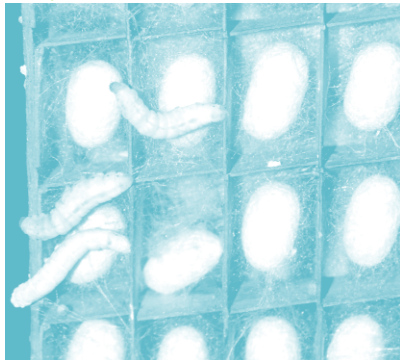


SIZING:

Another way to have control of the flow of dye is to size the silk with the thickened water. Spread a thin skim of water thickened with sodium alginate evenly across the silk with a soft wide brush. Once dry, the silk will feel like paper. Either straight liquid dye or thickened dye for extra control can be applied to this surface.

SPRINKLE DYEING & MICROWAVE FIXING FOR DYES:

For painting techniques that do not require the silk to be stretched and if the desired design is very loose and undefined like splatter painting fixing can be done in a microwave. The silk must first be soaked in a solution of 250ml (one cup) white vinegar and 500ml (two cups) water for at least twenty minutes. Do not rinse or dry. Place silk in a microwave safe container. Tie any resist areas with ikat tape, sprinkle, dab, or splatter dye as desired. Cover tightly with microwaveable plastic wrap. Put in microwave on high for four minutes (Procion H) or six minutes (Pebeo Soie). Note that it is very important to keep the silk wet with



silk cultivation -Laos

either water or dye during microwave-ing, otherwise - if it dries out - silk could burn. Remove and then give silk a final wash off.



STEAMING: (for dyes that require steaming).

This method is good for pieces up to two square meters or yards.

1. Lay dry silk on newsprint and then roll together so that no part of silk comes into contact with another part and secure with tape.
3. Line the base and sides of a vegetable steamer with a thick layer of newsprint to prevent condensation from dripping on silk. A bamboo steamer can be used - it does not require the newsprint layer.
4. Place the rolls of silk into the steamer.
5. Place a thick layer of newsprint on top of the steamer. then place steamer on top of a pot of boiling water. Steam for the duration indicated by dye choice. Make sure to keep water boiling and steam hot.
7. Unroll silk immediately after removing from steamer. Allow to cool then follow final wash off instructions.

(For larger pieces and more details please see Maiwa Handprints 'Stretching and Steaming instruction sheet).

FINAL WASH OFF:

After fixing, rinse silk repeatedly in cool running water until rinse water runs clear and all clear resist is removed. Then do a final rinse with 45ml (3Tbsp) of vinegar to 8 litres (2gal) of water to restore the natural sheen. Roll silk in a towel to remove excess moisture, and then iron silk from the reverse side while still slightly damp.

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Silk has reigned for centuries as the queen of textiles. It is the fibre of ancient dynasties - a lustrous fabric that shimmers with secrets, and histories from far away places. With it's discovery in China over five thousand years ago, cultures around the globe vied for the mystery of sericulture and silk production. A gift from nature, this sought after fibre, is produced from the threads of a silkworm. Even in this age of high technology we must rely upon a carefully coddled caterpillar for the pleasure of silk. Of the many silk producing caterpillar species, the mulberry silk moth - Bombyx Mori - supplies ninety nine percent of the world's present day commercial silk. The rest of the world's silk comes from a wide variety of silk moths whose cocoons are either gathered from a wild or semi-cultivated environment. Each species, such as Eri, Muga or Tussah, produces it's own unique thread and fabric. From the silkworm's cocoon a strong, elastic strand of fibre is reeled and can reach up to 3000 metres in length. This single silk fibre is uniform, but too fine to be woven into cloth. Four to ten strands must be spun together to create a durable, practical thread. The thread is then woven into a variety of fabric weaves - retaining the beautiful hand and luminescent quality that make silk a joy to hand paint.

Silk is a protein fibre and comes in a wide variety of weaves of which several are suitable for silk painting:

PLAIN WEAVES (HABOTAL, PONGEE, CHIFFON), CREPE DE CHINE, CREPE GEORGETTE
SILK SATIN, JACQUARD, TWILL, TUSSAH, SILK NOILE, CHARMEUSE, SILK VELVET.

PREPARING THE FABRIC:

1. Unless labeled 'p.f.d.' (prepared for dyeing) all fabrics must be scoured. The scouring process removes dirt, grease, starches, sizing and other impurities from the fibre that could interfere with the dyeing process. Silk can be scoured with Synthrapol Soap or Orvus Paste.

Dissolve approximately 5-10ml (1-2tsp) of soap per 450g (1lb) of fabric in a bucket or in the gentle cycle of a washing machine using warm to hot water. Soak fabric for 10-20 min. then agitate gently and rinse until water runs clear. Dry silk then iron it flat. Some silks will require more attention than others depending on the impurities present.

2. Most hand-painted techniques require silk to be stretched and lifted off the table. This allows the dye or paint to flow smoothly without interruption. (See Maiwa Handprints 'Stretching and Steaming' data sheet for examples of stretching methods).

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DO I CHOOSE DYE OR PAINT?

