Ceramic Solidarity Fundraiser

www.instagram.com/ceramiquepalestine

Thank you for your donation, if you haven't done so already please consider making a donation to **Céramique pour la Palestine**

In collaboration with

@gazamutualaidsolidarity

The following artists have made their content available for you in this pdf ceramic-zine in order to raise funds for Jafar Atallah @gafar_atallah and his family, who have been potters in Gaza for generations. We are raising funds for the purchase of solar panels, and eventually purchase fire bricks to build a kiln. In the past months, Jafar has been working with Maïa Beyrouti, Hadeel Assali @anthropologicalexchange and her mum Nahida Saker, to make a glaze in order to develop sanitary ware, which has been challenging with the very few materials available in Gaza under the blocade that Israel imposes as part of their genocidal campaign. But we managed to get a melt and will be developing the project further! Thank you for you donations they really make difference not only to the family, but to all of the people that they help with their work.

Nicu Duta @kitragram **Printable Art**
Ana Botezatu @ana__botezatu **Printable Art**
Maia Beyrouti @moio.studio **Maia's Gloop and JCB Crawl Glaze Recipes**
Riccardo Colombo @blayse_ceramic **Tangerine Semi-Matte and Glossy Rutile Base glaze recipes**
Eva Kengen @eva.kengen **Ash Glaze Recipe**
Mia Mueller @potterytothepeople **Footed Cup Printable Template**
Tatiana M. Melo @tatiana__mmelo **How to Build a Rocket Stove**
Nina Salsotto Cassina @unurgent.argilla **How to Identify Clay in Nature**
Amara Abdal Figueroa @agroalfarera **Ceramic Water Filter**
Clara Holt @clara.holt.ceramics **Honey Glaze**
Jeremy Bellina @jeremy.bellina **Drippy white Noise and Volcanice Bloom glaze recipes**
Florence Inoué @florence_inoue_ceram **clay glaze recipe**
Aude Arago @aude_arago **Paper pulp recipe**
Juliette Pénélope Pépin @jppg92 **Terra Sigillata**
Maximillian Thiel @maximilian__thiel @pumpwerkstatt **Obvara firing**
Julie Nelson @julienelsonceramics **making a clay bird**
Réjean Pétavin @rejean.peytavin **Tips to reglaze a piece**
Kristen Kieffer @kiefferceramics **Healthy Studio Tips**
Mirna Bamieh @mirna_bamieh **Fatteh Ghizawieh recipe**

Palestine will be free <3

Maia Beyrouti / Moïo Studio

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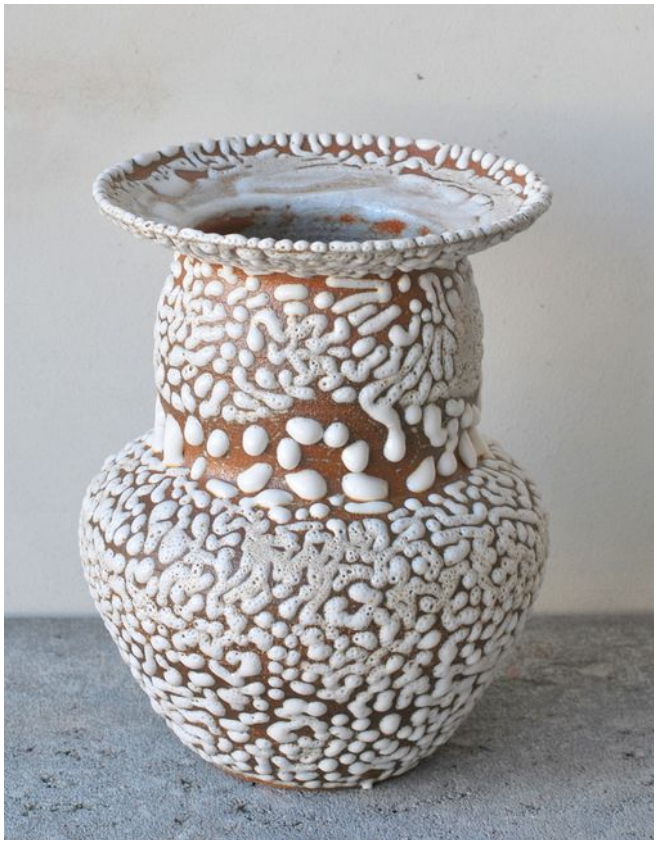
Glaze recipes
Cone 6 (1220°C)

Maia's Gloop

32	Kaolin
42.5	Quartz
8.5	Neph Sy
7.5	Gerstley (or Ulexite)
9.5	Whiting

Someone in the community tried it with Ulexite instead of the Gerstley, and it works well. Please note colourants also act as fluxes and will impact how gloopy it is. You can adjust the Frit accordingly. Colourant in the photo is a purple stain.

Maia's JCB Crawl Based on John Britt's recipe



75	Neph Sy
20	Mag Carb
3	Kaolin
2	Zinc

The thickess of the application impacts the size of the beads. I have found it tends to spit on white stoneware without grog. Always protect your kiln shelves!

Blayse Ceramic - www.blayse-ceramic.com - IG: @blayse_ceramic - blayse.kb@gmail.com

GLAZE RECIPE
GLOSSY RUTILE BASE

This is a functional glossy glaze that can be fired at mid-range temperature, Cone 6-8.
Use 100% Water content and apply for 4-7 seconds to get a nice variegation.

Feldspat Kali (Potash/Custer Felspar)	28.08
Strontium Carbonate	11.19
Talc	11.19
Silica	14.38
Kaolin	10.28
Ferro Frit 3124	24.88
Rutile	6.00
tot	*106*

GLAZE RECIPE
TANGERINE SEMI-MATTE

This is a functional semi-matte glaze that can be fired at mid-range temperature, Cone 6-8.
The colors vary from a light brown when thin to a semi glossy orange when thick.
Use 100% Water content and apply for 4-7 seconds to get a nice variegation.

Feldspat Kali (Potash/Custer Felspar)	27,06
Whiting	8,98
Zinc Oxide	5,52
Silica	10,82
Kaolin	21,65
Ferro Frit 3124	16,23
Rutile	4,33
Tin Oxide	3,25
Red Iron Oxide	2,16
tot	*100*

UMF - Unity Molecular Formula

SiO_2/Al Ratio 4,44 :1		Alkali Metals 0,26		Alkaline Earths 0,74	
SiO_2 2,75	Collective "Al_2O_3" 0,62	Na_2O 0,09	K_2O 0,11	MgO 0,00	CaO 0,44
B_2O_3 0,11	Al_2O_3 0,45	Li_2O	CuO	SrO	BaO
TiO_2 0,17	NiO	Bi_2O_3	SnO_2 0,07	ZnO 0,23	Fe_2O_3 0,06

WOOD ASH GLAZE RECIPE // RECETTE ÉMAIL DE CENDRE DE BOIS

Eva Kengen
www.evakengen.com
@eva.kengen

FR

Recette (cône 9-10)

Cendre de bois dur lavée: 33%
Feldspath potassique: 33% → remplacer par de la néphéline syénite pour cône 7-8
Argile: 33%

Ces ratios sont un bon point de départ pour ensuite ajuster en fonction de vos argiles, tempéature, atmosphère de cuisson et types de cendres.

Cendre de bois dur	Chêne, érable, hêtre	Riche en calcium (CaO) : souvent autour de 20-30 %.- Potassium modéré (K_2O) : généralement entre 10-20 %.- Silice modérée. Phosphates présents, pouvant favoriser certains effets de surface. Couleur d'émail souvent claire, avec des tons crème ou beige.

	CaO	**K_2O**	**MgO**	**Na_2O**	**P_2O_5**	**SiO2**	**Fe_2O_3**	**MnO**	**SO_3**	**Perte au feu**
Chêne*	21.51%	33.44%	15.85%	2.30%	16.34%	0.67%	0.58%	2.60%	6.71%	23.00%

*Composition chimique théorique, formule molaire disponible e.a. en libre accès sur Digitalfire.com

ENGL

Recipe for cone 9-10

Hard or mixed wood ash (washed): 33%
Feldspar K: 33% → substitute with nepheline syenite to lower to cone 7-8
Clay: 33%

This is a good starting point to test your wood ash and clay ratios, to be adapted to your clay body, firing temperature, atmosphere and type of ash.

Hard wood ash	Oak, maple, beech	High in calcium (CaO) : around 20-30 %.- Moderate potassium (K_2O) : 10-20 %.- Moderate silica content. Often a clear and light shade of beige or cream undertones.

	CaO	**K_2O**	**MgO**	**Na_2O**	**P_2O_5**	**SiO2**	**Fe_2O_3**	**MnO**	**SO_3**	**LOI**
OAK*	21.51%	33.44%	15.85%	2.30%	16.34%	0.67%	0.58%	2.60%	6.71%	23.00%

*Theoretical chemical composition. Molecular formulas can be found on digitalfire.com

Here is the process I followed to get my satin black glaze from a local iron rich earthenware, foraged close to abandonned bauxite mines.

_Florence Inoué

Using a predictive calculation sheet shared by Éric and Joelle Swanet, I assumed that this clay's formula would approximatively be the same as a random red clay you can find in any French supplier. So Stull's diagram reveals a theorically stable and food safe formula, as dolomie helps balancing the SiO2/alcali ratio.

