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## From the Chairman



**Chairman Neville Comins**

Last year, we introduced a new 'Show and Tell' to provide an opportunity for members to explain new techniques or projects they have undertaken, hopefully to cross the boundaries which can occur between our Groups. In August, we will have the second evening to see how we are progressing.

On this occasion, however, I wish to look at the challenges presented by innovation in the range and type of tools we use. Last week, I received the latest Lee Valley Tools Catalogue for Fine Woodwork, spanning some 552 pages of products. Well, talk about 'boys and their toys', I had a wish list after just a few pages. But then I stopped to think. Just like a school child who is convinced that the new hockey stick, or cricket bat or tennis racquet will so improve his/her game, do all these 'new tools' really answer those questions in woodworking to allow us to do so much more.

Thinking further, I asked myself how many tools do I have that were so 'essential' but after a couple of months of no use, I cannot remember why they were critical. Another aspect is to look and see how much better the next tool will really be than the one I have. For example, how many routers are there in our

Association? Alternatively, could we do exactly the same with our existing machine or tool with a little bit of thought and ingenuity.

Many of the newer tools have a focus on precision with digital readouts, laser positioning, CNC capabilities, etc. The question is: Do you work to a precision of 0,1 mm in your projects and do you need a mass-production capability if you make 1-offs or a few items? Do you buy a fancy jig which takes a day to setup for a limited project that could be completed in half the time using hand tools? Many people buy old tools, tune them up, add new material blades, etc., because of their inherent quality.

Hence, what are my conclusions? Examine everything you have to see if it can do what you need to do for your projects. If you need to add tools, buy the best you can afford. Many replacements are made because you were in a hurry and could only afford a cheaper and inferior item at the time, only to regret later. In our Association, especially the hobbyists amongst us, there may be times when your tools are too small for a big job, e.g. re-sawing a wide plank, etc. Ask a colleague who can help, as you don't need that 18" bandsaw for anything else.

And so, my long wish-list, after some thought, was severely shortened and I will remain solvent for a bit longer. For anyone wanting a copy of the Lee Valley catalogue, it is free so just contact me. Just be very strong!!

## Association's Monthly Meeting: 31 July 2019 By Paul Roberts

We were very privileged to have Professor Erik Holm as our Guest Speaker who spoke on the topic of "Ox wagons and the various woods used". Prof Erik Holm is an Entomologist and is an Emeritus Professor at the University of Pretoria. He was a previous Head of the Entomology Department at the University of Pretoria. His hobby is restoring ox wagons and he has done hundreds! We had a well-attended meeting with some 30 members and visitors.



**Prof Erik Holm presenting to an attentive audience**

Prof Holm gave most of his presentation in English, despite the fact that the ox wagon terms were all in Afrikaans. What was interesting was that most of the wagon-makers were of Scottish origin! Prof Holm is producing a book of about 500 pages on ox wagons (in Afrikaans) which will be available in December this year. Several members put their names on an order list for this book.

The ox wagon industry was the longest surviving industry in South Africa and lasted for about 200 years. The "Kakebeenwa" (Jaw bone wagon) had up to 10 different wood types in it. Several hundred thousand wagons were built. The Kakebeenwa could carry up to 1 ton and was 4m long. The wagons had a feature which allowed them to be dismantled easily for traversing rivers and mountain passes.

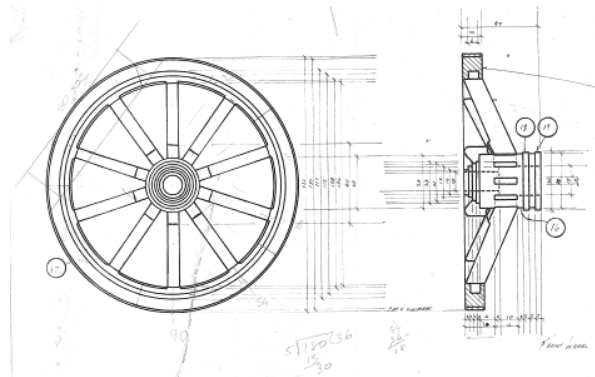
South Africa is the only place in the world where the Kakebeenwa and Bokwa were built. Major manufacturers were Merryweather & Sons (Pietermaritzburg). There were over 400 models in the catalogue. At the time, the wagons were painted with oil paint in traditional colours of red, green, yellow and blue. Full-time ornamental painters were employed by

the manufacturers at the time. Ownership of a wagon was a status symbol.

