

Custom Traditional Media Brushes in Photoshop

by Davis Engel

Introduction

This tutorial shows in-depth how to make your own custom oil and dry media brushes. I won't cover how to make all the brushes I use, because that would make a *really* long document for you to read, but it will be enough for you to get started and explore on your own. That's the point anyway, right?

I could do a dry run-through of all the functions of the brush attributes in Photoshop, but since that's more like a software reference sheet that you could easily get from Adobe, I'm skipping that entirely and am going to dive into my personal method, which uses the most commonly used brush tools anyway.

I've always admired the works of John Singer Sargent, Richard Schmid and Daniel Gerhartz. Their expressive use of brushwork, color and minimalist detail have always captivated me.







These days, only a handful of great modern digital painters (such as Craig Mullins and Jaime Jones) do anything the way they do in regards to brushwork. Expressive brushwork is beautiful and a valued commodity! Don't fool yourself into thinking you have to make your art look like photographs to succeed, it's super overrated.

...Now, onto the real deal!

Making Traditional Media Brushes

I love the look of traditional media, and I feel it gets lost with all the extra gadgets we receive with every new generation of software. Having a painterly approach preserves a tried-and true art style which is both a ton of fun to do and makes our modern art pool more interesting.

In order to make a brush have the realistic properties of traditional media, you have to think about:

1. What kind of marks does the media make?

-How does it do that?

-What is the tip shape of the media you want to simulate?

-When pressure is applied with this media, how hard or soft is the media?

2. What kind of paper / canvas are you using? -Is it rough, or soft?

3. Extra things to think about:-Level of grain ("dirtiness," if you will)-Randomization (to avoid ugly digital patterns)

To make a good digital mimic of traditional media, you need to understand the "brush engine." It works primarily by stamping black and white pictures called "alphas." Just about everything else the engine does is a variation of this.

Stamp, stamp, stamp

Let's get started then!

CREATE A DAB

Let's make a bristled oil brush on canvas. To do this, I first imagine the tip shape of my paint brush, and how my art pen will translate into its application.



Imaginary paintbrush tip . . .

Next, I create a spotted alpha with an organic, non-repetitive pattern for realism. The bigger spots you see in the alpha would represent clumps in the brush and the smaller ones would represent individual bristles. When painting with oils, these clumps and bristles form the cool, irregular patterns with paint that we all like. Make it triangular to simulate the tapering of the imaginary brush. Note that the tip of the brush always points north in Photoshop – the top of the alpha will point outwards from your digital pen by default.



We aren't *quite* done with it yet - if we left it this way, the brush would make a solid block of paint when used.

Imagine your brush tip this way:



The *darkest* part of the alpha after we make the brush is going to be the *first* bit that hits the canvas. So, lighten up the spots going south. It's also best to lighten up the borders of the alpha, so you don't make a solid block edge when applying the paint.

Great, we've made a dab.

CREATE A BRUSH

Marquee-select the dab, and go to menu "Edit >Define Brush Preset" to make this into a brush.

Open up your brush settings, and set the spacing to 1-5% to make a full continuous stroke. If your computer chugs along at 1%, make it higher so that there are fewer "stamps" for the computer to calculate. It won't be as fine, but speed *is* important. You don't want your machine cranking too much while you paint, it ruins the fun! Find that balance of speed/quality you like.

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You can rotate the alpha under the brush tip shape if you want, but it won't be how you designed the tip.

Next, we have to mess around with Shape Dynamics to make the brush react right when you apply pressure to the tablet.

Check the Shape Dynamics box and enter these settings.

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The biggest things to set for this brush are the Pen Pressure and Tilt functions, because they determine how your pen will change the shape of the brush as your press and swivel it on the tablet.

I set all the different kinds of jittering to zero, because it would cause unnatural noise in an otherwise natural-looking brush. You can experiment with any of these settings to create your own thing of course, but for the most part it won't look like a real brush.

The Minimum Diamater setting you can mess around with, since what it does is set the smallest size of the brush when your art pen is just barely pressed on the tablet. I set it to zero to create the widest range of shape from smallest to largest – this in tandem with our alpha's fading south will create the best effect. Save your brush before Photoshop EATS it (and delete the original preset you made)!

