From Linda Mau's Notebook

I have been a teacher, a potter and an artist.
What a wonderful career I have had.

Compiled with love and appreciation by friends of Linda Mau and HIgher Fire Studios in San Jose, CA.

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This handbook is a loving tribute to our dear pottery teacher, mentor, and friend, Linda Mau, who passed away September 24, 2021. Our desire is to share some of Linda's expertise in clay building and decorating techniques, her unique technical tips, and some of her very wise sayings.

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Artist Statement

Form and surface are very important to me as an artist. It is the relationship of an object within its space that interests me.

To this end, I developed two unique techniques: paper clay on steel wire and external tar paper armatures. Tar paper allows me to create very clean, geometric forms with a sense of stability and order. I find both peace and excitement in these pieces.

Linda Mau, Ceramic Teacher

After retiring from teaching at De Anza College in Cupertino, California, Linda Mau joined the teaching staff at Higher Fire Clayspace on Market Street in San Jose, California. What a gift she was to our studio! Linda brought not only a wealth of clay knowledge to the studio, she brought her grace, lightness, and special ability to inspire students of many backgrounds, ages, and experience.

Most distinctive of Linda's talent and clay expertise were her teaching style and techniques. Her generosity flowed freely as she shared personal tips, tricks, and techniques developed over a long career. But her genius was in opening up a student's timidity and reserve, guiding them to discover their own creative voice.

At Higher Fire, Linda focused on free-style hand building. Through this method of working with clay, her ability to animate students shined.

In class, the first thing one noticed was Linda's unbounded joy in constructing new pieces and this joy was transferred to her students. There was never an expectation to produce something. Rather there was encouragement to experiment, with gentle help and guidance, and always with an enjoyment of the process as much as the finished product. In this way, students were supported to strike out in new ways and to attempt things they would otherwise never have taken on.

Linda's guidance was not limited to students in her class. She happily assisted anyone who came to her with questions, be it a basic hand building problem or difficulty with the overall aesthetics of a piece. She left all students with a sense of accomplishment. Many graduates of her earlier classes informally 'hung around' during her later classes, picking up more tips and techniques, asking advice, or simply watching her create.

Linda's almost magical ability was in teaching creativity. How does one even teach this? Students learned to 'just go for it', handling and working with a piece of clay and allowing something to manifest in their hands. Students were often astonished by their own work. Linda nurtured this by passing on her infectious joy and child-like wonder at everyone's capacity to be creative. Her legacy is a multitude of students who produced work that they never imagined they were capable of, often not according to the original plan, and who went on to do more and more complex pieces.

Linda's spirit remains alive in the Higher Fire studio to this day.

Tributes to Linda Mau

Submitted by various members of Higher Fire Studios

ꕥ All of Linda's exceptional teaching skills, extraordinary spirit, and artistic prowess will certainly live on in all of us who benefitted so greatly by her amazing touch and deep impact upon our lives. In addition, Linda's equally amazing ceramic art will continue to reflect her precious spirit in many of our homes and offices... as so many of us have the distinct privilege of owning one or more pieces of Linda's awesome and unique ceramic artwork.

ꕥ I was privileged to meet Linda many, many years ago at Abby O'Connell's former Mother Earth Clay Art Center in Sunnyvale... and I've watched her generously share her skills and techniques with countless students and artists over the years in De Anza College, Orchard Valley Ceramic Arts Guild (OVCAG), and of course, Higher Fire... just to name a few. Linda's legacy will live on and thrive in all of us who loved and appreciated her beyond measure!

ꕥ Linda was such a generous person, always sharing her knowledge and the best of herself with her students. She inspired all of us greatly, and we will try to make her proud

ꕥ I'm so thankful to have had her on our teaching staff for the last 10 years. Linda gave so many wonderful classes to countless students & members at Higher Fire. She really could do it all! I always thought of her as the Martha Stewart of clay :-) ...funny, determined, and full of ideas sprinkled with a little bit of mischief and rule-breaking to get the result desired. She taught every kind of sculpture, hand-building projects, geometric forms, ikebana vessels, totems, surface decoration techniques of all kinds... we were so lucky to have her knowledge, clever troubleshooting, and inimitable can-do spirit all these years! I know that Linda's love of ceramics, in all its forms, will live on in our studio community for years to come!

ꕥ Linda was one of the most generous and creative people I've known. Her gift of teaching and sharing her knowledge with all of us will continue. She took time with everyone to help create a tribe of followers who so much appreciated her talent and fun loving spirit. She always had a way of welcoming and including everyone into her circle of artists no matter how new or experienced. I always loved hearing about her travels and where she was going to next. She so loved life.

ℭ Linda's class was always a safe place to be creative and try out new ideas and techniques. She was so encouraging - she gave students the courage to try something new. She was always enthusiastic and generous with her knowledge - she would share everything.

ℭ Linda taught techniques rather than projects so that they could be applied to anything and brought out the student's creativity.

