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Material Resistance

Learning from clay; returning to the land.

BY [MONICA USZEROWICZ](https://bombmagazine.org/author/monica-uszerowicz)
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AUGUST 30, 2021



Amara Abdal Figueroa in Guánica with a higuera bowl. The bowl was crafted by Jorge García Muñiz, founder of Museo de la Higuera in Caguas, 2021. Photo by Monica Uszerowicz.



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When Amara Abdal Figueroa processes clay, she becomes an impromptu scientist or the archetype of a scientist: gleeful, obsessive, mizzled with terra-cotta dust, elbows-deep in test mixtures. In progress, the compounds might look edible, like warmed fudge. Not all clay becomes pliable—water and heat determine its limits—but Abdal Figueroa takes delight in finding out what works and which strange new textures materialize. Everything is potent. As Abdal Figueroa told me during a series of conversations, “There are many forms of application. If it turns out the material doesn’t develop plasticity or can’t be used to make a form, maybe it’ll be mixed into a clay body or a surface treatment.” When she prompted me to stir the clay, it became silky and cool to the touch. Fingertips are good witnesses for the inherent alchemy of clay and water. Enough of one transforms the other, refines it. Makes it move.

Abdal Figueroa, a Kuwaiti-Puerto Rican multidisciplinary artist, these days works with the ground, particularly the patchwork of clay across Puerto Rico where she lives. During a poetry [workshop \(https://www.instagram.com/p/CPAyG2SBxqH/?utm_medium=copy_link\)](https://www.instagram.com/p/CPAyG2SBxqH/?utm_medium=copy_link), she wrote “Río, lago, mar” —with its rollicking queries and proclamations—while she thought, as she often does, about water. (See below the full poem and my attempt at translating it.) With her ongoing project [Tierrafiltro \(https://www.instagram.com/tierrafiltro/\)](https://www.instagram.com/tierrafiltro/)—currently part of *E/ Momento del Yagrumo*, curated by Marina Reyes Franco, at Museo de Arte Contemporáneo de Puerto Rico—she sources, processes, and analyzes local clay to fire into filters that can purify water collected in rainwater catchment systems or scooped from springs. The word “tierra” is prismatic—it’s the ground beneath you, but also the earth that holds you.



(<https://s3.us-east-1.amazonaws.com/bomb-images/hiresolution/Amara-Abdal-Figueroa1.jpg>).

Scenes from a workshop “Entre la ciencia y la intuición” (Between science and intuition): Merari and the Munsell Soil Color Book; Zoelie guiding us through a road cut revealing a soil profile; Ana molds and holds a diverse range of soil series from the archipelago. Sierra Bermejas, Lajas, Puerto Rico, May 2021. Image by Amara Abdal Figueroa.

I am here, my mother’s birthplace, for the first time in over two decades to interview Abdal Figueroa about her work and its inextricability from an archipelago-wide movement toward sovereignty. My longing for this place is visceral, a perennial pit in my stomach. A month before my arrival, Abdal Figueroa asked me to translate the poem the best I could. I am an outsider, a gringa, even if I wasn’t supposed to be; arriving here a tourist, I feel a sharply charged shame. My mother, who is of Afro-Puerto Rican and Russian-Jewish ancestry, lived in Guayama for a short time without her parents, whose marriage was kept secret for years (even in New York City, a pre-civil rights interracial marriage had its dangers). Her Spanish was forbidden, her Blackness unmentioned. During the Puerto Rican Great Migration to New York City in the 1950s, they must have known the privilege of citizenship was not the same as acceptance. “I bet you know more words in this poem than you think you do,” Abdal Figueroa encouraged me.

Two years ago a mutual friend, Gabriela Serra, shared Abdal Figueroa’s work with me, and I was captivated by the way it wove seamlessly into her life: her excursions to find clay in riverbeds and mountainsides; the empty lot in Ponce she and a group of friends converted into Huerto Callejón Trujillo, a biodiverse conuco of tubers, vegetables, and rainwater cisterns. We spoke and agreed to meet (COVID-19 delayed our plans); having lived between Kuwait, Puerto Rico, the States, and Colombia, Abdal Figueroa then described herself as “a rematriated Boricua,” learning from and re-rooting into the earth. Here was a person so tied to the enormity of the archipelago, transmuting its materials into resources. I wanted to rematriate too. Viewing photographs of the filters, I felt moved by the familiarity of the red clay, recalling its presence on the land—in the mud, staining my hands—and the shimmery water, which looked like renewal.

