

Prepared by
Dr. H. James Schroeer
For
Northeast Florida Woodturners
10 March 2008

My Source of Marbling Supplies

MarbleArt
2462 N.W. 38th Street
Oklahoma City, OK 73112
PH: 405.949.1239

Their catalog can be found at
http://members.aol.com/ht_a/marbling/MarblingSupplies.htm.
You have to call them at the number listed above to place an order with a credit card.

The supplies I purchased were:

Carrageenan, one pound	\$28.00
Alum, half pound	4.00
Marbling Gall, 2 oz. bottle	4.00

Plus shipping and handling

Acrylic Paints were purchased from Michaels and thinned (50%) with distilled water. I used their sale paints that sold for \$.50 a bottle. I also purchased a few "Golden" paints from Pearls in Orlando which cost between \$ 3 - \$ 4.00 per bottle. This manufacturer is supposed to produce the best acrylic paints for this purpose. They did appear to be the brightest colors when used along with those from Michaels.

After reviewing several books on the topic of marbling, the best was "The Paper Marbling Kit: Materials, Techniques, and Projects" by Jane Dickinson. Not only was the book very instructive, the kit also included the materials to do marbling. This kit is available from www.bn.com and found under used and out of print books. This kit was purchased for \$ 8.73. The next available kits have higher costs going up to \$ 20.00. This kit does not use carrageenan as the size upon which the paints are dispersed, rather another chemical. Some other books recommended using wall paper paste as size, while others had recommended using water and oil based paints thinned with turpentine. Most, however, recommend using carrageenan as it provides the sharpest paint lines and intersections.

The attachments on preparing the chemicals were received from MarbleArt which accompanied their products. I did not use distilled water except for thinning the paints.

I did try using diluted dishwashing liquid (NOT DETERGENT) which pushed holes in the dispersed paint. The holes (lack of paint film) did form but I was unable to insert another color into this pattern.

Procedures

Obtain your plastic tubs/trays in which to do the marbling. The size of the object to be treated will dictate the size of tray needed.

1 day in advance of marbling

Mix carrageenan in a blender and store in the refrigerator.

Mix alum and apply to the materials to be marbled. I used a spray bottle and paint brush to apply the alum. This will allow sufficient time for the primer to dry. On paper, make a check mark on the back side so you remember which side has the primer. When the paper has dried, place the sheets, alum to alum, and put under a weight to flatten the paper.

Thin the acrylic paints with distilled water.

With wooden vessels, be sure they have a sanding sealer and have been smoothed with steel wool.

Marbling Techniques

Pour the carrageenan into the tray and using a strip of newspaper, remove any dust or bubbles that may be on the surface.

Have another tray with water available to wash off tools/hands, etc.

Place drops of diluted paint on the surface of the size. They should disperse and maintain their shapes. If the paint drops to the bottom, it is too thick and needs to be thinned with water or gall.

Place other colors to your desire and introduce any patterns.

Put on rubber gloves and begin experimenting with printer paper. Fold it gently in half and submerge the paper through the paint film until the entire paper has been exposed to the paint. Try not to move, except to submerge, as this will smudge the paint intersecting lines. Remove the paper and put into rinse water tray. Rinsing will remove most overlapping colors from the base paint which may be picked up upon removal from the tray. Place the paper on cardboard, line or other surface to dry. After drying, stack under a magazine with a weight to flatten the marbled paper.

When the colors intermix or are used up, clean the surface of the size with newspaper. Reapply paints to your desire and continue to marble the next material.

After use, discard the chemicals, as they cannot be saved but for a few days, and then clean the tools with water, no detergent.

PRESENTATION OUTLINE

2 x 4 CHRISTMAS ORNAMENTS

1. Cut an approximate square 2 x 4, locate the center and bore a ½" hole, ¾" deep.
2. Using jig, round to ½ sphere with a small tennon. (Requires 2 per ornament).
3. Mount ½ sphere in a chuck to remove inside while keeping a wall thickness of ¼".
4. While still in chuck, drill a ¼" hole through the center to accept the finial/top.
5. Do the same with the second ½ sphere including drilling the ¼" hole.
6. While still in the chuck, glue the 2 spheres together, using the tailstock and ¼" hole to align the 2 pieces for gluing.
7. After the glue has cured, turn as much of the sphere as possible to its finished thickness.
8. Using another jig with a ¼" protruding dowel and support from the tailstock, finish turn the remaining portions of the sphere.

