## **Materials**

#### Vellum /Parchment

Parchment or vellum is probably the most sought out material for scribal use and also the most expensive. It is also the traditional material from which medieval documents, books, writs and so on were made upon. Parchment has been around since Roman times.

According to the Roman historian Varro, Pliny's Natural History records (xiii.21), it was invented under the patronage of Eumenes of Pergamum, whether Eumenes I (ruled 263–241 BC) or Eumenes II (ruled 197–160), as a substitute for papyrus, which was temporarily not being exported from Alexandria, its only source.<sup>1</sup>

Vellum is specifically unsplit calfskin.

Parchment is the generic term applied to animal skin in general, but also specifically applied to sheepskin.

You can find parchment made from not just Calves and sheep but also from goat, rabbit, horse.

### Paper:

Some nifty things to know about paper.

The word paper comes from the Egyptian word papyrus. Modern paper, made as we know it today, made from wood pulp was a Chinese invention, the how to was described by the Chinese court official Cai Lun from around 105 AD. Examples of true paper have been found in China dating as far back as 2<sup>nd</sup> C. BC<sup>2</sup>

Paper is made from a mixture of wood pulp, or rag pulp and water, this thick mixture is called a slurry. The slurry is poured onto on wired screens contained in a frame called a Deckle, moved about so that it lies thinly and evenly and the water is allowed to drip out. Once most of the moisture has been removed and the sheets of slurry / paper are stable enough to be moved they are then turned out on to large sheets of felt or absorbent material and the rest of the moisture is then pressed out, either by weights or by running it through a wringer or rollers.

Paper has a grain.

Paper also has a memory. If it was straight it remembers it was straight and doesn't like being folded. If it is rolled, it remembers this and it often takes a long time to unroll and be flat once more. This is the reason that it is highly recommended that scrolls NEVER be rolled for transport.

<sup>&</sup>lt;sup>1</sup>http://en.wikipedia.org/wiki/Parchment

<sup>&</sup>lt;sup>2</sup>http://en.wikipedia.org/wiki/Papermaking

To cut a large sheet of paper it is highly recommended to fold it using a bone folder and then 'cut' by pulling the bone folder along the inside seam. This gives a nice deckled edge.

(A deckled edge is the edge of the paper that was not machine or straight cut but rather the natural edge produced when the paper was made. It is usually uneven and thinner than the sheet of paper itself. It takes its name from the frame that paper was originally made in.)

Paper is made from a variety of materials. The two standards are wood fibers (soft wood trees such as spruce) and Vegetable fibers (cotton, hemp and rice.). It is recommended to use rag paper. You can find paper made from just about anything out there including elephant dung, however be aware that not all these specialty papers are ph neutral or are easy to work with.

There are many kinds of papers on the market out there and many scribe use different things. It comes down to personal preference in the end but there are some guide lines.

-Use 100% acid free (ph neutral) paper. What this means is that the paper will not deteriorate as quickly as non archival (or non acid free paper). Ever seen paper that has been left in the sunlight? It gets brown and brittle, well archival means the paper should not yellow with age and fade, thus destroying your hard work..

Some well known brand names are:

- -Fabriano
- -Arches
- -Strathmore
- -Claire Fontaine
- -Stonehenge
- -Canson
- -Hahnemühle
- -Guardi Artistico

Usually good quality water colour / print maker's paper will list whether or not it is acid free, the weight of it and what grain it is ( smooth, rough, etc...) and if you are not sure, ask.

Water colour paper comes in a variety of 'flavours'. Smooth, rough, satin, hot pressed and cold pressed. It will eventually end up a personal preference as to what you as a scribe will use, but bear in mind the rougher the paper the more difficult it will be to calligraph and gild.

Print maker's paper is usually smooth of surface and less stiff than some of the water colour papers can be. Because of its purpose, good print maker's paper can take a lot of moisture ( water ) etc... and usually unless the ink is terrible, does not allow for spidering!

In the SCA a paper type known as Pergamenata is also very popular. This is a vegetable vellum style paper that emulates the qualities of real Vellum / parchment.