Tierrafiltro *is* renewal. The project was born after Hurricane Maria made landfall on the island in September 2017; Abdal Figueroa was, she told me, “triggered by the calling of an ancestral practice. So many people were severely effected

because without running water or electricity, the local authorities couldn't distribute or treat water. It clicked: clay. In the Middle East, they used clay to filter, store, and cool water, making it potable." She'd been living in the States and taking periodic visits between Colombia and home, performing her first local clay test in the summer of 2017 at Camp Tabonuco, an ecological education camp in Jayuya.



(<https://s3.us-east-1.amazonaws.com/bomb-images/hiresolution/Amara-Abdal-Figueroa2.jpg>).

Sofia and peers closely compare color and texture of three different soil series (Coto, yellow-orange; Los Guineos, light pink; Rosario, deep red) in the same soil order: Oxisol. During the workshop we harvested some clay from the Cerro Mariquita series from the Aridisol order. After decanting in water and sifting through mesh and fabric, it was put out to dry on plaster bats and wedged together. Lajas and Ponce, Puerto Rico, May 2021. Image by Amara Abdal Figueroa.

When she returned in December of that year, this time for good, sourcing clay was a practice of reconnection. She became a [flâneur](https://www.theguardian.com/cities/2016/jul/29/female-flaneur-women-reclaim-streets) (<https://www.theguardian.com/cities/2016/jul/29/female-flaneur-women-reclaim-streets>), tracing and retracing the multitudes of Borikén. Maria had decimated an infrastructure already damaged by the punitive austerity measures undertaken by a US-backed fiscal oversight board. The archipelago, one of the world's oldest colonies, has been a US territory since 1898; the ongoing residue of US imperialism, and its opposition, are palpable. Near the southern coast, a billboard tagged FUERA GRINGOS Y RICOS DE PR (*get out of Puerto Rico, gringos and the rich*) by the graffiti collective GGK offers not a sentiment, but a demand; not simply a truth, but a consequence: If you own unused property on the island, give it back to Boricuas. If you're planning to visit for vacation, consider the ways in which your pleasure is synonymous with inaccessible prices for locals and a coastline in danger of illegal developments and privatization. If you're thinking of relocating here and have no intention to center or uplift Boricuas or Borikén, don't come at all. If you see it happening, call it out.

Like antecedent mutual-aid organizations on the island, Tierrafiltra isn't designed solely for instances of crisis. It joins a long lineage of groups reclaiming their land and sovereignty. The project's final incarnation will be communal; Abdal Figueroa imagines "an industrial artisanal ceramic practice on the island, a network of wood-fired kilns using local clay. Tierrafiltra is shaped by who's collaborating with the land, by those who want to make filters." She aims to establish an initial factory—incorporating arts and agroforestry—that would serve as a platform to start designing kilns, crucial infrastructure for promoting ceramic practices island-wide. Filters would be pressed with locally sourced clay and organic byproducts, such as sawdust. As she develops a prototype, she follows, for its precision, a protocol for ceramic filters developed by the organization Potters for Peace, through whom she became certified with Centre for Affordable Water and Sanitation Technology in 2018 to open and operate "a water filter factory." She documents each step of her process, sharing an open-source technology for Puerto Ricans to interpret. "Tierrafiltra involves the discussion of larger issues affecting us—such as water privatization—and smaller ones, like building water cisterns at our conuco," she says. "The challenge manifests on many scales. La liberación del agua es la liberación de Borikén."

* * *

Before I'd left for Borikén, my mom told me to leave a string of hair or a nail clipping in the water to ensure some part of myself would stay. My memories of my last visit, when I was little, are a hazy, honeyed reel of interludes. I'd wept when we left; back home in South Florida, I sat at the Atlantic shoreline and imagined an oneiric bridge to Puerto Rico—as if the rhythms of the sea might permit time travel. There are flashbacks, always: a sudden patch of sunflowers; a seafoam breezeblock, mottled thick with paint; the first time I saw a hummingbird, alone on a porch that wasn't mine. I remember water: a rainfall

along the batey at Caguana Indigenous Ceremonial Park; a wind that sent the spray of an outdoor shower—the rare thrill of public nudity!—into an adjacent field.

