did.

Later in this Newsletter you can read about Christine Bieleski who started with us on 29 April as a Visitor Services representative.

Finally, congratulations to Meg Spittal who has completed her New Zealand Certificate in Horticulture Level 3 in just the first year of her apprenticeship.

Meg's passion for plants and sustainable horticulture is evidenced in her article later in this Newsletter.

lack Hobbs

Lenny van Heugten



Meg Spittal



Introducing Chrissy Bieleski



My name is Christine Bieleski (everyone calls me Chrissy) and I'm excited to join the Visitor Services Team. I've come to the Botanic Gardens with a varied background, 20 years as a graphic designer and a 6-year stint as emergency call taker with New Zealand Police. More recently I decided to follow my gardening interest and have completed my Hort Level 3 and have since spent the past 5 years working in garden maintenance. In my downtime I enjoy dabbling in art and photography and spending an inordinate amount of time dealing with the runaway weeds on our "NO LIFE" style block in Onewhero.

Note: Chrissy is a niece of the late Rod Bieleski, distinguished scientist, past President of the Friends and longtime editor of this Newsletter. She replaces Shelley Small.

Pā Harakeke and Matariki Festival

We are delighted to share that we have been approached by the Council's Matariki Festival team to hold a number of key events for this year's Matariki Festival taking place between 15 and 28 June. The theme of the festival this year is Toitū te whenua – honouring the land: land and environment – which is great for us here at the Gardens.

The final details are still to be confirmed but we are intending to host the large Whānau/Family Day on 28 June which is the public holiday, an exhibition in the Visitor Centre Gallery of harakeke weaving from the weavers of Ngāti Tamaoho between 15 and 28 June and some other events developed in partnership with Ngāti Tamaoho, the iwi manaaki (host iwi) for the Matariki Festival.

The timing of this event is wonderful as it is also an excellent opportunity to build upon our relationship with Ngāti Tamaoho as we are also progressing with our plans to develop a purpose-built weaving platform/shelter to be used by our weaving groups in the Pā Harakeke collection garden.

Working with artist Dr Richard Cooper, a member of our harakeke weaving group and an exhibiting artist in our permanent sculpture collection here at the Gardens, we have developed a plan for the shelter that incorporates some elements of te ao Māori design such as the Poutama (stairway to heaven) pattern which symbolises levels of attainment and advancement and the growth of mankind, striving ever upwards and for betterment. The shelter will also hopefully feature some elements of weaving from Ngāti Tamaoho and we are intending to have the shelter constructed and ready to open in time for Matariki 2025.

Paul Swift

Congratulations Barbara

Barbara Wheeler, Curator at the Gardens was recently elected a Fellow of the Royal New Zealand Institute of Horticulture (RNZIH). Fellowship is awarded to those "members who have made a significant contribution to horticulture by their activities or interest in or service to horticulture."

Barbara has a distinguished record of contributions to horticulture both professionally and as a volunteer. For many years she had a series of professional roles in Dunedin including a period as Plant Collections Supervisor at the Botanic Garden overseeing the plant collections and operational management. She also undertook periods of study at the Royal Horticultural Society, Wisley, and at Longwood Gardens, Pennsylvania, including the prestigious Longwood

Fellow Program. She moved to her present position Auckland in June 2021.

Barbara also contributed to horticulture in Dunedin through her volunteer roles on the Dunedin Horticultural Society, Dunedin Open Gardens Association and through association with many of Dunedin's garden clubs and societies. She co-produced and co-presented a radio show "In the Garden" for two years on Otago Access Radio. More recently she has contributed towards promoting opportunities for career development and progression in horticulture. She is convenor of the BGANZ-NZ horticultural training subgroup and supports Recreation Aotearoa with the Young Amenity Horticulturist sector competition. She has been a member of the RN7IH National Executive since 2021.

Sculpture in the Gardens update

It is hard to believe we are heading into the 9th *Sculpture in the Gardens* exhibition this coming summer, 16 November 2024 – 2 March 2025. Since 2007 we have welcomed over 2.5 million visitors to the 8 exhibitions and acquired a unique collection of outdoor sculptures that complement the artistry of our gardens.

April saw a buzz of activity in the Gardens following the selection of 15 artists for the 2024-25 exhibition by our curatorial team of Linda Tyler, Catherine Hamilton and Terry Urbahn. The artists come from as far south as Central Otago, Canterbury and various parts of the North Island.

The artists, event committee, curators and Friends president came together for a day to confirm sites, sign contracts, meet the engineers and discuss installation needs. We are the only outdoor sculpture event in New Zealand that brings

exhibiting artists together to celebrate their participation in the event and cover exhibition "housekeeping" needs. Linda Tyler, who has co-curated *Sculpture in the Gardens* since 2015 says the "big day out" is a highlight for the artists.

