NEWSLETTER
AUTUMN 2016
NUMBER 87

FRIENDS OF THE WAITE ARBORETUM INC.

www.communitywebs.org/friendsofwaitearb/

www.waite.adelaide.edu.au/waite-historic/arboretum

FORTHCOMING EVENTS

FRIENDS OF THE WAITE ARBORETUM EVENTS

Free Guided Arboretum walks
The first Sunday of every month at 11.00 am.
Walks meet at Urrbrae House

Thursday 2.30pm 5th May at Urrbrae House. Afternoon Tea to celebrate Dr Jennifer Gardner's 30 years' service to the Arboretum.
RSVP to 08 83571679 by 2nd May 2016

Inaugural National Botanic Gardens and Arboreta Open Day, **Sunday 29 May** guided walks of the Waite Arboretum at **11 am, 1 pm and 3 pm**.

Alex Tsiboulski classical guitar recital.
Thursday June 2, 5.30 pm drinks for 6 pm start.
Entry fee $20
Bookings essential
Phone 08 8357 1679
or email
bgrich@ozemail.com.au

More details at:
http://www.adelaide.edu.au/waite-historic/whatson/

FRIENDS OF
WAITE
ARBORETUM

Golden Rain Tree, *Koelreuteria paniculata* fruit

Table of contents

FROM THE PRESIDENT

This is my first Annual report as President and I want to start off by thanking all of the members of the committee, the Curator Dr Jennifer Gardner and all of those members who give help and support to the Waite Arboretum. A special thanks to Marilyn Gilbertson, Vice President, who unfailingly 'steps up' and does whatever is needed with competence and charm. The members of the committee continue to foster interest in the care and use of the Arboretum and to raise funds for its development and maintenance. They have worked assiduously throughout the year and continue to be a source of inspiration.

During the year the Treasurer did a calculation of the amount of funds raised by the Friends committees over its twenty-two years of existence and found that the sum total at July 2015 was $203,999. This is a very impressive amount for a community committee to raise and represents real dedication and commitment from many over those years.

Climate and temperature always feature largely in all of our considerations relating to the Arboretum and this year the weather bureau reported that the mean daily maximum temperature was above average with a total of twelve days of 40°C or over for the year (equalling the record from 2009 and 1908). Some rain would be very welcome.

The Elm leaf beetle continues to bedevil the Elm trees. In early summer they were treated with a trunk injections of a systemic insecticide to control the pests.

It has been an interesting year for several reasons with some good and some not so good influences.

The committee managed to organise a visit to Sophie's Patch last May and many of our members enjoyed this visit to see the wonderful sustainable garden that our valued Patron has created with the help of her husband and children, from what had been a virtual cow field.

We also arranged a long planned visit to Anlaby House and Gardens in Kapunda, which pleased those members able to join the trip.

Some members also visited the Arboretum at Pangarinda, which has a collection of Australian native plants.

During this last year we saw the realisation of a large amount of work and dedication from two gardeners who completed a development of the garden behind the Coach House. They have turned a neglected spot into a very pleasant garden with especially appealing seating spots for visitors to enjoy.

Another encouraging event was the signage for the Bee Hotel and the continued interest in this valuable addition to the Arboretum.

The Drawing Room in Urrbrae House demonstrated its very good acoustics on Wednesday 26th August with a fund raising concert from the handsome and charming Cordova brothers. Currently residing in Barcelona, Spain, Jacob is recognised as one of the finest classical guitarists of his generation while Gideon is a graduate of NIDA. In this collaboration they presented their adaption of "Platero and I".

The Fountain in the Rose Garden was found to be in an unsafe condition and was removed and stored by the University Collections in June. The committee had sought its repair and redevelopment over some time and the removal provided an opportunity to rethink an outcome. The committee sought and received a Financial Grant from The Rose Society. Jennifer organised a new external pump and pipework for bubblers in the middle and southern ponds, commissioned sculptor Silvio Apponyi to design and construct elegant stainless steel safety grills for all three ponds and with the assistance of Viesturs Cielens organised the installation of new pond capping of beautiful Kanmantoo stone.

A very beautiful water feature designed by Viesturs Cielens was built within the Garden of Discovery and is now a special place to sit and contemplate the peace and beauty created by wonderful volunteers.

At last years Annual General meeting Dr Pamela Smith PhD, M.A.A.C.A.I. gave the address titled " The Cultural Landscape of the Adelaide Hills Face Zone". She spoke of outcomes from research and why she believes Adelaide Hills Face Zone is one of the best-preserved colonial landscapes. She referred members to several publications for further information and answered many questions from the audience.

