Multiple Bevels?

Posted by garyfergus - 15 Oct 2011 09:14

I'm new to the Wicked Edge system, but I've been sharpening woodworking tools for over thirty years.

One thing surprises me, as far as I can see the accepted custom and practise with knife sharpening is to work with a single bevel. Maybe I've missed something but I read on this forum about people going to quite complex lengths to maintain the same single bevel angle when they switch from diamond stones to the thicker waterstones.

However, in sharpening woodworking tools, such as plane blades, multiple bevels are increasingly the default method. For example with a plane blade it's common to use a power grinder at one bevel angle (lets say 25 degrees), then on subsequent honing to use an 800 grit waterstone to achieve a wire edge at say 28 degrees, and finally to use an 8000 grit waterstone at say 30 degrees to achieve a polished micro bevel. In fact it doesn't stop here, a very influential woodworker called David Charlesworth flips over to the flat side of the plane blade and removes the wire edge with another tiny micro bevel.

Coming to knife sharpening from this multi-bevel woodworking culture it seems to me more reasonable to do initial sharpening and wire edge formation at say 20 degrees, then back off to say 22 degrees for waterstones or honing with the objective of producing an almost invisibly narrow, highly polished micro-bevel with just three or four strokes. Of course you don't get that beautiful fat polished single bevel, but you would save an awful lot of time! Am I missing something?

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Re: Multiple Bevels?

Posted by wickededge - 17 Oct 2011 12:46

This is an excellent thread! I also love to implement micro-bevels, especially after thinning the shoulder down. Once the edge is really acute, I use the knife to see how it holds up. If it's too fragile, I'll add a micro-bevel at a slightly wider angle. I keep this up until I find the optimum micro-bevel for a given knife and my intended use of it. I'd love to hear other thoughts on the subject.

garyfergus wrote:

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Re: Multiple Bevels?

Posted by edhead35 - 19 Oct 2011 17:37

Sharpening is a journey. First you just want an edge that cuts at all. Learning the burr is your friend, learning to keep a consistent angle, and not dulling the edge as you go finer on the grits. Then you learn a few things about finer honing, and stropping. I think anyone who is honing or stropping is almost guaranteed to get a secondary bevel unless your are superhuman.

Then you get into guided sharpening, like the WEPS. You repeat the same cycle. You want a perfect single bevel, and perfect polishing, and you will be happy for awhile. THen you will start doing two bevels. Then you will start stropping and you will certainly get a lightly convexed micro edge, which is similar to multiple bevels. Then you like the rolled in durable edge, and you want a totally convexed edge and start stepping in on the angles to create the facets, and then blend in the faces to create a beautifully curved surface.

It all depends on how sharp you want your knives, how durable you want the edge, how polished, etc. You will put as much time as you can stand or enjoy or have, and ultimately anyone into sharpening that puts enough time in, will almost defnitely end up with multiple bevels, and convexed edges through the natural progression of wanting to master the craft. Then who knows? You might go back to hand sharpening to do something new.

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Re: Multiple Bevels?

Posted by garyfergus - 27 Oct 2011 10:40

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wickededge wrote:

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I agree. I think it's a mistake to just pick an arbitrary bevel angle, or choose a very acute angle just because it implies a sharp blade. A better strategy is to pick the bevel angle that works best with your blade for your applications.

I keep one folder exclusively for fishing, in reality it's only used for applications where ultimate sharpness is needed, such as cutting braid line, and applications such as bait preparation which don't really wear down a fine edge very quickly. Consequently I've found a 20 degree included angle works fine, only needing light honing every few weeks.

Alternatively I keep another folder in my car that gets used for much rougher work, including an impromptu can opener, consequently unless it's sharpened at 28 to 30 degrees the edge can't stand the abuse.

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