diamond vs naniwa super vs ceramic vs shapton etc

Posted by KenBuzbee - 31 Aug 2012 16:24

Okay, I know this has been discussed in bits here and there but can anyone generalize the differences in the edge obtained from the various materials? For this discussion, I'm talking about at the same basic grit. Say, all at 1000...

I know (well, I think I know;)) some of this but a general comparison would be helpful, both in what the edge looks like and how it performs in various scenarios.

Like you can get an 800 grit diamond plate and an 800 grit Naniwa Super, why would you choose one over the other?

Now I "think" the 800 grit diamond plate will cut faster but leave deeper scratch lines for the next progression to deal with (true or not true?)

Related to this, I've frequently read that if you plan to use a Naniwa for your finishing stone you should use it for the 2-3 prior grits too so you have fewer deeper scratches to deal with (true or not true?) If true, same for Chosera/Shaptons etc?

And where do the ceramic stones fit into all this? Scratches deeper than a Naniwa Super but shallower than a diamond plate?

Now I know the final results are what YOU want in your edge and ultimately only you can find the progression that works for you but some theory on what should be expected is a good thing to have.

Lastly, if ALL this has been beat to death in a thread I've missed, please post a link!

Thanks to all!

Ken

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Re: diamond vs naniwa super vs ceramic vs shapton etc
Posted by PhilipPasteur - 31 Aug 2012 16:46

Start here:

jendeindustries.wordpress.com/2012/02/12...oscopic-progression/

Then Here:

jendeindustries.wordpress.com/2012/02/25...oscopic-progression/

then here:

jendeindustries.wordpress.com/2012/03/

No Naniwa SS, but he does the Chosera stones. It was also before the current generation of ceramics, but has the older ones.

Phil

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Re: diamond vs naniwa super vs ceramic vs shapton etc
Posted by KenBuzbee - 31 Aug 2012 19:39

Thanks Phil,

Only 1/2 way through it. But lots of good stuff there. I may have more questions when I'm done though.

Ken

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Re: diamond vs naniwa super vs ceramic vs shapton etc

Posted by PhilipPasteur - 31 Aug 2012 22:26

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Ask away...

If I can't answer, I would bet that somebody around here can!!

I am not sure that Tom's stuff will comprehensively answer the several different qustions that you asked, but it should be a good start. He does talk about the differences in that set of stones about what they do the differences, and show micrographs.

I am not sure that I could answer all of the questions without writing a book. I don't type that well. You might think about asking in smaller chunks...

BTW, when you talk about the Naniwa and Superstones, you need to remember that not lots of people have them for use on the WEPS... You will find it difficult to find someone to comment on those.

One last thought, I really don't yet understand why folks say that you have to stay within a specific brand or type of stone to get a knife sharp. Lots of people, including those using natural stones (which come from the ground and are all a bit different, even when mined form the same stone vein) mix and match whatever works for them. I will throw this out again...as a question from the logical standpoint... If the goal is to remove all of the scratches from the previous grit with the next finer grit (wich I tend to think is true), what real difference will it make what made the coarser scratches??? If you intend to strop with compounds (lots of people do) how can you worry about lower grit stones. Check Clay's micrographs on stropping. He gets rid of most of the scratches visible at 800X with strops. Seems that it doesn't matter what stones he used to get there...before the stropping As long as he doesn't stop with something really coarse... or want to spend 8 hours stropping).

I asked this question here a while back... can I mix Shaptons in with my Choseras. I really got no one telling me not to. Now I have Choseras, Shaptons Naniwa, and Naniwa SS stones. I mix and match them all of the time and get results that make me quite happy.

Phil

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Re: diamond vs naniwa super vs ceramic vs shapton etc

Posted by KenBuzbee - 01 Sep 2012 06:49

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Thanks Phil,

PhilipPasteur wrote:

I am not sure that Tom's stuff will comprehensively answer the several different qustions that you asked, but it should be a good start. He does talk about the differences in that set of stones about what they do the differences, and show micrographs.

Tom's micrographs really illustrate his points nicely. Sometimes I have a lot of trouble figuring out what I'm even looking at with micrographs. Not with his.

PhilipPasteur wrote:

I am not sure that I could answer all of the questions without writing a book. I don't type that well. You might think about asking in smaller chunks...

Point taken (and I'm waiting excitedly for your book - be happy to proof read it for you;))

PhilipPasteur wrote:

One last thought, I really don't yet understand why folks say that you have to stay within a specific brand or type of stone to get a knife sharp.....I asked this question here a while back... can I mix Shaptons in with my Choseras. I really got no one telling me not to. Now I have Choseras, Shaptons Naniwa, and Naniwa SS stones. I mix and match them all of the time and get results that make me quite happy.

I guess bottom line this is where my whole sequence was leading. Like you, I've always assumed it really didn't matter what removes the previous scratches, as long as they are gone, but I've read this (same stone type/style/brand) so many times. I think some of it may come back to the series Tom posted where he "revealed" scratches from much coarser diamonds that weren't visible until he got several levels more refined. If you switch to a coarse stone that leaves shallower scratches, they would work out more easily as you move up.

