2025 DAM Retreat
Imprint Mokume ~ It's What's for Dessert
Julie Picarello

Firstly – thanks for the invite to the Dam Retreat. I'm honored to be asked to join you as the dessert artist, especially as it combines two of my favorite things…sugar and creating!

To make the most out of our time together, I'm going to focus on what I consider the most helpful tips, tricks and just plain cool stuff I've picked up over the past 21 years. So, with that in mind, I've broken my session content into three basic sections:

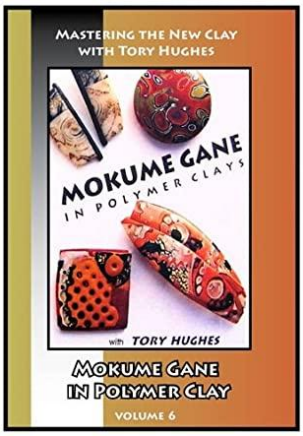
1) **Color Mixing / Stack Building / Slicing**
2) **Tools (Purchased, Repurposed, Fabricated) and Imprinting**
3) **Manipulating Slices, Mixing Media (Building Beads)**

Let's get started!

Imprint Mokume – Tory Style

For over two decades, my best friend and I celebrated our birthdays with classes. Metalsmithing, enameling, copper etching, glass (fusing, blowing, paperweights), book making, wet felting…we tried them all. In 2004, she brought a few blocks of clay, some pre-made millefiori cane slices and glitter (LOTS of glitter) to my house. We used a rolling pin and a water glass to roll the clay out, stuck pieces of the cane on top, and liberally dusted with glitter. Voila! We thought we had conquered polymer clay, but fortunately we learned about a local guild whose members introduced up to the wide, wide world of this versatile medium.

My introduction to the polymer adaptation of mokume gane occurred in 2005, when I watched Tory's Hughes video. I was mesmerized, amazed, blown away...and inspired beyond belief. Who would have thought that you could use tools to create a pattern in a stack of clay, and it would be duplicated in some form as you sliced your way through the it? Factor in the glorious color palettes possible with polymer, and I was hooked! Over the years I have taken what I learned from her video and built on it, continually exploring and experimenting.

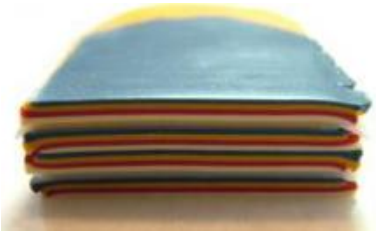


One of the things that intrigued me most in Tory's video was how she repurposed tools. Screwdriver tips? Check. Discarded tape rolls from adding machines? Check. That appealed to me immensely, and it started me down my own tool rabbit hole. You'll find a whole section in this handout dedicated to tools, as I'm doing my best to continue Tory's legacy of experimentation and repurposing!

DAY ONE

Before we start this section, let me briefly provide some clarification. In metalsmithing, Damascus Steel and Mokume Gane both refer to the process of layering contrasting metals and welding them together. The welded metal is then manipulated by a series of carving, forging, and twisting operations to create the patterns on the surface. Damascus Steel refers to material that is made with iron alloys, while Mokume Gane refers to non-ferrous metals. In both cases, the stacked metal is called a "billet". To distinguish between polymer and metal, I refer to layered polymer as a "stack" rather than a "billet", but you will often hear polymer artists who have a metalsmithing background use the term "billet". Either one works!

Building the Stack – Tall Version



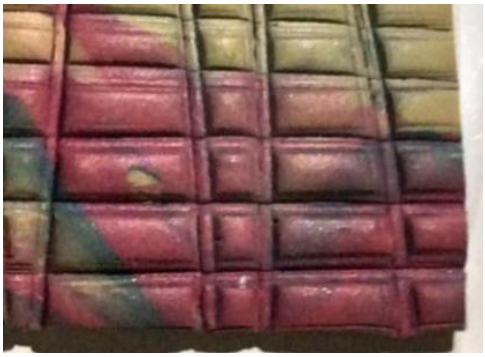
The basic process I use to build my imprint stack requires a minimum of 4 colors of clay, rolled into strips on the thickest setting of the pasta machine (PM) and 2-3" wide. One lighter and one darker strip are stacked on each other and rolled through the PM on the thickest setting, and this is then repeated for the other light & dark set. The two-color strips are then stacked together and run through the PM on the thickest setting, until one single multi-colored strip is created. This long strip is cut in half and stacked, then cut in half and stacked once again.

My finished stack is between 1/2—3/4" tall and each color will be duplicated four times. After imprinting a stack this size, I will typically end up with 6-8 full slices that are neither wafer thin nor ultra-thick.

Building the Stack – Short Version

My goal is to imprint deeply into the stack, and I slice rather than shave the clay. Another alternative is to use shallower tools on a shorter stack of clay and shave from the top. This results in shavings that can be applied to a separate sheet of clay as well as a final "shaved down" veneer.

This is a great example from *Veronique Hoffman* of both shavings and the base veneer. Her stack was only a #3 PM thickness and was imprinted with a handmade texture stamp she created.



Building the Stack – Color Mixing Tips

TIP #1 – ECRU
I use Premo clay, and I especially love using Ecru. If you add white you will brighten clay, and if you add black you will darken it. But Ecru provides a color shift into softer and more soothing tones. Who would have expected turquoise to shift into mint green?! These two colors are wonderful in an imprint stack together.

TIP #2 – Work in small amounts
If you are a caner you are used to working with big sheets of clay. But when color mixing, go small. It's much easier to correct a color when you don't have a monster sheet of it. And most importantly, always add pinches of the darker color to the lighter when mixing, not the other way around. It's like adding salt to the pot...much easier to add then take out!

TIP #3 – Be a fearless color mixer
The worst thing that will happen if you mix a color you don't like is that you add pinches of highly pigmented color (or a metallic) to it and change it into something fabulous. The often-surprising results when mixing two colors together (silver + yellow = green, really?) is what the journey is all about.

