



NEXT CLUB MEETINGS

Green Square Community Hall
3 Joynton Avenue Zetland

7pm Tuesday 13 December 2016
Christmas meeting.

7pm Tuesday 14 February 2017
Club workshop.

CONTACT DETAILS



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COMMITTEE

Patron	Dorothy Koreshoff
President	Bryan
Vice President	Sue
Secretary	TBA
Treasurer	Chris
Newsletter Editor	Roz
Librarian	Les
Committee	Lee & Frank

MEMBERSHIP

Full Membership	\$40
Concession	\$25
Family	\$55
Pensioner	\$25

SCBC wishes to thank Sydney City Council for their continued support for our club by providing the hall at a reduced rate.

No SCBC meeting in January!

December meeting

- Christmas get together – bring in a plate of food to share. Please don't over cater as we want to minimise wasteful leftovers. SCBC Committee will supply beverages.
- Bring in a decorated bonsai using a theme from a well known movie, song, book title or saying. See if members can guess your decorated tree theme. A Christmas theme is OK too!
- Participate in our Christmas Clearance Sale (see below for more details)
- No workshop this meeting



Have fun at this year's SCBC Christmas Party!

It really does not take that much effort to theme a bonsai with a well known movie, song, book title or saying and everyone will have fun working the themes out.

In this Issue:

- Laurie Carroll Demonstrates Grafting Techniques including Thread Grafting and Side Grafting – page 2, 3 & 4
- Holiday season Must Do's and Bonsai Maintenance – page 6
- Bonsai Events Calendar

Christmas Clearance sale!

We all accumulate bonsai stock and pots throughout the year. Here is an opportunity to offer excess bonsai stock and odd pots for other members to buy at bargain prices. Nothing can be over \$25. Members can contribute sale items with a 10% commission to the club. Cash only, please.

Reminders

Car Access to Green Square Community Hall: You need to enter the car parking area via Portman Street.

No SCBC meeting in January: Have a happy festive season and see you all in February!

LAURIE CARROL GRAFTING TECHNIQUES

Laurie Carrol Demonstrates Grafting

Laurie Carrol is a professional horticulturist who has gained extensive experience in grafting techniques particularly Camellia. At the November Illawarra Bonsai Club meeting he demonstrated two grafting techniques:

- a. thread graft on a Liquid Amber; and,
- b. side graft on a pine.

Here are a few terms to explain the approach graft operation:

Scion– The new branch used for grafting

Stock– The branch/trunk onto which scion is grafted.

Graft union– The point where Scion and Stock are attached.

Cambium- The area of the scion and stock that have to meet to achieve successful graft.

Approach and Thread Grafting

Approach and thread grafting is when you use two self sustaining branches and fusing them together. Laurie explained that with approach and thread grafting you can attach a growing seedling or take a long branch from one part of the same tree attaching it to another part of the tree. The nice thing about approach and thread grafting is that both branches are still being feed so there isn't any water flow cut off.



Maple thread graft

The chances of a successful union are much higher and reliable with an approach graft compared to a free graft where the new branch or shoot is made using a scion completely removed from the donor plant prior to grafting. The best time to do an approach or thread graft is during the growing season.

The fact that the scion is supported by its donor until the graft has taken makes approach and thread grafting much safer.

Demonstration of Thread Grafting

In thread grafting a hole is drilled through the trunk (or another position where a new shoot is needed); the scion (new shoot) is then threaded through the hole and fixed into position. As the scion and the trunk continue to grow they swell and are forced together; eventually grafting together.



Tree to be grafted. Note small seedling in purple pot grown from cutting of same plant

Suitable shoots to be grafted will be long and supple enough to be bent over and threaded through the trunk. The scion can be from the same tree or from another plant growing in a different pot. However, for the scion and the tree to be grafted, they must be of the same genus, i.e. an Acer and another Acer or an Elm and another Elm.

Theoretically, thread grafts can be made at most times of the year but midsummer is best as growth of the scion and healing of the graft will begin immediately and strongly.

1. Remove all leaves and petioles (leaf stalks) from the scion branch. Take great care not to damage the tiny buds in the leaf axils as these will be required to leaf out when the graft has been made.



Laurie is carefully removing the leaves ensuring that the small leaf buds at the base of the leaf stalk are not damaged.

2. Drill a hole through the trunk; it is safest to use a thin drill bit to make a pilot hole followed by progressively larger bits until the hole through the trunk is very slightly wider than the scion shoot to be threaded. Though too large a hole will increase the amount of time it takes for the thread graft to successfully take, too small a hole will cause damage to the scion or the new buds on the scion.

THREAD GRAFTING *CONTINUED*



Start the drilling from the exit side, where the branch is finally proposed. Use a small drill first. If the hole is not big enough to get the scion through without damaging it, then increase the drill size.

Start the drilling from the exit side of the trunk so that the final position of the graft will be in exactly the place you intend the new branch to be. The position of the entry hole (that is where the feeder plant is located) does not need to be precise. However, bear in mind that once the graft has taken and the donor side of the scion is removed, a small scar will be left. For this reason, try to make the entry hole at the back or side of the trunk where it will be out of sight of the front, if at all possible.

