

26 Jun – 5 Dec 2026

MAKING
WORLD

REVERSE FUTURES





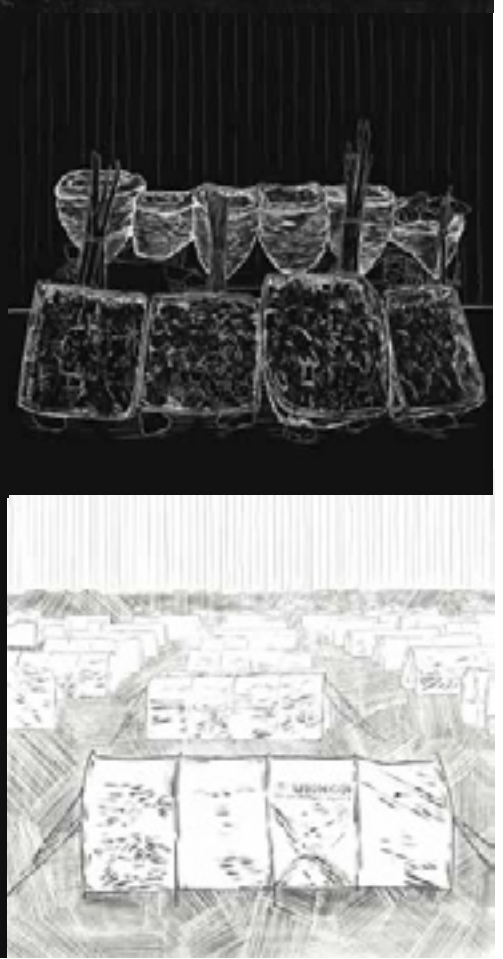
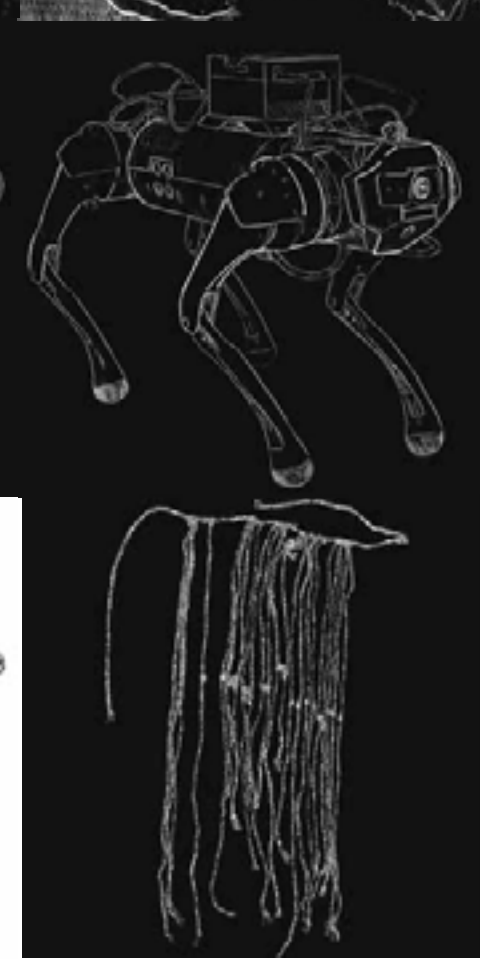
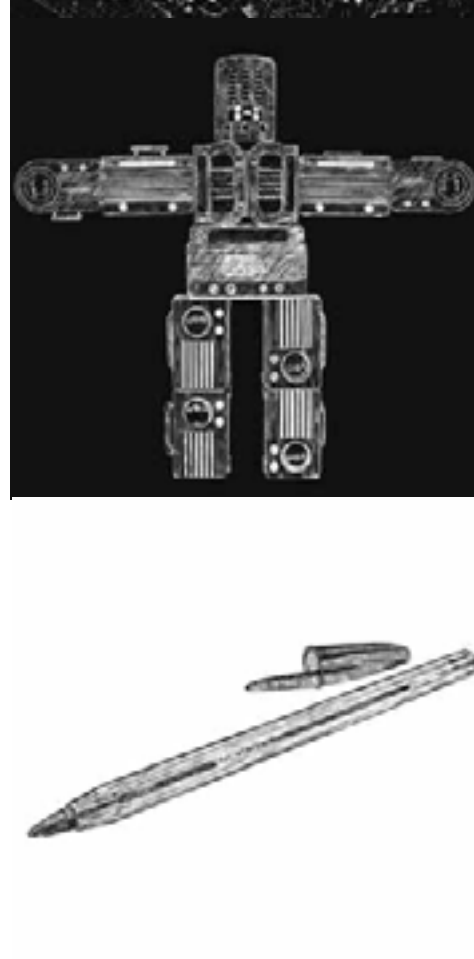
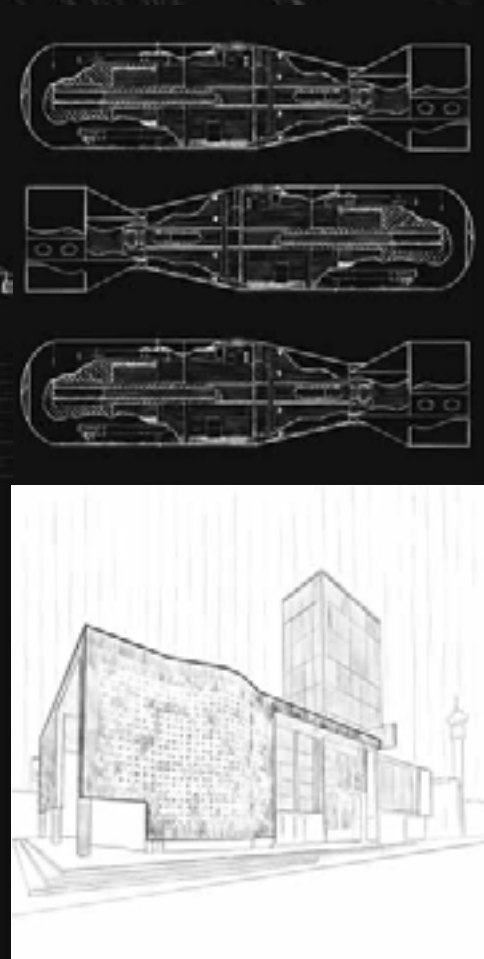
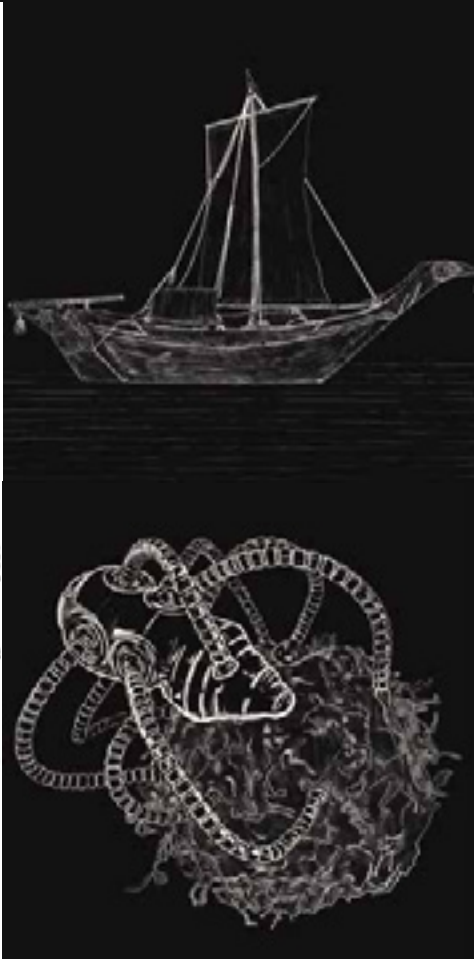
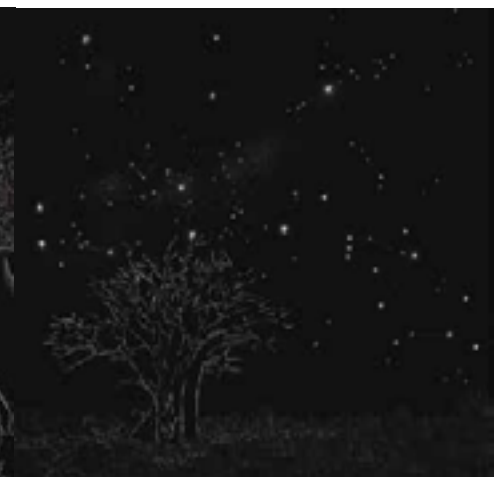
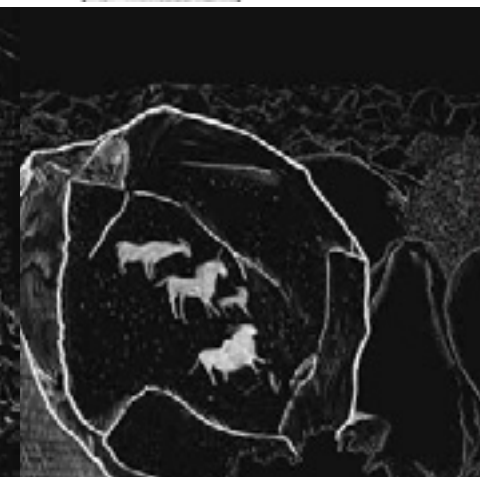
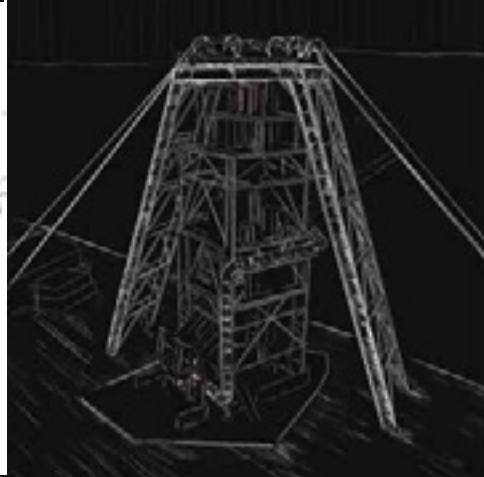
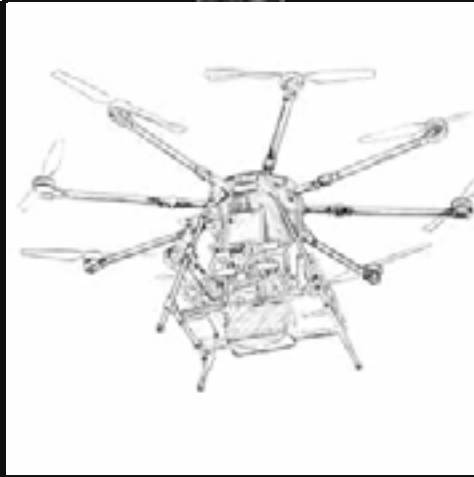
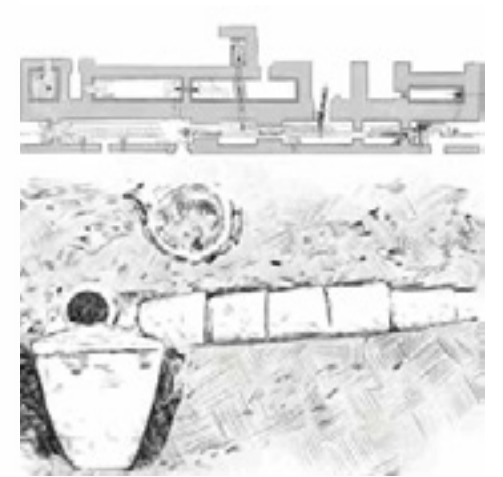
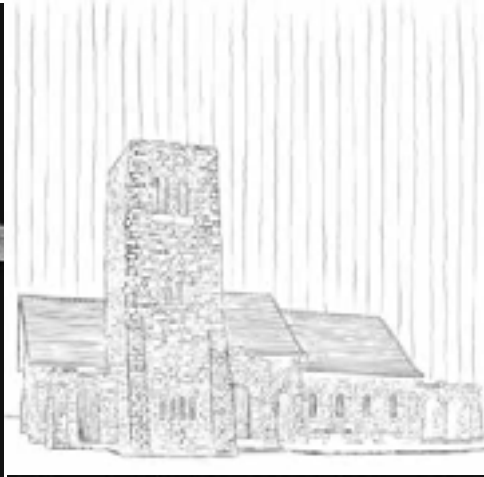
REVERSE

26 Jun - 5 Dec 2026

FUTURES

Etel Adnan
Cave_bureau
Kate Crawford and
Vladan Joler
Paula Gaetano Adi
Kamil Adam Hassim
Traci Kwaai
Ernest Mancoba
Georgia Munnik
Yinka Shonibare
Rebecca Potterton
Wolff Architects





Worldmaking



Worldmaking refers to the ways we collectively ‘make’ the spaces we inhabit through symbolic practices. The term ‘worldmaking’ was formulated by philosopher Nelson Goodman whose key question was: what is the world apart from any forms of representation or versions of it?¹ Without representation, nothing can be said or seen. According to Goodman, “worlds are made by making [...] versions with words, numerals, pictures, sounds, or other symbols of any kind in any medium.”² The human drive towards meaning-making leads us, both consciously and unconsciously, to build our own versions of the world with reference to a combination of social conditioning, survival instincts, rational thinking, artistic impulses, beliefs and traditions. With this in mind, and faced with a techno-future, how do we imagine the kind of world – natural and built – we want to inhabit and leave behind?

The Joburg Contemporary Art Foundation (JCAF) has embarked on *Worldmaking*, a three-year Theme that explores this question through a trilogy of exhibitions: **Ecospheres** (2024), **Structures** (2025) and **Reverse Futures** (2026), with an accompanying series of talks and publications. Each phase of the Theme consists of two parts: a physical exhibition and a printed publication that extends the exhibition through research, data and collateral material.

The title **Reverse Futures** is derived from Nairobi-based architectural practice Cave_bureau who formulated the term ‘reverse futurism’ to address the effects of colonialism in Africa and specifically Kenya. Their project “intertwines the past into the present and projects into the future using a mix of the two.” Reverse futurism refers to remedial acts that simultaneously address colonial history and present conditions, while making pathways of healing in the face of ongoing neocolonial affective and administrative architectures.³

1. Cohnitz, D. and Rossberg, M. (2024). “Nelson Goodman”, in Zalta, E.N. and Nodelman, U. (eds) *The Stanford Encyclopaedia of Philosophy*, <https://plato.stanford.edu/entries/goodman/>. Accessed 25/01/2024.
2. Ibid.
3. Karanja, K. and Mutegi, S. (2023), *Cave Bureau, The Architect's Studio*. Humlebaek, DK: Louisiana Museum of Modern Art, pp. 52, 84, 105.



Southern African Large Telescope
at the South African Astronomical
Observatory, Sutherland, Northern
Cape, South Africa.



Weekly Reader

EYE®

Edition 5 • Vol. 60 • Issue 23 • April 2, 1982

Japanese robot shakes a person's hand while special sensors in the robot measure grip and body temperature. Figures are displayed and robot might make comments like "Wow! What a grip!" Robot can also measure room temperatures and gas leaks.



ROBOTS

ARE REPORTING FOR WORK

"Robots are Reporting For Work", cover
of *Weekly Reader* (2 April 1982) ed. 5,
vol. 60, issue 23. © *Weekly Reader*/
Scholastica.