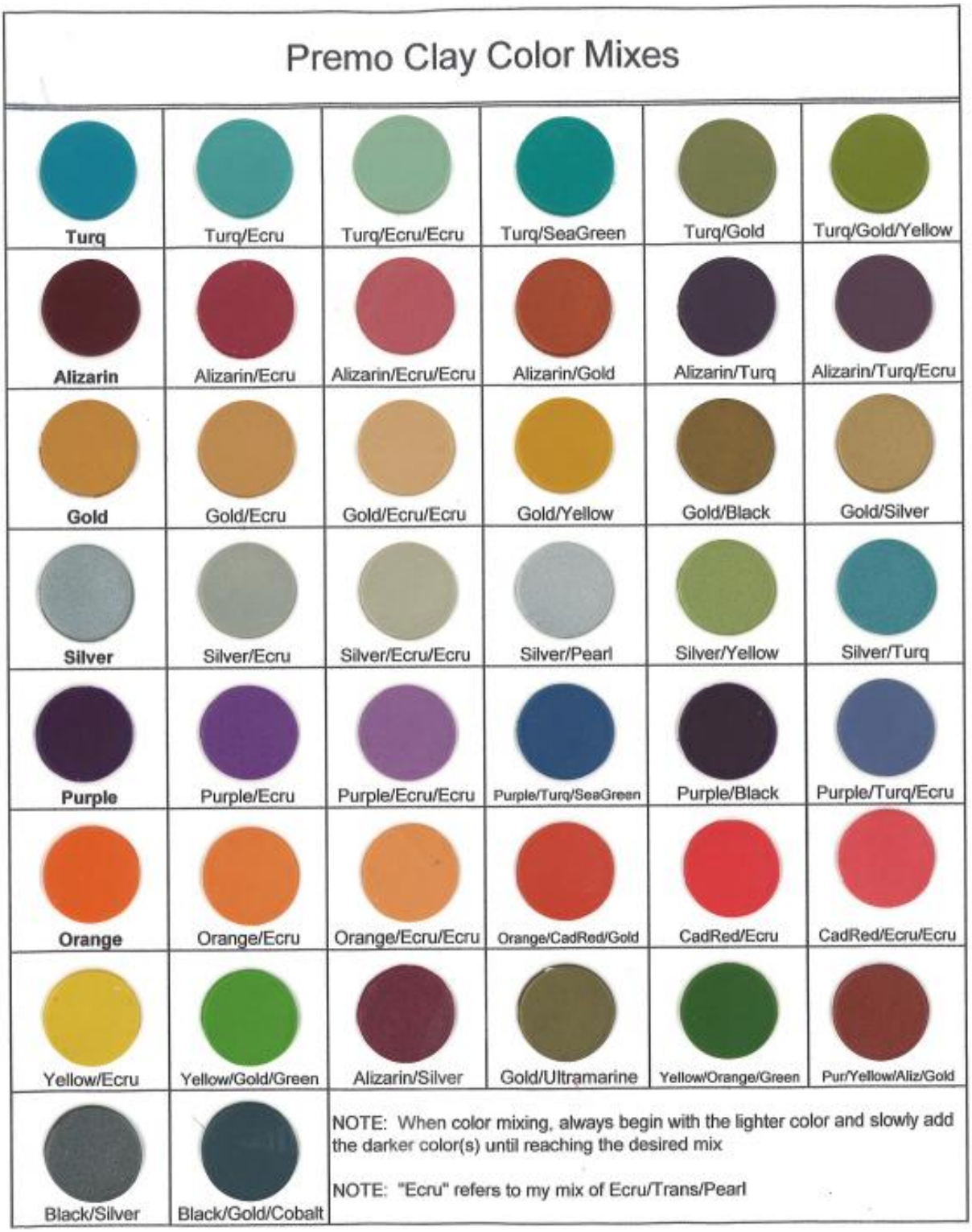
TIP #4 – Use a color wheel as a guide if you are unsure about what colors would work well in an imprint stack. Look at the wheel and identify one color you'd like to work with. Directly across from it is the **complementary** color which will harmonize well. Now you just need to add two other colors. In the example using turquoise and coral-orange, I might add gold and ivory to complete the palette.

You can also use a **split-complementary**, which will identify three of the four colors needed for the palette. Starting with a single color on the wheel, look directly across to identify its compliment and use the two colors on *either side of it*. In the example below, a neutral or "mud" color would need to be added to the palette to offset the three bold colors. Oh, and IMHO...I would choose the lime green over the green in this scenario!

Building the Stack – Color Mixing with "Jecru"

A standard color building base for me is "Jecru", a mix of Ecru, Trans and Pearl. I typically mix Ecru and Trans 1:1 and then add pinches of Pearl until I am happy with the amount of shimmer. Sometimes I will throw in a bit of white if I want a brighter base.

In this chart, the first column from Turquoise to Orange are all colors right out of the package. The second column shows colors mixed with 1-part Jecru and 1 part package color. The third column shows colors mixed with 2 parts Jecru and 1 part package color. All the other colors are favorites and may not use Jecru at all.



Building the Stack – Color Mixing with Pearl

"Iced" Colors

To introduce contrast in a color palette, a color can be "iced" by adding a **pearl** clay to the mix. Pearl introduces a subtle shimmering effect and like all metallics, it lends itself to any type of mica shift (or ghost imaging) technique. The chart below illustrates how colors cool down and shift as pearl is added, and how effective standard & iced colors together can be.