At first I didn't use dry clay, as it was too long to wait, so it was basically very thick slip (probably 1 part clay/1 part water). It led to matte and fragile surfaces, as they were probably underfired.

The final recipe uses dry clay and a boro-calcic frit, which was incredibly helpful to lower the melting point and manage the expansion ratio.

Due to its composition (mainly clay) it is also incredibly smooth to apply and works perfectly for single firing.

Satin Black teadust

80	red earthenware of your choice
12	3134 ferro frit
5	NephSy
5	Dolomite

Aaaaaand that's it !

I'm pretty curious about how it would turn using different foraged clays, if you Feel into sharing your results, you can email me at attraction.terrestre.ceramique@gmail.com

@florence_inoue_ceram
florenceinoue.com

A long time ago, I was struck by these old globe-shaped jugs:

I wanted to achieve a similar effect, a honey-colored wash or glaze over the pieces.

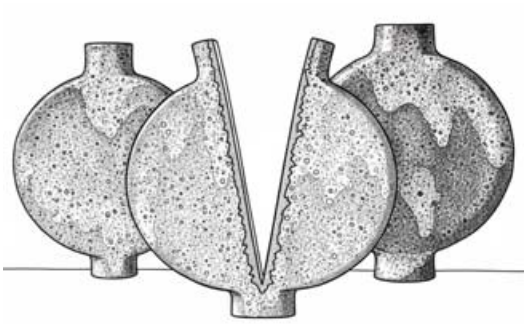
It is possible to use a colored glaze over a sgraffito-decorated piece.
This approach reduces the contrast between the sgraffito areas (the clay body tone) and the figures (slip or engobe). To achieve this effect, it is essential to use a very light or semi-transparent glaze in order to avoid obscuring the design.

I tried several recipes to achieve a honey-colored transparent glaze that would allow the design underneath to remain visible, and in the end this is the recipe I use:

Nepheline Syenite 30 Silica 30 Gerstley Borate 20 EP Kaolin 10 Whiting 10 + 3% Red Iron Oxide

Clara Holt
https://www.instagram.com/clara.holt.ceramics/

Glaze Recipe: Drippy White Noise



by Jeremy Bellina

Type: High-Contrast Oil Spot (Dual Glaze System)

Firing Temperature: 1220 to 1224 degree celcius

Surface: Glossy White "Noise" over Black Satin

I. The Formula

Black Satin Base	Amount	**Odysee White**	Amount
Nepheline Syenite	25	Quarz Mehl	30
Quarz Mehl	30	Nepheline Syenite	30
Dolomite	11	Calcium Borate Fritte	20
Kaolin	10	Kaolin	10
Calcium Borate Fritte	19	Wollastonite	10
Talc	5	Zircopax	6
add Black Mason Stain	8		

II. Application Instructions

The "White Noise" effect relies on a specific thickness ratio to create a surface that looks like **Galuchat (shagreen) leather**.

1. **The Primer (Black Satin):**
    - Apply a smooth, even foundation.
    - **Technique:** Ideally, use a **spray gun**.
    - **Thickness:** This layer should be slightly thinner than the top coat.
2. **The Action Layer (Odyssée White):**
    - Apply directly over the dry Black Satin.
    - **Technique:** Use a **spray gun** for a thick, heavy application.
    - **Warning:** The White is **drippy**. While you need a thick layer for the "oil spot" effect, be very careful at the base of your piece. Apply less glaze toward the foot to prevent it from running off.

III. Firing & Safety

- **Kiln Safety:** Due to the drippy nature of the white layer, you **must use kiln wash** to protect your kiln shelves. Firing on a kiln cookie or catch-plate is highly recommended.
- **Target Temperature:** 1220 to 1224 degree celcius
- **Health Safety:** Contains **Talc**, **Zircopax**, and **Mason Stains**. Always wear a mask and use a spray booth.

IV. Student Pro-Tip: The Galuchat Effect

This glaze mimics the luxurious, pebbled texture of Galuchat leather. The secret is the "Non-Mingle" physics: the white glossy layer beads up and sits on top of the black satin rather than melting into it.

Remember: Thick application = Big White Spots. Thin application = Dull Grey Surface. Just watch those drips at the bottom!

Glaze Recipe: Volcanic Bloom

by Jeremy Bellina

Type: Textured Lava / Crater Glaze

Firing Temperature: 1220 to 1224 degree celcius

Surface: High-Texture Matte / Cratered

I. The Formula

Material	Amount
Kalifeldspat	42,1
Barium Carbonate	20,2
Kaolin	11,2
Quarz Mehl	11,2
Titanium Dioxide	9,6
Silicon Carbide (mesh 80 to 120)	2,9
Copper Carbonate	2,9

II. Application Instructions

For this glaze to "bloom" correctly, it must be mixed thickly. **Recommended ratio: 700ml of water per 1kg of dry glaze.**

1. **The Base Layer:** Apply a uniform layer across the entire piece. **Ideally, use a spray gun** for even coverage.
2. **The Texture Layer:** Using a pipette or brush, apply **thick "gloops"** or drops of glaze in specific areas. These concentrated spots will form the most dramatic, large craters during the firing.
3. **The Finishing Layer:** Apply a final coat **using a spray gun** over the whole piece. This layer is designed to **fade the edges** of the thick drops and harmonize the surface.
    - **Crucial:** Emphasize the application at the **top of the piece** and apply less at the bottom. This prevents the glaze from running off the piece and sticking to the kiln shelf.

III. Firing & Safety

- **Kiln Safety:** Gravity still applies! This glaze can be runny if over-applied at the base. **Always use a kiln cookie** or kiln wash to protect the shelves.
- **Target Temperature:** 1220 to 1224 degree celcius with a **15–20 minute soak** at the peak to allow the volcanic reaction to fully develop.
- **Functionality:** Due to the deep, porous texture, this glaze is **not food safe**. It is for decorative or sculptural use only.
- **Safety Warning:** This recipe contains **Barium Carbonate** and **Copper Carbonate**, which are toxic. **Always wear a mask** when mixing dry materials or using the spray gun.

IV. Student Pro-Tip

The final spray layer is the "magic touch"—it blurs the manual drops from the second step, making the craters look like natural geological eruptions rather than applied spots.

The paper pulp recipe

Aude Arago @aude_arago www.audearago.com

Torn egg box	paper or card from egg boxes reduced to paper mass 350 ml
Eggshell powder	place eggshell in a blender to reduce it to a powder - 2 tablespoons
Flour glue 250 ml	mix 1 part wheat flour & 1 part water. In a pan add 3 parts water to boil add the mix of water & flour. Stir until thickens let cook for 1 mn. When cold and very thick add 1 or 2 parts of water smooth paste
Salt	2 tablespoons
Oil	2 tablespoons
Baking soda	0.5 tablespoon
Vinegar	1 tablespoon
Corn starch	4 tablespoon