MARBLING

1. Review sample work – paper – struts – ornament balls.
2. Review Chemicals & Tools
 - a. Alum – Use rubber gloves to prevent drying of hands
 - b. Carrageenan
 - c. Acrylic paints – thinned 50% with distilled water
 - d. Marbling Gall – Ox Gall
 - e. Dishwashing Liquid (NOT DETERGENT) 2 drops/1/4 cup water
 - f. Pin to break bubbles
 - g. Comb or stylus to form patterns
 - h. Tubs or Trays for size and rinse water
 - i. Spray bottle and brush to apply alum
 - j. Paint applicators – reclosable paint bottles would be best to drop paint
 - k. Strips of newspaper for cleaning the surface of the size
3. Clean surface of Carrageenan
4. Apply acrylic paint
5. Make paint patterns with tools
6. Insert paper to be marbled
7. Rinse marbled paper in water
8. Repeat paint application techniques
9. Place marbled objects to dry
10. Clean up

REFERENCES – [Marbling Turnings – Mary-Celine Thouin](#)
[Carol Duvall Show: Episode CDS-407](#)
[Marbling Fabric – Marilyn J. Brackney](#)

Marbling Turnings

Fluid, Mesmerizing and Spontaneous Mary-Celine Thouin

Woodturning and marbling are ancient art forms that are both taking on new faces. If someone asked me if these two crafts share anything else in common, I would answer "most definitely!" I started turning in 1974 and marbling in 1992. What captivated me with woodturning 27 years ago is the same essence that drew me to marbling. Their similarities? I view them both to be very "fluid" art forms - both are meditative, mesmerizing, and spontaneous.

A simple definition of marbling is that it is the art of floating paints on a thickened liquid or water, patterning a design, and making a contact print. A variety of paints and liquids or "sizes" can be used. In this article, I'll focus only on my materials and methods using acrylic paints and a size of water thickened with carageenan, which is derived from seaweed.

Marbling is a beautiful, fascinating, and surprisingly complex craft. It is a balance and a blending of the marbler - and the process of marbling. You never quite know just who is in charge - you - or the marbling! If you can let yourself fall into and flow with its magic, you will be well rewarded. There is no concrete set of rules to insure success, only guidelines. Any long-time marbler will tell you "what works for one person may not work for another - and what works one



Marbling isn't just for bowls and platters like the ones on the cover of the Journal, as you can see from the vase above and the photos on the following pages. Photos by Dave Grondin.

was a natural progression for me to attempt marbling my woodturnings. I quickly found that marbling on wood had its own additional set of peculiarities. I also realized that there was minimal information on wood marbling, which required me to pioneer my own way. That was fine with me, as I have always seemed to find directions in life that challenge me. So, I dove in and learned from the school of experimentation and self-teaching. I will always be

Getting Started

Even if you are only interested in marbling wood, I can't emphasize enough the value of first becoming proficient in marbling paper. There are good reasons for this.

A sheet of paper costing a few cents gives freedom to learn and experiment. It's easier to discard 50 sheets of marbled paper than to discard or strip marbling on 50 woodturned bowls! Your first trial sheets will help you sort out the peculiarities of paint chemistry, bath consistency, humidity etc. And, more important, these practice sheets help you begin to learn essential basics and to gain confidence and competence in controlling patterns, color, and color balance.

After marbling your first 100 sheets or so of paper you'll be astounded at what there is to learn in this rich craft - and number 100 will be startlingly more beautiful than number one. (Caution: marbling paper can be addictive, you might forget your original intention!)

Successfully marbling a three-dimensional object is much more complex than marbling paper. You must anticipate the way paints stretch and distort their patterns, and the way they thin out as a 3-D piece is lowered into it. Other aspects unique to wood marbling are trapped air, wood as a background, and

day, may not work the next." A marbler recently wrote to me, "Sometimes marbling is like trying to rein in wild horses - you may end up somewhere, but the trip wasn't what you had planned on!" Hang on to your hats folks - it's quite an adventure!

As I worked with my husband, who was teaching himself to marble papers, it

learning and I hope improving my skills and techniques. I don't have all the answers - I am happy to help others get started.

finishes appropriate for wood, which I'll discuss later.

Setting Up

A fair bit of prep and set up is needed, so start a day ahead of time. It wouldn't hurt to warn other household members that you will be taking over the entire room or kitchen and all available horizontal surfaces! (And perhaps some vertical ones.) Some marbling techniques splatter fine drops of paint, so unless you want to



The author spreads colors on the bath of size, then manipulates the patterns until she has something that pleases her. The turned vase is dipped into the color pattern, as shown. A dowel, hot-melt glued to the bottom of the turning is used to immerse the piece into the pattern.

change your decor to "Speckles," protecting surfaces is recommended. And perhaps scheduling 'a dinner out' may win you a few points, as well.

Basic Necessary Supplies

- it is aluminum based and is readily absorbed through the skin, as well as being cumulative in the body.

Paints: I use acrylics for both paper and wood marbling.

of them. Because of this, many marblers use distilled water to make the size and to thin their paints.