A nomination from Jane McDonald for Secretary of the committee was filed during the AGM, however illness within her family prevented Jane from continuing. James Pretsell then began in the role but found that time constraints prevented him from attendance. Meg Butler who began in December 2015 filled the position and is doing a splendid job.

The Treenet Symposium was held as usual in September and some volunteers were involved in assisting with registration.

The Creative Basketry Exhibition, a combined activity with the South Australian Basketry was held again early

Assemblage Opening.
Photo Jennifer Gardner

Photos Jennifer Gardner and Brian Richardson.
Assemblage opening day and exhibits.

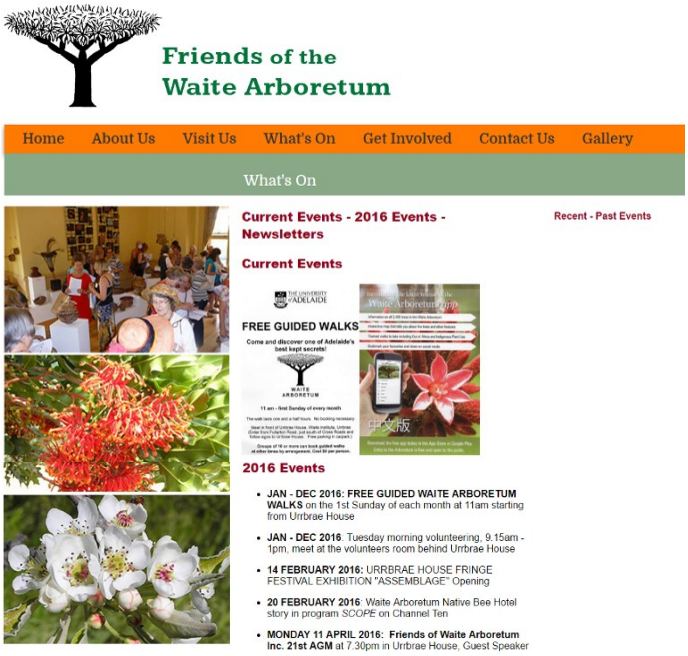
in 2016 and proved to be very successful. It was titled "ASSEMBLAGE" and the opening was very well attended.

Our hard working Editor produces very attractive, informative newsletters with considerable skill each quarter and is always complimented for the beautiful photographs which she takes (and gets others to take!) and reproduces within its pages.

One of the disappointments of the last year was the reduction in the Arboretum operating budget. It meant a reduction in the hours of work for the groundsman to 4 days per week. This makes for ongoing difficulty because the Arboretum is open to the public each and every day.

One of the items looming on the Agenda is the 19th World Federation of Rose Societies Convention, which will be held in Adelaide in 2021 when the Urrbrae House Precinct Garden will attract many of the attendees. This garden is a unique assemblage that traces the history and development of roses in the 20th Century and will be a source of interest to visitors during, and in the years leading up to the Convention.

One of our committee members, Terry Langham, continues to maintain the Friends of the Waite Arboretum website and provides up to date information and new photos. Remember to look at www.communitywebs.org/friendsofwaitearb/ for all the latest news.



Screenshot of part of the 'What's on' page of the Friends of the Waite Arboretum website.

Last but not least is the anniversary of thirty years of employment of Dr Jennifer Gardner as Curator of the Waite Arboretum that will occur in May 2016. No one can doubt the commitment that Jennifer brings to her job as Curator. That is evident to all of the people who have dealings with the Waite Precinct. While her expressed wish is that this date should pass unnoticed, the Friends committee think otherwise and have planned to hold an afternoon tea celebration to be held in Urrbrae House on Thursday afternoon 5th May.

It has been a privilege to serve as President to this organisation. There is an ethos which pervades the precinct, brought about I suspect by the history first created by the generosity of the original Waite gift and continued by the ongoing generous gifts of time, skill, dedication and commitment from the many who make up the community involved.

Beth Johnstone OAM

NEW MEMBERS

We warmly welcome the following new members:

Erica Boyle & Lafosse Family, Frewville
Mrs Lindy Dugard, Campbell, ACT
Margaret Horgan, Wayville

IN THE ARBORETUM - FROM THE CURATOR

Students from Northwest Agriculture & Food University, Yangling, China at the Arboretum Photo J. Gardner

In February 23 students accompanied by two lecturers from Northwest Agriculture & Food University Yangling, China were taken on a guided walk of the Arboretum on their first day of a two-week visit to the Waite Campus. Our first stop was the Blue Gum where two koalas obligingly looked down at the beaming visitors. That afternoon all the year 12 students from Concordia came in successive groups to do a meditative walk of the labyrinth at the start of the school year.