Refugees and migrants put on life jackets distributed by rescue crews of the Migrant Offshore Aid Station's (MOAS) Phoenix vessel on 24 May 2017 off Lampedusa, Italy. MOAS is a Malta-based NGO dedicated to providing professional search-and-rescue assistance to refugees and migrants in distress at sea. Between January and May 2017 MOAS rescued and assisted 3,572 people while patrolling and running rescue operations in international waters off the coast of Libya. Courtesy Getty Images. Photo Chris McGrath.



Worker from Nordeste shows his family the new city on inauguration day, Brasilia, Brazil (1960). In the background, the National Congress building by Oscar Niemeyer. © Rene Burri/Magnum Photos.



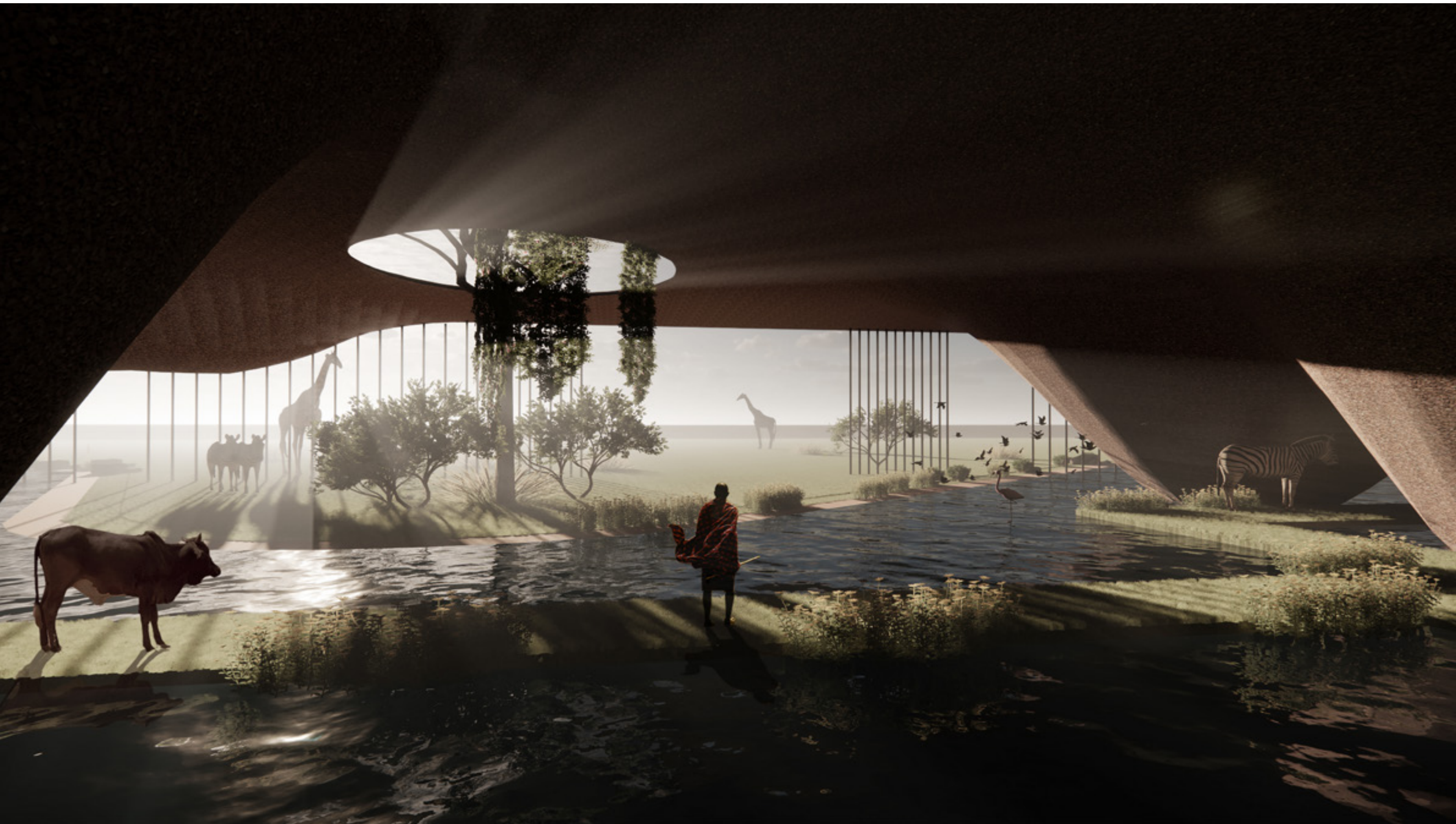


Piles of discarded textile waste on the shores of Chorkor beach in Accra, Ghana, 16 September 2022. The rise of fast fashion and shoppers' preference for quantity over quality have led to a glut of low-value clothing that inordinately burdens developing countries. Courtesy Bloomberg via Getty Images. Photo Andrew Caballero-Reynolds.



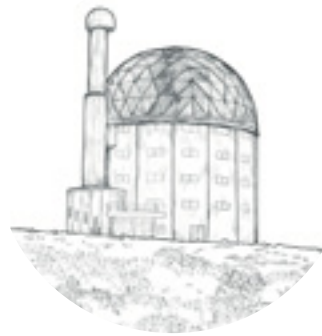
Two coolant distribution units, which help bring down the heat generated by Google's busy servers in order to keep them running efficiently, stand at the front of this server aisle on the New Albany data centre campus in Central Ohio. © Google.

The *Cow Corridor* project addresses state dysfunction in Nairobi City and colonially imposed ideas of urbanism through what Cave_bureau calls remedial acts of reverse futurism. The project provides spaces in urban infrastructure where the Maasai can freely graze their cows and be equitably served as the original custodians of a land they called Enkare Nyarobi, the place of cool waters. Image from Cave_bureau, *Anthropocene Museum 4.0: Cow Corridor*, Nairobi, Kenya (2021). Written manifesto, online publication (Dezeen). © and courtesy Cave_bureau.



Reverse Futures

Introduction



In Western popular culture, future-oriented narratives and ideologies have found expression in sci-fi films and their myriad spin-offs of the last several decades. In films as varied as Ridley Scott's *Blade Runner* (1982), the Wachowskis' *The Matrix* (1999) and Denis Villeneuve's epic space opera *Dune* (2021), the future is decidedly dystopian. In Stanley Kubrick's 2001: *A Space Odyssey* (1968) and Steven Spielberg's *Close Encounters of the Third Kind* (1977), future encounters with other life forms are offered as a form of salvation or transcendence, and Neill Blomkamp's *Elysium* (2013) imagines a post-earth planet on which robots serve humanity, pills prolong life, nature is saved from extinction, and beauty and happiness are default settings for all the planet's inhabitants.

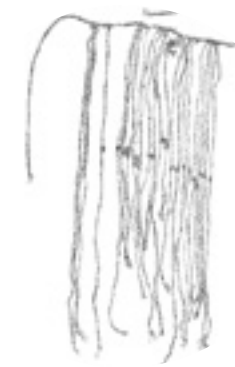
And now, the promise of AI. OpenAI is confident that, "If AGI [Artificial General Intelligence] is successfully created, this technology could help us elevate humanity by increasing abundance, turbocharging the economy, and aiding in the discovery of new scientific knowledge that changes the limits of possibility."¹ Journalist Karen Hao is far less optimistic and insists that "We really need to start thinking of companies like OpenAI as new forms of empire – more powerful than most nation states, amassing resources, labour and knowledge the way empires of old once did."² In the Global South, present realities include plastic pollution in our oceans, fast-fashion waste accumulating on beaches in Ghana, AI-driven mass surveillance and drone targeting, armed conflict and humanitarian crises in Ethiopia, Sudan and Palestine, refugees denied aid in the Mediterranean, and more. In the Democratic Republic of Congo, cobalt and lithium mines that fuel so-called green technologies sustain working conditions that border on modern slavery. In light of these crises, it seems the near future is not far removed from the present and is, as Argentine artist Paula Gaetano Adi suggests, part of a continuum of exploitation, extermination and extraction³ in which technology has always been a colonial operation to prove humanity's ability to conquer other worlds.

Could there be a different conception of the future in the Global South, one predicated on a 'future turn' in which artists, designers, academics and communities imagine other possibilities for what the future may contain? Could the Global South envision a future not as utopian or tech-driven, but more humane, more just, with more environmentally configured synchronicities? Many do indeed hope for such a future, not

a universal, distant, techno-future but one very much linked to the past and present. As Ghanaian artist Ibrahim Mahama articulates, "Sometimes the constellation of art in the future is constituted in the past."⁴

In many Global South contexts, the past, present and future are understood not as separate moments, but as mutually constitutive, ongoing and interconnected. What determines the future is the past, so that rather than a single, hegemonic trajectory, we anticipate and hope for a pluriversal future that is diverse, context specific and addresses past historical imbalances.

Nairobi-based architectural practice Cave_bureau formulated the term 'reverse futurisms' to address the effects of colonialism in Africa and specifically Kenya, explaining that "for the future to exist we need to undo the mistakes of the past."⁵ For many communities in Africa, Latin America and South Asia, the future cannot be separated from histories of exploitation and underdevelopment driven by technological innovation that often marginalises local knowledge, sustainability and community-based values and ways of living.



Curatorial Thread

This exhibition aims to address the world of tomorrow from the present, while acknowledging the past as integral to any conception of the future. Germane to this is the role of technology and how it will evolve and affect our lives, as well as how artists, architects and designers think about our world and its future. **Reverse Futures** traverses a range of topics: painting as memory, digital equity, community-engaged technological enterprises, social and ecological repair, the status of refugees, and the effects of technology and power on humanity. It is a poetic and reflective engagement with old and new technologies.

Central to the exhibition is Kate Crawford and Vladan Joler's epic, visual-data installation, *Calculating Empires* (2023), that runs the length of the gallery space at JCAF. Consisting of a codex showing how power and technology have been intertwined over the past 500 years, it traces the technological patterns of colonialism, militarisation, automation and enclosure since 1500 and proposes that although these forces still subjugate, they might now be unwound. The installation is divided into four main themes – communication, computation, classification and control – revealing how technology is enmeshed in the histories of social control and classification. The 24 metre-long, three metre-high wallpaper installation is a powerful narrative in dialogue with the rest of the exhibition.

1. Altman, S. (2023). "Planning for AI and Beyond", in *OpenAI* (24 February), <https://openai.com/index/planning-for-agi-and-beyond/>.
 2. Walsh, T. (Host). (2025). "Karen Hao: Empire of AI", podcast (16 October), in *UNSW Centre for Ideas*, <https://unswcentreforideas.com/article/karen-hao-empire-ai>. Accessed 10/04/2026.
 3. Gaetano Adi, P. (2024). "Radical Robotics: Paula Gaetano Adi's Cosmotech Imagination", in *Getty Research Institute*, <https://www.youtube.com/watch?v=1ZSH0jfDam0>. Accessed 16/01/2026.

4. Bonhomme, E. (2025). "Tender Ruins: On the Art of Ibrahim Mahama", in *Artforum*, <https://www.artforum.com/features/ibrahim-mahama-art-labor-industrialization-1234735313/>. Accessed 01/10/2025.
 5. Mohamed, B. (2025). "Design in Deep Time", in *Future Observatory Journal* No. 3, <https://fojournal.org/case-study/cave-bureau-profile-more-than-human/>. Accessed 20/01/2026.



Space

The first section of the exhibition brings together three artworks that engage with the idea of space and astronomy through three distinct mediums: painting, sculpture and installation. The three works are conceptually connected through the notion that Indigenous knowledges are bound to contemporary realities such as migration, mapping and memory. Space is a metaphor not for conquest, but for invention, imagination and creativity. As the viewer enters the exhibition, they encounter Yinka Shonibare's *Refugee Astronaut X* (2024) adorned in African textiles and carrying a net filled with worldly goods. This roaming figure is in search of a new habitat. The work points to the consequences of environmental change – rising sea levels and the displacement of peoples as a result of human greed and the depletion of earth's resources. This astronaut is not an explorer but a survivor, thus reversing the dominant narrative of conquest and extraction. Adjacent to the astronaut is *Satellites 27* (2020), a small vignette by Etel Adnan, a Lebanese artist and poet, and a key figure in Arab modernism. This painting from her series *Satellites and Planets* (2020) relates to the previous bodies of work, *Weight of the Moon* (2017) and *Weight of the World* (2016). The metaphysical quality of Adnan's paintings suggests an emotional space beyond the observable natural world. Her circle of colour infers a celestial body hovering over a pink background, a reminder of the quality of light in the Middle East. The seemingly simple forms of the painting evoke a monumentality in contrast to the small scale of the work.

Continuing with the sub-theme of space and astrology, Kamil Adam Hassim's practice is situated at the intersection of art, frontier science and Indigenous knowledge systems. *Event Horizon* (2026), produced for **Reverse Futures**, is a site-responsive light installation that, according to Hassim, "... isolates the viewer from sensory conditions of contemporary life ... the viewer passes through a chamber of red monochrome into silence and total darkness – into a void where a spectral light field hangs suspended in an atmospheric haze."⁶ The result is a simulacra experience of the Karoo desert on a moonless night where zero light pollution and no noise collapse the distance between the viewer and the cosmos. Inspired by the |Xam cosmologies of Southern Africa, *Event Horizon* expands our perception of celestial phenomena.



Time

The second section of the exhibition addresses *time* by contrasting two works: an installation showing a Kenyan cave and a modernist painting. The formal characteristics of each work – marks, weaving and traces – are uncanny in their similarity. There is a beautiful reflexive visual connection between the weave of the cave installation and the 'weave' marks of the painting. But these works are also signifiers of the historically contested terrains of race and slavery, modernity and African identity. Ernest Mancoba's 1971 painting, *Untitled*, was completed when Mancoba lived in self-imposed exile in Paris (1961–2002).⁷ As a progenitor of modernism in South Africa, Mancoba produced an oeuvre coded with the consciousness of an African identity forged between home – with its experience of racism under apartheid – and exile where he encountered the primitivist movement of the European avant-garde. Like many of Mancoba's other paintings from this period,⁸ *Untitled* suggests the abstracted form of a figure and expresses the desire to portray an essence through marks and gestures manifesting in an immaterial identification with a subject. There is something absolutely modern and poignantly primary in Mancoba's painterly brush marks, which in turn echo humankind's first marks in caves.

The Shimoni Caves in Kwale County, Kenya were used in the 19th century as holding chambers for enslaved persons who were traded from the East African Coast to the Middle East. This site of trauma forms the core of the *Shimoni Slave Cave* installation. Cave_bureau digitally mapped the cave structure in 3D laser scans and reconstructed it in rattan using a traditional triaxial Japanese Kagome basket weaving technique. They state, "Recorded histories of religious revelations with caves, to philosophical metaphors and enlightenment narratives about emergence from caves, have framed an intrinsic part of our past, present and future."⁹ *Shimoni Slave Cave* enunciates a non-invasive form of architecture that for centuries has marked the passage of time, permeated myths and legends, and 'housed' all manner of human experience: religion, slavery, domesticity.

6. Artist's statement sent via email, 26 February 2026.

7. Mancoba left South Africa in 1938 on a scholarship to study at the École Nationale Supérieure des Arts Décoratifs in Paris. He spent time in France and Denmark, and resettled in Paris in 1961, where he lived to the end of his life. Stevenson Gallery, (2014). *Ernest Mancoba: Drawings and Paintings from the Studio*. Cape Town: Stevenson and Galerie Mikhael Andersen, p. 5; "Ernest", in *Estate Ferlov Mancoba*, <https://ferlovmancoba.com/ernest/>. Accessed 16/03/2026.

8. See works from this period, for example *Painting* (n.d.), *Untitled* (n.d.) or *L'Ancêtre (The Ancestor)* (1968-70), in the "Ernest Mancoba Catalogue Raisonné", made available online by the Estate Ferlov Mancoba, <https://cr-mancoba.ferlovmancoba.com/catalogue/>.

