



Shed Notes

Newsletter of the Woodcraft Guild ACT Inc

NEXT MEETING: WEDNESDAY 25 MAY 2011, 1930 - 2130

Venue: **The SHED**, Lions Youth Haven, Kambah Pool Road, KAMBAH ACT 2902

Making Curved Furniture

Jan Reksten, who will give the presentation at the May meeting, comments that “the topic of my talk is somewhat different from the subject of violin-making that I dealt with last time I gave a talk at the Guild. At the same time, there are some similarities between the two topics.”

“During my ten years in the Open Art Program at the ANU School of Art Woodwork Department, I tackled many and varied woodworking projects. Probably the most complex among them were the times I attempted to make curved (as opposed to rectilinear) furniture. Making curved furniture introduces a whole raft of new complications and challenges that don’t arise when making rectilinear furniture, especially if you then also incorporate moving elements, such as drawers, into the design.”

“My talk will attempt to explain and describe some of these challenges, and how I went about overcoming them, with particular reference to two pieces which I hope to be able to bring along with me on the evening.”



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PRESIDENT'S REPORT

National Folk Festival – 22 – 25 April

The Guild enjoyed another successful demonstration of its members' skills as "tradition bearers" at the NFF over Easter. Coordinator Maurene Grundy's cadre of volunteers demonstrated woodturning, pyrography, scrollsawing and carving, as well as selling members' woodcraft. Sales were good this year, and the Guild's marquee was busy. The new barcode system for sales worked well, and will be the standard for recording all future sales. Owen Stewart again led a hardy group of volunteers in the Community Arts area, where children were helped to assemble wooden helicopter kits, and even to have their name pyrographed on their completed toy.

2011 TWWW Show & Annual Exhibition – 2-4 September

Members helping to organise this year's Annual Exhibition met last week to coordinate their efforts towards another successful display as part of the 2011 TWWW Show. Individual members can also play a part – you can be a volunteer (help with demonstrations, sales, or raffle tickets); enter one (or MORE) pieces in the Exhibition; even offer some of your woodcraft for sale. All volunteers will receive complimentary Show entry.

The entry details for this year's Competition will be available shortly. Keep an eye on the Guild website and in the June newsletter for categories and entry details.

Fire Safety Awareness

Working with wood involves at least some risk of fire, which can be managed through good planning and care in your workshop. The same is true at the Shed, where we take steps to control dust, clean up wood shavings and scraps daily, and have fire extinguishers in key locations.

We recently invited the ACT Fire Brigade to take a look at our management of fire risks, and they offered several useful comments: check fire extinguishers every 6 months; have illuminated exit signs; store flammable liquids separately and securely; and conduct fire drills periodically to ensure shed users know how to respond in case of a fire. Your Committee is acting on all these points. Watch out – we could have a fire drill one day when YOU are visiting the Shed, so next time you visit, make sure you familiarize yourself with exit points and firefighting equipment! I hope that you will also seriously consider the above measures for fire safety in your own Shed.

New Equipment

The Guild has purchased a new JET 14" bandsaw which offers updated features, including better dust extraction. It will soon have a new Lenox bi-metal blade fitted, which should give users better performance and longer periods before sharpening is required.

Your Guild Membership Renewal for 2011-12

It is time to renew your membership in the Guild, and we seek to encourage timely renewals. We are offering to enter **ALL who renew by 30 June** into a draw for a \$100 gift certificate for the purchase of items from the Guild's timber supplies, our supply of aprons and hats, and even a refund of your membership fee, to the value of \$100 in total.

Dan Steiner, President

COMING EVENTS

Internal

Next Monthly Guild Meeting: - Wednesday 29 June 2011 at 1930, at the Shed

Presentation: Goulburn woodturner Andrew Gittoes will speak on "The design and making of an exhibition piece".

