

Nuusbrief van die Houtwerkvereniging van Pretoria



Tamboitie

Newsletter of the Woodworking Association of Pretoria

Februarie

1999

February

Thinking Aloud

Have we ever thought about the amount of planning and organization that our esteemed committee have to go through to ensure that we, the members, are presented with an interesting and informative programme. Maybe, like so many other things in life, we just take it for granted that it will be interesting, that the venue will be arranged, that there will be refreshments and so on.

This year we celebrate our 10th anniversary. During this time the various committees have covered and arranged a vast number of product demonstrations, lectures, techniques and many other wood-related subjects. After ten years it could therefore be quite a daunting task to decide on the programme for this year and to identify the knowledgeable individuals or organizations to present the subjects. This problem is compounded by the difficulty of trying to satisfy the various needs of all members.

So let us, first of all, be grateful that there are members who are willing to give much of their time and effort to do this and, secondly, give them our support and encouragement. I believe that our 10th annual programme is going to be everything that we expect it to be.

Hierdie is ook die tyd van die jaar wanneer die nuwe komitee verkies moet word. Ek wil nou nie baie hieroor uitwei nie behalwe om te vra dat julle die AJV sal bywoon en dat diegene, wat daarvoor kans sien, hulself beskikbaar sal stel vir verkiesing tot die komitee.

'n Gewaardeerde dankie aan die lede van die komitee vir hulle onbaatsugtige diens.

Vlooi

NS: Ek het 'n medewerker gekry. Sy naam is Boorwurm. Hy's 'n oulike outjie met pittige sê-goed en allerlei wenke. Hy lees graag.

Boom = Stomp = Planke = Meubels !

Bogenoemde is meskien die alledaagse begrip wat ons van hout het. Min van ons het al 'n studie gemaak van die eienskappe en samestelling van hout waarskynlik omdat die onderwerp ietwat tegnies kan wees en dit daarom baie van ons afskrik. Tog is dit vir elke houtwerker belangrik om vertrouwd te wees met die medium wat hy/sy gebruik. Hoekom is daar harde- en sagtehoute? Hoekom verander 'n plank soms sy vorm? Hoekom is sekere dele van dieselfde boom harder as die res? Wat veroorsaak grein en hoekom is party bome s'n mooier as ander?

Hierdie, en nog baie ander vrae, word aangespreek in 'n reeks van drie artikels wat deur een van ons lede, Jack Munting, nagevors en vir Tamboitie geskryf is. Jack het baie moeite gedoen en probeer om die onderwerp interessant maar tog nie te tegnies voor te hou nie. Die eerste artikel verskyn saam met hierdie uitgawe.

Baie dankie Jack vir jou moeite en ons sien daarna uit om die artikels te lees.



Kennisgewings

Volgende Byeenkoms

Ons Februarie byeenkoms vind plaas op die 24ste by Buchels, Vermeulenstraat ingang. Die eerste uur sal deur die Algemene Jaarvergadering in beslag geneem word waarna daar 'n interessante demonstrasie en bespreking oor die aanwending en gebruikstegnieke van die skyfsnyer (biscuit jointer) sal wees.

Die AJV begin stiptelik om 18H15. Bring maar gerus 'n sit-ding saam.

Vogtigheidsmeters

Ongelukkig het ons nog nie die besending ontvang nie. Belangstellendes moet egter hulle name aan die voorsitter, Chris Serfontein, gee. Daar is voorlopig net 20 stelle bestel.

Wat sê die Tydskrifte?

From the Press

Good Woodworking: Issue 77

- * Turning your own tool handles
- * Blanket chest

The Woodworker: Issue 12

- * Embroidery cabinet
- * Sharpening a scraper plane blade
- * Step-by-tep guide to create antique pine look
- * Making card and folding tables

Traditional Woodworking: Dec 98

- * Turning: A candelstic with a difference
- * Lots of kid's stuff

Practical Woodworking: No 12

- * A nice plant stand
- * Routing Part 2: Grooves, rebates and housings
- * Jim Kingshot evaluates some sharpening aids and processes

Notices

New Members

A warm welcome to the following new members. We trust that your association with us will be an enjoyable one.

