# Minen der Zukunft

# Into the deep

## Mines of the future

Neofelis

# Ignacio Acosta:
# *From Mars to Venus. Activism of the Future*, 2023



*Likan Antay Water Protector Karen Luza Feeding Rescued Horses,* San Pedro de Atacama, Chile, 2023







*Janne Sirniö, Becoming Reindeer, Thinking Fish Ceremony*,
Luossajärvi, Sweden, 2023



*Albemarle, Lithium Carbonate Plant* ,
Atacama Desert, Chile, 2022



*Kiruna S- and X-band Antenna, The European Space Agency*, Jukkasjärvi, Sweden, 2023



*Monturaqui BHP Abandoned Wells and Electric Plant*,
Atacama Desert, Chile, 2022

»Keeping Indigenous knowledges alive despite the territorial fragmentation produced by industrial colonisation is a form of activism.«

**Ignacio Acosta [IA]** in conversation with
**Ina Neddermeyer [IN]**

**IN: Kiruna and Atacama: Why did you decide to bring these two very different places together?**[1]

IA: Despite being complete opposites, these two places have strong similarities. Both are Indigenous territories under threat from anthropogenic climate change, with their harsh environments necessitating a strong relationship to the land. Kiruna — Sweden's northernmost town, around 200 kilometres north of the Arctic Circle — is located in Sápmi, home of the Sámi people.[2] Meanwhile, Chile's Atacama Desert — the most arid place in the world outside of the polar regions — has been inhabited by the Likan Antay people for thousands of years.[3] As the two sites become key players in the transition to a 'green economy', industrial colonisation has fragmented their territories and the profits of state-owned mining companies and multinational corporations are prioritised over the rights of native inhabitants. In the video, Kiruna — home to the world's largest underground iron ore mine and where substantial deposits of rare earth elements have recently been found — converses with the Atacama, where the world's richest reserves of copper and lithium are being exploited.[4]

The expansion of mining projects in these extreme regions has led to a rise in social, environmental, and economic injustices. The video installation draws upon the scale of these operations by connecting territorial struggles concerning water, biodiversity, and identity loss with space observation.[5] In Kiruna, where unjust state policies reiterate colonial patterns, the iron mining industry has historically occupied the traditional lands of the Sámi and affected reindeer herding patterns. In the Atacama, the natural environment is 'sacrificed' in the name of the progress and historically copper and more recently lithium extraction activities — both key to the energy transition and the active materials in rechargeable batteries — are drying up subterranean aquifers and preventing access to fresh water for the Likan Antay communities — and they see none of the benefits of the extraction.

I began this project by filming the scale of the transformation of the landscapes by mining. As the work developed, I became interested in representing how the two opposite temporalities I observed — the Indigenous long-term vision of life and the immediacy of the extractive system — coexist in the same territory. By the end of the project and after continued discussions with the video editor, Lara Garcia Reyne, it became clear

[1] The answers to this interview were developed in collaboration with writer Ellen Lapper.

[2] For this trip, I travelled to Norbotten County in Sweden twice (2022–2023), thanks to funding from the Swedish Research Council for Sustainable Development (FORMAS) for the visual research project *Indigenous Perspectives on Forest Fires, Drought and Climate Change: Sápmi*, developed in collaboration with the Sámi journalist Liz-Marie Nilsen, the Sámi scholar May-Britt Öhman, and the Sámi educator and translator Gun Aira, based at the Centre for Multidisciplinary Studies on Racism (CEMFOR), Uppsala University. The project explores Indigenous/Sámi knowledges on forest fires, drought, and climate change.

[3] I also made three field trips to the Atacama (2021–2023) funded by the UK Arts and Humanities Research Council (AHRC) for the project *Frozen Future* by the Traces of Nitrate collective, developed in collaboration with Louise Purbrick and Xavier Ribas and based at the Royal College of Arts (RCA) and University of Brighton. This project documents the effects of copper and lithium mining on glacier systems of the Chilean Andes.

that the focus of the project was no longer on the mining landscapes, but on how Indigenous activists resist the "slow violence" – which Rob Nixon defines as the "violence of delayed destruction that is dispersed across time and space"[6] – of the mining industries by maintaining their cultural practices and Indigenous knowledges in an increasingly fragmented territory.

**Why is Indigenous knowledge an important part of activism against mining in the video?**

With this new work commissioned by the Zeppelin Museum, I wanted to reflect upon the significance of Indigenous knowledge in environmental activism and as a way to offer an alternative future to the extractive system. It was my collaborator and Sámi journalist Liz-Marie Nilsen who made me aware that keeping traditional practices alive despite the territorial disintegration produced by industrial colonisation is also a form of activism. As such, the sustained resistance to the gradual degradation caused by the mining industries became a fundamental aspect of the narrative. In the video, Sámi artist and activist Maj-Doris Rimpi is portrayed in a tender relationship with her reindeer while cleaning the lichen – the reindeer's source of food. This careful Indigenous process takes place in Parenjarka, northern Sweden, near Porjus, one of the fifteen hydroelectrical dams that disrupt the Lule River and is managed by state-owned energy company Vattenfall. Shifting south, a similar symbiotic relationship with the animal population is evident in the work of Likan Antay goat-herder Carola Aguirre Cruz, who fights to maintain traditional herding in the fragile desert ecosystem against the backdrop of mass-tourism, green energy production, and mining. In the same territory, water activist Karen Luza is portrayed in her land feeding and caring for rescued horses. The slow long-term vision of Indigenous practices against the backdrop of industrialisation is also explored by sound designer Udit Duseja, who used sounds from the field and a musical composition to replicate the sonic dimension of violence imposed by the extractive system.