CREATE A CANVAS

The main principle behind creating a good canvas or paper texture is the same as making a good dab alpha: the darkest part of the image is where the brush will touch first on the digital canvas.



Go for depth!

To create the most realistic canvas or paper, the texture image needs to resemble a grayscale relief map of the surface. The darkest parts of the brush mark will *intersect* with the darkest part of the canvas.

I've created a variety of paper and canvas textures from scratch that I use interchangeably between brushes. For the purposes of this tutorial, I will use a googled image to create the canvas for this brush, but I will first give a brief explanation on how I created my own from scratch.

Here I made three tileable paper textures: Strathmore Charcoal, Rives and Strathmore Sketch.



I didn't use photographs to make them – what I did instead was create a relief of the media by using this technique: I lightly glazed the papers with a layer of charcoal and graphite respectively, scanned them, and then repeated this process until I had a full range of contour depth for each paper. In Photoshop, I layered these images together to create grayscale composites for each paper type. And with the right brush alpha, they look almost exactly like the real thing:



For this tutorial though, I'm going to show you how to take a photograph and produce a decent texture from which you can get started, because that can be a hassle.



1. I googled "dirty canvas" and found a nice, gritty canvas texture.

2. I desaturated and changed the brightness/contrast using the menu Image>Adjustments>Curves to set the value range to equal parts black and white. You can also use Brightness/Contrast to do this.

3. I inverted the image, because remember: the dark parts are what the brush touches first, and you don't want the paint going into the cracks before the bumps, right? Doesn't make sense physically. I then went to Filter>Offset and offset the image to reveal the edge seams.

4. I used the clone tool to paint out the seams to make it a seamless, tiling texture. I was careful to line up the fabric of the canvas when laying down my strokes to preserve the pattern.

When you're done doing the above with your texture, select all, then go to Edit>Define Pattern to add this image to your pattern library.

Get out the brush you've made, and go to the editor. Check Texture. This is where the magic happens.

The most realistic modes for your texture and brush alpha are Height and Linear Height. If you like your paint more dry and thick, go with Height. If you want a wetter, thinner paint, go with Linear Height. Both are excellent options, and you should totally experiment. You can try all the other modes too, but I have yet to find a more interesting and realistic look with the others.

The Scale slider is the next most important thing. This sets the size of your canvas/paper texture. It will change depending on the resolution/size you like to work in, which will vary from project to project, also in terms of aesthetics. Find out what scale looks the best for what you're doing.

Next is the Depth slider – this is a very important slider, because it determines how loaded your paintbrush will be. You can and should mess with this whenever you want while you paint. How thick do you want your paint? Less shows more bristle, more creates a thicker stroke.

The Depth Jitter slider adds a bit of depth randomization to each of the "stamps" and adds some grain/dirtiness to the brush. Too much though, and it's a mess.



Last thing to go before this brush is complete – check Transfer. The default settings work; they bind pen pressure and opacity together to create a fading effect, which is useful for blending your strokes together. I recommend binding Flow to Pen Pressure to increase this effect even more. If you want a more scraped, dryer look to how your paint is applied, keep this feature off.



Transfer off, Transfer on.

At this point, we have a solid brush! You can use it as is, but you may want to consider trying Dual Brush for more grain. Dual Brush is actually what most artists use to create the texture in their brushes – not Texture, ironically. What it does is it adds a second line of randomized "stamps" within your brush mark.



Last minute considerations . . .

I mainly use Dual Brush for dry media such as graphite or chalk, but it has limitless applications. Experiment with the settings as much as you like, but you can call your brush done without this feature. For oils, like my brush above, I probably wouldn't use it, but you never know, it could turn into something cool.

Save your brush before Photoshop EATS it. Back up your brushes in case Photoshop crashes and EATS ALL your custom brushes. Nom nom.

Conclusion

Now that you have your very own awesome custom brush, find out all the different kind of marks you can make with it. Just dabble a bit on a blank document. Do thick strokes, thin, scumbly strokes, load the paint, thin the paint, try every angle with the tilt function.

Explore all the different settings in the brush editor for your future brushes.

Look at great art that uses that loose, painterly style, *both* modern and classical (I highly recommend the painters I've already suggested). Study it closely to learn the artist's mark-making language to eventually develop your own. When you see awesome brushwork, look at what the marks do and find out how they do that.

Have fun!