* *Richard Jenkerson* resides at 713 Lorna Street, Moreletta Park, and is a management consultant. He owns a Felder combination and a Kity lathe and is interested in furniture making. (998-9110)

* *Sakkie Hattingh* woon in Pretoriuslaan 230, Lyttelton en is 'n pensionaris. Hy doen iets van alles en besit baie masjiene, groot en klein. (664-6687)

Ongelukkig het ons nie op hierdie stadium die volle besonderhede van die volgende twee lede nie:

Nico Coetzee is woonagtig in Brooklynweg 350 Menlo Park en mnr *J. Gower* woon in Umkomaasweg 77, Elfinpark. Ons hoop om met die volgende uitgawe meer van hulle besonderhede bekend te maak.

Ledegelde

Neem aub kennis dat ledegelde vir 1999 nou betaalbaar is (R60). U kan dit by die AJV betaal of aan die tesourier, Carl van Rensburg, pos.

Annual Programme

The committee have advised that there are still a few technicalities that have to be tied up before the programme can be published. Hopefully this will happen in the next issue.

Should members have any suggestions for the programme, please let the chairman have them at our next meeting.



Boorwurm sê:

"Ek is nog besig om navorsing te doen. Sal eers volgende maand vir die redakteur iets gee (meskien)."

turners

All interested members please note that the turners sub-group get together on the 2nd Tuesday of the month at 18H00. Following is the programme for Feb-Apr.

February. Julio Da C Ferreira will be our host.

Task: A turned lamp that incorporates beads, coves and fillets.

Dem: Sharpening rouging gouges and skew chisels.

March: Roger Courtney will host the evening.

Task: Free hand copy turning. A duplicate of the lamp turned for the Feb meeting.

Dem: Spindle chucking and sharpening of parting tools and scrapers.

April: At Smit will be the host.

Task: Any box.

Dem: Faceplate chucking and turning. Sharpening bowl gouges.

Please contact Roger Courtney(83-2068) or At Smit(993-1822) should you require further information.

Uphill or Downhill?

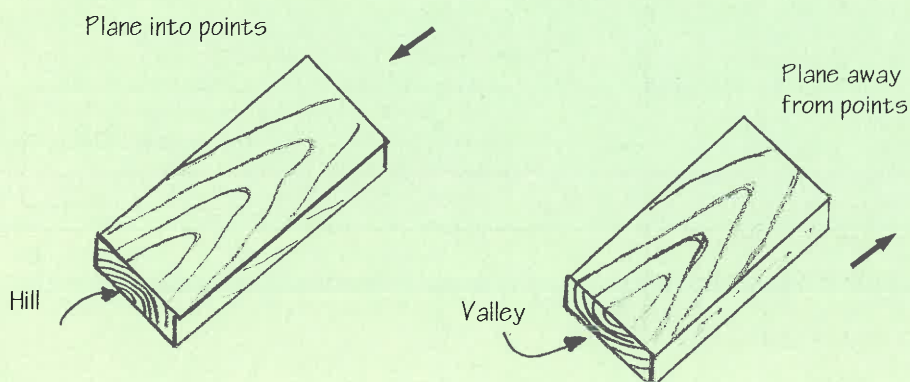
Determining grain direction for handplaning

The following is a useable workshop tip downloaded from *Fine Woodworking on Line*. Submitted by Billy King, Oldhams, Va.

When handplaning boards, it is sometimes hard to know which direction to choose to avoid tearout. Checking the grain on the side of the board is a help, but that doesn't always tell the whole story. Here is an additional method that works very well.

Look at the end grain of the board. With flat sawn lumber, you get one of two patterns: hills or valleys. Then look at the surface of the wood to see where the grain forms rounded points (called cathedrals). If the end grain is a valley, plane away from the points. If the end grain is a hill, plane into the points.

To help him remember the somewhat complicated directions, the author thinks of an imaginary battle where a band of warriors charge up the hill and into the points of their enemy. They retreat and run back into the valley with the enemy's points at their backs.



Onthou!

* AJV 24 Feb 99

* Name vir Vogtigheidsmeters

* Ledegelde

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Finishing

Touches

This article was originally written by Michael Dresdner, has been condensed, and is used with permission from Rodale Press Inc, USA

"Wax as a Finish

There is a long-standing debate in the woodworking world about the status of wax in the finishing room. Is it a credible finish in its own right, or should it be used only to protect a more 'serious' finish? For me, the answer is an unequivocal 'both'.

Types of Wax and How to Apply Them

Most furniture waxes contain a mixture of hard plant waxes (eg carnauba) and softer beeswax. The harder waxes will buff to a higher shine than softer waxes. Beeswax makes the product easier to manipulate.

