



PHOTOGRAPHS BY DENNIS ZONGKER

Headboard embellishments

Dennis Zongker adds a variety of embellishments to the headboard of a king-size bed in African mahogany

Many 18th-century furniture makers used a wide variety of hand carved embellishments to enhance and add visual interest to their pieces. This king size bed is made out of African mahogany (*Khaya ivorensis*) hardwood and plywood.

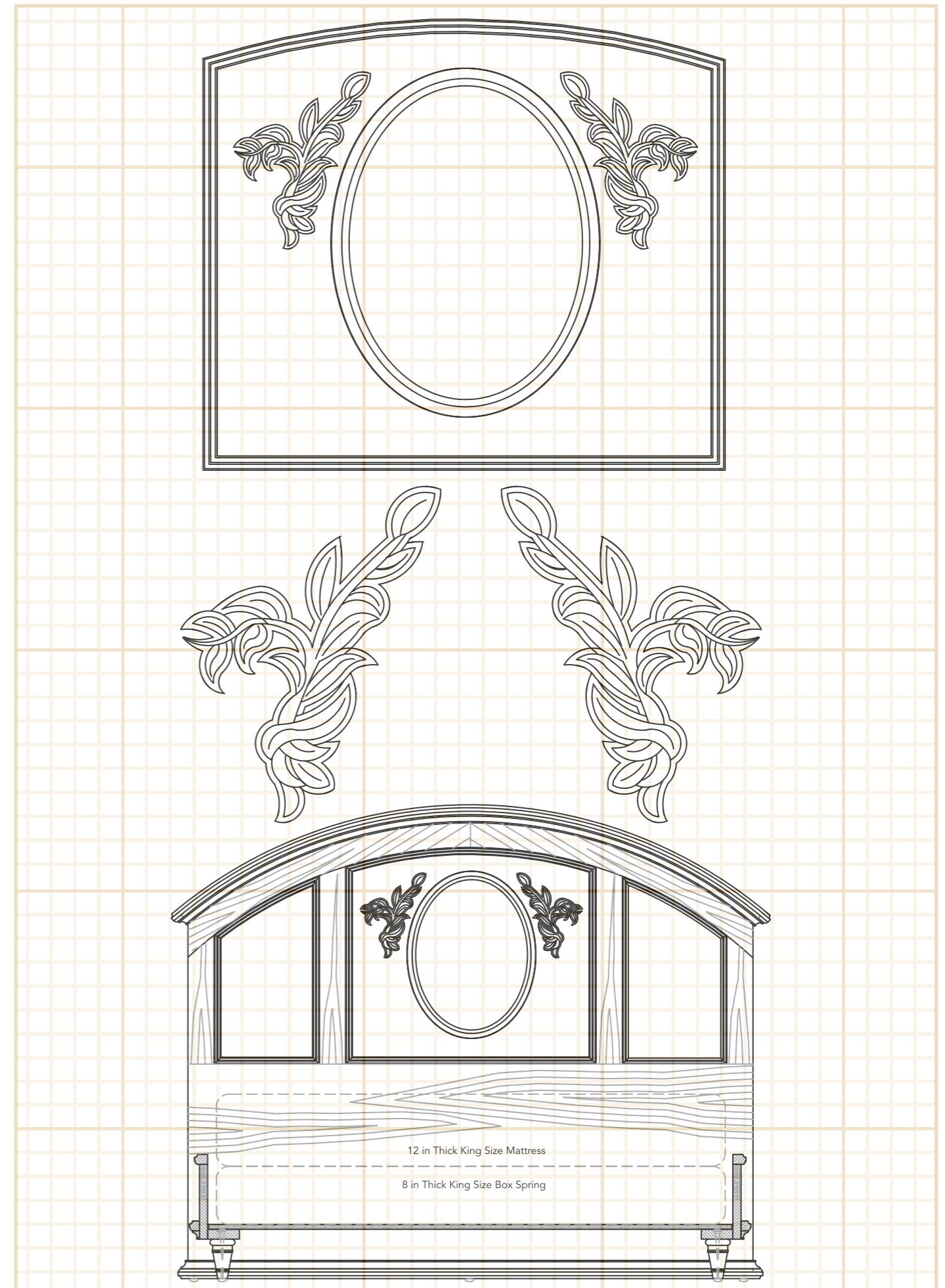
For this style of headboard my goal was to carve out an elliptical centre dome with leaves and stems to accent the centre of the headboard. To carve out the centre elliptical medallion, I used large carving knives to shave off the large amount of wood. I then blended them together to create a gradual radius to form a dome into the ellipse. To give the leaf and stem carvings a more 3D look, I carved them with a double relief cut. This also provides extra strength to the carvings so that over time they will stay intact.

Things you will need...

