Buckeye Woodworkers & Woodturners 1992

The American Association of Woodturners 19 86

Contains November 2008 Minutes

December 2008

Kaleidoscope
Jim Duxbury
Nov. 15, 2008

Jim Duxbury of Graham, North Carolina, was the guest speaker at the Nov. 15, 2008 demonstration on kaleidoscopes. He informed us that kaleidoscopes were invented by Sir David Brewster, who had experimented with reflection and refraction of light in prisms and with mirrors. He invented the kaleidoscope in 1816 although he also built sundials, microscopes, and telescopes. The kaleidoscope consists of a barrel or tube with an eyepiece on one end and a dry or oil filled object box at the other end, with a series of mirrors that are located inside the tube. By looking through the eyepiece, one is able to see the light and objects reflected and refracted in the mirrors, which creates a series of multi images to the viewer.

The barrel or tube is made up of 3 pieces of wood that are about 10 inches long by 2 1/2 wide. There is a 60 degree bevel that is trimmed on each side of the wood blank. You can cut these with a table saw or a router. The three wood pieces are glued together and held with band clamps until the glue is dry. Jim had a set of two cone mandrels that he used on the lathe to hold the triangular glue up in position. These were turned from a 2 inch cylinder that was about 3 inches long. He turned two cones, one from each end of the blank and then parted them off. One of the cones was to be used in the headstock and the other was to be used over the tailstock end. These cones provided a perfect balance for the barrel of the kaleidoscope to be turned between centers. The cones fit into the interior of the triangular glued tube. He then turned the tube or barrel round on the exterior surface. He used a roughing gouge but indicated that one could use a skew to provide the same surface. He sanded with a belt sander for speed and efficiency. This could be done with sanding paper of various grits to provide a smooth surface. He constantly used a set of calipers to check the diameter of the tube so that it would fit the plans of the designated project. Before he removed the barrel from the lathe, he cut a tenon on each end. These measured 1/4" wide and 1/4" deep. These would be used to accept the eyepiece and the object box.

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The eyepiece consisted of two pieces of wood, usually contrasting, and glued one on top of the other. He placed the rough blank into the scroll chuck and drilled a hole through the center. The hole was 5/8" in diameter. The diameter of the eyepiece was 2 3/4 inches. A recess was cut into the interior of the eyepiece to accept a small piece of glass. He mentioned that one should never look into a kaleidoscope without the glass in place. If there would be any shards of glass inside the tube, they might fall onto the human eye and cause immense damage to ones eyesight. He turned the eyepiece blank around in the scroll chuck and sanded out the interior of the eyepiece hole with a small Dremel tool and rotating sanding sleeve. He then faced off the eyepiece with a pull stroke to level up the surface. He then measured the outside diameter of the tenon on the barrel and marked it on the face of the eyepiece. He then turned the opening of the eyepiece to fit the barrel. He made numerous checks of the barrel measurement to make sure that it fit correctly.

He made sure that he had a correct depth for the glass eyepiece and clearance for the barrel. He used a compass to transfer the diameter of the glass recess onto a piece of paper. Then he used a glass cutter to cut the glass eyepiece circle as it laid on top of the paper. This gave him a very accurate measurement. His glass cutter was an oil filled cutter that cost about $30 or so from a stained glass supply house. He reminded us to use a very hard surface like Masonite to do the glass cutting on. Softer surfaces would cause one to make incorrect cuts and damage the glass. He used single strength glass for this procedure. He used a 5 minute epoxy to glue the glass into the eyepiece. He then used yellow glue to glue the eyepiece to the barrel of the kaleidoscope. He placed the tailstock in position to provide pressure until the glue had dried. When dried in place, he tapered the eyepiece to the barrel surface of the tube. He likes to make a burn mark where the glue line separates the eyepiece from the tube. He uses no. 12 or 14 copper house wire with the insulation in place on the ends so he has a good hand hold while burning the glue line. He said that at this point you can finish sand and finish the tube right on the lathe. He had been a proponent of using an oil/varnish blend, but found that the hand oils from the users' fingers had a tendency to soften the finish after hours of use. He now uses a lacquer finish on all his pieces.