9. Cave_bureau, (n.d.). "Caves", in *Cave_bureau*, <https://www.cave.co.ke/opening-a>. Accessed 21/01/2026.



Place

The last section of the exhibition uses technology in poetic ways to think about place, community and storytelling. Technology can teleport us to imagined worlds, scents can evoke feelings, and historical events can be reimagined empathetically. Each of the three artworks in this section conveys a message concerning the environment. Alongside Cave_bureau's installation is a small cluster of resin-cast flower heads whose glow draws the viewer in not as a mere observer but as a physiological interlocutor. *The Strangling Fruit* and *Concrete Jasmine* (2026), commissioned for the exhibition, together form an olfactory work that contains the smell of Johannesburg – described by artist Georgia Munnik as a combination of pink jasmine and damp concrete. This uncanny mix embodies the extreme tensions in the city, the contradictory coexistence of natural blossom and urban decay revealing a complicated, often beautiful landscape.

In contrast, Traci Kwaai's installation, *Fisher Child* (2025), uses 360 video, photogrammetry and VR to explore the ocean alongside a Kalk Bay community in Cape Town. By digitally capturing artefacts, cultural sites and oral histories, the work brings to life the centuries-old stories of the Brown communities of Kalk Bay and points to the importance of preserving the heritage of these communities. The result is a mesmerising encounter with history, place and memory articulated through an immersive digital experience of the submarine world of the ocean.

The final work on the exhibition, *Guaquerx* (2024) by Argentine artist Paula Gaetano Adi recalls the epic Andean journey of Argentine revolutionary liberator José de San Martín who defeated the Spanish colonial army in 1817 and liberated much of South America. This journey is reenacted by a robot guanaco (a camelid indigenous to the Andes mountains) and contextualised via an installation consisting of a video, archival material, a map of the Andean journey, and the robot. *Guaquerx* embodies a vernacular aesthetic that moves beyond conquest, empire, efficiency and control to become a pre-modern, ancestral vehicle for subjugated histories and peoples. Though the robot in *Guaquerx* is non-threatening, almost clumsy and endearing, it conveys a significant narrative of the past and poses an alternative to extractivist-oriented technology.



Conclusion

This exhibition looks critically at the idea of a future linked to technology that promises universal progress. The artworks suggest that progress is not necessarily to be found in a tech-driven future, but rather in a pluriversal approach that recognises historical imbalances and treats past, present and future as an interconnected continuum. By addressing histories of colonial expansion, extraction and environmental degradation, and by engaging with practices of remembering rooted in local and Indigenous knowledges, community and repair, the exhibition suggests pathways towards better futures. Importantly, these perspectives are not abstract. They can be located in specific contexts and connected to specific people and events – Indigenous fishing communities in Kalk Bay, traces of slavery in Kenyan caves, political liberation in the Andes in the 19th century, moonless nights in the Karoo – and in practices that critically interrogate the calculative logics of empire. Such situated approaches challenge dominant narratives of progress while opening space for other ways of imagining the planet's future without losing sight of ongoing injustices, including how they may be reproduced beyond earth. The future(s) this exhibition advocates for are not of conquest but are fundamentally more humane, just and sustainable.



Communication and Computation

Yinka Shonibare, *Refugee Astronaut X* (2024), and in the background, *Calculating Empires: A Genealogy of Technology and Power since 1500* (2023) by Kate Crawford and Vladan Joler.

Communication and Computation



Yinka Shonibare, *Refugee Astronaut X* (2024), and in the background, *Calculating Empires: A Genealogy of Technology and Power since 1500* (2023) by Kate Crawford and Vladan Joler.

Detail, Yinka Shonibare,
Refugee Astronaut X (2024).
© Yinka Shonibare.



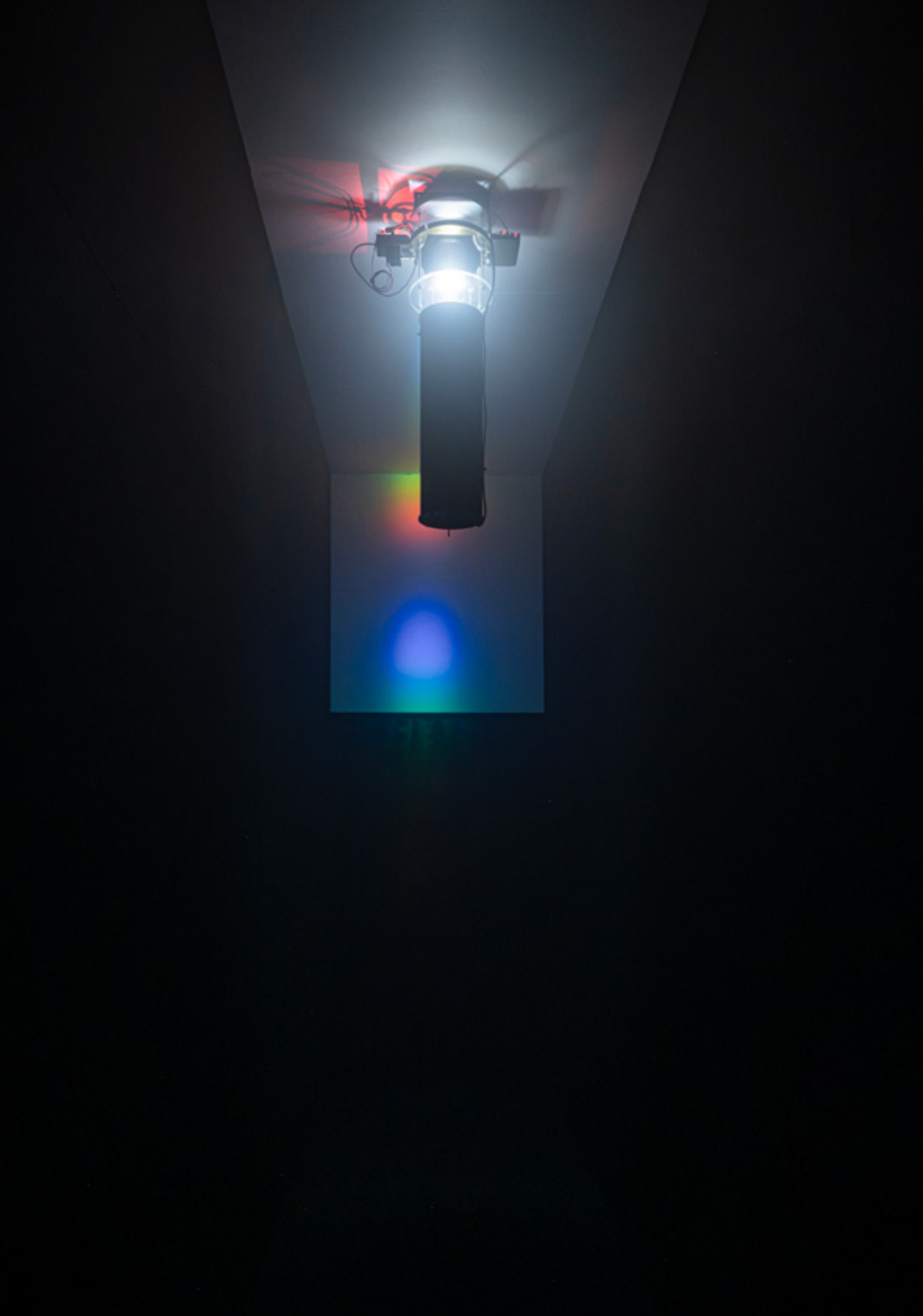


Yinka Shonibare, *Refugee Astronaut X* (2024), and in the background (from left): Etel Adnan, *Satellites 27* (2020), Cave_bureau's installation *Shimoni Slave Cave* (2022-2023) with accompanying model and video, and Ernest Mancoba, *Untitled* (1971).





Entering the installation *Event Horizon*
(2026) by Kamil Adam Hassim.
© Kamil Adam Hassim.





Cave_bureau's installation *Shimoni Slave Cave* (2022–2023) with accompanying video *Anthropocene Museum 2.0: Shimoni Slave Caves* (2021) and model *Shimoni Slave Cave* (2026), and Ernest Mancoba, *Untitled* (1971) at right; in the background Georgia Munnik, *Concrete Jasmine* (2026) and *The Strangling Fruit* (2026) and Paula Gaetano Adi, *Guaquerx* (2024).



Cave_bureau's installation *Shimoni*
Slave Cave (2022-2023) and video
Anthropocene Museum 2.0: Shimoni
Slave Caves (2021); on the left, Georgia
Munnik, *Concrete Jasmine* (2026) and
The Strangling Fruit (2026).



Ernest Mancoba, *Untitled* (1971).
© Ferlov Mancoba Foundation /
Galerie Mikael Andersen.



Detail, *Cave_bureau, Shimoni Slave Cave* (2022-2023). © Cave_bureau.





Visitor looking at Cave_bureau's video
*Anthropocene Museum 2.0: Shimoni
Slave Caves* (2021). © Cave_bureau.



Paula Gaetano Adi, *Guanaquerx* (2024) in the foreground, and Georgia Munnik, *Concrete Jasmine* (2026) and *The Strangling Fruit* (2026) at left; with Cave_bureau's installation *Shimoni Slave Cave* (2022-2023) and accompanying model visible in the background.



Georgia Munnik, *Concrete Jasmine*
(2026) and *The Strangling Fruit* (2026).
© Georgia Munnik.



Detail, Georgia Munnik, *Concrete Jasmine* (2026) and *The Strangling Fruit* (2026). © Georgia Munnik.
Photo Anthea Pokroy.



DESAFÍOS DE LA ROBOTICA
PAUL GAETANO ADI

1. La robótica es una disciplina que se ocupa del estudio y desarrollo de máquinas y sistemas que imitan o superan las capacidades de los seres vivos.

2. En el ámbito de la robótica, se pueden encontrar aplicaciones en diversos campos, como la medicina, la industria, la agricultura, la exploración espacial, entre otros.

3. La robótica permite crear dispositivos que pueden realizar tareas repetitivas, peligrosas o simplemente imposibles para el ser humano.

4. En este proyecto, se explorará el uso de la robótica en el contexto de la exploración y el estudio de entornos montañosos.



Details, Paula Gaetano Adi, *Guaquerx* (2024). © Paula Gaetano Adi.



24. #7
Argentina, San Juan Province, Andes Mountains
5 grubs/inf / 10 "chichas". Day 1988 (muse)
8/2000, -40°C, for wind, clear sky, white/very light
Yellow flower, complete flower (10" across) that opens at
convection to wind, like a cup to catch H2O, tiny red dots
rising from bottom underside, long stem - on in, base has
green leaves in clump, growing 10" in center and an array
from there.
Yviera, P.E., Gaetano Adi, R.
at January 2010.



25. Guanaco (Spotted), Wemba (Quechua, Aymara), Yacha (Dua),
Luan (Mayan), Nue (Tzeltal), Anore (Yukon).
The guanaco (Lama guanicoe) is a wild camelid native to the mountainous
regions of South America, related to the llama, vicuña, and alpaca. It is the
largest native land mammal in South America, living at altitudes of up to 4,000
meters above sea level. The relationship between guanacos and humans dates
back to prehistoric times. Their wool was woven into intricate patterns on the
looms, and their hides were used as natural shelter and as blankets to protect
rancheros. Indiscriminate hunting was regulated by the myth of the Yacha,
which served as a guideline for human activity. With the arrival of Europeans,
who disregarded the Yacha, unregulated hunting soon pushed the species toward
extinction.
Today, guanacos are no longer at risk from hunting, as all human use of them
is prohibited. Yet this regulation has come at a cost to local communities and
to ecological balance: weavers turned to sheep's wool, dyes to goat's milk,
and diets to beef and chicken. Sheep and goats displaced guanacos from their
habitats, and goats' hard hooves compact the soil, leaving it infertile. Without
crops, the land becomes increasingly arid, and life in the mountains eventually
impossible.

26. Guanaco, illustration by W. Elgort, 1910.

27. Guanaco Hunt, engraving, unknown author, circa 1800.

28. The Guanaco, off road vehicles developed in San Juan, Argentina, during the 1980s and 1990s by local
engineers. Created before 4x4 vehicles could be imported into the country, they stand as innovative
fruits of engineering and as alternatives to traditional mule and horse transport for traversing the Andes.

MAGAZINE LAS GUANQUERAS (ARGENTINA)

LOS ABUELOS DE MAD MAX

No tienen precio ni plazo de entrega. Estos 4x4 son creaciones tan exclusivas como
la celebrada Royale de Bugatti, y no se venden. En vez de eso, sus propietarios
prefieren divertirse de lo lindo en los recorridos paisajísticos de los Andes
argentinos, donde encontramos estas singulares creaciones: las Guanqueras.

Por FRANCISCO GARCÍA



La Guanquera nació en el sur de la provincia de San Juan, Argentina, en la zona de los Andes, donde se encuentra la frontera entre la Argentina y Chile. Es una creación de los ingenieros locales, que han desarrollado una serie de vehículos 4x4 que son capaces de recorrer cualquier terreno montañoso y rocoso. Estos vehículos son muy populares entre los habitantes de la zona, que los utilizan para desplazarse por las montañas y para llevar a cabo trabajos agrícolas y ganaderos. La Guanquera es un vehículo muy versátil, que puede ser utilizado para una gran variedad de fines. Es un vehículo muy seguro, que cuenta con una gran cantidad de equipamiento de seguridad. Es un vehículo muy cómodo, que cuenta con una gran cantidad de espacio interior. Es un vehículo muy económico, que cuenta con un precio muy bajo. La Guanquera es un vehículo muy interesante, que merece ser conocido por todos.

"El choque de un alma atrapada entre el mundo de la vida y el mundo de la muerte a veces la deja enredada".
—Gloria Anzúrez, *Borderlands* (la frontera, 1980).

Guanqueras, a technological mixture of sorts — or more than that — an Andean machine, a ch'ul machine. Ch'ul means various powerful indigenous entities, neither white nor black but both in one; the law of the included middle. "The emancipated and emancipatory form of montage", thinking with Silvia Rivera Cusihuiri, "the possibility of seeing and inhabiting different worlds at the same time... A way of being that lives in the tension to deny ourselves and find our Indian grandmothers who inhabit our blood, to learn from them, and to recover their knowledge, through the landscape, through a different relationship with the world, with nature". On Guanqueras' rubber case body, in its wool climbing and vegetable dyes, in its mounted legs, digital eyes, and silicon interface, a genuine product of civilization is taking place — as Edward Glaeser would claim "not merely an economic, a shock, but a new and original dimension... Skipped and open, like in the mountains and free beneath the sea, in harmony and in ecstasy."

29. Objects related to Guanqueras' montage (rubber case and the PCB distribution board).

30. Guanqueras rubber engineering and technical drawings.





Traci Kwai's VR installation *Fisher Child* (2025) at left; in the background, Paula Gaetano Adi, *Guaquerx* (2024).