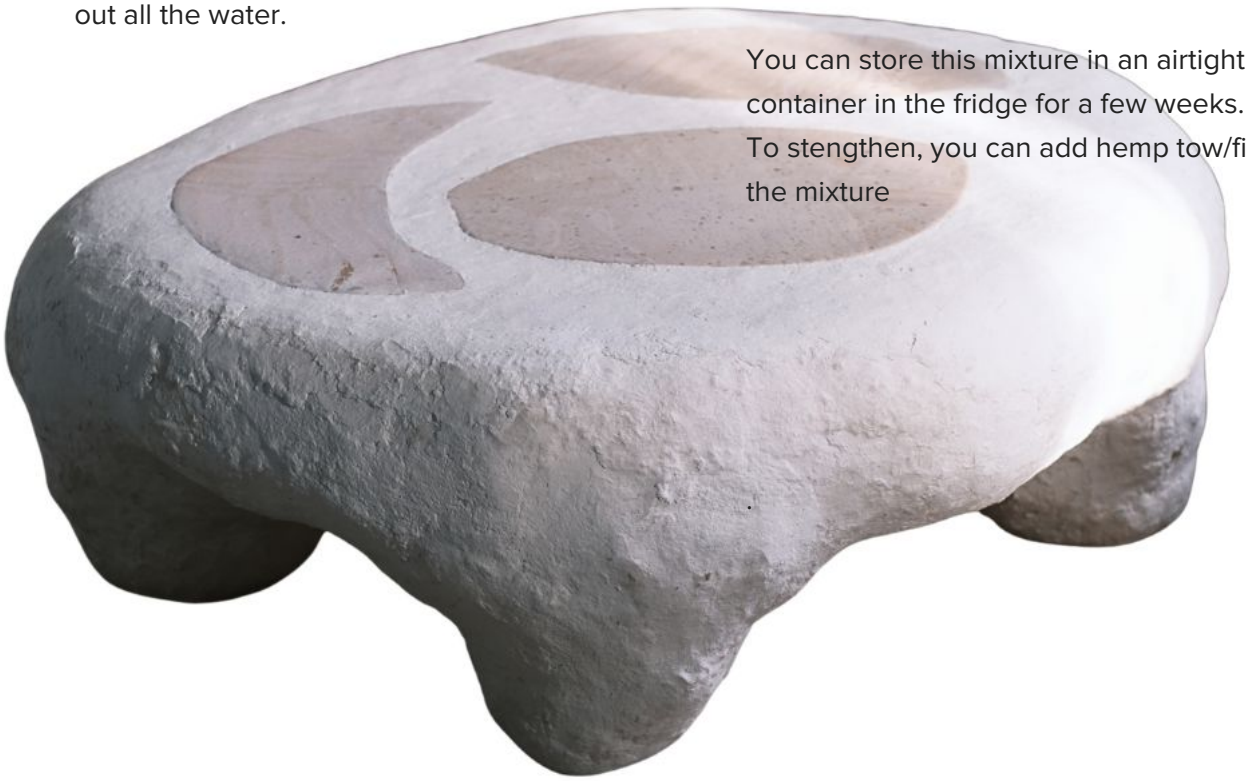
Hemp fibers

Paper pulp

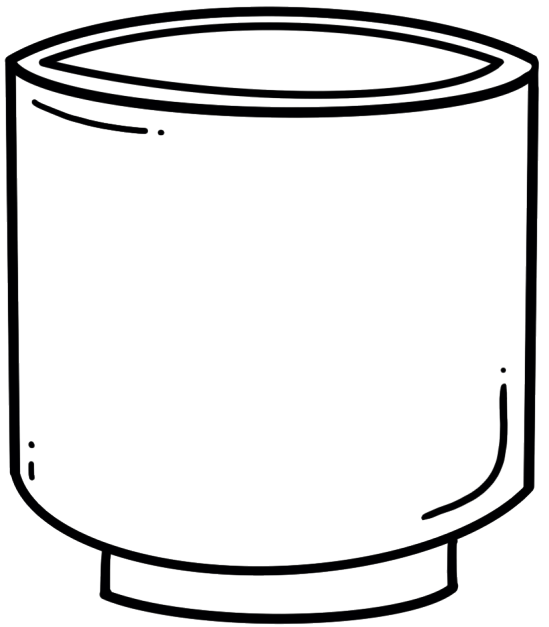
Shred the paper and card into little pieces and cover with hot water for 3 hours until it turns into a soft material. Take out the paper from the water and blend the paper mass. Then put the paper mass in a thin towel or sock to squeeze out all the water.

Combine all of the other components, apart from the corn starch, in a large bowl and mix them. Add the dry paper mass bit by bit and mix. At the very end add the corn flour to your paper pulp.

You can store this mixture in an airtight container in the fridge for a few weeks.
To stengthen, you can add hemp tow/fiber to the mixture



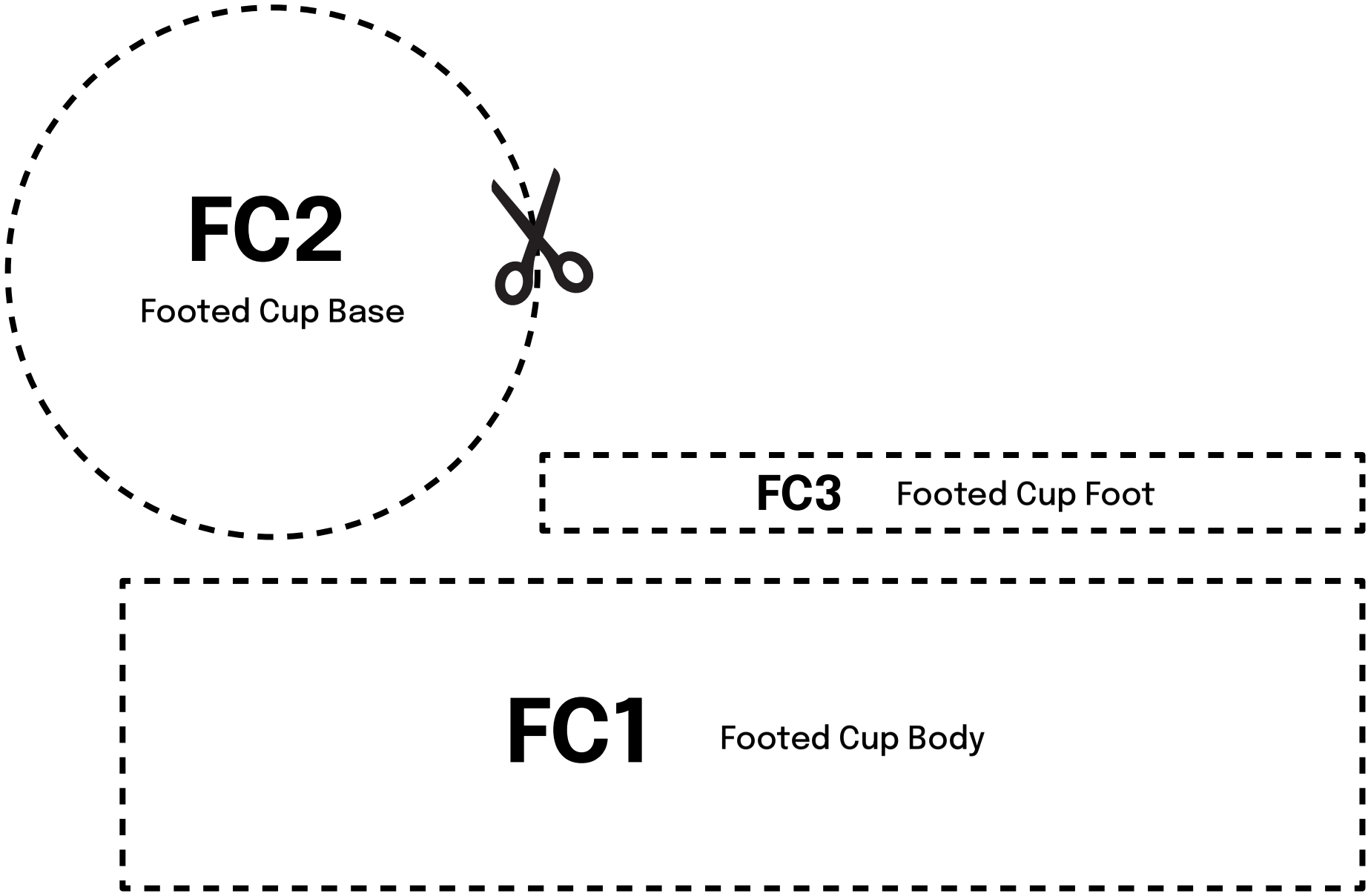
Footed Cup



LEARN HOW TO MAKE IT WITH THIS VIDEO TUTORIAL

Instructions

1. Cut out the templates. Roll out a 1/2 cm (1/4 in) slab and cut out each template once.
2. Connect the two short ends of FC1 to make the body of the cup. Connect the two short ends of FC3 to make the foot.
3. Attach the body of the cup (FC1) to the base (FC2) and trim the excess.
4. Center the foot on the base of the cup and attach.
5. Smooth with a sponge.


FC2
Footed Cup Base
FC3
Footed Cup Foot
FC1
Footed Cup Body

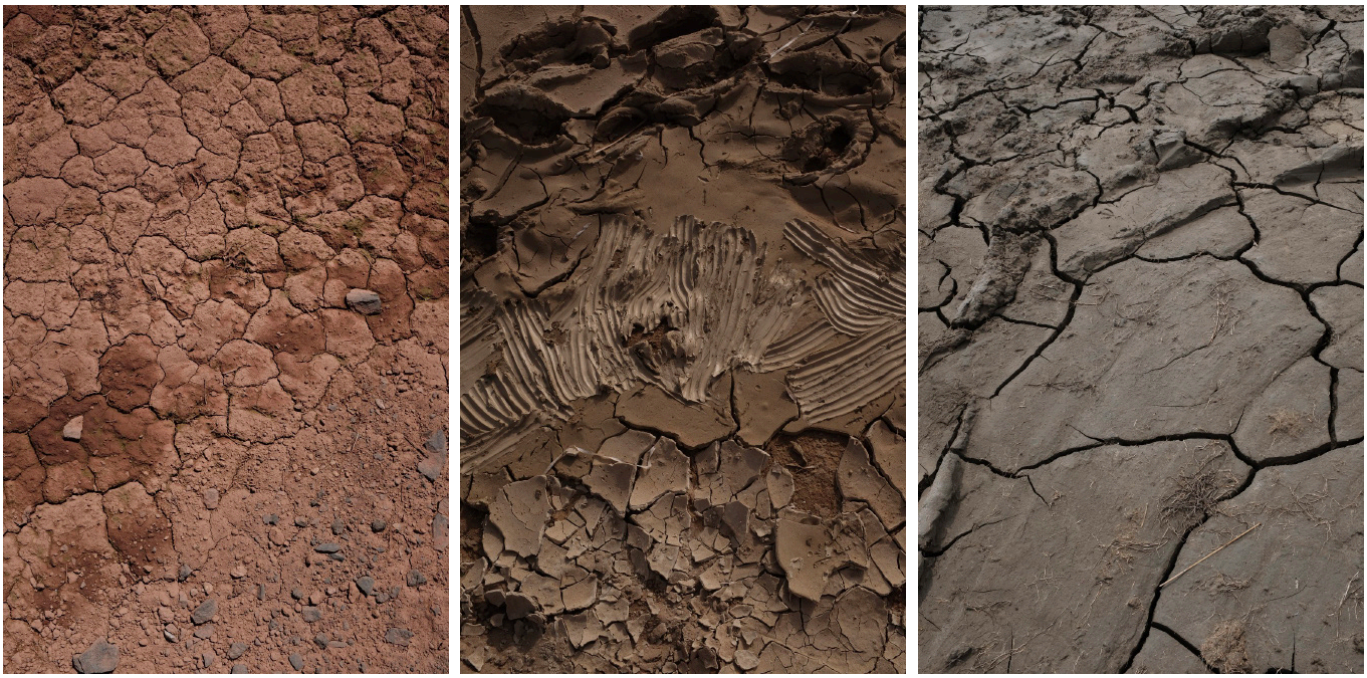
How to identify clay in nature

Clay is so widespread that finding it is easy in most places, but it takes some adjustment to seeing it in the beginning. You can find rather pure deposits or clayish soils mixed with sand, silt and organic matter.