Your own water may work well, but if you have problems, start

Size: The size is a thickened "bath" that supports the floating paints. The two main choices for size are: carageenan or methyl cellulose. I prefer carageenan, an extract of a seaweed called Irish moss. Buy carageenan that is made for marbling (non-food grade). Mixing is relatively easy - it is slowly blended into water.

Alum: Pieces that are to be marbled need to be alumed first, which is essential for the paint to stick to the item you are marbling. Use alum that is sold specifically for marbling - normally listed as aluminum sulfate. Be sure to wear rubber gloves when applying alum

Because they are especially opaque, I feel the acrylic colors are particularly good for marbling on wood. I presently use the "Ceramcoat" brand of acrylics, or "fluid" acrylics made by Golden. Ceramcoat is a good choice for beginners, as it is inexpensive and works well. Its disadvantage is that their paints sometimes have small flecks of contamination. The Golden paints are clean and have a nice clarity to them, but they cost more.

Distilled water: Water is used to mix the size and to thin the paints. There are a number of factors that can cause marbling failures. Water is one

again using distilled water. I understand that water from a water softening system can also cause problems.

Photo Flo 200: (Kodak) Paints need to be thinned in order to float on the size, and are first thinned with distilled water. If that doesn't work, use a small amount of photo flo, (available from camera shops), along with the water. Usually just a small quantity is needed.

Paper: (for paper marbling): Ask the people at the art store to sell you what other local marblers use. A few paper choices are Classic Laid or Classic Linen 70 lb, charcoal and watercolor papers. You may have to experiment.

Pans: I like white pans in order to best see the colors. For marbling paper, use a pan that's slightly larger than your paper and about 2-in. deep.

For marbling a whole turning, use a pan that's deep enough for the piece to be totally submerged, without the size overflowing. The pan should be at least double the diameter of the woodturning - so that, as it is being immersed, there will be enough room for the paint to be drawn in from the sides and cover the piece as you had intended. If you are marbling a rim of a woodturning only, then you will only need a pan a little larger in diameter than the piece itself.

Newspaper: This is used to clean or skim the surface of the size. The skin that forms on the surface after the size sits (even for a short time) must be removed before colors are applied. Newspaper is also used to clean off remaining colors after a print is made. Cut newspaper in strips or have some the same dimension as the marbling pan.

Patterning Tools: These are a stylus, rakes, or combs. A stylus is a single patterning tool such as a dowel or knitting needle. Rakes and combs can be made from a variety of materials, and are made in different sizes for various patterning techniques. Most marbling books have good instructions on how to make your own rakes and combs.

Paint Application: Eye droppers or small paint applicator bottles work well.

Supplies for Marbling Wood:

ash, with bold grain that fight the delicate look of the marbling.

Masking: I use liquid frisket or liquid mask (used for masking watercolor paintings) to protect areas that I don't want marbled.

Holding stick: Attach a dowel to the bottom or the inside of the piece with hot-melt glue to hold the piece as it is being marbled.

Marbling in 3-D

The two important considerations when marbling any three-dimensional item involve both the aesthetics and mechanics of marbling the piece. First, consider the appropriateness of the materials. A woodturning should be made especially for marbling. I see no reason to take a woodturned piece that has beautiful or striking grain and marble over that natural beauty. I turn forms and details that I feel will allow the woodturning and the marbling to compliment each other.

Second, before starting the marbling process you need to plan how the piece is going to be immersed in the bath in order to avoid things like:

1.) The shape of the piece not allowing the marbling to contact parts of the turning.

2.) Air pockets.

3.) The colors on the size rushing into the inside of a bowl through cavities and openings - thereby making a swirling mess of your carefully patterned paints. If you are wanting to marble both the inside and outside of an open bowl - you have to carefully immerse it from the side rather than from the bottom up, for the same reason. However, realize that the colors will be thinned out on the last side to be marbled.

4.) You generally do not want to roll the piece across the surface of the bath, because that will give a broken, hard edge where the pattern joins.

5.) Color stretching: Central to the difference between paper marbling and 3D marbling - is that when a 3 dimensional piece is immersed in the bath - it acts like a vortex. The marbling wraps up and around the piece -- gathering, pulling and stretching the colors. As the paint is being stretched, the color becomes diluted and loses its intensity. Take this into account when deciding which way to immerse the piece, and also in matching the size of the woodturning with the size of the pan. Remember - the pan needs to be deep enough to immerse the entire piece, without the size flowing over the top of the pan.

Wood: In choosing wood to marble, think like a painter - pick a species that provides a homogeneous background like a canvas for patterns and color.