The mirrors are cut and placed in position prior to the object box. One should use first surface mirrors or mirrors with the silver placed on top of the glass. Regular mirrors will give off a distortion and poor reflection of light. Again, the mirrors should be cut on Masonite to provide a good hard surface. Do not run the cutter wheel to the end of the mirror or chips will occur. If there are imperfections on a mirror end, they should be placed near the eyepiece to that they will not be seen. When the three mirrors are cut, they should be taped together with masking tape and then inserted into the triangular opening to determine the fit and finish. When satisfied with the fit, one should use duct tape around the three mirrors in 4 or 5 locations. Remove any protective coverings to the mirrors at this time. The glass length should

come to the end of the tube or barrel. One can shim with paper or tape to hold them in position without movement.

The object box is made from glued up pieces of wood or a solid piece that measures approximately 3 1/4" X 3 1/4" X 2 1/4" long. He prefers a 1 1/4" opening in the center of the glued up piece. He uses the mandrels to hold the glued up piece in position and turns the outside round. He faces off the front of the blank to make sure that it is square. He turns away the interior to provide a circular opening. He sizes the opening to fit the barrel of the tube. He is striving for a slightly loose opening so that it is easy to spin. He cuts a groove on the inside of the lens cap and measures with a calipers to determine the length of the tenon. He makes a pencil

mark on the interior of the recess and then takes an Allen wrench tool with a handle and cuts a recess on the inside of the barrel opening.
This is where 3 washers and screws will hold the object box or rotating end cap in place but still be able to twist with ease. The actual object piece is made from PVC couplings that are cut in half or approximately 9/16" wide. He places the cut PVC coupling in the scroll chuck and cuts a 1 1/6" recess into each end. This recess will accept the plexiglass lenses on each side. To cut the plexiglass lens, he uses a two pieces of wood on the lathe, one from the headstock and the other one from the tailstock and wedges the plexiglass in between the two supports. Then he uses a small skew and cuts from the side of the wood and trims the plexiglass to size. These are glued into position with epoxy to seal the chamber. Prior to gluing the last piece in position, he will fill the chamber with beads, buttons, broken glass, or broken mirrors. He will fill to approximately 1/3 to 1/2 full and then glue in the second plexiglass disc. A 1/16" hole is now drilled into the side of the PVC pipe so that glycerine can be inserted with a syringe. There should be a small air bubble left in the chamber to provide for oil expansion. The hole should also be sealed with epoxy. Check the object box for leaks. Place this into the end cap opening. Now cut a retainer ring to hold the object box in position. This can be made with the scroll chuck to hold the blank while the retainer ring is cut and parted from the blank. E-6000 is a good glue to hold the retainer ring in position. It can be found at local craft stores and Walmart.

Respectfully submitted,
Jerry Schaible, Sec.

BUCKEYE WOODWORKERS
AND WOODTURNERS
Nov. 15, 2008

The regular meeting of BWWT was called to order by Pres. Phil Brower. He welcomed the regular members to the meeting as well as 3 guests from the area. There were a total of 52 individuals in attendance at the meeting.

The pres. informed the members about the status of our BWWT website. He indicated that Google had done a search of our website and reevaluated it to find any problems. They had labeled it as a hazardous site originally. Phil mentioned that we are using Apollo server and it had been established that it was a good server to use. Another member stated that they had been on the website earlier in the morning and his virus detection program had determined that there was still a problem with the site. Phil said that he would recheck the site to see if there was another issue at hand. He would then notify all members of the current status.

Gordon Seto reported on his Yahoo chat room of which he is the host. He indicated that it has been moving along quite well and that there seems to be a lot of interest. Currently the Yahoo site has decided to purchase tool handles in bulk to be used in the making of woodturning tools. He indicated that the handles were sold to the chat room participants at a greatly reduced cost. He said that the next project that they intend to undertake will be to purchase some tool steel metal to make some tools at a deep discount to what they can be purchased locally. If anyone is interested in becoming a member of this chat room, they are to contact Gordon Seto so that he can officially invite you into the group
with a secure password.

