First question
Posted by Staze - 01 Oct 2012 13:31

All,

So, got the WEPS (Pro Pack 1), and was extremely pleased with the packing in the box, as well as the all around quality of the device.

But, as so many others have seen, the edge I got on my first knife was, bluntly (har har) terrible.

One thing I'm wondering about is that in the documents it says to make sure the stone doesn't come off the edge of the knife. So, my question is, does that include the tip? I haven't seen any good videos that show whether the person is basically pulling away with the stone as it reaches the end, or are they running off the tip of the blade continuing the "arc". I think it would probably take a top down slow motion video to really see this, so I figured I'd just ask instead.

Anyone?

==========

Re: First question
Posted by Staze - 02 Oct 2012 11:21

---

wickededge wrote:

Hey Staze,

That's a great write-up of your process. Thanks for posting it. I think you'll find that the more sharpening you do, the better it will get, especially as your stones break in more. I know I preach it a lot, but there is a considerable break in period with the stones and you'll continue to be surprised at the constant improvement. The results that the strops produce are pretty awesome. If you look around the forum at some of the microscopic photos of edges I and others have done, you can really see just how much the strops are doing at the microscopic level to improve the edge. Happy sharpening.

Clay, yeah, I've seen the photos, but honestly, something in my head just went "sure, it LOOKS

more refined, but it can't be that much sharper". And I'll be the first to admit, I was wrong. =P It's a pretty marked improvement. The blade went from being able to cut paper okay, to being able to cut it smoothly and without much effort. I know paper is kind of "the" test, but as Bruce Lee said "Board's don't hit back". So I'll really know how sharp it is when I go to actually use the knife. =)

Going to move on to an old pocket knife tonight and see what I can do with that. I have to wonder how long the upward curve continues. I mean, that first hump is learning. Learning to make the burr, learning when to move on, etc, and that one will continue for a while yet, as I (or anyone) gets to know the sound/feel of the stones as they finish their stage.

Then there's the curve that's going on at the same time of the stones breaking in. And it's pretty obvious how they've changed since the first time. The first time I used the 100/200's, I was kind of shocked by the amount of dust (metal, and diamond I'd guess) that was generated (some of that, no doubt, was from resetting the angle as well. Felt like I needed a vacuum. After that initial go round, the dust dropped off a lot (though it still gets everywhere on the clamp, board, etc).

I'd probably compare it to owning a Prius (which I do). From when you first get it, you learn how to best drive to get the best mileage (much to the annoyance of other people on the road). =P But also during that time, your tires are breaking in, as well as your engine, which as time goes on, lead to better and better mileage. Grippy new tires get worse mileage than nicely aged ones (until they get to bald, when it goes backward a bit). So my hope is that the stones don't work the best right before they need to be replaced. =P The whole idea of a "break-in" period doesn't make sense to some people, but you just have to keep reassuring them "yes, you will get better as time goes on, and no, it's not ALL from skill".

Thanks very much Clay, and everyone, as always. My goal is to be good enough that I can have family bring knives to Thanksgiving to sharpen, which after the first knife I doubted a bit, but after last night's experience, I'm fairly confident it shouldn't be a problem. =)

==========

Re: First question

Posted by ApexGS - 02 Oct 2012 15:04

You should see the pile of knives I have here on my desk from practicing! I've made my fair share of screwups too, including on my very own EDC knife I accidentally used the wrong depth key holes! I had to throw it in reverse and go back to 600 grit to undo the slight amount of accidental reprofiling I caused with the 1000 grit touch up. That's one of the best things about the system, I've found... being able to undo those D'OH moments pretty easily and learn from a bit of extra work, rather than a ruined chunk of steel.

@Clay: Now you have me preaching the stone wear-in gospel too! Just in the maybe six weeks or so I've had my kit (has it really been that long?) all of the stones have settled in nicely and continue to improve.

On the topic of pressure, there are times where some elbow grease helps but by and large on most normal sized knives and MANY types of steel, pressure is detrimental. I had to really put some muscle into profiling that kukri, but some cheap made in China cutlery a friend brought over would chip just sneezing on it. The first week or so was all countering my natural heavy-handedness on the stones.