Colour is often not a good indicator, as clay can be of any shade. Organic matter and iron oxides contribute most to the pigmenting of soil. Iron, as the most abundant metal in the crust, can be red, white, yellow, green, blue, purple, black, gray and anything in between in its raw state. All forms of iron become hematite when fired: clays of any color when raw and with a large percentage of iron will turn into the familiar red-orange color of terracotta.

Starting simple is often the best approach, investigating memories of your environment. Look at the soil in your garden, or immediate surroundings, like construction sites in the place you live.

Raw clay samples



Typical cracks in soils with high contents of clay in Ardeche, Agrigento and Camargue.

Where the soil cracks when dry or is slippery when wet, this usually indicates the presence of clay.

This is due to the property of clay to swell when wetted and shrink when dried.

Red clay from Mt Bisalta, notice how the shovel cuts perfect slices of clay.
Footprints in clay in Croatia. Vertical kaolin wall on Mt Bisalta

Angular breakages, the capability of clay to retain shapes like footprints and the ability to hold together instead of crumbling like other types of loose soil also point us to clay.

If you have previously dug in your garden or seen construction sites where the soil is compact and easily retains shape over vertical walls without collapsing there's probably clay there.

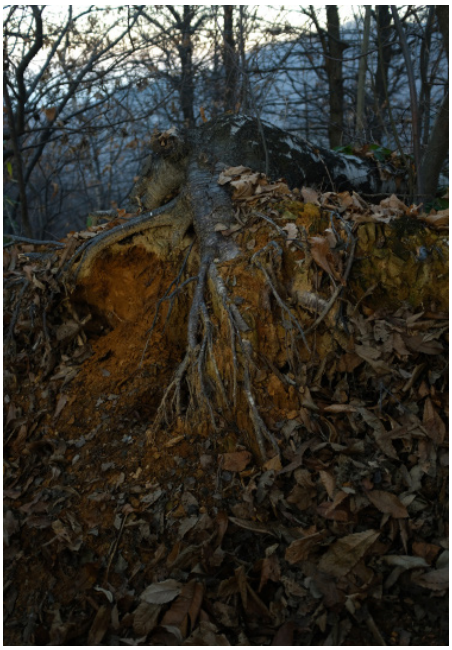
Other than potters, there are a lot of people from many other fields which are interested in soil and clay, from agriculture to engineering, archeology, fossil hunters, plants, pigments and mushroom gatherers. Connecting with others that know soil is often a good idea.

Think also of water, both in a geological and contemporary sense. Rivers and streams might have cut through several layers of soil and exposed what's underneath your topsoil, some of these layers could contain clay. Because clay is the smallest particle of soil, it tends to stay suspended in water longer than any other soil component.
In a geological sense, beds of clay may have formed where there were shallow oceans or lakes in a distant past and finding out information on old bodies of water could be another layer of research to find wild clay.

For example in Italy the abundance of low fire clays in the Appennino is mostly thanks to the Pliocene sea, a shallow sea that around 5 million years ago started sedimenting hundreds of meters of clays and sands.

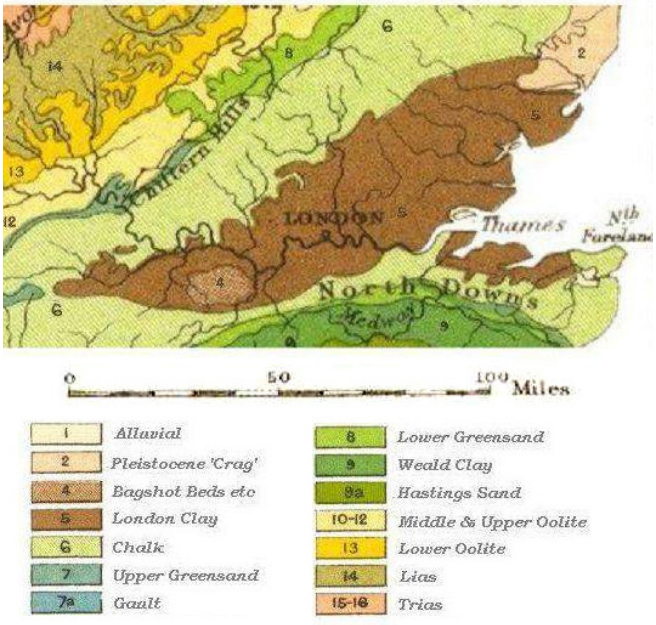
Observe plants and animals present in your area. What grows and lives in a place is strongly connected to its soil. Most trees have a strong capability to adapt to very different types of soil, but it is useful and interesting to look at them. It's quite likely that if there are birches, oaks, elms, butcher's brooms or chestnut trees there might be clay underneath them. If there are wild boars living in the area, there's quite likely clay nearby. Look also at those types of agriculture cultivations that need good water retention that can be provided by clay, like vineyards or olive trees.





Chestnut tree and chorleywood leaves in Tolfa, oak leaves near Bergamo, Birch roots grown in clay on Mt Bisalta.

The start and end of something on a map is also tightly connected to the soil, at least historically. Think of the city of London, why did it end so sharply in the south? Because south of London there's a bed of clay called Weald clay which is very permeable and loses structure when absorbing too much water, making it a difficult type of soil to construct foundations for buildings, roads, etc. The city of London is delineated geologically by the London clay deposit, which on the other hand is a very impermeable type of clay and allows for the easy construction of houses and tunnels. Where infrastructures are built and the delineation of urban, agricultural or wild zones in your area will give you an additional level of understanding of soil.



Geological map of the london basin. Source Wikipedia

Map of the forest of Anderida, A History of The Weald of Kent with an outline of the Early History of the County, Volume I. by Robert Furley, F.S.A.

Similarly, in Tuscany the different areas of agricultural wheat land, truffle production and desert within Crete Senesi are delimitated by different soil and percentage of clay in it.

Another great indication is if there are or were brick factories and low fire ceramic materials produced for building and construction. These are usually dug, produced and fired in the same vicinity.

Look also at the morphology of your territory, where there are roads, railways and anything might have required cutting through the surface, revealing underlying strata of soil which might contain easily accessible clay.

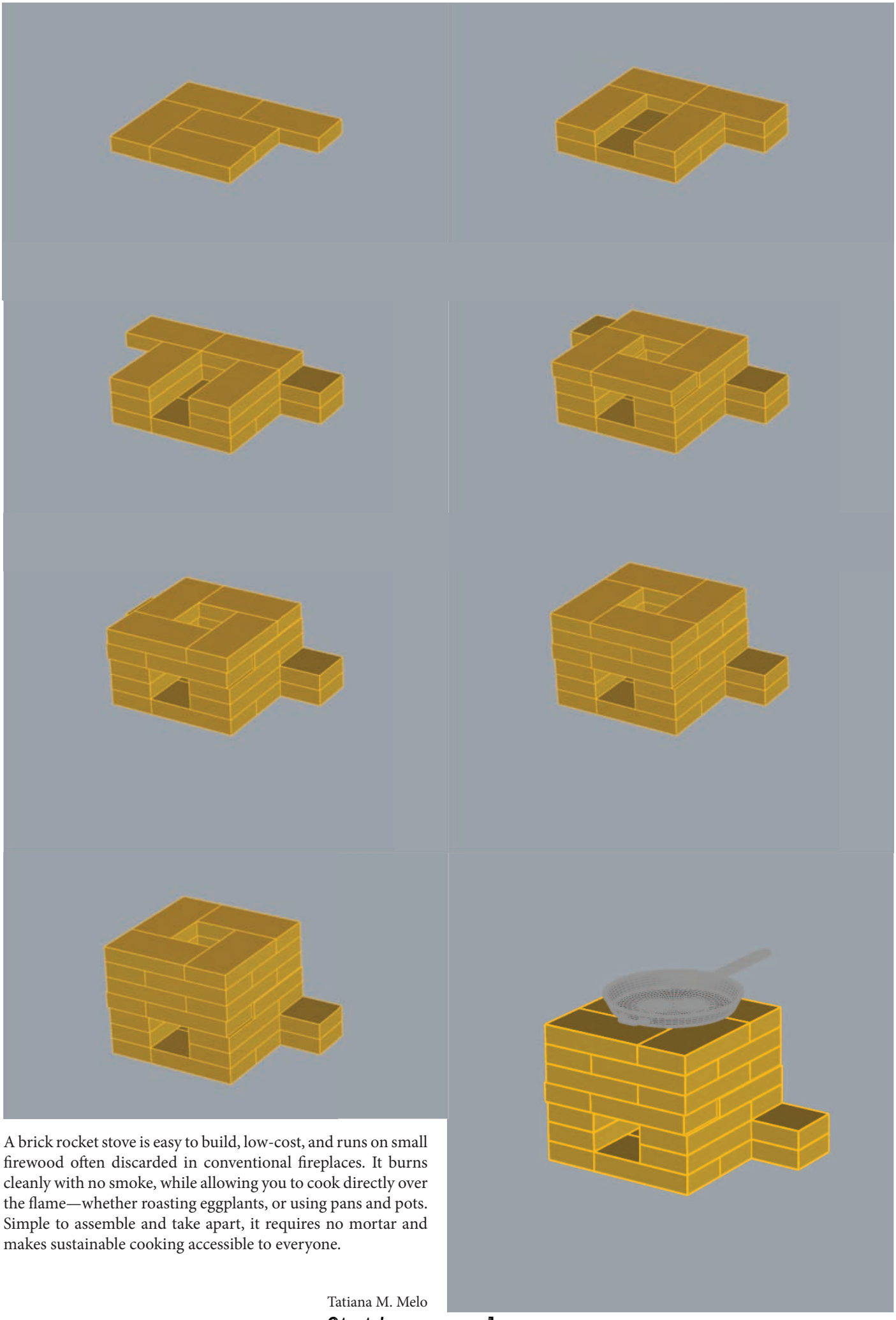
Finally geological maps and articles on your area are very useful, mostly pointing us at the bedrock of an area and therefore giving us some primal information on the clays you might find there.