The exhibition is the showcase event in the Gardens calendar, bringing new visitors to the Gardens as well as increasing our engagement of visitors from other parts of Auckland and New Zealand. This year, we have engaged Hayley Govorko and her team at Alcova to manage the event. Hayley has been in the event business for over twenty years and has a passion for people. This passion also extends to corporate relationship building and she has been busy seeking further sponsorship and patronage for the exhibition. To keep up to date with the event preparation and to review past exhibitions go to the sculptureinthegardens.nz website.

Mich Newton



President's report

What a great day out we had at Riverhaven Artland Sculpture Park and at Zealandia in Clevedon in April. A large number of Friends enjoyed this free day's entertainment thanks to Riverhaven's owner, Guy Blundell, waiving his normal \$25 fee because of the ties we have fostered through our *Sculpture in the Gardens* biennial exhibition.

Renowned artist James Wright also donated a morning of his time to personally escort us around Riverhaven Park. A number of the sculptures at Riverhaven are by artists who have displayed at our *Sculpture in the Gardens* events or whose works we have purchased for our permanent display.

Each of us was also given a beautiful begonia plant at Zealandia. Cleone Campbell has written a delightful summary of the day elsewhere in this newsletter.

The goodwill that we foster through our *Sculpture in the Gardens* event is immense. This begins with the "Artist's Day" we hold for those whose work has been selected. Very few exhibitions do this and it is much appreciated by the artists. They have the opportunity to meet their fellow craftspeople – several people have developed close ties through this over the years. It encourages quality applications for future exhibitions.

The artists discuss their contracts with us, meet the curators to finalise the positioning of their piece, discuss the footings with the engineers who donate their time both at this day and at the time of installation, and meet with Renton Campbell to ensure their works are safe for the public. Each artist is photographed and videoed for publicity purposes. There are a myriad of details to discuss - insurance, commission, expectations, installation.....

The Friends provide a \$3,000 stipend for each piece which the artists can use as they wish - for material, transport, insurance, whatever. The suggested retail prices range from around \$10,000 to \$250,000, with the Friends retaining 30% commission from each sale.

We will also have an indoor gallery exhibition similar to the recent *Holding Ground* event.

The Exhibition is due to open with a Gala Evening on 16 November this year; however, there will be a special "Friends Preview Evening" on 14 November – mark your calendars!

When the Council purchased the "Nathan Plot" on Hill Rd, the Friends undertook to help in the development of the land as the Council does not have the funds to do so at present. I am pleased to advise that award winning environmental consultants Boffa Miskell have been engaged at a cost of up to \$50,000 to provide a plan for the use of the land and its integration into the Gardens. I am looking forward to seeing their recommendations.

The Friends are holding their annual "Staff Appreciation Morning Tea" this month,

where the Committee put their culinary skills to good use and provide a groaning table of tasty treats for the hungry workers.

While you have your calendar out, mark down 28 July for Soup Day – more details to follow. And look forward to more

'Friends Days Out" organised by Barbara Harvey and Cleone Campbell.

Kind regards,

Viv Canham President

Friends membership subscriptions

Membership subscriptions for the Friends 2024/25 financial year are now due. For those members who hold individual, partner, student or affiliate memberships a renewal form is included in this Newsletter. Members who joined within the last two months will have their subscription carried over into the new financial year which runs from 1 July 2024

to 30 June 2025

Subscriptions can be paid either by eftpos or cash at the Visitor Centre or by direct deposit ASB 123011 0757619 00. Please put your name on the bank transfer and indicate that this is a membership renewal.

Thank you.

New books in the Library

The following have been approved by the Library Committee:

- Robert Vennell. The forgotten forest: in search of the lost plants and fungi of Aotearoa.
- Lucy Hunter. The flower hunter:
- seasonal flowers inspired by nature and gathered from the garden.
- Stephen A. Harris. The beauty of flowers: the art and science of botanical illustrations.
- J. Gosden. Mountain daisies. [The genus Celmisia]

Friends Art Group - latest news

Well, the weather has certainly got a lot colder of late but that hasn't stopped our group getting together and having a good time.

We had a fabulous meeting at the end of May with artist Toni Hartill demonstrating ways to create exploding art books. Think origami and you are some way towards understanding what we got up to. Who knew folding squares of paper would have us muttering "valley" and "mountain" as we tried to get our folded papers up the right way? After much head scratching and laughter, we all ended up with 3 different designs and lots of interesting ideas as to what to do with them. Our exhibition, Winter to Spring, which will be in the visitor centre gallery from 13 September to 13 October, may have some very interesting and unusual artworks on display!

We often rely on photos to work from when our flowers or leaves are past their best – even the sturdiest specimen has a shelf life when stored in the fridge waiting for us to find time to continue drawing or painting its portrait. So we are especially delighted that Coromandel photographer lan Preece will be coming to our June meeting to talk about his plant and nature photography – his astro photography is stunning too. I'm hoping to get some tips on using my iPhone camera for close-up shots!