- Tools:**
 No.2, 5mm
 No.2, 3mm
 No.2, 8mm
 No.2, 10mm
 No.2, 20mm
 No.2, 12mm
 No.3, 8mm
 No.3, 16mm
 No.3, 12mm
 No.5, 16mm
 No.5, 12mm
 No.7, 14mm
 No.9, 10mm
 No.15, 3mm V-tool
 Large No.2, 35mm carving gouge
 An assortment of detail rifflers
 Large flat chisel

ABOUT THE AUTHOR

Dennis Zongker has been a professional custom furniture maker for over 28 years and is co-owner of Zongkers Custom Furniture in Omaha, Nebraska. He teaches woodcarving and marquetry classes at Midwest Woodworkers. To see more of Dennis' work, visit www.zongkers.com



➔ **1** Make a photocopy of the left and right side of the carving templates to the size and proportion needed. I used two pieces of 20mm thick x 200mm wide x 355mm long mahogany. Spray adhesive onto the back of the template, then press it onto the hardwood



2 Secure the carving to a block of wood, then mount the block to a carver's vice. The goal for carving the double layer of relief onto the leaves and stems is to provide extra strength at the narrow thin areas of the stems; this gives the carving an extra layer of shadow and depth. Stab cut around the outline of the leaves and stems. As you work your way around the template, it's important to be able to choose the gouge with a sweep that most closely matches the curve of the outline. Lightly tap the gouge with a carving mallet, cutting approximately 3mm deep



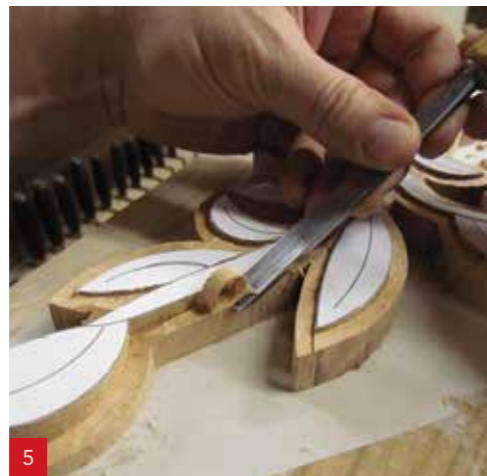
3 Once you have your stab cuts made, begin relief carving around the outside edges using No.3, 16mm and No.2, 8mm carving gouges and tap lightly with a mallet to remove the waste wood



4 When removing the waste wood in the smaller corners use the No.2, 5mm or the No.2, 3mm



5 Repeat steps 2 and 3 several times until you get the outside relief edges down to 6mm thick



6 Once you have all the outside relief edges completed you can start to separate the leaves and stems using the same assortment of carving gouges. Stab cut into each leaf. Cut and relief each line approximately 6mm deep. At this stage, work on groups of leaves that are close together. At the lower section there are five leaves where you can focus on the high and low areas before moving to the next section



7 To round the larger end of the stem flip a No.3, 12mm gouge upside down and shave off enough wood to get a round shape that makes it look like it is coming out from the leaf



8 When carving out the leaves the goal is to make them look as natural as possible. Try to get each single leaf to look as if they are on different planes coming out of each other. Start by removing the waste wood that is closest to the base of each leaf



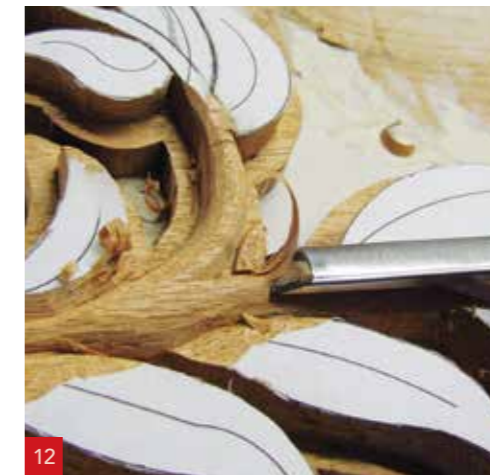
9 On this larger leaf carve in a concave sweep into the middle section using a No.5, 16mm carving gouge



10 On the outside base of the long leaf use the same No.5, 16mm gouge upside down to carve in an even convex radius that flows from the very base to the upper end of the leaf. Also on the bottom leaf, carve an arch leaving the centre of the leaf at the highest point. You can then carve off all the paper templates on these bottom five leaves smoothing each leaf to where there is a gradual natural flow before moving on to the next set



11 Continuing up the stem, carve into the base of the leaves using a No.2, 10mm to stab and relieve cut the waste wood away. Each leaf should vary a little in its depth and sweep. For example, some of the leaves can be carved all the way down to the lowest part of the stem while the next leaf only goes 6mm deep by the stem



12 As you continue up the stem it is important to carve low sweeps into sections of the stem with a No.3, 12mm gouge. You can then flip the gouge upside down to carve in the concave radius