From Bill Geisinger
Ceramics Professor, DeAnza College 1922-2012; Board Member, ACGA

ℭ Linda Mau taught at De Anza College as an adjunct professor in ceramics for almost twenty years. She was generally scheduled to teach beginning and intermediate wheel throwing. The fundamental skills that most students needed to learn. Linda was a gentle and encouraging master potter. She required students to achieve one skill before moving on to the next level. She encouraged students to be individuals but at the same time help and share with others. It is this precisely that made Linda a popular and loved teacher. Her students liked the challenges they were assigned and the responsibility to share their own knowledge or skill. Linda Mau we miss your energetic attitude and thank you for sharing with us at De Anza College.

Linda's Words of Inspiration and Encouragement

Sometimes we just need a little inspiration in our artwork. Here is an idea to get you started.

Think of a place that is special to you. Create a piece that makes you think of this special place. Let your memory be the inspiration. Your clay piece can be anything -- a sculpture, a vessel, a tile picture. Your inspiration can be anything from your 'special place'...a person, a building, the landscape, the culture of the place.

- Take a look at the Contemporary Ceramics site. There are so many inspiring pieces in so many different styles. https://www.facebook.com/ceramicscentre
- Fix it or Feature it
- There is no such thing as a mistake
- Sometimes we just need a little inspiration in our artwork
- See where it leads you...Have fun!

Linda's Techniques and Processes

PAPER CLAY AND STEEL

Published in Ceramics Monthly, May 1997

"Teapot," 9 inches in height, paper clay on steel hardware cloth.

For many people, there is a conflict between the world of high tech and the fine arts; but as an artist living with an engineer in Silicon Valley, I've come to realize that we're all "artists" doing creative work. Investigating this relationship between art and technology is the focus of my "Mathematics as Metaphor" series, for which mathematical shapes—the cube, pyramid, M6bius strip --were chosen as metaphors for modern life.

I had first heard of paper clay several years ago, but it wasn't until I decided to make a series of cubes that appeared to be floating in mid-air that I realized by combining these three materials—clay, paper and steel wire—I could make clay cubes light enough to be suspended by nylon line. Each material contributes its unique characteristic to produce forms that would be impossible to obtain in any other way. The steel wire defines the form and serves as an armature for the paper clay. After firing, when the steel is weakened, the clay supplies the structural strength.

I begin by drafting precise paper patterns of the design. Then, wearing leather gloves, I follow the patterns to cut ½-inch hardware cloth with tin snips. After the seams are joined with wire, many layers of paper-clay slip are poured or brushed onto the hardware cloth armature. Each coat of slip must dry completely before the next can be added. This process can take many days.

To prepare the paper clay, I mix dry stoneware or porcelain clay into water until it is the consistency of thick cream. To this, I add paper pulp made from cotton linter (available from most art supply stores). I prefer to

use cotton over recycled paper because it lasts longer without smelling rotten. For my sculptures, I find that about 20% pulp to 80% slip by volume is a good blend.

Each new coat of paper clay will stick to the previous bone-dry layer; when the fibers burn out in the bisque, there is sufficient clay remaining to support the form. Insufficient clay can be a problem when working with paper clay; it is possible to end up with so little clay that the piece just falls apart.

Once the wire is covered with paper clay, the surface can be coated/decorated with slip or underglazes. Because of the firing range of the steel wire, I am limited to coloring techniques that do not go above about 1800°F. For most of my sculpture, I use terra sigillata as a source of color and sheen.

To further define and mottle the surfaces, I smoke the bisqued pieces with newspaper in an open washtub. This is often followed with a lightly buffed paste wax or shoe polish. If the piece is to be exposed to weather, I protect it from absorbing water by applying a masonry sealer (available at most hardware stores). Other low-fire techniques, such as raku or low-fired glazes, are also possible when working with paper clay and steel.

New materials often demand new techniques and lead to new solutions to old design problems. Using paper clay in combination with hardware cloth has opened up a whole new area of design for me. I am now using the process to fabricate metaphorical vessels and abstract figures.

PAPERCLAY

What is paperclay?

Paperclay is conventional clay to which wet pulp containing cellulose fibers from paper is added. Cellulose, in the form of paper pulp, possesses some unique qualities when added to clay. The most significant being that the cellulose fibers tend to “wick” water from wet clay to dry. This makes it possible to successfully add wet clay to bone-dry clay. Seen under a microscope, the differences between the slab-like kaolin particles and the hollow, tubular cellulose fibers is obvious. These fibers are extremely water absorbent, spongy, and resilient to stresses such as compression, and twisting.

Why does it work?

What happens when a paperclay body dries out and naturally shrinks? The water absorbent cellulose tubes surrounded by the clay compress as they soak up water from within the clay. Hollow tubes of absorbent cellulose that reach the surface of the dried out paperclay start to soak up the available water from the wet paperclay. The cellulose fibers in the dried paperclay body expand and contract again each time it dries out and/or more wet mud is added.

How do I make paperclay?

You only need two things: clay and paper pulp.