PREMO Base Color	PREMO Iced Color	PREMO Base Color	PREMO Iced Color	PREMO Base Color	PREMO Iced Color
					
Peacock Pearl	**Peacock Iced**	**Turquoise**	**Turquoise Iced**	**Cad Yellow**	**Cad Yellow Iced**
					
Green Pearl	**Green Pearl Iced**	**Purple**	**Purple Iced**	**Orange Mix**	**Orange Mix Iced**
					
Colorway	**Colorway**	**Colorway**			

Julie Picarello/Yellow House Designs 2014

Building the Stack – Color Mixing with Metallics

Metallic Mixes

Metallic clay can be mixed with non-metallic/pearl colors to introduce a subtle shimmering effect to any color palette. The mica shift or "ghost image" technique only works on metallic or pearlized clay, so they are often mixed to provide that capability. The gold and silver metallic mixes are especially useful in a multi-color palette as they provide a neutral background, allowing bright and vibrant colors to move forward.

The chart below shows metallic colors straight out of the package as well as mixed together in various ratios. The last section highlights some favorite metallic/non-metallic mixes.

PREMO Base Color	 Gold	 14K Gold	 Antique Gold	 Silver	 Black
Ratio 1:1	 Gold 14K Gold	 Gold Antique Gold	 Gold Silver	 Gold Black	
	 14K Gold Antique Gold	 14K Gold Silver	 14K Gold Black		
	 Antique Gold Silver	 Antique Gold Black			
	 Silver Black				
Ratio 2:1	 Silver Gold	 Gold Silver	 Silver 14K Gold	 14K Gold Silver	 Black Silver
Metallic Mixes	 Fl. Pink (1) 14K Gold (2)	 Fl. Pink (1) Gold (2)	 Purple (1) 14K Gold (1)	 Green Pearl (1) Antique Gold (1)	 Purple (1) Peacock Pearl (1) 14K Gold (1)

Julie Picarello / Yellow House Designs - 2014

Building the Stack – Color Mixing with Fluorescents & Metallics

While the fluorescent colors may feel like they burn your eyeballs standalone, mixing them with metallics makes a world of difference. In this example, the first column shows Antique Gold, Gold and 18k Gold metallic colors right out of the package. When mixed 1:1 with Fluorescent Pink they result in a softer, more soothing palette.

Building the Stack – Layering Color

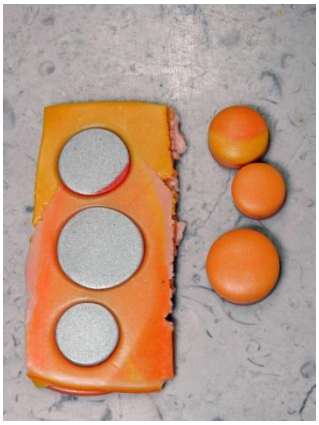
While I might be layering four strips of clay to build my stack, each strip will often consist of multiple colors.

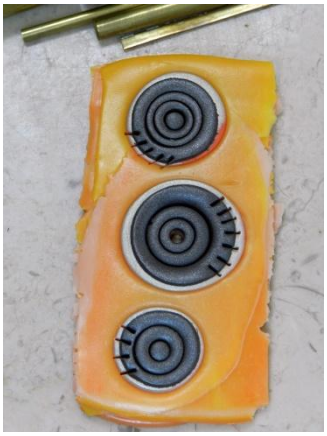
I typically include tinted translucent in the build, and really like using Premo Grey Granite or adding my own spice inclusions to White Translucent.

Always remember the light/dark rule when building the stack as this will provide contrast when it is imprinted and sliced.

Think of the gradient color strips as a sort of vertical Skinner blend. As strips of color are stacked together and run through the PM, they begin to morph and blend. This creates a softer, dreamier transition between colors.

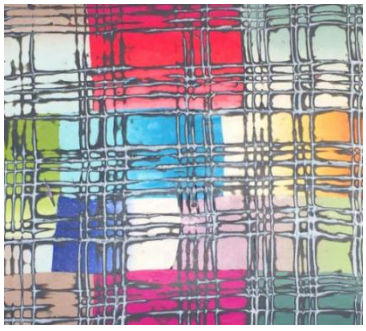
TIP: Create both horizontal and vertical blending for added interest. For example, imagine the dark blue color on the left was a skinner blend that went from dark to a slightly lighter hue.
If a stronger, crisper demarcation is desired, then eliminate the gradient strips and stick with single-color strips.



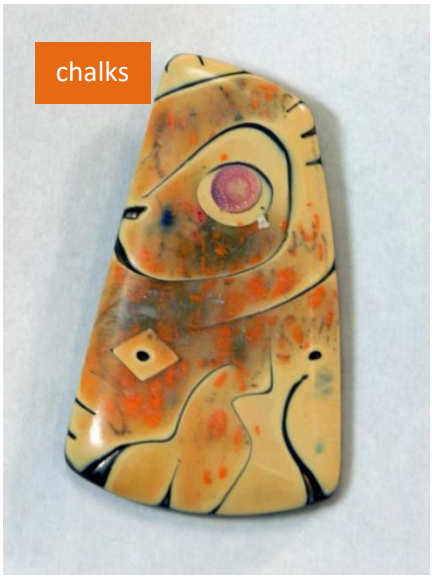


There are so many possibilities to explore when building your stack, such as a color-block approach. In this example, two stacks were built. One with traditional opaque palette layering, and one entirely comprised of tinted translucent. Equal sized plugs were punched out of each, and then swapped. I added a small circle of thin black clay to the top of the opaque plugs before imprinting and slicing. This type of placement gives you extreme color control over your canvas.

I love what Veronique Hoffman has done with her *horizontal* color block approach shown below. And you can see that using Skinner blends often provides a smooth transition between colors.



Building the Stack – Additives

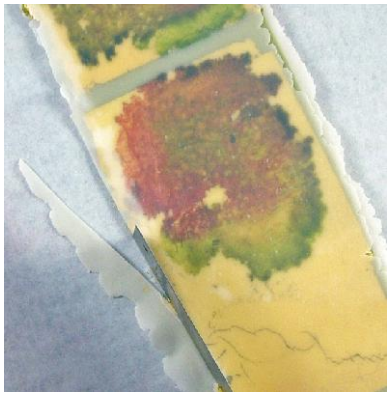


Incorporating any type of additive such as metal leaf with inks, acrylic paint, grated chalk pastels, metallic threads etc. are best inserted in the stack as a "sandwich" between two thin sheets of translucent. This will help to protect the additive so that if the finished piece is sanded, the additive will not be lost.