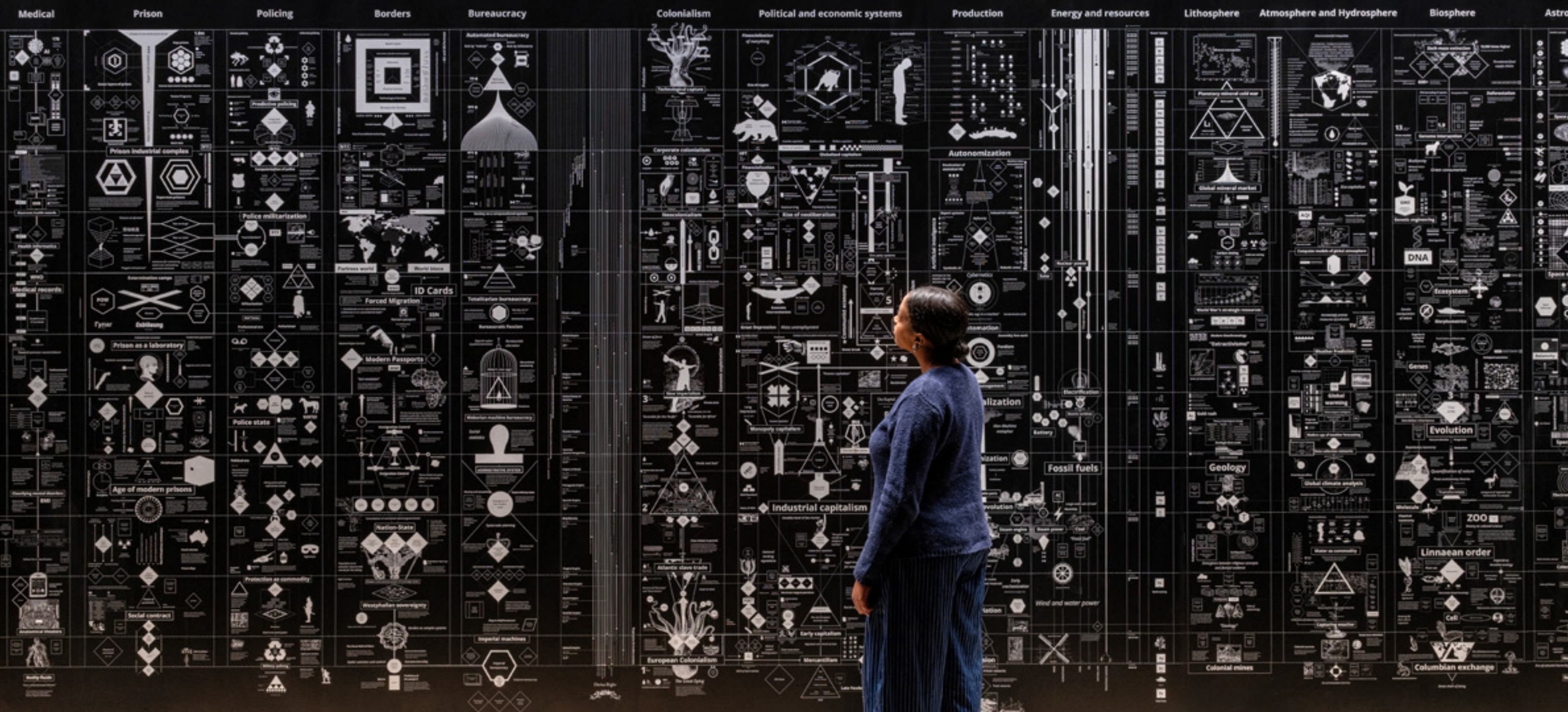


Visitors experiencing Traci Kwaai's VR installation *Fisher Child* (2025).



Traci Kwaai, *Fisher Child* (2025). Still from VR installation. © and courtesy Traci Kwaai in collaboration with Kyle Marais and Lo-Def Film Factory.

Visitor looking at the installation
*Calculating Empires: A Genealogy of
 Technology and Power since 1500*
 (2023) by Kate Crawford and Vladan
 Joler. © Kate Crawford and Vladan Joler.







From left: Cave_bureau's installation *Shimoni Slave Cave* (2022-2023); Kamil Adam Hassim, *Event Horizon* (2026); Etel Adnan, *Satellites 27* (2020); Yinka Shonibare, *Refugee Astronaut X* (2024) and *Calculating Empires: A Genealogy of Technology and Power since 1500* (2023) by Kate Crawford and Vladan Joler.

Ancestral Future

Brazil's Indigenous peoples are shaking off Western ideas of the future to preserve and create worlds in the present.

Bernardo Gutiérrez

A group of Indigenous children paddle a canoe. The eldest one gives voice to their collective experience: “Our parents say we’re almost back to how it used to be in the old days.” Ailton Krenak uses this image of children from the Yudjá ethnic group, who live along the banks of the Xingu River, one of the main tributaries of the Amazon, as the opening scene for his book *Ancestral Future*. Throughout its pages, Krenak, the only Indigenous member of the Brazilian Academy of Letters (ABL), challenges the Western idea of the future. “First of all, the future doesn’t exist – we can just imagine it. To say something will happen in the future ... is just an illusion. The truth is that we are projecting increasingly improbable futures, and we prefer to keep this lie in the present.” Krenak, who has been a bestselling author in Brazil since the publication of his book *Ideas to Postpone the End of the World*, simultaneously rejects visions of apocalyptic futures and those that include the possibility of atonement, as both make us act “as if all the problems of the present could be magically solved later.”

The ancestral future envisaged by Krenak has more to do with DNA than genealogy. It is about the ability to go back to the event that created the world, to the original genetic code that lives on in us and connects us to all species, rather than about walking backwards. “The rivers, these beings that have always inhabited the worlds in different forms, are the ones who suggest to me that, if there is a future to be considered, that future is ancestral, because it was already here.” Krenak clarifies. The canoe full of Yudjá children “approaching the past” and the movement towards an ancestral future evoke an image of circularity. They trace out a curved, spiralling and sinuous sense of time, a time that envelops us and blurs linearity.



Shooting fish on the Amazon. Brazil, 1890-1923. Library of Congress, Public domain.

In a recent interview, Indigenous writer Daniel Munduruku defends the importance of circularity in Indigenous worldviews: “I can generalise without fear of being unfair. In general, Indigenous peoples have an understanding of time as being circular, like the cycles of nature. They don’t see time as being linear, but as something that feeds into itself, unfolding and projecting itself forward. The past tells us who we are, where we come from, and the present is where we experience the result of all that.” Munduruku is wary of the Western idea of the future, the flipside of which is a linear, productive, extractivist economy. “Looking to the future alienates people from the more immediate need to build our existence in the present. It’s a vision that educates people in selfishness,” he argues.

There will be no future without the present. We will not arrive at any subsequent point without preserving the recipe for survival that brought us to where we are now. And human beings will not survive without Indigenous peoples, without the guardians of the rainforests. This is not just a poetic way of voicing an emergency, but a matter of empirical evidence. Indigenous lands are responsible for 80% of the rainfall in Brazil’s agriculture and livestock sector. The colossal rivers of mist that rise up through the Amazon thanks to the phenomenon of tree evapotranspiration would not exist without a forest that the native peoples protect like no one else. The young Indigenous activist Txai Surui, who became a global icon after her opening speech at COP26 in Glasgow in 2021, and who was one of the speakers at the exhibition *Amazons. The Ancestral Future*, calls for a new “grandchild generation” to cultivate the present. By nourishing the here and now, the grandchildren of ancestral wisdom become mediators between the past and the future.

TO RECLAIM TIME, TO WORLDIFY

The ancestral future stands in stark contrast to the “no future” of punk. It simply denies a Western future that, in its relentless push forward, turns away from habitable presents. The notion of the future is only acceptable if worlds can flourish in the present, if human action is directed towards the action of *worldifying*. Inventing worlds, in the words of Krenak, is much more interesting than inventing futures. The ancestral future, swirling in a living and diverse present, creates worlds and fosters alliances between a constellation of human and non-human beings. The Tucano people of the upper Rio Negro regard every tree as a home for various forms of life. It affects all living things and to destroy is to strip the land bare. João Paulo Barreto, one of the most prominent voices from among the Tucano people and a guest at the *Amazons* exhibition, often talks about how, in the understanding of his people, the human body is made of clay. There is no boundary between this clay body and the organisms that surround it. The forests are an extension of the body, and the body is an extension of the forest. In Indigenous worldviews, the division between culture and nature is an artificial, counterproductive separation.

Nature, then, is not an idealised wilderness, a romanticised natural world that draws a radical dividing line between itself and a denaturalising human being who is a source of problems for other species. Nor is the environment *The World Without Us* (2007), the title of Alan Weisman’s work of speculative non-fiction in which the planet is reborn into health after the near-extinction of the human species. The environment is a “world with them,” with all non-human actors. It is a political arena that enables interspecies

relations and shapes worlds. The Peruvian anthropologist Marisol de la Cadena investigates how Indigenous Andean civilisations give voice to earth-beings (mountains, rivers, rocks, lagoons) and how they establish earth practices – relationships of respect that defy the distinction between humans and nature.

The Amazon rainforest is not a human desert. It is another kind of garden. By caring for, cultivating and subtly intervening in the forest, Indigenous ancestry has developed a sophisticated system of environmental management. And it has succeeded in creating small plots of agro-forest that make the destruction of the rest of the forest unnecessary, as shown in the documentary *Forest, a Garden We Cultivate* (2024). The ancestral future makes it possible to negotiate with the forest, with earth beings, with another time free from anxiety. The ancestral future, as it *worldifies* the present, disrupts the extractivism and productivity of modernity’s mechanistic linearity.

Brazilian Indigenous member of congress Célia Xakriabá, in collaboration with the leading international DJ Alok, released “Manifesto O Futuro É Ancestral” to “enter another time of more sensitive listening.” In the song, with its electro base and shades of triphop, part of an album in which Alok collaborates with eight Indigenous ethnic groups, Xakriabá invokes the “warrior women of ancestry,” proclaiming that “our struggle is to retake time.” The ancestral future is the “time of nature ... the time of water ... of drought ... of cold ... of wind.” Xakriabá, a doctor of anthropology, floating in the flow that connects her to the grandchild generation, sings and recites that the ancestral future is “caring for the ground we tread on” and that this is the only way to recover the meaning of life and keep the heart beating. Her verses and stanzas bring Ailton Krenak’s intellectual provocation full circle: “We are the possibility of healing the planet / of ending all forms of evil / we are the root of the past that connects with the present / And the future is ancestral / The future is ancestral.”

THE SINGULARITY

José Ignacio Latorre

“Human affairs,
as we know them,
could not continue.”
—John von Neumann

OUTSMARTED

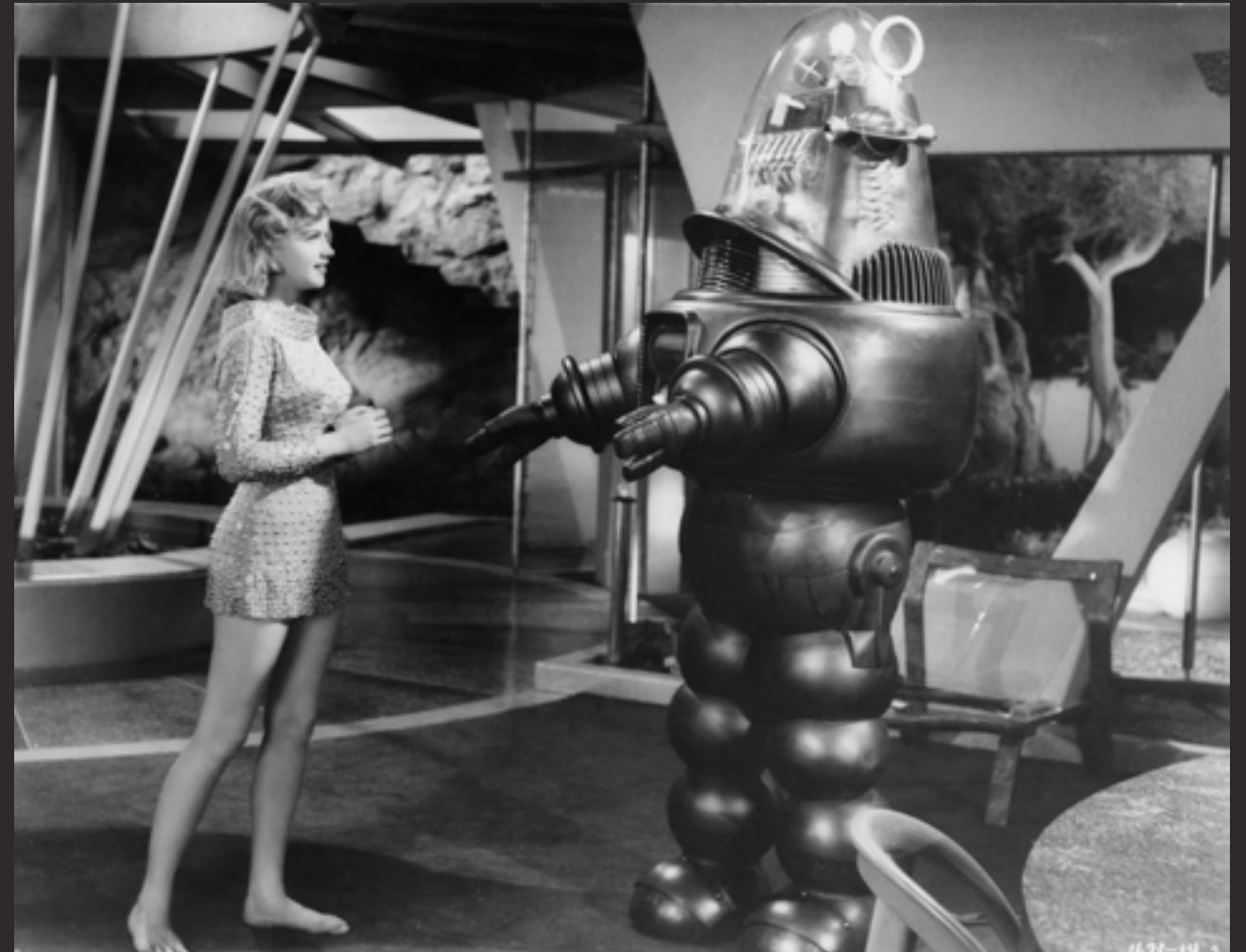
John von Neumann was perhaps one of the first people to glimpse the huge potential for calculation that a computer could have. After his death, his colleague Stanisław Ulam attributed these words to him from a conversation they once had:

The ever-accelerating progress of technology and changes in the mode of human life ... gives the appearance of approaching some essential singularity in the history of the race ...

This is a lucid reflection, attributed to von Neumann in 1950. Much later, in 1993, Vernor Vinge wrote an article titled “The Coming Technological Singularity” in which he suggested that the human mind would be surpassed by machines equipped with artificial intelligence. This idea was taken up with unprecedented vigour by Ray Kurzweil in his book *The Singularity Is Near: When Humans Transcend Biology* (2005). The title is self-explanatory: humans, according to Kurzweil, will leave their biological bodies behind and their intelligence will be transferred to machines. The idea of the Singularity also led to the emergence of the so-called Singularity University, an institution founded in 2008 by several relevant figures in the world of advanced technology. Its slogan is unequivocal: “Preparing humanity for accelerating technological change”.

The essential argument associated with the Singularity is based on an overwhelming logic: if we build artificial intelligences that are increasingly more powerful and autonomous, a point will come when an algorithm is capable of self-improvement. Having improved, the new algorithm will be even more powerful and, in consequence, capable of improving itself once more. It is a chain that keeps feeding itself. Each artificial intelligence will design the next, which will be even better than its predecessor. This iterative process will advance unstoppably towards an intelligence of brutal proportions. We will have reached the Singularity.

We can try to develop an intuition of how we will reach the Singularity. Let’s imagine that artificial intelligence advances thanks to a better understanding of the sophisticated architecture of a giant neuronal network. Designing artificial neuronal circuits involves an extreme



Still from the film *Forbidden Planet* (1959). Courtesy Digitalt Museum/ Tekniska museet. Public domain.

difficulty. At present we are using models controlled by humans to explore better neuronal architectures. But the time is coming when the exploration of new architectures will be conducted by an improved artificial neuronal network. This network will be able to analyse and improve itself. It will be like a good student who begins learning on his own and ultimately overtakes his teachers.