External

Next Triton Club Meeting

Wednesday 01 June 2011 at 1900 – Tool Maintenance, and Biscuit, Finger & Dowel Joinery. (For further information, contact Burn Alting on 6281 0432, or visit the club's website <http://www.tocact.org.au>)

Malkara Model Railway & Scale Model Exhibition

Saturday 06 ~ Sunday 07 August 2011, at Malkara Special School, Wisdom Street, Garran – the Guild will be represented by a modest stall, with all Guild proceeds donated to Malkara.

TW³S / Annual Guild Exhibition

02 ~ 04 September 2011 at EPIC – Our other major, and premier, event for the year. You should have already started creating your entries; volunteers to coordinate the Raffle, Demonstrations and the Exhibition itself (judges and entries) are still required – please see Dan Steiner, or contact Vivien Laycock (0438 877 711 viv_bungendoreart@bigpond.com) to discuss how you can help.

Marymead Fete

(Day TBA) November 2011 at Marymead, Narrabundah – the Guild will be represented by a modest stall, with all Guild proceeds donated to the Marymead charity.

EDITORIAL

Congratulations to the seven or so members who actually read the last issue of the Newsletter – at least to the extent that they took any notice of the article on “Reorganization of the Shed”, and raised it with me. For those who think it was an April Fool joke: it may have been presented that way, but it was based on a perfectly serious proposal by a senior Guild member – turners, take heed!

Editor



A selection of Lace Bobbins turned at the Monday Night Turning SIG, 09 May 2011

PRESENTATION POSTSCRIPT

This is a hand-out prepared by Brian Stewart to summarize his presentation at the April meeting:

Photographing Furniture – Some Tips

MOST IMPORTANT

Soft Light, not Hard

- Aim is to avoid harsh shadows – not always bad, but not usually good for furniture.
- A cloudy day is soft light – a sunny day is hard.
- A large, close source provides soft light
- A small, distant source provides harsh light (eg the sun)

Even Lighting

- Lighting at both ends / sides should be roughly the same.
- Position a large light source close to the subject; or
- Two large light sources on each side; or
- One large light source plus a reflector.

Lighting Equipment for Soft and Even

- No direct, on-camera flash.
- Flash must be diffused somehow.
- Reflective umbrellas; or
- Bounce (eg off white ceiling); or
- Large window (no direct sunlight) plus a reflector (no flash).

Sharp

- Good lens.
- Don't use too large an aperture – poor depth of field.
- Don't use too small an aperture – background too much in focus.
- Focus carefully.
- Tripod, or monopod, may be useful.
- Sharpness can be improved in software, but only up to a point - basic focus must be good.

ALSO IMPORTANT

Background

- Smooth surface – no lines, or wrinkles; suspend in a gentle curve; rest on hard under-surface.
- Neutral colour – preferably 18% photographic neutral grey.
- Keep object away from background, if possible, to diffuse background.

Good Colour

- Automatic “white balance” often does not give good colour.
- Good colour may mean setting your camera's white balance to suit the available lighting.
- Especially if you use a large window & reflector as light sources.
- It is easy to change white balance in computer software if you shoot in RAW format.
- RAW (if your camera has this option) allows the greatest degree of manipulation, but results in very large files, so you need a large-capacity, high-speed memory card (at least 16GB).

Perspective

- If you shoot down from an elevated position, you will distort perspective.
- Distortion can be fixed in some software programs (eg Photoshop), but there isn't a free lunch.
- Severe perspective corrections will lead to other distortions.

Get Back – Give Yourself Room

- Use a medium to telephoto lens (50 ~ 150mm) from a modest distance, not wide-angle close-up.
- A wide-angle lens can cause distortions;
- A wide-angle lens will need a very wide background;
- A wide-angle lens may bring the background into focus too much (too much depth of field).

Equipment

- Modern miniature “pocket” cameras can take good photos – **IF the light is right.**
- Ideally use a camera that can use external flash, and shoot in RAW format.
- Ability to focus accurately, and set white balance, are also fairly important features.
- These features tend to be found only in the more expensive pocket cameras.
- Good quality entry-level digital Single Lens Reflex camera, plus a separate flash, is better.