Good choices are fine-grain hardwoods such as maple, birch, cherry, walnut. Poor choices include softwoods, like pine, that has resins which will resist the marbling. It's also more difficult to apply a finish evenly to softwoods. Also avoid Exotics which are usually too oily for good paint adhesion and coarse grained, large-pored woods, like oak and ash, with bold grain that fight the delicate look of the marbling.

Masking: I use liquid frisket or liquid mask (used for masking watercolor paintings) to protect areas that I don't want marbled.

KEYS TO SUCCESS

Cleanliness: Keep all containers, equipment and tools free of oils and soap residue, which can contaminate the bath and cause marbling failures and frustration.

Dust: Work in a minimal dust area - flecks of dust settling on the bath cause little areas not to print. This means no dust on your work, clothing, or you!

Humidity, temperature, quality of ingredients: High humidity and lower room temperatures are desirable for marbling. Generally speaking - a temperature below 60 is too cold (the colors don't spread well and sink) and above 80 is too warm (the colors can spread too much and don't hold their shape). I find that 68 or so works well for me. It is also important to keep your paints and the size as close to the same temperature as possible - this is even more important than room temperature. If the paints and size vary greatly in temperature, it can cause the paints to sink.

In order to insure that you are buying quality ingredients, my best recommendation is to buy your supplies from a good art store or marbling supplier.



The marbling for this piece, begins with applying colors on the thickened size and allowing them to spread, above, then manipulating the colors with a stylus. After creating a small indentation on one side of the circle, below left, the author makes a contrasting figure on the other side, below right. The variety of colors and patterns that can be used is almost limitless. The author recommends you experiment by marbling paper and trying some of the patterns demonstrated in the books she recommends on the following page.



Wood Preparation:

After turning a piece, I sand it to 400 grit - then I wet it to raise the grain, let it dry, and re-sand it using 600 grit. Re-sanding the raised grain eliminates problems such as tiny air pockets or bubbles that would show up on the finished piece as little unprinted circles.

If you want to protect any areas from paint, now is the time to mask them off with the liquid frisket and let it dry. The piece is now ready to be alumed. Before you alum it however,

it works well to attach some sort of "holding stick" to the piece. Decide which way the piece will be immersed in the bath and hot glue a heavy dowel onto the piece where there will be no marbling.

The piece is now - FINALLY!! - ready to marble!

Mixing Alum and Carageenan:

Carageenan: I use two tablespoons carageenan to each gallon of water. Carageenan must be mixed in a blender or a food processor. Put a portion (about 1/3 of the blender) of the water into the blender, start the

machine on slow speed and then slowly start adding a portion of the carageenan until mixed. Pour mixture into the marbling pan. Repeat this until you have used up the measured amount of carageenan. You can then add any extra water to the mix: there's no need to run a gallon or more of water through your blender. The carageenan size should be about the consistency of cream. Allow the size to stand 12 hours before marbling in order to "cure." Keep the size covered to keep out dust.

Alum: I use a weaker alum solution for wood than for paper. For paper marbling, I use four table-

spoons alum to 4 cups water. I heat the water to dissolve the alum, then let this cool before applying. Alum solution may be brushed on - a foam brush works well. Allow the paper to dry under a press to keep it flat.

For wood, I use 1/4 CUP of alum to 1/2 gal. of water. I mix enough alum so I can dip the marbled piece. Allow the alum solution to dry on the piece before marbling.

The Marbling Process:

At this point your size is mixed, cured and in a pan. Your paper or your woodturned piece has been alumed and is ready to be marbled.

Preparing and Applying Paints:

Paints generally must be thinned to the consistency of milk or light cream. Thin them, initially, with distilled water. Test each color to see how it reacts on the size. Sometimes a particular paint will still sink when applied to the bath, even though it

READING LIST

Here are several marbling books that I know of:

Marbling Techniques by Wendy Addison Medeiros

Marbling - A Complete Guide to Creating Beautiful Patterned Papers and Fabrics by Diane Vogel Maurer with Paul Maurer

Marbling Paper and Fabric by

has already been thinned with distilled water. If that happens, that is when I add a little photo flo.

Individual paints and colors react differently, so you must learn to work with the individual nature of each color, in order to get the colors to spread evenly. The object is to have the paints float on the size and spread evenly into a circle without the color sinking, or spreading out of control. Some colors float and spread at a reasonable rate, others sink more readily, and others spread so wildly that they can ruin the pattern you are working on. The colors that push wildly, I refer to as "hot" colors. The colors that do not spread well, I refer to as "cold."

Colors that were a little on the "cold" side may need to have additional dispersant (photo flo) added to them in order for them to be able to push against the colors that are there. This is presuming that distilled water was used and is still not doing the job. Be careful in using "hot" colors. There are some that are always difficult to control - when I get to know which ones they are - my method of controlling them is to control drop size by using a smaller applicator for a smaller amount of paint.