On 25th February I gave an overview of the Waite Arboretum as the opening address to the Parks and Leisure Australia 'Managing Trees in a Changing Climate' all day seminar at Waite. Following my presentation four Arboretum guides and I conducted guided walks in the Arboretum to highlight some of the species I recommend for our urban forests of the future. Delegates also had an opportunity to explore the Arboretum on their own using the Waite Arboretum App which was well received.

Basketry SA and the Friends of the Arboretum collaborated for the fifth time to mount the attractive biennial Fringe exhibition 'Assemblage' 14 – 28 February. Congratulations to the organisers on another very successful event, not only for the funds that it raised but also for attracting new visitors to Urrbrae House, gardens and Arboretum. Thank you to all the volunteers who staffed the exhibition and warmly welcomed the visitors, and to the Arboretum guides Jenny Birve and Graham Bald who developed and took a themed walk 'Discover natural materials used in basketry and allied arts' to complement the exhibition.

On 13th March, the Palm and Cycad Society (SA) held a working bee to plant more palms and cycads purchased from the Fletcher collection. Over the summer three members Heinz Froehlingsdorf, Philip and Joyce Kaddatz have made fortnightly visits to water and weed the collection, Philip and Joyce driving all the way from Lyndoch. Their assistance is greatly appreciated.

Palm and Cycad working bee, well-deserved coffee break. Photo Jennifer Gardner

Tim Ekberg from Myrrhee visited the Waite Arboretum 17-18th March on an acorn collecting expedition. He collected 376 seeds representing 21 taxa of oaks to share with other Victorian tree growers and oak enthusiasts in the International Dendrology Society. 100 seeds of our *Schotia brachypetala* were posted to the National Arboretum in Canberra for their 'Arboretum in Miniature' bonsai project. In April, Therese Turner, Coordinator, Horticulture, Royal Botanical Gardens, Melbourne and colleague Philip Bowyer-Smyth visited the Arboretum to collect material and ideas. They were particularly interested in South African species and Australian plants for future climate.

The Mediterranean Garden Society held their first working bee for the year in the Garden of Discovery on 10 April. With their care the garden is flourishing.

On 14th April I gave a presentation on '*Waite Arboretum - Past, Present and Future*' in the Botany section of the 2016 NRM Science Conference at the University of Adelaide. It was one of 285 presentations over three days and the conference attracted over 1,000 attendees. As there were many concurrent presentations, all were live streamed online, and podcasts of all will be available soon as an ongoing resource for the NRM (Natural Resources Management) community.

The Arboretum shared a stand with Treenet at the City of Unley's 'Mud Central' school holiday event at Ridge Park on 21 April. The purpose of the event was to encourage outdoor play in the natural environment. The event was a huge success with an estimated 4,000 children and their families attending. Activities included mud play, tree climbing, leaf painting and making wurlies with cut gum branches. Thank you to Henry Krichauff, Terry Langham, Diarshul Sandhu and Kate Delaporte who staffed the Arboretum stand, chatted to families and handed out material about the Arboretum, Waite Conservation Reserve, Urrbrae House, forthcoming events and volunteering opportunities.

Arboretum stand (above) and wurlies (below) at Mud Central event. Photo Jennifer Gardner

The C20th Rose Garden has been looking spectacular over summer thanks to the dedicated efforts of the Tuesday morning garden volunteers (including Nettie Davidson who has just celebrated her 90th birthday!) and I thank Neutrog for their on-going donations of product.

The completion of the long awaited refurbishment of the C20th Rose Garden ponds is imminent, with the addition of bubblers, elegant stainless steel safety grills designed and constructed by well-known sculptor Silvio Apponyi, and new capping of Kanmantoo stone. The project has been funded by The Friends of the Waite Arboretum and a grant from the Rose Society of SA.

On **Sunday 29 May**, Waite Arboretum, along with over 60 Botanic Gardens across Australia and New Zealand, will participate in the **Inaugural National Botanic Gardens and Arboreta Open Day**, with guided walks of the Waite Arboretum at **11 am, 1 pm and 3 pm**. Please come along and be part of this exciting initiative.

Jennifer Gardner

A glimpse of a landscape showing a small group of trees interacting in the foreground and a maturing stand of trees with closed canopy of foliage on the ridge beyond. Photos Robert Boardman.

Are we nearly there yet? - "How do trees know where they stand?"

"There I stood, rooted to the spot! Where will I go next?" My equanimity was shaken – what options did I have? This is not an uncommon human experience, one where we have to move on. Plants are almost by definition "rooted to the spot". A large group of trees, especially if of even age or mature are often called a 'stand'.

