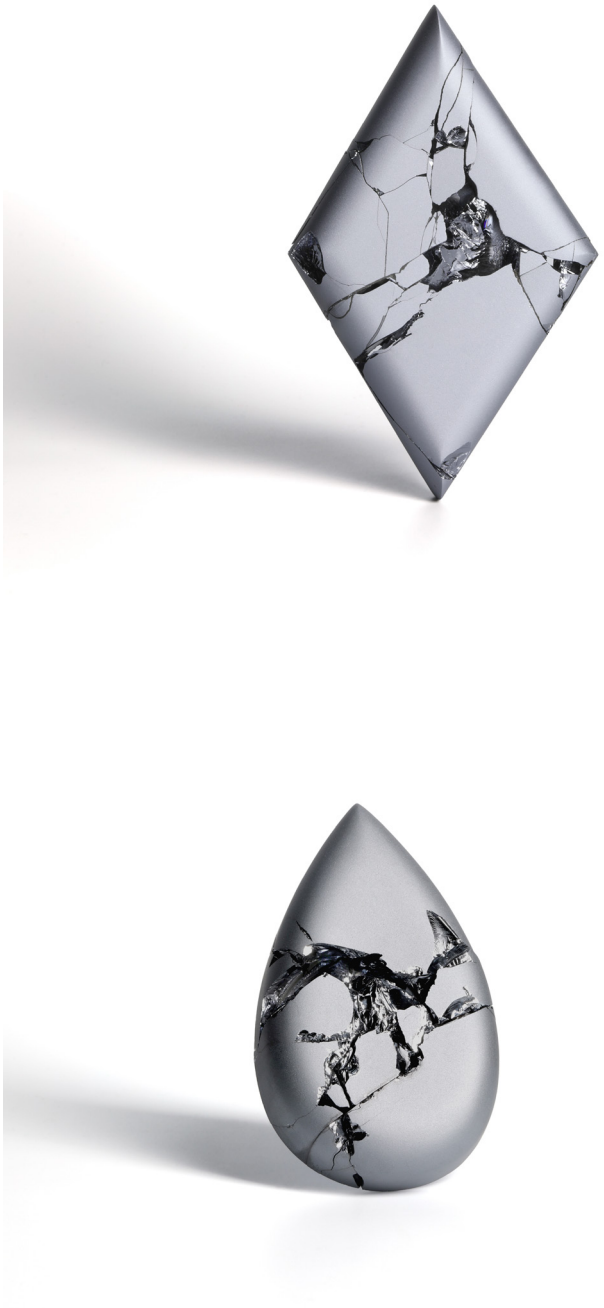
PATRÍCIA DOMINGUES — REVERBERATIONS OF THE EARTH: MORE COMPLEX NOTIONS OF MATERIALITY

AI can seem like a spectral force—as disembodied computation—but these systems are anything but abstract. They are physical infrastructures that are reshaping the Earth, while simultaneously shifting how the world is seen and understood."
—Kate Crawford, Atlas of AI: Power, Politics, and the Planetary Costs of Artificial Intelligence[1]



What was the starting point of your research project?

Central to my research, *Reverberations of the Earth – More Complex Notions of Materiality*, is the notion that artificial intelligence, metaverse worlds, and digital structures frame the way humans think while drastically reshaping the way landscapes are handled. Therefore, the main focus for this research involves exploring the ways technology lives through extractivism and is dependent on mineral and geological sources. With the development of this research project, my intention is to gain a sense of what Australian writer and composer Kate Crawford suggests: that we should think of media not as extensions of the human senses as media theorist Marshall McLuhan argues, but rather as extensions of the Earth. Digital technologies straddle the human and the natural, and although digital networks may seem immaterial, they are in fact physical extracts of the Earth. In returning to materials that are increasingly mined to sustain modern societies, such as calcium carbonate, silicon, aluminum, lithium, and gold, my aspiration is to highlight and call attention to our ever-larger consumption of the mineral world.

What has been your approach for the fellowship research project and how does it relate to the role of research in your practice?

1 Kate Crawford, *Atlas of AI: Power, Politics, and the Planetary Costs of Artificial Intelligence* (New Haven and London: Yale University Press, 2021), 19.