If photo flo is needed, I have different mixes I use. I have a jar mixed 1:10, 1:25, 1:50 (photo flo: distilled water). Begin by using a drop or two of the weakest solution in the needed paint. Increase the amount and strength as necessary.

already there. In so doing, the strength of each color changes as well. The colors that were applied first, will be the most condensed and the boldest colors - the paints that are applied last will be a lighter shade.

Patterning:

In learning to predict and control patterning, you are developing a "working vocabulary" of the craft - while at the same time - learning about color, color balance and harmony. These skills are integral in producing quality marbled pieces.

Printing the Piece: Once you have applied colors and developed a pattern that you like, you then take the piece, with the holding stick attached, and immerse it onto the paints and into the bath. After the piece is fully immersed and printed - you slowly pull it out of the bath. As it's being pulled back out of the bath - it will have a slurry of extra color and carageenan on the piece. Do not worry about this - bring it over to the sink and with the least amount of tepid water coming out of the faucet as possible - slowly and carefully let the water wash off the carageenan - leaving the printed pattern. The marbling is quite vulnerable at this stage, as your hands rubbing on the wet marbling can easily smear or wash off the marbling. After rinsing, set aside to dry.

This is the moment you have been waiting for - the grand finale!! Hopefully your labor of love will be breathtaking.

In my next article we will talk about dyeing your work to create a background color, critiquing your work and finishing. Meanwhile work on those 100 pieces of paper and try out a few turnings.

Carol Taylor

The Art of Marbled Paper by
Einen Miura

Marbled Designs by Patty and
Mimi Schleicher

Traditional Marbling by Iris
Nevins

*Marbling. Easy and Elegant
Projects for Paper and Fabric*
by Laura Sims

Any of these books should help
you learn more about the topics
and techniques discussed in this
article. - M. T-S

Applicators: Whisks, eye
droppers and dropper bottles
are three choices to apply the
paint. Whisks are used to
make a "stone" pattern. Eye
droppers or bottles are used to
apply paint in circles - usually
concentric - but sometimes
individually.

It is important to be gentle
when applying paints - just
touch the surface of the bath. If
using a whisk, use a light
hand. As the paints are applied
and begin to spread, they will
also push and condense the
colors that are

*Mary Thouin lives in Leonard, MN
and demonstrated marbling at the
AAW Symposium in St. Paul, MN.*
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FINISHING TOUCHES

Critiquing and Finishing Marbled Turnings

In the Fall 2002 American
Woodturner, Mary Thouin
presented techniques for
marbling turned wood. In this
article she presents some of the
fine points for dyeing your work
to create a background color,
critiquing your work and finishing.

Adding a background color

I like to pre-color woodturnings
before I marble them. This gives
a background color to the
marbling, which de-emphasizes
the visual effects of the
woodgrain, which I feel fights the
marbling, even with light colored
woods. This is simply an
aesthetic choice.

The time to apply the dye is after
you have sanded the turned
piece to 400 grit, wet it, let it dry
before resanding using 600 grit.
Wetting the piece raises the

I use either FW acrylic inks or
Procion or Pro MX fabric Dyes,
which are available at various
art stores and craft supply
houses. Each product has
advantages and
disadvantages as listed below.

Fabric dyes: need to be mixed
with water and alcohol. You
can mix a large enough
quantity that the piece can be
dipped. This makes coloring
the piece quick and easy, and
relatively inexpensive. The
down side of dyes is that some
of the colors bleed into the
bath when the piece is
marbled. I found that dipping
the piece in a dye fixative
before marbling greatly helps
this problem, but does not
eliminate it completely. I also
have had some of the dyes
pull through the completed
marbling when a finish was
applied.

FW acrylic inks: I like these
colors for pre-dyeing the wood.



*Red/Gold - 3-in.-high vase by the
author. All photos by the author,
except where noted.*

you decide you don't like it after
it's dry, lacquer thinner will
remove it. If you use lacquer
thinner, be sure to wear
protective gloves (ones that are
for solvents). After using the
thinner, wash the turning with
very dilute soap, and rinse the
piece very thoroughly. Any
residues will cause havoc in
your marbling bath later.

There is a delicate balance
between developing a skill base
- and creative exploration. As
with any art or craft, the more

grain, and re-sanding this raised grain eliminates problems such as tiny air pockets or bubbles that could show up on the finished



piece.

"Blue Sky" - 5" high blue vase by the author.

They are somewhat expensive, however, so it is not reasonable to mix up a big batch of color for dipping. This means the color needs to be painted on, because you don't want to leave "lap lines." Their advantage is that once they are dry, they do not bleed into the bath and seem to be stable when finishing.

Critiquing your work

I carefully think about and examine the quality of the marbling before I put a finish on the piece.