Although wax is solid at room temperature, it will flow easily if it is either heated or mixed with solvents. Manufacturers add varying amounts of solvents to turn wax into a usable 'paste' or liquid, thus making it easier to apply. Simply wipe on a very thin coat of wax, wait 5 - 10 minutes for the solvents to evaporate, then buff to a nice sheen. Because wax lacks clarity, it is always used in very thin coats, lest it obscure the wood's beauty. But don't worry: the dreaded buildup of wax is unlikely to occur. The solvents in successive coats and the heat of rubbing will redissolve old coats of wax, preventing a buildup.

Maintaining Finishes with Wax

A buffed coat of wax adds shine to a dulling surface, hiding fine scratches in the process. And shoe polish or paste wax, with colour added to it can add age and character to intricate carvings. But does wax really offer protection, or is that an advertisers myth? After all, isn't the finish we put on underneath harder than the the wax we put on top?

One theory is that, since wax is slippery, by nature, hard objects tend to slide off the surface instead of digging in and leaving a visible scratch. Wax won't protect against an exposed staple in a box that's slid across the table top, but it will help with minor assaults that furniture suffers every day.

Most waxes dissolve easily in petroleum solvents, they do stand up well to many acids and food stains. Their ability to shed water lets them add a bit of water-proofing to many traditional finishes.

Using Wax as a Finish

Although wax is too soft to offer much protection to wood, its ability to resist some stains and shed water make it an legitimate finish when used by itself. It's commonly used on turnings and othe low-wear surfaces. A coat or two of wax brings out the true colour of the wood and lends a soft sheen and delightful feel to its surface.

Far more common is the combination of wax and oils to make an easy-to-apply, wipe-on finish. Such mixtures provide minimal protection to surfaces and will rejuvenate with a dry cloth. While the result is not much different from waxing over an oil finish, it saves you one application step.

There are several blends of wax, oil and solvents on the market, but you can mix your own concoction, beginning with beeswax and plant waxes. Here's an old beeswax finish formula that I learned from an employer early in my career: Mix equal amounts of beeswax, linseed oil and turpentine. Heat the ingredients in a double boiler until the wax is completely melted, and stir until thoroughly mixed. Apply the mixture while it is still warm, wiping it on with a soft cotton cloth. Then buff off the excess.

Warning: Melted waxes and solvents are extremely flammable. Do not expose to open flame. Use a double boiler, wear protective clothing and remove from the heat source as soon as the wax has melted."



*Rub it on,
Buff it off*

*The beauty of
wax is that it is
easy to remove,
repair and re-
place*

LET'S LOOK AT WOOD - 1

(by Jack Munting)

For most of us part of the pleasure of working with wood is no doubt the excitement we experience as the unknown combination of structures, texture, colour etc of the timber are exposed by planing or turning away the weathered, discoloured or rough surface layers of the piece. Not to mention the functionality of the finished product, the pleasure derived from an article well made, or the aesthetic satisfaction derived from a good design.

In dié reeks artikels sal ons die anatomie (studie van interne struktuur) en histologie (studie van die sellulêre struktuur) van hout baie oorsigtelik van nader bekyk, want dit is tog hierdie strukture wat die hout sy pragtige eienskappe gee waarvoor ons so lief is.

DIE ANATOMIE VAN 'N STOMP HOUT

Eerstens is dit wenslik om 'n onderskeid te maak tussen **sagte houtsoorte (softwoods)** en **harde houtsoorte (hardwoods)**. Die hout van die sagte houte (konifere (conifers), keeldraende of naaldblarige bome), is oor die algemeen relatief sag en het 'n betreklike eenvoudige mikroskopiese struktuur. Dit bestaan hoofsaaklik uit een soort sel die sogenaamde **trageïeds (tracheïds)**. In die geval van **harde houtsoorte (hardwoods)** d w s van breedblarige bome is die hout oor die algemeen (met uitsonderings) harder en bestaan uit verskeie weefsels wat dikwels selfs met 'n 10X vergrootglas onderskei kan word.

'n Stomp hout kan op drie basiese maniere gesny word: 'n **dwarssnit (cross section)**, 'n **radialesnit (radial section)** en 'n **tangensialesnit (tangential section)**, (Figure 1a, 1b en 1c onderskeidelik) en elk lê 'n ander struktuur of figuur bloot.