Various tools were used in the manufacture such as hand saws for planks and beams, conical hub drills and others.

What was particularly interesting was that there were no specific plans for the ox wagons and each manufacturer had a series of templates. (See below for further detail about the ox wagon plans that the Association has in its possession.).

The wheels are an elegant engineering design! Specialised wheelwrights were employed in their manufacture. The design does not differ much from that used in 300 BC by the Syrians!



**Wagon wheel design (Plans of the Association)**

The steel-shod wheel is a process that requires many skills and experience. The steel bands are burnt on to the wooden wheel. The iron ring is heated to a dark red and then hammered onto the wheel. The burnt carbon is converted to graphite and wood combines with the iron to form steel gunmetal. Specialised tools are required to fix the rim and much experience! The hot metal is quenched with water before too much wood is burnt away. Experience shows how much bigger the rim has to be to allow for contraction.

The Scottish wagon-makers imported some of the wood such as Oregon Pine due to depleted stocks of indigenous wood. Prof Holm does a lot of restoration of wagons and has found up to 20 different varieties in one wagon.

The wagons were used extensively throughout Africa and even persons such as Livingston and Stanley made use of them. Nguni oxen were used and a team would be between 16 to 24 oxen.

Models of ox wagons to a scale of 1:10 were made by apprentices and then used by salesmen. The price of an ox wagon in 1910 was £100 and a team of oxen cost the same. Currently an ox wagon costs R160 000 and a team of oxen still has the same value!



***Prof Erik Holm is a prolific author and had a number of his books on display***

We are looking forward to the release of Prof Holm's book on ox wagons at the end of the year!



***Lou Coetzer and Prof Holm reminiscing during the refreshment break***

**Paul Roberts** then presented a short talk on the ox wagon plans that the Association has in its possession. Ox wagons represent a remarkable achievement in wood and iron construction. Paul remembered the excellent presentation made by Prof Erik Holm on ox wagons shortly after he joined the Association in 2003. Prof Holm was involved in the

restoration of a large number of ox wagons at the Voortrekker Monument. A number of different woods are used in the construction of a wagon and Prof Holm claimed that he could deduce where a wagon had travelled from the wood types used in running repairs!

An interesting benefit of a display the Association had at Jimnettes in June 2003 was when Mr Pat Culbert approached Paul and asked if the Association would be interested in acquiring a set of ten plans for a model of an ox wagon. Pat and other colleagues measured up a 16 span jaw bone ox wagon at the Voortrekker Monument some 35 years ago. It is understood that they even dismantled parts of the wagon to undertake this activity. Pat was an electrician and millwright in the South African Air Force and clearly has excellent technical skills.

He drew up the detail on ten A1 drawings (no CAD and all in ink!). An example of the drawing set is given above and depicts a front wheel. Pat made several 1 in 10 scale models which he said was very challenging. Pat donated the drawings to the Association with the proviso that they are not destroyed. They are all available on the Association's website [www.ptawoodworkers.com](http://www.ptawoodworkers.com) in pdf format. An informal ox wagon group has been formed (currently with six members) to exchange information. It was hoped that one of the members would be present at the meeting, but this did not eventuate. Paul displayed the original plans and a write-up which the attendees inspected during the break.



***The display of the ox wagon plans***

## **Cabinet Makers and Restorers: 13 July 2019**

**By Paul Roberts**

The Group met at the workshop of Stefan Hefer on 13 July. The topic for the day was *Finishing (2): Staining and Spray Painting*. The meeting was attended by 18 members.

Willie Marneweck, Honorary Member, gave a presentation on the benefits of staining wood. Cheaper wood can be used for the project. Willie mixes his own spirits penetrating stain from red, black and yellow stains. The selection of the mix is one of trial-and-error. Details are on the website. Willie had to cut his attendance short as he had to attend the memorial service of member Udo Böhmer who had recently passed away. Refer to the tribute to Udo below.



***Willie Marneweck discussing different finishes on cherry***

Stefan Hefer then supplemented the topic and talked about various forms of commercial finishes. He had recently built a spray booth at his Funkt Workshop and this was shown to members and demonstrated as shown in the pictures below.