It can be special ordered from a variety of sellers. It is made in Italy by Fedregoni.

It is recommended to use paper of a weight between 90-140lbs or 150-300g/m<sup>2</sup>.

Blocks of paper come in standard sizes.

In the US / Canada they are given in inches 8x10, 11x14,16x20

In Europe the standards are in ISO metric eg:A4, (210x297 mm).

This means that frame sizes will differ slightly depending on whether or not you are using ISO or non metric paper sizes. Bear in mind that non standard paper sizes will mean the recipient has to custom frame their work, more often than not people will not do this because it is expensive. This means your artwork may very well end up in a drawer some place. Just something to think about.

Large sheets of paper can be cut down but will also not always adhere to a standard size.

Always store your paper flat, in a cool dry place away from direct sunlight. Artist's blocks can be stored like books upright as long as they can be kept straight and not buckle.

You generally get what you pay for, so try to buy the best paper you can afford.

# **Things paper sometimes does:**

Paper is absorbent, so bear this in mind when you paint. The more water you use the more likely your paper will buckle and ripple. If you use a lot of water while illuminating then it is recommended to either use a pre-made artist pad which glues many sheets into a block form and helps to stabilize the paper. Or you can stretch you paper before you use it.

Stretching paper means pre soaking your paper until it is wet through (usual method is to lay the paper flat in a bath tub of CLEAN water) Then transfer the wet paper to a stretching board (plat bit of plywood that has been varnished will work) and tack it either with pins or with paper-tape (brown paper tape that is gummed on one side to adhere the paper to the board) then allow to dry. Paper has a memory, and this stretched paper will remember it was soaked and not buckle as much.

Paper is made up of fibres. Wood fibres, cotton fibres..etc... and sometimes these are very absorbent this can lead some interesting issues such as ink spidering. This is a common occurrence with cheap papers. You will see that the ink does not stay in a nice straight line but runs in tiny fracture lines outward from the initial stroke. This spidering give a feathering effect and can in some cases completely obliterate the word being written or the image being drawn. This effect also has a lot to do with the ink being used as well.

Paper is a natural product and sometimes it has flaws in it, such as spots that won't take the paint properly.

#### Inks

There are many different kinds of inks on the market, some are good and some are not. Buy the best

that you can afford and don't buy the cheapest you can get, you will regret this later.

Period inks include Oak gall and Iron ink, walnut ink, lampblack. These can be self made or sometimes bought through specialty shops.

Ink is a liquid medium containing a pigment or dye and is usually transparent, generally thought to be used primarily for writing or drawing. Ink also comes in paste form and is used for print making.

Lamp black is made from the soot from beeswax candles mixed with a little gum arabic or gum water.

Oak gall and iron ink is created from oak nuts (small round ball like formations that grow generally on Oak trees and house the larvae of a wasp) mixed with a solution of Iron salts (Ferrous sulfate) and a thickener (gum arabic). This ink often appears watery and greyish when first applied but darkens over time with oxidization. The down side of oak gall and iron ink is that it can be corrosive. This ink was the standard in Europe from the 12<sup>th</sup> Century and is still being used today. It is not good for use in fountain pens, however, due to its corrosive nature.

Walnut ink is made from walnut hulls and water, slow cooked until the walnut hulls are completely disintegrated. It has a brown - dark brown/ black colour.

What we call India ink actually came from Asia and was made from carbon or soot mixed with a binding medium. Later on shellac was added.

Chinese ink sticks are also a good source of nice black ink.

Sumi ink gives a very nice intense black but it can be thick and slow to dry, sometimes sticky. It can be thinned down with gum water.

Other good names of ink are:

Higgins Rohrer & Klingner Pelikan J. Herbin

Things to look for in inks.

- -Is it Light Fast? Inks that are not light fast will fade in time.
- -Does it flow easily from the pen to the paper or does it stick?
- Does it bleed into the paper (spidering) or stay put?
- Does it have a good strong colour or is the colour washy and pale?

