

Information for Textile Artists on Preparation and Dyeing of Silk

Silk purchased from Silk Wholesalers contains no factory additives and is ready for dyeing or painting.

We do, however, suggest pre-washing as all silk contains varying amounts of *Sericin*, a naturally occurring protein gum, which is best removed before dyeing to support even penetration of dye.

Sericin is a gum generated by the silk worm and the amount found in silk will vary according to the environmental conditions, such as the climatic and regional influences and the diet of the worms.

Silk purchased from Silk Wholesalers contains nothing other than natural Sericin.

Preparing Silk for Dyeing by Pre-washing or Scouring.

In YOUR WASHING MACHINE on the DELICATE/WOOL CYCLE

Simply use a gentle detergent formulated for protein fibres such as silk and wool. Choice magazine (Sept 89) found SOFTLY the best detergent to use on silk/wool for PH balance and cleansing ability. Resist the urge to use a wool wash containing eucalyptus, or other oils, as this will defeat the object and hinder your dye penetration.

We still recommend Softly over any commercial silk pre-wash.

BY HAND

Soak the fabric in warm water for 45 minutes with your 'neutral' detergent added to the water. Allow the fabric to cool down with the water. Rinse well in warm water. Add a little white vinegar to the final rinse water to rid the fabric of excess alkali. Hang to dry out of direct sunlight.

The PH factor of the detergent is important for silk. Detergents are particularly high in alkali and damage the silk fibre. Other things that damage the silk filament are;

- Heat - water in excess of 80c, and
- Agitation - from boiling water, stirring, rubbing, wringing, ironing.

Damage to the silk filament will be noticed as a loss of lustre and harshness of feel. This is irreversible and will be noticeable when dry. Artists can use this to their advantage, especially if you want crinkled or crushed silk!

Dyeing Silk

Protein fibres such as silk, wool and other animal fibres prefer certain dye types.

ACID DYES

These dyes produce bright colours which vary in light fastness. They are simple to use. These dyes require boiling, which may affect the silk filament, altering the final appearance and feel. This can be avoided by bringing the dye pot to the boil without the silk then reducing to a gentle simmer and immersing the silk.

FIBRE REACTIVE DYES.

These dyes have excellent light and wash fastness, are easily mixable to form a wide range of colours and can be used in cold water. These dyes depend on a chemical reaction taking place, under alkaline conditions, in an aqueous solution, making a permanent bond with the fibres called co-valent bonding. The alkali is the fixing agent. These alkaline conditions will damage protein fibres so this should be a consideration when dyeing silk. The alkali (Soda Ash) should be greatly reduced or replaced with acetic acid (Painting Powder) for silk. Gaubers salt can be substituted for common salt.

These problems do not occur when hand painting with fibre reactive dyes, the dye powder is mixed with water to the required strength and painted on. Fixing is done by steaming or the application of a cold fix agent (Sodium Silicate).

The Sodium Silicate is painted onto the dried hand painted fabric. The fabric is wrapped completely in plastic to exclude air, left for a minimum of two (2) hours (overnight is preferable) and washed thoroughly afterwards. With this method there is no loss of colour.

Dyes made up without additives will remain usable for many weeks kept in a dark place.

General Tips for Dyeing

Use the appropriate dye for the type of fabric.

Use the correct ratio of dye to weight of fabric.

Use the appropriate fixative to ensure fast colour especially if you intend to sell your work.

Scour the fabric well before dyeing. Silks purchased from retail shops will certainly contain stiffeners, bulking agents, crease resistants, fire retardants, soiling repellents and even synthetic fibres. All of which may act as dye resistants.

Always immerse *wet* fabric into the dye bath. Fabric can be soaked for 15 minutes with one drop of dish detergent added to the water to facilitate dye absorption. Rinse well after the dye fixation process.

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