***Stefan Hefer talking about commercial finishing***



***Spray booth***



***Spray painter William Wozherai demonstrating his skill.***

## Tribute to Udo Böhmer 1937-2019



**Udo Böhmer**

Our Colleague Udo passed away this month after a lengthy illness. Udo was a keen cabinet maker and joined the Association in 2005. He was an architect of profession and this showed in his design approach to his woodwork. He particularly enjoyed designing attractive furniture as illustrated in the photographs below.

Udo was a quiet and reticent person, but was a faithful attendee of Association meetings.



**Coffee table of own design made of American Ash in 2015 for which Udo received a Silver certificate**

In 2012, the Association resolved to make a wall cabinet for the Department of Botany of the University of Pretoria in recognition of their hosting us in the magnificent lecture room for our monthly meetings. The Cabinet Makers started developing a design and Udo made a major input in the concept with a “floating” wall cabinet. This was accepted in principle. Willie Marneweck then produced detailed working drawings and different members worked on various aspects of the Project. The wall unit was handed over to the University on 25 October 2013 as shown in the following photographs. The Turner’s Group contributed towards the Project via the beautiful turned bowls which are on display.



**Handover of the wall cabinet.  
(Udo is in the back row just on Willie Marneweck’s right)**



**Display cabinet with turned display items**

## **Draaiersbyeenkoms op 27 Julie 2019 Deur Lou Coetzer**

Absoluut briljant! Dis hoe die besluit van die draaierskomitee om hierdie maand se byeenkoms by die Nuwe Hoopskool aan te bied, bestempel kan word. Die byeenkoms is puik gereël en deur die komitee uitgevoer onder leiding van Braam Burger. In sy verwelkoming het Braam die name van verskeie

mense genoem wat bydraes in die vorm van skenkings tot die dag se verrigtinge gelewer het. Hy het hulle hartlik bedank.

Die rasionaal agter hierdie besluit was om leerlinge, hulle ouers en sommige onderwysers blootstelling aan houtdraaiwerk te gee met demonstrasies en tutoriale aan veral die leerlinge. As aanmoediging en primêre aansporing, kon 'n leerling wat op hierdie dag die beste gevorder het, selfs 'n tafemodel houtdraaibank wen.

Verskeie ouers met hul kinders, 'n paar onderwysers en klomp lede van die Houtwerkvereniging se draaiersgroep het die verrigtinge bygewoon. Dis aangebied by die skool se parkeer-afdakke waar agt werkstasies met draaibanke ingerig is waarop die leerlinge kon leer en oefen. Twee van die draaibanke is spesifiek ingerig vir iemand in 'n rolstoel om die draaibanke gemaklik en veilig te gebruik.



***Tydens die verwelkoming luister 'n deel van die teenwoordiges na Braam Burger by die skool se afdakke. / Some of those present at the school's car ports listen to Braam Burger welcoming everyone.***



***Een van die draaibanke wat deur Alan Crawford herbou is om dit rolstoelvriendelik te maak. / One of the lathes adapted by Alan Crawford for a wheelchair user.***

Die oggend se amptelike verrigtinge is deur At Smit afgeskop met 'n verduideliking van al die verskillende onderdele van 'n draaibank en hoe 'n draaibank werk. Daarna het hy die vier soorte beitels gewys waarmee elke beginner eerste vertrouwd moet raak en ook presies gewys waarvoor elkeen bedoel is. At het eers al die kinders laat nader staan om mooi te hoor en beter te kan sien wat hy gewys en verduidelik het. Die kinders en hul ouers het baie aandagtig geluister na wat hy vir hulle vertel het.



***At Smit verduidelik die werking van 'n draaibank aan die kinders en hulle ouers. / At Smit explaining the workings of a lathe to the students and their parents.***

Na At se verduidelikings het die kinders volgens keuse by die verskillende werkstasies se draaibanke gaan aanmeld. Daar moes hulle by elke tutor eers kyk en leer watter item hulle by daardie betrokke draaibank sou maak. Terwyl die kinders met aandag gekyk het, het elke tutor 'n spesifieke item gedraai terwyl hulle al die belangrike aksies weer gewys het soos hoe om te staan en hoe om die beitel vir 'n spesifieke snit vas te hou. Die stemme en masjiene het gesorg vir 'n groot gedreun onder die afdakke. 'n Mens kon die afwagting en opgewondenheid onder die kinders sien en aanvoel.