To prepare the pulp, tear up the paper and soak it in plenty of water to soften it and then "beat it to a pulp" using a paint stirrer or a blender until the fibers are floating freely in the water. To test whether the pulp has been beaten enough, I put a little in a clear glass with some water. It should look like a cloud; that is, no lumps.

For paperclay, the best papers have relatively shorter fibers with no glosses or glues. I use cotton paper, such as old watercolor papers. They break down quickly, and do not have the chemical of wood-based papers which tend to smell bad after a short time. Most printer inks do not affect the ceramic. Newsprint and cardboard are not recommended for white firing results.

Make a thick slip of the "parent" clay using a Jiffy glaze mixer or blender. It should be the consistency of a milk shake. The firing range and color of this "parent clay" determine the firing range and color of the Paperclay. For repairing greenware, you can mix Paperclay for each clay in your studio and it will match perfectly.

How much pulp do I use?

For general purpose sculpture, 10-30% wet pulp to clay by volume gives excellent results without sacrificing durability or strength. The less pulp, the more dense the fired result. Up to 50% of pulp by volume may be added for wall installations and in situations where light weight and a more porous and open claybody is acceptable. However, when the ratio is between 30-50%, the fired tensile strength of the parent clay may be reduced.

I generally use 25% strained pulp to 75% thick slip. I determine how much pulp to put in by placing a stick in the container of slip. Pull it out, and with your finger, divide the slip into 3 parts. Then mark the stick with a dot of slip to make 4 equal parts. Return the stick and add strained pulp to that mark. Mix VERY well. You now have paperclay!

How do I use it?

Paper clay can be used as a slip for casting or mending. For slab or coil work, spread the mud-like paper clay over plaster slabs and let it dry to desired consistency. At a certain point in drying, paperclay dries to leatherhard more quickly than conventional clay. If casting, do not let the mix dry out completely inside the plaster mold. It will be very difficult to release.

In addition to traditional modeling, pinch, coil, slab construction, and plaster molding methods, wet paper clay mud can be poured out on top of dried out paper clay and new surfaces built up. Armatures can be made of dried paper clay and built upon with wet. Large slabs dried on plaster will not warp or crack like conventional clay slabs. Breaks and cracks can be repaired at any time before firing. Bisqued and glazed fragments of conventional and/or paper clay sculptures can be embedded in wet paper clay and fired intact.

How do I fire it?

Because it is carbon based organic material, paper begins to burn into the atmosphere at 451ºF. Until the paper has burned out and stopped smoking, fire your electric kiln with the lid well propped open. In kiln fueled by gas, these precautions are not needed. Depending on the properties of the parent clay, paperclay can be fired in raku as well as in high fire reduction and salt atmospheres. Thermal shock properties of the parent clay are improved.

"Making Paper Clay with Linda Mau"
https://www.youtube.com/watch?v=ggh1rWrjR-8

Resources: http://www.grahamhay.com.au/paperclayartists.html

Twinrocker Papermaking Supplies: twinrock@dcwi.com

PAPERCLAY FOR PATCHING

Preparing the Pulp

Tear up a piece of paper approximately 6" square into a blender full of water. When limp, whiz for about 10-15 seconds until it is completely broken down into fibers. It should look like a "cloud". Store in an air-tight container for future use. Don't squeeze it dry, keep it loose in the water.

Preparing the Slip

Add dry trimming of the clay body to water and mix well. The consistency should be like a milkshake, thick but not solid.

Preparing the Paperclay Patcher

Mix 3 parts by volume of slip with 1 part of paper pulp. I use a tea strainer to scoop up the pulp. Don't squeeze it dry! Mix in a blender until there are no lumps. This mixture can be used "wet"or dried on plaster to make slabs or coils.

To Mend Cracks

This is best done on Bone Dry clay. Wet the crack with water with a paint brush. Apply the paper clay like glue or paste, filling the crack or break. It will dry almost immediately. If any sign of the crack is apparent, repeat the mending. Fire as usual. IT REALLY WORKS!!!

Ikebana Containers

Resources

Web search “Ikebana containers”

San Francisco Bay Chapter of Ikebana International - www.ikebana.org

“What Makes a Good Ikebana Container - With Irene Jenkins and Michiko Hosoda”
Orchard Valley Ceramic Arts Guild
http://www.youtube.com/watch?v=0oYTvaKSfp4

“Ikebana Pottery Jurying 2013”
Orchard Valley Ceramic Arts Guild
http://www.youtube.com/watch?v=V4SE3FyisHI&feature=youtu.be

Horizontal Flat Forms

Suggested inside depth 3”. No less than 2 1/2” or more than 5”.

Suiban Pair
2.5” x 4.5” x 11”

Yin Yang Pair
2.5” x 8” x 8”

Vertical Forms

Suggested 1:3 ratio - width to height.

Tall Narrow Cylinder

Twisted Cylinder

Box Forms

Suggesteed design: Opening must be wide enough for stems to reach 2” down at a 30% angle. Texture on the inside of a form is very useful.

Suggested colors: Earth tones, natural clay, black, matt white, dark navy

Suggested surfaces: Smooth, textured, overall patterns not in conflict with the flowers.