Water has been, says Abdal Figueroa, “a constant subject in my life,” a recurring motif. As a teenager in Kuwait, she painted images of handwashing stations at the market, fountains in the desert. Clay was always present; though Abdal Figueroa’s parents are both architects, her mother is also a ceramist. “I remember her making casts of my hands as a child, shipping her kiln from Kuwait to Puerto Rico once we moved back in 1998.” In 2012, while studying architecture at Rhode Island School of Design, Abdal Figueroa, alongside artists Andrés Monzón-Aguirre and Parul Singh, co-founded the ceramics initiative MAATI—named for the Sanskrit word for “clay”—at Campos de Gutierrez, a residency in Medellín, Colombia, founded by Monzón-Aguirre.



(<https://s3.us-east-1.amazonaws.com/bomb-images/hiresolution/Amara-Abdal-Figueroa3.jpg>).

In preparation for another workshop collecting clay from a brook: a deposit of Múcara series (Inceptisol order) here varying clay colors likely eroded from the watershed above. Paula holds a chunk cut with a wire and Aniela breaks the red batch down with her fingertips. Finca Escuela Guaraguao, Orocovis, Puerto Rico, June 2021. Image by Amara Abdal Figueroa.

In 2015, Abdal Figueroa, then part of an engineering and design program, was interning on-site at Kuwait National Museum. “It was during Kuwait’s second participation in the Venice Biennale, and we were doing research against the ‘rehabilitation’ of the museum,” she explains. “I was connecting my clay practices with being in an environment of petroleum-based extraction.” She began thinking about the exigencies of human waste, especially along the coast of Kuwait Bay, where she photographed plastic debris—a practice she eventually stopped to avoid “making pollution look pretty.” She tested clay from puddles around the museum, compositions filled with remnants of “the previously demolished mud buildings.”



(<https://s3.us-east-1.amazonaws.com/bomb-images/hiresolution/Amara-Abdal-Figueroa4.jpg>).

Merari and Annette break down the brown batch of Múcara series. After oversaturating and sedimenting in water, the small gravel is easily sifted out and the clay is left to dry until manageable in canvas over plaster. Orocovis and Ponce, Puerto Rico, June 2021. Image by Amara Abdal Figueroa.

In Puerto Rico today, Abdal Figueroa envelopes herself with the medium, embodies it. Shards of broken ceramics and her own experiments, teachable accidents and mistakes, live in her kitchen drawer; when she visits the beach, she paints her body with clay “for sun exfoliation,” an immersive program of study. She observes the turn of the clay’s colors, how long it takes to cake on her skin. After moving back to the island post-Irma and Maria, Abdal Figueroa’s earliest observations were of a layer of water, foliage, and dirt that had swept through the eastern side of her family’s home. For our conversations, she kindly housed me—my room, which faced east, had years before been flooded, leaving the scone of the ceiling fan singed with rainwater. At night, the high altitude engendered a rhythmic pop in my ears; merging with the song of the coquis, it sounded like water falling fitfully onto a drum.

More tests take place downstairs now, in the courtyard. On a warm day during my visit, Abdal Figueroa is blending combinations of medicinal kaolin and nipe, an iron-rich clay known to be the oldest soil on the island; she's working with her friend Merari Torres Amaro, a soil science and agricultural education student at the University of Puerto Rico–Mayagüez and the founder of Suelos PR, a soil research project. “We do similar work, but she does it without heat,” says Abdal Figueroa. In a gracious display of their synergy, Torres explains the molecular composition of the clay as Abdal Figueroa translates. The two are learning together, “developing a science through intuition,” explains Abdal Figueroa. “At least, that’s what it feels like for me.”

