

Traditional, not outdated

Don't overlook this uncommon but versatile tool, which can remove a lot of wood in a hurry and with little effort.



A boon for bowls. There's a lot of material to remove when hollowing a bowl. A well-tuned adze with the right geometry handles this task surprisingly fast.



Super for sculpting. An adze, essentially a carving gouge that you swing, can quickly hog away green wood to form pleasing curves, like on the underside of a bowl handle or the crook of a spoon.



What to look for in an adze

BY DAVID FISHER

A good adze is a versatile tool capable of removing wood quickly but also with nimble sensitivity. This traditional tool can be right at home in today's woodshop. In a sense, an adze is just a carving gouge that you swing. But a good gouge is easier to find. Some blacksmiths produce excellent adzes that work right out of the box, but lately, demand is such that the wait list is often long. The wait is worth it for a tool that will serve lifetimes. Meanwhile, you may find an adze that's usable with some thoughtful adjustments, and all adzes may benefit from some tuning to suit your work.

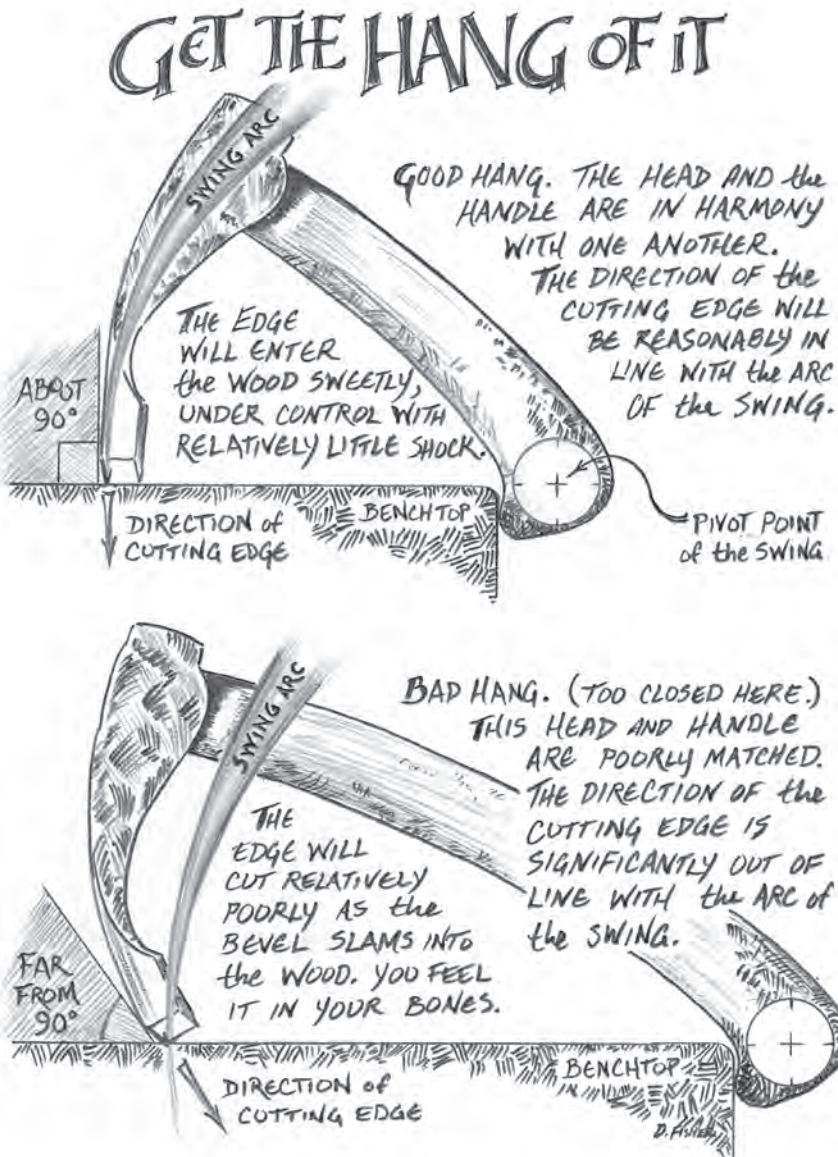
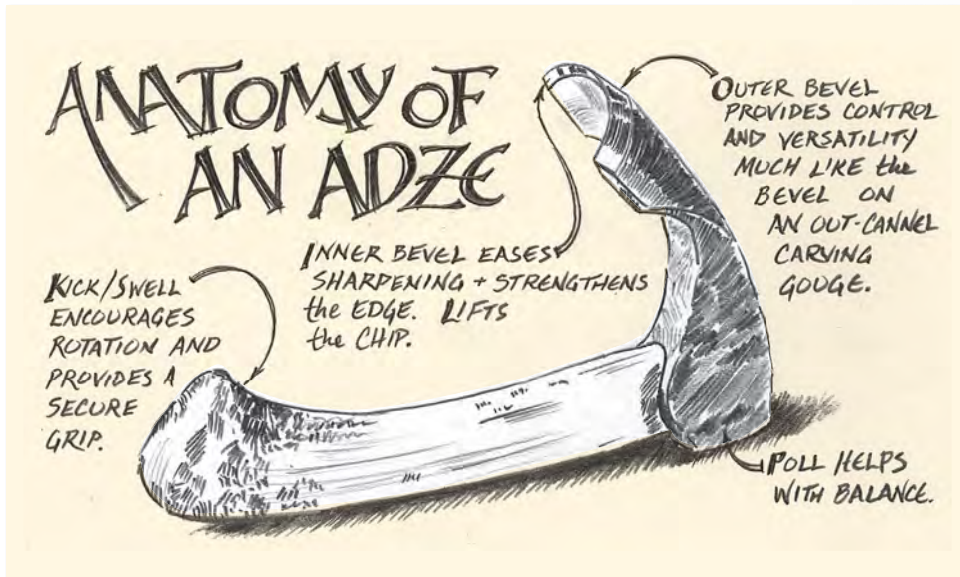
Understanding a few key concepts can help you tune and maintain an adze so it will be a deft extension of your hand. There are many styles of adze for a wide variety of purposes. While this article focuses on a European-style adze typically used for hollowing bowls, many of the concepts apply to other styles.

