



# *SUSTAINABLE, LABORIOUS, AND SATURATED:* **THE VERY HUMAN PRODUCTION PROCESS OF MOPA-MOPA AND PASTO VARNISH**

by Rebekah Frank

**E**veryone knows that a crisp sheet of white paper is made from trees, but most people probably don't consider the process. In "How It's Made - Copy Paper" (The Science Channel, season 1, episode 5), the process from tree to finished ream is shown in all its mechanistic, robotic and chemicalized detail. The television series is, for me, a horrifying look behind the scenes at how the ubiquitous things we use are made in our industrialized world, divorced from the people who are involved in the making process. Yet, at the same time, I'm intrigued by the complexity, the precision, and the interconnectedness of the cycles of production.

Our modern processes are part of an evolution of how people have made objects over time and traditional processes of production are equally complex and fascinating. Consider, for example, that there are alternative ways to derive material from plants that are less destructive than the processes for making paper which have been utilized for centuries. While visiting Bogota, Colombia, I was introduced to an indigenous process with a complex cycle of production that creates sheets of flexible resin derived from a small tree without harming the tree in the process. Because the complicated process is so laborious, it isn't possible to mechanize it for

mass production. Therefore, the people involved are integral to the process, not hidden behind robots and machinery.

The resin is called **Mopa-Mopa** and the process of applying it is called **Barniz de Pasto** (Pasto Varnish). It was produced by indigenous people long before Europeans came to the region we now know as Colombia. Like many indigenous processes, the harvesting of Mopa-Mopa and the ancestral knowledge of the Pasto varnish application process is under threat of being lost due to deforestation and agricultural encroachment. In 2018, the traditional knowledge and techniques associated with Pasto varnish and Mopa-Mopa were submitted to the UNESCO List of Intangible Cultural Heritage because this ancient and complex cycle of production is in need of urgent safeguarding.

My guide to learning about this process is **Tatiana Apráez**, a jewelry artist originally from the southern region of Colombia, who grew up in the department of Nariño where Pasto Varnish is a source of great pride. She now lives in Bogotá and incorporates Mopa-Mopa in her contemporary jewelry work. She is interested in not only the history and beauty of the process but is also invested in keeping the knowledge of the harvesters and skilled artisans from being lost and the subsequent breakdown of the production chain.



Left page: A branch from which the dark resin bud and leaves are harvested to produce Mopa-Mopa, 2019. Photo: Tatiana Apráez.

Top: Saturated and colored sheets of Mopa-Mopa prepared in Maestro **Germán Obando's** workshop for pieces by **Tatiana Apráez**, 2018. Photo: Tatiana Apráez.

Bottom: **Tatiana Apráez** from the *Pacífico* series 2019, brooch, steel, sterling silver, Mopa-Mopa, 6" x 4". Mopa-Mopa application by the Maestro **Germán Obando**, illustration by **Miles McMullan**. Photo: Alberto Moncayo.





“Sixteen years ago I made the first piece designed with the Mopa-Mopa varnish technique. There have been years of joint co-creation with the Nariñenses Masters dedicated to the application of this popular art. They taught me to know myself, to understand what I wanted from my work, to respect each material and to value the scarcity of resources.”

–Tatiana Apráez

The people living in what is now the department of Putumayo in the Andean-Amazonian foothills are the first participants in the production of Mopa-Mopa. They harvest the source material, resin-rich fruit and leaves produced by a shrub called *Elaeagia pastoensis*, from the jungles. These fruits and leaves are harvested in a labor-intensive process that is only possible twice a year to take advantage of their peak resin production. Teams of harvesters, typically from a single family group, travel into the jungle and live in temporary shelters while working together to gather the resin-rich fruit and leaves over a period of dedicated days at a very high elevation, about a mile above sea level.

Mopa-Mopa isn't cultivated; it is harvested in the wild jungle under precarious conditions, using only what can be carried, both in and out, over a six-hour journey from where the harvesters live. Of course, this is the same Amazon jungle under threat of deforestation and the encroachment of agriculture, so the ability to harvest this specific tree for this unique purpose is more complicated than simply knowing what to pick. The harvesters' knowledge of the jungle landscape, insight into the harvesting process of Mopa-Mopa, and the rigorous collecting process is passed down through their families, with children joining parents in the harvest. The harvested plant material is then pressed into blocks and delivered to the skilled artisans who live in the urban areas of Pasto in the nearby department of Nariño.



In the urban workshops, similar to hand-made-paper-producing studios, Pasto Varnish experts take the blocks of Mopa-Mopa fruit and leaves and transform them from recognizable plant matter into thin sheets of vibrant, flexible resin. In an incredibly simplified explanation of the process, the blocks are soaked in boiling water to make them malleable, cleaned to remove debris, and then the material is run through a hand mill to macerate the resin. Traditionally, the material was macerated through chewing so the addition of this simple machinery is a modern innovation in the process. These refining steps of boiling, hand manipulating, cleaning and macerating are repeated multiple times to create a homogenous material that looks like a brown and unappealing taffy.