Abdal Figueroa loves this about Tierrafiltra—the contact it brings her with new people, unexplored mediums. “I want to filter water and work on ceramics and, through that, bump into other crafts,” she says. With the generous support of the Taller Vivo program at Museo de Arte Contemporáneo de Puerto Rico and alongside Torres Amaro and Zoelie Rivera-Ocasio—a biology and soil science graduate of Mayagüez, and the founder of Zoils and Arte-Suelo-Ser—Figueroa co-facilitated a series of ceramic workshops this past summer: some in the field, analyzing soil profiles in Sierra Bermeja; others at the museum, where her display has the feel of a welcoming classroom. With artist Karla Claudio-Betancourt, they document the interconnected studies of women working with the landscape; the filters’ pedestals, currently on display at the show, were a collaboration between Figueroa, designer Michelle Gratacó-Arill, and Francisco Javier Lopez, who specializes in metalwork. With Inocencio Alvarez, an Arecibo-based metalworker and inventor who’s assembling her hammer mill and filter press, she sandcasts the filter aluminum molds alongside multidisciplinary artist and metals apprentice Pablo Varona.



(<https://s3.us-east-1.amazonaws.com/bomb-images/hiresolution/Amara-Abdal-Figueroa5.jpg>).

Scenes from the most recent workshop, “Arado y alfarería” (Oxen-plowing and ceramics), in collaboration with a group of farmers, Tato and steersman Tito at Finca Escuela Guaraguao. The oxen cut the land with the plow, revealing a gradient and leaving behind streaks in the red structural clay. The brown clay has a higher organic content, is looser, and more esteemed for farming. White beans, turmeric, ginger, celery, corn, and flowers have been planted in these beds. Orocovis, Puerto Rico, July 2021. Image by Amara Abdal Figueroa.

Abdal Figueroa is continually spiraled back to *tierra*, a serendipity that fascinates her: “Even though we’re using aluminum to make the molds,” she explains, “we’re still working with silica sand and a percentage of clay. The earth is a main character in the process. Tierrafiltra implies anything that comes from the earth and goes back to the earth, because the earth filters.” The filters themselves are intended for “those already living, or aiming to live, off-the-grid,” close to the land, she adds. I’m reminded of something my friend, the Miami-based artist and herbalist Albertte Petithomme, once shared: that “water, including the water in your body, holds memory.” I think Abdal Figueroa is always flowing back toward the earth; in turn, it tenders toward her.



(<https://s3.us-east-1.amazonaws.com/bomb-images/hiresolution/Amara-Abdal-Figueroa6.jpg>).

For filter-making the clay is dried, pulverized with a hammermill, and dry mixed with sawdust followed by water until it all holds together. At Inocencio's metals shop, the press with two-part mold is being assembled. Arecibo, Puerto Rico, July 2021. Image by Amara Abdal Figueroa.

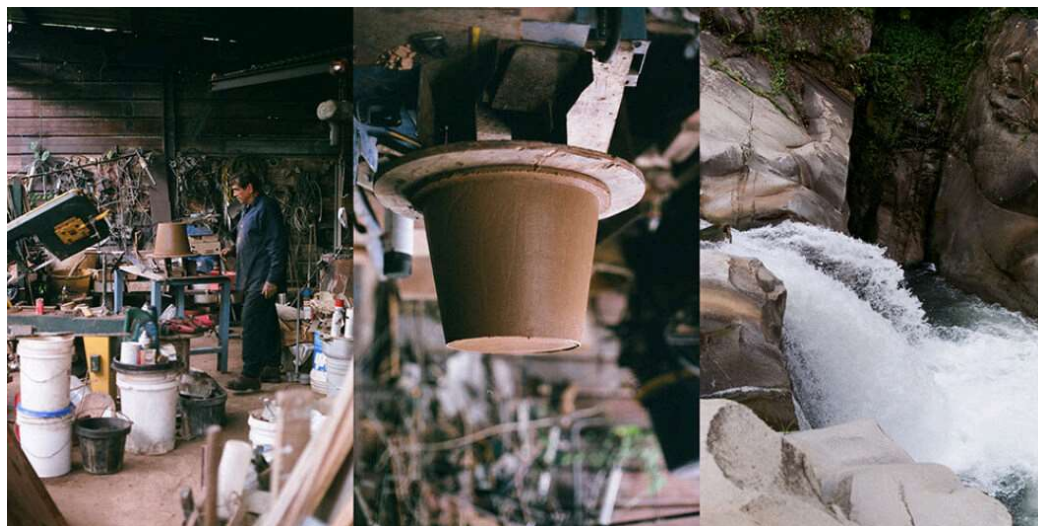
Later that week, Abdal Figueroa takes me to a river in Tibes, a place she was led to by coincidence, or not. Flowing through the area is a river once known as Río Baramaya, then Río Portugués; right here, it's Tres Palmitas, and families come to swim, sunbathe, and eat limber, a frozen treat. "This is known as a millennial neighborhood," Abdal Figueroa says, "as in: the people have been here for millennia." On the riverbank, we're with Serra, using sticks to scrape the fermented pulp from dried higueras; like some of her ancestors, Abdal Figueroa will use the emptied fruits to make rattles and bowls.