Plastic sedimentary clay and kaolin bed meeting in Tolfa

After selecting a possible deposit, an easy and quick test to see if what you have found is indeed clay is to mix the sample with a bit of water and see if the resulting mass has some plasticity. Make a small coil and drape it around your finger, if it holds the shape you have found clay or a material with a high percentage of clay. If it breaks, it might still be usable as a slip, glaze or an addition to another clay body, but it's likely containing more sand and silt that makes it unsuitable on its own for a clay body.

You can also take a bit of your dry sample and rub into powder between your fingers, if you feel any grittiness, that's sand. In between your teeth you'll feel grittiness for silt, but you won't feel it for pure clay.

Finding clay in the wild allows us to interpret and look at the territory in more profound ways than we would have before. It's something that requires practice and becomes increasingly more effortless with time. Combining findings in nature and results of tests in our studio furtherly help us understand what's below our feet and gives us information for the next foraging.



A brick rocket stove is easy to build, low-cost, and runs on small firewood often discarded in conventional fireplaces. It burns cleanly with no smoke, while allowing you to cook directly over the flame—whether roasting eggplants, or using pans and pots. Simple to assemble and take apart, it requires no mortar and makes sustainable cooking accessible to everyone.

Tatiana M. Melo
@tatiana__mmelo

Mirna Bamieh **www.mirnabamieh.info**
Fatteh Ghizawieh with Chicken and Dagga

Gathered at the Bread
Mirna Bamieh

www.mirnabamieh.info

Bread is life, 'aish. In Palestine, bread is shared in a Luqmah with an olive after the Bismilla and before words are spoken around a table, bread is broken with guests and strangers, bread is never thrown away. To waste bread is to forget the work and the hands that brought it to the table, to waste bread is to be ungrateful to where you come from, the soil.

Bilad a-Sham, once the breadbasket of the ancient world, gave birth to wheat. In the Fertile Crescent, wild grains were first coaxed into harvests that fed cities, sustained empires, and set the foundations of agriculture itself. Bread was currency, economy, a building block for the future, a right, and a measure of dignity.

Bread has always been political.

In times of war or blockade, its absence is not just hunger, it is a weapon. In Gaza today, bakeries stand in ruins, wheat silos are empty, and families line up for hours for a few pieces of bread. The siege makes even the simplest loaf a hard-won victory.

Scarcity here is not a distant folded in the books of history, it is a daily reality, a bitter and unjust one.

In this context, bread recycling is not nostalgia or culinary trend, it is survival. Fatteh, a dish made across the Levant, takes stale bread and turns it into a meal that can still gather a family. In Gaza, fatteh begins with thin whole-wheat Shraq bread that is fresh, yet, if dried-out or gone hard bread is there, then it becomes the priority for use. Fried or toasted until golden.

Fatteh Ghizawieh is a big, communal tray, bread soaked in broth, layered with flavor, around which a family leans in, eat their roots, their stories, their place in the world.

Recipes are an inheritance, proof that even in scarcity, there is creativity, care, and resistance. As the climate crisis, war, and economic collapse deepen, they teach us to make the most of what we have, to feed each other when systems fail, and to remind that even when the means are few, we will share what we have. Bread will still be broken. Life will still be lived.

Fatteh Ghizawieh with Chicken and Dagga
Serves 4

For the chicken

- 1 whole chicken (or 4–6 bone-in thighs)
- 2 tbsp flour, ½ lemon, ½ tsp vinegar
- 1 large onion, sliced
- ½ tsp cinnamon
- 3- 4 cardamom pods
- 1 bay leaf
- ¼ tsp turmeric
- Salt to taste

For the rice

- 1½ cups basmati rice, washed and soaked 10 min
- 1 tsp ghee or butter
- 1 tsp olive oil
- 2 cardamom pods
- 1 bay leaf
- Salt to taste

For the bread base

- 2 large shraq or thin saj breads, torn into pieces
- Olive oil or ghee, for crisping

For the dagga

- 5–6 fresh green chilies
- 2 garlic cloves
- 1 tbsp olive oil
- ¼ cup lemon juice
- Salt to taste

To serve

- Fresh parsley leaves
- Toasted almonds or pine nuts

Method

1. Clean chicken by rubbing with flour, then with lemon and vinegar; set aside. Rub sliced onion with cinnamon and black pepper.

2. Brown the chicken in olive oil, add onion, cardamom, bay leaf, turmeric, and salt. Cover with water, bring to a boil, skim, and simmer until cooked (about 40 min). Remove chicken, strain broth.

3. For rice: toast ½ cup rice in ghee and oil until golden, add remaining rice, broth, bay leaf, cardamom, and salt. Cook until fluffy.

4. For bread: bake torn pieces at 180°C until crisp.

5. For Dagga: pound chilies and garlic in a mortar with salt; mix with olive oil and lemon juice. Reserve 2 tbsp for bread layer, dilute the rest with broth to serve alongside.

6. To assemble: layer crisp bread, moisten with hot broth, mix in reserved dagga. Add rice, arrange chicken on top, and garnish with parsley and nuts. Serve with the dagga broth.

CERAMICS COMMUNITY FIRING NOTES
Obvara Firing @ PUMPWERKSTATT

A GUIDE TO THE TECHNIQUE, THE MIXTURE, AND THE FIRING PROCESS

1. Origin & Background

Obvara is an Eastern European firing technique, originating in Belarus and the Baltic region. It dates back to around the 12th century, when it was used to seal porous, low-fired pottery at a time before reliable glazes or high firing temperatures were widely available. Today it´s used purely for its decorative surface it is sometimes nicknamed “Baltic Raku.” The technique has many regional names hartavanaia in Belarus, obvara in Ucrain, poripott or rudita keramika in Estonia, sourdough or leaven pottery in Lithuania, scalded ceramics in Russia. It was traditionally passed down orally from person to person rather than written, so there is no single “correct” recipe or method every potter´s mixture and dipping style is a little different

2. Clay Preparation

Use a clay body that can handle thermal shock a groggy stoneware or raku clay works well (Porcelainhasalsobeenusedsuccessfullybysomepotters,thoughit´slessforgiving.) Bisque fire pieces first, typically to around 950°C. Burnishing and/or a terra sigillata coat before bisque firing gives the strongest, most legible patterns the smoother/glossier the surface, the more the cloud-like markings stand out

Textured, carved, or stamped surfaces also work beautifully the mixture pools in the grooves and highlights the pattern.

