

Non-Traditional Segmentation Techniques

Random Segment Construction: Glue-up of multiple blocks and cross-cutting through the resulting blocks, and regluing, until you have a large enough block to turn.

The platter below was made with random cuts/glue-up of various pieces of wood. The block was



glued up then recut and then re-glued until it was large enough to create the platter. Although it looks nice, this random segmentation can lead to problems with uneven expansion of the various woods with changes in humidity. With numerous end grain to side grain glue points, it is prone to breaking apart over a season unless it is extremely well sealed. It should be sealed on both sides with epoxy for a

moisture proof finish.

This vase "***Random Hearts***", below is constructed with a combination of both random Segment



construction by glue-up, and ***bandsaw segmentation***. As in the platter above, the top and the bottom of this vase were created by progressively gluing/cutting numerous pieces of red-heart and yellow-heart. The pieces were progressively glued, then recut and additional pieces were then added to create a large enough piece to turn the top and bottom piece. The center of the vase was simply 7 layers of solid $\frac{3}{4}$ " yellow heart with random bandsaw cuts through the block for placement of red veneers. When doing bandsaw cuts for veneer insertion, it is imperative that the wood block remain a rectangle block. Never try to cut a cylinder in the bandsaw. Dowels were drilled into the x points created by the veneers for a visual focal point. Everything was done randomly so no part of the vase is symmetrical except the outside shape.

Reverse Segmentation: Is done by cutting a single block of wood visually into many



smaller parts while constructing the vessel. This is done most often by deeply incising with a router. You can make shallow router cuts to give the top appearance of segmentation and not show through the bottom. You can also make the router cuts deep enough to pass completely through the vessel wall so the whole turning appears to be made of many separate parts.

The peppermill on the left was made with a single piece of clear maple. It was incised with a router to create numerous segment-like shapes. The individual separated pieces were dyed red and black. The shallow (1/8" deep) router cut was then filled with gold acrylic paint to create the clear separation of the individual pieces. This peppermill looks like a segmented piece but is still only one solid piece of wood.

The ***Sunburst Bowl***, below was actually made the same way as the peppermill above, but the



router cuts were made about 3/8" deep. The segmented bowl was formed by routing grooves on the inside of a large cherry blank that had a large crack in it that made it unsuitable for use for a cherry bowl. After routing, the individual triangular pieces were still attached to the block. The separated pieces were dyed red, yellow, and black. Then the routed space between the pieces was then filled with clear polyester.

The remaining outside cherry wood form was then turned completely away leaving the separate pieces to appear to float in the air.

Tile Floor Segment Construction: Creating a mosaic tile-like floor starting with a pre-shaped sacrificial wood block. Numerous pre-cut pieces are glued on the block and then the space between the wood pieces is filled with an epoxy grout. Once the new surface is finished, the floor is removed completely leaving only the applied tile surface. This method allows the turner to create almost unlimited pieces. You can make a combination of random and fixed geometric shapes when you glue up the “floor”.

The piece below, “**Broken Hearts**”, was made with random triangular parts of Purple-heart and



Yellow-heart glued on a pre-shaped scrap bowl blank. The blank also had a large crack so it was not suitable for a bowl on its own right. It however made an excellent sacrificial shaped block on which we would build a new bowl. 3/8” thick tiles were cut from Yellow-heart and Purple-heart and glued to the inside surface. After the black epoxy was grouted into the triangles, the whole sacrificial wood bowl was eliminated leaving only the triangular pieces to appear floating in the air. This method has almost

unlimited choices.

This piece below was made the same way as the piece above, but was made by gluing on thin



vertical strips of Red-heart and Yellow-heart and some clear acrylic on the side of a pre-shaped solid wood cone. Again, the spaces between the wood strips were filled with black epoxy. This method requires a relatively straight cone shape as the “floor” Once the outside was done, it was coated with several layers of clear epoxy to strengthen the wall. Then the inside is turned complete away until you meet the outside wall looking in. The inside is then also coated with a layer of clear epoxy for strength. When done, the inside and outside were coated with several coats of high gloss polyurethane.

This goblet vessel below was made with a combination of both random segment tiles and some pre-laminated vertical tile segments. A straight surfaced cherry wood cone was made as the floor, and the tile applied to the floor. A combination of straight laminated ebony pieces, and the small random segments of Yellow-heart were glued on the sacrificial blank. The spaces were filled with thickened black epoxy. Once the outside surface was completed, the inside scrap cherry wood cone was turned away until the outside wall was visible. The inside surface also was finished with clear epoxy and then clear high gloss polyurethane. The lower portion of the goblet was created with standard build-up and segmentation techniques. It was made with ebony, red veneer and 1/8" thin yellow heart wood.



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