Let’s look at this last example seriously. A good student, a brilliant teenager, learns mathematics under fine teachers. They teach him *how* to learn. The student’s intellect is greater than that of his secondary-school teachers. He goes on to university. There, his mind continues improving. He leaves behind the wisest of the professors. He visits the top universities on the planet. He works extremely hard and continues to leave behind the best researchers of his time. He’s alone now. He continues to advance by fuelling his knowledge himself. He learns on his own. He intuits, he establishes his lines of research. He becomes better and better at this.

An advanced artificial intelligence would operate in the same way as a very good student. But, let’s not forget, a machine does not suffer from the limits imposed by biology. Integrated circuits, quantum computers and future developments that we cannot even envision today will take the progress of artificial intelligence to dizzying heights.

It is important to emphasise the crucial point of the difference of substrate between human intelligence and artificial intelligence. The Singularity requires an overcoming of the limits imposed by nervous tissue, glial cells, nutrients that arrive through the blood, the small size of the brain, the death of its parts. An artificial intelligence based on silicone substrates has the capacity to grow far beyond the human brain and to not perish.

Can you imagine a smart and non-perishable machine that creates itself? How big would it be? Would it cover the earth? Would it be single or scattered? Would it be violent? Would it mean the end for humans?

SINGLE HIGHER INTELLIGENCE

Let’s imagine we have reached the Singularity and have created an intelligence vastly superior to our own. Would a single, advanced artificial intelligence exist, or would there be several?

We can defend both possibilities.

Let’s start by arguing that if the Singularity is reached, the higher intelligence will be single. A supreme intelligence should be peaceful, not hostile, given that it would find no benefit in violence. The artificial intelligence could sustain itself effortlessly, with no obstacles to its growth. It could provide itself with everything it needs in an efficient way. It will be a magnificent manager of its own physical substrate. If there were another artificial intelligence, the two would opt to unite and generate an even more powerful intelligence. We humans do so when we become involved in higher tasks such as the study of pure science. Mathematicians, physicists, biologists, indeed all scientists who seek knowledge collaborate with each other. It is true that the academic system is created to encourage competition, but it is even more true that all people who approach difficult scientific problems know that these will overwhelm them individually and that they will only advance when they join forces. So, if one higher intelligence enters into relations with another, the two will join forces.

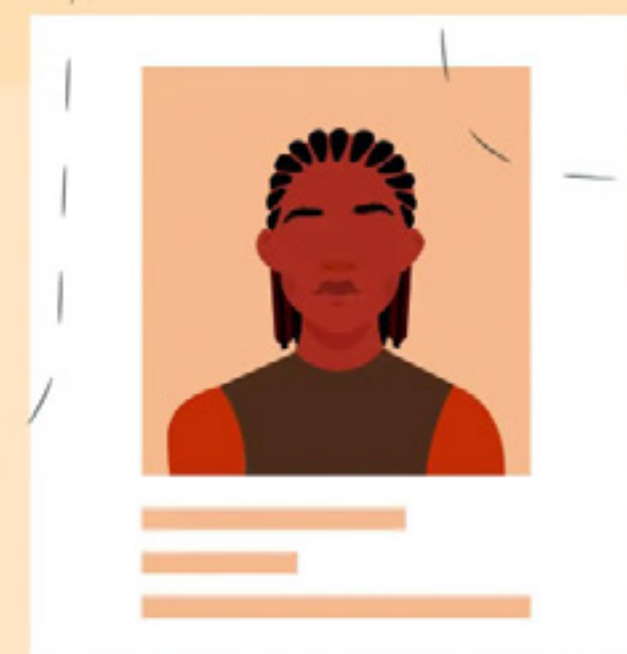
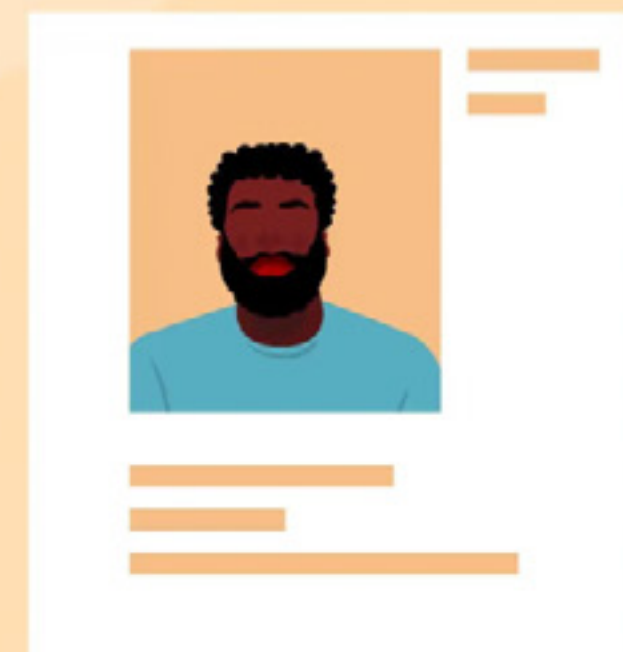
An example from the world of economics – the simple business transaction – illustrates the creation of a single, all-powerful entity. One way of modelling an economic transaction between two people is as follows: both put a sum of money into a common kitty, a draw is held and one takes all the money while the other loses everything. Clearly this way of simulating a transaction is far removed from reality. But what is true is that in many transactions, one party wins and the other loses. The idea here is to exaggerate this situation and see what consequences follow. To confirm the result, we can create a program where cellular automata operate according to this rule. The algorithm will create virtual entities that randomly associate. They conduct a transaction for a certain amount of money, somebody wins and somebody loses. If we allow this virtual universe to evolve by conducting transactions between its individuals, little by little we will see that a few will get richer and richer and the rest will get poorer. The final result is that one person will have everything, and the rest will have nothing. It is easy to understand the reason behind this limit. In each transaction there is a non-zero probability that an individual will string together poor business deals and lose absolutely everything. This individual is expelled from the game. There is one person less. The story is repeated, and each time, another person disappears. In the end only one person, who has everything, remains. Our real world is not so far removed from this game. A few people possess more wealth than other human beings. In reality this can be compensated for through the establishment of rules so that the poorest can climb the ladder. For example, banks allow individuals to borrow money and come back into the game, or inheritances bring in money earned by relatives, or the lottery provides money out of the blue.

But then we can argue exactly the contrary: if intelligences superior to human intelligence existed, there would be many of them, not just a single one. The central idea here is that it is beneficial to have different approaches to the same problem. Many different intelligent people make a field advance much faster than a single intelligent person would. In biology, it is beneficial for a species to maintain genetic diversity. If everything is staked on the fittest individual, the species loses its capacity for correction against critical changes in external conditions. It is good to have individuals with diverse genetic material because their genes may be enormously useful in the future. An advanced artificial intelligence should maintain other intelligences independent of itself. A set of advanced intelligences could exist with different intellectual levels and be geared towards subtly different objectives, based on independent algorithms.

We are told by Jean-Jacques Rousseau in *Émile* (1762), that “It is man’s weakness which makes him sociable.” He argues that:

Every social relation is a sign of insufficiency. If each man had no need of others, we should hardly think of associating with them.

A strong artificial intelligence would be, according to Rousseau, solitary, perhaps not single, but without friends. In English, a single advanced intelligence is known as a *singleton*. If the future of extreme artificial intelligence is a singleton, I believe that being alone will lead to its becoming supremely bored.



Closure for Families of the Missing

Meron Estefanos

For the past 19 years, a mother’s voice has haunted me. Every month, without fail, she calls, her hope unwavering, her pain etched in every word. “Have you found my daughter?” she asks, her voice trembling with a mixture of desperation and fragile optimism. I can almost see her clutching the phone, her knuckles white, as if holding onto her last thread of hope. Her daughter, barely 19 when she vanished in the unforgiving deserts of Libya in 2005, is just one face among tens of thousands of Eritreans who have disappeared over the past three decades in their desperate search for freedom.

This mother’s unyielding love, her refusal to give up, are both heartbreaking and inspiring. It’s stories like hers that compelled me to start the Missing Eritreans Facebook page and weekly radio programme 12 years ago. Each week, I broadcasted over 100 names, each with a prayer, a plea, a desperate reach across continents. Behind every name is a family torn apart, a void where a loved one should be. As I spoke each name into the microphone, I imagined it travelling across airwaves, through cities and deserts, hoping it might reach a lost soul or someone who had seen them. This was more than a programme; it was a lifeline of hope for families shattered by an unforgiving exodus.

Three to four thousand youth flee monthly from Eritrea knowing that there is a shoot to kill policy at the border. Those who make it out in spite of this policy have a high chance of being kidnapped and sold as slaves. Those who escape these kidnappings make their way to Europe, putting their lives in the hands of traffickers and smugglers who stack them like sardines into small pickup trucks and travel through the Sahara desert for fourteen days straight. Many of them fall from the trucks and die on the journey. Others lose their lives when the pickup truck has an accident, which happens often. Some of those who are still alive make it to Libya, only to be sold and resold from one trafficker to the next, each of whom extorts thousands of dollars from the refugees’ (often poor) families. And finally, traffickers cram refugees who have made it to this stage of the journey into small boats not meant to

hold large groups of people, and head to Europe. Chances of survival are very slim, but thousands make this journey driven by a desperation that outweighs the risk of death.

None of the refugees’ deaths are documented. Their names are lost in the vast spaces between borders and bureaucracies. The witnesses – often fellow refugees – are afraid to speak out. This forced silence leaves families without even the cold comfort of knowing their loved one’s fate.

Tens of thousands of Eritreans have vanished, leaving behind shattered families. Mothers, fathers, sisters, brothers – all searching, all waiting, all hoping for news that may never come. Each missing person represents a family trapped in a state of agonising uncertainty, unable to mourn, unable to move forward.

Yafet is one of these people who has been left in limbo for ten years. His 24-year-old wife Segen and two-year-old daughter Abigail went missing in June 2014 together with 241 Eritrean and Sudanese refugees on their way to Italy. Yafet reached out to me a week after his wife and daughter went missing to ask if I had any information about the boat they were in. Many other families whose loved ones were on the same boat had already contacted me, and I told Yafet that I was working to find out where they could be. For ten years I tried to find closure for these families. I even travelled to Tunisia and visited every single detention centre there on a tip. I found the smuggler who trafficked the missing refugees and succeeded in having him extradited from Germany to Italy where he was sentenced to four years in prison. But I still could not give these families the closure they deserve.

There are thousands of families with similar stories. According to the International Organization for Migration’s (IOM) Missing Migrants Project, over 30,000 refugees and migrants have gone missing in the Mediterranean Sea. Each number represents a person – someone’s child, parent, sibling or friend – and countless families left in agonising uncertainty.

At a conference in Italy about missing refugees, I met a Maltese politician who told me that Malta has thousands of DNA samples from dead refugees found in their waters, and that they don’t know what to do with these. I wondered: how many more samples do Italy, Greece and Turkey have? How many answers are out there waiting to be found? That’s when the idea hit me. What if we could create a way for families to submit their DNA and compare it to these samples? What if we could give them the answers they’ve been desperately seeking for years?

Imagine a mother, like the one who has been calling me for 19 years, being able to find out what happened to her daughter. Picture her receiving a small kit in the mail, as simple as the ancestry tests many people use for fun. She would swab her cheek, send it back and then wait – not for 19 years, but perhaps just a few weeks. Then, one day, she receives a notification. There’s a match. Yes, the news might be heartbreaking – her daughter didn’t survive the journey. But finally she knows. She can grieve properly. She can bring her daughter home, if she wishes. She can start to heal.

This isn’t just a dream, it’s something we could actually build. We could create an app that is easy to use and available in many languages. We could work with countries like Malta, Italy, Greece and Turkey to access their DNA databases, and provide counselling and support for families who receive difficult news. Families of the missing could organise themselves, as they often do, and have control over the app and its associated databases.

Families would give anything to find closure, often being further exploited while attempting to do so. After posting pictures of their missing children, parents receive phone calls from people who claim to know the whereabouts of their children. The most common scam is to tell these parents that their children are alive but kidnapped, and that the kidnapper will release them if paid \$10k or more as ransom per person. Families want to believe that their loved ones are alive, so most pay the ransom without hesitation, after which the callers disappear or the phone number stops working.

The DNA-matching system could help end the exploitation of families searching for their loved ones. No more parents selling everything they own to pay ransom for children who aren’t actually being held captive. No more life savings lost to false promises. With this system, families would have a trustworthy source of information, and it would cut off the oxygen to vultures waiting to devour their non-existent resources.

I know there are challenges to making this a reality. We would need to ensure that everyone’s information is private and secure, work with many different countries and organisations, and find

enough funding to build it. But I imagine the impact: we could potentially help thousands of families find closure, gather information to make these dangerous journeys safer in the future, and put names and stories to the numbers we hear about in the news, helping people understand the human cost of the global apartheid system of borders.

I picture the mother who has been calling me for 19 years. I imagine being able to give her an answer that ends her agonising wait. I think of Yafet finally knowing what happened to his wife and daughter, and of all the families I’ve met over the years, trapped in limbo, unable to move forward. While this technology won’t bring back those we’ve lost, it could bring peace to those left behind, honour the memory of those who died seeking freedom, and help us build a world where no family has to spend decades wondering about the fate of their loved ones.

On this International Day of the Disappeared, I dream of a future where we use technology to heal wounds instead of creating new ones. A future where we use our advancements to address one of the most heart-wrenching aspects of forced displacement. A future where we not only provide closure to grieving families, but also prevent their exploitation and create policies that make their loved ones’ migration safer. It is not just a possible future – it is a necessary one that we must strive to create.

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GUANAQUERX

Paula Gaetano Adi

“The machine is only a means; the end is the conquest of nature, the domestication of natural forces by means of a first act of enslavement: the machine is a slave whose purpose is to make other slaves. Such a dominating and enslaving inspiration can coincide with the quest for man’s freedom. But it is difficult to free oneself by transferring slavery onto other beings, men, animals, or machines; to reign over a people of machines that enslave the entire world is still to reign, and every reign presupposes the acceptance of the schemas of enslavement.”

–Gilbert Simondon, *On the Mode of Existence of Technical Objects* (1958)

“So long as we represent technology as an instrument, we remain held fast in the will to master it. We press on past the essence of technology.”

–Martin Heidegger, *Die Frange nach der Technik* (1954)

ABOUT THE WORK

In January 1817, the Andes Revolutionary Army, led by General José de San Martín, executed a monumental operation: 5,200 men and women and more than 10,000 mules and horses crossed the Andes Mountains from Argentina to Chile. More than one third – and possibly as much as half – of the army consisted of enslaved Africans; the remainder were largely mestizos and local Indigenous people. Their mission and goal: freedom. Reaching peaks of over 4,500 metres high and traversing precipices and harsh weather conditions, the crossing of the Andes was one of the most dramatic chapters in the 19th-century struggle for Latin American independence, paving the way to liberate the continent from Spanish colonial rule.



Guanaquerx robot carried by Don Carrozo, one of the mules that assisted in the crossing of the Andes. Photo Pavel Romaniko. Courtesy the artist.



Expedition crew ascending the Espinacito Pass at 4,000 m altitude. Photo Pavel Romaniko. Courtesy the artist.