If I am less than happy with the marbling, I wash or strip it off and start over. There are pieces I have even re-marbled up to five times. The marbling can be washed off under the faucet while the color is still wet, or if

practiced a person becomes, the better he or she is able to identify guidelines that indicate quality work. Think about some of the qualities that we, as woodturners, feel are some basics for quality work. Marbling, though more subtle, is no different.

Some of the areas that I use when critiquing my own work are: color balance and harmony, clear line definition, lack of smudges, smears, and hesitation lines, dust holes. I strive for unbroken patterns and patterns that flow with the form of the piece.

I also posted this question to a marblers forum and these are some additional thoughts that Laura Sims,

a professional marbler and instructor at Arrowmont School of Arts and Crafts in Gatlinburg TN, wrote:

"There seem to be two main components to consider when marbling: technical skill and the relationship of image to application.

"Some of the things I look for in the technical category are high line quality, balanced concentrations of paint, manipulation of a pattern or design (ex. is the image clear or muddy) and use of color (ex. compatibility, effective contrast). Another aspect of technical skill is being able to choose between 'following the rules' or 'breaking the rules.' Sometimes I compress veins of color until they break into



"The Rare Marble-backed Beetle Box" The beetle body.- is turned and carved. Marbling and turning by the author and carving by Graeme Priddle of New Zealand. Other collaborators on the piece done at the 2002- Emma Lake in

lacquer. I have found that many of the solvent-based finishes cause the dye or the acrylic ink to bleed through the marbling pattern, which diminishes the colors. Deft spray lacquer is one solvent based finish that seems to keep the integrity of the marbling. It gives a very nice clear finish, but is difficult to apply evenly. Multiple coats are needed and in order to achieve a smooth finish, a few thin (two-to-four) coats need to be applied. Then VERY CAREFULLY and LIGHTLY "rub out" the surface until it's smooth. It is very easy to sand through the lacquer and into the marbled pattern. Once this happens, I feel it is virtually irreparable. I sand with an ultra-fine cloth abrasive sold by Rio Grande (7500 Bluewater Road NW, Albuquerque, NM 87121 800-

beads. That would not be technically or visually desirable for a fine-combed pattern, but can be an effective 'design element' for bold patterns, creating the illusion of seed beads sewn on the marbled surface.

"That example leads to the second consideration. As a rule the relationship between the object and the chosen image will be compatible.

The design will enhance the object and visa versa. With working in wood you are already moving toward a heightened awareness of pattern, form, composition. That continues to evolve. Even if you can't verbalize why something works, sometimes you'll find that your heart beats faster, maybe you can't stop looking at it, or someone will see it and it'll stop them in their tracks. The marbled woodturned objects that I have most liked have had a tangible relationship between the form, wood

Canada were Greg Wilbur (OR) and Chelsey Kingsely (NY). Photo by Neil Devitt.

grain and the marbled print, as if they needed one another to show off their best qualities. My favorite definition for art is: 'Technical skill often as though aided by magic' (Websters New International, 3rd edition.)"

Finishing marbled surfaces

The fragility of marbled paints on wood necessitates a protective coating - and finishing marbled pieces can be tricky. You want a finish that is clear in order to not yellow the marbling colors - do not use oil finishes for this reason. The best finishes I have found to date are either water based artist varnishes, interior water based (aqua) urethane, or Deft spray

545-6566) called "Wet or Dry Tri-M-Ite Polishing Paper " made by 3M. It is excellent for rubbing out finishes.

For a more natural looking finish, I thin water-based varnishes about 50/50 with water, then paint on one or two very thin coats, using a quality brush.

In closing - If you have read both of my articles, then you must be serious! Hopefully, they will help you dive head first into this fascinating craft - so go have too much fun, experience the magic! - (and don't forget the dinner reservation!)

Mary Thouin demonstrated marbling at the AAW Symposium in St. Paul, MN. To see marbling, check her web site www.mceline-artisan.com

WINTER 2002 AMERICAN
WOODTURNER

Marbling On Fabric

[Carol Duvall Show : Episode CDS-407](#) -- [More Projects »](#)



A marbling technique was used to color the framing fabric of this quilt.



Figure A



Figure B



Figure C



Figure D

The exact origin of marbling is unknown, but examples have been found in Japan and China as early as the 12th century. That type of marbling, known as suminagashi, was accomplished by floating crushed pigments on water. But in 17th-century Turkey, marbling was done by floating paint on thickened water, allowing for more detailed patterns. Expert Marjorie Lee Bevis's method of marbling involves floating acrylic paint on thickened water and moving the paint with various instruments to create exquisite patterns. Once the pattern is created, the paint is transferred from the water surface to fabric or paper.

