

Making Paintbrushes

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Supplies

Feathers

Tail (squirrel or ermine)

Wooden stick for handle

Fish glue (could use another kind of glue, but this one is period and can be used for gilding)

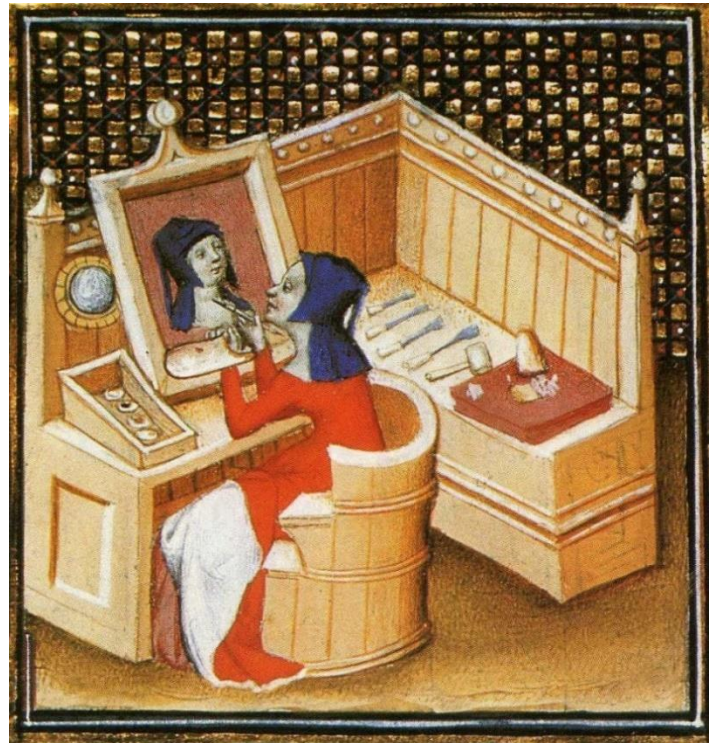
Waxed silk thread

Water

Scissors

Sandpaper

Large needle



Unknown Artist from Giovanni Boccaccio (1313-1375) De claris mulieribus, Anonymous French Translation, Le livre de femmes nobles et renomées, France c 1440 British Library Autoportrait sur bois

Parts of the Paintbrush

Handle: made of wood. I have shaped these from sticks I bought in a craft store.

Brush head: This is the hair bundle. In period I have mostly seen mention of minever, but we are using squirrel due to cost. You can order either ermine or squirrel tails on Amazon. Many types of fur can be found on Etsy. If you are not squeamish you can also collect squirrel tails from roadkill. Make sure you properly treat freshly harvested tails by boiling or freezing to kill any bugs in the fur.

Ferrule: the tube that connects brush tip and handle. Medieval sources say that the ferrule is made of a feather quill. You can order all kinds of feathers on Amazon. I have duck and guinea hen feathers.

Sources

The best source is Cennini in *The Craftsman's Handbook*. We have plenty of illuminations illustrating an artist with a paintbrush, but we do not get much detail or process from the illuminations. I found one other mention in very late period of the hairs used to make paintbrushes in Merrifield's book, *Medieval*

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and Renaissance Treatises on the Arts of Painting.¹ The source is called the Brussels Manuscript and was written by a painter named Pierre Lebrun in 1635.² The author refers to paintbrushes as “pencils” and says that the brush heads should be made of “a soft kind of hair, but which has sufficient resistance to keep itself straight, and to make a firm point for painting.”³ The author then lists animals that provide fur that meets these requirements: bear, marten and similar animals, hog, and “fishes” which is annotated to probably refer to seal.⁴ Another reasonable interpretation of “fishes” may be a water loving species of the weasel family like otter or perhaps a marten, also called a fisher. A couple of manuscripts written in Middle English also refers to a paintbrush as a “pensell/pensyll” and says that it is made of squirrel tail.⁵ While described in a section on stained glass as opposed to illumination, On Divers Arts mentions making paintbrushes with “hair from the tail of a marten, badger, squirrel, or cat or from the mane of a donkey.”⁶ A Very Proper Treatise published first in 1573 calls for a “pencell made of graye amys or calliber tailes” to apply size for gilding.⁷ Amys is either a grey squirrel or a marten and calliber probably refers to squirrel from the Calabria region of Italy.