If you are stuck for things to do when the weather is not good for gardening, why not go along to the Winter Gardens Sunday Art Sessions organised and facilitated by art group member Jennifer Duval-Smith. These are very fun, small-group workshops and Jennifer will share tips and techniques to help you observe and capture glorious plants from the extensive Winter Gardens collection. Each class meets at the beautifully renovated Temperate House at the Auckland Winter Gardens and then moves to the Domain Nursery to work together at a behind-the-scenes location. No experience is necessary, and you might find a new way to express your love of plants!

The workshop fee of \$95+Booking Fee (total \$102.99) includes:

- A three-hour botanical art workshop
- Morning tea and coffee
- All materials including paper, pencils, clipboard, watercolour pencils and brushes. You are welcome to bring your own materials
- A donation to Friends of the Auckland Botanic Gardens for their generous support with plants and premises

(Please note – unfortunately the Domain Nursery venue is not currently wheelchair accessible owing to steps and steep stairs). Each workshop heroes a different plant so there is sure to be one for you!

19 May	Stunning cyclamen
28 July	The winter vege garden
11 August	Luscious tulips
25 August	Elegant orchids
15 September	Daffodils and narcissi
20 October	Cacti and succulents
17 November	Amazing carnivorous
	plants

You can book a place for yourself (or gift one to a friend) on Eventbrite – just put "Winter Gardens Sunday Art Sessions" in the search and they will all come up!

Another of our members, Sandra Morris, whom many of you will know, is running her ever-popular botanical and nature printmaking course over the weekend of 6–8 September at Pūkorokoro Shorebird Centre in Miranda.

A few of us have been to this workshop before and can vouch that you will have a brilliant time. The course covers an introduction to contemporary plant and wildlife printmaking. You will have the choice of printing intaglio process and/or lino relief process using simple methods that can be used on the kitchen table. This is a live-in weekend workshop with all catering and accommodation included in the fee. For more information email admin@shorebirds.org.nz

If you are interested in joining us, or would like to know more about our group, either email me - lesley.alexander.smith@gmail. com or give me ring on 021 1617070.

Leslie Alexander

Friends Midwinter Soup Day 2024

Beat the winter wet and chill by joining the Friends for Midwinter Soup Day, enjoy a delicious lunch and hear from Joanna Mason on her recent travel experience and things learnt from "The New Naturalism Tour" and changing approaches to horticulture in Europe to create climate-resilient gardens.

So, join us for great food, good company and a fascinating talk.

Numbers are limited so get your booking slip in to the Friends early to be sure of a ticket. Friends members only, please.

To book:

Please complete and post the enclosed booking slip to: Friends of Auckland Botanic Gardens, 102 Hill Rd, Manurewa, 2105. For easy contact, please ensure we have an email address.

Payment:

- Pay by cash or eftpos at the Visitor Centre. Please post or leave your booking slip with the staff;
- Or pay by direct deposit to ASB 123011 0757619 00. Please ensure your name and "Soup Day" are on the bank transfer and that the booking slip is posted.

When:

Sunday, 28 July, 2024 12 noon

Where:

Friends Building, Botanic Gardens

Cost:

\$15 per person

Book by:

Wednesday, 10 July, 2024 Any questions, phone Liz Powell, 09 6301 259.

FABG Big Day Out – 22 April 2024

Riverhaven Sculpture Park and Arboretum at Clevedon is advertised as "A place where Nature greets Art". Our visit confirmed that Guy Blundell has certainly achieved his mission.

There are magnificent trees with their autumn colour, the wetlands and lakes with exotics and native plantings and the many sculptures situated so thoughtfully to enhance the living environment.

We were already familiar with several of the sculptors who have had works in past Sculpture in the Gardens exhibitions and some whose works have been acquired by the Gardens. We were very honoured that one of the sculptors, James Wright, accompanied Guy to lead us on a tour of the Sculpture Park.

It is quite a task to highlight just a few of the sculptures but to give you an idea of how the works speak to their environment, here are some examples:

- Between two trees by Cheryl Wright.
 This made you look up into the trees where the daisy chain of harakeke and pōhutukawa flowers was suspended and encouraged you to enjoy the beautiful lacy pattern of the upper storey of the trees.
- Sited near the wetlands is a beautiful sandcast bronze *You can't see me* by Guy's daughter Katie. There is a two-way relationship with the sculpture of a bittern interacting with the landscape and at the same time the surroundings complementing the bird.

- Guy mentioned some serendipitous connections with his family and the sculptures, including *Upgrade* by Melanie Arnold which repurposes parts from Hingaia bridge at Karaka. It turned out that his uncle had built the bridge in 1955.
- Nearby there is Jeff Thomson's Woven house located at the former site of Guy's grandparents' farmhouse.

