

Watercolor Materials and Equipment

Paper

Production

There are 3 types of watercolor paper according to production.

They are handmade, mould-made and machine-made paper.

Handmade paper - the most natural texture that preferred by many artists

Machine-made paper - a more mechanical look paper, more suitable for graphic art or illustration.

Texture

Watercolor paper is available in 3 basic surfaces

Hot-pressed paper - relatively smooth surface, more suitable for fine detailed painting.

Cold-pressed paper/Not paper-medium rough or textured surface which is suitable for general needs.

Rough-heavily textured surface with pronounced "tooth" for impressionistic painting that gives ragged strokes to the strokes because the paint sticks only to the top of the paper's tooth.

Content

Paper is made of cotton (sometimes called rag) or cottonwood pulp combination.

100% cotton made paper is the best to be used due to its resistance and versatility to wash and corrections.

PH

A neutral pH is a necessity for watercolor paper; or else it will have yellow stain that grows over time

Weight

The weight of paper is calculated in pounds per ream or gram per square meter

The heaviest paper is usually the thickest

Watercolor paper weight range from 90 to 300 pounds (185-640g)

Lighter papers less than 300gsm/140lb tend to buckle and wrinkle when washes are applied. To avoid this, stretch paper before start working on it.

Absorbency and size

Watercolor paper are given a coating of glue or size during paper pulp period or after pressing, so that its surface will retain moisture and keep the color from penetrating deep into the paper. It helps produces a more luminous wash and keep the color intensity

Paint

Components

Watercolor paints are obtained by mixing extremely fine pigment, binder (gum Arabic) and humectant (glycerin)

Form

There are three forms of watercolor available in market; liquid, creamy (tube) or solid (pan)

Liquid watercolor-packed in small plastic or glass bottle. Colors are vivid which more suitable for graphic art or illustration

Tubes-sizes from 5-20ml/0.17-0.66 fl.oz, easier to be diluted, therefore more suitable for doing relatively bigger painting. Anyway you must waste some paint or spend time adding more as you paint.

Pans-come in full or half pan size, light and easy to use when painting out of the doors, economical with minimal wastage of paint. Anyway take more effort to lift enough color into the brush, therefore more suitable for smaller scale painting less than A4 size approximately

Grade of paints

There are two forms of watercolor paints available in market; artist grade and student grade

Artist grade-categorized from series one to five, prices from low to high, better in stability and permanence, better in quality and density of the pigments. Brands available in market include Winsor and Newton, Old Holland, Rembrant of Talens and Daler Rowney

Student grade-consistent in prices. To maintain the cost, substitution pigments is used when indicated as "hue". Brands available in market include "cotman" of Winsor and Newton, "Georgian" of Daler Rowney, and "Van Gogh" of Talens

Permanence

Refers to the resistance of pigments to the sunlight. Some color may fade under sunlight. Indicate with * on the label

Transparence

Pigment differ in transparence

Transparent pigments- French ultramarine, Cobalt blue, Hooker's green, Alizarin crimson, Viridian, Prussian blue

Opaque pigments- All cadmium, Yellow ochre, Burnt umber, Cerulean blue, Lemon yellow

Staining strength

Alizarin crimson, Viridian and Prussian blue are high staining pigments. They are hard to lift from paper when painted.

Tinting strength

A strong tinting strength color means the color will easy overdo other colors when mix with it.

Strong tints- Alizarin crimson, Cadmium red, Phthaloyanine blue, Burnt sienna,

Low-strength tints- Yellow ochre, cerulean blue

Brush

Hair

Brushes can be made from natural hair, bristle or synthetic hair.

They are differing in absorbency, hardness, flexibility and structural features.

Natural hair end in single point, whereas bristle has several at its' tip; moreover, it is harder and more resistant

Natural hair can take up more paint than synthetic hair due to its coarser surface.

The choice between one type of hair and another is dictated by the style of painting and preference of each artist

Kolinsky sable

Best sable in term of quality

Generous “belly” capable of holding plenty of water

Release paint slowly and evenly

Point or edge well when loaded with water

Return to original shape at the flick of the wrist

Expensive, up to few hundreds

Red sable or pure sable

Good replacement of kolinsky hair

Less expensive in price compare to kolinsky hair

Ox

Less spring compare to sable hair

More stiff compare to sable hair

Tips of hair doesn't point too sharp

Good replacement for sable in bigger size

Economical in price

Squirrel

Carries a generous amount of water

Release water a bit faster

Point very well

A bit soft and lack of strength

Suitable for background wash

Economical in price

Suitable for background wash

Goat

Imitation of squirrel hair

Much cheaper in price

Synthetic hair

More harder and resistant compare to natural hair

Can point very sharp

Absorb less water combine to natural hair

Combination of synthetic and natural hair

Quite flexible and point very well too

A good alternative buys at a very cheap price

Shapes

Round

Most versatile among all the shapes



Mop

Useful for laying down broad strokes of color over large area



Spalters (large flat brushes)

Useful for laying down very broad strokes of color over large areas

Excellent for laying washes and controlling the flow of paint



Spotter

Small size round brush with shorter handle which make it suitable for painting details

Rigger

Very long and thin hair

Suitable for line works

A good brush

Generous "belly" capable of holding plenty of water

Release paint slowly and evenly

Point or edge well when loaded with water

Return to original shape at the flick of the wrist

Care of your brush

After painting, wash your brushes with soap to remove all the traces of paint and then rinse them thoroughly

Don't use hot water for washing, as it may expand the ferrule (the metal tube connecting the hair and the handle), soften the glue and make the hairs fall out.

Brushes must be perfectly dry before being put away to avoid the possibility of mildew

Keep your brushes clean and avoid building up deposits of paint at the ferrule, as this has the effect of splaying the brush open and ruining the point

You can judge a round soft-hair brush by its tip. A good one will always come to point when dampened

Accessories

Pencil

2B pencil

Kneaded Eraser

Is more suitable as it is not too hard to scratch away the sizing on the watercolor paper surface, which plays a very vital role in color vibrancy and paper absorbency of water

Washer

Ideally with at least 2 compartments, one for washing brushes and another to keep clean water for mixing color

Palette

Palette, tray and pan are the few forms of palettes used

Folding palette is most suitable to be carried around for outdoor purpose

Metal, plastic, and ceramic are the commonly used materials

Enamel metal is best to used among all materials

Choose biggest size folding palette if possible

Pen Knife

For sharpen pencil, cut paper or scratch color from paper to get thin white line

Towel rag

For cleaning purpose

Sponge

For absorbing additional water from papers or brushes

May used for creating textural effects as well

Natural sponge is better