Brian Stewart www.cyberhalides.com & jazz.cyberhalides.com

FEATURE ARTICLES

ELECTRICAL SAFETY – POLARITY: ANOTHER HIDDEN PROBLEM

This is the fourth in a series of articles by John Armstrong.

As noted in the first article in this series (*Issue 276, February Ed.*), electricity comes in two forms: AC and DC. The mains supply to your house will be AC (Alternating Current). The other form, DC (Direct Current), will be familiar to you as the power supplied by batteries, which have an almost constant voltage and an indicated **POLARITY**: + (Positive), and – (Negative). With DC, it is usually critical that you install batteries with regard to their polarity. Frequently, the connectors differ so that you do not inadvertently make the wrong choice.

With AC, the voltage changes with time, and follows a sine curve, with alternating positive and negative values, so that to talk about polarity with AC is not a straightforward concept. Polarity with AC systems is really a concern that you do not make the wrong connections with the ACTIVE (or Hot), NEUTRAL and EARTH conductors. With these three conductors, there are six possible arrangements of the connections in a 3-pin plug, or socket (“powerpoint”). **Only one of these is correct.** Of the other five, the two possible arrangements where the Neutral and Earth are connected as supply points to a device will not work, because the potential difference (voltage) between Neutral and Earth is zero. The more serious problem with that arrangement, however, is that the metal case of the device will be LIVE, because the Active will be connected directly to it. If you have a fuse-based switchboard, all the other three possible wirings will operate, apparently correctly. If you have the circuits protected by RCD's, then two of those wirings will fail, as there is no current in the Neutral line. The final workable, **but incorrect**, wiring has the Active and Neutral **reversed**.

Before looking further at this problem, let's revise some of the wiring conventions.

The standard colours for home wiring used to be:

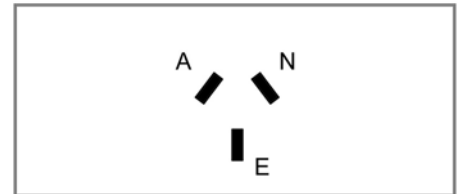
Active	RED	in lighting and control circuits (Switched Active could be WHITE)
Neutral	BLACK	
Earth	GREEN	

These colours had a major disadvantage, in that one of the most common visual disabilities is an inability to distinguish between red and green (“Red-Green Colour Blindness”). Consequently, the new European, and our Australian, standard is as follows:

Active **BROWN**
 Neutral **BLUE**
 Earth **GREEN** with **YELLOW** stripe

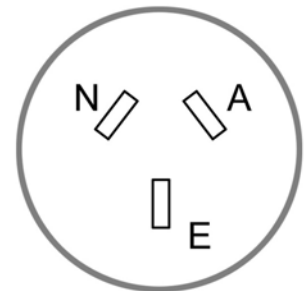
Wall Sockets (Previously called GPO - General Purpose Outlets)

The internal connections inside a power wall socket are not usually misplaced, as colours and letters indicate the correct connections. The upper, angled slots are for the Active and Neutral pins, and the lower vertical slot for the Earth pin of the standard 3-pin plug. The convention, looking from the front as you view the socket, in a clockwise direction starting at the Earth slot, is EARTH – ACTIVE – NEUTRAL as shown in the diagram.

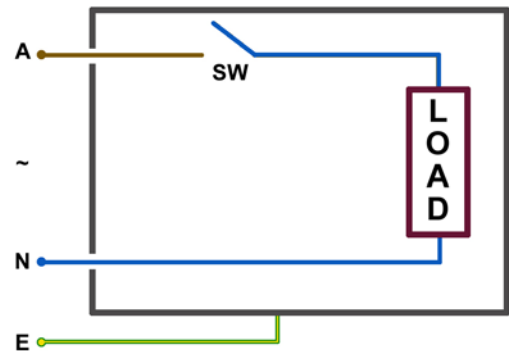


3 Pin Plugs

Nowadays, these plugs are transparent, so that the connections can be checked visually. Looking at the face of the plug (from the wall socket point of view), the convention starting from the Earth pin in an ANTI-CLOCKWISE direction is EARTH – ACTIVE – NEUTRAL. As this is the piece of equipment that you may have to change, it is vital that you make the connections correctly. Some plugs are well-marked with E, A and N, but with older ones you will need to rely on obeying the convention as shown in the diagram.