As well as thousands of ornamental trees, e.g., liquidambars, nyssas and magnolias, there are fringe plantings of flaxes, taro and muehlenbeckias. Strategic topiaries pinpoint some of the sculpture locations and there are underplantings of hydrangeas. One lovely surprise was a grove of quince trees with enormous fruits. These had been grown from seeds obtained by Guy's father.

Guy has recently started extensive underplantings of the maturing trees with daffodils and staghorns and he intends to acquire even more sculptures.

Our next visit was to a somewhat different environment but equally interesting to gardeners. Zealandia is a large operation on the other side of Clevedon, where hundreds of thousands of plants are raised for retailers and for commercial crops. They have a sister operation in Christchurch so that the northern and southern climates can be utilized according to the different plant requirements.

A bit more of an industrial look than Riverhaven, however more than

compensated for by the sea of colours from thousands of pots of flowering cyclamens and gerberas.

Jamie, the manager, was such an informative guide. It was very impressive that he was so willing to spend his time answering all our questions. He casually referred to the usual daily plant production and delivery requirements, plus the major deadlines for the week including trimming 65,000(!) tomato plants, finishing the electrical fitout for the newest glasshouse and a boiler.

Plants are started off in small plugs and then transplanted to punnets by a small team of workers or by machine. We watched a fascinating machine operating like a ballet dancer, moving its legs forward in a line, plucking tiny coriander plants (you could smell the distinctive aroma) taking a photo and if there were not enough pixels, that leg plucks out the reject, selects another plant and repeats the dance.

The glasshouses are enormous with oodles of heated water pipes and cables. Overhead there are shutters that respond to the weather. Watering is by way of rainwater collected in numerous tanks and controlled by computer.

Our visits to two entirely different operations gave us an appreciation of two different facets of gardens and gardening. The common theme was the hospitality and willingness of Guy, James and Jamie to share their knowledge and passions with us

Thanks to Barbara Harvey for organizing a wonderful day out.

Cleone Campbell

James Wright at Riverhaven with Jeff Thomson's Woven house



IPPS New Zealand Conference

In early April Tia Sugiura (Nursery Technician, Winter Gardens), Harpreet Singh (Nursery Technician, the Gardens) and Owen Newson (Propagator, the Gardens) attended the 53rd New Zealand International Plant Propagators' Society (IPPS) conference in Timaru. Their reports follow.

Tia Sugiura

The IPPS New Zealand Conference in Timaru in early April was a great event with several expert sessions, many fascinating workshops, and visits to local businesses and one of the city's landmarks, the Caroline Bay Walk. I will report on two of the most impressive aspects of the event. The first is Caroline Bay, long a favourite of locals, and secondly the session on LED light technology.

Our walk around Caroline Bay was guided by Timaru District Council staff. The dune landscape of native grasses was stunningly beautiful. We heard how the shoreline has advanced seaward more than 650 m since construction of the Timaru port began 150 years ago. A restoration plan has been developed to plant a variety of native shoreline vegetation on the dunes of Caroline Bay. This beautiful landscape, created over five years by the local community and council, even includes around 100,000 native plant seedlings.

The lecture on growing healthy plants using LED (light-emitting diode) lights presented by Professor Paul Fisher emphasised the importance of LED

technology as a horticulture light source and how it can artificially create ideal environments in greenhouses and indoor production facilities.

For instance, on a cloudy winter day a greenhouse in Auckland receives only a third of the light compared to a clear summer day. LED lights can overcome this difference, creating an optimal environment for plants regardless of the weather. LED lights also offer an inexpensive, long-term investment, allowing growers to expect stable germination, growth, and flowering while reducing disease. LED technology enhances the cultivation of healthy plants at low cost, even during periods of unstable plant growth. It benefits producers by stabilising plant growth and reducing water, utility, chemical and labour costs. This innovative technology is advantageous for nurseries, councils, and the economy.

Harpreet Singh

The most fascinating thing for me when attending my first IPPS New Zealand conference was experiencing the latest technologies and the balanced mixture of people, some with more than 40 years practical experience. This made it a great opportunity to learn new techniques to maximise our success rate.

Two aspects I think may be particularly advantageous in the future are vertical indoor growing systems and techniques to manipulate the availability of sunlight for plants (LED and natural).

Vertical indoor growing will be a future solution for high-demand crops. Through the vertical indoor approach, we can produce high volumes of plants and food from small areas. LED and sodium lights are used in vertical indoor systems. Plants grown in vertical indoor systems are generally from tissue culture. In the USA strawberries and lettuce crops are being successfully grown in these systems.

Professor Paul Fisher described the benefits of maximising lights for plants. He explained how greenhouse roof structures can be barriers to sunlight by casting shadow on plants. He introduced us to quantum sensors for understanding light levels so that what is missing can be compensated for. LED/sodium lights can be installed to increase availability of light which makes photosynthesis processes faster and longer and thereby increase production.