#### Pens and Nibs

Feather quills Reed quills dip pens cartridge or refillable pens

Feathers and reeds can be cut to your own specification.

Dip pens usually come in two parts a holder and a nib. Holders can be plastic, metal or wood.

Nibs come in a variety of sizes and from a variety of manufacturers.

Among the most loved are Brause, Mitchel, Hiro, Leonardt and Hunt-Speedball. These metal nibs can be sharpened on a whetstone, a pumice stone or crocus paper (a very fine type of sand paper) and refined with a piece of leather.

Cartridge/refillable pens are convenient for travel and among the best name is Rotring. These pens come in a variety of sizes ranging from 1.1- 1.9 and you can buy them in kits..You can also get refillable cartridges for these pens as well as disposable ones.

Many people use Schaeffer calligraphy pens because they are inexpensive but be warned they have a habit of leaking.

The down side to the cartridge pens is that their nibs are usually made from steel and are harder than the nibs you can buy for dip pens or self cut quills. Harder means less flexibility when writing, but they are very good for travelling and more often than not Kings and Queens prefer to sign their scrolls with a cartridge pen than a dip pen. Unless the royals have some experience with calligraphy they often get a bit intimidated by the signing process, and are worried about 'messing up the scroll.'

When using a cartridge pen be mindful of the type of ink you use as oak-gall&iron ink and some sumi inks will corrode or gunk up your pens, especially if you don't clean them regularly. Some India inks will also cause you problems because they contain shellac (which is a kind of varnish). So for these pens it is often best to use the manufacturer's recommended inks.

Cleaning pens is a good thing and you should clean your pens and nibs after each use. Most people will recommend warm water and normal soap, an old toothbrush is useful for scrubbing the crud away. If you are lucky enough to find one at a good price, an ultra sonic cleaner will do the job wonderfully especially on nibs and pens that have been neglected. Make sure you dry the nibs and pens as well, nibs WILL rust!

This also goes for nib holders, mostly they are made out of wood which doesn't often mix well with water over long periods of time, the metal teeth inside the nib holder rust and the wood rots, so be mindful of keeping them dry as well.

#### **Paints and Pigments**

Gouache

Water colour (Aquarelles) egg tempera / dry pigments \*acrylics

- For the most part in the SCA people lean towards using water colour paints and gouache.

The use of water-colour type materials has its beginnings in Europe with the fresco style paintings, the use of pigments mixed with water painted on to wet plaster. (such as the Sistine Chapel). The earliest known water colour painting was done by Italian Renaissance artist Raffaello Santi, who would paint full scale cartoons as the precursor to tapestry designs.<sup>3</sup>

Gouache is a water based paint which contains pigments suspended in a binder. Gouache differs from water colours in that the pigment particles are larger, the ratio of pigment to water is greater and the presence of a white pigment like chalk is present making gouache far more opaque than water colour.<sup>4</sup>

Gouache will lighten as it dries.

Water-colours are paints which contain a pigment suspended in a binder usually gum arabic which are more transparent than gouache. They can be found in several grades. Artist, student, and scholastic.

**Artist grade** contain a full pigment + natural binder ( Gum arabic)

**Student grade** contain lower concentrations of pigment, less expensive formulas and a smaller range of colours available.

**Scholastic grade** paints are mostly found in pan form, contain inexpensive pigments and dyes suspended in a synthetic binder.

Both aquarelle (watercolours) and gouache come in tubes, or cakes and pans. Both can be reconstituted with water once they have dried.

If you can afford it always by artistic grade paints.

Some good names are:

Windsor and newton Schminke Grumbacher Daler-Rowney

You can also purchase dry pigments, both period and non period and mix them with a traditional

<sup>&</sup>lt;sup>3</sup>http://en.wikipedia.org/wiki/Watercolor\_painting

<sup>&</sup>lt;sup>4</sup>http://en.wikipedia.org/wiki/Gouache

binder of egg yolk. Egg tempera gives a beautiful depth of colour. They can also be bound with glair or gum arabic.