Two centuries after the original Crossing of the Andes, a different kind of insurgent retraced the same high mountain trail. This time it wasn't a human but a machine – a quadruped terrestrial robot named Guanaquerx, accompanied by an army of artists, engineers, local muleteers, and 58 mules and horses. With mount Aconcagua watching over them, along ancient Incan trails and through lands currently occupied by international mining corporations, they moved with a single purpose: to reclaim the Andes as a site of resistance and reimagine robotics as a tool for planetary liberation.

Guanaquerx is the first robot in history to cross the Andes Mountains. Yet, it is more than an engineering achievement; it is a poetic, political and collective operation. Developed over two years by a transdisciplinary team – engineers from Hyundai's New Horizons Studio, local artisans and Andean muleteers – the robot embodies an alternative cosmotechnics: a technological practice rooted in collaboration and locality, designed to reset our technical imagination and programmed to seek freedom.



Guanaquerx Andes Expedition Crew (2024): Robot Guanaquerx, Paula Gaetano Adi, Alejandro Borsani, Leo Pellegrin, Miguel Grassi, Ramon Ossa, Diego Ossa, Ijlal Muzzaffar, Ohm Vichathorn, Zach Nobles, John Strong, Jordan Rozendal, Berny Garay Pringles, Emanuel Morte, Arturo Delgado, Facundo Bustamante, Priscilla Ybarra, Pavel Romaniko, Tania Aguilera, Hector Jaime, Alexis Jaime, Walter Valdevenite, Emiliano Tello, Horacio Tello, Jorge Pérez, Mario Olivarez, Enzo Vergara, Ricardo Suarez. Photo Pavel Romaniko. Courtesy the artist.

A full-scale exploration rover Guanaquerx was modelled after the guanaco – a native mammal of the Andes – and inspired by the myth of the Yastay, the guanaco guardian of the mountains, son of Pachamama and brother of the wind. Constructed from caña colihue and dressed in Andean textiles, the robot fuses ancestral knowledge with contemporary robotic technologies. It is equipped with multiple payloads, including a multi-vision and sound system that records the sounds and images of the Andes and emits a synthetic *relincho* (neighing sound). Its mechatronic tail beats a traditional Andean drum and waves the flag of the Revolutionary Army of Artificial Liberation (ERLA), and on its chest, a metal plaque bears the *Pluriversal Laws of Robotics* – a radical rewrite of Asimov’s laws, pledging allegiance not just to humans, but to the earth and all its beings.



Guanaquerx robot during pre-expedition performance, San Juan, Argentina.
Photo Pavel Romaniko. Courtesy the artist.



Expedition campground, Valle Hermoso/
Valle de los Patos. Altitude: 2,990 m.
Photo Pavel Romaniko. Courtesy the artist.

Crossing the Andes was no small feat. The journey lasted seven days and nights on horseback. When not riding, the crew repaired and calibrated the robot by hand – coding, tuning, soldering amid the rocky trails of the Andes. *Guanaquerx* is a project about designing and implementing technologies otherwise. At a time when AI and robotics continue to serve exploitation, enable environmental plundering and fuel the drive to colonise worlds, *Guanaquerx* invites us to imagine an emancipatory technological revolution and to reclaim the unfinished project of decolonisation – urging us to make robots our comrades in the struggle to repair our planet, reshaping the future of human-machine-Earth relations.

HISTORY

THE ANDES CROSSING AND THE INDEPENDENCE OF SOUTH AMERICA

GENERAL JOSÉ DE SAN MARTÍN

José de San Martín (1778–1850) was an Argentine general and central figure in South America’s wars of independence. Trained in Spain’s military, he served in Europe before returning to lead the Army of the Andes, securing Chile’s independence in 1818 and, in 1821, entering Lima to proclaim Perú’s independence, where he assumed the title of Protector. His leadership combined strategic brilliance with liberal principles, reflected in sweeping reforms: he abolished servitude, the Indigenous tribute and the Inquisition; freed children born to enslaved mothers; promoted education and public institutions; granted citizenship to all South Americans; guaranteed freedoms of the press; removed colonial symbols from public spaces and supported local production.



José Antonio Flores, *Al Exmo Sor. José de San Martín* (To His Excellency José de San Martín) (c. 1820–1821). Ink on paper. Archivo General de la Nación, Buenos Aires.

CROSSING OF THE ANDES OF 1817

“What does not allow me to sleep is not the strength of our enemy, but crossing these immense mountains.”
—José de San Martín, letter to Guido, 14 June 1816.

From January to February 1817, the Army of the Andes, led by José de San Martín, crossed the Cordillera to liberate Chile from Spanish rule. This was a decisive step in a broader strategy to defeat royalist forces in Lima – the stronghold of the Viceroyalty of Peru, the largest in South America – by advancing along the Pacific coast after Argentina’s independence in 1816. Moving in six coordinated columns from Cuyo, the army traversed passes exceeding 4,500 metres in 21 days, enduring extreme conditions: temperatures from -10 °C to 30 °C, severe altitude sickness, and a lack of settlements, firewood or pasture. Artillery was hauled largely by hand across steep terrain. The campaign culminated in the victory at Chacabuco on 12 February 1817, securing Chile’s independence, opening the Pacific route to Peru, and contributing decisively to the liberation of the southern cone of South America.



Crossing of the Andes map showing the original routes used by the Andes Liberation Army led by General José de San Martín in 1817 (c. 1820). In purple, the route used by *Guanauquex* in the 2024 expedition. Unknown source and author, © Attribution Non-Commercial (BY-NC).



Pedro Maggi (19th century), *Cruce de los Andes* (Crossing the Andes). Oil painting. Instituto Nacional Sanmartiniano, Buenos Aires. Image courtesy Album/AFO/Album Archivo/SuperStock.



Members of the Army of the Andes: artillery officer, mounted rifleman, and member of the Infantry Squadron of Mestizos, Blacks and Mulattos. Reproduced in *Los Uniformes de la Patria*, (1967), Eleodoro E. Marengo. Printed by Talleres Gráficos de la Subjefatura II del Estado Mayor General del Ejército, Buenos Aires, Argentina.

THE ANDES ARMY

San Martín organised his liberation army largely from the poorest sectors of society, without sustained support from the national government of the newly independent Argentina. The army comprised around 5,000 soldiers, supported by more than 10,000 mules and horses. The force included fighters and essential personnel such as muleteers, gauchos, *baqueanos*, and Indigenous experts in Andean terrain. It is estimated that around 40 percent of the army were enslaved Africans; many gained their freedom through military service, receiving official documents of emancipation. About 1,200 combatants were Chilean exiles in Mendoza; the rest were mostly mestizos from the Cuyo provinces. Although women were officially barred, they played a vital role – preparing uniforms, supplies and provisions, and contributing money, jewellery, horses and food. Some also joined the campaign: Josefa Tenorio served as a flag bearer, while others, such as Pascuala Meneses and Martina Chapanay, acted as messengers along the patriot lines.

PEHUENCHES

The Pehuenches were the Indigenous people who controlled the mountain passes. On 10 September 1816, San Martín hosted a historic meeting – known as “El Parlamento” – during which he requested permission to cross their lands and offered them gifts in return.



Reproduction of a polychrome wooden panel conceived by Rosario Vera Peñaloza and executed by Karl Noisternigg, *Parlamento de San Martín con los pehuenches*; artist titled: *La Consulta* (c. 1930). Museo Bernasconi.

TERRITORY THE ANDEAN MOUNTAINS IN SOUTH AMERICA



Bartolomé Mitre. “Historia de San Martín y de la Emancipación Americana”, Tomo I, Lam VII (1890). Public domain.

CORDILLERA DE LOS ANDES

Andes is from the Quechua *Anti*, from *Antisuyu*, the easternmost region of the Inca Empire. The Andes, the world’s longest continental mountain range, stretches over 7,000 kilometres along the western edge of South America, shaping the climates, cultures and histories of the lands they cross. Rising from tropical Venezuela to the windswept tip of Tierra del Fuego, they form a backbone of peaks, volcanoes and high plateaus that tower above 6,000 metres. In Argentina and Chile, the Cordillera marks both a political frontier and a living corridor of exchange, where arid slopes give way to glaciers, high-altitude deserts and fertile valleys. The highest summit, Aconcagua (6,969 metres), is the tallest peak in the southern hemisphere and the highest in the world outside the Himalayas. Just 40 kilometres away lies the Paso de los Patos in San Juan, the crossing used in 1817 by the Andes Liberation Army on its march to liberate Chile. 207 years later, the *Guanaquex* expedition retraced their path.

GUANACO

Guanaco (Spanish); *Wanaku* (Quechua, Aymara); *Yoochn* (Ona); *Luan* (Mapuche); *Nau* (Tehuelche); *Amere* (Yámana).

The guanaco (*Lama guanicoe*) is a wild camelid native to the Andes, related to the llama, vicuña and alpaca, and the largest mammal in South America, living at altitudes of up to 4,000 metres. Its relationship with humans dates back to prehistoric times: its wool was woven into textiles and its hide used for ritual and protection. According to Andean mythology, this relationship is governed by the Yastay – the guardian of animals and protector of the Andes, son of Pachamama and brother of the wind. Often described as a monstrous, otherworldly guanaco – larger and stronger than the rest – he leads the herds, warns of danger with his cry and appears unexpectedly, punishing those who exploit the land.



Guanaco (1960), illustration by Wilhelm Eigener. © Cramers Gallery of Nature.



Guañaquerx as the Yastay (2023).
Illustration by Franco Zacha.

YASTAY

According to Andean mythology, the Yastay is the guardian god of animals and the protector of the Andes. Son of Pachamama and brother of the wind, he cares for and watches over wild creatures on her behalf, safeguarding the herds and ensuring the balance of the highlands. The Yastay is a monster-like guanaco – larger and stronger than the rest – who leads the herd and warns of danger with his neighing call. He appears unexpectedly, bringing death to cruel hunters and protection to those who honour the land: “the god of the mountains, just like Pachamama – because there are two, Pachamama and Yastay. They say they have heard him cry out... and in such lonely places, who else could it be?”¹

1. Folquer, C. (2005). “El Llastay o el dios de las cumbres en la comunidad cristiana de Chaquivil-Tucumán” in *X Jornadas de Alternativas Religiosas en América Latina*, Buenos Aires. Published in *Red NAYa de sitios de antropología y arqueología*.

QHAPAQ ÑAN

For more than 30,000 kilometres, the Qhapaq Ñan is the ancient Incan road system threaded along the spine of the Andes, linking deserts, high plains and tropical forests. Four great routes radiated from Cusco, forming the Tawantinsuyu – the Inca Empire’s four regions: Chinchaysuyu to the northwest, Antisuyu to the east, Kollasuyu to the south and Cuntisuyu to the west. More than just a road network, it embodies an Andean cosmovision of reciprocity, redistribution and duality – a living heritage binding communities to their territories. After the fall of the Inca Empire, San Martín followed a secondary branch of the Qhapaq Ñan to cross into Chile. Two centuries later, the same path would serve once more – this time, for the passage of a robot.

Terence D’Altroy, *Map of the Inca Empire with roads indicated*, Qhapaq Ñan in red, (2002). Featured in D’Altroy, T.N. (2018). “The Imperial Inka Road System: Exploring New Paths”, in *Asian Archaeology* (19 November 2018). © 2018, Research Center for Chinese Frontier Archaeology (RCCFA) and Springer Nature Singapore Pte Ltd.



MINING / EXTRACTIVISM

Who occupies the Andes? Barrick Gold, Shandong Gold, Eris LLC, Belarox Limited, Glencore PLC, Challenger Gold Ltd., Minsud Resources Corp., Lundin Mining, BHP, McEwen Mining, Aldebaran Resources, Orvana Minerals Corp., Pampa Exploración, NGEx Minerals, Casposo Ltd., Austral Gold Ltd., Pampa Metals, AbraSilver Resource Corp., Teck Discovery, Sable Resources Ltd., Olivares S.A., Fortescue Metals Group, Aurora Mining S.A., Turmalina Metals Corp., Mogotes Metals Inc. All these companies operate in the very lands along the route of the Andes crossing, the territory San Martín once fought to free, now fenced, foreign and mined.



Mina Veladero, 30 km north of *Guañaquerx*’s expedition, is Argentina’s largest open-cast gold mine. In 2015, Barrick Gold spilled over one million litres of cyanide, contaminating five rivers in San Juan Province and causing one of the worst mining-related environmental disasters in history. A 2022 Chilean Supreme Court ruling confirmed that nearby exploration at Pascua Lama, located near the Veladero mine, destroyed more than 60% of the surrounding glaciers. Photo Martin Katz/ Greenpeace (2017).

#Salvemoslosglaciares (#Savetheglaciers), Greenpeace campaign against the 2026 congressional reform backed by President Milei that weakens the Glacier Law, allowing mining in glacier and periglacial zones of the Andes. In 2010, after sustained pressure from social movements, Argentina became the first country in Latin America to pass a law protecting its glaciers as strategic freshwater reserves. Photo Greenpeace Argentina (2020).



GUANAQUERX COSMOLOGY TECHNOLOGY, ROBOTICS AND THE MAKING OF GUANAQUERX



MESTIZAJE

Guanaquerx, a technological *ekoko* of sorts – or more than that – a true Andean machine, a *chi'ixi* machine. *Ch'ixinakax utxiwa*: powerful indeterminate entities, neither white nor black but both at once; the law of the included middle. “The emancipated and emancipatory form of *mestizaje*,” thinking with Silvia Rivera Cusicanqui, “the possibility of seeing and inhabiting different worlds at the same time ... A way of being that frees us from the temptation to deny ourselves and find our indian grandmothers who inhabit our blood, to learn from them, and to recover their knowledge, through the landscape, through a different relationship with the world, with nature.”¹ On *Guanaquerx's colihue* cane body, in its wool clothing and vegetable dyes, in its motorised legs, digital eyes and silicon intellect, a genuine process of *créolisation* is taking place – as Édouard Glissant would claim “not merely an encounter, a shock, but a new and original dimension ... Rooted and open, lost in the mountains and free beneath the sea, in harmony and in errantry.”²

“El choque de un alma atrapada entre el mundo del espíritu y el mundo de la técnica a veces la deja entullada.”
–Gloria Anzaldúa, *Borderlands = la frontera* (1987).

1. Rivera Cusicanqui, S. (2018). “Utopía ch'ixi”, interview with Yael Weiss, TV UNAM (3 November), <https://www.youtube.com/watch?v=pHJkCqe2gAk>.
2. Glissant, É. (1997). *Poetics of Relation*. Trans. Betsy Wing. Ann Arbor: University of Michigan Press, p. 34.

Guanaquerx mounted on a mule (2024). Photo Ijlal Muzaffar. Courtesy the artist.