I have had an abiding interest in forest ecology, inspired by my biology teacher, who had been a student of Prof. Sir Arthur Tansley of Cambridge University, who is celebrated as one of the pioneers of plant ecology. My involvement with tree ecology began whilst at school with a 15-month study of an oak-wood near my home with a history extending back to Norman times. After graduation with a forestry degree, I was able to resume ecological studies in the U.S. with a forest ecology thesis aided by a special study, "The development of the yearly increment of new growth in trees". Forest ecology and this topic formed the particular landscape for the knowledge I acquired and used in my subsequent career. It was a neglected subject not least because the fact that growth is dynamic is rarely if ever considered to be a factor associated with trees, even specimen trees grown in parks and arboreta, and especially trees in the landscape at large. Trees consolidate their position gradually through subtle inter-relationships. In managed forest when the interval before crop replacement is measured in several decades, or more than a century, human help when it is needed is only intermittent. Timber is a renewable resource. As a forestry manager or an arboriculturist it helps to know where your 'bread and butter' is coming from.

Food is the clue. The food chain in trees is still dependent on those robust ancient metabolic systems from which food is created, first established

on Earth to support life more than 4 billion years ago. There is no escaping that this young Earth must have had abundant water and carbon dioxide. Three major groups of creatures have all diversified (through evolution), as bearers of DNA, but only since their creation. *Eukaryotes* released the brake on single-celled existence that prevented *bacteria* and *archaea* from becoming multi-celled like their successors. They were distinguished by a difference in cellular energy demand 5000 times larger in *eukaryotes*. It is so large a gap that the others couldn't bridge it for they lacked new factors included in more complex cells – mitochondria to make power, and also in plants chloroplasts to absorb power from sunlight. Before the appearance of two persistent groups of creatures, *bacteria* and *archaea* all these basic elements of nutrition occurred and operated in (unknown) creatures on Earth. Both these groups appeared more than 3½ billion years ago (and are still with us). They were created 2 billion years before *eukaryotes,* a third major group of more advanced creatures able to form multi-celled tissues and organs. This is use of nano-scale sized parts and mechanisms, incorporated into tissues (like xylem and phloem) and has been able to build the tallest trees measured between 115 and 120 m and a shape and of a size able to stabilize them over a lifespan of

A view inside a stand of eucalypts with a closed canopy but with trees all finding a place despite a wide range in size. Some are regenerated from seed that fell from crowns overhead. Note that shade extends over half the ground surface reducing sunlight. The shade path sweeps over an arc each day and shade also cools the ground to aid young seedlings in hot weather.

100 years or more. Two major kinds of *eukaryote* - plants and animals appeared and persisted, many are still current, e.g. trees and us. Further reading: *The Vital Question: Why is Life the Way It Is?* by Nick Lane, 2015. Profile Books.

Additional biomass is referred to as 'the annual increment', that is, tissue added layer-by-layer to add bulk to tree architecture - to trunk, branches and large roots and the mycorrhizal fungal root borne symbionts. There is also part that replaces short -lived tissues, leaves, noticeably, but also twigs and fine feeder roots replaced year-by-year. Strictly, this is defined as the Net Primary Production (NPP). The NPP is part of the Gross Primary Production (GPP); it is the part remaining when all the food powered by sunlight in photosynthesis used in assimilation of carbon dioxide (or methane) and water, C, H and O (the feed-stock); some few mineral chemical elements (which provide free electrons to swap in the process of building proteins); and lots of a complex molecule used purely for transport of proteins in food distribution (ATP – adenosine triphosphate) [ATP is tricky in that it has to be rebuilt at the end of each trip] and in respiration. To complete the list there is also the rarely mentioned vital process of excretion, the disposal of waste products. Trees as the largest components in forests or woodland discard several tonnes per hectare beneath themselves. Many of these substances are able to be broken down organically and reused. Breakdown into humus can double the concentration of CO_2 in air measured beneath forests to above 400 ppm (just like that alleged for human actions since the industrial revolution). This suggests that the degree of complexity achievable by the *eukaryotes* is awesome.

Trees in natural surroundings are rooted literally in the soil, forced to make their own food and excrete unwanted parts directly around them. Most of them also deposit their seeds over a trajectory linked to their weight taking them within a few tens of metres beyond their trunks; a few genera have winged seeds for winds to carry them further afield, or have sugar-laden coats that attract animals and birds to swallow them and, perhaps, dispose of them even further away. The most mobile element is the male sex factor, pollen. Trees mostly rely on wind to disperse pollen; true pines (genus *Pinus*), for example, each grain has two air sacs to help form a cloud of pollen in late winter. A few genera, like *Eucalyptus*, despite producing pollen from hundreds to thousands of stamens well exposed to the breeze, depend on animals baited by nectar, particularly moderate-sized insects, but also birds and animals to carry and deposit it on the stigma of separate flowers (zoophily). Whilst this can mean fertilizing flowers on another sector of a large crown of a dominant tree, producing self-fertilization, self-fertilization, though producing seeds with a lower capacity than cross-pollinated seed, can be a salvation for isolated trees to help the species retain its natural place in an ecosystem.

