

Carving Natural Finish Fish Eyes

Part (B) of the National Fish Carving Guild Series on Carving Fish

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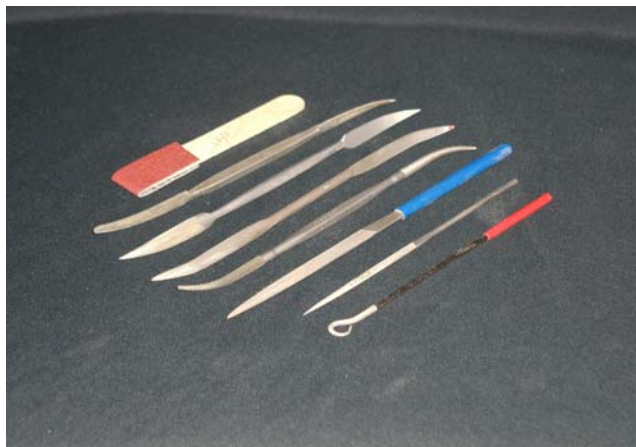
OVERVIEW

This article will discuss the philosophy and techniques of carving the eyes on a natural finish carving. From first cut to final polish, this article will walk through many of the issues you will face and provide photos to guide your exploration of the natural finish carving process. Just as in decorative fish, the eyes are the focal point of any natural finish realistic or interpretive fish. Regardless of the level of detail, the viewer must be able to pick up the “story” and the “attitude” of the fish from the eye. Using only planes, lines, and contours to depict your subject’s eyes can be a challenge for the interpretive sculptor, just as getting the features and proportions are critical for the realistic one.

The tools of the natural finish carver are virtually the same as for the decorative fish carver. Care must be given to the fact that the harder the wood, the harder it is to carve. Either power or hand tools will work. Extra care to select a good selection of files and rasps will enable easier and crisper finish.



Hand carving tools large, medium, and small gouge, v-tool, angled blade, knife



Files and rifflers for finishing: hand made sanding stick, three files, riffler, straight file, fine straight file, diamond file.



Assorted tools for eye carving in natural finish: #11 veiner, soft sanding cylinder, diamond cylinder, diamond disk, diamond ball, small diamond ball, #2 pencil and 220 grit sandpaper.

The first step is to rough shape the subject just as you would in the decorative process. The difference will be low to ensure that you leave an area roughly 1.5x the sclerotic capsule in place. The purpose is to leave enough room in the remaining wood to correctly carve the attitude of the fish's eyes to match the activity of the fish as well as to be able to slightly adjust each eye to ensure that the eyes are in matching positions on either side of the head. A common mistake is to not leave enough of a large area and the resulting eye is not extended away from the head at the top of the fish. The eyes would not have that vertical look to them in this case. Another reason for leaving just a little extra wood before you carve the eye detail is that, unlike the decorative carving process, you will not be able to repair a set of eyes that are not exactly on the same spot on either side of the head.

An important consideration at this point in the carving process is the finished eye size. It is intuitive to want to carve the eye slightly larger than intended. In fact the opposite is what you should do. You really want to carve it microscopically more bulging from the head and a tiny bit smaller in outside diameter to account for final sanding and finishing. By example, if you carve a beach ball to the exact size of the ball your tool marks would remain. By sanding out the tool marks, you can imagine that the total size of the ball would be slightly smaller than the exact size of the original.

The opposite is true were you to carve the beach ball as being buried half into the sand. When you wanted to eliminate the tool marks from the juncture of the ball and the sand you will want to get into the groove that is formed by the edge of the sand and the side of the ball. In so doing you will remove some wood from both the wooden ball and the wooden "beach". While this may not be critical for something as large as a beach ball, it may make the difference in your life sized, or smaller, fish eyes. So as you sand into the head to get rid of the tool marks, you are enlarging the size of the sclerotic capsule.

Returning our focus to the semi finished head of the fish. You lay out the head and detail with pencil. Use a soft lead pencil such as a number 2. You don't want to leave a mark that will have to be sanded out. At times you may be working with a hardwood such as walnut and a substitute for the pencil can be a sharpened piece of chalk so you can more easily see the lines on the dark wood. You can use a burner or knife to put in the marks deeper if you like, this eliminates the constant redrawing of the pencil marks when sanding or removing additional wood.

