Dear Friends

The Arboretum has set aside 24 individual garden beds for sponsorship in Central Valley. Each bed will be planted with one of the particular species the NAC horticulturalists have selected to achieve a stunning display of colour and texture lining the Central Valley pathway. Your Friends’ Council has made the decision to sponsor Garden 19 *Rhagodia spinescens* Saltbush, which will be absolutely perfect for this site. It will also match the plants selected for the Friends’ Garden on Dairy Farmers Hill which we planted earlier in the year. Another of our achievements this year!

To begin the sponsorship journey Friends Council has committed $5000 to start the ball rolling and we are very keen indeed to reach the $50,000 - any one of you are able to support our Garden 19 - just go to our website, follow the prompts and you too will own a piece of our Zig Garden.

Serendipity kicked in, the morning of Friday 23 November about 9.00am. As I drove up to the Visitors Centre, lo and behold there were the contractors hard at work planting OUR Saltbush Zig Garden 19 so recently launched.

Not wanting to miss this opportunity I hurried down the hill, took some photos of the planting process, planted 2 of 416 plants and ‘helped’ the contractors by taking punnets of the plants from the truck bed and laying them around the edges of our garden. The plants are quite small, similar size to the plants we put in our Friends’ Garden on Dairy Farmers Hill.

Now we can watch them grow! The rain came at
the right time as I observed the younger of the contractors required little effort to make the holes in the softened earth.

How excited I was….the first planting and working bee on Zig 19!!!

The plaque wording will be very simple as agreed at last Council…“Sponsored by the Friends of the National Arboretum Canberra, November 2018.”

The garden was launched by MLA, Bec Cody representing the Chief Minister Andrew Barr. Bec cut the cake and declared the Zig Garden 19 officially opened at the November General Meeting. Thank you Bec.

At the General Meeting our guest speaker was Amelda Keys who gave us the story about the Labyrinth Garden which inspired her and her husband, Glenn Keys, AO to sponsor this garden on the Events Terrace. Did you know that there is a facilitated walk at the garden on the last Sunday of each month overseen by a qualified Labyrinth Facilitator? The Labyrinth Garden is an opportunity for personal contemplation and renewal.

Congratulations to the Harvest Group who continue to work and tend daily the Discovery Garden and work regularly behind the scenes (jam-making, seed packeting etc) with the latest Market Day held on 10 November raising more than $1000.

I would like to repeat my HUGE vote of thanks to Harvest Group Organiser over several years, Bronwyn Halbish. She has coordinated and overseen the Harvest Group activities including market days with great aplomb and success. Thank you very much Bronwyn.

Taking over from Bronwyn is Colette Mackay. Our grateful thanks go to Colette for stepping in and continuing the momentum of this remarkably active, productive and enthusiastic group.

Recently the Friends were offered an opportunity to plant more trees in our very own forest, Forest 100. With liaison between NAC Executive Manager Scott Saddler and NAC Horticultural Manager Owen Bolitho, Andrew Carter and several enthusiastic Friends arrived in situ on 8 October to plant 300 seedlings which, when established will be two very high density stands. Watering will be a challenge however, but to help the retention of water, huge piles of mulch were thickly spread and the job was completed on the next couple of Working Bee days. The planting of Forest 100 in this particular way had been the dream of Scott, Owen and Adam for some time…now realised.

Recently a group of Friends Council members and Friend, Max Bourke AM met with ACT Commissioner for Sustainability and the Environment, Professor Kate Auty at her office at UCAN. Max and she had met previously at a forestry conference at the ANU where Kate had declared her interest in the Friends and the volunteering work that they/we do. Kate presented us with one of the Commission’s most recent research documents, ‘Unfantastic Plastic – Review of the ACT Plastic Shopping bag Ban’. Professor Auty also agreed to present one of our Seasonal Talks early in 2019.

