So the sharpening direction DOES matter!

Posted by razoredgeknives - 18 Jul 2012 00:45

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I have noticed that the sharpening direction (i.e. sweeping direction) actually DOES make a difference in how the edge cuts. For instance, my favorite edge is finished on the 1k stock diamond. I have found that when I am doing the sweeping motions from the heel to the tip of the edge, that it does not bite into rope as well on the pull cut but does rather well on the push cut. So what I do now is; on my last stone i make sure that my sweeping direction is from the tip towards the heel and that I erase all of the previous scratch pattern. I have found that the edge will now excel on the pull cut of slicing. This must have to do with the groove pattern at the edge of the edge...

try it out and let me know what you think! Hmmm... I wonder if a mirrored edge (that is used primarily for push cutting) would excel with a 90* stroke pattern to the edge of the knife since that's the direction you use push cuts for... just a thought

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Re: So the sharpening direction DOES matter!

Posted by cbwx34 - 18 Jul 2012 07:04

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Totally agree, and what was surprising to me is that, even at a very fine finish, this difference can still be detected.

cbw

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Re: So the sharpening direction DOES matter!

Posted by KenBuzbee - 18 Jul 2012 07:05

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I've noticed the same thing. It makes sense when you think about it.

Ken

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Re: So the sharpening direction DOES matter!

Posted by wickededge - 18 Jul 2012 08:27

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I agree and use the same technique for setting the final rake for the knife. BassLakeDan has an excellent post about the rake of the teeth somewhere which I'll try to dig up and re-post.

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Re: So the sharpening direction DOES matter!

Posted by BassLakeDan - 18 Jul 2012 22:01

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wickededge wrote:

I agree and use the same technique for setting the final rake for the knife. BassLakeDan has an excellent post about the rake of the teeth somewhere which I'll try to dig up and re-post.

no, it was not me on that previous post, but I know what you are referencing.. I will also try to find it, as it is well worth making it part of the knowledge base. Whew! that is the problem with a subject as deep as ' edge sharpness".. there is just a lot of 'stuff' well of course there is this , but I know what you are referring to and if we can dig it up then there is .. more

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Re: So the sharpening direction DOES matter!

Posted by BassLakeDan - 20 Jul 2012 11:33

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cbwx34 wrote:

Totally agree, and what was surprising to me is that, even at a very fine finish, this difference can still be detected.

cbw

I thought this comment from Cliff Stamp might be of interest (posted here with permission..)

"The earliest I can remember this being discussed was on rec.knives in 96/98 as Mike Swaim was regrinding edges to lower angles and leaving them with very low grit finishes both stones and even files. It became obvious then that the knife was acting just like a saw in that you could easily see the influence of the rake of the teeth both in terms of edge aggression and in edge retention. The lower the grit finish the more pronounced this effect can be seen. As the grit raises dramatically this disappears as once you get into the micron level finish there is little slicing aggression anyway it has to be a pure push cut. The simplest way to think on it is to think of it like a saw and just use a 3.5 tpi saw and a 12 tpi saw and now imagine a one million tpi saw (that would be a micron level finish).

The only concern would be machete use because for sweeping cuts you want the rake to be back towards you, but if you take the same same blade and do chopping, which is a push cut, the teeth will get smashed in very quickly compared to teeth with no rake (perpendicular). If you look at japanese knives being sharpening they typically have a very strong rake towards the handle which is suitable for the slicing they do pulling the blade towards themselves.

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Re: So the sharpening direction DOES matter!

Posted by glenewertz - 25 Jul 2012 14:17

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"I thought this comment from Cliff Stamp might be of interest (posted here with permission..)

[i]"The earliest I can remember this being discussed was on rec.knives in 96/98 as Mike Swaim was regrinding edges to lower angles and leaving them with very low grit finishes both stones and even files. It became obvious then that the knife was acting just like a saw in that you could easily see the influence of the rake of the teeth both in terms of edge aggression and in edge retention. The lower the grit finish the more pronounced this effect can be seen. As the grit raises dramatically this disappears as once you get into the micron level finish there is little slicing aggression anyway it has to be a pure push cut. The simplest way to think on it is to think of it like a saw and just use a 3.5 tpi saw and a 12 tpi saw and now imagine a one million tpi saw (that would be a micron level finish)."

Totally agree, I have adopted the push cut method and don't think there could be a device more suited to directional bias than the WEPS. The higher the edge refinement the less the effect.

Japanese style bolsterless knives intimidated me until I started push cuting, then it made perfect sense.

Glen

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Re: So the sharpening direction DOES matter!

Posted by cbwx34 - 05 Aug 2012 06:48

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Check out this video (starting around the 5 min. mark relates to this thread)...

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