To create the sandwich, I roll out trans on a #8 setting on the PM, where #9 is the thinnest on my machine. This trans is brayered to one of the strips and metal leaf is applied. If desired, inks can be dropped on the leaf, but be careful not to oversaturate. Once the ink is dry, add the top layer of the trans sandwich and brayer tightly. After applying additives, you can continue to build your stack.

TIP #1: Aim for less than 100% coverage of leaf or paint on your clay, as they function like a resist and will keep the trans from adhering well.

TIP #2: The point at which you add leaf, ink or paint to your stack will result in a different look. For example, you could add a sandwich to your individual strips before you begin to combine them through the PM. Or you could wait until you have combined them and into one long strip and are ready to cut and stack it. Adding leaf before you have finished running through the PM will crackle the leaf. Adding after will keep it smooth and unbroken.



added before = crackle

added after= smooth

TIP #3: The trans sandwich is not always 100% effective, and there may be times when you end up with additives on the surface that would be lost if you sanded. You can always paint a tiny amount of liquid clay over the exposed area to protect it before baking.

Building the Stack – Successful Slicing

Slicing into an imprint stack is the most difficult part of the process for many people. It takes practice to learn to hold your blade and draw it smoothly through your stack. If you are new to slicing, I always recommend that you build a "faux" stack of one single color to practice on. Knowing that you have not spent time and effort to build a great multi-colored stack- especially one with additives - relieves some of the stress and allows you to use your blade a little more fearlessly.

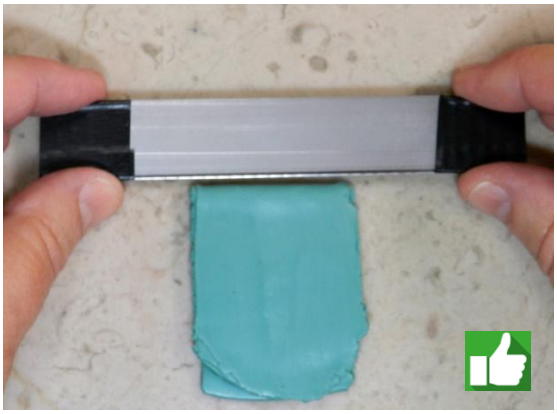
Many people use slicers that are built to cut consistently, from wafer thin to any desired thickness. This is very useful for cane artists, both for extending the output of the cane as well as ensuring an even design when smoothing. And these slicers can be used for imprint mokume stacks well.

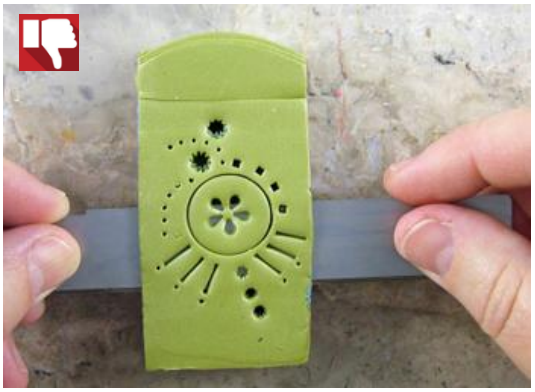
I use a blade because I often vary the thickness of the slices as I work through the stack, and honestly, I'm just used to it. *But please keep in mind that the correct blade will make all the difference when slicing*. I have found that the 4" tissue blades work best – they have very thin, sharp edges and are somewhat flexible. Longer blades often have thicker cutting edges, and they can be too flexible to keep even when slicing. Do not use your slicing blade for anything else – not scraping off your tile, or cutting through a package of clay, as you want it to stay sharp.

Work on a marble tile if possible, as it is naturally cool and will help keep you clay cool as well. Your blade will drag if the clay is too warm and soft. If the clay is extremely fresh, consider leaching it a bit before building your stack.

Keep your hands flat on your tile as you draw the blade through the clay and try to keep the blade as straight as possible when slicing, so that it does not curve in the middle.

As you slice your way down the stack, it will get harder and harder to keep the blade straight. Wrap the ends of your blade with duct tape and grip the blade as shown in the image to the left, rather than the one below.