The Jake Keller Scholarship was presented at the Friends’ End of Year Celebration on 11 December in the Terrace Room and Discovery Garden environs. Owen Bolitho, head of the Horticulture Dept at the NAC showed a short video outline of the work he undertook earlier in the year at the Botanic Gardens in Singapore and then made the scholarship presentation to the winning CIT student.

We drew our raffles at this event so I do hope you bought a ticket or two as the prizes are exciting! Thank you very much to all those generous donors.

I would like to thank each and every Friend for the invaluable volunteering work you have performed in support of the NAC during 2018 no matter in what capacity.

I wish you all a very happy and safe festive season and look forward to seeing you at the Arboretum in 2019 for all the exciting times ahead!

Trish Keller OAM
Chair, Friends of the National Arboretum Canberra
20,000 hours!
Congratulations NAC volunteers

As the end of year approaches, the support of NAC Friends and volunteers was recognised and celebrated in recent events.

On the eve of International Volunteers Day on December 5, NAC recognised a record breaking 20,000 hours of diverse work by the ever ready and willing NAC troupe of volunteers.

Director Scott Saddler was joined by guest speakers Bec Cody MLA, Natalie Wright, ACT Volunteer of the year and Daniel Bailey, Executive Director, Property and Venues.

Speakers reinforced the value of the work of the volunteers to the Arboretum, with a value around $800,000 being placed on this year’s efforts.

Natalie Wright spoke movingly and inspirationally of the work she does with St Vincent de Paul, including Mini Vinnies and the Night Patrol.

The evening was enhanced with the dulcet tones of local trio Springtide (featuring NAC volunteer Greg Wilson on the harp.) If you missed this and would like a taste of their music the website is www.springtidemusic.com

Zig cake.    Photo by Linda Muldoon

Friends of the National Arboretum
Canberra Inc

FUNDRAISER
Contribute to our $50,000 target and watch your garden grow.

Zig zag garden 19

Www.arboretumcanberra.org.au/support-us/donate

Bec Cody MLA addresses volunteers at the Thank You function on December 4

Photo: Linda Muldoon
The Discovery Kitchen Garden

by Ange McNeilly

This exciting garden is located as you exit the Village Centre south side, walk past the Bonsai and Terrace Room and you will arrive at the long, raised Kitchen Garden which has attracted much interest from local, interstate and overseas visitors over the past two years.

The Kitchen Garden commenced in late 2016 following discussions between Arboretum management and the Friends Harvest Group culminating in an MOU signed on 6 October 2016 for a period of five years. The undertaking was for the Harvest Group to plan, maintain and harvest produce from the garden and to keep the garden looking beautiful and productive all year round. Both the Arboretum and the Friends each contribute funds annually towards the purchase of plants for the garden with the Arboretum also providing fertiliser, compost (if that produced on site is insufficient) and mulch. The garden is maintained by a small team of rostered volunteers and all expenditure is documented and reported via monthly reports.

The philosophy for the Kitchen Garden is to grow plants organically and naturally without the use of pesticides while utilising companion planting as much as possible. Another strong feature is the intermingling of vegetables and flowers together not only to deter pests but to provide a beautiful tableau for visitors to enjoy.

Plant foliage and colour combinations are all considered during planting to achieve the best visual effect. All vegetation from the garden is composted in the five bins located at the far end of the Sensory Garden and reused in the garden so nothing is wasted.

Unusual plants such as climbing spinach, red scarlet runner beans, purple peas, broccoli and basil as well as gourds, globe artichokes and chilies with purple foliage are grown.

Old fashioned cottage garden flowers also have their place in this garden such as white alyssum, cornflowers, nasturtiums and calendula which are all edible.

Attention is also given to providing varying heights and levels of interest by utilising the wonderfully sculptural fixed metal ‘umbrellas’ and posts to allow climbing plants such as gourds, peas, sweet peas and tomatoes to all reach for the sky and today there are gourds grown in the previous year still hanging. These umbrellas provide shade in summer and frost protection in winter although nothing provides protection from the very strong winds that frequently blow around the site and necessitate plants having to be staked and supported even when young.
The Kitchen Garden has a definite sunny and shady side which is considered during planting so that plants receive the appropriate level of light they need. For example, all sun-loving vegetables and flowers are planted on the north-facing side while plants that tolerate less sun are planted on the southern side. Flexibility and experimentation over time has produced occasional ‘happy accidents’.