How to Seal Leaky Containers

Lacquer based masonry sealer (not water based)

The Wonders of Porcelain

The unique characteristics of Porcelain make it a “dream” for hand building, such as its translucency, malleability and remarkable strength. The process includes surface decoration techniques such as water etching, sprigging and making and using your own colored porcelain.

How to Make Colored Porcelain

Use porcelain or another white clay body as the base. Measure the amount of clay, then calculate the desired percentage of stain. For example: for Bright Yellow: 200 grams porcelain + 20% stain or 40 grams stain. This makes almost a half a pound of colored clay. These sound like a lot of stain, but remember because they are mixed with a white body, they will be lighter and rather pastel.

Wearing a mask and gloves, measure the desired amount of Mason Stain or oxide. Make a ‘well’ in the clay and add stain to the well. Add just enough water to make it a creamy solution. Squeeze the colorant throughout the clay and then wedge to mix completely. Make a sample disc with the percentage of colorant for future reference. Store in a plastic bag.

Suggested Mason Stain Colorants

Bright Yellow	#6433	20%
Dark Denim Blue	#6300	10%
Dark Green	#6200	10%
Soft Pink	#6000	20-25%
Caribbean Blue	#6376	20-25%
Warm Brown	#6126	10-12%
Black	#6600	10%

Figurative Sculpture

My goal is to facilitate your personal creativity by teaching skills and techniques. The rest is up to you. I'll show techniques that make creating a figure, human or animal not only possible, but FUN. We will begin by observing the face and making a mask. From there, you will learn how to create a head and its features.

Even more important, start collecting pictures that inspire you…people, things, animals…whatever you would like to make.

We'll talk about how to get the illusion of fabric with textures and manipulation of the clay. If you have any interesting fabrics with texture…lace, gauze, etc.…use them. And think about using color and humor in our designs. It's a chance to have fun and combine your throwing skills with your sculpting skills.

Watertight, beyond the vessel.

The concept of "vessel" includes more than containers as functional objects. A vessel contains but it also encloses, gives access and it transports. It can serve as a metaphor-containing memory, hope or dreams in the form of sculpture.

Tips On Working With Clay

- Use a balloon to hold or create a structure.

- Use tar paper to hold slabs together when handbuilding.

- How to make perfect parallel lines, even on curved pots: Set a compass to the width, use the pencil end to follow a pattern, mold or free hand it. You can even cut the slab with the needle end.

- Mending cracks in dry porcelain: Open up the crack to the bottom of it. If you can't see how deep to go, paint a bit of ink and scrape till it's gone. Make a thick slurry from the dry sanding dust off the same piece. Fill the space with some pressure and carefully sand off the extra and smooth with a tiny bit of water.

- To remove a smear of underglaze or oxide, don't sponge it off - erase it. I like a Pink Pearl eraser from the school supplies.

- For making cube/boxes, cut slab edges using a homemade 45 degree cutter and save the "noodles" to secure the seams on cubes.

- Use sumi ink over cracked pottery glaze to emphasize the lines.

- Use steel wool to brush painted cold finishes to make a surface blend and not look "painted".

- When working with porcelain, don't get it too wet, damp is wet enough.

- Use a damp t-shirt to wrap large work-in-progress to keep even moisture throughout the body.

- Put pantyhose as sleeves over cardboard or wood forms to prevent clay from sticking to forms. (See "Quick Feet" Techniques, next page.)

“Quick Feet” Techniques

Button Feet

These feet can be added just before glazing.

Make ⅛” to ¼” thick buttons from slab scraps. Place thin plastic over the slab then use cookie cutters to cut small rounds (½”) or squares (½” - 1”). Cutting through plastic makes it easy to release the buttons and gives them a rounded, finished edge.

When buttons are leather hard, clean and smooth the sides with a damp sponge. Bisque and save for future use.

Choose button size and thickness appropriate for the piece and glaze choice.

Arrange buttons on the bisqueware so it will be supported evenly.

Use just a small dab of Elmer’s Glue to adhere buttons onto bisqueware. There should be no glue seeping out from the seam. Glue will repel glaze.

Glaze bisqueware as usual, gently wipe buttons clean. Make sure the glaze fills the seam.

Place the glazed piece on a clay cookie before loading into the kiln.

Fire as usual, the glaze will permanently attach the buttons to the work .

Pinched Feet

Pinched Feet are an easy way to close the bottom and make feet for a handbuilt cylindrical form.

After making the cylinder, flip it over with the mold and slide the cylinder up about 1” over the mold. Or let the cylinder dry a bit so it can stand on its own then take the mold off.

With the bottom of the cylinder facing you, mark 4 corners on the bottom of the rim.

Using these corner marks as your starting point, start on one corner and gently press the 2 edges inwards toward each other. Continue to press and pinch the edges until they come together. If the clay is still moist enough, no scoring is needed. Otherwise, slip and score before pinching. Repeat on the remaining three corners. Work your way around and slowly toward the center. You will end up with 4 pinched seams and a squarish opening in the middle.