The problem, as noted earlier, is that reversing the Active and Neutral may not affect the operation of your device. So what is the difference? Let us look again at the diagram showing the typical layout of the connections in a portable device (*Issue 277, March, Ed.*). With the correct connections, the input Active at 240V (AC) stops at the switch, if it is open. At the same time, the Neutral at zero volts continues from its connection in the 3 pin plug into the device and through the Load (resistance) to the other side of the switch. So except for the short Active line up to the switch, everything else in the device is at zero voltage, including the metal case, which is earthed



If, on the other hand, the Active / Neutral lines are reversed, while the case is still at zero volts, **everything else, except for that short input to the switch, will be at mains voltage (240 V)**. This situation is known as ‘switching in the Neutral’, and clearly must be avoided. If you buy a second-hand device, I suggest you make sure the plug connections are correct.

These potentially dangerous situations are the reason why people are encouraged to always seek the assistance of a qualified electrician if they are unsure of the safety of electrical wiring, or appliances.

Many portable devices are 'double-insulated'. This means that there are two layers of insulation between the user and any live part of the device. **The earth cable must NOT be connected to this type of appliance.** Often the device will only have a 2-pin plug, which indicates that it is double-insulated. It will also have a symbol of a square within a square somewhere on the surface. One effect of this

system is to reduce the problem of incorrect wiring, as the earth conductor has been eliminated, and if the Active / Neutral connections are reversed, it will not effect the operation. (One wonders if this development was a 'this'll fix it' response to the problem of incorrect wiring.)

Next article - **Three Phase and Rural Power Supplies.**

John Armstrong 0413 021 669 j_s_armstrong@hotmail.com

TOOL STEELS

Members have frequently asked me about the various types of steel used to make cutting tools used in woodwork. I am no metallurgist, so I will offer a less technical explanation.

Steel is iron plus a small amount of carbon, which makes a tougher, stronger and harder metal. It also causes it to rust more readily. Most steels in use contain between 0.025% and 0.5% carbon. Tool steels, however, are in the range of 0.45% to 1.5% carbon, with additional alloying elements. These steels can be heat-treated to harden them, enabling them to hold an edge. The treatment process is in two stages (sometimes three), and alters the crystalline structure of the steel.

Firstly, it must be heated to a bright red colour (the actual temperature depends on the type of alloy), and then cooled (quenched) at a rate depending on the composition, either in water, oil or air. Quenching too quickly can cause steel to fracture, as I and another Guild member have found to our cost – in neither case did we know the composition of the steel before attempting heat treatment. Water-quenching steels are not commonly used for woodworking tools, although some may be suitable.

At this second stage the steel is brittle, and unsuitable for cutting timber. It must be tempered by heating it gently until an oxide colour appears – usually a light or dark straw colour – then quenched. Anyone who has pushed a tool too hard onto a bench grinder would know the blue colour which can quickly appear. This is beyond the straw colour range, and will anneal (soften) most steels. Correct tempering produces a compromise between hardness and toughness. I once purchased a chisel, sharpened it, and when I went to use it, the edge crumbled. Somehow, it had not been tempered. I removed the handle, and put it in the oven at 200°C for an hour. It came out a straw colour, and has performed well ever since.

Thirdly, it is possible to further improve the characteristics by soaking the tool in liquid nitrogen. This is known as ice or cryo tempering.