Regardless, it's great learning more theory as the journey continues.

Ken

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Re: diamond vs naniwa super vs ceramic vs shapton etc
Posted by cbwx34 - 01 Sep 2012 07:57

Some of what's being mentioned depends on the specifics. For example, if switching from coarse diamonds to waterstones, I think you'll get more benefit moving to a coarse waterstone of similar abrasive to the diamond first, because of the different finish it leaves. You can just go to a finer waterstone, but it takes more to clean up the bevel, and remove the type of finish the diamond left. I don't think you need to go backwards like Tom suggests... probably more of a personal preference, but at least make a "straight across" switch. At finer levels, I don't think it's that important, which is why for example, you can go from the 1K diamond to the ceramics without issue.

Mixing between types of stones also depends on the stone. (Some of this is more important sharpening freehand). For example, if you freehand sharpen on Shaptons vs. Choseras, there's enough difference between the stone type to impart subtle but distinct differences to the knife. You can tell because, if you don't adjust the technique you use, you'll cut into a stone, or kill the edge of the knife. I think that's why it's generally recommended not to mix types. On a guided system, this may not be as much of an issue. Of course it doesn't mean it can't be done... you just have to be aware of it. It even happens on stones of the same brand, for example the Norton 8K stone is very different than the rest of their setup. It's more important not to go back and forth between major types, like diamond --> waterstone --> diamond, and of course don't go back and forth from a hard to soft type like, stone --> leather or balsa --> stone.

PhilipPasteur wrote:

I mix and match them all of the time and get results that make me quite happy.

None of the above is "law" just general guidelines. There are many ways to "sharp", and at the end, this is what matters most! 🙂

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Re: diamond vs naniwa super vs ceramic vs shapton etc
Posted by KenBuzbee - 01 Sep 2012 08:03

So the first question I have (which, as you say, Phil, may not get much input) is regarding the Naniwa Super Stone.... Tom mentions Chosera stones form a paste while Shaptons form a swarf. Paste - good.... Swarf - bad. Which, if either, do the Naniwas form?

Ken

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Re: diamond vs naniwa super vs ceramic vs shapton etc
Posted by cbwx34 - 01 Sep 2012 09:29

The ones I've tried freehand.... swarf. They're a hard stone that don't break down easily. You can always lap one with a nagura or fine diamond stone to create a little paste (mud), if desired.

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Re: diamond vs naniwa super vs ceramic vs shapton etc
Posted by StevenPinson - 01 Sep 2012 10:35

KenBuzbee wrote:

So the first question I have (which, as you say, Phil, may not get much input) is regarding the Naniwa Super Stone.... Tom mentions Chosera stones form a paste while Shaptons form a swarf. Paste - good.... Swarf - bad. Which, if either, do the Naniwas form?

Ken

Nania SS will form a paste or will not form a paste depending on how "YOU" use them. They are a splash and go stone. Keep them wet and they will provide a nice paste base that will polish very well. Let them dry as you use them, and they will start to cut and impinge.

I have used the SS line for quite a while now and for the cost/performance they are very tough to beat.

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Re: diamond vs naniwa super vs ceramic vs shapton etc
Posted by PhilipPasteur - 01 Sep 2012 10:39

Just a clarification, and probably an important one. I go from the 1000 diamonds to 400 choseras. Then 600, 800, 1000, 2000. After the 3000 chosera (recently) I tried going to the 5K Shapton. Seemst to work fine in the progression and I like the way it feels better than the 5K chosera. Again recently, and probably just because I bought the stones and have been trying them out, I replaced the 5K, 10K choseras with the Sahpton 5k (as just mentioned) the 10K Naniwa, the 12K Superstone then the 15K Shapton. Similar to what Tom has said, the Sahpton at 400X show mor of a regular scratch pattern then the 10K chosera , but does not leave the edge as reflective (pretty). Then I go to strops. I don't go back and forth between diamonds and stones nor stones and strops. BTW, if you strop, the final refinement and character of the edge end up being a result of the stopping process. This can be seen under the microscope and felt in use.

Check out this thread:

www.wickededgeusa.com/index.php?option=c...d=2399&Itemid=63

Now if we get, through stropping, to a place where we can see no scratches at 500X, how significant is the finishing stone that we used prior to stropping, much less the progression that we used before that finishing stone ??

The original question was whether ..if one was to use a Naniwa for finishing, then was it required to use the Naniwas for the previous several grits. I have read many people's opinions that state that you need to stay withing a specific brand, or type of stone for a progression, to get good results. I just don't happen to agree. Lots of the razor guys go from Kings or Nortons at 8K to the 12K SS and then the 15K and 30K Shaptons, and love the results. Of course, they also always strop. But what better way to rate an edge than to scrape your face with it

Japanese sword polishers mix natural stones mined in different place all over Japan, They don't have a brand, nor are they of a fixed grit. If you look at their work, it is had to agrue that their method does not work.

In a bit I will try to tackle the part of the OP question about the differences in different types of stones/plates rated with the same grit number.

Phil

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