Phil Brower mentioned that the donations today were contributed to us by Hartville Hardware. If anyone is interested in purchasing hardware or tools of any sort, they should shop at Hartville Hardware to make their purchases. Hartville Hardware will also be having their semi annual sale of tools on Friday and Sat. Nov. 21 & 22 from 9 AM to 6 PM. BWWT has been notified to provide some woodturning demonstrations during this sale. We will be allocated a space near the side offices of the tool dept. managers office. There will be two lathes set up for our use. One will be a full sized Delta lathe on legs and the other one will be a mini lathe made by General. We will be needing workers for Friday and Sat. at our booth to help demonstrate. Contact Phil Brower if you can participate in the demonstration.

It should be noted that Hartville Tool catalog is still honoring the 15% discount on all phone orders from BWWT members. These can be shipped to the individual members home or they can be picked up to save shipping.

It was mentioned that we do have HSS tool steel available for members at $5 per item. This is high quality tool steel that measures 1/4" X 1/4" X 8" in length. These are great for making small scrapers and bedans. Contact Bill Seabolt if you would like to purchase any.
Jim Brown, the VP, indicated that the Christmas dinner tickets are available to be purchased. The price is $10 per ticket and spouses are encouraged to attend. The dinner will be held on Dec. 13 at Camp Y Noah. The management staff of Camp Y Noah will be our guests as well as Larry Summers, the tool manager, from Hartville Hardware.

Bill Seabolt, the BWWT treasurer, gave us the treasury report for the month of November. He also reminded members that coffee is 50 cents and donuts are of the same price. He encouraged members to make their contributions to the coffee fund on a monthly basis. He also indicated that blue chambray

shirts are available for $24, as well as polo shirts that are popular during the summer time. T-shirts are available for $12 as well as name tags for $6 and emblems for hats for $5. Members are to see him for their purchases.

Don Karr, the librarian, mentioned that books are available for check out on a monthly basis. The library is located at the back of the meeting room in the three cabinets.

Ben Fix indicated that he would like to meet with the Hands On participants after the demo is finished today. This is necessary to outline the needs for the Sunday program. He also indicated that Cindy Drozda from Colorado is on the schedule for a demonstration during the month of Sept. 2009. Members can go to her website at www.cindydrozda.com to view the kind of work that she is currently doing.

Phil Brower mentioned that there was some old business to needed to be taken up and that was election of the officers for the coming 2009 year. Ben Fix made a motion that the membership accept the recommendation of the nominating committee for the following offices....Jim Brown, Pres.; Bill Stone, VPres; Bill Seabolt, Treas; and Jerry Schaible, Sec. A vote was taken and there was unanimous acceptance of the slate of officers and therefore they will be our executive committee for the following year.

It was mentioned that the craft show at the IX Center was scheduled for the coming weekend and would show a large no. of craft items. There is no charge for admittance however there will be an parking fee charged to all attendees.

The monthly raffle was held immediately after the meeting.

Respectfully submitted
Jerry Schaible, Sec.

Calendar of Events

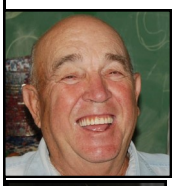
A Christmas party is being planed for our club to be held at Camp Y-Noah on December 13th at 6pm. for those who purchased tickets.

Please Take Note!

There will <u>not</u> be a regular BWWT meeting in December. The Christmas party will take the place of our regular meeting.

We will visit the Warther Carving Museum for a Hobo lunch and tour after our regular meeting on May 16th ,2009. The lunch will begin at 12:30 with tour following. Wives and or significant others are invited for what promises to be a very interesting and educational display. Cost for lunch and the tour is $24.95 per person. Plan to Attend!

BWWT Officers For 2009



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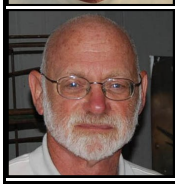

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