Owen Newson

My report is on the workshops we attended at Caroline Bay.

There were seven to choose from, but we were able to attend only three. Native seed cleaning and sowing was the first with a very popular demonstration delivered by Philip Dunn and his team from Ribbonwood Nurseries.

I have always struggled with sticky seeds such as karo (*Pittosporum crassifolium*), my day often ending with yellow sticky hands acting like magnets. This sticky stuff just does not wash off, but an ingenious idea from Ribbonwood is to use plain old pantry flour, a revelation to me. They also suggested using hydrochloric acid to

break dormancy in some seed but I don't think we will adopt that one.

The second session was with Denis Hughes with some 40 years in the IPPS family, and Jeff Elliott who also has a lot of experience. They spoke on taking semihardwood and hardwood cuttings. How they do things with different media and their differing viewpoints was chalk and cheese compared to my usual approach, but it highlighted how it is trial and error and to stick with whatever works. The length of the cutting material they take surprised me as they both take 150 mm + cuttings, whereas I generally stick cuttings 60–100 mm long.



The use of small stone on top of their hygiene trays was something I had also seen late last year in Dunedin. This serves as a weed suppressant and by placing the trays outside rather than in glasshouses the seeds get colder and this provides the winter chilling to break the dormancy in the seed. (I just put the seed for perhaps a couple of months in the fridge before sowing.)

The third session was a grafting demonstration where Paul Schroder from Proseed and his right-hand ladies Marie and Tracey demonstrated how they graft pines for the forestry industry. They have a small team who graft thousands per day per person using the whip and tongue method with surgical precision.

Other sessions included soft wood cuttings with Brian Frost from whom I collected valuable information on Begonia and ZZ plants (*Zamioculcas*) cuttings through to sharpening tools, promoting products, hand watering, etc. On the Sunday we slipped away from the conference to view the Timaru Botanic Gardens and the charm of the city before we returned to Auckland.

Finally, we would like to thank the Friends for the opportunity to participate in this extraordinary conference. Such experiences enable us to increase our skills and also helps make the Gardens and the Domain wonderful and fulfilling places to work at.

Yellow camellias

Most of the commonly known and grown *Camellia* species and cultivars such as sasanquas, reticulatas and japonicas have red, white or pink flowers. Amongst the *Camellia* collection at ABG we are fortunate to have some quite rare and special yellow-flowered camellias.

There are 19 known species of yellow-flowered camellias that originate from China and Vietnam, but there could be more. They usually grow as understory forest plants, requiring shade or part shade with sufficient light for flowering, and free-draining, mildly acidic soil, rich in organic matter.

At the Gardens we have three such taxa:

Camellia flava; C. impressinervis and C. nitidissima var. nitidissima.

Camellia nitidissima (syn C. chrysantha)

This was the first yellow-flowered camellia to appear from a small tropical geographical area of China in 1970, causing much excitement amonast camellia enthusiasts and hybridists. However, incompatibility with other species makes it difficult to produce true yellow-flowered hybrids. In warm climates it flowers from winter to spring. The flowers appear on the stem, are downward facing and have 8 to 12 golden yellow petals which surround golden yellow stamens. The leaves are an attractive feature: deeply veined, glossy dark green above, 9–20 cm long by 2.5–6 cm wide. The young leaves take on a purple colour. The plant can grow up to 5 m in the wild.

Yellow camellia flowers can be used for a tea that has a subtle floral aroma and taste, popular in China. This has

Camellia nitidissima



led to *C. nitidissima* and other yellow camellias becoming threatened owing to overharvesting of flowers, removal of seeds and seedlings.

Camellia flava

This species from Northern Vietnam is listed as critically endangered in the wild, with fewer than 250 plants present. A city is being built in the Tam Dao National Park where it exists, further threatening the species. Rounded glabrous leaves 15 cm, flowers have 10–13 golden yellow petals 1.8 cm long.

Camellia impressinervis

Found in evergreen forests on limestone hills where it is critically endangered with only about 45 plants in the wild. Threats are habitat decline and wild collection for the horticultural trade. It is subtropical with attractive leaves. In early spring, yellow flowers about 4–5 cm across with a reddish tinge at the base of the petals appear. Leaves are slightly serrate, 12–22cm long with deeply impressed veins on the upper surface. Young leaves are purple tinged and very attractive. Grows to 4 m in the wild.

Andrea Wright

References:

- https://internationalcamellia.org/en-us/ yellow-camellias
- https://jury.co.nz/2016/06/06/thegolden-camellias-of-china-and-vietnam/
- chrome-extension://
 efaidnbmnnnibpcajpcglclefindmkaj/
 https://www.bgci.org/wp/wp content/uploads/2019/04/Red_List_
 Theaceae_2017.pdf
- Chang, H T. and Bartholomew, B. (1984)

 Camellias
- Trehane, J. (2007) *Camellias. the gardener's encyclopedia*

Perennial Management and Garden Design

Background

In New Zealand, we are sadly seeing the closure of many independent plant nurseries, with mainly larger commercial ones remaining. This has resulted in many heritage and uncommon cultivars becoming impossible to purchase by both home gardeners and horticulturists alike.

