

SASKATCHEWAN CRAFT COUNCIL

MARBLING

CRITERIA

DEFINITION

Marbling is a process whereby coloured inks or paints are floated either on a liquid medium, water, or a viscous medium, size. The size is made by dissolving either carrageen moss (Irish moss), gum tragacanth, gelatine, sodium alginate, methyl cellulose or starch in water. Marbling is used to decorate the surfaces of paper and fabric. Wood, leather and ceramic can also be decorated but these surfaces must undergo additional specialized treatment to ensure permanence of the marbled design. Each pattern created within the marbling tray is unique-a "monoprint".

TYPES OF MARBLING

1. Suminagashi – Japanese Marbling

Coloured sumi inks are floated upon clear water. They are applied with a very fine, pointed brush or a tooth-pick, one for each colour. A small amount of ink is discharged by lightly touching the surface of the water with the point of the brush. Using a separate brush, a surfactant such as turpentine or oil is applied after each colour. The resulting pattern is one of concentric rings of colour separated by a clear space. The palette is usually no more than three colours but it is possible to use more. The rings of colour can be manipulated into zig-zag patterns either by blowing on them (directly or through a straw), or by fanning them with a hand-held fan. A delicate stylus can also be used to manipulate the pattern. Variety in the design can be obtained by varying the number of circles and the space between them, and through deformation by chemical means. Once the design is completed, a sheet of absorbent paper (held in a "U" shape, the base contacting the surface first) is touched to the floating colours and quickly released. The design is absorbed and shows at once on the back of the paper. The paper is removed, rinsed and hung to dry or placed against a pane of glass until partially dry. It is then pressed under weighted boards.

The paper best suited to Suminagashi is Torinoko, however, almost any absorbent paper, such as rice paper, can be used. Other suitable papers are good quality bond typing paper, thin watercolour or cartridge paper, and writing paper. Suminagashi patterns can also be applied to silk and other textiles.

2. Oil Marbling

Oil paints are dropped onto water with brushes, eyedroppers or broomcorn whisks. The paints can be thinned with turpentine, which will also act as a dispensing agent. Images and pattern making are not easily controlled. Most papers and fabrics accept oil marbling. The paper does

not need to be treated before use. Oil-based colours produce much more vibrant patterns than water-based colours. Emphasis is on colour and image.

3. *Ebru – Turkish Marbling*

Natural pigments or dyes are mixed with ox gall (bile) and a binding agent (gum arabic). The colours are applied with handmade, horsehair brushes or commercial brushes to the surface of a viscous medium. The size is made by dissolving gum tragacanth (Kitre) in water, then filtering the solution many times to make it homogeneous and to remove any impurities. The prepared dyes are spattered on the surface of the size. The ox gall acts not only as a dispensing agent, but forms a microscopic wall of fat around each particle of colour, thereby preserving the colour's identity. This allows the colours to be manipulated without blending. Once the marbler has finished applying the colours, various tools can be used to form the desired pattern. Needles or special combs and rakes that span the length and width of the marbling tray, and that have specific tooth arrangements, are used to create the marbling designs. Additional colours can be "spot" added using a stylus, then manipulated to form floral motifs such as tulips or carnations. Once the pattern is complete, paper is carefully applied to the surface of the image, left five to ten seconds, then removed by drawing it over the rounded edge of the long side of the marbling tray. This removes excess size.

The best papers for Turkish marbling are regular, light weight papers of 70-110 grams. The paper is not treated with a mordant (alum). Absorbent papers such as Japanese paper or handmade papers are not used because they do not render clear, sharp colours or patterns. Heavy papers such as 100% rag are also not used. Emphasis is placed on classic, Turkish designs on paper and clarity of colour and pattern.

There are many patterns in Turkish marbling, each with a different name that is descriptive of its appearance, its use, or the name of the artist who developed it. Just a few of these patterns contain a motif. Others are abstract designs such as Tarakli-Ebru or combed patterns. Somaki-Ebru is the pattern known in the west as Agate, Stone or Turkish. It is named for the marble that comes from the Soma region of west Turkey. Many of the classic Turkish patterns are ancestral to those used in Western marbling.