Functions of Marbling Supplies

Carrageenan - This major ingredient for marbling is a gelatin-like liquid, usually called "size," on which the paints float. Although there are many different types of carrageenan, Marjorie uses an organic substance extracted from Irish moss, which can be mixed in cold water and does not require cooking. The solution should be covered when not in use. It will keep at room temperature for a few days and will last for about a month in the refrigerator.

Alum - To bond permanently with the paint, the fabric or paper must first be treated with an alum solution. Because alum is a chemical that may irritate your skin, wear rubber gloves when working with the solution. It is a good idea to wear a face mask since alum can be harmful when inhaled in large quantities.

Steps:

1. Prepare size/carrageenan by dissolving 1-1/2 tablespoon carrageenan in 1/2 gallon of water using a blender. Mix on low, then pour into a spare container and repeat the process with another 1/2 gallon of water. For a smaller portion, you can use 1-1/2 teaspoon with four cups water. If you are hand mixing, add water SLOWLY to the carrageenan as if you were making a gravy, ensuring that no lumps remain. Allow the solution to stand for 12 hours so that all the air bubbles rise to the top and the solution gels to a rubbery consistency or thin gelatin. Be sure the carrageenan is completely dissolved. Pour the size into a container until it is one to two inches deep.
2. Prepare alum solution Wearing rubber gloves, dissolve three tablespoon alum in one quart cold water. Stir occasionally until the alum has completely dissolved. Treat material as indicated:

Fabric - Drop into the alum solution, wring out the excess liquid into the container and let the fabric line--dry without wrinkles.

Paper - Dip in alum solution. Let dry. You can marbleize either side.

3. Prepare the paints You may need to dilute the acrylic paint with water so that it will float on the top of the size (**figure A**). The mix should be the consistency of thin cream. Each color is different, so experiment to find the right mixture.
4. Create marble patterns (**figure B**). Use newspaper strips to skim off any air bubbles from the size surface, and use an eye dropper to drop paint on the surface to test the consistency. If the paint expands slowly to a larger circle, it has the right consistency. If the paint sinks to the bottom, dilute the color with more water.

Use various tools to move the paints that are floating on the surface of the size (**figure C**). For example, you can use a whisk to splatter paint on the surface, then swirl the paints to create interesting patterns. Skewers also work well when swirling the paint. The more paint dropped on the surface, the less white area will show. Be sure to rinse your tools under water before moving to the next color.

5. Create tile marbled object When the desired pattern has been created, place the material down carefully on the surface of the size.

Fabric - Drop the center first, then let the corners down gently. If this is your first time, you may want to have a friend help. Once the piece is completely on the surface of the size, carefully pick it up (**figure D**) and rinse it in cold water. If you're doing several pieces at the same time, the pieces may be placed in any container before rinsing. Since the marbling is now permanent, the pattern will not be jeopardized.

Paper - Follow the instructions for fabric but lay the marbled paper on a board. Pour water on its surface to remove any size.

6. Clean the size Clean the surface of the size with the two inch strips of newspaper. Begin at the far side of the size container and pull toward you, skimming the paint off the surface. When you reach the side nearest you, fold the paper inward and scoop the

excess paint into a waste container. Don't worry if the size looks muddy; it will not affect the new patterns. The size is now ready for your next creation.

Note: Hand wash all fabrics.

Resources

silk fabric - Dharma

Dharma Trading Co.

Website: www.dharmatrading.com.

acrylic paint - Liquitex

Liquitex

Website: www.liquitex.com.

non-decorated silk fabric and scarves - Qualin

Qualin International Inc.

San Francisco, CA

US

Phone: 415-333-8500

Email: qualinint@aol.com.

fabrics - hand-dyed and marbled

Marbled Fabrics and Accessories

Oakland, OR

US

Phone: 541-459-1921

Email: marjorie@marbledfabrics.com.

URL: www.marbledfabrics.com.

Nova Color Artists Acrylic paint - Artex

Artex Manufacturing Co.

Culver City, CA

US

Phone: 310-204-6900

Email: sales@novacolorpaint.com.

URL: www.novacolorpaint.com.

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Marbling Fabric

Marbling fabric is a great way to recycle old hankies, and men's handkerchiefs are a good size for making a furoshiki. In order for the paint to adhere permanently to the fabric, it's necessary to soak the cloth in a mixture of alum and water before marbling. Alum can cause a skin rash, so have an adult do this step for you. In a bucket, dissolve 2 tablespoons of alum (potassium aluminum sulfate) in 1 quart of warm tap water. Stir until the alum crystals have dissolved. Drop the cloth into the alum mixture. Wearing rubber or latex gloves, stir the cloth around to be sure it's thoroughly soaked. Wring the fabric and hang it to dry. Press the cloth using the cool to medium setting on your iron.