Optional:

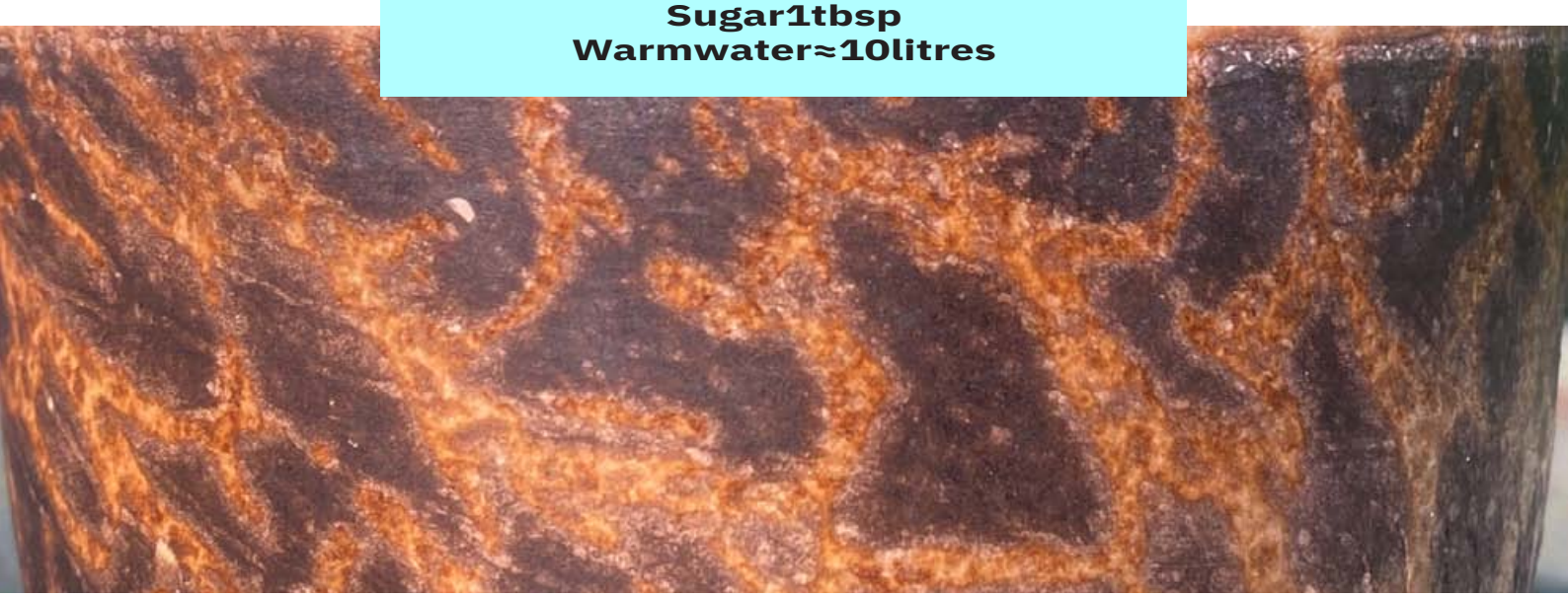
Pieces can also be glazed on the inside beforehand with a raku glaze, to make them more practical while keeping the obvara effect on the outside. A simple, reliable base is a 50/50 blend of nepheline syenite and ulexite (gerssley borat) both are low-fire fluxes suited to raku temperatures and give a workable glaze

surface without interfering with the outer obvara reaction. Apply only to the interior before the final firing.

3. The Obvara Mixture (“Brew”)

There´s no single fixed recipe regional and personal variations exist (some add a bottle of beer, sour milk, or salt) but a reliable starting point is:

Ingredient	Approxamount
Flour	1kg
Dryyeast	1–2packets
Sugar	1tbsp
Warmwater	≈10litres



Mix 2–3 days before the firing and let it ferment, stirring occasionally. The mixture will bubble and thicken slightly as it ferments as expected. It has a strong smell (fermenting dough / burnt toast once fired) plan storage and transport accordingly

F I R I N G P R O C E S S

1. Heat the bisqued and ideally polished/burnished piece in a raku kiln or open firing to roughly 850°C

2. Remove the piece from the kiln with tongs.

3. Immediately dip or swirl it in the obvara mixture don´t drop it in, it can be hard to retrieve

4. The longer the contact time, and the longer it´s exposed to air afterwards before quenching, the darker and more intense the markings.

5. Quickly dunk the piece into a bucket of water to stop the reaction.

6. Set aside to air-cool.

S A F E T Y

Fire outdoors or in a very well-ventilated space there´s real smoke and a strong smell when the mixture hits the hot piece

Use proper heat-resistant gloves and long raku tongs pieces come out of the kiln at 850°C+

Have a full bucket of water ready and within easy reach before you start Keep the work area clear of trip hazards you´ll be moving quickly between kiln, mixture, and water

F I N I S H I N G

Once dry, pieces can be sealed with a clear wax to deepen the contrast and protect the surface

Obvara-fired pieces are not food-safe and not watertight unless the interior is glazed or properly sealed otherwise

More Info about workshops and comunity

www.Pumpwerkstatt.de
INSTA or Telegram
@PUMPWERKSTATT

fotocteditsandetchingMaximilianThiel

Terra Sigillata _

Juliette Penelope Pépin *@juliette.penelope.pepin*

Terra sigillata (or terre sigillée) is one of the oldest known ceramic surface treatments, dating back to Antiquity. Rather than being a glaze, it is an ultra-refined clay slip composed only of the finest clay particles. When applied and burnished, it produces a smooth, satin-like surface that vitrifies during firing without the addition of traditional glaze. Beyond its aesthetic qualities, terra sigillata offers a historical, low-toxicity alternative to many contemporary ceramic surface treatments. Since the beginning of my practice, I have been interested in developing alternatives to traditional glazes, driven by an awareness of the toxic materials commonly used in ceramics and their ecological and extractivist implications. This reflection gradually led me to an ongoing research project dedicated to terra sigillata. This research forms part of a broader investigation into circular, ecological and alternative materials, extending previous experiments with bioplastics, waxes and other unconventional substances. Through these material explorations, I seek to rethink the relationships between technique, matter and environment. How to Make Terra Sigillata *A step-by-step guide, somewhere between a ceramic process and a cooking recipe.* This method is based on numerous discussions with ceramicist Jean-Jacques Gentil and on more than three years of exclusively using terra sigillata to finish my own work.

Photos: Charlotte Robin

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1. Find a clay Start with a clay. Almost any clay can be transformed into terra sigillata.
2. Dry the clay Make small chunks and allow them to dry completely until bone dry.
3. Prepare the mixture Place the dry clay in a bucket. Add purified water together with a deflocculant, previously dissolved in the water. Use approximately 100 g of dry clay per litre of water. Possible deflocculants include: Sodium silicate: 5 g/L Ammonia: 2 cl/L Ash lye: approximately 3 KG of ash for 10 L of water, mixed daily for one week before keeping only the clear liquid.
4. Leave to soak Let the clay, water and deflocculant rest for approximately 48 hours.
5. Mix thoroughly Blend the mixture with a paint mixer for at least 10 minutes, until completely homogeneous.
6. Wait Transfer the mixture to a transparent container and leave it undisturbed for at least one month. During this time, the particles naturally separate according to their size.
7. Collect the terra sigillata Using a siphon, carefully collect only the middle layer. The clear liquid on top is mostly water. The bottom layer contains the heavier clay particles. The middle layer contains the finest particles: this is your terra sigillata.
8. Adjust the viscosity Dilute or concentrate the slip until it reaches the consistency you prefer. Personally, I like it to have the consistency of milk. A thinner mixture requires more coats, while a thicker one increases the risk of cracking during drying or firing. To thicken it, I usually let the water evaporate naturally on top of my kiln or in direct sunlight.
9. Test, test... and test again This is where the real work begins. Experiment with: the number of coats, different application methods, burnishing techniques, firing temperatures (generally between 940°C and 1050°C), and different clay bodies.

Every clay behaves differently, and every terra sigillata develops its own character. For me, terra sigillata is less a recipe than an endless process of experimentation. Good luck—and if you have any questions, don't hesitate to get in touch.

MAKE A BIRD WITH JULIE NELSON FROM THE HORNIMAN MUSEUM

Take your block of clay

Squeeze it into a pear shape

Using your thumbs, start to hollow out the largest part

Squeezing carefully with your thumb and fingers, keep going until the clay is about half a centimetre thick all over

Squeeze the edges as these are going to overlap with each other

Score the edge with a tool

Use some slip (clay mixed with water) on the scored part, which will act like glue

Squeeze the 2 edges together but leave a gap at the roundest part for the neck of the bird

Like this. At the narrowest part, squeeze to form the the tail and remove a piece of clay to form the head of the bird

You can use a piece of wood to gently slap the clay until it is smoother

Roll the clay in both hands to form a ball

Use your thumb to make a dent and, with finger and thumb, make a hollow cup shape by pinching the clay to about half a centimetre thick

Form a beak by squeezing and pulling the clay out between thumb and finger

Shape the head into your favourite bird

Using the slip mix, add the head to the body in whatever position you like

https://julienelson.com/#/flock-project/

Healthy Studio Tips

By Kristen Kieffer

KiefferCeramics.com

Socials: @KiefferCeramics

KiefferCeramics@gmail.com

For full info: tinyurl.com/StandPSA

"If I could give a lasting gift to all potters it would not be a wonderful glaze formula or a new tool. Instead I would give the gift of awareness about the wise use of our bodies." ~ John Glick

STAND TO THROW

I highly recommend elevating your potter's wheel paired with using a backrest to throw (pictured). While better than sitting to throw, leaning against a wall or 'free standing' –especially if the wheel height is too low– are not truly ergonomic nor the same as using the backrest for stability and leverage. *I've been standing to throw with a backrest for 30 years!*

Make sure your hips are naturally facing forward and even (one side shouldn't be higher or projected forward from the other). To achieve even hips for either standing or seated, you can place an object under the non-pedal foot, alternate the pedal from one foot to the other, or place the pedal on the throwing deck and use your hand to adjust speed.

Pain is NOT normal; it is NOT part of the process. Productivity is NOT the goal.