**Market Stalls** are a seasonal feature where the Friends’ volunteers hand make produce harvested from the garden such as pesto, relishes, chutney, seeds, plants, dried flowers and herbs. Together with the harvest from the fig forest, thousands of dollars are raised annually all of which go towards Arboretum projects.

Children are especially welcome to the garden, and if lucky, they are given a special treat of a delicious strawberry or two or a beautiful blue borage flower to eat! They are also thrilled by the occasional appearance of the resident water dragon.

Arboretum staff too, get a taste of incredibly sweet tomatoes, peas and other healthy produce.

It is gratifying to see visitors inspecting plants closely, taking photos, asking questions and taking down details so they can grow the same plants in their own gardens, thus the Kitchen Garden is a demonstration garden where visitors pick up useful plant growing, natural pest control and companion planting tips.

The Discovery Edible Kitchen Garden is situated in the most picturesque location in Canberra and it is a joy and a privilege to be a volunteer in this tranquil place where daily, people come to sit on the deck, eat their lunch and take in the wonderful view!

Ange McNeill
Araucaria araucana

Monkey Puzzle

By Malise Arnstein

The botanical name for this tree derives from the Pehuen Indians of the Andes in Central and Southern Chile and Argentina who were called Pehuenche or People of the Pehuen tree. The genus name Araucaria comes from the Araucanian region of Chile. It is more commonly known to Westerners as the Monkey puzzle tree.

The Araucaria araucana are believed to originate in the Argentinian Pampas and grow in very cold, snowy areas at high altitudes from 900 to 1800 m. They may live up to 10 centuries.

This noble evergreen conifer is of prehistoric origin dating back 200 million years. In 1990 these trees were declared endangered and logging was prohibited. The destruction of their habitat started in 1537 with the arrival of the Spaniards in the west of South America. As the invasion gradually spread throughout the country these foreigners claimed more and more indigenous lands, clearing them for grazing and harvesting trees for building (beams, piers, bridges, furniture, plywood and veneers). Fires also burnt down large forests with particularly bad ones in 1887 and 2001-2. The sad history of the Indigenous people south of the Bio-Bio River in Chile is full of land grabs, empty agreements, betrayals, court cases, take-overs and flooding of valleys for hydroelectric power plants. The Mapuche and the Pehuen’s struggles for land rights and the protection of the trees continues.

Tree Characteristics

The Araucaria araucana has tall female trees up to 50m and shorter male trees of 15m. The diameter of the brown-grey barked trunk can reach 3m. When the lower branches fall off, the tree is left with a wide rounded crown. Its deep green leaves are triangular, very stiff and tough, ending with a very sharp tip. They grow in overlapping swirls up the trunk and along branches, a menace to any animal tempted to climb it. Trees do not produce seeds until they are at least 30 years old.

The male cones are oblong and yellowish brown, 7-15 cm long and 50 cm wide, and they release their pollen in Spring. The female, much larger round cones, take 18 months to mature having become dark brown. They are 12-20 cm long and 8-15 cm wide.

The large pine nuts, or pinones, are edible and were a mainstay of the Pehuen Indian diet, as well as being central to their culture. They are a staple food, high in carbohydrates, and can be consumed raw, boiled, roasted, as a condiment, ground into flour to make bread or fermented into a drink called mudai. Livestock and other native animals also depended on them for food. Many social, cultural and health customs are linked to the tree. For example, the resin from the tree was used for the treatment of wounds and ulcers.

It’s a puzzle!

The common name Monkey Puzzle has several more or less fictitious stories attached to it.