Biosecurity in New Zealand rigorously protects our native flora and fauna, making it a difficult and expensive exercise to get new plant material into the country. This makes it even more important for cultivars currently present in the country to be conserved so they are not lost for good.

The growth of perennials has always interested me since I was a little girl. Being able to watch a single plant appear in spring, reach its full potential through summer and then finally return to the ground in winter - seemingly dead - only to do it all over again the following season. Now I want to know as much as possible on how to make them happy in a changing climate, as well as creating a border that is exciting and appealing.

In 2023, I was fortunate enough to be awarded the Botanic Gardens Australia New Zealand Young Member Award. This went towards two online courses on "Planting Design with Perennials" and "Perennial Management, The Piet Oudolf Way" presented by Dr Noel Kingsbury.

Learnings

There are a lot of moving parts to create a perennial garden: what are the garden conditions like? Which plant species will become thugs and are therefore best avoided? What plants will thrive without dominating? Do you have year-round interest, with succession throughout the seasons? Is there a colour or texture repeated to tie things together? Can the plants be easily lifted and divided each year to replenish your stock? The list goes on...

Considerations when selecting plants for the garden include understanding what type of perennial they are, how long do they live for, do they have a spreading habit that is good for propagating clumps but may mean they can become thuggish. Once you have a good idea of how a certain species grows, you can ascertain where it may earn a place in the garden. Some plants spread too quickly, like the aster I have seen growing in the Rose Garden Pergola. It fills the space quickly with great impact but tends to grow through its neighbours and outcompete them, requiring us to dig it out by the bucketful. Perhaps this is one that is better placed in a garden with larger plants that it will struggle to dominate, and in a spot easy to access to pull up any bits that stray from its designated area.

You need to have an intended planting plan, with a clear focus on what you are wanting the garden to say. This will be a guide to keep you on track while changes over the seasons determine what plants do well, and what plants do not. It is a constant battle of editing, seedling removal, gap filling, and loss replacement. Using a critical eye to re-assess the performance of plants, seeing if they would benefit from a change in position, or deciding that it is not a plant meant for your garden at all.

The original maintenance practice was to cut everything back to the ground once plants stop flowering, giving a tidy yet barren looking garden over the winter months. Now, many gardeners want to celebrate the shapes and forms of dried seed heads and foliage. This "new perennial" movement gives winter interest in the garden from the fading inflorescences of yarrow (Achillea filipendulina) Hylotelephium and (Herbstfreude Group) 'Herbstfreude' (svn. Sedum Autumn Jov) to the soft fluttering blades of Miscanthus sinensis and the seedheads of Liatris spicata and cardoon (Cynara cardunculus).

Either over the winter as these dried statues degrade, or just before spring, the plants can be cut back as required to give sufficient light for new season's growth. One tip I particularly loved from these courses was to cut up the removed top growth and lay it on the ground around the plant. This acts as a natural mulch layer, mimicking what would naturally happen in nature each season. It also allows the nutrients still in green stems to go back into the soil and provides a great home for insects. Naturally this would appear "messier", but solves many issues like green waste removal, bringing mulch on site, and adding feed to the garden.

Plants will perform best when in the environment they have evolved in. You would not plant a rosemary bush (Salvia rosmarinus) on a pond margin, and then constantly try to dry out the soil just to keep the plant happy. Rather, it would be planted in a drier spot with freedraining soils and lots of sun. Matching perennials to their habitat will reduce the need for irrigation and feeding, which reduces the impact on the environment. By being able to garden in tune with nature and selecting plants that coexist together, you are creating stable plant communities that are artificial versions of natural ecosystems, requiring lower maintenance.

What's next?

Taking these courses have been a great addition to my career and reaffirmed my thoughts and beliefs around perennial management and garden design. They have been invaluable to my approach to gardening from daily workings to overall standards.

I will continue striving to learn more, attending as many conferences and talks as I can around garden design as sustainability. I have had the good fortune to attend two talks by Jo Wakelin about her water-conscious garden design in Cromwell, Central Otago. It is now an aspiration to visit her garden, to see it in person and gain a greater understanding of matching plants to a low rainfall climate.

In order to give public access to hard-to-find plants, I aim to advocate for the Friends of the Gardens to propagate and sell highlighted plants at the Growing Friends plant sales.

Contemporary perennial plantings

The 2023 New Naturalism Tour led by Michael McCoy promised to showcase the best of contemporary perennial plantings in the United Kingdom and Europe and the designers at the forefront of sustainable design, and it failed to disappoint. At times overwhelming, it challenged us to fully engage and look beyond the beautiful gardens in front of us and analyse what worked (and didn't) and how that could be translated to our own conditions.