Dyes differ from paint in the way they bond with fabric. Through chemical reaction, dyes become a part of the fibre. The molecules of dye bond with the molecules of fibre. Silk painters often choose dye because it does not change the hand or the natural sheen of silk and colours appear to have a greater luminosity. Paint, on the other hand, lays on the surface of the cloth and after heat fixing attaches permanently to the fibres. Without molecular bonding, paint will alter somewhat the drape and natural sheen of the silk; but it is the ease of fixing the paint to the cloth that makes this colourant the choice for some silk painters.

Procion H

Procion H is a liquid fibre reactive dye that works with both cellulose and protein fibres. With rich concentrated colours Procion H is a brilliant dye for hand painting on silk. It comes in nine primary and base colours that can be mixed to achieve a full palette range. Procion H must be mixed with chemical water prior to dyeing and requires fifteen minutes of steam fixing to render the colours wash and colour fast. See steaming and final wash off instructions below. (See Maiwa Handprints 'Procion H' data sheet for complete dye recipes).

Pebeo Soie

Pebeo Soie is a high quality silk dye from France - with excellent results on all protein fibres, it can also be used for cellulose fibres though it is not the most effective choice. It has a range of eighty intermixable colours that are ready to use from the bottle. Pebeo Soie produces intense jewel-like colours that can be lightened with either water or the manufacturers thinner. This dye is convenient and very easy to use; it requires a steam fixing time of three hours. This time can be cut in half if - prior to dyeing - the silk is soaked in a solution of 50% vinegar and 50% water. If using this process, do not rinse, just dry as usual then begin painting. See steaming and final wash off instructions below.

Seta Silk

Seta Silk is a high quality silk paint from France. It is easy to use and comes in twenty-nine intermixable colours. These intense colours can be lightened with water and are formulated to spread like a dye on silk. The artist can use the same painting techniques with Seta Silk paints as with silk dyes. These paints must be heat set with a dry iron to render them wash fast. With the iron on a silk setting simply press the reverse side of the dry fabric for three to four minutes then follow the final wash off instructions below.

Although no chemical is entirely free from hazard - provided that good standards of studio hygiene are observed in their use and storage - these products present a low to nil health risk. When working with dyes and chemicals wear rubber gloves and work in a well ventilated area. Keep all dyes and chemicals away from children.

Painting Techniques

SALT TECHNIQUE:

Brush a generous amount of dye across the stretched silk, but take care not to create any pooling. Blending colours can add a nice dimension. Sprinkle coarse, rock or design salt evenly on the wet dye. Dye will be absorbed or pulled towards the salt creating bursts of colour exploding from a dark nucleus where the salt was positioned. Other salts such as pickling or table salt can be used to produce varied effects.



silk cultivation - Thailand

Let silk dry with salt in position then brush off when completely dry.

WATERMARKING:

Apply a base layer of colour(s) to stretched silk and allow it to completely dry. Add next layer of dye colour, denatured alcohol or clear water by dabbing, stroking, splattering, etc. on top of the first layer. The new marks will push the base colour outward usually resulting in a dark edged mark. This technique can be layered again and again to create a picturesque scene and is useful in creating textural effects. Results are always varied so it is important to experiment.

RESIST:

A resist line is used in silk painting to control the flow of dye. It can be either a clear or a coloured line. Like in a stained glass window, resist forms a sharply defined border to the areas of colour. Gutta (water and solvent based), emulsified wax, water soluble resist such as Sabra Silk, Seta Colour - iridescents, and molten wax all can be used as the resist for this technique. (For complete information on various resists see the Maiwa Handprints 'Resists' data sheet.)

Trace design onto silk with a light pencil or wash out marking pen. Using a squeeze

bottle with an end nib, a gutta tube or - in the case of molten wax - a tjanting tool, draw a thin line of resist on stretched silk. Hold the applicator perpendicular to the cloth and apply resist with enough pressure on the silk to hear a slight dragging sound. Try to draw each line in one smooth action and make sure all resist lines connect solidly. This method of application will help the resist penetrate the silk and create a strong barrier that prevents dye from migrating from one area to the next. Let resist lines dry before adding any dye. Use a pointed dye brush to paint inside the lines. Allow dye to travel across the silk naturally and play with shading and colour blending. To prevent dye from traveling across the resist lines it is important not to overload the silk with copious amounts of dye and to avoid touching the resist lines with your brush.

THICKENED DYES:

Silk dyes and paints are very fluid and spread naturally across the silk. Techniques like block printing, stencilling, silk screening, air brushing and controlled hand painting require dyes to be thickened until they no longer flow across the fabric. Sodium Alginate, a seaweed thickener can be used to thicken dyes until they have a consistency similar to fabric paint.

1. In a studio blender place one litre (4 cups) of warm water.
2. Add 10-25g (2-5tsp) sodium alginate. Adjust measurements either up or down depending on desired consistency.
3. Blend and let stand for one hour then stir. This mixture can be stored in the refrigerator for several months.
4. Add this mixture to your dye until it is of the desired consistency; note that a large amount of thickened water added to dye will lighten the shade.