Regarding stropping, that's something I'm slowly collecting more knowledge about but the Pro Pack definitely gives you a glimpse of how effective it can be. There's a big gap between 1000 grit diamond stones and a 5 micron paste, though, so until the stones wear in a bit you'll be seeing edges that aren't super polished... but plenty sharp! The best looking edges I've done took a long time stropping with both 5 and 3.5 micron pastes from the Pro Pack, so I'm already looking at bridging that gap. I've read a lot about sandpaper and figured I'd try that out, treating the more fragile paper (and different media, aluminum oxide typically) as more of a stropping operation. I can say that 600 grit wet/dry makes a pretty nice edge, looking forward to getting the grits up to 3000 (not available locally, anywhere)

Whew, wall of text! Look at me sounding all edumacated and stuff!

==========

Re: First question
Posted by Staze - 02 Oct 2012 15:20

_____

ApexGS wrote:

You should see the pile of knives I have here on my desk from practicing! I've made my fair share of screwups too, including on my very own EDC knife I accidentally used the wrong depth key holes! I had to throw it in reverse and go back to 600 grit to undo the slight amount of accidental reprofiling I caused with the 1000 grit touch up. That's one of the best things about the system, I've found... being able to undo those D'OH moments pretty easily and learn from a bit of extra work, rather than a ruined chunk of steel.

Yes, definitely. Or the ability to just step back and go "maybe I could get this a bit sharper if I go back to 600 and work a bit more on that.

ApexGS wrote:

On the topic of pressure, there are times where some elbow grease helps but by and large on most

normal sized knives and MANY types of steel, pressure is detrimental. I had to really put some muscle into profiling that kukri, but some cheap made in China cutlery a friend brought over would chip just sneezing on it. The first week or so was all countering my natural heavy-handedness on the stones.

Yes. Which, brings up a point I'm wondering about. What do you do about the "drop" of the stone to the blade (as you come back around and start at the heel of the blade again, that initial contact of the stone to the blade). Do you just do that as lightly as possible, or...? I would think that impact, however light, if the blade is truly apexed, is going to cause some deformation each time.

ApexGS wrote:

Regarding stropping, that's something I'm slowly collecting more knowledge about but the Pro Pack definitely gives you a glimpse of how effective it can be. There's a big gap between 1000 grit diamond stones and a 5 micron paste, though, so until the stones wear in a bit you'll be seeing edges that aren't super polished... but plenty sharp! The best looking edges I've done took a long time stropping with both 5 and 3.5 micron pastes from the Pro Pack, so I'm already looking at bridging that gap. I've read a lot about sandpaper and figured I'd try that out, treating the more fragile paper (and different media, aluminum oxide typically) as more of a stropping operation. I can say that 600 grit wet/dry makes a pretty nice edge, looking forward to getting the grits up to 3000 (not available locally, anywhere)

Yes. I am going to try sandpaper in the coming weeks. I bought some at a local Autozone (a combo pack of 1000/1500/2000/2500 half sheets). 3000 grit is weird stuff. It's green/grey and kind of cushy. www.amazon.com/3M-01459-Trizact-Performa...anding/dp/B005CEHTEY
I haven't ever used it. The 1000-2500 stuff, I have used when I was lapping a water block for my computer (I used to have a water cooled computer). But that was mostly wet, rather than dry (which I would guess you'd want when using it for knife sharpening). =)

Yes, wall of text, but that's why we're here. =)

==========

Re: First question
Posted by ApexGS - 02 Oct 2012 16:10

_____

Staze wrote:

Yes. Which, brings up a point I'm wondering about. What do you do about the "drop" of the stone to the blade (as you come back around and start at the heel of the blade again, that initial contact of the stone to the blade). Do you just do that as lightly as possible, or...? I would think that impact, however light, if the blade is truly apexed, is going to cause some deformation each time.

I try to keep from whacking the edge as much as possible, and feel that it's worth taking that extra second or so to get the stone square and lighten up pressure. Especially if you're like me and have a tendency to get heavy handed, it helps break that habit by making you focus on getting everything just right and minding the pressure on the stone. I think of it kind of like hitting the slow mo button just before you reach the blade again... slow down for that second or two and right back to normal speed again. Sadly there are no cool Matrix effects when this happens

Random aside: I actually picked up that concept of identifying when to hit the brakes and when to swing back into full speed from a pistol instructor several years ago. Funny how down the road, the thing I learned doing speed reloads on a handgun applies just as well to knife sharpening... just in a slightly different way!