The first essential is sunlight, and since the radiation is absorbed, the more complete the supply of the spectrum of radiation necessary the better. Some genera are found in certain climate zones favoured by their DNA, that has responded through evolution with adjustment of canopy shape or number of leaves through mechanisms to survive extreme levels of solar radiation e.g. Eucalyptus shed branches to

retain an optimal amount of foliage but also naked buds for an instant response to favourable weather, or Spruces (*Picea*) reduce snow-break and extreme cold when frozen soils are in drought as much as arid ones.

Leaves collectively are said to form the canopy of an individual, and in a forest, by definition, the canopies meet and form a near-continuous 'forest canopy'. Canopies have depth over which the leaves are displayed on a radial network of primary branches. Both forms of canopy, single and collective, are subject to the shading from neighbouring foliage, either their own or from their neighbours; the impact of shading is weakened solar radiation. Crown depth on young trees can be similar to full height of the main trunk, but as trees grow taller solar radiation still penetrates but exhaustion of the supply of active radiation results in shedding leaves on lower branches. In a forest ecosystem this will produce open space above any under-storey plants able to survive on the meagre radiation left.

(Some may recall the professors of the Academy of Lagardo in *Gulliver's Travels* who were unable to extract the sunlight from cucumbers.) Expansion of tree size, therefore, is a question of what happens at the extremities of tree crowns and root systems. They sense where adequate supply of essential simple chemicals can be absorbed and distributed to processors within single cells located in the leaves.

The result, after a stable stage arrives, is that control becomes dominated by the short lifespan of the leaves themselves. The mass of foliage stabilizes but the forest continues to grows taller and amass substance. In effect, food production is scaled to maintain a near-optimum supply subject to the supply of CO_2, a few trace and nutrient chemicals and water, controlled by the weather, *not* the climate. Biomass allocation is provided through hormones acting on the normal system of deriving new cells for expanding tissues; wood, bark, phloem leaves and feeding roots consisting of meristematic cells. They are of two forms. One, the apical meristem, one to each shoot tip and root tip, is primary and multi-faceted. It makes new cells on all sides by mitosis. A sheath is formed in the sapwood by some of these first cells making a simpler secondary meristem of basic cells, *cambium*, which can produce new cells radially, inwards (mostly wood fibres for strength and upward water flow, and outwards, (phloem, to conduct food produced in the leaves), plus cork, to expand the stem circumference down the tree trunk and along branches. The bulk of a tree is produced from it. The one in the leading shoot (highest borne) is dominant. Thus the whole system at nano-scale level is highly dynamic, but being a plant static in place has its own hazards. It can be subject to risks that endanger the ever-present struggle to stay in full sunlight for long enough to build a crown large enough to flower and seed freely. Death of the leading shoot can be caused by the weight or bulk of large native birds in wind gusts, especially cockatoos, some species of which can do it through chewing mischievously. Other causes are deficiency in basic chemicals, of trace element zinc or nutrient phosphorus (for ATP production) and exposure to frost. Lower placed shoots can take over. Nevertheless, responsive parts of the tree all 'know' where they are.

It follows that this stable state will continue until gaps, moderate and large gaps in particular appear in the canopy. Stimulation follows and more rapid progress can made. Gaps can be caused by many drastic factors - lightning strikes, soil erosion, avalanches, minor whirlwinds, snow-breakage or death of weaker members of the population, especially in droughts, or attacks of leaf blights or quiet stages of bushfires. Not least, is interference by humans, thinning out the trees following silviculture practice to enhance growth and value of the more desirable individual trees. All gaps allow more sunlight to enter the forest canopy. Not only is solar radiation arriving in shafts of parallel rays but the parts of the active spectrum consists of many specific, narrow frequencies in the colour range, infra red through to ultra violet. Parts now exposed initiate extra activity. There is priority control through plant hormones on how the additional food supply is distributed as growth of twigs and roots respond and generate more growth on major branches to occupy the space that has become available. Moving on means all systems have to be functioning as normal.

Flowering and seed production carry a special burden. To promote and achieve it an ample supply of energy has to be reached from a surplus of NPP. It amounts to between 10 and 15 per cent above the stable contribution for regular maintenance. At the fringes of a species range where latitude affects solar radiation, or where droughts or cloudiness can prevent optimum NPP biennial crops are usual called 'mast years'; accumulation of sufficient surplus can take up to a decade. Whether further progress can follow another period of stability in the size of the canopy appears to depend on age. The natural priority tends to favour the most fertile individuals as do foresters using natural seedfall for regeneration.