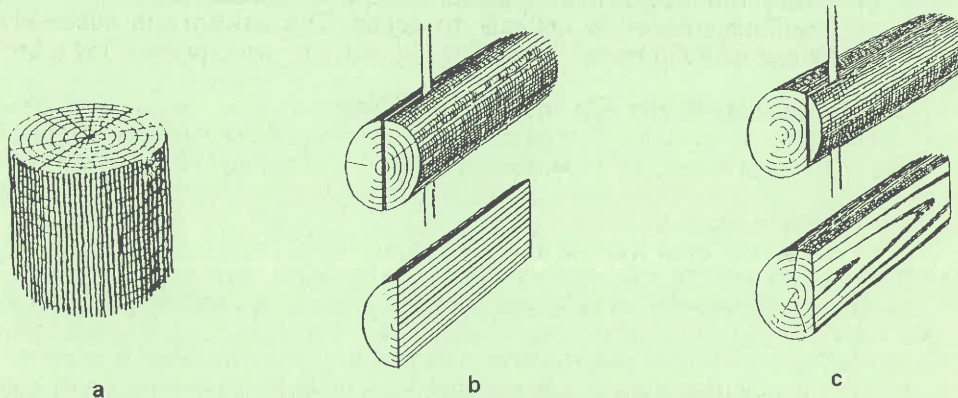


Fig 1. Drie basiese houtsnitte (volgens Edlin)

Like all other living organisms wood is formed from millions of cells, each a living unit in itself but dependent on and functioning in harmony with all the others. Cells which look similar and perform the same structure form a **tissue (weefsel)** and it is the structure of these cells and their arrangement and distribution which give wood its texture, patterns and some of its physical characteristics.

As ons nou kyk na die struktuur van die dwarssnit van 'n stomp, waarmee ons almal sekerlik tot 'n mindere of meerdere mate bekend is, is dit selfs met die blote oog dadelik opvallend dat alle dele van so 'n snit nie eenders is nie en die verskille is te wyte aan groeperings van verskillende weefsels wat mikroskopies van mekaar verskil en ook verskillende funksies verrig. Figuur 2 stel so 'n dwarssnit van 'n harde houtsoort voor.

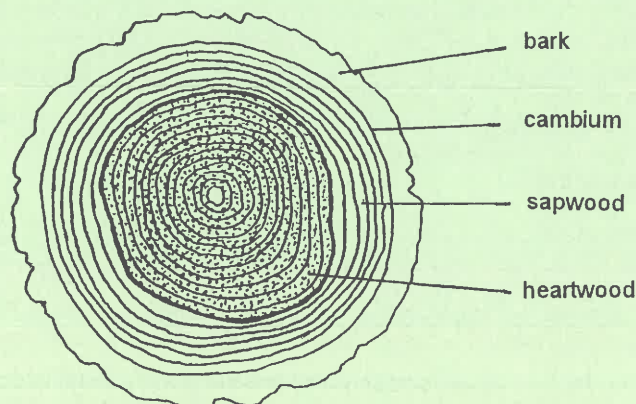


Fig 2. Cross section of a hardwood stump

Firstly there is the bark on the outside and the wood on the inside of the stump. But it is also clear that the wood consists of a series of concentric rings, clearly distinguishable in soft woods, less so in most hardwoods. Finally the central area of the stump often consists of darker-coloured wood called **heartwood (kern- of pithout)**, than the outer part called the **sapwood (spint-hout)**. It is interesting that in a living tree, most of the wood consists of dead cells even though they are still functional in transporting water from the roots to the aerial parts. More later.

As ons 'n stuk bas van die stomp verwyder is dit opvallend dat dit uit 'n buitenste droë gedeelte en 'n binneste nat gedeelte bestaan. Die droë deel bestaan uit droë, dooie selle waarvan die funksie hoofsaaklik beskerming is teen swamme, kieme (patogene), vuur en tot 'n mate ook teen uitdroging. Die nat gedeelte aan die binnekant bevat die floëem en ander lewendige weefsels.

Surrounding the stump, between the wet part of the bark and the wood is a very thin layer, two or three cells thick which cannot be seen with the naked eye, and forms a sheath of living, actively dividing cells, a tissue called **cambium (kambium)**. It extends around the stem all the way up the tree and around every branch. As these cells divide the outer daughter cells form **phloem tissue (floëem)** and other tissues which are responsible for transporting the sugars and other organic foods in solution from the leaves and other green aerial tissues where they are manufactured by photosynthesis, to the subterranean roots. These cells are thin-walled and when they die they get flattened, pushed outwards and are incorporated into the dry outer bark.