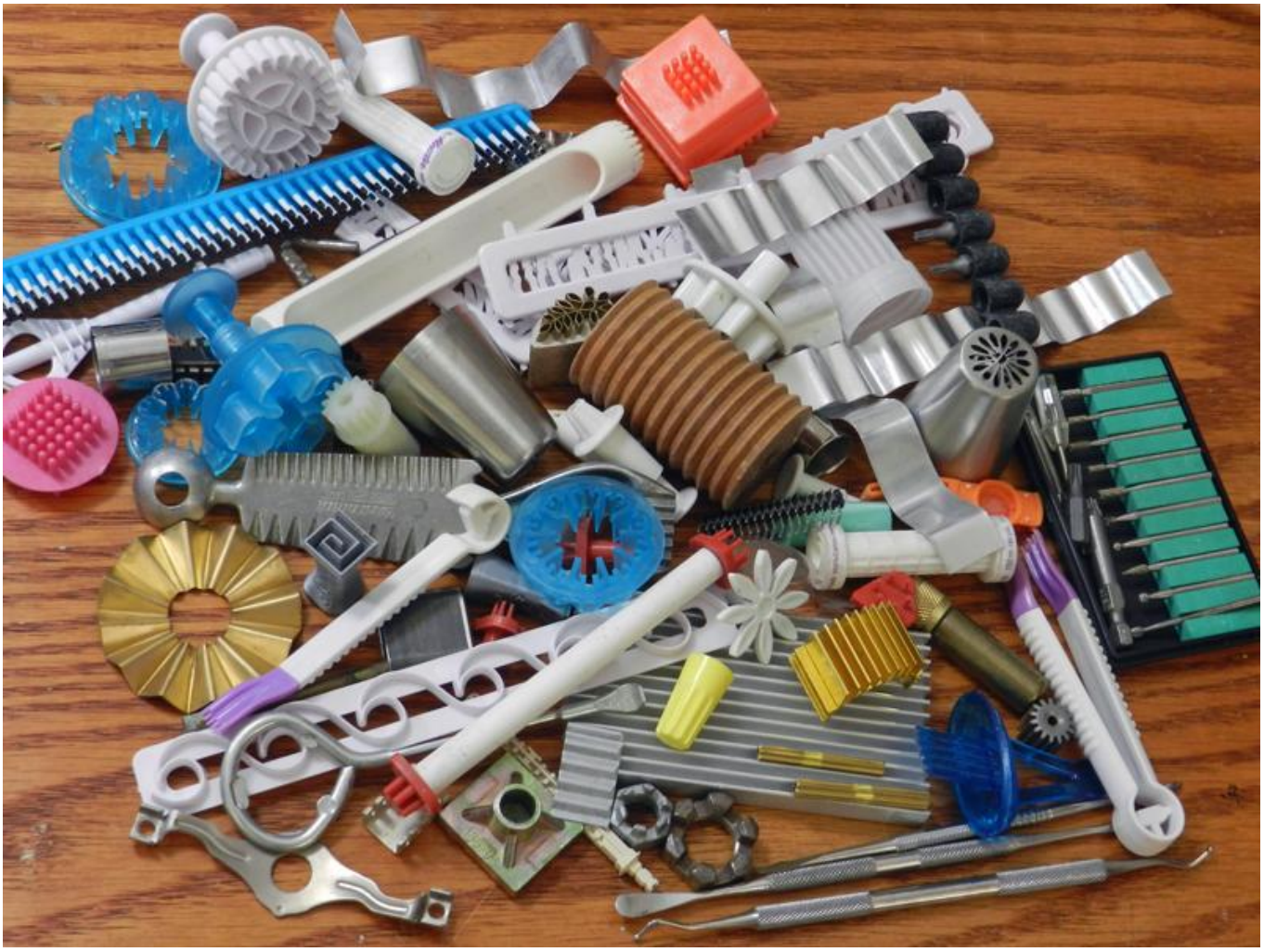
The combination of keeping your hands connected to the tile and gripping the blade by the edges will help you cut evenly and consistently.

TIPS:
-Brayer your clay tightly to the work surface, along the edge closest to your body, before you start imprinting
-Clear off your tile so nothing is in your way as you start slicing
-Set your slices on a piece of paper as they come off the stack, so they do not stick to your work surface
-If a slice is lopsided: choose your favorite side, set it face down on the tile, brayer lightly, shave off the high point

There is a short video on the Beads, Baubles and Jewels channel that shows some slicing. Keep in mind it was many years ago and I have changed things up since then, lol...but it gives you an idea.

DAY TWO

Tools – Purchased, Repurposed, Deconstructed & Fabricated



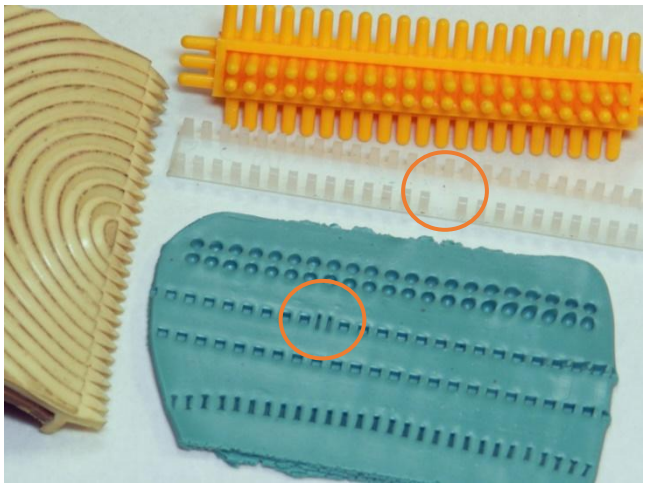
I love color and I love experimenting with different palettes/processes when building an imprint stack. But the search for tools, whether bought or custom made, is truly the heart of imprint mokume. With your tools, you can translate a design into polymer that is repeated in every single slice, with the bonus of never knowing *precisely* what you will see as you slice your way down the stack. It's a source of never-ending satisfaction.

Every self-respecting imprint mokume artist should have a toolbox full of possibilities, so you will find a page at the end of the handout that includes links where possible...just in case you want to add to your own toolbox. FYI...this image reflects just a portion of the tools I have collected over the years. Be warned.

Before you begin imprinting, take the time to understand your tools. Some will be shallow and/or thick-walled and will only imprint one or two slices before the pattern needs to be re-imprinted. Some tools will deliver crisp, sharp patterns from the top to the bottom of the stack. Combining thin-walled and thick-walled imprints can be wonderful if you respect the limits of the tool. Be careful not to force your tool further in the stack than it wants to go, as it could lead to deforming the stack.

Tubes, my go-to tools. I mainly use circles and squares, and you can purchase 1-3' pieces from hobby stores and use your tube cutter or jewelers saw to cut them into smaller pieces. Of course, you will need to de-burr and clean up the ends, so you may want to purchase ready-made sets. You can also find bags of tube ends, sometimes referred to as "brass trash", in a variety of shapes.
These tools can typically be pushed far into the stack and deliver a crisp, clean pattern. They may also remove plugs of clay when extracted, which I like, as it gives dimension to the finished piece.
TIP: Spritz the surface of your stack (and/or your tool) with water prior to imprinting, as it helps the tool to release. If working with FIMO, use baking soda rather than water.