The tree was first brought to Europe by Archibald Menzies, the surgeon on Captain Cook’s old ship the Discovery on an 18th century trip around the world. During a stop in Chile he was served a dessert with pinones. Instead of eating all of them he put some in his pocket. Back on board he managed to grow five seedlings, handing one or more to Sir Joseph Banks at Kew Gardens for propagation.

Another plant collector William Lobb, travelling in Argentina, is said to have gathered seeds by shooting female cones down from high branches.

There is also a story that an Englishman in the mid-19th century walking around a garden in Cornwall featuring one of the offshoots of the Kew specimens noticed the A. Araucana and commented that any monkey would be hard-pressed to climb it because of its thorny leaves.
A less likely story is that a logger, on cutting down such a tree, found a nest of bones in its crown. He deduced that a monkey had managed to climb up it but not down perishing up there of hunger, thirst and exposure. My Wikipedia research on primates in Chile and Argentina did not come up with any monkeys native to the distribution area of the *A. araucana* so there seems to be no evidence of any primate being a consumer of its seeds in that part of South America.

The long-haired grass mouse, *Abrothrix longipilis* is the most important animal responsible for dispersing and burying the seeds that have dropped on the ground, thereby regenerating *A. araucana*.

Forest 12 on the way to the Cork Oak forest at the National Arboretum Canberra is the home to Monkey Puzzle trees. It was planted in 2009.

The Arboretum also has forests of several of the *Araucaria araucana*’s nearest relatives: *Araucaria angustifolia*, the Parana pine from Brazil (Forest 19), *Araucaria cunninghamii*, Hoop Pine (ceremonial plantings), *Araucaria bidwillii*, Bunya Pine (Forest 71) and *Wollemia nobilis*, the Wollemi pine, discovered in south-east Australia classed in the plant family *Araucariaceae* (forest 32).

*Photos by Malise Arnstein*
Universal Penjing Conference hosted at the Arboretum from 18 to 20 September was very well received by those lucky enough to attend. As well as the nine international penjing masters and bonsai professionals presenting a continuous stream of demonstrations of the art, they also provided one-on-one workshops with a number of the delegates to the conference.

A gala dinner in the Visitor Centre, again with live music, was a recognition of the 10th anniversary of the opening of the NBPCA in September 2008, and featured a lively auction of a number of the penjing created by the international demonstrators.

The other significant element of the Conference was (I believe) the best ever display of Australian native bonsai from the Collection in the MWP which was curated by NAC staff – Owen and Amalie. Thank you.

Following the popularity of the penjing conference, investigations are under way to run another major conference at the NAC featuring international bonsai masters.

The Conference had several evening events including a cocktail evening under lights in the bonsai pavilion, which highlighted live music and a fantastic traditional Chinese dance performance.
News from STEP

By Judy Smith (President, STEP).

The dry weather has provided some unwelcome challenges as we focus on watering new plantings and ensuring established plants are not suffering too much. We have scaled back our purchases from the ANPS sale in the hope that Autumn next year will provide better conditions for more planting.

One initiative has been to plant out a range of established grasses just above the ephemeral wetland. The hope is to create a meadow effect and if the grasses establish successfully, we would proceed to plant other species such as *Microseris* (Yam Daisies), *Bulbine* lilies and *Glycine*

We have also prepared ground for and planted rows of *Lomandra*. We were able to source self-sown plants to fill up the rows and the eventual aim is to have a supply of these strappy plants for use in demonstrating indigenous techniques of basket weaving and string making.

It is easy to see the big picture of what has been happening at STEP but it took Jenny Widdowson’s keen eye to point out the wonderful female flowers on the *Allocasuarina verticillata* – in close up they are delicate, feathery and a beautiful colour.
It was a perfect Canberra spring morning for the official launching of the last three gardens in the Gallery of Gardens by Tara Cheyne, MLA, with Genevieve Jacobs and David O’Leary also speaking on behalf of the Gift of Life Foundation.

The **Terra Australis garden**, sponsored by the Australian Native Plants Association, celebrates the varying Australian landscape through landform, rock form and plant species. It was also constructed by Eifer.