In conclusion, a lifetime journey of long-lived species consists of several stable stages interrupted by transitional periods of enhanced development. Study of their pattern of increment show that stable stages in trees are partly dependent on age reached and in part on newly-activated genetic traits. The journey reflects closely the lifetimes of most Earth's living creatures, including us. Hazards exist and the risks show, alas, that the world is still full of insurmountable opportunities. In Nature to travel is more important than to arrive. Robert Boardman

Report on the AGM

Forty people attended our Annual General Meeting on Monday 11 April in the drawing room of Urrbrae House. President Beth Johnstone welcomed everyone and presented her report which is printed elsewhere in this newsletter. Treasurer Peter Nicholls presented the annual audited financial statement. He noted that profits from events held during the year raised $5,325.55 and membership is steady.

Nominations for the incoming committee were received. Retiring members Norma Lee and Henry Krichauff were thanked for their service to the committee. Henry was awarded Honorary Life Membership acknowledging his service to the Friends as an arboretum guide, Past President and 10 years on the committee. Mary Tester, a founding member of the FWA committee, its first treasurer and arboretum guide, together with Marion Wells, founding member and President of the Friends of Urrbrae House and a great contributor to the establishment of FWA were also awarded Life membership. Unfortunately neither was able to be present to receive their awards.

During supper, the newly formed committee met to elect the following office bearers:

President – Beth Johnstone
Vice –President – Marilyn Gilbertson

Secretary – Meg Butler

Treasurer – Peter Nicholls

Newsletter editor – Eileen Harvey

Ex Officio – Dr Jennifer Gardner

Following the formal meeting procedures Viesturs Cielens , landscape designer, spoke about a project , "**Time, Spirit and Place**" , which had a profound influence on his work especially the landscape work around the Urrbrae House Historic Precinct which began some 20 years ago and still continues in the garden of Discovery and the 20th Century Rose garden.

The project, undertaken in the late 1980s, involved research and photographic documentation of 11 women and their gardens which were located in and around Adelaide. It culminated as an exhibition in the now closed Kensington Gallery.

Viesturs used excerpts from a presentation he had made in Melbourne last year about the project in which he combined music, poetry and photographs to capture the essence of the gardens;

time - a particularly important ingredient in the making of a garden - about 20 years are needed for a garden to develop a spirit of its own but it never ends,

spirit - every garden begins with some energetic driving force in its creative process, the partnership between human spirit and nature and

place, the unique result of these elements.

The final garden shown was that of Mary from Moonta who commenced her garden when she was 65yrs old and left after 22 years. The garden still remains the property of the Moonta National Trust and is set around the original Cornish brick maker's cottage circa 1870. Her garden is symbolic of the spirit and culture of everyday women.

In conclusion, Viesturs said that this story represents the spirit which Jennifer Gardner, her Director 20 years ago, Professor Harold Woolhouse, architect Susan Phillips, the seven project artists, the university community and countless volunteers, have brought to life the reimagining and care of the gardens of the Urrbrae House precinct and Waite Arboretum.

"I consider Urrbrae House one of the most important garden precincts in South Australia and it is one of my favourite projects of over 40 years of garden making."

Marilyn Gilbertson

C20th Rose Garden, view to the Coach House.
Photo Lynette Zeitz

FRIENDS OF THE WAITE ARBORETUM NEWS

Assemblage

The exhibition, Assemblage, presented by Basketry SA with the support of the Friends of the Waite Arboretum and held in Urrbrae House during the first two weeks of the Adelaide Fringe Festival was a resounding success.

A huge crowd attended the first afternoon of the exhibition which was opened by Janine Mackintosh, a botanical assemblage artist who lives and works on the wild south coast of Kangaroo Island. Her art practice sprang from the study of the plants on her property. She uses the traditional preservation techniques of museums and herbariums to distil and draw attention to the details that she finds in the landscape. (www.janinemackintosh.com.au) Janine spoke highly of the delightful exhibits and of the creativity of the artists. "I love the title, "Rescued from the compost heap". Really all of the beautiful work in the exhibition has been made from things rescued from life's giant compost heap. There are myriad plants, from land and sea; animals; snake ribs, penguin wings, emu feathers, cockatoo claws, barramundi skin; and the most beautiful transformation of junk mail I've ever seen. Assemblage artists (and basket weavers) want to awaken people's senses, to share what they've seen in a grass stem or the pattern of a feather. These things have evolved over millennia; they each have unique characteristics which need to be understood if you're going to work with them. These artists have tuned their eyes over the years; they see the world differently, always on the lookout for their next inspiration".

"I'd like to congratulate all of the 29 exhibitors, for their sense of discovery, their love and respect for their chosen material and for bravely sharing their creative universe with us".