Though not essential, try to make the exit hole higher than the entry hole. The scion shoot will still be apical; if the shoot faces upwards, the side to be the new branch (at the exit of the hole) will bud out and grow more strongly than the entry side.

3. Thread the graft through the hole you have made, slowly and carefully. Particularly with soft-wooded shoots, try to pull the shoot through rather than push it, if possible. This helps to stop the shoot buckling as it goes through the hole.

To ensure the new grafted branch will have a short first internode, position the graft so a bud (node) is a short distance from the exit hole. Leaving a long distance to the first bud will mean that in the future, the first secondary branch will be a long way from the trunk.



The graft is carefully threaded through the hole and positioned so that there is a short distance to the first bud. Also the graft is positioned so that the new potential shoots are not orientated downwards.

It is important to make sure that threaded shoot does not move within the hole. The hole has to be big enough to get the thread through without damaging the tiny petioles but not so big that the thread is able to move within the hole as this will mean that the union will take longer to graft together.

4. Once the thread is in position with its short internode and shoot facing upwards, you need to seal both entry and exit points with cut paste.

5. Feed the tree well to encourage strong growth. Remove any new growth on the entry side of the thread graft to encourage maximum growth on the exit side. Do not prune the thread grafted as this will slow thickening. At first the new thread graft supports itself entirely. As the graft and the graft hole thicken, their cambium layers are forced together and start to merge. As they merge, the thread graft begins to be supported by the trunk as well.

6. With the extra energy from the trunk, the exit side of the scion starts to grow and thicken faster than the entry side, eventually producing a pronounced increase in diameter. This indicates that the scion is being fully supported by the trunk in its new position and can start being removed. The graft will need to be in position for one to two years. The thread graft will only fail if the scion is separated from the donor too early.

This method is suitable for deciduous and broad-leaf trees but not for coniferous species as complete defoliation of the coniferous scion will result in failure.

DEMONSTRATION OF SIDE GRAFT

Demonstration of side graft

Laurie explained that it is critically important to use very sharp clean tools for grafting. This is because you need to make clean cuts so that you can match the green cambium of the scion to the green cambium of the understock. If this matching does not occur, then the graft will fail. The cambium lies just under the bark of the tree and it is responsible for the active growth of the tree.

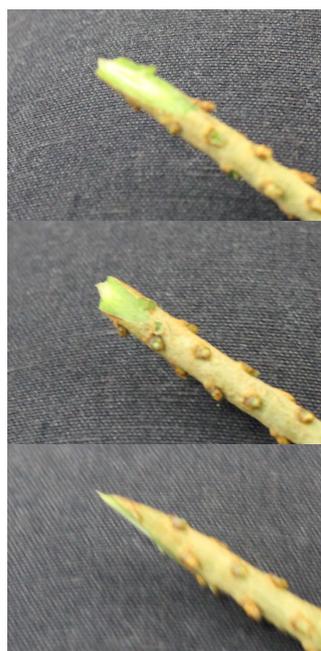
The trunk of tree (the stock) must be thicker than the scion. You can only use stock and scions from the same genus.



Laurie makes an angular cut into the side of the trunk where you want the new branch to form



Using a very sharp grafting knife Laurie cuts one side of the scion longer than the other. The long side will go on the inside of the tree whilst the shorter cut goes on the outside of the tree.



Firstly, for the scion you need to select growth about 3 cm in length that has just about hardened off from a healthy tree. You must have healthy growing wood because the scion must be able to survive at least a month. You need to remove the bottom needles. Next at the bottom end of the scion, make two slice cuts, one longer than the other. The long side of the cut will go on

the inside of the tree, the short side goes on the outside.

Next using the stock trunk, make an angular cut into the side of the trunk where you want the branch to form.

Now insert the freshly cut scion into the side cut making sure you match the two cambiums. Once in place, firmly secure the graft union by wrapping budding tape around the union and tying it off. You must cover the entire union above and below the union. Budding tape is preferable because it stretches and ensures that there is no movement of the union. You then cover the whole area up with aluminium foil to keep the light out.



Insert scion into side cut making sure cambiums match



Graft union by wrapping budding tape around union securely then cover with foil

Finally you need to make a small plastic "igloo" and seal it over the pot. While you see moisture on the plastic, respiration is occurring. You only need to water once per month. With pines you usually get about 45% success. Laurie did two side grafts on the same tree. He said that you should never do more than 4 grafts on a tree at any one time as numerous grafts compromise the health of top of the tree. You may have to wait 6 to 12 months for a pine graft to take. Your best indicator that the scion has taken is when new growth has just started to harden. Side grafts of trees such as Crab apple and maples are much faster and take in about 80-90% of the time when the technique is properly applied.

See

<http://www.bonsai4me.com/AdvTech/ATApproachGraftingforBonsai.htm> for detailed information on the technique of approach grafting.

TRUNK THICKNESS TO HEIGHT

Trunk Thickness to Height

How can you tell if a tree is too tall for the thickness of the trunk. Should it be shortened and if so then how much?