Computer heat sinks, a model building wrench, torx bits and castellated nuts that look like crowns are just a few of the great imprint tools you can find at hardware, hobby and electronics stores. And don't forget the beach...that shell makes a great spiral.
The wrench is a medium imprint tool, while the shell is very shallow. The nuts are very thick-walled and therefore you would not want to force them too far into the stack.



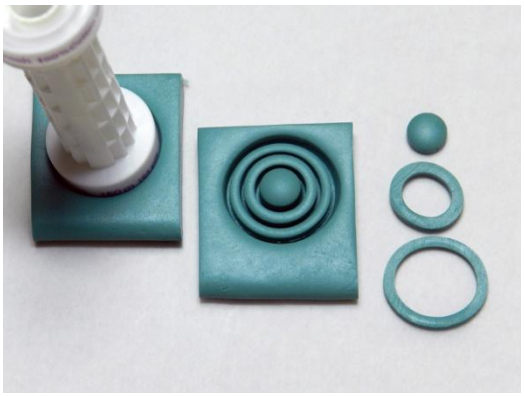
Each of these tools delivers a variety of repeated patterns. While they are all relatively shallow, they are very effective.

The yellow paint-graining tool has an awesome toothed-edge (see the bead to the left). The orange piece from a Bristle Block toy set delivers smooth rounded dots.
The white piece is a plastic cast-off nail holder from a nail gun tool, and it has been used so much that one link broke. No worries, if there is a gap in a tool I just fill that spot with a unique pattern.

I wanted a way to introduce flowing paths (lazy rivers) into my designs, so I took aluminum bracelet blanks and formed them into curves and spirals.

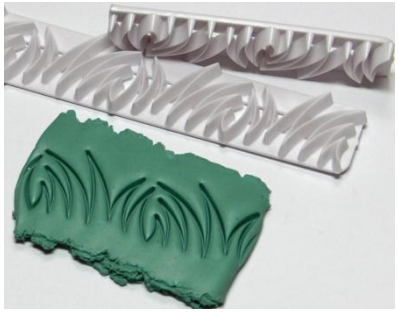
Then I wondered...I often take metal cutters and reshape them for earring and pendant shapes, so could I do the same for imprint tools? The answer is yes! If you have large metal cutters, especially the plaque or baroque style, you can use tin shears to cut portions off and use them as your own lazy rivers.

Plastic thread spools often have terrific end designs and are great for imprinting. You might also consider using them – or any imprint tool – on a single color of clay to see how they drop out when sliced. The small rings from this tool make great earring dangles, and the flower pendant on the cover of this handout was constructed using the large rings from this tool. I just had to make sure they were thick/strong enough for structural integrity.

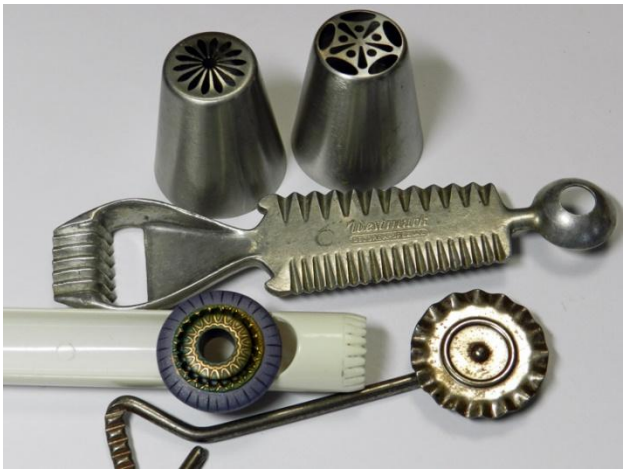


I've jumped on the 3D-printing bandwagon, and it is so cool. It's amazing to be able translate your vision into reality and see it come to life in clay. I joined the party late, and there are SO many people out there selling 3D-imprint tools. I'm showing a couple possibilities here, and I will list them in the source section. But an online search will uncover a gold mine.

Cookie cutters and cake/bread decorating tools can deliver very effective imprints, but they often have tight areas, so don't forget to spritz them with water before using. Fondant tools will typically imprint shallowly, so they will need to be re-imprinted after 1-3 slices. Plastic cookie cutters are more thick-walled that metal cutters, so they cannot be pushed quite as far into the stack. No matter what imprint tools you use, adding extra design elements can add interest. The petals of this cookie cutter are filled with additional imprints. This is also a great example of the way that imprints can "drop out" during slicing, especially when the imprint tool is thick-walled like this cutter.



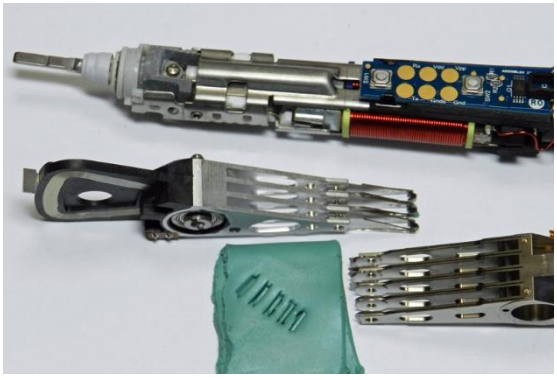
A typical kitchen comes equipped with plenty of sharp and interesting objects, perfect for imprinting. One of my favorite finds was a fruit corer that delivered a circle of teeth. It delivered a shallow imprint and had to be re-imprinted regularly. I decided to imprint on solid clay and found that if pushed up from the back of the imprint, I could get the teeth to open. This led to some fun beads even though they were not actual mokume.

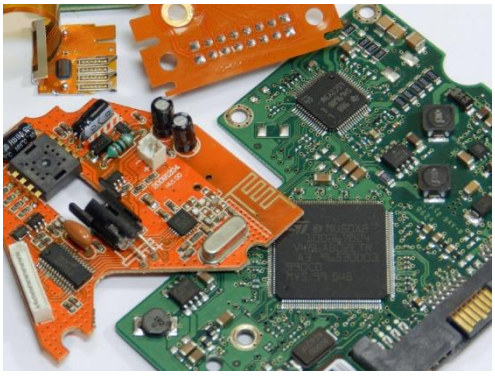


There is something incredibly satisfying about taking things apart to look for potential imprint material.