She wrote a poem about this place too. About a mile away, a fence blocks access to the remainder of the river and the Portugués Dam, which in 2014 was erected northwest of Tibes, allegedly for flood prevention. A sign reads: "NO TRESPASSING. U.S. ARMY CORP OF ENGINEERS. JACKSONVILLE DEPARTMENT." (Back in Florida, Jacksonville is one of the departments responsible for dredging and flooding Miccosukee land in the Everglades, something I shouted upon seeing the sign myself.) At the time, Abdal Figueroa was participating in a writing workshop, where she was encouraged to "get lost." Wander. Look for nothing. Instead, ever the psychogeographer, she searched for someplace specific.

A month prior, she'd attended a class at the Tibes Indigenous Ceremonial Center led by local archaeologists Ernie Rivera Collazo and Reniel Rodríguez Ramos. They'd described—but didn't reveal—a site from which eight hundred individuals were displaced and ancient petroglyphs uprooted in preparation for the dam; a local Indigenous elder later told Abdal Figueroa it was eight hundred families. In 2006, an archaeological excavation sponsored by the Army Corps and undertaken by New South Associates—a private, Georgia-based archaeological firm—began in Jácana, a neighborhood along Río Portugués. The site, deemed "Jácana Site PO-29," was determined to be a densely populated, spiritually significant batey, indicated by its petroglyphs—which locals sensed the company was looting—and human burials.

Jácana residents had known this for eons; Rivera Collazo became an archaeologist, says Abdal Figueroa, because the site "was in his actual backyard. He's a living descendant of the people who made the petroglyphs." He'd observed the excavations and, at night, slept above the home of his ancestors, perhaps dreaming of them. In searching for this site, "I was creating parallels with our relationship with water and the landscape," she says. "If I'm making this water filter, where are the bodies of water close to me? I kept encountering sites that said, 'no entry.' You're so close, but I can't touch you. You're there, but you're not mine." She cites public suspicion of the dam and its conceivable facade for the removal of families and commercial exploitation of Borikén's nearby iron and nickel reserves, both of which are incriminatingly referenced in a 1980 [document](https://issuu.com/coleccionpuertorriquena/docs/plan_2020-taller_arte_y_cultura_adjuntas/68) (https://issuu.com/coleccionpuertorriquena/docs/plan_2020-taller_arte_y_cultura_adjuntas/68), by the Army Corps. Her poem's only English words: "U.S. PROPERTY. NOTRESPASSING."

At Tres Palmitas, Abdal Figueroa recites "Río, lago, mar," and the river's gentle stream proffers both a background choir and an audience. A rock streaked orange-red reminds me, still, of the clay I'd seen as a child. "It's full of iron," Abdal Figueroa tells me, "leaking rust." I'm unsure of how frequently I'd seen any clay at all—if it was, frankly, just what I recalled most. My memory is what's pliable. I yank out a piece of my hair and send it downriver, lest I forget the contours of Borikén again. Abdal Figueroa started planting seeds in front of a concrete containment that separates the road from the northern end of the river; now, there's maguey growing, sharp and spiky, unfurling outward like a firework: no trespassing. We leave hundreds of higuera seeds behind to someday grow tall. To return to the earth. To return to the water. To find the way back home.