The **Gift of Life garden** recognises those affected by organ and tissue donation and transplantation. The heartbeat theme is highlighted by the commissioned sculpture ‘Confluence’ by Bundaberg artist Keith Bender. The garden was designed by landscape architect Alex Dalglish of ‘Somewhere’, and constructed by Canberra company, Eifer.

The **Children’s garden** (right) encourages children to play, explore and interact with their environment via colour, texture, scent and form through a diverse planting palette.

The garden was generously donated by the Hoff family.

*Photos by Linda Muldoon*
Friends’ end of year gathering

Friends gathered together to celebrate another exciting year at the Arboretum, and the awarding of the Jake Keller Scholarship to Andrew Colwell. Unfortunately Andrew was unable to attend but the award was accepted by proud parents Jim and Helen Colwell. Congratulations Andrew.

Owen Bolitho, Senior Horticulturalist NAC, reported on his recent trip to Singapore Botanic Gardens to work with them on their Garden Festival and the beginning of a new relationship with the Singapore Botanic Gardens.

Attendees eagerly awaited the drawing of the end of year raffle with an exciting range of prizes drawn by Trish Keller and Shaun Strachan. Winners are listed on the Friends’ website.

Right: Pohutukawas, originally made for ‘Warm Trees 2018’ made a strikingly festive and seasonal contribution to the Terrace Room ambience for the evening.

U3A course 2019

Jan Morgan’s Trees of the Arboretum

Although Jan herself will not be running her University of the Third Age (U3A) course on the trees in our forests next year, the good news is that it will be delivered in 2019 by four other volunteer guides.

If you would like to enrol in any of the four parts of the course, or just attend a few session you might have missed, Joanne Maples is the contact. Anyone who wants to repeat a part is welcome too.

You will need to be a 2019 U3A member as Joanne will need your U3A membership number to process enrolments, so do that first at the U3A Website. Then contact her at joanne.maples@netspeed.com.au with that number, your mobile number and the part(s) of the course you want to do.

The dates and presenters are:

Part 1: Fridays, 1 February - 15 March, Robin Cayzer
Part 2: Mondays 8 April - 27 May, Joanne Maples
Part 3: Thursdays 30 May - 4 July, Mary Arnold
Part 4: Tuesdays 23 July - 27 August, Denis Warne

Joanne has a list of the trees included in each part if you need it to make a choice.

The venue will again be Hughes Baptist Church, starting at 9:30 am for 2 hours. See you there!

Thanks and good cheer to all the Friends and supporters of the National Arboretum Canberra. Best wishes to you and yours for the holidays and the coming year.
How to join the Friends

Visit arboretumcanberra.org.au to join online or to find out more about the benefits of being a member.

OR

Email your details to: contact@arboretumcanberra.org.au and pay by funds transfer or cheque.

OR

Complete the Application Form and mail it to:
The Secretary, Friends of the National Arboretum Canberra, PO Box 48, Campbell, ACT 2612, and pay by funds transfer or cheque.

☐ Bank details for funds transfer:
  Westpac, Petrie Plaza, Canberra, ACT: BSB 032 719,
  Account: 375379 – please include surname in description.

☐ Cheques payable to: Friends of the National Arboretum Canberra Inc.

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* Please see website for details

Membership Application Form

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Last name: .................................................................

OR

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State: .............. P/c/code: ...........................................

Email address for newsletter and updates:

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Phone: .......... Mobile: ...........................................

Number of parking passes:

Total amount payable (include membership/s and parking pass amounts): $

Signature: .................................................................

Date: .................................................................

Parking Pass 1 year

☐ Friends’ Annual $27.50 per vehicle (2018)

Parking Pass $28 per vehicle (2018)

For a parking pass, please include your vehicle’s registration number.

Note: An Individual Member is entitled to apply for one Parking Pass at the Friends’ discounted rate and a Household Member is entitled to apply for two Parking Passes at the Friends’ discounted rate.

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