Years ago, Katie Way posted an image of her work (which was fab) but my eye zoomed immediately to what looked like a flower stamp way off in the corner. Friend that she is, she shared her secret – it was part of a paper punch. Seriously? Thus began my paper punch 'hunt and break' phase, and I accrued a stockpile of great tools. One thing about the punches is that the metal is not flat – it is curved to facilitate punching through paper. You may want/need to use a bench grinder to grind down the imprint plate, as that will ensure an even pattern transfer to the clay.

As you deconstruct items, you may not always uncover useful imprint tools. But you may discover things that you can repurpose into your work. A dead electric toothbrush and old hard drives had some imprint potential, but I can also envision using portions of the PC boards in jewelry.

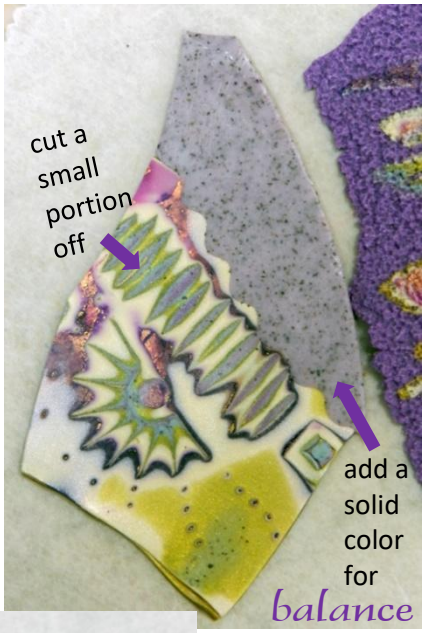




Post-Slicing Manipulation – Balance and Merging Slices

I try to ensure that my imprinted pattern includes enough “negative space” - blank areas that allow the eye to rest. But I admit, even after all these years I still find it difficult not to go overboard with imprinting!

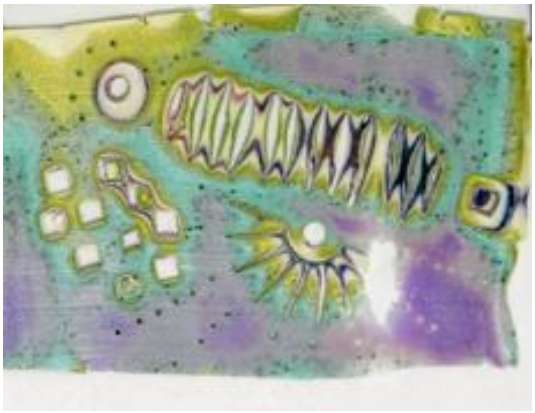
When my slices are a little too busy to make into stand-alone beads, I will cut them into smaller canvasses and then add solid color to balance the design.



If you treat your slices as canvases that you can enhance, you are able to add to the overall design. In addition to creating negative space as discussed above, more subtle elements could be introduced as shown here.

In this piece, small dashes (neutral color, all the same size) were added to the slice to provide a transition between the vertical ladder of lines and the webbed half-circle. It is a simple manipulation that narrows the focus and draws the eye to that spot, providing a place to rest.

NOTE: when abutting two slices or pieces of veneer, always cut from the back, flip them over, and align them from the front. This will result in a crisp, clean seam.



This last example illustrates starting with a slice that has areas ripe for manipulation. In the original slice here, you can see multiples openings that can be filled with additional color.

TIP: Determining the structural goal (in this case a multi-stick pendant) will help to guide the color/design enhancements

- open areas around the starburst filled in with dark purple
- small dots of brighter color placed on top
- a line of turquoise dashes added

- minimal change, just a dot of shimmer in the circle

- open squares filled with a variety of colors

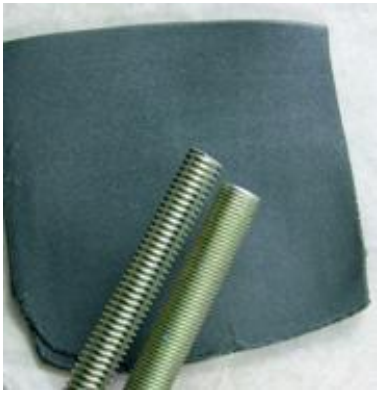
- sticks trimmed to their final shapes

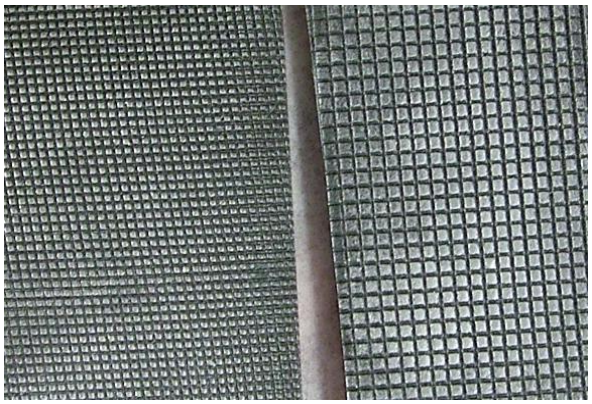
- because the patterning on the top two sticks was quite busy, keeping the negative space in the third stick was important

- incorporating a metal dangle lightly patinated with color provides additional negative space/balance

Post-Slicing Manipulation – Dimension (Lazy River)

Remember the aluminum blanks we talked about in the tool section? When they are used to imprint a stack, especially when they dissect it as shown here, the slice will naturally want to open along that path. This provides an opportunity to add visual interest with the inclusion of a textured and highlighted secondary layer. The secondary layer can be textured by rolling threaded rods in one direction to create lines, or in two directions to create squares. Lightly highlighting the textured clay with a metal pulver will create a shimmering path in the finished piece.