**What does the video installation's title refer to?**

In classical antiquity, the seven known celestial bodies – the Sun, Moon, Mercury, Venus, Mars, Jupiter, and Saturn – were each associated with one of the seven known metals – gold, silver, mercury, copper, iron, tin, and lead. A core concept of alchemy was that these symbolic associations were based on a shared virtue between both planet and metal. Iron, a hard, unyielding and impenetrable metal, resembles the hostile aggression of Mars, god of war. Later discoveries revealed that it is in fact the high levels of iron oxide present on the planet's surface that provides its nickname – the Red Planet – and rusty glare. Kiruna, home to the world's largest iron ore mine, became Mars. Venus, with the planet's radiant brilliance, and the goddess's symbolic beauty, resonates with the lustrous glow of polished copper – a softer, malleable metal and excellent conductor of heat. The Atacama, with its rich copper reserves became Venus. In this work, the planets become archetypes. An unlikely union. Opposites, but necessary for life itself. Mars and Venus; Kiruna and the Atacama; iron and copper – like yin and yang, opposite but interconnected.

[4] The video maps the following industrial sites (in order): Nygårdsfjellet (Narvik Energi, DONG Energy), Kraftverkdamm (Vattenfall AB), Markbygden (Enercon GmbH, General Electric Company), Salar de Atacama (Albemarle), Monturaqui (BHP Billiton), Kiruna (LKAB), Escondida (BHP Billiton), Zaldivar (Antofagasta Minerals), Salar de Atacama (SQM), and Kaunis Iron (Kaunis Holding AB).

[5] Kiruna is a gateway to the aurora borealis and a key site for studying the Earth's magnetic field and its interaction with solar wind. The video connects the European Space Agency's antennas in Kiruna with Polarbear, a cosmic microwave background polarisation experiment, and APEX, a 12-metre diameter telescope that opens a window into the cold, dusty, and distant universe, which is located at 5,100 metres altitude in the Chajnantor Plateau in the Atacama.

[6] Rob Nixon: *Slow Violence and the Environmentalism of the Poor.* Cambridge, MA: Harvard UP 2013, p. 2.

[7] See also Svein Lund / Arne Müller / Snowchange Cooperative: A Green Shift? Mining and Resistance in Fennoscandia, Finland, Sweden, Norway, Sápmi. In: *Yes to Life, No to Mining*, 2021. https://yestolifenotomining.org/wp-content/uploads/2021/09/Comp-FScan.pdf (accessed: 26.06.2023).

This planetary comparison stems from a conversation with collaborators Åsa Andersson and Jane Sirniö — both Sámi artists and healers, who performed *Becoming Reindeer, Thinking Fish,* a ceremony on the frozen Luossajärvi lake — which has been almost emptied by the Swedish State mining company LKAB — and against the backdrop of Europe's largest deposit of rare earth metals.

Following an animistic belief that inanimate objects and places possess souls and agency, speculations arose concerning how Martian Kiruna and the Venusian Atacama could communicate through the mineral bodies below the ground and the constellations above in the sky. As Åsa and Jane made me aware, the mineral-rich mountains and deserts can communicate because of the strong powers their ores possess — and humans feel that. Iron and copper, found within our bodies, our blood, correspond with those reserves found deep within the land. We're resonating, it's magnetic, we feel it. An iron deficiency leaves us anaemic, weak. Likewise, copper is vital for our energy levels. What happens when we're deprived of these crucial minerals? What happens to a place robbed of its iron? Its copper? What will become of full-blooded Kiruna after all its iron has been extracted? How will the Atacama survive without its copper reserves? Places are like people. An imbalance has detrimental effects, shortness of breath, starvation of oxygen — and thus life. The minerals are not dead matter; they are entities with agency that we are living among. By relating and communicating with them, we can learn how to heal.



*Sámi Artist and Activist Maj-Doris Rimpi Cleaning Lichen for the Reindeer,* Parenjarka, Jokkmokk Municipality, Sweden, 2023

**What might the future of activism against mining look like?**

The obvious ecological, social, and economic long-term damage caused by mining will lead to an increase in the activity of citizens. As pressure on Indigenous territories to play a key role in the transition to a green economy grows and mining is promoted as key player in accomplishing the transition to a post-fossil fuel society,[7] I see the future of activism as continuing to focus on the fight against 'green colonialism'. Indeed, this green paradox comes at a cost to Indigenous peoples and their ancestral territories — and they have been left out of the debate for many years. A climate strategy without the participation of Indigenous peoples, whose close ties to their ancestral lands are under threat, will be ineffective; green colonialism is exploitative.[8]

[8] This issue was recently highlighted at the 22nd United Nations Permanent Forum on Indigenous Issues, which gathered hundreds of Indigenous chiefs, presidents, chair persons, and delegates to advise the UN from an Indigenous perspective.

**Ignacio Acosta** was born in Valparaiso, Chile in 1976. He is an artist and researcher working in territories that are being put under pressure by the extraction industries and are therefore at risk. His multi-layered collaborative practice and spatial installations seek to connect audiences with these complex but critical concerns. Recent exhibitions include *Inverting the Monolith*, MBAL, Switzerland (2022), *Ewiges Eis* (Eternal Ice), Museum Sinclair-Haus in Bad-Homburg, Germany (2022), and *Mining Photography*, Museum für Kunst und Gewerbe Hamburg, Germany (2022).