What Cennini (15th Century Florence) had to say on making paintbrushes:

HOW TO MAKE MINEVER BRUSHES

“Take minever tails, for no others are suitable; and these tails should be cooked, and not raw; the furriers will tell you that. Take one of these tails; first pull the tip out of it, for those are the long hairs and put the tips of several tails together, for out of six or eight tips you will get a soft brush good for gilding on panel, that is, wetting down with it, as I will show you later on. Then go back to the tail, and take it in your hand; and take the straightest and firmest hairs out of the middle of the tail; and gradually make up little bunches of them; and wet them in a goblet of clear water, and press them and squeeze them out, bunch by bunch, with your fingers. Then trim them with a little pair of scissors; and when you have made up quite a number of bunches, put enough of them together to make up the size you want your brushes; some to fit in a vulture’s quill; some to fit in a goose’s quill; some to fit in a quill of a hen’s or dove’s feather. When you have made these type, putting them together very evenly, with each tip on a line with the other, take thread or waxed silk and tie them up well with two bights or knots, each type by itself, according to the size you want the brushes. Then take your feather quill which corresponds to the amount of hairs tied up, and have the quill open, or cut off, at the end; and put these tied-up hairs into this tube or quill. Continue to do this, so that some of the tips stick out, as long as you can press them in from outside, so that the brush will come out fairly stiff; for the stiffer and

¹ Merrifield at 770.

² Merrifield at 766.

³ Merrifield at 770.

⁴ Merrifield at 770-771.

⁵ London, British Library, MS Add. 21431 [1410] in *The Crafte of Lymmyng and the Maner of Steynyng: Middle English Recipes for Painters, Stainers, Scribes and Illuminators* by Marc Clarke, pg. 327 and H3 London, British Library, MS Harley 3151 [#1590] contained in the same book, pg. 232.

⁶ Theophilus at 62.

⁷ Tottill, Richard. *A very proper treatise, wherein is briefly sett for the the art of limming, which teacheth the order in drawing & tracing of letters, vinets, flowers, armes, and imagery...* London, 1573.

https://openlibrary.org/books/OL25522254M/A_very_proper_treatise

shorter it is the better and more delicate it will be. Then take a little stick of maple or chestnut, or other good wood; and make it smooth and neat, tapered like a spindle, and large enough to fit tightly in this tube; and have it nine inches long.”

Process

1. Choose a feather with the shaft with the diameter about the size of the brush you want to make. Put your feather in water to soften the shaft and prevent splintering when cutting.
2. Gather your hairs from the tail and cut them off. Wet the hairs in water. The water will make the hairs stick together and they will be easier to work with.
3. Tie your hairs together with waxed silk thread. You want to leave tails after tying your knots. If you feel that your hairs will be too loose in the ferrule, tie a few more knots or wrap the thread around the hairs more and then tie knots.
4. Cut your ferrule from the shaft of a feather. Try to cut a portion about an inch in length and as open as possible. Cut both ends off of the portion of feather shaft so that you have a hollow tube. Use a large needle or toothpick to clean out anything from the center of the feather shaft.
5. Either push the brush head through the ferrule point first or thread the loose ends of the thread through the ferrule and then pull the bundle of hairs into the ferrule. If you are happy with the fit of the hair bundle in the ferrule, cut off the long ends of the threads.
6. Fit your handle into your ferrule. I have shaped the handles some using a power sander. You may need to sand the handle a little to help it fit into the ferrule better.
7. When your handle fits, put a small amount of glue on the end and then put it into the ferrule. This should also glue the brush head in as well. If your brush head is much shorter than the ferrule, you may want to use a toothpick to get a bit of glue on the end of the brush head in the ferrule.
8. You have a paintbrush! You may want to trim any stray hairs, but I do not suggest trimming the brush head to shape it. This destroys the natural taper of the hairs and blunts the hair tip and it tends to look like a cheap children’s paintbrush.

The next step: Using other furs

While squirrel brushes seem to make great liner brushes, I have found that brushes made with other furs such as mink or marten make better wash brushes or detail brushes. Using these furs requires additional steps. Most furs have long guard hairs and a shorter undercoat. The guard hairs are what are used to make brushes.

To remove the soft undercoat, you gather a bunch of fur and cut it as close to the hide as possible. Then, grasping the guard furs you can carefully pull the undercoat out. Make sure to keep the cut ends of the hairs together as you gather more hairs. The guard hairs can then be gathered, tied, and placed into the ferrule as with the squirrel brush. In order to put the brush head into ferrule, you can dip the brush head into liquid gum arabic and allow it to dry. This will stiffen the head and make it easier to push it through the ferrule. Then attach the handle as you would when making a squirrel tail brush.