Start with the hang

Let's get a handle on the hang first, meaning the length and shape of the handle and its orientation to the head. The cutting edge of any adze should be in line with the outer arc of the swing. While there are many variables, the general idea is that, with a natural swing, the cutting edge should enter the wood sweetly and cut efficiently. If the hang is too closed, then the outer bevel will slam against the wood with each stroke. The adze will still cut, but there is probably room for improvement. You and your aching wrists may be eager for it.

To understand the hang of a particular adze, consider the location of the pivot point. This can get a little muddy, because it varies depending on the style and configuration of the adze and how it is swung by





an individual user. But in practice, it need not be complicated. For example, in the case of a typical short-handled bowl-hollowing adze, the ideal swing rotates the head around a point near the end of the handle. A swell at the bottom of the handle facilitates this motion while assuring a secure hold that doesn't require a death grip. In use, the adze should not be pushed into the wood by stiffly swinging, but rather flung into it around this pivot point.

A simple procedure to test the hang is to place the cutting edge down against the workbench with the handle extending off the edge about an inch or so to the pivot point of the swing. When thus arranged and viewed from the side, the cutting edge



Test the hang. With the cutting edge against a flat surface, extend the handle off the edge so that the pivot point of the swing hangs free. The cutting edge should be about 90° to the surface.