Gently flatten 1/4” to 1/2” of the tip of each pinched seams to form the feet.

Cut a round disk slightly larger than the square opening, slip and score and attach to the opening between the feet.

Place the closed cylinder right side up and tap gently. Use a level to make sure the cylinder is straight, tap more to adjust as needed.

Seal the inside seam with coil. Cover the cylinder with plastic to dry slowly overnight before bisquing.

Burrito Feet

Burrito Feet are a secure way to finish a cylinder with an inserted disk for a flat inside bottom. Clay should be soft and pliable, able to bend without cracking.

After making the cylinder wrapped around a mold, flip it over with the mold and slide the cylinder up about ½ - ¾" over the mold.

Cut and insert a disk that fits snugly inside the cylinder.

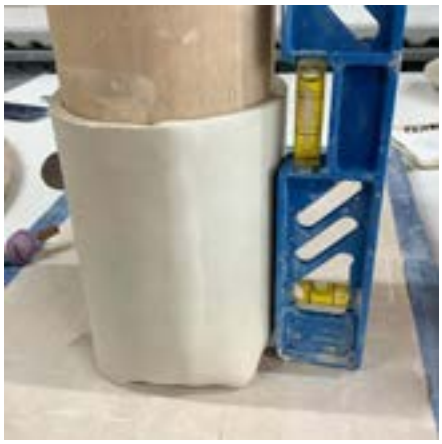
Fold 2 opposite sides inward over the disk bottom.

Fold the remaining 2 opposite sides inward. Create four flat squarish feet on the 4 corners where the folded sides overlap.

Turn the cylinder right-side-up. Gently tap against the table to seal the folded corners.

Remove mold and use a coil to seal the seam between the disk and cylinder wall.

Cover with plastic to dry overnight before bisquing.



Decorating Techniques

There are many ways to jazz up your work, decorating on wet clay using texture, slip or water etching. Glazing techniques are important on bisque ware. One can use oxide stains to create a Batik. Even cold finishes and a luster firing can be used on high fired work.

Mocha Diffusion

Mocha Diffusion is a technique of surface decoration developed and used in the Southwest of England. It is best done on forms that are simple in shape, such as mugs, or bowls. Mocha Diffusions was traditionally done on both red and white earthenware, but may be done on any clay body. A clay with a high degree of ball clay is the most ideal.

It is quite a simple process but demands exact timing and viscosity control. The typical fern-like pattern depends on a reaction between acid and alkali. It must be done on a leather hard pot that has not started to change color. It is then covered with a creamy slip and decorated with an acid/color mix. The viscosity of the slip is important - too thick and the acid/color mix will not move, too thin and it will run excessively.

Basic Slip

Cone 04-12 (Add stains or oxides for color, mix to the thickness of cream.)

Ball Clay	75%
Kaolin	10%
Flint	10%
Feldspar	5%

Mocha Tea (acid/color mix)

1 heaping teaspoon of colorant (stains or carbonates work better than oxides)
¼ cup apple cider vinegar.

Method

Dip or pour the slip on the *leather hard pot*.

While the slip surface is still wet, and before it has begun to lose its shine, drip or trail the Mocha Tea (acid/color mix) on the slip. It is best to use a well loaded brush just touching the slip.

If the viscosity of the slip, and the acid/color mix is right, then the feathering pattern will take place quite naturally.

Traditionally, the surface is coated with a clear glaze, but at higher temperatures, the colors could bleed. It also works very well on unglazed high fired ware.

Reference: *Making Marks* by Robin Hopper

Decorating with Slip

Use any porcelain clay (e.g. Glacia from Clay Planet) or make your own basic white slip.

Basic White Slip

Base for colored slips to use on wet or leather hard clay

EPK (kaolin)	25%	by weight
Feldspar	25%	
Flint (silica)	25%	
Ball Clay	25%	

Colored Slip Recipes

Add to basic slip recipe

Light Blue

Cobalt Carbonate	.5%
Zircopax	5.0%

Dark Blue

Cobalt Carbonate	2.0%
Red Iron Oxide	2.0%

Brown

Red Iron Oxide	10%

Tan

Red Iron Oxide	5%
Rutile	5%

Green

Copper Carbonate	2%
Red Iron Oxide	2%

Black

Black Iron Oxide	6%
Black Manganese Ox.	4%
Black Cobalt Oxide	4%

Easy Color Slip Mixing

Add to one cup of basic white slip

Dark Blue
1 tsp. Cobalt Carbonate
¼ tsp. Chrome Oxide
1.2 tsp. Black Stain

Flashing Red in Reduction
2 tbsp. Copper Carbonate

Black
3 tbsp. Mason Stain 6600

Lavender
3 tbsp Mason Stain 6319

Pink
2 tbsp Mason Stain 6020

Teal
1 tbsp. Mason Stain 6379

Mixing Plaster

1. **Use fresh water.** The mixing water should be at room temperature or 70°F (21°C). If the water is too warm, the plaster will set too fast and vice versa. Use only clean water.