Prior to the opening an enthusiastic group had a guided tour in the arboretum which focussed on plants that provide materials suitable for creative arts. Janine joined the group and was very impressed with the research that had been conducted by the arboretum guides in preparation for the walk. The Fibre Walk will soon be added to the free Waite Arboretum app.

Over 850 visitors came to see the exhibition. In spite of several very hot days, the average daily attendance was approximately 50. The exhibition brought many people to Urrbrae House and the arboretum, a considerable number for the first time. It enticed people to explore the arboretum in search of the Native Bee Hotel and botanic features on the prepared Fibre Walk. The gardens and labyrinth also generated much interest.

The event was a financial success, too. Many lovely items were sold realising a healthy commission for the Friends.

Photos Jennifer Gardner and Brian Richardson.
Assemblage opening day and exhibits.

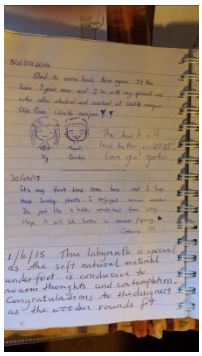
Congratulations to members of Basketry SA for presenting the exhibition. Thank you to the volunteers who helped on the supervision roster. A special thank you to Dr Jennifer Gardner who very generously donated her time over the five weekend days when the exhibition was open, saving the need to hire an event person for those hours.

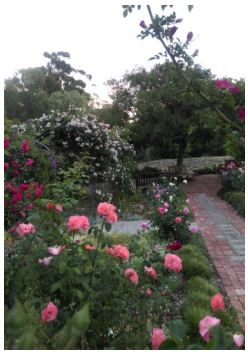
We look forward to working with Basketry SA again in the future.

Marilyn Gilbertson

WAITE ARBORETUM LABYRINTH VISITORS BOOK

Jennifer Gardner's 2010 designed and constructed Waite Arboretum Labyrinth is continuing to provide a social history of the many visitors to the labyrinth, the gardens and the arboretum through their captivating comments written in the Waite Arboretum Labyrinth Visitors Book.





Photos Terry Langham (left and centre), Meg Butler (right))

Words of romance, sense of humour, peace and calmness, appreciation, happiness and reflection can be found in many of the comments in the Visitors Books by both adult and children visitors.

"International World Labyrinth Day – The first Saturday in May. "Walk as ONE at 1". The beautiful wave of peace moves around the globe as people walk the labyrinth at 1pm in their respective time zones. What a lovely space this Waite Arboretum Labyrinth offers for such a walk. Many thanks" 5/5/2012).

Sylvia walking the Labyrinth. Photo Terry Langham

"I came here to find some peace and reassurance and I did. Not in the labyrinth but in the pages of this tiny brown (Visitors) *book Thank You"* (20/3/2013).

"I live close by and visit the gardens and labyrinth often. I always feel peace and calm and a sense of being restored and reconnected to nature. I love these gardens so much. Thank you for keeping them beautiful and available to the public. I love walking around here every week almost". (Fiona, 10/1/2015).

"Today I discovered that this labyrinth could be a maze! Depending on the choices you make!" (Jennifer, 4/4/2014).

"The garden rule of all mazes: go left!" (Daniel, 5/12/2012).

"This is so pretty I want to have my wedding here" (Tia, 11 years old, 21/12/2011).

"Our one year old walked in the labyrinth today, with a little help, I liked that" (Mark, 27/6/2010).

"When you were looking from an angle the Labyrinth looked a bit scary" (Alex 9 years, 29/9/2014).

"A perfect place to bring the boyfriend! So romantic and lots of secret places to go. Many memories made here" (Jamie, Dec 2013).

Photo Jennifer Gardner, Outdoor Playgroup

"We came from Germany and love this labyrinth" (Linda and Sophie, 8/9/2012).

"I will soon be 80 years old. I am very troubled and angry! This tranquil place makes me feel better and not alone. I shall have my lunch now and come again very soon. Thank you very much" (AJH from Yorkshire, 27/3/2014).

"Enjoyed skipping along the labyrinth. Though it was cold it warmed me up. Thank you to all the volunteers who maintain the labyrinth" 8/5/2015).

"My boyfriend took me here and he proposed!" (Jasmine, 12/12/2011).

"Love it just the way it is (re-statement 10-6-2010). My husband went one way, I went the other & we ended up in the middle together & laughed. That's what it's all about!" (Highgate, 13/6/2010).

"End of the world my ass. I came here to die but I live this place is heaven on earth" (Dillon, 23/12/2012).