Die dogterselle wat aan die binnekant van die kambium vorm differensieër in dikwandige, silindriese **vate (vessels)**, **tracheïdes (tracheïds)**, **vesels (fibres)** en ander selle wat as **xileem weefsel (xylem)** bekend staan. Dit vorm die grootste deel van hout. Gedurende die leeftyd van 'n boom is daar dus 'n lagie dunwandige, aktiefverdelende selle tussen die bas en die hout en namate die selle deel of vermenigvuldig en aan die binnekant hout en na buite bas vorm, groei die boomstam in breedte.

When the bark is removed from a tree by ringing it, the thin-walled cambium cells are torn and the phloem is removed with the bark. This obviously prevents the foods synthesised by the leaves from being transferred to the roots which therefore get no nourishment and die. They can then no longer absorb water and minerals from the soil for transport to the leaves which in turn can therefore can not photosynthesize and eventually the entire tree dies.

Die gedurige vermenigvuldiging van die kambiumselle en ontstaan van xileemweefsel is natuurlik die rede waarom nuwe hout in konsentriese ringe neergelê word. In wêrelddele waar daar elke jaar 'n duidelike koue winter met 'n vogtige, warm somer wissel word die selle in jaarringe neergelê wat duidelik met die blote oog sigbaar is. Waar daar egter geen sprake van 'n winter / somer wisseling of 'n duidelike droog / nat seisoen is nie, is daar nie so 'n duidelike verskil in jaarlikse groeipatrone nie en is die jaarringe moeiliker of glad nie met die blote oog te onderskei nie.

Annual rings are formed because in early spring and summer there is a burst of growth and the cambium produces many cells, each with a large central space and thin walls - in other words cells which function very efficiently. These cells form **springwood (lentehout)** which is less dense and usually lighter in colour to the naked eye. In late summer and autumn as it gets cooler and drier, cambium divides slower and produces smaller cells which have thicker walls and smaller spaces in them giving rise to darker and denser tissue the so-called **summer wood (najaarshout)**. The annual repetition of this growth pattern gives rise to the alternating darker and lighter components of **annual rings (jaarringe)** so clearly visible in cross sections of softwoods such as pine. One annual ring therefore consists of a pale area of springwood on the inside and a darker region of summerwood on the outside.

Die jaarringe in die middel van die stomp is dus die oudste en die verder na buite die jongste. Hoewel hulle elke jaar op dieselfde wyse gevorm word, verskil hulle in breedte jaar na jaar, afhangend van die temperatuur en reënval in 'n betrokke jaar. In goeie jare het die hout meer gegroei en is die ringe breër as in droë jare. As hout tangensiaal gesny word is dit die jaarringe wat sommige houtsoorte so 'n pragtige "vlam" gee soos in Figuur 1c vertoon

The pale coloured sapwood consists of many longitudinal cells (vessels in hardwoods and tracheids in softwoods) joined end to end to form long, microscopic tubes extending continuously from the roots all the way up the stem and branches and finally into the leaves. Their function is to transport water vertically from the roots up the tree to the branches and leaves so that the latter can photosynthesize and make all the delicious fruits we are so fond of. Scientists still don't know exactly how this occurs.

The darker heartwood which is usually the beautifully coloured part of the wood, consists entirely of dead, formerly water-conducting cells of the sapwood which are now filled (and hence blocked) with all sorts of resins, gums and other chemicals called lignins which give each species its characteristic colour and smell. Since the "tubes" are now blocked they can no longer conduct water and their only function is support. What was formerly functional sap wood now becomes darker "lignified" heart wood. Many of these chemicals are also unappetizing to insects and that is the reason why often it is the sap wood which is attacked by insects and fungi and not the heart wood. Since sapwood consists of cells which are hollow and full of water this is the part of timber which also splits most readily during seasoning.

As gekyk word na 'n skoon snit van of na goed geskuurde en gepoleerde endgrein van 'n dwarssnit van houtsoorte soos Australiese Silvereik of gewone eikehout, is daar 'n verdere kenmerk van hout selfs met die blote oog sigbaar naamlik dat daar radiale strale van die middel van die stomp na die omtrek loop. Hulle bestaan uit rye selle wat water en minerale radiaal (dwars) in die stam vervoer en wat ook pragtige vlekke vertoon in hout wat langs die radiale as gesny is. Hoewel dié weefsel maklik in bogenoemde houtsoorte met die blote oog sigbaar is, kom hulle in alle hout voor en is normaalweg redelik maklik sigbaar met 'n 10X vergrootglas.

In Deel 2 sal ons kortliks die mikroskopiese strukture van hout bespreek.