The amount it needs to be shortened will be based on the type of tree and its style. The proportions on a bonsai need to be balanced and all of the elements of the tree must be in proportion to each other. Doing this makes the tree appear logical to the viewer. The proportions must reflect what you would expect to see in nature.

It is normal to see large diameter branches lower on the tree and thinner up at the top. They must be in scale with the size and diameter of the trunk.

The rule of thirds shall apply when designing and styling a tree.

- The lower third of the tree should be devoted to surface roots and to a proportionately tapered trunk.

- The middle third of the tree emphasizes the branching.

- The top third consists of finer branches and the apex.

- The trunk to height ratio should be 1:8 or 1:10 - this is a general ideal.

Example: A tree with a base diameter of 5 cm should ideally be between 40-50cm tall. This is purely for aesthetics and when developing trees as shohin, the rule of proportion still applies.

Aesthetic basis for trunk thickness to height ratio

For the bonsai artist, portraying a meaningful image of nature is not as easy as it might seem. Bonsai are not full sized trees out in meadows or on mountainsides. They are very small trees growing in pots and so the bonsai artist has to employ some clever and somewhat deceptive techniques in order for the tree to look "natural and old" in the pot.

When we look at an individual tree in nature we usually look up into the tree and from that perspective the branches seem to get closer together from the base to the apex. Our perspective exaggerates this impression and so it appears to us that the trunk has greatly decreasing inter-nodal spaces as our eye proceeds up

the tree. With our bonsai, we can slightly exaggerate this feature to further enhance the impression of great size or height.



Above: Far view of Scots Pines

Left: Near view of same Scots Pine

When presenting a single bonsai, the near view is usually taken. When we develop a group setting, the far view is more often taken.

Because our common view of trees (when we really look at them) is from nearby and from the ground, the largest part of the trunk, the base, is generally quite close to us. The upper portions of the tree are more distant and above us. This distance and almost ground-level perspective lends a distinct form to the trunk taper. The trunk seems to taper quickly and our perspective also exaggerates the trunk size, relative to the height.



The exaggerated trunk taper of this trident maple bonsai is indicative of a close perspective.

(Source: <https://peterteabonsai.wordpress.com/2012/06/12/the-trident-maple-project-and-summer-maple-work/>)

So by applying the principle of trunk diameter to height cited above we can work our bonsai to approximate the same perspective of looking up into a very old nearby tree in nature

HOLIDAY BONSAI & EVENTS CALENDAR

Holiday Season Must Dos!

- Consistency of watering is even more important now that we enter Summer. If you miss out on watering your trees just for one hot Summer day it could badly set them back. Its not the sun that kills trees, it is a lack of water.
- Protect your plants if you expect a 40^o day. You can cover them with shade cloth or half bury the pots in trays of moist sand or put them under the protection of you garden trees. Don't leave them on hard concrete surfaces or next to stone or brick walls in full sun. Mames in small pots can be grouped together in trays of moist sand/newspaper to keep the humidity up.
- If you are going on a holiday it is an idea to show the person who is responsible for watering your trees just how much water you do give them as they may be unaware how much water a bonsai does need. If you have an automatic sprinkler system set up, it is advisable that you still get someone to pop around every couple of days to check it is functioning reliably as the computer settings can play up from time to time.
- Leave any repotting until you have returned from holidays as it is the after-care that really counts. If you have to do an emergency repot (e.g. curl grubs or root rot) make sure you put the plant in a sheltered area or shade house with instructions to your "carer".

Bonsai maintenance-December/January

- Undo or cut wire that has commenced cutting into branches or trunk. Plants are growing fast at this time of the year so a regular check is a must. Keep pruning and pinching if you want to keep your plants in shape.
- Cut off the semi-hardened spring-growth candles of Japanese Black pines to stimulate the second wave of growth to get shorter candles and back budding. Leave any branch you wish to lengthen as part of your design. Don't feed until the new buds have hardened off and have a bit of length to them and then slowly feed at half strength.
- Defoliate healthy deciduous trees. You can get a brand new crop of smaller leaves more in proportion to the size of the tree. Remember to cut off the leaf and leave the small stem (petiole) so that the new bud is not damaged. You can defoliate wisterias, Japanese maples, Chinese elms, ginkos etc. However do not defoliate Crepe Myrtles if you want flowers. Alternatively defoliate the large leaves over a longer period. This is less stressful to the tree.
- Review your bonsai collection. Take photos of each plant; assess the next developmental steps for each tree and choose which plants you want to keep and which one's should go. Pots of cuttings, trees that are not performing as you would like them to, or if you have just too many can be brought to our club's Christmas sale for a nominal fee (under \$25) of which 10% goes to the club.

Bonsai Events Calendar

Date	Event	Details
20-26 Mar 2017	Bonsai Week, National Arboretum	Canberra. Guest demonstrator is Tony Tickle (UK)
12-19 Apr 2017	SCBC Royal Easter Show Stand – Bringing Bonsai to the Public	SCBC members and other bonsai clubs invited to participate. Enquiries: Chris – mcdent@optusnet.com.au
19-22 May 2017	National Bonsai Convention, "Art by Nature"	www.aabcltd.org www.bonsaisocietyqld.asn.au