==========

Re: First question
Posted by Staze - 02 Oct 2012 16:52

Makes sense. I'm trying to be careful about that contact, and not hammering the side of the blade. =)

==========

Re: First question
Posted by wickededge - 02 Oct 2012 17:35

I had a little more fun with the microscope just now and did a quick progression. Here is the blade after my well worn 1000# diamond plates:

The burr is very obvious even with alternating strokes and semi-light pressure. I could always stand to go a little lighter!

Here is the blade after 10 strokes with the 14 micron strops:

The burr is definitely getting smaller and giving us a more refined edge. That's from only 10 strokes...

I went a step further and completed 50 strokes with the 14 micron strops. Here is the edge:

The edge is clearly a lot cleaner and the scratches are already being smoothed away. New, more shallow scratches are being cut in by the diamonds on the leather which is interesting because the diamonds in the paste are generally twice as large as the diamonds on the 1000# plates. The reason for the smaller scratches is most likely due to the pliability of the leather so that the diamonds in the paste are not making full contact and are not getting pressed in as deeply as are the diamonds on the steel backed plates. For that reason, it can be reasonable to go back to a coarser grit on your strops and still get a more refined edge/bevel.

==========

Re: First question
Posted by Staze - 02 Oct 2012 20:12

Clay,

Great to see. It is interesting how stropping produces such a different result that stone, but as you said, obviously leather is not stone. =)

It would be interesting to see how each strop material (cow, balsa, and roo), with the same compound, compared after a similar number of strokes. It also occurs to me that one could use something like glass, with the paste on it, and get something more inline with the stone (so, a real 14µ scratch pattern), no?

Just makes me wish my USB microscope would get that magnification... =P

==========

Re: First question
Posted by wickededge - 03 Oct 2012 10:39

Staze, you might enjoy reading through this post: A Theory of How the Wicked Edge Pastes Work . It's long but very detailed with some great microscopic images of edges to which I applied a bunch of

different compounds and substrates.

Staze wrote:

Clay,

Great to see. It is interesting how stropping produces such a different result that stone, but as you said, obviously leather is not stone. =)

It would be interesting to see how each strop material (cow, balsa, and roo), with the same compound, compared after a similar number of strokes. It also occurs to me that one could use something like glass, with the paste on it, and get something more inline with the stone (so, a real 14µ scratch pattern), no?

Just makes me wish my USB microscope would get that magnification... =P

==========

Re: First question
Posted by Staze - 03 Oct 2012 12:28

_____

Clay,

Thanks! I'd read most of it before, but went back trough and red it all now. One thing I'd love to see, that would "prove" much of what jende and others are thinking, would be to try the pastes on a glass substrate. That should give the best results as far as true "sharpening" and no "burnishing", I would think. And likewise, would give a good indication of concentration.

The stiction thing is something I actually experienced last night. I went through the 1000grit stones, then moved to the 5µ strops, and noticed they were really difficult to move, and seemed to leave behind (on the opposite side of the blade), small "shavings" (no better way to describe it, but I'm pretty sure they were extremely thin "sheets" of stropping paste). I THOUGHT I just needed more paste because the 3.5µ side didn't have this issue, and was very smooth. Guess it turns out, stiction is generally a "good" thing.

Biggest issue I've had with stropping is that I always forget to set the angle 1° lower for stropping, and worse, forget to set it back when I go back to the stones. =P

Only other issue I've had is occasionally looking down to see if the thumbscrews have loosened on the angle bars.

==========

Re: First question

Posted by ApexGS - 03 Oct 2012 13:20

_____

Yeah, I have the screws loosen almost constantly unless I really torque them down as tight as I can with finger pressure. I tend to check the screws in between grits or between "sets" of strop strokes. The left side likes to get loosey goosey all the time, the right not so much.

I'm constantly fiddling with the strop angle, and definitely noticed an immediate difference in the feel of the edge. Cuts great either way, but strangely the reduced angle "feels" less sharp despite probably cutting better. Definitely a curious phenomenon, and probably why I'm always fiddling with different settings

I also sometimes use Clay's trick of slightly wetting down the leather. I might try -1 degree and dampening the leather this evening on my carry knife, to compare to the finish it has now.

==========