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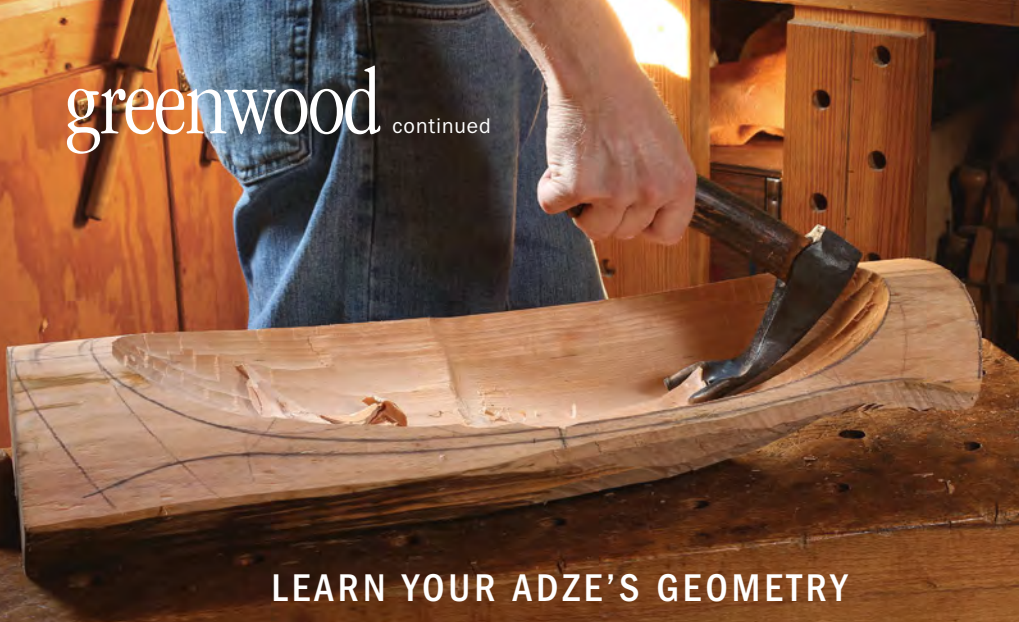
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Online Extra

To watch Dave Fisher hollow a bowl with an adze, go to FineWoodworking.com/285.



LEARN YOUR ADZE'S GEOMETRY

Open profile and laid-back outer bevel for shallower curves. With a straighter line from the poll to its cutting head, the adze above works well in broader, gentler hollows.

Closed profile and steeper bevel for tighter bowls. While the adze above would struggle in this high-walled bowl, the adze at right, with its curved profile and steeper bevel, can navigate these curves nicely.



should be roughly perpendicular to the benchtop. There's wiggle room, so don't obsess. Close to perpendicular is fine. Just avoid a hang that varies significantly. You want the edge to enter the wood like your front teeth bite into an apple. You'd notice if, instead, someone shoved an apple against your teeth.

Making a new handle or simply reshaping the existing one can make a big difference. Hand size is one factor.

I find it ideal if my middle finger is just able to wrap around and touch my hand. Make your handle comfortable and right for you. This is the point of contact that makes the tool an extension of your hand. If you replace a short handle with a long handle for use with two hands, make sure to maintain the proper hang by shaping the handle accordingly. A handle should fit solidly without gaps.

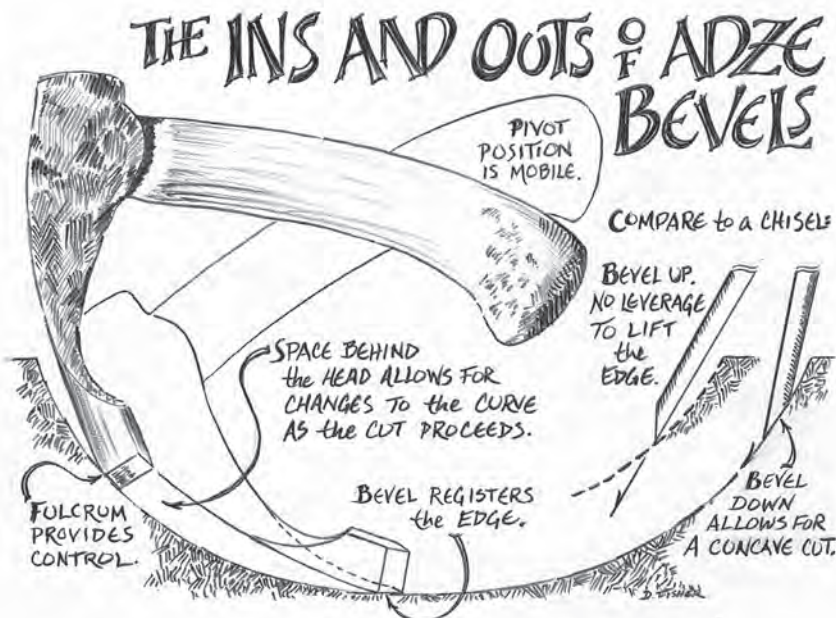
The geometry of a good adze head

In addition to the handle, consider the geometry of the adze head, cutting edge, and bevels. There is no single combination that makes the perfect bowl adze, but there are guiding principles for choosing an adze and adjusting it so that it will perform well for you.