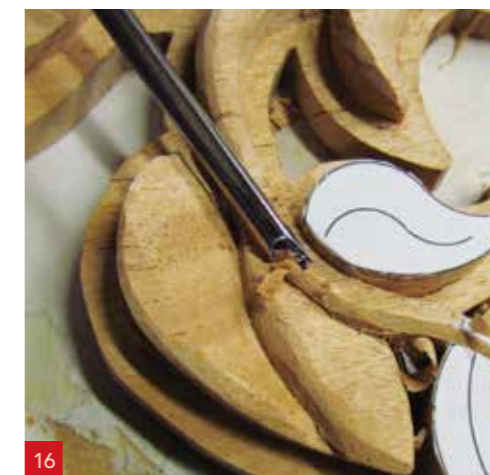
13 On the very top leaf use a No.2, 10mm gouge to carve the tip with a downward sweep. Also, carve a downward sweep at the base to the stem leaving the centre of the leaf at its highest point. Carve off any leftover paper template to smooth out each leaf



14 Each leaf should have different arches and sweeps to its profile. On this leaf, the tip has a sharp sweep carved down to the tip and a larger convex sweep towards the centre of the leaf. Blend each sweep and arch together by carving off the paper template



15 This leaf resembles the side view growing out of the stem. Use a No.5, 12mm gouge to carve in a large convex arch into the centre and lower edge of the leaf while leaving the top edge at its highest point



16 On the smaller remaining section of this carving use the same steps to complete the leaves and stems. On the smaller stem use a No.2, 5mm gouge upside down to carve the concave shape of the stem

17 The next step is to carve the veins into the leaves using a No.15, 3mm V-tool. Start by using a pencil to draw in each vein and follow the contour of each leaf. Using your V-tool, you can then follow the pencil lines to carve in the veins

18 Using a No.2, 5mm carving gouge upside down, you can begin to carve a small radius on all the edges of each leaf

19 Next, using a No.3, 8mm carving gouge upside down, carve a radius onto the outside to reveal the edges

“Using an assortment of detail rifflers, file the rough edges of the leaf veins and stems...”

20 Using an assortment of detail rifflers, file the rough edges of the leaf veins and stems; this will give the carving a nice clean look

21 To remove the carving off the glued up block of wood, use a large flat chisel upside down and gently pry the carving to remove

Top tips

1. Using a mallet provides greater control and helps prevent accidentally carving beyond the stab cut
2. When stab cutting for your depth you need to be careful not to tap your mallet too hard; this can cause the wood to crack or chip
3. When prying off the carving from the block of wood, it is important to lightly pry all the thin vein and leaf areas around the entire carving before trying to remove the completed flowers and stems; this will help to avoid any breakage occurring and potentially ruining all your hard work
4. When carving the larger ellipse it is a good idea to use a larger mallet; this will allow you to remove more waste wood without having to hit your carving gouges too hard, which would crack or chip the handles



22 I used 8 100mm-thick pieces of mahogany for this: 38mm thick x 460mm wide x 610mm tall ellipse. Glue up the width a little oversized then plane the block down to its finished thickness of 38mm. Next, draw the ellipse onto the face of the mahogany block. Cut out the ellipse using a bandsaw with a 6mm-wide blade, ensuring to keep the blade on the outside edges of your pencil line

23 Next you will need to draw a line 32mm inward from the outside edge around the complete face; this will be the width of the carved outside ring of the ellipse. Also draw a pencil line on the face of the outside edge 8mm up from the bottom edge, which will be the depth of the outside ring. Start the carving using a large No.2, 35mm carving gouge. Stab cut into the wood following the pencil line. Use your mallet and give it a couple of harder taps to go about 5mm deep. Use a No.2, 20mm gouge towards the smaller ends of the ellipse

24 Using the same No.2, 35mm and No.2, 20mm carving gouges, remove the waste wood around the outside profile ring. Use your mallet to carve off flat and even cuts. Repeat steps 2 and 3 until you reach the depth pencil line. To smooth out the ring use the No.2, 20mm to shave off thin layers of wood with a slight bevel from the inside edge to the outside edge. Next, using the No.2, 35mm gouge, carve a convex slope into the edge around the entire ellipse

25 Carve in the concave ring around the ellipse using a No.9, 10mm carving gouge. You will need to make two or three passes until you reach a 6mm depth below the outside ring edge

26 The last step is to blend the inner ellipse with a gradual convex sweep from the centre down to the concave ring. Use both the No.2, 35mm and No.2, 20mm carving gouges. This may take a little while but it is well worth the results. Next, using 150-grit sandpaper, sand the complete ellipse smooth. After staining and finishing the entire bed and carvings, attach the carvings with hot animal hide glue and a few finish nails

27 The completed headboard embellishments should look something like this