We began our tour at RHS Wisley, starting first at the famed long borders, a prime example of horticultural excellence, with beautifully manicured lawns on which to stand and observe the showstopping specimens horticultural on carefully pruned and discretely supported to maximise the effect. This is traditional gardening at its finest, and we couldn't help but be drawn in as we walked up and down admiring one stunning plant after another, marvelling at how lush and healthy everything looked, and (as gardeners are inclined to do) wondering what the feeding and irrigation plan was to maintain such growth. But this was not what we had come to see, and Michael lured us away with the promise of plantings designed by some of the stars of the Naturalism movement: Piet Oudolf. Tom Stuart-Smith and James Hitchmough. The Oudolf borders opened up several themes that would reoccur throughout the tour: observation vs. participation; the importance of context and the surrounding landscape; blocking intermingling; adaptation of natural ecosystems to extend the duration of the

display; and the need to understand the skill and availability of those that will be maintaining the garden.

With Michael encouraging us to look at everything with a critical eye, we realised that we all felt that we were tumbling down the hill towards the lake and glasshouse below. Rather than being enveloped in the planting, we were still observers standing on a manicured lawn, and this is one of the main reasons why the Oudolf borders are being replanted to a new planting plan over winter. The new plan weaves the paths through the planting, slowing the pace and incorporating the visitor into the landscape. It was this style that we then encountered in the Tom Stuart-Smith borders, which have ribbons of narrow chip paths and planting that wrap around the lake. There are still elements of tradition here, with classic clipped forms for a sense of control amongst the frothy forms and taller plants that encase you.

Tradition and control have been seemingly abandoned in the adjacent direct-seeded borders by James Hitchmough. Here, the plantings have been designed first and then the paths located to pull the visitor into the borders. Although the plantings appear to be completely random, the seed mixes used have been carefully developed to provide layers of early, mid and late flowering plants, with care taken to ensure that the early plants are not shaded out and prevented from putting on enough growth to create the following year's display. This was another key reoccurring lesson: although naturalistic planting styles may demand less time spent on pruning, irrigation and fertilising, a high level of skill is needed to be able to edit individual plants and control the balance.

Throughout the tour, we encountered vastly different approaches to garden management, which often also dictated the direction in which the planting could develop. At Sussex Prairie Garden, whose owners had previously worked with Oudolf, the garden is slashed to the ground in winter after the seedheads have collapsed and then torched, with fire breaks to protect the hedges and trees in the lawns. I do not know that many of us would be brave enough to take this approach (and definitely not in an urban garden), but it eliminates the need to remove the cut material away for composting, drops phosphorous and replicates the wild fire process. This is also an amazing example of a garden that demands visitor participation, as you are encouraged to walk through narrow paths in the mounded garden beds and be fully immersed in the planting rather than observe it from the lawn.

In the Netherlands, we visited Vlinderhof, the first Oudolf garden in the public realm in his home country and yet only opened in 2014. The garden is entirely run and managed by volunteers, with a core of around 25 who meet on Saturday mornings, with a smaller group focusing on smaller jobs such as weeding on Wednesday evenings. Volunteers choose to focus on particular beds, and work to a fixed planting plan to determine where plants should be located. Four of the volunteers take the lead, monitor the garden and determine the work schedule for each week. Such structured planting design is needed when people have

varying skill levels and time availability to maintain consistency, and here block style planting works where intermingling would not.

In Amsterdam, we explored some of the public street plantings with Ton Muller, head landscape designer for the municipality. Here, there is an attempt to green the whole city, however as there is no private funding for the work, maintenance is by contractors rather than skilled gardeners. This often means that there is no watering, deadheading or staking of plants, and pruning may occur every few years (if at all) and so some of the gardens that were installed a decade earlier are either no longer alive or are difficult to maintain. This has necessitated a change in approach, with a focus on plantings that can be guided rather than requiring a high level of input. Sunny meadow matrix plantings have required simplification, particularly a reduction in the use of grasses owing to difficulties with weed control, and where shade gardens are established between highrise buildings, trees and shrubs have to be carefully located so as not to encroach on paths (and then require cutting back).

This experience of simplifying meadow plantings in the public realm was in complete contrast with the meadows that we saw in the United Kingdom, which required a high level of skilled input, particularly where exotic species were used. Traditionally managed native meadows at Wakehurst and Great Dixter, which had been in place for many decades and have a well-established species mix, required very little intervention beyond a seasonal cut. In contrast, replications of exotic meadows and prairie plantings required very high levels of input.