2. **Use fresh plaster.** Plaster is calcined, meaning chemically bound water has been driven off through heating. If the plaster has been sitting around in a damp environment, it will have lumps in it, in which case it is no longer usable.

3. **Weigh out materials.** Do not guess about the amounts of plaster and water you'll need. Once you start the mixing process, you do not want to go back and adjust quantities. To determine the amount you need, estimate the volume in cubic inches then divide by 231 to give gallons or by 58 to give quarts. Deduct 20% to allow for the volume of plaster, then refer to the table.

4. **Mix the plaster.** Small batches of plaster can be mixed by hand. Use a constant motion with your hand and you will notice a change in consistency from watery to a thick cream. Breakdown lumps with your fingers as you mix. Mix only for a minute or two being very careful not to agitate the mixture so much that air bubbles are incorporated into the mix. Mixing time affects absorption rates—longer mixing times produce tighter and less-absorptive molds.

5. **Add plaster to water.** Slowly sift the plaster onto the surface of the water. Do not dump the plaster or toss it in by handfuls. Adding the plaster shouldn't take more than 3 minutes.

6. **Soak the plaster.** Allow the plaster to soak for 1–2 minutes maximum. The soaking allows each plaster crystal to be completely surrounded by water and it removes air from the mix. Small batches require less soaking than large batches. If the soaking time is too short, it may contribute to pinholes; and if it is too long, it will contribute to fast set times, early stiffening and gritty mold surfaces.

7. **Pour the plaster.** After mixing, tap the bucket on a hard surface to release trapped air. Wherever possible, pour plaster carefully into the deepest area so the slurry flows evenly across the surface of the mold.

8. **Let the mold cure and dry.** When it has cooled, it is safe to remove the forms—about 45 minutes to an hour after pouring. Molds must be dry before use

Water to Plaster Mixing Chart

Water	Plaster
1 quart	2 lbs 14 oz. (1293 g)
1.5 quarts	4 lbs. 4 oz. (1,937 g)
2 quarts	5 lbs. 11 oz. (2,585 g)
2.5 quarts	7 lbs. 2 oz. (3,230 g)
3 quarts	8 lbs. 9 oz. (3,878 g)

Water	Plaster
1 gallon	11 lbs. 6 oz. (5,171 g)
1.5 gallons	17 lbs. 2 oz. (7,756 g)
2 gallons	22 lbs. 13 oz. (10,337 g)
2.5 gallons	28 lbs. 8 oz. (12,923 g)
3 gallons	34 lbs. 3 oz. (15,508 g)

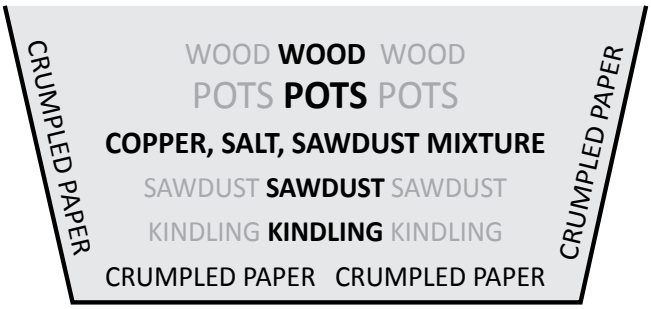
Back Yard Pit Firing!

Many potters look forward to the unique effects they obtain in pit firing. But all too often, that involves getting a large group of people, and permits for digging the pit and gathering enormous quantities of sawdust and wood.

Now there is a very successful way to safely pit fire in a back yard or patio using a wash tub or old barbeque. My personal favorite is a Weber kettle. They are often discarded on trash day and are free for the taking.

Here's how it works:

1. Obtain a large wash tub, Weber Kettle or an old gas barbeque with the burner system removed. If there are air vents in the bottom, cover them with a double layer of aluminum foil.
2. Crush some newspaper over the bottom and sides. This provides a cushion plus some air space. Place a thin layer of small kindling on top of the paper.
3. Next, place about four inches of dry sawdust on the bottom and up the sides, leaving space around the edges for air and draft. Varying the size of the sawdust gives better results. Fine sawdust burns very slowly and produces the blackest results. Wood shavings and coarse sawdust burn faster. Most lumber yards will give you sawdust.
4. Sprinkle on a mixture of table salt and copper carbonate mixed with sawdust. (Approximately ¾ cups salt, 1/8 cup copper carbonate, ¾ cup sawdust.) Be sure to wear a mask when using copper.
5. Place the pots on the sawdust. The pots will be black where they are in contact with the sawdust. The salt and copper produce reds and oranges when they vaporize during the firing. The best colors are achieved on pots coated with terra sigillata and bisqued no higher than cone 06
6. Sprinkle some additional Copper/Salt/Sawdust around the pots. Brush off any of the mixture that is on top of the ware as it may cause ugly deposits.
7. Next layer wood, on top of the pots. Don't use plywood or particle board. Place some crumpled paper beneath the top layer and light. Do not use lighter fluid.
8. ***Never leave the fire unattended!***
9. The best results come from a fast, hot fire. Add additional wood if necessary. It should burn vigorously for about 45 minutes.
10. When the fire has burned down and the pots are visible. Place a screen over the tub to catch any ashes and let the pots cool before unloading. The whole process takes about an hour and a half.
11. Polish the pots with a soft cloth to remove the ashes and soot. To increase the shine, you can apply paste wax or acrylic floor wax for a high gloss.
12. To preserve the colors and make the piece more water proof, I use a clear masonry sealer, like Behr brand.