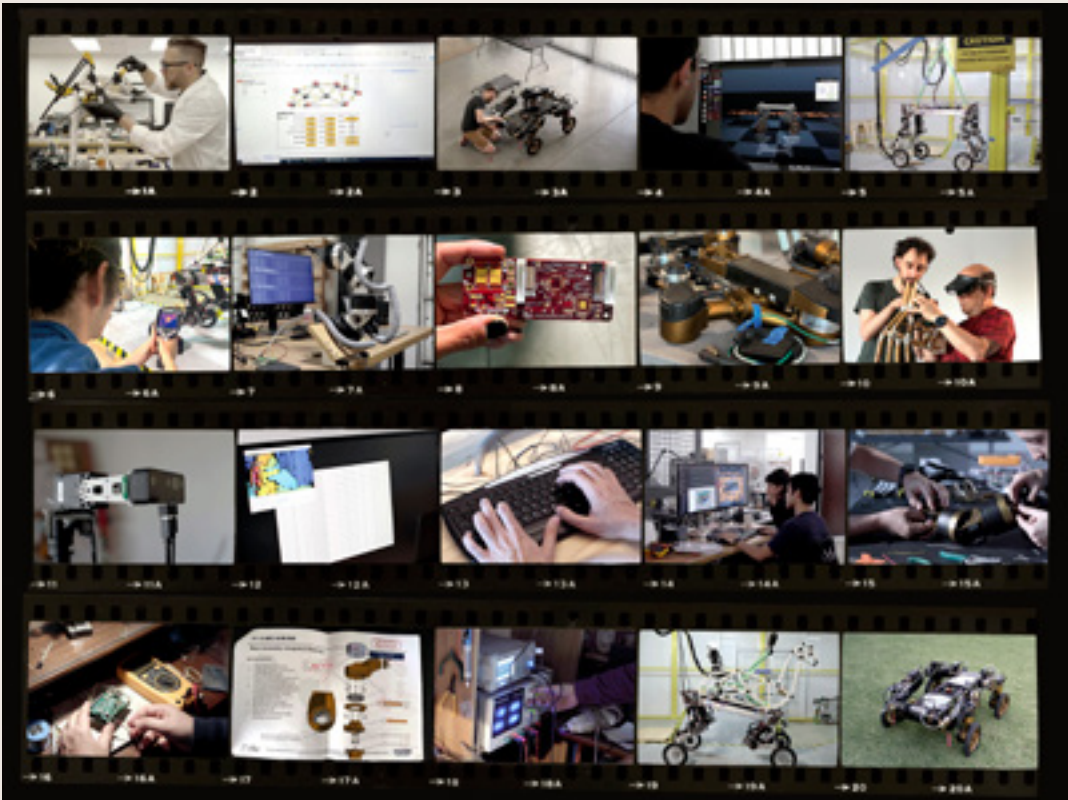
HI-LOW TECH (MAKING)

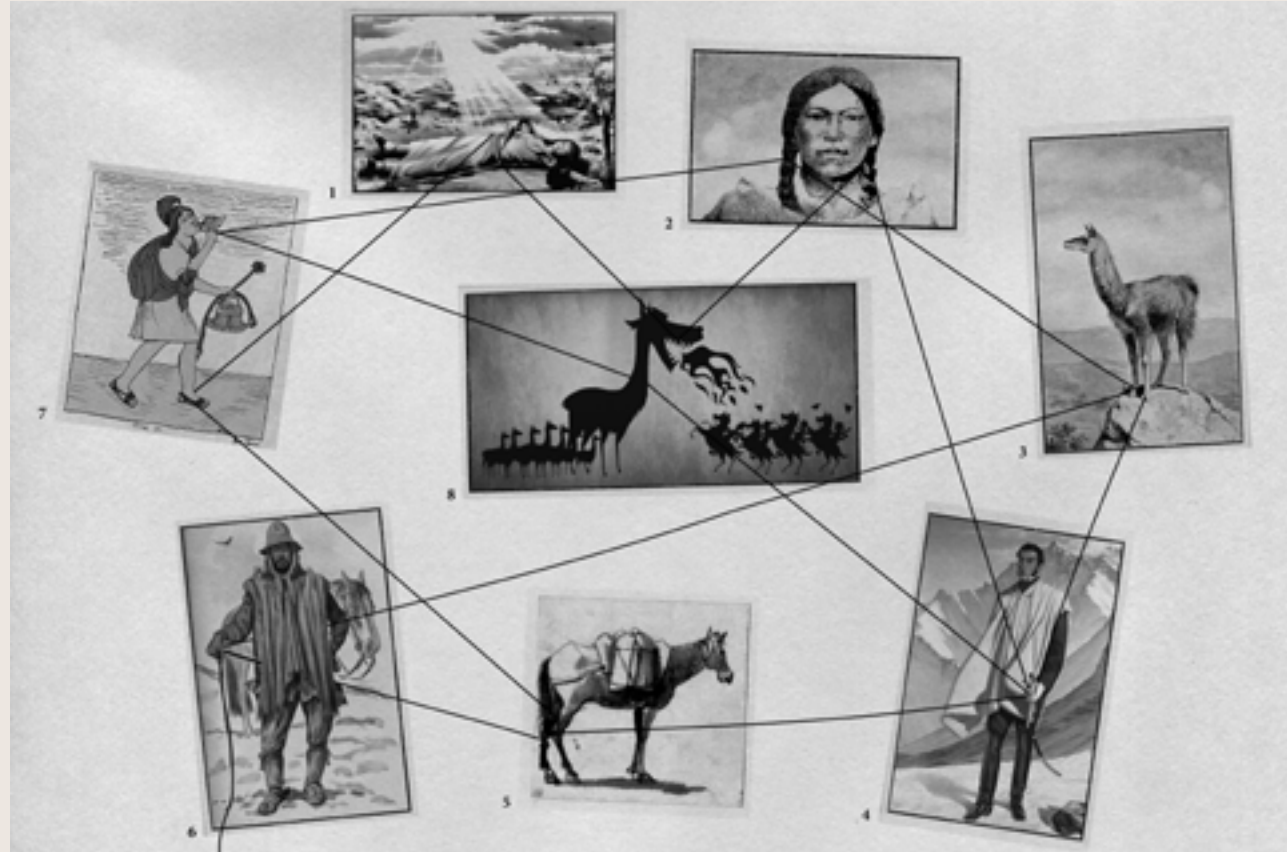
Guanaquerx is, negatively, a moment of interruption; positively, it is a moment of imagination. It is an instance of epistemic performance aimed at refunding an alternative cosmotechnic. *Guanaquerx* is robotics beyond the question of use. *Guanaquerx* is robotics beyond instrumental rationality. A robotic arm transformed into a guanaco tail. A guanaco tail that plays a *chayera* drum and waves the flag of a revolutionary army.



The making of Guanaquerx: artisans at work (2024). Photo Paula Gaetano Adi. Courtesy the artist.

The making of Guanaquerx: roboticists at work (2024). Photo Paula Gaetano Adi. Courtesy the artist.





GUANAQUERX ODDKIN
(IDENTITY)

Making oddkin, generating relatives, unearthing unfamiliar ancestors is not only an exercise of radical imagination but also an act of rebellion determined to change history: the guanaco, the Yastay, the mule, but also the Chaski, the baqueanos, the Difunta Correa, La Martina, and José de San Martín. The shape of an oddkin network is not that of a phylogenetic tree but rather "looks more like a trellis, an esplanade," says Haraway.¹ "You can't tell up from down, and everything seems to go sidewise."² Guanaquer's oddkins, their strange relatives, are the result of the deepest cyborg hybridisation: "articulated string figures of ontologically heterogeneous, historically situated, materially rich, virally proliferating relatings of particular sorts not all the time everywhere, but here, there, and in between, with consequences."³

"Beside phylogeny and ontogeny stands sociogeny."

–Frantz Fanon, *Black Skins, White Masks* (1952).

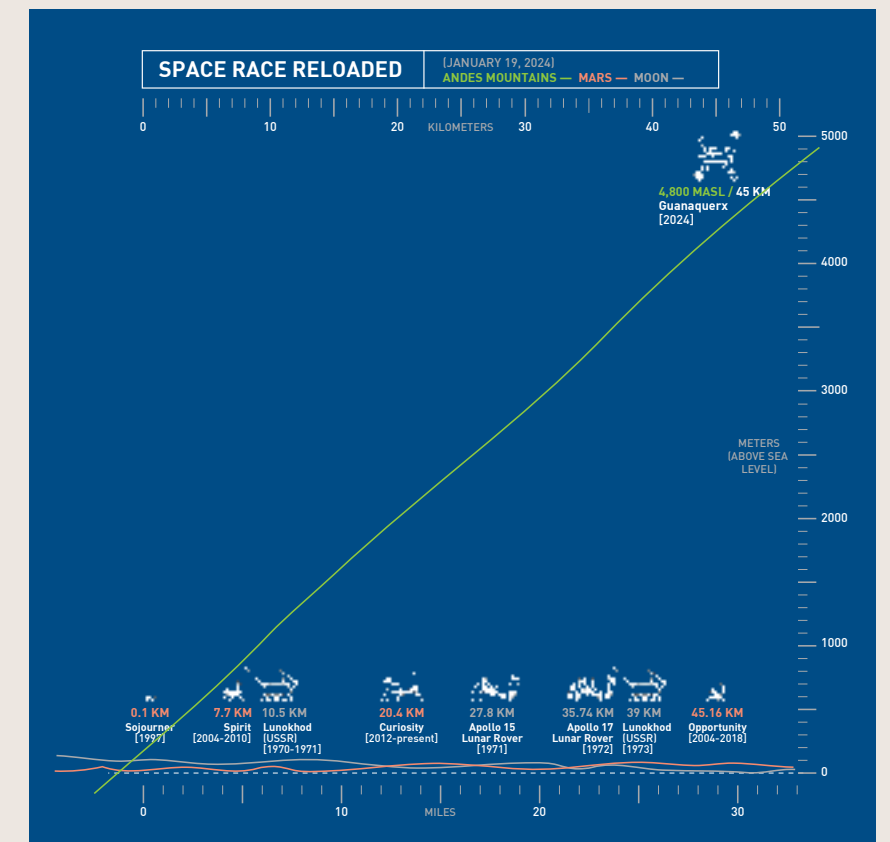
"To make kin means something other/more than entities tied by ancestry and genealogy."

–Donna Haraway, *Staying with the Trouble* (2016).

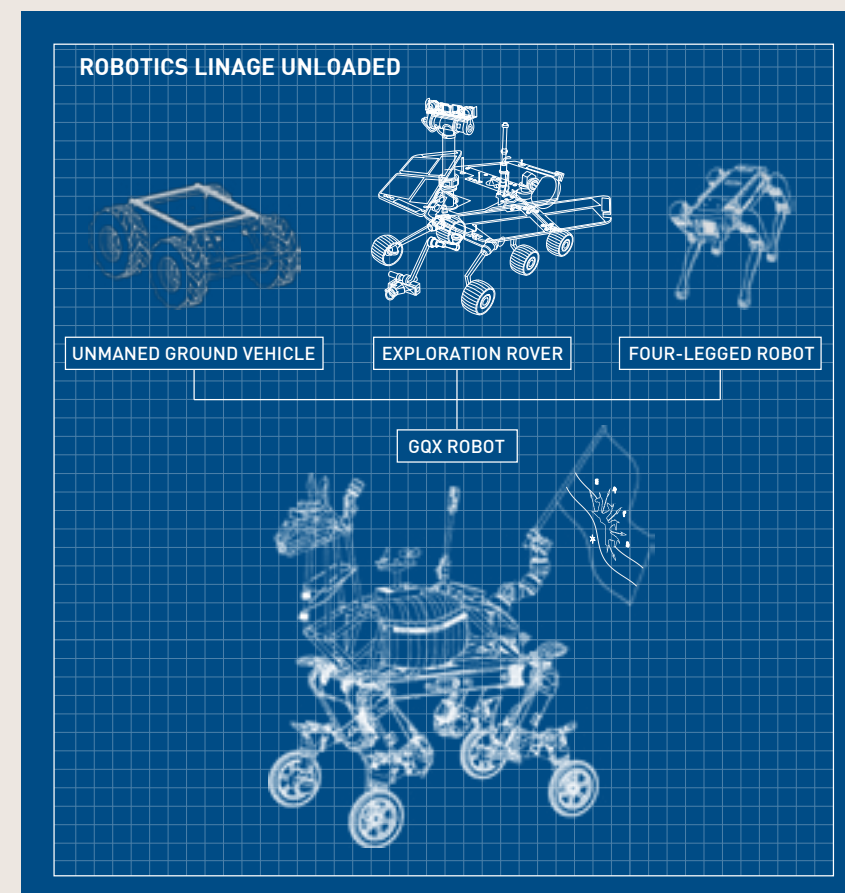
1. Haraway, D. (2003). *The Companion Species Manifesto: Dogs, People, and Significant Otherness*. Chicago: Prickly Paradigm Press, p. 9.
2. Haraway, D. (2016). *Staying with the Trouble: Making Kin in the Chthulucene*. Durham, NC: Duke University Press, p. 104.
3. Ibid.

Guanaquerx Oddkin (string figure) (2024).
Illustration by Verónica Borsani.

TECHNIKÓS ANCESTRY

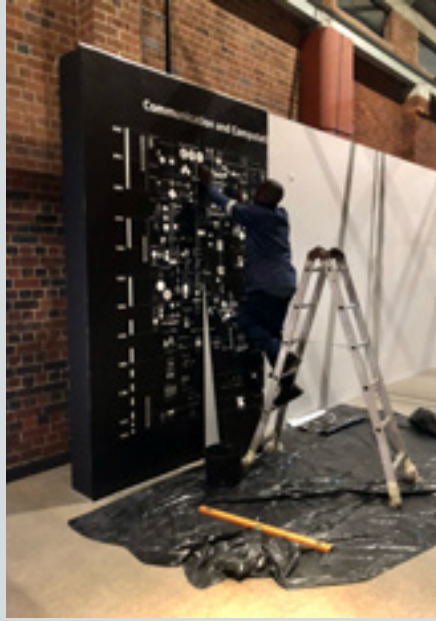
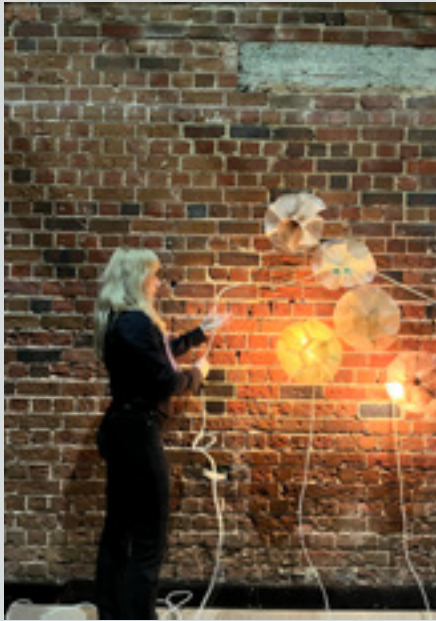
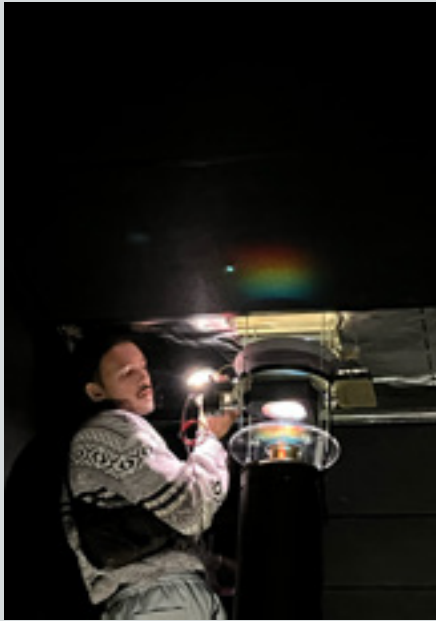
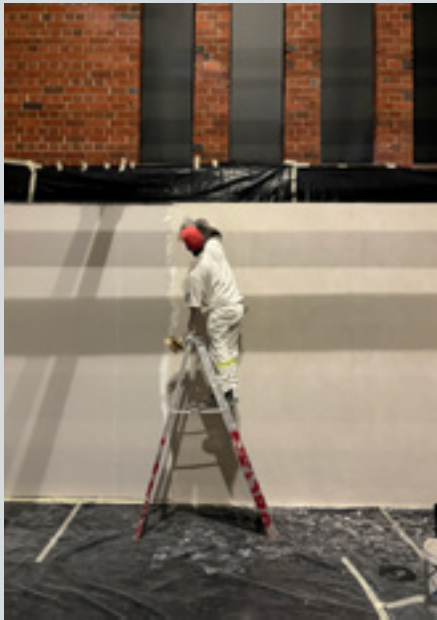


Technikós Ancestry I: Guanaquerx's disowned and renegade robotic technical lineage (2025). Illustration by Verónica Borsani.