TYPES OF EYES

Eyes on a stylized fish may be of several types. Creativity rules: eyes may be totally non-existent for a general fish shaped sculpture; indentations for a general shaped fish with maybe some subtle detail; round orbs that simulate eyes without any detail. Moving to more detailed look for your sculpture, you may find more realistically defined sclerotic capsules; slight detail to define the eye iris from the rest of the sclerotic capsule; and finally a recessed pupil to designate with shadows the black pupil.



Interpretive trout no eye at all



Interpretive trout eye indented



Interpretive trout round eye for sclerotic capsule.



Realistic oriented eye iris and sclerotic capsule defined.



Realistic oriented trout eye fully defined pupil indented for effect.

CARVING THE EYE

Let's discuss the actual procedure for creating the eye orb.

First you need to have a plan to carefully cut around the eyes. Make sure your piece and work area is clean and secure. Nothing ruins a day faster than dropping your piece or letting a gouge bump against the eye and putting a deep scratch on a visible part of the eye. Even if you can sand it out it will either be blemished or not quite the right shape. So please remember safety and cleanliness as well as caution as you start to finish up your sculpture.

Securing larger pieces can be tricky especially if it is an interpretive sculpture with a twisting or irregular shape. Try using half empty sand bags constructed from old jean legs sewn together at each end. At approximately 12" in length these heavy yet flexible and soft bags can be manipulated easily and shaped to match your wood's shape and contours. These can be placed underneath your piece at strategic points to keep it stable. Smaller pieces benefit from this method as well, but they are easier to screw into a base that rotates up to 270 degrees for an even sturdier platform from which to work.

Next you need to remark your eyes and actually cut around the capsule.



HAND TOOLS



With hand tools the process is fairly straightforward. You first cut around the outside of the sclerotic capsule and remove the material around the eyeball. Use a knife to score the line, and repeat the process each time going just a little more deeply into the wood. (Be careful of the grain and always carve with or across the grain.) Imagine creating a small cylinder sticking out from the side of the head. Be careful as you remove wood down to the side of the head as you do not want to indent the area near the eye.

Turn the gouge of the size and sweep that matches your required eyeball upside down and carve the orbit. The bigger the eye, the bigger gouge is required. Start by laying the gouge upside down with the sides of the gouge on either side of the eyeball. Raise the handle of the gouge while keeping the sides of the gouge at the same point. This turns the gouge sides into pivot points. By raising the handle to the 90 degree angle, you will have carved the opposite side of the cylinder into a partial sphere. See Photo Series A.