(<https://s3.us-east-1.amazonaws.com/bomb-images/hiresolution/Amara-Abdal->

Figueroa7.jpg).

Each filter is a registration of this multi-making process: a study of mold sizes, clay shrinkage in relation to pail diameter, and eventually water flow. Endless gratitude to every set of hands and heart that has been a part of this collective learning process, harvesting and processing clay, pressing filters, accompanying firings, and everything in between. Thanks especially to the abundant clay that regains trust between people and water. Arecibo and Utuado, Puerto Rico, July 2021. Image by Amara Abdal Figueroa.

Río, Lago, Mar

Amara Abdal Figueroa

¡Qué grande eres, mar abierto,

Río meandro, ¡qué sinuoso eres!

Lago contenido, ¿qué profundidad tienes?

Río que soy, reposo y me hago lago,

Me desbordo y fluyo otra vez,

Río de nuevo seré por otro rato,

Rato, rato, rato, curva, rato,

Realmente no se cuanto tiempo fui río

Desde que salí del ojo de agua de la montaña

Hasta que toqué la sal de mar con quien me mezclé

¿Seré una de ellas?

¿Seré todas? ¿Todas a la vez?

No—pero de una a la otra sí—así mismo—

Fluida—70% de mi,

Río que fui

Lago que fui

¿ Mar que seré ?

Río, lago, mar, que a veces marea

Río que río, a veces mucho lío cuando el ser humano te canaliza

Lago hecho por humanos que se creen magos malos

¿ Y el dragado, ¿para cuándo? ?

En el lago se asienta esa tierra que se escurre de la montaña

Que se suspende en el agua

Soy agua de lluvia que recoge arcilla

Agua turbia que recoge partículas

Arcilla sobresaturada en agua

Soy lago de agua tranquila

Agua dulce

Sedimentación que cae al fondo,

¿ Será que te atreves a purificar ?

Otra vez me desbordo,

Río-lago, río-mar

Río-lago, ¿qué hay a tu lado?

Río-dios mío, ¿a dónde vamos?

Río ría, cría que se ríe

Riendo me voy al mar,

Agua salada

Soy mar abierto sin preocupaciones

Mar grande

Agua siempre

Somos todes agua

Todo el tiempo un cuerpo de agua

Todo tipo de cuerpa-agua

River, Lake, Ocean

translation attempt by Monica Uszerowicz

How grand you are, open ocean!

River meandro, qué sinuoso you are!

Calm lake, what meaning do you contain?

River I am, reposo y me hago lago

Me desbordo y fluyo another time,

River of the new seré por another rato—

Rato, rato, rato, curve, rato—

Really I don’t know how long/far the river goes

Desde que salí del eye of the water eye of the mountain

Hasta que toqué the salt of the ocean mar con who me mezclé

¿Will I be one of them?

¿Will I be all of them? ¿All of the time?

No—but from one to the other—the same—

Fluid—70% of me,

River that goes,

Lake that goes,

¿ Sea that I will be ?

River, lake, ocean, que a veces marea

River oh river, a veces mucho lío cuando el ser humano te canaliza

Man-made lake by humans que se creen magos malos

¿ And the dredging, ¿when? ?

In the lake that settles the earth that se escurre of the mountain

That is suspended in the water

I am rainwater that recoge arcilla

Water turbia that recoge partículas

Arcilla about saturada in water

I am a lake of tranquil water

Sweet water

Sedimentation que cae al bottom,

¿ Will it be daring to purify ?

Another time me desbordo,

River-lake, river-ocean

River-lake, ¿what is by your side?

River-my god, ¿where are we going?

River, ría, cría que se ríe

Riendo I go to the ocean

Saltwater

I am open sea free of worries

Big ocean

Always water

We are all water

All of the time a body of water

All kinds of bodies of water

A special and heartfelt thanks to Amara for her insights, edits, and caring engagement throughout the writing process. Our time together, and the collaborative research that ensued, was the result of many initial conversations about her work, her dreams, and our shared love for the archipelago of Puerto Rico. During my time in Borikén, the adventures Amara led—and the history she shared—were essential to the final form of this piece.

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Monica Uszerowicz is a writer and photographer based in Miami.

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