TYPES OF TOOL STEEL

One of the most common, O1, is an oil-quenching type, and is widely used for plane blades and cabinet chisels. A2 steel, which has a much higher chromium content than O1 (5% as opposed to 0.5%), is an air-hardening type, and is becoming more common, particularly in the better quality tools. Lee Valley/Veritas, who produce blades of both O1 and A2 steel, claim that their A2 blades last six times as long between sharpening as their O1 blades. Finally, there is the group of High Speed Steels (HSS), also air-hardening, which can stand being heated to red heat for extended periods without losing their hardness. These are the toughest and hardest tool steels – those with an M prefix are high in Molybdenum, and those with a T prefix are high in Tungsten. HSS, mainly M2, is used in turning tools, twist drills, jointer and thicknesser blades, and is becoming established in bandsaw blades. Two Australian companies use this steel: Harold and Saxon have begun producing cabinet chisels out of HSS; and Academy Saw makes HSS plane blades.

Hardness is most commonly shown according to the Rockwell (Rc) scale. O1 is normally hardened to about Rc59-61; A2 to Rc60-64; and M2 to Rc61-68, depending on the use to which it is to be put.

Terry O'Loughlin eclectus@grapevine.net.au

SPECIAL INTEREST GROUP (SIG) REPORTS

(SIG Coordinators: please note the deadline for newsletter input: 2nd Friday of each month.)

SIG MEETINGS

For details of normal SIG meetings, please refer to the Calendar on the Guild website at <http://www.woodcraftguild.org.au/calendar.htm>

SIG COORDINATORS' NOTES

Pyrography SIG: Please Note: The May Pyrography SIG has been moved from Sunday 04 May to **Saturday 28 May** (midday to 4pm) because of the clash with Mothers' Day. I did my best to find a date on a weekend, even if it isn't a Sunday, and I hope people can still come.

I would like to give a really big thank you to Adina and Briony Fitsimons for their time demonstrating pyrography at the National Folk Festival over Easter. Possibly our youngest guild members at 8 and 11 (I hope I got that right!), the sisters took the demonstrating seriously and enthusiastically as they engaged the public, and adapted to some awkward space issues. I hope they had a good time, and if the Guild is lucky, they may consider future pyrography demonstrating (given a bit more elbow room!). Also, thanks to Peter Bloomfield for working with the Toy SIG, pyrographing helicopters as part of the Community Arts Program for children. For a small SIG, it is nice to be able to add that personalized touch.

Vivien Laycock 0438 877 711 viv_bungendoreart@bigpond.com

Miscellaneous Items of Interest

GUILD TIMBER SUPPLIES

We still have some boards of Myrtle Beech (*Nothofagus cunninghamii*) available that would be suitable for box-makers. Don't forget that the Guild also has supplies of veneer in stock, so check those out before you pay top prices. A wide range of turning blanks is still available, for both spindle and face-plate work.

Two years ago, the Royal Canberra Golf Club felled some trees of Claret Ash (*Fraxinus oxycarpa*) which Graham Hargense brought back to the Shed on his truck. I then used the Guild chainsaw mill (donated by Bill Kerruish) to slab the logs into boards. These have been drying in the timber storage shed since then, so they are now dry and being processed for use. There are some very nice boards available, and Terry O'Loughlin is using some to make a small table for Tony Marburg, our certified Builder for the toilet block project. Boards will be available for sale at the next meeting.



We have also been processing some of the River Sheoak (*Casuarina cunninghamiana*), that was cut from the Federal Golf Club about two years ago. It is mainly lighter-coloured sapwood, some of which has had borers, but darker reds also occur.