"The days went by very fast in Adelaide. But it was easy to escape all that by sitting on a certain bench staring into a certain labyrinth. The labyrinth of Waite held some unusual secrets. Why are the logs in such a spiral pattern? Why does the sawdust glow

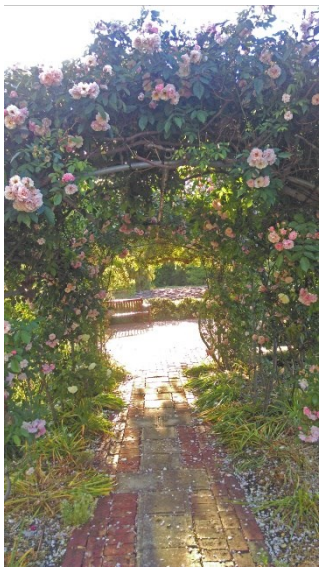
orange in the sunlight? What does the grass that grow on the logs so green? There are some questions that can never be answered! And this question is one of them" (Kate aged 11, 23/4/2012).

"What's with the creepy clover" (9/10/2014):

"Dear Visitor, The beautiful ground cover around the logs is called *Dichondra repens* or 'Tom Thumb' because of its tiny leaves. It is native to this area. '*repens*' means creeping. (Jennifer).

Dichondra repens, Autumn 2016. Photo Terry Langham

"Love the kookaburras. Many thanks to all the volunteers and workers who keep the gardens looking so beautiful" (Shirley, Dan, Peter and Catherine, 13/12/2011).



"A lovely twilight walk through the Rose Garden and Arboretum, sheer delight. A time to reflect and chat. Mother and daughter" (Anne and Amelia, 19/5/2013).

"Amused the children while I chilled out! Until they'd counted all the blocks!" (Paula, Cardiff, Wales U.K. 1/1/2011).

Rose Arch and Labyrinth, Spring 2015. Photo Meg Butler

"A wonderful place see ya when I grow up I want to work here!" (Lilli, 8/8/2011).

"Impressed with the symmetry" (Grace, 1/2/2010).

"A wonderful reflective walk with many birds around - ! Long and thoughtful wander in then a quick & positive return. Thank you for the construction of the Labyrinth. And these wonderful grounds. Oh for the foresight of the early settlers and those who maintain it all – many stories and history unfolds" (Nicky, Mt Torrens, 30/6/2012).

Dichondra repens between the timber rounds, Spring 2015. Photo Meg Butler

"Absolutely stunning early in the morning with its long shadows of filtered light & bird songs" (Huss, 21/1/2013).

Labyrinth looking east March 2016. Photo Terry Langham

"In pondering how to present the results from my experiment, I decided to take a walk of happiness upon this labyrinth. That felt kind of like a strange coincidence to me" (Jessica, 16/9/2014).

Labyrinth and flowers, Spring 2015. Photo Meg Butler

Visit the Friends of the Waite Arboretum website www.communitywebs.org/friendsofwaitearb to read further visitors' comments.

Terry Langham

AUTUMN IN THE ARBORETUM

Brachychiton acerifolius, Illawarra Flame Tree seedpods hold seeds and sharp bristles. Origin NSW, Qld.

Belah, *Casuarina cristata* suckers and clonal stands may form. The cones carry pale, winged seeds which are an important food source for the threatened Glossy Black-cockatoo. Origin NSW, Qld.

Ficus benghalensis, Indian Banyan, produces aerial roots which grow into woody trunks. Ancients trees can have very many trunks and cover huge areas. Origin India.

Marri, Cory*mbia calophylla* has very large buds and fruit. The attractive timber is used mainly for fine furniture crafting and flooring. Origin WA.

Illyarrie, *Eucalyptus erythrocorys* has buds with red caps, spectacular flowers and large helmet shaped woody fruits. Origin WA.

Grewia optiva is a small deciduous tree. Leaves are fodder for livestock, the small fruit is eaten, the wood is strong and elastic and is used for making cot frames, axe handles, oar shafts, spears etc. Origin Himalaya.

Eriobotrya deflexa, Bronze Loquat has bright red-bronze new leaves. Small white, fragrant flowers are produced on terminal panicles in spring and are followed by small, inedible fruits. Origin Taiwan, China.

Celtis philippensis, is a deciduous medium sized tree with alternate simple leaves. The fruit is a small edible drupe. Origin Asian region.

Trithrinax brasiliensis, Spiny Fibre Palm fruits prolifically in autumn. It is endangered because of forest clearance for grazing. Origin Brazil.

Pistacia chinensis, Chinese Pistachio. The female tree produces colourful small fruit. Oil from the seeds is used for biodiesel production in China. Origin China, Japan, Philippines.

Eucalyptus kruseana, Bookleaf Mallee has tiny, round, blue-grey, stalkless leaves and greenish yellow flowers in clusters of 7 at the bases of the leaves. Origin WA