A brief history of lithium: from the Big Bang to the Big Crash Claudia Aboaf

Traces of outer space in the salt flats, vibrant lithium was already being cared for by indigenous communities ten thousand years ago. About the supposed saviour in the energy transition and some disobediences infiltrating the global climate disaster landscape.

The world history of lithium recounts that this "silver-white pebble", which excites capitalism, had a glorious introduction on the planet since the dense and hot Big Bang, the same event that leads Carl Sagan to affirm that we are stardust. Cosmology describes the great explosion that would begin the physical reality of the Earth, but it does not explain the unbridled voracity of one of the living animals to consume it and the continuous creation of mirages. Of the three elements that were synthesised on the planet, lithium settled in the South American salt flats, associated with bodies of water, in that rich origin soup 13 million years ago.

Then, there was a long silence.

No one knew of this vibrant, chemical element sleeping in the salt flats, nothing was said of its golden destiny in this present age of anthropocentric dementia.

In 1817, a young Swedish student infiltrated a laboratory, isolated the soft, silvery lithium for the first time and tried to cut it with a knife; that fragment coming from the island of Utö started the curiosity for the cosmic residue.

Then, in 1949, Dr. Cade, an Australian psychiatrist who had been a prisoner of war in a terrifying Japanese concentration camp, replaced electric shock therapies and lobotomies with lithium. He advertised "lithium salts for the treatment of psychotic excitement".

All of this brings us to discuss Catalano, the Argentinean scholar who explored the salt flats of the Andean high plateau in the 1920s – Dr. Bruno Fornillo, a member of the collective Geopolítica y Bienes Comunes together with Melisa Argento, mentions him as he drives attentively to his selection of national rock music and the mountain road at 4100 m above sea level that we cross to return to San Salvador de Jujuy, after the art and activism meeting with the communities, convened by Aerocene. Catalano, the rare

metals enthusiast, explored the salt flats with a developmentalist vision. In the Salar del Hombre Muerto he imagined, during the *Puna* night, with his eyes full of stars, the "Argentinean plan of industrial mobilisation" to free the people from a "pest wave that spreads and break the chains of the foreign debt with the global North" and "to free the child from the clutches of those moulders of eunuchs, servants and slaves" by nationalising resources such as lithium for the people. But which people was Catalano talking about in his radical and pamphlet-like speeches?

It turns out that this vibrant, electrochemical matter, a vestige of outer space in the salt flats, was already being cared for by the indigenous peoples ten thousand years ago. And there they are now, even if the *litieras* in their outpost declare that there is no one there, only shadows in their nightmares. But everything that will happen, witnessed by the women defenders of the basin, such as Verónica Chavez, a community member from Santuario Tres Pozos (Jujuy), by the very sight of the llamas, by the presence of the cacti and the eyes of water, will be unforeseen, painful, as in a catastrophe.

"We thought that just by replacing oil and gas (fossil fuels) with clean energy (such as lithium and solar panels) we were already on a green planet living as we always have. But this transition does not come with a manual of answers," says researcher Maristella Svampa, a member of the collective Mirá socioambiental. "We have the voice of the people of the south and the energy transition has to be the opportunity for us to rethink the energy system thus far concentrated in large corporations, which has generated energy poverty and inequality. We need an energy system based on solidarity that implies, above all, a different link with nature."

We have discussed the "soft rock" before, the one that excites capitalism so much, tempers psychotic excitements and could calm the corporations that go to these locations to do their business in order to save themselves, where previously they led us to another mirage with oil. Lithium could temper the bipolar population in the throes of battery mania, memories deposited in their phones, or the surge of depression when their toys break and they are left crying like children. There are also the indigenous peoples who have access to some technology but still store most of their memories by talking to their ancestors in the ambient-world of the high Andean wetlands of the Puna.

I previously stated that life, since "the primitive soup", made its way in different expressions and human living beings, always so intense, are only one among the species. Let us listen to what the rest of the living beings say here in the Salinas Grandes, in the style of Uexküll, the naturalist metaphysician, or Krenak, who never interrupted that inter-species conversation with the bodies of water when their "veins" are broken, in this case those of the basin, for the extraction of lithium. These vibrant

matters, "non-things", will have some fainter voices, some annoying ones, like *Kachi*, *Halita*, salt, the root of Salarium, which was a symbolic good, a medium of exchange. Salt and salty, expanse of white beauty that withstands a few cuts here and there in the salt blocks for their terrestrial companions. The hills, the *Apu*, naked of plants that sees its surrounding world all mapped out, the landscape manhandled, in dispute of the mining belongings, all live in its skirt and under the guardianship of the communities. Laughter echoes on its slope because they say in assembly that the environmental lawyers are going to take a mountain to court; don't laugh because its spirit is going.

Now let's talk about Nature as a subject of rights, but above all about lithium and its right to remain in the rich soup. The mystery of lithium, that cosmic waste, the supposed saviour in the energy transition for a post-fossil world that never arrives. And the mining companies of the north who, on arrival, come up against the guardians of the *puna*, full of cosmic visions. Also of the intelligence of the mineral kingdom, of the chemical code of lithium that retains the energy memory but also of mirages, of consumption, of capitalist voracity. Of the commons. Let us talk about the water and the desertification of the surrounding territories. Let's talk about a world that is excited about staying the same. And about Verónica, the community member, who greets *Pacha* in the morning and asks *Mamita Salina* for help in the afternoon so that the mining companies don't come.

Some disobediences infiltrate this global panorama of climate disaster: the struggles in the territories and political self-organisation, environmental lawyers such as Alicia Chalabe and Enrique Viale, but also some imaginative figurations that emerge such as the *Pacha* film made by Tomás Saraceno and Maxi Laina that began to form in 2020 in Jujuy during the project *Fly with Aerocene Pacha* and Aerocene's aerosolar sculptures, which already traveled through Bolivia and Argentina, and we saw rising together with the communities this past January 2023. They are designs that speculate on different flights above and below the earth. Flights without fossil fuels that do not extract lithium from the salt flats. They are signs of possible futures, warning beacons, and ignited imaginations. Aerocene is a poetic tool and questions the technical destiny of humanity. Art, like literature, builds sensitive bridges to inhabit more complex worlds and ask ourselves whether we will be slaves to the instructions of this anthropocentric civilisation or free to speculate a different, interspecies, cosmic, communal flight. As Ursula K Le Guin said: "Resistance and change often begin with art".

I told you that the eye that looks at the beauty of the sky in turn looks within the eye that is stardust and extends outwards to configure the picture of the world. At some point we will have to look into the picture of the world and the dark side of this electric civilisation that is now coming for lithium.