Robin Cromer 6286 8568 robinandjill@bigblue.net.au

LANDSCAPE PAINTER WANTS WOODWORKERS FOR EXHIBITION

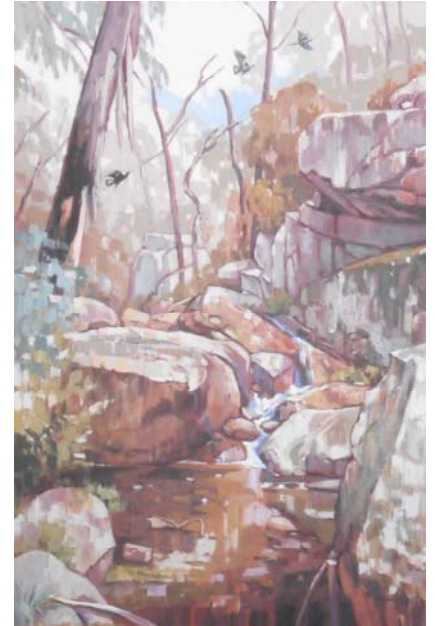
Jenny Sheppard, local landscape painter, invites woodworkers to exhibit with her at “The Q” Gallery in Queanbeyan from 5-17 October 2011.

Jenny has had seven previous successful solo exhibitions of paintings of local areas of Queanbeyan, Bungendore, Gundaroo, Jerrabomberra, and the ACT. She aims to capture the landscape with boldness of colour and sensitivity of light.

The title of the upcoming exhibition is “*From Jerra to Gibraltar*”, and includes the awesome landscapes in this area. Here are some reasons Jenny suggests you might like to exhibit with her:

- The combination of landscape paintings and woodwork would create a warm, inviting atmosphere to which people would be drawn.
- The subject matter of Jenny’s paintings is quite “woody”, so they would make a great backdrop to beautiful woodwork.
- You would be exhibiting at a new, classy gallery, for a minimal amount (Jenny will pay half of the costs).
- The more artists exhibiting, the more people are likely to come to the exhibition.
- It is a unique experience, and a lot of fun, to exhibit with other artists using a different medium.

All going well, Jenny hopes to attend the next Guild meeting at the end of May. She will bring a few paintings along and will further discuss this exciting idea, which she hopes may be an ongoing event.



Jenny Sheppard 6299 8670

FOR SALE

TOOLS: Various hand tools; moisture meter; pyrography pen; woodturner’s smock; power tools. Reasonable offers considered. Contact **Keith Voigt** on 6255 6447

BANDSAW BLADES



As advertised previously, we still have a number of bandsaw blades for sale to members. These still have good life left in them after some re-sharpening. They are mostly wide blades for a 21” bandsaw (see photo), and we would be prepared to accept offers starting around \$5 per blade.

See Robin Cromer, or Terry O’Loughlin, during Tuesday / Thursday sessions, or contact Robin on 6286 8568, or at robinandjill@bigblue.net.au

'WORKBENCH': There is an old 3' (915mm) x 5'6" (1676mm) government desk, with 3 drawers, currently parked at the back of the Shed, looking for a home. It has extensions to the legs which makes it once again a good work bench (for which it has seen faithful service for some 30 years!). Free to a good home, but a small donation to the Guild always comes in handy!

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GUILD MEMBERSHIP

Please see the Guild website at <http://www.woodcraftguild.org.au/membership.htm> for detailed information about Guild membership, or contact the Membership Secretary, Mike Nash, on 6262 5096, or by email at mike.carol.nash@bigpond.com

ABOUT THE NEWSLETTER

Members' Articles: Articles from members are very welcome, **providing copyright rules are followed and sources acknowledged.** Preferred format is in Times New Roman 12pt font, in an MS Word document, attached to an email. Articles will be published when space is available, and entirely at the discretion of the Editor, who may make editorial changes where necessary (especially if you can't spell). **NB:** If you are illustrating your article with images, please send them separately as JPEG files, so they can be adjusted to fit.

Deadline: 2nd Friday of the month (except December, when no issue is published).

Member's Free Advertisements: One free advertisement of 3 lines per edition.

Other Advertising: Queries regarding rates should be addressed to the Treasurer. Payment is by donation to the Woodcraft Guild ACT Inc, PO Box 1411, WODEN ACT 2606.

Editor