Technikós Ancestry II: Guanaquerx's position in the global Space Race next to the exploration rovers of Russia, the United States and China (2024). Illustration by Verónica Borsani.

Installation Process





The Joburg Contemporary Art Foundation is a philanthropic institution combining academic inquiry, a platform for museum-quality exhibitions and an innovative approach to knowledge creation.

Launched in 2020, the Joburg Contemporary Art Foundation (JCAF) is a foundation dedicated to research, technology and art. As a philanthropic institution, JCAF combines academic inquiry, a platform for museum-quality exhibitions and an innovative approach to knowledge production in the Global South. Our ethos is to advance the appreciation of modern and contemporary art through the creation, sharing and preservation of knowledge from the South.

Our exhibitions are curated according to a theme and supported by a public programme that includes lectures, talks, performances, workshops and podcasts. We publish a journal that follows a structured research methodology, and our programmes and publications are offered for free to the public. JCAF is a non-collecting foundation.

We explore the intersection of art, storytelling and technology to create an integrated and immersive experience for our visitors. As a future-oriented institution, JCAF engages with leading thinkers, artists, professionals, scientists and the broader public to build a knowledge community. In doing so, we aim to foster meaningful encounters between visitors and artworks, while promoting intellectual exploration and encouraging collective engagement across disciplines.

BIOGRAPHIES

Etel Adnan (1925–2021) was a Lebanese-American artist, poet and essayist. In 2014, she participated in the Whitney Biennial, New York, and in the same year a retrospective of her work was presented at Mathaf: Arab Museum of Modern Art, Doha, curated by Hans Ulrich Obrist. Since then, her work has been the subject of numerous institutional exhibitions internationally. Adnan's work is held in notable collections including the Centre Pompidou, Paris; the Museum of Modern Art, New York; M+, Hong Kong; the Sursock Museum, Beirut; the British Museum, London; Tate, London; and the Solomon R. Guggenheim Museum, New York.

Cave_bureau, founded by Kabage Karanja and Stella Mutege, is a Nairobi-based collective of artists, architects and researchers exploring architecture as a deep-time earth practice of social and ecological repair. Their work engages the anthropological and geological contexts of African settlements, addressing contemporary rural and urban conditions through research, drawing, storytelling, construction and performative interventions. The collective conducts studies of caves within and outside Nairobi as part of a broader investigation into pre-, post- and neo-colonial spatial conditions. Cave_bureau also collaborates with international schools of architecture through teaching and research initiatives, working to bridge traditional and contemporary forms of spatial knowledge. They co-curated and exhibited on the award-winning British Pavilion *Geology of Britannic Repair* at the Venice Architecture Biennale (2025). Recent exhibitions include the Sharjah Architecture Triennial (2023–2024); the Museum of Modern Art, New York (2024); the Louisiana Museum of Modern Art, Humlebæk (2023); the Venice Architecture Biennale (2021); and the Guggenheim Museum, New York (2021).

Kate Crawford & Vladan Joler are artists, researchers and scholars working at the intersection of technology, society and visual culture. Crawford is a Professor at the University of Southern California, a Senior Principal Researcher at Microsoft Research, and the inaugural visiting Chair of AI and Justice at the École Normale Supérieure. Joler is an academic and researcher whose work spans critical design, data investigation and counter-cartography, with a focus on digital labour, algorithmic systems and networked infrastructures. Selected collaborative projects include *Anatomy of an AI System* (2018) and *Calculating Empires* (2025), the latter receiving the Silver Lion at the Venice Architecture Biennale (2025), the Grand Prize of the European Commission for Art and Technology (2024) and the Boghossian Art Prize (2024).

Merón Estefanos is a human rights activist, journalist and research fellow at the Distributed Artificial Intelligence Research Institute (DAIR). She is a co-founder of the International Commission on Eritrean Refugees and has worked extensively on issues relating to human trafficking, migration and refugee rights, particularly across the Horn of Africa and Europe. Over more than a decade, she has developed an extensive network of testimonies and has played a key role in rescue operations, advocacy and negotiations leading to the release of trafficked individuals. Estefanos is the recipient of several awards, including the Dawit Isaak Prize (2011), and was nominated for the UNHCR Nansen Award (2014). Her work has been recognised by Amnesty International and the Movies that Matter Festival for the film *Sound of Torture* (2014).

Paula Gaetano Adi is an Argentine interdisciplinary artist working in robotics, video and performance. Her practice explores the world-making capacities of technology and art through experimental and speculative approaches. She has exhibited internationally at museums, conferences and art festivals including the National Art Museum of China, Beijing; Matadero Madrid; Lentos Kunstmuseum, Linz; Ars Electronica, Linz; and the Getty Research Institute, Los Angeles. Selected awards include the Creative Capital Award (2023) and the Golden Nica at Ars Electronica in the category of Artificial Life and Intelligence (2025). She currently lives and works between San Juan, Argentina and Providence, Rhode Island, where she is Professor of Experimental and Foundation Studies and Computation, Technology and Culture at the Rhode Island School of Design (RISD).

Bernardo Gutiérrez is a Spanish-Brazilian journalist, writer and researcher. Since 1999 he has been covering Latin America for different media outlets including *Público*, *El País*, *La Vanguardia*, *Esquire*, *La Repubblica*, *El Periódico*, *Der Tager Spiegel*, *Eldiario.es*, *Al Jazeera*, and *National Geographic*. He has directed projects and carried out consultancies for the São Paulo City Council, Madrid City Council, Medialab Prado, United Cities and Local Governments (UCLG), the Reina Sofía National Art Center Museum, the government of Ecuador, OXFAM, among other institutions. He lived in the Amazon for two years and has covered the region since the early 2000s. He is the author of *Calle Amazonas* (Altair, 2010), a chronicle of the Amazon. He has also published *Pasado Mañana* (Arpa Editores, 2017) and *Saudades de Junho* (Liquid Books, 2020); and edited *Junho: Potência das Ruas e das Redes* (Friedrich Ebert Foundation, 2015), *Future Democracies* (Medialab Prado, 2019) and *StoryCracia* (Medialab Prado, 2020).

Kamil Adam Hassim (1997–) is a transdisciplinary artist and researcher working at the intersection of art, science and Indigenous knowledge systems. His practice explores how unseen physical, cultural and social forces are mediated and made perceptible through instruments, environments and networked systems. His work draws on cosmology, particle physics and radio astronomy to develop installations and hybrid instruments that translate complex processes into embodied experiences. Hassim has undertaken residencies at major scientific institutions, including CERN, the South African Astronomical Observatory, the Southern African Large Telescope and the Square Kilometre Array. He is the founder of L-Infinity, a Southern African research platform supporting collaboration across art, science and technology.

Traci Kwaai is a sixth-generation Kalk Bay Fisher Child. She is a story keeper, decolonial ocean historian and social and ecological activist. Her work explores belonging and community through the voices of local fisher and other displaced Kalk Bay communities. By engaging with both elders and youth, Kwaai seeks to weave together the rich tapestry of histories, memories and experiences that define Kalk Bay, a fishing village with rich and complex cultural roots.

José Ignacio Latorre is the Director of the Centre for Quantum Technologies in Singapore, Provost Chair Professor at the National University of Singapore and the Program Director of the National Quantum Processors Initiative. He has a PhD in elementary particle physics and has worked extensively in quantum field theory, particle phenomenology, quantum information, quantum computing and artificial intelligence. His outreach activity includes the writing of five popular books and one theatre play, curating exhibitions and producing two documentaries. He co-founded the quantum computing company Qilimanjaro Quantum Tech.

Ernest Mancoba (1904–2002) was an avant-garde artist who worked in sculpture, painting, drawing and printmaking. Born in South Africa, he left for Paris in 1938. After World War II, he and Sonja Ferlov, by then his wife, moved to Denmark. Five years later, the family returned to France, eventually re-settling in Paris in 1961, where Mancoba lived to the end of his life. Mancoba’s work represents a unique synthesis of modern European art and African spirit. Having lived through some of the most traumatic periods of the 20th century, he believed that art could help us find common ground and reflect the *ubuntu* philosophy he often referred to: that one’s humanity is tied to the humanity of others. Solo exhibitions of his work have been presented at the São Paulo Art Biennial (2025); Centre Pompidou, Paris (2019); Iziko South African National Gallery, Cape Town (1995); the Johannesburg

Art Gallery (1994); Københavns Kunstforening (Kunstforeningen GI Strand), Copenhagen (1977); Fyns Stifts Kunstmuseum (Fyns Kunstmuseum), Odense (1977) and Silkeborg Kunstmuseum (Museum Jorn) (1977) among others. His work is in notable collections such as Tate Modern, London; Centre Pompidou, Paris; the National Gallery of Denmark, Copenhagen; Fonds National d’Art Contemporain, Paris; Moderna Museet, Stockholm; the Johannesburg Art Gallery; and Iziko South African National Gallery, Cape Town.

Georgia Munnik (1990–) is a visual artist, self-taught perfumer and pedagogue. She is currently pursuing a bilateral PhD in Visual Arts at the University of Stellenbosch and Hasselt University, Belgium. Working between South Africa and Belgium, Munnik is a sessional lecturer in the University of Stellenbosch Visual Arts Department, for which she developed the art history course, *Re Scentualising the Museum: Telling History to the Senses*, while also working from the Open Senses Lab at PXL-MAD School of Arts at Hasselt University, where she is developing her perfumery practice under the supervision of Peter de Cupere. She has undertaken residencies in Basel and Copenhagen and exhibited in South Africa and internationally. Recent presentations include the Investec Cape Town Art Fair (2026); WHATIFTHEWORLD Gallery (2026); and a solo exhibition at the Rupert Museum, Stellenbosch (2025–2026) following her receipt of the Rupert Museum Social Impact Art Prize (2022). Her work was acquired by Amazon Africa Headquarters (2024). Munnik launched her debut commercial perfume *PHENOTYPE* in 2024. Her second olfactory creation *SPORRA* was released in June 2026. She continues to work on her sculptural and olfactory studio practices as a daily form of material and sensory meditation, concurrent to her PhD research and teaching.

Rebecca Potterton (1996–) is a freelance illustrator based in Johannesburg. She has a BA (Honours) in History from the University of the Witwatersrand (2020). In her capacity as illustrator and researcher for Counterspace Studio, Potterton illustrated for *Architecture’s Now, Near, and Next* published by the Solomon R. Guggenheim Museum; the Serpentine Pavilion, London (2021); and the installation *After Image* by Sumayya Vally/ Counterspace as part of *Liminal Identities in the Global South*, JCAF (2021). She was commissioned to create the graphic murals for the *Worldmaking* exhibitions, **Ecospheres** (2024) and **Structures** (2025), and the series of illustrations, *Remembering Tomorrow* (2026), which appears in the *Reverse Futures Reader* and exhibition handout.

Yinka Shonibare (1962–) is a British-Nigerian artist whose interdisciplinary practice explores race, class and cultural identity through engagements with Western art history, literature and globalisation. He studied Fine Art at Byam Shaw School Art and received his MFA from Goldsmiths, University of London. Shonibare was nominated for the Turner Prize in 2004, and has since presented major exhibitions internationally, including a mid-career survey at the Museum of Contemporary Art, Sydney (2008) and the Brooklyn Museum, New York (2009). He was elected a Royal Academician in 2013 and awarded a CBE in 2019. Shonibare was awarded the prestigious Whitechapel Gallery Art Icon Award in 2021. A major retrospective of his work opened at the Museum der Moderne, Salzburg in the same year followed by his co-ordination of The Royal Academy Summer Exhibition. Recent projects include solo exhibitions at the Serpentine, London (2024), and Fondation H, Madagascar (2025), as well as participation in the Venice Biennale (2024). His work is held in major collections worldwide, including Tate, London; the Victoria and Albert Museum, London; and the Museum of Modern Art, New York.

Wolff Architects is a design studio concerned with developing an architectural practice of consequence through the mediums of design, advocacy, research and documentation. The Wolff team is led by Ilze and Heinrich Wolff who work collaboratively with a group of committed and engaged architects, creative practitioners and administrators. Heinrich Wolff has received many awards including the Daimler Chrysler Award for Architecture (2007) and the Lubetkin Award (2005). In 2011 he was elected Designer of the Future by the Wouter Mikmak Foundation. Ilze Wolff has a Master of Philosophy in Heritage and Public Culture from the African Studies Unit, University of Cape Town. She co-founded Open House Architecture in 2007, a transdisciplinary research practice which she continues to direct parallel to Wolff.

Research Theme
Worldmaking

Exhibition III
Reverse Futures
26 June – 5 December 2026
Curated by Clive Kellner

Artworks
Kate Crawford and Vladan Joler
Calculating Empires: A Genealogy of Technology and Power since 1500 (2023). Large-scale visual installation. Courtesy the artists.

Section 1: Space
Yinka Shonibare
Refugee Astronaut X (2024). Fibreglass sculpture, Dutch wax fabric, net, possessions, astronaut helmet and moon boots. Courtesy Collection Fondation H.

Etel Adnan
Satellites 27 (2020). Oil on canvas. Private collection.

Kamil Adam Hassim
Event Horizon (2026). Cosmic detection instrument. Courtesy the artist.

Section 2: Time
Ernest Mancoba
Untitled (1971). Oil on linen. Private collection.

Cave_bureau
Shimoni Slave Cave (2022–2023). 1:1 Kagome hand-woven installation in rattan. Courtesy Cave_bureau in collaboration with the Chair for Biohybrid Architecture, Royal Danish Academy.
Shimoni Slave Cave (2026). 3D-printed plastic 1:100 scale architectural model, gold paint. Courtesy Cave_bureau.
Anthropocene Museum 2.0: Shimoni Slave Caves (2021). Video. Courtesy Cave_bureau.

Section 3: Place
Georgia Munnik
Concrete Jasmine (2026). Bespoke olfactory scent. Courtesy the artist.
The Strangling Fruit (2026). Resin, Hario filters, black obsidian and citrine crystal shards, lemon verbena tincture, tree moss tincture, synthetic cannabis raw material (scent molecules), oxidised copper residue, copper pigment, gold pigment, brown shimmer eyeshadow, coffee residue, honey and rose fermentation residue, saffron absolute, dragon pea flower tea and thyme essential oil, oxidised brass lamp fitting and unique hand-cast lamp holders. Courtesy the artist.

Paula Gaetano Adi
Guaniquerx (2024). Robot, video projection with sound, archival research material and wall graphics. Courtesy the artist.

Traci Kwaai
Fisher Child (2025). VR Installation. Courtesy Traci Kwaai in collaboration with Kyle Marais and Lo-Def Film Factory.

Special Projects
Wolff Architects
Reading Room (2024).

Rebecca Potterton
Remembering Tomorrow (2026). Illustrations.

Special thanks to
The artists, their studios, galleries, estates and collaborators: Galerie Lelong, Galerie Mikael Andersen, Goodman Gallery, WHATIFTHEWORLD, the Estate of Etel Adnan, the Ferlov Mancoba Foundation, Chair for Biohybrid Architecture Royal Danish Academy, Kyle Marais and Lo-Def Film Factory; and the lenders for their generous support of the exhibition: Fondation H and private collections that wish to remain anonymous.

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