Glair is the liquid left overs produced from whipping egg whites too a meringue, then letting it sit over night (not in the fridge) so that the liquid separates from the remaining meringue. That left over liquid is called glair and it has a ton of uses, one of which is a binder.

CAUTION: Some period pigments are highly toxic so wear gloves and a mask if you are grinding your own and DO NOT SUCK ON YOUR PAINTBRUSH TO GET A GOOD POINT!

\*Acrylics.

While there are many scribes who use acrylic paints for their works, it is not the most recommended medium.

Acrylic paints are a pigment suspended in an acrylic polymer binder, that is a plastic. Acrylic paints first came to use in the 1950's.

They have some pros and cons.

### The pros of acrylic paints are:

A: They have a very deep colour, a good opacity and can be thinned with water.

B: They dry very quickly.

C: They are water resistant once dry.

## The cons.

A: They dry really fast. Once out of the tube acrylics dry very quickly and once the paint is dry it cannot be reconstituted with water, so waste becomes a factor.

B: They are water proof, get some on your clothes and that is it. Forget to clean your brushes fast enough and you will need to buy new brushes. ( not very good if you are using very expensive brushes)

C: They polymerize (become plastic) when dry and are not designed to adhere to water colour paper so you may find that your beautiful art work peels off the page.

D: Of all the commercially available paints on the market, acrylics have the least amount of period ingredients.

The debate within the SCA artistic community over the use of acrylic paints is a heated one. It comes down to a personal choice in the end.

### **Brushes**

Buy the very best paint brushes you can afford and look after them. Cheap brushes don't last, they drop hairs ( shedding) and they will not 'point' as well.

Brushes are made from natural hair or synthetic fibres.

Natural include Sable, squirrel, camel, pony, hog and goat hair.

Synthetic brushes are made from acrylic, or nylon.

The best water colour brushes in the world are made from Kolinsky sable hair (rot marder).

For most scribes the most used sizes range from 3 down to 10x0. The smaller the number the finer the brush.

Generally used are brushes called Rounds although Rigger brushes, because of their brush length are also valuable.

Round and Rigger brushes will have a body of hair that comes to a very fine point. The larger the body of the brush the more paint / water it can hold.

Always clean your paint brushes once you have finished with them. Use a mild soap ( usually art supply shops have brush soap) and cool water. Do not use hot water as this can melt the glue which binds the brush hair together inside the metal cap that connects brush to handle and then your brush will fall apart.

Make sure to remove all pigment from the brush once you are done. Left over pigment on the brush will cause the hairs to become stiff and dry, damaging them.

Never ever leave your brush head down in water even for a short period of time. This will cause your brush head to bend or bow and make it useless.

To remove excess water from your brush shake it as you would a mercury thermometer. Don't use your fingers to smooth the brushes out, the oil from your skin will damage the brush. It is not a good idea to suck on your brush to bring it to a point either, paint pigments are not healthy and your saliva isn't good for the brush.

Some brands of brushes are:

Windsor and Newton (series 7 is the very best of this brand)
Arches
Da Vinci
Grumbacher

## **Other Equipment**

- -Pencils , BH-2H either regular wooden pencil or mechanical. Softer pencils will smudge and the graphite will get everywhere if you are not careful with where you lay your hand on your work.
- -A good eraser, the white plastic ones will not score the paper like the pink or grey rubber ones will. Some people also use kneaded erasers.
- -A good ruler, with inches and cm. Artist quality metal rulers with cork backing are ideal, as they don't slip and they don't lose their edge the way wooden or plastic rulers can.
- -A T-square
- -An Ames lettering guide (combined with the T-square is perfect for lining your paper.
- -A compass, protractor and template for circles
- -An eye dropper bottle, or 5-10 cc syringes. It is easier to thin paints when you can control how much water to put on them.
- -Drafting tape. Some people like to tape their paper to the desk so it doesn't move around, especially when drawing the lettering lines.

- -A drafting table or sloping table.
- -a good light source, preferably natural light.-Paper or dish towels for mistakes with water, for laying your paint brushes on and a billion other uses.