Like carving gouges, adzes come with cutting edges of different sizes, sweeps, and shapes. When hollowing, steeper sweeps allow deeper cuts to be made cleanly without the corners digging in. The resulting heavy texture doesn't matter much for roughing out. If you want to get very close to the final surface, an adze with a shallow sweep will leave a more subtle texture but the corners may dig in, especially with aggressive cuts. Another possibility is a complex edge shape with a shallow sweep in the central portion that blends into raised lips at the edges. The shallower middle portion of the edge leaves a subtle texture, while the swept-up wings allow for a deep cut without the corners catching.

Size the width of the edge to your work. I find an edge width of around 2 in. (give or take ½ in.) ideal for bowl carving. Smaller sizes could be handy for special purposes, while hollowing adzes wider than 3 in. are typically used exclusively for softer woods such as willow or basswood.

Then there's the contour of the head itself when viewed in profile. Some may be better for shaping long, sweeping surfaces, while others are suited for





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Sharpening

You may find an adze with good bones but an edge that requires a complete tune-up, like an antique with deep nicks or a new model with subpar bevels. In these instances, use your bench grinder and a steady hand.



GRINDING

Joint the edge on a coarse stone. This lets you start with an even surface. A small flat across the whole edge tells you when you're done.



Grind the inner bevel with a sanding drum and drill. A drum with a radius slightly smaller than the adze edge helps create an even grind. The inner bevel can be quite small, but much depends on the thickness of the steel near the edge.



Dress the wheel with a slight crown. Use a diamond wheel dresser, leaving a slight hump in the middle of the wheel. This crown allows for greater control and just a bit of hollow grind.



Grind the outer edge corner to corner. Fisher rests his left hand on the tool rest and supports the head with his fingers. His right hand holds near the poll. Together, they rotate the adze head, grinding the outer bevel from corner to corner. He sights from above, uses a very light touch, and takes his time while making successive passes. Grind almost to the edge.



HONING

Hone the outer bevel. Keep the bevel flat all the way to the edge. A very slight arc is acceptable, but it can easily become too extreme and cause the tool to bounce off the wood and cut somewhere else. Be especially aware of abrupt rounding near the edge.



Hone the inner bevel. Fisher finishes with a ceramic slip stone, alternating between the inner and outer bevels to work off the wire edge. Hone each side about five seconds until the wire edge is gone.

work in more confined spaces. Most available adze heads represent a reasonable compromise. The bevels will make a difference in performance, too.

The outer bevel on an adze performs much the same function as the bevel on a standard out-cannel carving gouge. It serves as a fulcrum that offers the control to lift the cutting edge upward as the cut proceeds. For example, a very short and steep outer bevel of 25° or so provides leverage for tighter scoops than does a shallow and long outer bevel of 10°. Therefore, all else being equal, a relatively steep outer bevel will facilitate the cutting of tightly curved arcs. But for larger bowls or troughs with more subtle profiles, that same steep outer bevel will be a bit in the way behind the cutting edge as you try to sweep forward in a more gentle curve. Laying back the outer bevel allows the cutting edge to move forward through the wood more efficiently. Lay it back too far, though, and your edge could crumple. But an inner bevel can come to the rescue.

Some inner bevel is often necessary to strengthen the cutting edge by maintaining an included edge of 25° to 30°. The inner bevel does not affect the cutting action like the outer bevel does, as it is always on the chip side of the cut. I have seen antique bowl adzes with only inner bevels, but they typically compensate with a dramatically drooped head profile.

Weight preference will vary. I like a short-handled adze with some punch behind it, around 23 to 28 oz. While my preference trends toward the higher end of that range, some people will like a lighter adze.

Of course, the adze is in your hands. Developing your skill and your relationship with the tool will allow both of you to swing, and really sing, together. □

David Fisher swings his adzes in Greenville, Pa.



Finish with a strop. Fisher's strop, leather charged with honing compound, has a flat surface for working the outer bevel (left) and a rounded one for the inner bevel (below).

