Carving realistic hands

Dennis Zongker carves the hands for his sculpture, Determination

For a long time, I have been wanting to design and carve a man carving himself out of a tree. I started my design by making a full-scale model out of oil-based clay. I decided to make the statue at half scale of my own body size at 38in tall and the bottom tree trunk and stone base at 22in square at glue up.

The concept of a man carving himself out of a tree is very interesting to me and goes hand in hand with woodcarving. I call him A Self-Made Man called Determination.

The great thing about designing in oil-based clay is that you can't make a mistake because you can always add or subtract the clay as needed to get your final design.

In this article I will be starting at the last steps of the statue with the forearms and hands. I cut off the excess wood at the elbow joint. The extension blocks of wood will be the forearm and hands. The reason I add the blocks of wood versus having an extra-large glue up for the entire statue is that it's much easier to carve the hands being able to rotate to carve in all the details on the bottom and inside details of the hands. I will then add them on to the statue with glue and screws.

PHOTOGRAPHY BY DENNIS ZONGKER


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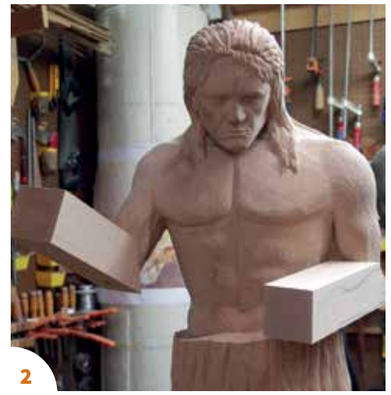
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1 To begin, I use a pencil to draw the angled line from the elbow to the upper inside joint of the arm. Then, with a handsaw, I cut all the way through to get an even, flat joint to where the arm and hand can be attached.

Blocking out

2 With both blocks of wood, I use a handsaw to cut the angles needed where the arms would be at the correct position for a man to be carving himself out of a tree.

Next, I drill holes though the blocks of wood into the upper arms. I also drill holes for wood plugs to hide the screw heads. At this point I screw on the blocks of wood to the upper arms, just as a dry fit so I can remove as needed.

3 With a pencil I draw on the forearms and hands. I wanted the right hand to be holding a mallet and the left hand holding the chisel. As I am drawing, I use my own arms and hands as a model for shape and position. Since the statue is at half scale, I measure myself then divide it by two. This really helps me to draw in the correct dimensions. I draw the arms and hands on all four sides of the blocks.

4 To save some time carving I first bandsaw off some excess wood by cutting approximately 1/8in away from the pencil lines off both sides on one face of the blocks.

5 Then, using the cut-off pieces, I tape them back into their placement. I then cut off the excess wood on both sides on the bandsaw, ensuring accuracy. I

Extra Letter

6 After I am done bandsawing off the waste wood, I screw the arms back on to the statue to check the proportions and to make sure I am ready to start drawing.

7 Before I start carving, I redraw the hands on to both blocks. Both hands will be holding a handle for a mallet and chisel. Gripping a handle, the thumb will need to rest on top of the index finger. I draw this position on all sides, again using my own hands as a model. With a No.5/12 carving gouge I start by carving where the fingers will be lower than the thumb.

Separating fingers

8 Next, I rotate the arm in my bench vice and clamp it tight. Using a No.16/3 V-tool I carve in the finger widths, then shape the fingers and knuckles with No.3/10 and No.5/10 gouges. Each finger is a different size from length to width. For example, the middle finger is longer than the index finger and the pinky is the smallest. Your fingers are mostly straight then rounder at each joint. It is best to establish these landmarks at the beginning. The closer you get to the finished hand size the more realistic the hand should appear.

9 I repeat the No.16/3 V-tool and No.3/10 and No.5/10 gouges and slowly shape each finger and knuckle. Also, with a No.3/12 I carve the arch into the top of the thumb and undercut the lower radius of the thumb.

10 To get some separation between the index finger and thumb I use a No.2/5 to undercut the underside for a realistic placement for gripping a handle.

11 As I carve the hands, I never complete one area to its final details. It is best to balance the entire hand by carving off smaller amounts until you get the finished size before you start to carve in the final details.

On the back side of the hand, I stab cut and carve off the different lengths of the fingers with a No.3/8 and No.5/8 gouge down to the centre of the hand. Then, with a No.3/12 and No.5/12 gouge I carve in the palms of the hand. At this time, I also carve the wrist to size, which will be thinner than the palm.

12 On the bottom of the hand, I draw in the pinky finger and the tips of the remaining fingers, also on the wrist where the main bone is located, which is an important landmark of the wrist. To start carving in the fingers I use a No.3/10, No.5/10 and No.5/8 to carve out the center of the hand and fingertips. At this point I only carve a few fingers deep, allowing for the size of the handle diameter.

13 At this point I keep rotating the arm and hand in my bench vice and I slowly keep carving the fingers and knuckles of the hand using No.3/10, No.5/10, No.5/8 and No.2/5 carving gouges.

Creating fists for the chisel and mallet

14 One of the main goals is to carve completely though the hand. At first, I carve about ¾in into the top of the hand using aNo.5/8, 3/8 and No.2/5 gouges. Then, with a 3/8in diameter drill bit, I drill completely though the hand. This really helps me carve the remaining waste wood around the inside of the hand. I leave a grip size hole of 5/8in diameter.

15 I stab cut with No.5/8 and No.5/10 gouges, with the face side of the gouges facing the finger profile, then remove the waste wood. Note: It is much easier with the drilled hole in the centre.

16 I flip the hand over and clamp it in my bench vice to secure it while carving. By repeating the same steps as in 15, I remove all the waste wood until I get a clean diameter hole all the way though the hand.

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17 After I have the whole hand carved to its finished size, I draw in the fingernails with a pencil. To carve the fingernails I use a No.2/5 and No.4/2 carving gouge and start by lightly stab cutting on to the pencil lines then removing the fingernail wood with the No.2/5 carving gouge upside down. Then I relief cut up to the stab cuts at the pencil lines.

18 After I am done with the fingernails I move to the thumbnail. The thumbnail is slightly larger than fingernails, but I still use the same carving gouges.


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19 On the front of the thumbnail with a No.2/5 gouge I carve the thumb in front of the nail lower. Then I carve into the fingernail up to the stab cuts with a No.2/5 gouge while maintaining the radius of the nail.

20 On the last steps I dry-fit and screw the arms together. At this point I carve the elbow and muscles to match up to the upper section of the arm. To carve in the veins on the hands and arms I simply copy the veins on my hands and draw them in where they will go on to the wood. Then, with a No.5/5 gouge I carve slightly on to both sides of the veins by leaving a small hump remaining at the pencil lines. To make the veins look realistic I use sandpaper to blend the high and low areas together.

I make my own mallet and carving gouge by turning them on the lathe. I then carve out the centre of the gouge. Both the mallet and the gouge I cut in half then use a two-sided screw to join them together. This way I can join them together in the hands to where you can't remove them unless you unscrew the mallet or gouge.

I detail sand with 150 grit sandpaper the hands and arms. I glue and screw the arms together and plug the screw holes, then cut off the remainder of the plug and sand it smooth. Finally I sand the entire statue then I apply my coats of finish and colour.

The finished piece – Determination