WASH TUB OR BARBEQUE

Linda Mau's Basic Terra Sigillata

Terra Sigillata is a great way to give pieces a beautifully burnished look without all the hard work of actual burnishing.

Simple Terra Sigillata Recipe by Weight

70% water
30% dry clay
0.075-0.15% sodium silicate or Darvan

Mix well and let stand for a day or two. Pour off the top layer and discard the sludge on the bottom. Use on *bone dry* greenware. To preserve the sheen, don't bisque higher than cone 06, cone 09 is even better.

Recipe by Volume

Newman Red Terra Sigillata
6 cups Water (1400 g.)
3 cups Newman Red Clay (600 g.)
½ - 1 teaspoons Sodium Silicate (1.5-3 g.)

White Terra Sigillata
6 cups Water (1400 g.)
5 1/2 cups EPK or 4 ¼ c. OM4 Ball Clay (600 g.)
½ teaspoons Sodium Silicate (1.5 g.)

Colored Terra Sigillata (from Pete Pinnell)
To one cup of White Terra Sigillata add:

White	1 tsp. Zircopax or tin
Off white	1 tsp. titanium dioxide
Green	1/2 tsp. chrome oxide
Blue	1/2 tsp. cobalt carbonate
Black	1 tsp. black stain
Purple	1 tsp. crocus martis

Colored Terra Sigillata using stains (from Ruth Easterbrook)
Add 10 g. Stain to 1 cup of White Terra Sigillata
Bright Yellow #6433
Dark Denim Blue #6300
Dark Green #6200
Soft Pink #6000
Caribbean Blue #6376
Warm Brown #6126
Black #6600
Deep Orchid: #6330
Orchid: 10 gr. Each: #6331, 6332
Turquoise: 6221
Celadon: 6201
Bermuda Green: 6242
Nickel: 6244
Victoria Green: 62

Mixing Instructions

Carefully measure the liquid ingredients and then add the measured dry clay by sprinkling it into the water. Wear a mask. Mix thoroughly! A blender is excellent for small batches. The better the ingredients are mixed, the more Terra Sig your batch will produce. Let the mixture stand undisturbed for about 20 hours with the lid off to help evaporate the very thin layer of water on top. There will be a large middle area of Terra Sig and a layer of very solid slip on the bottom. Traditionally, one syphons off this middle section. However, I just carefully pour off the top layers leaving the sludge. I have found that the thick slip will stay on the bottom of the container and should be discarded.

How to use Terra Sigilatta

Terra Sig is best suited to low fire techniques…raku, pit and sawdust firing. Terra Sig should be brushed or sprayed on bone dry greenware. The surface will appear waxy after about three coats. Buffing with a soft cloth or your fingertip will increase the shine. It will remain shiny if fired between cone 010 and cone 04. When fired hotter, the shrinkage of the clay body will destroy the smooth surface and the shine is lost, but the color will remain. Sig. can be applied to bisque ware and then re-bisqued, but it will not be as shiny.

Cold Finishes for Clay

"Cold Finishes with Linda Mau"
https://www.youtube.com/watch?v=b1uXkKe3xH8

Cold finishes are techniques which do not involve firing the ware in a kiln. It can be employed on bisqued pieces, low fire and high fired glazed ware. It could involve paint, ink, or metal leaf such as gold leaf.

To use Ceramic Patina techniques on bisque ware, it is necessary to seal the surface with a primer. It can be a spray primer from the hardware store, or a coat of gesso from your painting supplies. After the surface is sealed, it will accept acrylic or oil paint. High fired ware is vitrified, and therefore 'sealed' andis ready to accept Cold Finishes.

"Glazing" with Concrete Sealer

A water resistant, glaze like surface is possible using masonry sealer. I like Behr Brand, low luster. It can be used straight from the can as a clear sealer or mixed with any water soluble colorant…acrylic paint, dye, metal oxides, concrete stain, etc. Remember, some colorants will fade in sunlight. When it dries, the piece will be water repellant. Multiple coats of full strength sealer will produce a shinier surface. A thinner coating will appear more matte. Using plain sealer is great for pitfired or raku pieces because it protects the surface from weathering and reoxiding.

Faux Bronze Patina

1. If bisqueware,seal the surface with primer – Gray Rustoleum. Dry thoroughly!
2. Apply 2-3 coats of Acrylic Raw Umber (Liquitex in jars)
3. On the last coat, stipple with a soft brush to remove brush marks.
4. Stipple on Iridescent Bronze Acrylic. Adjust color with Raw Umber. Dry at least one half hour.
5. For Patina effect, apply a coat of green. Tone down with Umber mixed with matte medium. Brush onand wipe off with paper towel. No stipple at this stage.
6. Buff with 400 steel wool.
7. Set over night
8. Finish with two coats of paste wax.