<= A metal donut can be polymer-riveted, meaning that it can be sandwiched between polymer underneath and polymer on top. It creates a very strong and stable connection. In this example, an opening is punched in a veneer, the veneer placed over a sold layer of clay, and a piece of decorative metal in polymer-riveted in the center.

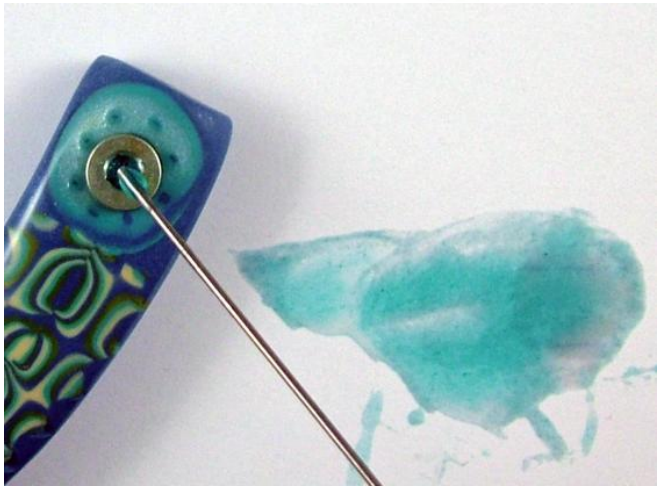
Post-Slicing Manipulation – Tinted resin accent pieces

I scored some great vintage watch part on eBay years ago that have an open reservoir that can be filled with 2-part epoxy resin. I like to tint the epoxy with acrylic paint or inks to make it into a design accent, and the beauty is that it forms an extremely solid connection to the polymer clay below.

I bake the polymer with the metal in place, them remove the metal and sand and polish the polymer. Put the metal back in place and squeeze equal amounts of resin and hardener onto an index card or paint chip.

Tint one of the epoxy drops to the desired color them mix both hardener and resin together for 45 seconds. Use a bead pin to drop a tiny amount at a time into the reservoir. Let it set and cure per instructions. This can also be done with any washer or metal piece that has an opening.

My go-to is Epoxy 330 Water Clear as it works very well and has no noxious scent at all. Don't buy large bottles as this material has a shelf life of about one year if stored correctly. To be safe, I always mark the tubes/bottles with the date and typically toss after 6 months, which is why I really like the new 1.25oz bottles

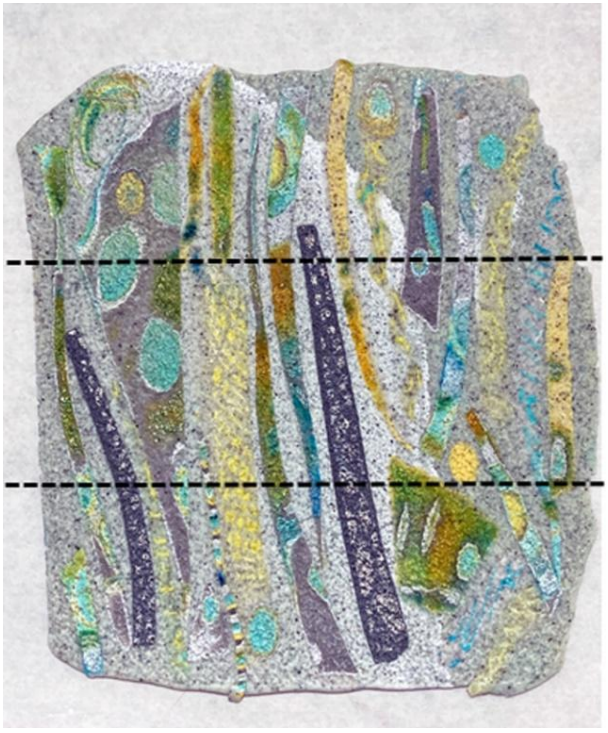


Post-Slicing Manipulation – Utilizing trimmed ends for bead backing

I do this myself and I see it at every show I do...someone will pick up a pendant, look at the face of the piece, then immediately turn it over. If you are going to spend time creating a beautiful façade, you need to ensure that the back of your piece is just as intriguing.

I'm a huge fan of textured backs for two reasons. One is less sanding (ha!) and the other is that textured backs tend to move more easily and do not stick against the skin. My absolute favorite texture material is stair tread tape by 3M as I can run it through the pasta machine with my clay for a beautifully even result. I'm also a big fan of the organic look of 'Real Textures' by Victoria James. **TIP**: Utilize the scraps and trimmings from your slices to create the textured backing.

Roll out a base sheet of clay on a #1 or #2 (thickest and second thickest) setting of the PM. Use a color that will contrast with the trimmings but still blend with the color palette. In this example, a mix of white and grey granite is used as the base sheet. Arrange the trimmings so they are mainly running in one direction and lightly brayer. If using the 3M tape, spritz it with water, lay the clay face down on it, and then run it through the PM on the same setting used originally, in the direction of the trimmings. WARNING: using the tread tape without a release or on a very thin setting will result in the clay permanently embedded in the tape.



Source Information

Metal Tubes & Tube Sets
Naturescapes Studio
K&S Tube Assortment – mixed metals
K&S Tube Assortment

Cutters and Fondant Tools
Floral Cutters
Plaque Cookie Cutters
Hydrangea Cutters
Fondant Decorating Strips

Repeated Pattern Tools
Toy Bristle Blocks
Paint Graining Tool

Texture Materials
Real Texture Sheets
3M Tread Tape (careful not to get the one with sparkles, it will leave residue in the clay)

Imprint Tools & MISC
Aluminum Bracelet Blanks
Pro Link Wrench
Metal Leaf and Pulvers

Silkscreens
Moiko
EZScreenPrint (make your own silkscreens, super easy)