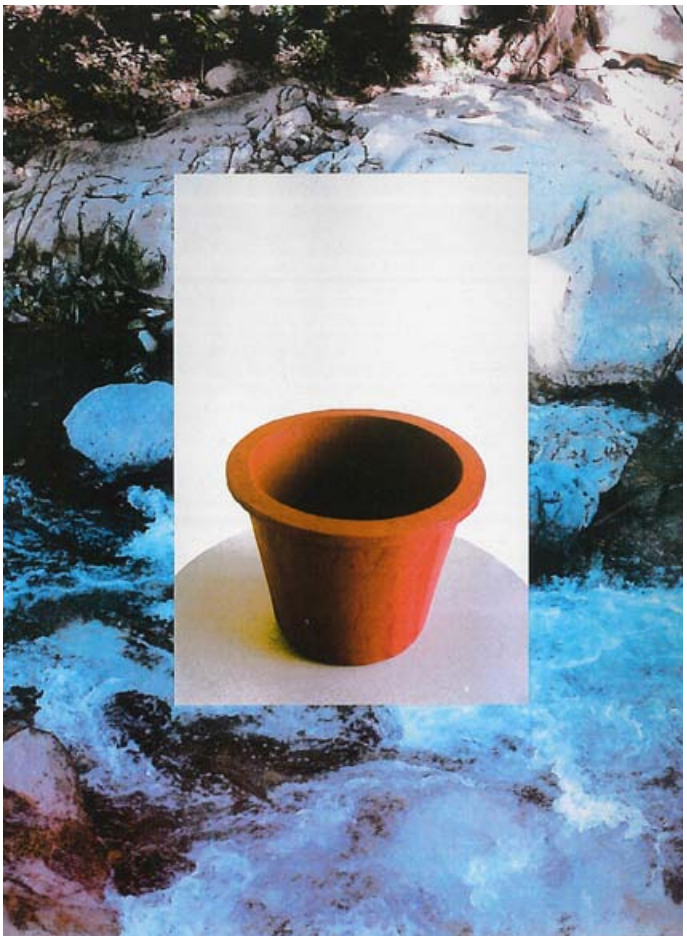
BE *PURPOSEFULLY INEFFICIENT*

Repetitive activity causes injury. In my studio, I regularly vary what I'm doing, and refer to it as being "purposefully inefficient". For example, if I am working on a series of 20 cups, rather than wedging 20 one-pound balls of clay all at once and then standing to throw 20 cups in a row: I wedge 5, throw 5, and repeat. Changing activities regularly prevents injury that can occur through repetition, like carpal tunnel syndrome and tennis elbow. *Pottery is about repeating, but we can break up the repetition.*

CHANGE & PREVENTION

All of ceramics is practice so you might as well practice being safe and healthy too. Prevent getting hurt and change what hurts. Self-care isn't a nice-to-have, it's a need-to-have.

Amara Abdal Figueroa **Ceramic Pot Filter**
@agroalfarera



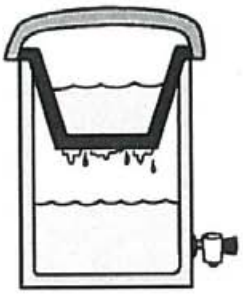
Amara Abdal Figueroa
@agroalfarera

Ceramic Pot Filter

Source Protection	Safe Transportation	Sedimentation	**Filtration**	Disinfection	**Safe Storage**

What is it?

Ceramic pot filters are made from porous fired clay pots nested within a plastic, metal, or ceramic container. The clay is often mixed or painted with colloidal silver to help inactivate pathogens. Water is poured into the ceramic pot and collected underneath in a container with a tap at the bottom. This system provides safe storage for the treated water.



Performance

Microbiological Effectiveness:

Parameter	Effectiveness
Bacteria	Effective (>90%)
Viruses	Somewhat Effective (>80%)
Protozoa	Very Effective (>99%)
Helminths	Very Effective*

**Assumption based on pathogen size*

Other Parameters
Effective at removing turbidity and colour.

Source Water Requirements
Turbid water (>50 NTU) should be settled or strained before filtering.

Capacity
Flow rate of 0.3–2.5 L/hour. Typically can treat around 8 L at a time.

Lifespan
Up to five years—generally one to two years.

Ease of Use & Acceptability

Operation & Maintenance
The user pours water into the filter. Water slowly moves through the ceramic pot by gravity, and is collected in a safe storage container. Users can access treated drinking water through a tap. The lower container, tap, and lid need regular cleaning. The ceramic pot should be regularly cleaned with a cloth or soft brush, taking care not to touch the bottom of the pot to anything that could be contaminated.

Repair & Replacement
Ceramic pots should be replaced every one to two years, or sooner if visible cracks appear.

User Considerations & Preferences
Small cracks can form in the ceramic pot that are not visible but reduce treatment effectiveness. Users should replace the pots every one to two years or when they observe unexpected increases in flow rate, which could indicate cracks.

Feasibility

Availability
Ceramic pot filters are locally produced in many countries. A small factory or kiln and previous experience with ceramics is required for local production of ceramic pots. Other filter components (container, lid, taps) can usually be found and assembled locally. Free designs for a hydraulic press and kiln are available from Potters for Peace.

Cost
Varies, often around US$15–30 for the whole filter; component replacements cost average US$4/year.

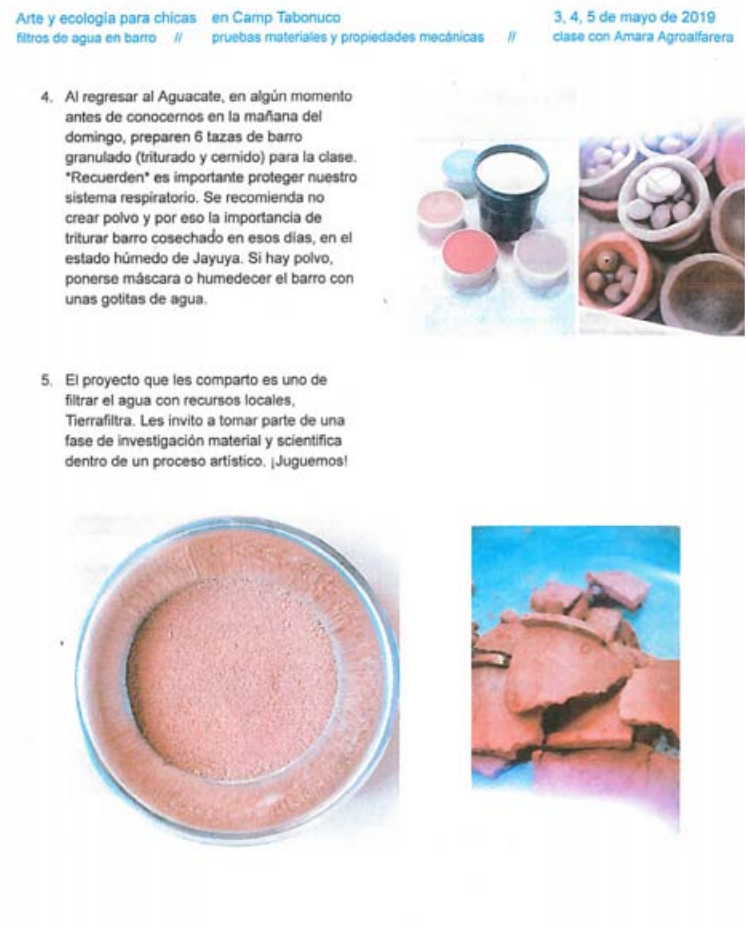
Size & Weight
Varies, often around 30 cm wide by 50 cm tall.

More Information

Details and references: www.hwts.info/products-technologies/d25e3821/ceramic-pot-filter

Amara Abdal Figueroa
@agroalfarera

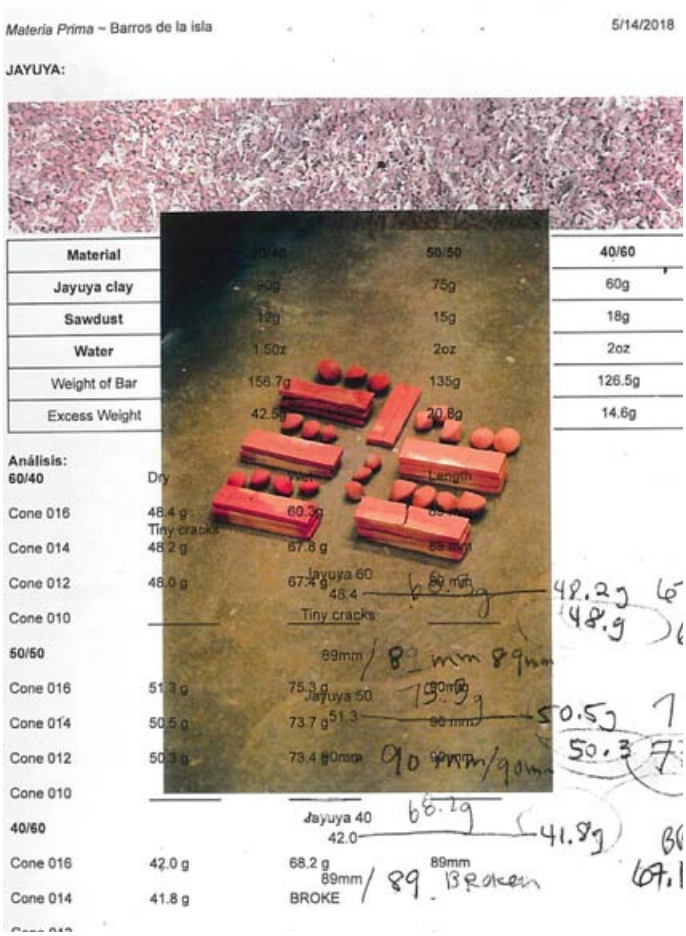
Ceramic Pot Filter



Arte y ecología para chicas en Camp Tabonuco 3, 4, 5 de mayo de 2019
filtros de agua en barro // pruebas materiales y propiedades mecánicas // clase con Amara Agroalfarera

4. Al regresar al Aguacate, en algún momento antes de conocernos en la mañana del domingo, preparen 6 tazas de barro granulado (triturado y cernido) para la clase. *Recuerden* es importante proteger nuestro sistema respiratorio. Se recomienda no crear polvo y por eso la importancia de triturar barro cosechado en esos días, en el estado húmedo de Jayuya. Si hay polvo, ponerse máscara o humedecer el barro con unas gotitas de agua.