Using Acrylic Paints – Tips from Karen Truesdale

"When I paint with acrylic, I use matt medium and matt clear varnish as my base. I use Gesso for the white and the layers go on thin.

Denatured Alcohol will clean up Acrylic, it will erase the acrylic at any time so after I finish, I give things a spray of Matt Krylon, it's a good protection for dirt, etc. I put it on most of my sculptures."

Adhesives for Clay

General Use: E6000 available at Michaels

Flexible: GE Silicon Seal Clear Caulk at any hardware store

Quick Setting: Zap-A-Gap available online

Extra Strong: 2 part epoxy…many different kinds

Karen Trusdell's Recommendations

PC 11: Sets up in around 2 hours but is really goopy when freshly made. If you want to mold with it, you have to let it set for a while before using it. It's off white and can be used underwater. It's stickier than PC7

PC 7: Sets up in around 4 hours but is much stiffer when it is fresh. It is dark grey and not as strong as PC 11, though strong enough. It can be sanded when set up and can be cut with knives when not too set up. PC 7 can almost be molded like clay. Neither stick to glaze surfaces too well.

Both PC products can be cleaned up with Denatured Alcohol. Both come in cans and are not cheap. Check in the marine glue department for them.

Welder's Silicon is good, but is more of a contact glue.

Nina Koepcke's Recommendations

PC7 or **PC11** for bonding ceramics to wood.

Use **Thinset** for ceramic to ceramic or to cement walls. Thinset can be strengthened with an **acrylic additive** available where Thinset is sold. The important thing about bonding on walls or any vertical space is to make sure that the *bonding is to the raw surface and not to a painted one*. If the area to be covered has a painted surface, the paint has to be removed. It's also a good idea to roughen up the surface before applying the adhesive.

For very small tiles, you can use a **tile mastic** and then seal the whole thing by applying **grout**. In essence, the grout, which is a cement product holds the tiles on the wall.

I have used hot glue to bond wire, cloth, found objects, and plexi to ceramic wall pieces. In those cases, it's important to use the old fashioned big stick very hot glue and not the hobby craft low temperature variety.

Harriet Helfricht's Recommendations

To glue clay tiles to metal: **PL Heavy Duty Construction Adhesive** from Home Depot.

Other Useful Products

Plumber's Putty: Gray, sticky material, comes on a strip or tube. For sticking down pots on shelves. Less sticky that Museum Wax.

Water Putty: Dry cream-colored material, comes in a can. For filling lost areas. Can be colored with water-soluble liquids such as acrylics or ink. Can be colored when dry.

Fix-all: For filling lost areas. White, can be colored with water-soluble fluids when mixed: ink, acrylic, watercolors. Can be colored after dry also.

Masonry Sealer: will keep raku from oxidizing and pit fired pieces from dissolving in wet weather.

Mounting Materials

For stabilizing tall forms or stacking pieces of a totem:

In Soil: Steel rebar, available at hardware stores. Paint with Primer or Rustoleum to reduce rusting.

On Wood: Plumber's Floor Flange and threaded pipe, screwed into the wood. Available at hardware, building supply stores.

If the holes in the elements are too large and the stack "wobbles", try slipping a single, larger pipe over the rebar.

Making a Cane Handle

Preparing the Spline

1. Soak in water for at least 12-24 hours.
2. Measure the length of handle and add 3” to each end.
3. Taper the end with a utility knife. Don’t leave the end edge too thick. Taper it also.
4. Carefully pre-bend the tapered ends over a dowel or pencil into a loop that will fit through your hole. Go slowly as not to crack the bend.
5. Place both ends through the holes and clip the loop tightly with a twisty tie or clothes pin.

Preparing the Cane

1. Soak the cane material (reed) in water at least 2-3 hours.l
2. Coil each length into a manageable coil and tie with a twist tie.

Wrapping the Handle

1. Fold the cane end at a 45 degree angle with the shiny side out.
2. Place the folded end against the inside of the spline.
3. Tightly wrap the cane with the smooth side out around the spline.
4. Keeping the cane in a coil makes it easier to wrap.

Ending the Handle Wrapping

1. Wrap tightly over the folded tapered end.
2. Wrap as close to the hole as you can
3. Clip the wrapped area with a clothes pin near the joint of the overlap.
4. Gently loosen the last 3-5 loops and slide the end of the cane under with the rough side out forming another 45 degree angle.
5. Thread it up and out between the upper wraps.
6. Put a little glue on the cane and pull the end through and tighten the lowers wraps.
7. Cut the extra cane between the wraps.
8. Waxing the handle with paste wax or neutral shoe polish will give a smooth look and provide some protection.

Materials: The Caning Shop. 926 Gilman St., Berkeley. www.caning.com

Linda Mau

January 3, 1943 - September 24, 2021

She was a light in this world that will be sorely missed.