The next step introduces color through adding color aniline in powdered form. However, traditionally organic pigments were also used. Using another labor-intensive process, the artisan manually works the colored powder into the material through kneading and hammering until the color is evenly incorporated. Next, a section of the tinted material is separated out into a piece that fits in the palm of the hand. Two people then work this small piece to flatten and stretch the material, using the warmth of their hands, the dexterity of their fingers, as well as their mouths to stretch the flexible material until it is of uniform consistency, forming a thin sheet. This action also acts to temper the material, allowing

Top left: Small pieces of Mopa-Mopa from a workbench in **Germán Obando** atelier, 2018. Photo courtesy Germán Obando.

Top right: **Maestro José María Obando** and his shop assistant process Mopa-Mopa resin through a hand mill, 2018. Photo: Tatiana Apráez.

Right page: **Maestro Germán Obando** preparing Mopa-Mopa to apply to the steel surface of one of **Tatiana Apráez's** jewelry elements, 2018. Photo: Tatiana Apráez.



The method of hand cutting an underlying design in the application of Mopa-Mopa lends itself well to the collaboration between skilled artisan and contemporary artist



it to maintain its ductility for the later work of application. Depending on the pigmentation and thickness, the finished sheets can be transparent or opaque. All of these steps—gathering, refining, coloring, stretching and tempering—are precursors to the final stage: surface application.

Traditionally, artisans used Mopa-Mopa for creating complex decorations on wooden surfaces. The effect is reminiscent of inlay as the different colors of resin sheet are cut and fitted into a unified visual motif, with meticulous attention to detail by the maestro. It's kind of like paint-by-numbers, but with itsy bits of resin, adhered to the surface with gentle heat. Today, artisans continue to apply it to wooden surfaces with the assistance of sharp knives and heat, along with the addition of glue in some cases, but it can also be applied to other surfaces. Tatiana Apráez worked with Nariñense **Maestro Germán Obando** to develop a way to apply Mopa-Mopa to powder coated steel that has been laser cut. By texturizing the surface, the steel receives the Mopa-Mopa resin without the use of glue.

The method of hand cutting an underlying design in the application of Mopa-Mopa lends itself well to the collaboration between skilled artisan and contemporary artist. Apráez's patterns are inspired by the traditional floral and botanical motifs combined with geometric patterns the southern Nariñense people have traditionally used. She also draws inspiration from the native animals and regional celebrations. In 2017, she won the **Medalla a la Maestría Artesanal** from **Artesanías de Colombia** for her jewelry design collaboration with Maestro Obando in recognition of their contemporary reimagining of Colombian identity through artisanal crafts.

A frequent collaborator, Apráez also worked with illustrator and naturalist **Miles McMullen** to create a series of modern jewelry pieces with accompanying text that celebrates her native south. The series includes a story card with a watercolor illustration of a native Nariñense bird along with the jewelry. Creatures like the blue-footed booby, the short-eared owl, and the scarlet chococito lend their vibrant color palette along with modern geometries to create wearable pieces. This series also speaks to conservation and sustainability as many of these birds are in danger--as their habitat diminishes, so do their numbers.

Left page, top: **Tatiana Apráez Pajaro Pacífico** 2019, Mopa-Mopa, steel, wood, 4" x 3". Mopa-Mopa application by **Maestro Francisco Narváez**. Photo: Alberto Moncayo.

Left page, bottom: **Tatiana Apráez Pectoral Colibrí** 2019, necklace, Mopa-Mopa, steel, leather cord, 8.5" x 3". Mopa-Mopa application by the **Maestro Francisco Narváez**. Photo: Alberto Moncayo.



**Tatiana Apráez** from the *Sur* series 2016, brooch, wood, sterling silver, Mopa-Mopa, 5.5" x 4". Mopa-Mopa application by the **Maestro Germán Obando**. Photo: Alberto Moncayo.

The sustainable harvesting of Mopa-Mopa and the subsequent labor-intensive processing that requires direct contact with the human hand is in stark contrast to the industrial mechanized processing of many of our modern materials where the human hand is integral but hidden. I often wonder at the first person who thought of chewing a leaf and discovering the transformation that occurred, then the eventual evolution of that discovery to this complex process of surface decoration. So much of innovation is about accidental human discovery. In this case, Mopa-Mopa reminds me that ancestral knowledge provides more than a beautiful object and a laborious process under threat of disappearing—it's a reminder that supply chains and the innovation that starts them, are the result of interconnected people, working together to produce beauty, out of necessity or simply because they can.

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