Photo Series A



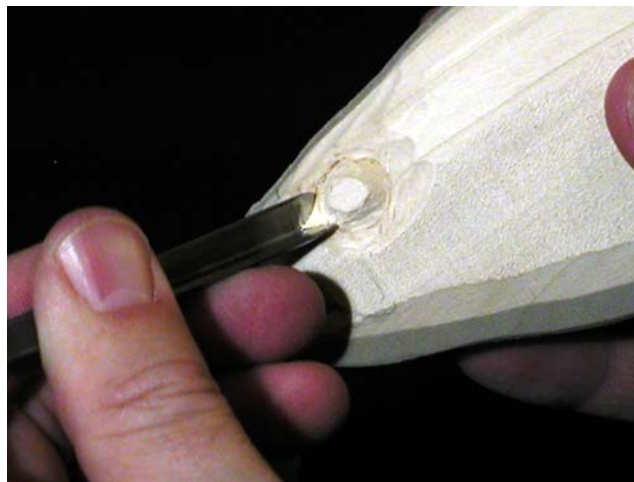
Carving the eye one



Carving the eyeball two



Carving the eyeball three

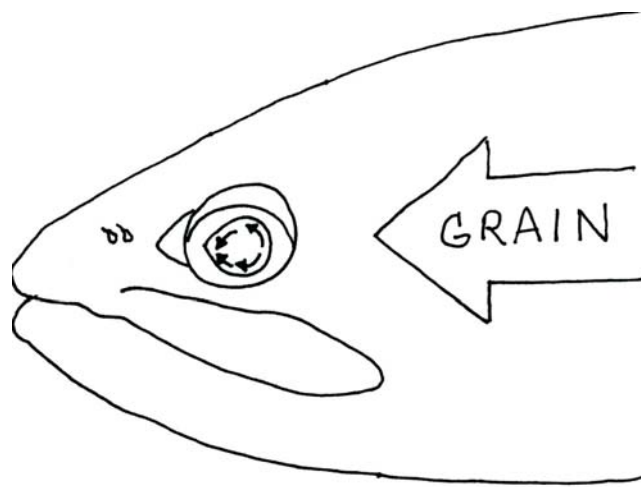


Creating fleshy area in front of eyeball

Take sand paper and round out and smooth the tool marks. If you are going to put in any detail, then using a knife to score around the eyeball to separate the sclerotic capsule and the iris is the recommended tool. Gently remove the wood of the iris to the depth of the

score to create that line. Finishing will allow you to soften or lessen the depth of that line later in the process. To hollow out the pupil use a small gouge to carve out a circle, then a v-tool to give the pupil a point that generally is aimed at the “nose” of the fish. Grain direction is key here. Usually the grain will be moving along the lateral line and moving straight forward off of the front of the fish’s head, and that is how we will discuss the grain. Be careful to account for the grain in your action filled piece as the direction may change as you fish “moves”.

Always cut with the grain or across the grain not into it. See figure 1. To carve the pupil you would need to make up to 4 cuts that go properly with the grain as opposed to just rotating your gouge to complete the round indentation. When you go against the grain you tend to rip or splinter the wood making it nearly impossible to finish properly.



← DIRECTION OF CUT
Drawing of pupil cuts
Figure 1

Using a small veiner carve the outline of the fleshy portion to the front of the eye and sand it down. A number 11 veiner works best for this operation. Sanding to soften the edges gives just the right look to the small area in front of the eye.

POWER TOOLS

Use a cylinder to carefully outline the eyeball. Start by using the edge of the cylinder such that the cut makes a “v” into the side of the fish head. Remove the wood outside the eyeball until it is even with the rest of the fish head. Use the size cylinder that feels best for you. The smaller the diameter the easier it is to gouge into the wood, so use the largest size that you can do the operation with in order to minimize the uneven depth caused by the tool digging in between the grain.

Using the cylinder start shaping the eye. Mimic the process of carving by hand with your power tools. Start by holding the hand piece at a slight angle from the plane of the side of the fish head, around 30 degrees, and make the first cut. Move out from the center of

the eyeball a bit further (how much depends on the size of your sclerotic capsule, but for a full sized trout about 1/8”) and make a second cut 60 degrees from vertical. Finally at the outer most edge of the eyeball, make a 90 degree (hold cylinder straight up and cut with the side of the cylinder) cut which should give you a rough shape of the sclerotic capsule ready for detailing if you are going to do so .

Usually the bottom of the eyeball will rest snugly against the bone above the maxillary bone while the top of the eyeball will be extended away from the side of the head. This is to allow for the eye to be vertical, when the side of the head just above the maxillary bone is wider than the top of the fish’s head. This is more evident on a trout, than a bluegill, but it is still a good rule of thumb for most species. It is absolutely critical that you refer to your reference for this, and 3-D reference would be highly useful for the subtleties here.



Head on view showing eyes “vertical” (slightly more as this subject was looking down for nymphs)

FINISHING

Sanding the eyes can be tricky, and using scrapers and files can really be to your advantage here. The smaller files create a crisp look to the lines and really create smooth transition that is not possible with hand sanding. Often a final sanding by hand at the 220 grit or higher is all that is necessary. Finishing the eyeball to a finer grit than the rest of the fish can add to the dramatic focus to the eye. Finishing some hardwoods, such as West Texas Juniper, down to 1500 grit can be very rewarding as this produces a highly polished surface to reflect light much like a real fish or glass eye used in decorative carvings.

Use appropriate oils, waxes, etc. to properly finish your natural carving. One exceptionally good option is Birchwood Casey Gunstock oil. Please consult one of several reference books out on wood finishing.

This topic could be multiple chapters in a book on woodcarving or an entire book; so we cannot do justice to the topic here. (Stay tuned to this series, as this topic may be coming to help you with finishing your natural finished pieces.)

Congratulations on your masterpiece. The eyes have given your sculpture life and focus. For Additional information on carving natural finished pieces, please refer to the Bibliography.