Toe vir die groot oomblik waar die kinders self aan die beurt gekom het. Hulle het eerstehands geleer hoe om 'n bepaalde draaibank en beitel te gebruik, terwyl die tutors met arms oor die kinders en hande saam op die beitels, hulle geleer en ondersteun het. Sommige kinders het 'n natuurlike talent getoon en het gou sonder hulp kon draai. Die meeste is egter enduit bygestaan en ondersteun.

Hier volg 'n paar foto's van die kinders se pogings:



**Leon Langenhoven ondersteun een van die seuns. Let op die veiligheidsbril. / Leon Langenhoven coaching a student. Note the safety glasses.**



**Alan Crawford verduidelik hoe 'n potjie op die aangepaste draaibank gedraai word. In die agtergrond verduidelik Jan Richter iets aan 'n leerling. / Alan Crawford explaining the art of turning a pot on the wheelchair friendly lathe. In the background Jan Richter is busy explaining something.**



**Hierdie seun is besig om 'n pen te draai met die ondersteuning van Manfred Deuer. / This boy, turning a pen, is supported by Manfred Deuer.**



**Een van die seuns wat mooi op sy eie kon aangaan, met Gabriele Burger wat oor sy skouer loer. Hierdie poging het 'n pen geword. / One of the boys managing on his own with Gabriele Burger watching over his shoulder. This effort resulted in a pen.**



**Johan Kramer van Spirit of Wood wys vir een van die seuns hoe om die kraal- en hollyste op 'n stoelpoot te sny. Die draaibank is vir 'n rolstoelgebruiker aangepas. / Johan Kramer from Spirit of Wood showing one of the students how to turn beads and covers on a chair leg. The lathe is wheelchair friendly.**



**Braam Burger by die wenner van die uitdaging, Alexander Gerber, met sy wenstuk, 'n blokhamer, en die draaibank wat hy gewen het. / Braam Burger posing with the winner, Alexander Gerber and his winning turned item, a mallet, and the lathe awarded to him.**



**Roedolf Smit, in die middel, hoof van die dept. Tegnies aan Nuwe Hoopskool, ontvang namens die skool, die draaibanke, beitels en ander gereedskap van Braam Burger (links) en Jan Richter (regs). / Roedolf Smit, middle, head of Technical Dept. at New Hope School, receiving the lathes, chisels and other tools donated to the school, from Braam Burger (left) and Jan Richter (right).**



**Karen Meyer, hoof van Bemaking by Nuwe Hoopskool, bedank almal teenwoordig, en veral vir lede van die Houtwerkvereniging vir hul aandeel in die dag se suksesvolle verrigtinge. / Karen Meyer, head of Marketing at New Hope School, thanking all participants, and in particular members of the Woodworking Association, for their role in the success of the day.**

Die dag is afgesluit met 'n kort vergadering ter plaatse. Jan Richter het die teenwoordige lede van die draaiersgroep byeen geroep om gou 'n paar administratiewe sake af te handel en 'n potensiele lid,



Johan de Waal voor te stel. Johan het 'n passie vir allerlei soorte blokhamers waarvan hy 'n paar saamgebring het, en vertel waar sy belangstelling vandaan kom.

Die getal huiswerkstukke was maar min en die aantal draaiers wat die stukke voorsien het, nog minder, want drie persone het meer as een huiswerkstuk saamgebring. Die voorgestelde huiswerk was 'n houer/potjie met 'n deksel. Die hooffokus van die dag was egter op die tutoriale vir die leerlinge van Nuwe Hoopskool, en het Jan die aanwesiges sonder huiswerkstukke, oorgesien.

Aangesien die tutoriale redelik lank geduur het, is die dag se aktiwiteite met die bespreking van die huiswerkstukke afgesluit. Leon Wolmarans se potjie vir die as van 'n afgestorwe budgie het gesorg vir 'n bietjie humor en skaterlag.



***'n Versameling van die huiswerkstukke met Johan de Waal se vier blokhamers prominent. / Some of the homework items with the four mallets by Johan de Waal very prominent.***



***Leon Wolmarans se potjie vir 'n budgie se as. / The lidded pot by Leon Wolmarans for the ash of a cremated budgie.***



***Alan Crawford se elegante fles van kannabashout. / Alan Crawford's elegant flask of pompontree wood.***

#### Editorial

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