

Plane or Sand, Sand or Plane

The Not-so-Exquisite Dilemma

from *Sharp & to the Point*

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Context is everything, and what fits one context may not fit another. This is true of using sand paper or a plane to prepare a wooden surface for finishing.

I read somewhere on the know-it-all Internet that 1.) a single pass with a plane removes more surface than a single pass with a sander, and 2.) that although a sander leaves a slightly rougher surface than a smoothing planer, many stains and finishes will penetrate better on a sanded

surface than a planed one, and 3.) a plane can leave marks from the blade edge that can be difficult to remove except by sanding.

What? A single pass is the criterion for whether a woodworker chooses a plane or sand paper to smooth a surface?

Please picture the Context Super Hero flying in, landing gingerly on her toes, then dropping her heels to walk properly. All smiles, she says, "I say this is where context comes in, and Context Super Hero is here!" And, then CSH continues to explain:



“The depth of cut depends on the plane, and the sander, and grit used. One or the other removes more-or-less of a surface with a single pass. If you use a well-tuned plane, you can plane 0.0005” from a surface. That’s a half-a-thousandth of an inch!



Also, so what? When did a single pass become criterion for quality woodworking? Not logical, so much more going on that this hypothesis does us no good.

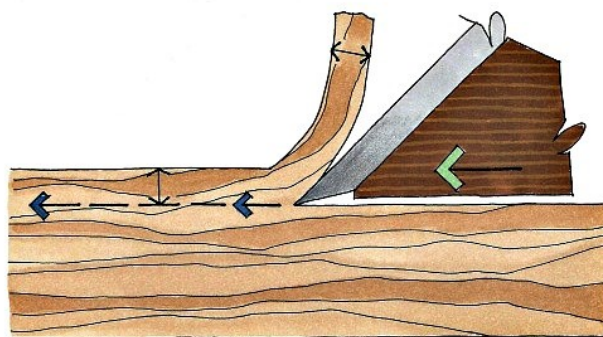
What a sander leaves behind depends on the size of the paper’s grit. Sanding technique and sandpaper products are a huge topic in and of themselves. People make livings on abrasives; good livings.

Not only that, whether sanding by hand or machine, much of the fi-

nal product depends on the woodworker. I mean, in most cases you don’t want to sand against the grain, you want to sand with the grain, right? You want to use the right sandpaper for the job, you want to use the proper technique.

Most important, though, is that wood, sanded or planed, has its own porosity. Sanding does not change a wood’s porosity, which means that it does not facilitate a better penetration of a stain or finish. Just as sanding can leave marks or scratches because of a lack of patience or poor technique, so can planing leave marks or tracks. One big reason for a plane making unwanted marks is that it was not properly set up. Learning to plane well takes time and is a matter of patience and practice – all of which are rewarded by wood surfaces that are smooth and inviting to the touch.

Though not the only fine woodworking school on the planet, the work produced by The Krenov School is rarely sanded at all, certainly never by a “sander.” Such hand planed surfaces are created by students around the world at similar schools, and most professionals who use handtools. Just about every surface on a Krenov School piece has been hand-planed, and that’s why they are so good to look at, and to touch.



From *The Perfect Edge: The Ultimate Guide to Sharpening for Woodworkers* by Ron Hock; Chapter 4—How Wood is Cut..

So, let's get the context right. It all happens at a cellular level and on the surface of the wood. And, it's a matter of what you want and what your material (wood) calls for. Again, sanding does *not* change a wood's porosity. A wood's fiber composite and porosity are constants, although each type of wood or cut exposes its own structure of fibers and pores. And, we know that fibers and pores exposed by rough cutting a plank of wood do not display the smoothest of surfaces. The initial cutting tools are not built for such finesse. It's the woodworker's job to make sense of and to create the look and feel of the surface after the cut.



From *The Perfect Edge; The Ultimate Guide to Sharpening for Woodworkers* by Ron Hock; Chapter 1—*Why Sharen?*

Sandpaper and handplanes are tools used for this very purpose. Sandpaper *fuzzes* or obscures the pores in wood. A film-type finish (shellac, varnish, etc., as opposed to oil) will often fill and further obscure those pores -- almost a necessity with a sanded finish. Consider how useful sanding is when you are dealing with soft wood, want to blend shapes, or need a matte or non-lustered surface.

But remember that porosity is fundamental to any wood's anatomy and is important in describing a wood's appearance – scientifically and aesthetically – and features large in how a woodworker manages a desired outcome. A well-honed blade in a handplane cleanly shears the fibers, leaving the pores open, and the surface satiny smooth. Not even a dilute shellac will fill such decisively cut pores. So, they continue to be seen in all their glory, which is why planed surfaces look so... touchable — the beauty of the wood still shows.”

And with that lengthy explanation, the Context Super Hero lifted her right foot, pointed her toe, looked to the heavens, punched her right arm into the air and lifted off, briefly looking down at me with a contented smile on her face and a quick nod of good-bye.

— Linda at Hock Tools



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Hock Tools The Perfect Edge

Ron Hock