4. *Water Colour Marbling – Western Marbling*

Water colour marbling arose from the Ebru method. Water colour inks or pigments are mixed with ox gall and water. They are applied to a gelatinous medium made by dissolving powdered carrageen moss (Irish Moss) in water. Various brushes, broom-straw whisks and eye-droppers are used for colour application. The colours, as with the Ebru method, are suspended on the surface of the size. Combs, rakes or a stylus are used to manipulate the colours into various patterns. The paper is carefully laid onto the surface without letting it shift. It is important to avoid trapped air bubbles. Once the colours are transferred, the paper is lifted from the tray, rinsed and placed on racks or hung to dry.

Water colour marbling can be applied to paper and fabric, but these materials must first be treated with a mordant such as alum. This enables the paper or other surface to retain the marbled image. Other mordants used are aluminum potassium sulfate and aluminum ammonium sulfate.

In water colour marbling, carrageen size provides predictable results and gives high quality, marbled images. It allows the marbler control over colour movement and pattern making. Other sizes used are methyl cellulose, sodium alginate, gelatine, and starch.

The colours used are specially patented water-based marbling inks and pigments available from marbling suppliers. Artist's water colours are the next choice. Other water colours available in art shops would not have permanent value and would fade.

Most art papers and commercial papers of various cover, text, and bond weights will produce a vivid marbled image if they are alumed first. Most neutral pH papers work although not all are receptive to marbling. The marbler should be aware that much experimentation is necessary for proper paper selection. Absorbent papers such as Japanese and handmade papers can be used but are temperamental. Since the colour is absorbed by the paper, the images achieved have a soft quality to them. High gloss or coated papers may repel the alum and produce irregular images.

Many patterns of marbling have been passed down through history and have specific names. Others have been created in the last twenty years. There are approximately fifty-five patterns of marbling to date. In creating many of these patterns, a marbling tool moves through the colours in the tray, the lines are divided and made smaller and more delicate with each pass. The integrity and separateness of these lines is maintained regardless of the number of passes made with the rake, comb or stylus. The lines never cross over, they remain distinct.

5. Fabric Marbling

Fabric marbling is done with acrylic paints or oil paints on a carrageen or methyl cellulose size. Fabric must be treated with a mordant such as alum. Fabric marbling is similar to paper marbling with the exception that more steps exist in the preparation of the fabric. The fabric is first washed to remove the manufacturer's chemicals. Proper washing, drying, soaking in alum, then drying and ironing are done prior to marbling. Oil paint marbling gives colour and images to fabric. The water colour marbling technique (although in this case using acrylics) can be applied to fabric as well. Marbling tools used with acrylics must not be used for fabric marbling. If acrylic marbling tools are used for water colour marbling and any paint residue remains, the marbling will be unsuccessful. Once the fabric is marbled, it is hung to dry, ironed on the reverse side and then enclosed in a bag to cure for two weeks. The ironing and the additional curing time allows the colours to set and become more permanent. A number of washes with soap after this time will ensure the colour's permanence before the garment is sewn.

All of the above mentioned marbling techniques have difficulties associated with them. In Suminagashi, the artist must work at a rapid pace because the inks are in constant motion. In the Turkish and Western marbling methods, success is dependent on the delicate balance and intimate relationships between the various components of paints/dyes, the amount of ox gall used and the consistency and temperature of the size. In Western marbling the alumed materials are also an important factor for success. The accurate mixing and preparation of various materials, plus the temperature of the room, the humidity level and the absence or presence of dust all influence success or failure at the marbling tray.

Marbling Criteria
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In judging a marbled piece the main emphasis is on pattern and its execution. The jurors should, however, be aware of the different characteristics and qualities inherent in each type of marbling. For example, the appearance of Suminagashi is very different from that of Ebru or oil-based marbling.

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