For the Sandberg Instituut and Gerrit Rietveld Academie Research Fellowship, I have used methodologies of care, slowness, empathy, and detail as a means to explore more-than-human affinities in technology. My aim is to explore what technology theorist Maria Puig de la Bellacasa says: that in the age of technological acceleration, caring becomes a living technology that can generate relationships of empathy with the living world. With this in mind, approaching this through a craft discipline—one which aims to understand how things work from the inside and how things relate to each other—can foster a caring attitude toward the exploration of how technologies are rooted in physical landscapes. As a stone cutter and a visual artist, I have dedicated time to finding ways of reflecting upon the environmental consequences of modern digital life and the potential parallels between digital and colonial enforcements that so effectively objectify the non-human world of stones and minerals. I have tackled autoethnographic methods—such as with a Portuguese lithium deposit, explained ahead—to inspect the planetary scale of computational extraction whilst developing works in the studio that stimulate the direct handling of materials such as silicon and lithium—two of the main protagonists in technocentric societies today. I specifically concentrate on drilling, faceting, fragmenting, and then reconstructing pieces of monocrystalline silicon—a silica-based and grown lab material with semiconductor properties—and lepidolite—the most abundant lithium-bearing mineral. Since both are used worldwide in batteries, in discrete components, and in integrated circuits in modern, digital, and electronic equipment, my intention is thus to bring the hidden reality of computers to the forefront of the human bodies that engage with them. I am exploring jewelry as a medium capable of conducting new ways of acknowledging human-extractive needs.

> As a final element of the fellowship, you visited a soon-to-be-mined Portuguese lithium deposit, where you focused your attention on both the material composition of the landscape and the emotions associated with the future quarry. How do you see the potential for jewelry to inform emancipatory struggles in relation to our environment?

The “White Gold” rush in Portugal. How white is

the new white gold? It might be very white.

"Responsibly developing and operating the Barroso Lithium Project will establish Savannah, and Portugal, as an integral part of Europe's rapidly growing lithium battery value chain which is being established to support Europe's energy transition as it moves towards its goal of carbon neutrality by 2050." —Savannah Resources Plc[2]

My aim with this research project is to materialize the hidden material reality of technocentric societies today, and to map how digital technologies are shifting human notions of value by exploring lithium—also known as the new white gold—from social, historical, technological, and geological perspectives. With that in mind, during this research I had the chance to visit the region of Trás-os-Montes in the north of Portugal, more specifically Covas do Barroso, a place that, as we speak, is starting off the Europe's largest mining project to respond to European needs for lithium. There, I have had the opportunity to observe mostly quartz veins and lithium pegmatites, but I have also been able to notice how plant, animal, and mineral kingdoms live, intertwined completely in the Variscan Iberian Massif's landscape. My aspiration with my practice is thus to explore new and more complex notions of life and matter, searching for different material relationships.

Drilling the ground to support Europe's energy transition, as the British company Savannah says, means interrupting an infinitude of plant, fungi, and animal life. As for the inhabitants of the region, while for some the lithium exploration of the region means to live intoxicated by the dust in the air caused by the open mine, for others it means to relive the dream of bringing Trás-os-Montes back onto the international scene. During the Second World War, the region had been staged for the extraction of tungsten—also called wolfram—a rare metal found naturally on Earth and used to harden tanks, weapons, and bullets. Portugal, a neutral country in the war, had both the British and the Germans extracting wolfram with their respective mines located only five kilometers away from each other. Today the region is again the stage for diverging opinions: from activists that draw attention to the magnitude of

2 "Savannah Resource Plc – At a glance," *Savannah* (April 2024), https://savannahresources-wwwsavannahresourcescom.azurewebsites.net/about/at-a-glance/.

geological destruction—of an environment formed 538.8 million years ago during the Paleozoic Era—to extraction companies that claim the mining will satisfy human commodity needs while promising to respect the environment.

Research, craft, and material practices have precisely the potential to call upon continuous emergent processes instead of focusing only on the end result as something static and conquered. Although classic notions of craft relate to the idea of mastery and domain over the material world, the contemporary field of artistic crafts instead opens a door to understanding the skills as a way to relate to invisible forms of life, forces, knowledges, and sensibilities—to not only denounce complex material structures but to speculate and emancipate future material relationships as well.