5. El proyecto que les comparto es uno de filtrar el agua con recursos locales, Tierrafiltra. Les invito a tomar parte de una fase de investigación material y scientifica dentro de un proceso artístico. ¡Juguemos!



Materia Prima ~ Barros de la isla 5/14/2018

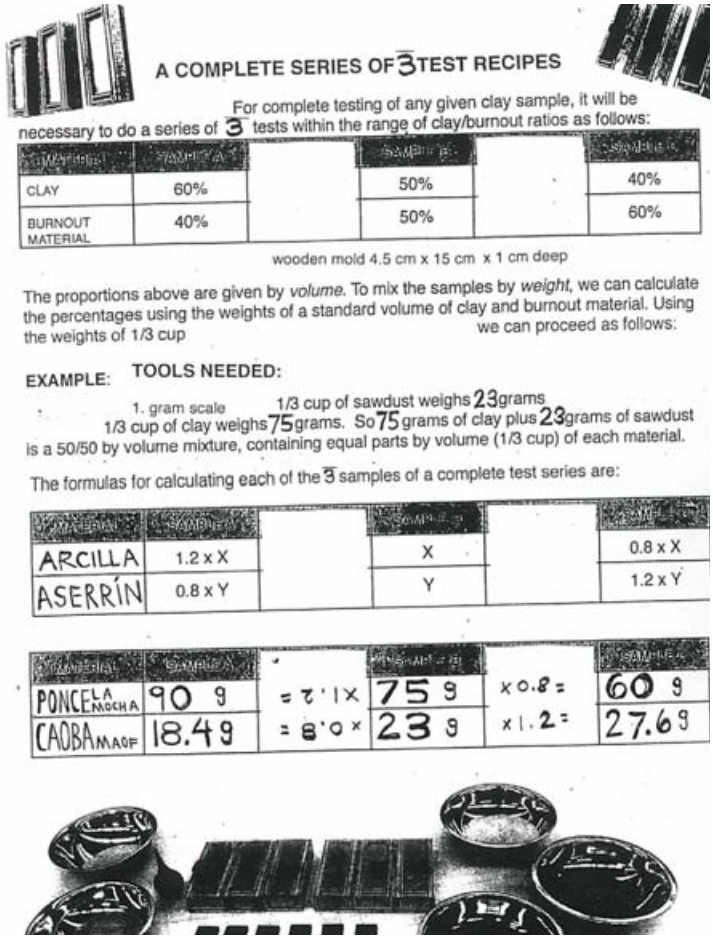
JAYUYA:

Material		50/50	40/60
Jayuya clay	60g	75g	60g
Sawdust	18g	15g	18g
Water	1.50z	2oz	2oz
Weight of Bar	156.7g	135g	126.5g
Excess Weight	42.5g	20.8g	14.6g

Análisis:

60/40	Dry	Width	Length
Cone 016	48.4 g	60.3g	
	Tiny cracks		
Cone 014	48.2 g	67.8 g	89 mm
Cone 012	48.0 g	67.4 g	89 mm
		48.4	
Cone 010		Tiny cracks	
50/50		89mm	
Cone 016	51.3 g	75.3 g	89mm
		Jayuya 50	
Cone 014	50.5 g	73.7 g	51.3 89 mm
Cone 012	50.3 g	73.4	89mm
Cone 010			
40/60		Jayuya 40	
		42.0	
Cone 016	42.0 g	68.2 g	89mm
Cone 014	41.8 g	89mm BROKE	

48.2g 48.9g 50.5g 50.3g 41.8g



A COMPLETE SERIES OF 3 TEST RECIPES

For complete testing of any given clay sample, it will be necessary to do a series of 3 tests within the range of clay/burnout ratios as follows:

MATERIAL	SAMPLE A	SAMPLE B	SAMPLE C
CLAY	60%	50%	40%
BURNOUT MATERIAL	40%	50%	60%

wooden mold 4.5 cm x 15 cm x 1 cm deep

The proportions above are given by *volume*. To mix the samples by *weight*, we can calculate the percentages using the weights of a standard volume of clay and burnout material. Using the weights of 1/3 cup we can proceed as follows:

EXAMPLE: **TOOLS NEEDED:**

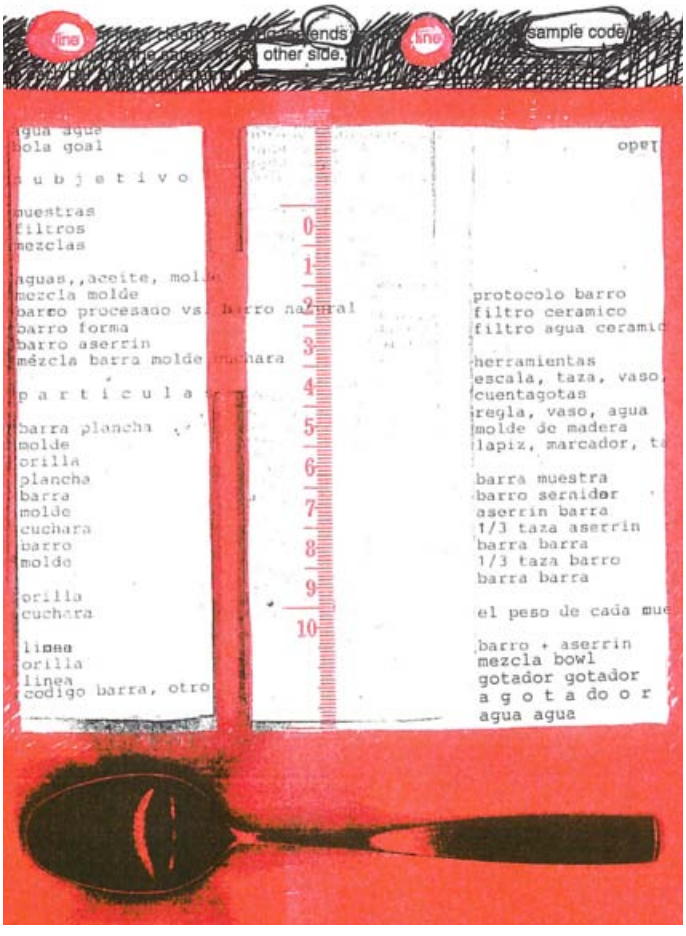
1. gram scale

1/3 cup of sawdust weighs 23 grams
1/3 cup of clay weighs 75 grams. So 75 grams of clay plus 23 grams of sawdust is a 50/50 by volume mixture, containing equal parts by volume (1/3 cup) of each material.

The formulas for calculating each of the 3 samples of a complete test series are:

MATERIAL	SAMPLE A	SAMPLE B	SAMPLE C
ARCILLA	1.2 x X	X	0.8 x X
ASERRÍN	0.8 x Y	Y	1.2 x Y

MATERIAL	SAMPLE A		SAMPLE B		SAMPLE C
PONCE LA MOCHA	90 g	= 2.1 x	75 g	x 0.8 =	60 g
CAOBA MAOF	18.4 g	= 8.0 x	23 g	x 1.2 =	27.6 g



Comment sauver une pièce dont l’émail est insuffisant voire raté?

Pour cela, il vous faut un pistolet à émail, de l’émail et du sirop. Au lieu de mélanger votre poudre d’émail avec de l’eau, utilisez du sirop. Si la texture est trop pâteuse et ne passe pas dans le pistolet, ajoutez un peu d’eau.
Le sirop a le pouvoir, grâce au sucre, de coller l’émail sur l’émail. Le sucre contenu dans le sirop va simplement brûler. Testez tout d’abord une couche moyenne.

How can you save a piece with insufficient or damaged glaze?

To do this, you will need a spray gun, glaze and syrup.
Instead of mixing your glaze powder with water, use syrup. If the texture is too thick and does not pass through the spray gun, add a little water.
The sugar in the syrup helps the glaze stick. The sugar in the syrup will simply burn off.
Start by testing a medium coat.

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