To make the basic "marbling recipe," fill a blender with one quart of water. Add one level tablespoon of carrageenan and blend for 30 seconds on medium speed. Pour the mixture through a funnel into a clean, plastic milk jug, and add another quart of water. Stir the size. Work near a sink, and cover the area with a layer of newspapers. Place the marbling pan on a table which is waist high. Empty the marbling size into the pan. Repeat these mixing steps until the pan contains about two inches of medium. In order for the size to mature, it must rest undisturbed for twelve to fourteen hours. Cover the pan to keep it free of dust and other particles. In addition, the size, paints, marbling pan, and other tools used should all be warmed to room temperature.

After all this preparation, you're finally ready to marble! While you can apply paint to the size in a number of ways, including using an eye-dropper, the most satisfactory way is by "throwing the color" on with a whisk. The advantage of using a whisk is that the bristles allow you to apply the color in tiny droplets over a large area. The most successful marbling has a good distribution of color over the entire bath, and using a whisk is an efficient way to do this. To make a marbling whisk, cut the bristles from a broom. Gather a bunch of the bristles together, and bind each applicator at the top with a rubber band. You'll need one whisk for each color, of course. If you prefer, you can order broom corn from a marbling supplier. The material comes in a large bunch, so there will be enough to make many whisks.

Reuse plastic, widemouthed pill bottles with snap or screw-type lids to hold the paint. For your first attempt at marbling, limit yourself to four or five colors. Squeeze about one-half inch of liquid acrylic paints into each bottle, and add an equal amount of water. Mixing in the right amount of water is important, because if the paint is too thick, it will sink to the bottom. On the other hand, if it's too thin, the color will be pale. Stir each color before using.

Tear some newspaper into long strips, and use them to skim off any bubbles on the surface before you apply the first drops of paint. Stir the first color, and dip a whisk into the bottle. Apply the paint by holding the whisk in one hand and tapping the top with your index finger. Continue tapping as you pass the whisk over the pan from the top to the bottom in an "S" motion, so that the color will be evenly distributed. Throw on the next color in the same way, and continue until all the colors have been applied. You'll

notice that some colors will dominate, and the first colors you applied will be pushed into veins. If you wish, apply these colors again. The resulting design is called a stone pattern, and it's the first one marblers make before any other design can be achieved.

While it's possible to print fabric by yourself, it's much easier and more fun if you have some help. When you're pleased with your design, stand on the opposite side of the marbling vat facing your partner. Holding the corners, one in each hand, carefully lower the fabric onto the surface, letting the middle touch first and then the sides. Now, working alone, hold the top corners and peel the cloth off the size. Gently rinse in cool, running water. Hang the fabric to dry on a simple clothesline made of string. Be sure to protect the floor under the line with a layer of newspapers. Remove the cloth when dry, and let it "rest" for at least two days. Set the color by ironing on the wrong side.



If you wish to continue marbling after the first printing, it's necessary to "clean" the vat or tank to remove any color remaining on the surface from the previous application. Again, tear some newspapers into long strips. Starting at the top of the vat, skim the surface by pulling the strip toward you. Throw away each strip, and continue until there is no more color showing on the newspaper. Since acrylics are water-based paints, cleaning up after marbling with them is a fairly simple process. Whisks should be rinsed and allowed to air dry, and pans and other tools and utensils can be rinsed and dried. Avoid using soap in cleaning up, as residue can affect future

marbling.

Tips and Tricks:

If you'd like to marble paper instead of fabric, just lightly sponge on the alum. Place the paper, alum-side down, between sheets of blotter paper, and weight with something heavy such as particle board. Only the side which has been treated will print successfully, so this is an important step.

The marbling pan should be large enough to hold about two inches of the size or medium. In addition, it needs to be a little wider than the handkerchief or other cloth you're marbling. If you don't have access to a professional marbling vat, substitute another receptacle such as a very large roasting pan.

Marbling is both an easy and difficult craft! Don't be discouraged if your first attempts at marbling aren't as successful as you'd like. There are many variables, including temperature and humidity, which can affect the outcome of a marbling session.

While there are a number of marbling equipment suppliers, two from whom we purchase materials are: Talas, 218 W. 35th St., New York, NY 10001-1996, (212) 736-7744 and

Colophon Book Arts Supply, 3046 Hogum Bay Road SE, Olympia, WA 98506, (206) 459-2940.

There are many marbling patterns that can be accomplished with the use of rakes, combs, and other tools, and we'll learn about some of them in future activities. In the meantime, here are some good marbling books which you can consult if you want to learn more about this fascinating craft: *Marbling on Fabric* by Daniel and Paula Cohen, *Marbling Paper and Fabric* by Carol Taylor, and *Marbling* by Diane Vogel Maurer and Paul Maurer. For more advanced marblers, see *Marbled Designs* by Patty and Mimi Schleicher.

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