When we met with lain Parkinson, Head of Horticulture at Wakehurst, he described the experience as "like riding a wild horse: just when you think you have it under control the prairie bolts". Three years since it was first sown, the American prairie currently has a permanent gardener along with two assistants, and it is expected that it will always need at least one person full time. On the day that we were there, they were hand scything out weed grasses amongst the desirable plants and planting plug plants into areas that had failed to establish. Through trial and error, they have found that it is necessary to establish a range of cool season plants to fight off weeds, while still balancing that with space for the warmseason prairie plants.

At Knepp Castle, the process of 'rewilding' the estate has included the walled gardens, which were previously formal gardens with a croquet lawn. The large brick wall that encloses it is now used to keep out the wild ponies, cattle and pigs that have been introduced to roam the estate (and were trying to get through the gate as we were exiting). The previously flat lawns were replaced with mounds of sand and crushed concrete to create dry peaks, moist troughs and variances in shade and pH levels to create different conditions for plants to establish. The garden was planted in 2021, with a secondary planting in 2023, using a mix of potted plants and direct seeding. Weed management is currently the main task, with the expectation that there will be a need to edit the planting in a few years to protect the bare ground (for insect habitat). The experience of walking through the large wooden gates in the wall and walking up and down the mounds of hazy planting was guite magical.

and everywhere you looked there were beautiful plant combinations. Although these hadn't been deliberately placed together but were a consequence of where seed germinated and established, the possibility for those combinations to occur was due to the careful selection of plants included in the seed mix.

The intermingled plantings that we saw at Knepp, in the James Hitchmough meadows at Wisley and at Tom Stuart-Smith's personal garden Serge Hill, and in Jelle Grintjes personal garden in Tolkamer, showed the possibilities of what can develop when you are willing to embrace a more naturalistic style of planting and forgo the highly cultivated specimens in favour of simpler flower forms. This style of planting is much more of a team effort, requiring research and planning to initially select the plant range and then guide its ongoing development.

In many cases, multiple wild ecosystems were drawn upon to establish a planting with a very long season. Woodland plants formed the spring base and were then followed on by steppe plantings over summer, finishing with prairie plantings taking over in late summer and into autumn. These layers were mixed, so the earlier season plants then provided a physical support to the typically taller later season plants. This maximised the display within a small area and removed the need for staking, for example where early summer salvias were interplanted with late summer helenium.

The block style of planting that dominated in early naturalistic plantings showed its limitations where it resulted in a part of the garden looking flat owing to the particular plant failing to establish, not coping with the particular conditions that year, or simply being finished for the season. This was most noticeable at Hauser & Wirth, another Oudolf garden that was further constrained by printing and selling copies of the planting plan, which have become so iconic that it has limited the ability to make changes to areas that are underperforming.

The Hauser & Wirth garden incorporates both block planting, mainly on the outer edges, and intermingling amongst the blocks in the central beds. This provided a great opportunity to see the varying impacts of the two styles, both from a landscape view and up close. It was immediately clear that the fine, gauzy flowerheads on many of the grasses can become a hazy filter over the whole planting if not managed and co-located well, particularly if combined with other fine leaved plants. Bold colour was also needed to counter the haziness, which was also seen elsewhere in the golds and purples in prairie plantings and in the purples and cerise at Knepp. The importance of white flowers was also evident to freshen the effect and keep it "dreamy" rather than becoming muddy. When talking with Jelle Grinties, he also highlighted how important it was for gauzy plants to have light behind them to maximise the effect. With the light, they shimmer and float, and without it they can look weedy and out of place.

We also attended the German National Garden Show (BUGA), which ran from April – October 2023, spanning a length of 7 km including a 2 km overhead cable car system to cross the river. Here we met with Cassian Schmidt and his wife

Bettina Jaugstetter, who had designed many of the main plantings based on natural communities, including the annual bedding displays. The plantings were a significant shift away from traditional blocked annuals, with a more interminaled style that was still very clearly designed. Familiar bedding plants (such as zinnia, gazania, coleus, rudbeckia, salvia, statice) were combined with grasses such as Carex testacea and Pennisetum in dramatic colour sweeps that allowed plants to peak in waves, so the display changed over time. Interestingly, Bettina said that one of the keys to the success of the planting was to use small grade plants that had not been fertilised in the nursery and so developed strong root systems and performed for longer. This improved the sustainability of the display by reducing inputs and the need to replant continuously.

In the conflict between ecologists and horticulturists, the naturalistic planting movement has come to be seen as the merging point, where natural plant communities can influence hiahlv designed gardens in both the public and private realm. For so long such plantings have been seen as either belonging on motorway edges or as poppies and lupins in a wildflower meadow seed packet, both being low care and low skill. It is time to reshape this thinking, and instead see the possibilities for creating dynamic plantings that can respond to the climate changes that we are increasingly facing.

Come along to Soup Day in July to see and hear a lot more about all of the other places that wouldn't fit within the word limit!

Joanna Mason





Riverhaven Sculpture Park and Arboretum.
Photo by Heather Hine





