

ARTE EN ÓRBITA

Post-colonial space exploration at the Equator - 2015

"volveré y seré millones!!

tupak katari

Arte en Órbita (Art in Orbit) is an exhibition curated by Pedro Soler and Fabiane Borges that was first shown in the Centro de Arte Contemporaneo de Quito in Ecuador from the 7th of March to the 6th of June of 2015. The exhibition, with over 30 groups and artists participating, focusses on subaltern or peripheral space exploration from the ancestral to the contemporary, from art experiments to launching satellites. The participants are principally from South America but projects from Africa, Asia and Europe are also featured.

Our contemporary imaginary of space has been dominated by the space race and the cold war of the twentieth century, super powers and menacing aliens. This exhibition seeks to reappraise this imaginary in the light of postcolonial thinking, open software and hardware, the anthropocene and art, because how we see space is how we see ourselves.

This intimacy of space and earth, the overview effect felt by many astronauts, is a continual thread throughout the exhibition and already appears in the first works of the exhibition, 3 reproductions of Simone Chambelland's seminal 1970 space prints. In two of them we see enigmatic missile or rocket like forms floating above the earth, in the third, entitled "University of Space, we see a space station covered with antennas, announcing another theme of the exhibition, the antenna, the ability to listen and observe, key to our relationship with space.

Simone was a French artist who emigrated to Chile in 1939 and died there in 2013. The print was an important technique in this period for a whole generation of South American artists, generally from the Left, who sought to step out of the privileged world of fine arts and assure that their art arrived to the people. The workshop was a fundamental place for both

production and meeting, like Taller Rojo in Bogotá, Colombia, and Taller99 in Santiago de Chile where Simone Chambelland created these pieces. This DIY and popular ethic is also a constant presence in the exhibition, the reclamation and appropriation of space as a commons and the Overview Effect for everybody.

Haiku A Gaia is the first of two works in the exhibition by the Mexican Arcangel Constantini, its an old decaying globe that is being bathed in electromagnetic pulses from a parabolic antenna, their form and frequency generated by a text to voice software reading haikus. Between the earth and the antenna is a mist of water generated by sound. Its a mistreated earth suffering from global warming and political and economic regimes that are unable to change. The Anthropocene is the geological age that we are living in, where the effects of humans are the most powerful force in modifying the earth. This age is full of dangers and the necessity for change. The overview effect permits us to think the earth in another way, but this thinking seems so far from the economic and social realities that surround us.

It is from observation and listening that we can build our relation with the cosmos and nowhere is this clearer than in the pre-colombian civilisations of the Andes. In the area of Quito, especially in Cayambe where the equatorial line passes, many ancient architectural formations can be found, aligned with solstice and equinoctial positions of the sun. The work of Carolina Ibarra "Kunan Skywatcher" opens the section of the exhibition that we call "Escucha" (Listening) but it could also be called Observation or Connection. The section starts with Ibarra's work, based on a precolombian solar observatory from Cayambe depicted in an 18th century engraving by Juan de Olloa and continues with the Artisanal Kosmic Drawer by the Brazilian artist Denise AlvesRodrigues, a dispositive made of bamboo to draw one's own maps of the stars, and 13 sculptures by the Ecuadorian artist Felipe Jacomé, burnt trees that look up at the sky, searching for the overview from a dying planet, or observing the movement of the stars as we have for millennia.

Today an antenna is the obligatory interface with the celestial beings we call satellites and if they seemed remote and unobtainable in Chambelland's images the videos by Foco Critico from Colombia and Bruno Vianna from Brazil show them in a completely different light, home-made from recycled parts, based on the physics commons of waveforms and frequencies, they can be built by anyone. This challenge to technological hegemony, the appropriation of the radio waves and the fight against imperial dispositives is central to

Alejandro Duque's work. Originally from Medellín and now living in Switzerland, Alejo is a founding member of the *Movimento Sem Satelites (MSST)* and one of the leading exponents of the anti-launching wing of this movement, split between those who are in favor of launching a satellite and those who are not, arguing that space is already full of artefacts - thousands and thousands that float in orbit around the planet - better to hack what is there, penetrate security systems and occupy radio space. His sound piece "You'll never be an astronaut" is a homage to radio and its position as principal mediator between humans and space, and thus an ideological and technical battleground.

The first country to launch a satellite was the Soviet Union in 1957 with the Sputnik. It circled the earth approximatively 1400 times before falling, 92 days after its launch and burning up. It was a sphere of aluminium, 58 cm wide with 4 antennas of 2.4 and 2.9 length. The same dimensions as Simon Vega's version, which appropriates the form and the material of the Sputnik but the sphere is made of pieces of aluminium from beer cans and the antennas are bamboo. The 3rd World Sputnik is part of the El Salvadorian artist's *Tropical Space Proyectos*, a series of historical space craft made from trash, and an imaginary space agency, where these trash constructions appropriate the imaginary of space power. As curator Fabiane Borges writes in one of the curatorial wall texts that accompanies the exhibition :

"Imaginaries and symbolic appropriations function as tools for the struggle and for the affirmation of territories. There is always outer space for the dispossessed and the cultivation of empowering technologies and poetics. In the articulation between peripheral cultures, blacks, indigenous, feminists, gender and body diverse, the figure of the alien appears as an ally in this process of searching, for recognition and autonomy. Satellites and spacesuits made from rubbish, home made precarious space craft, are a political critique, appropriations of the codes of the dominant cultures, assuming the imagination as an extremely real intervention in the codes of the intelligibility of society."

The question of the affirmation of a territory through the imaginary of space travel or exploration is most explicit in the projects of Che-Wan and Palestinian Space Agency. Che-Wan is the proposed satellite for a new country called Cubec that the Rhinoceros party of Canada is seeking to create through the fusion of Quebec and Cuba while the Palestinian Space Agency arose as a space of possibilities in the almost completely blocked reality of life

in Palestine. The PSA, currently represented by Aisha El-Salous, began as an art project with the Swiss artist

Gilles Fontollet but then Aisha was appointed First National Point of Contact of the State of Palestine by the Space Generation Advisory Council, a United Nations advisory body. As she writes :

"When I received the letter from the executive council that approved my application I was amazed and happy at the same time because I am representative and co-founder of the Palestinian Space Agency, and it confirmed my belief in this as a real agency more than an art project. It makes me more powerful to keep going forward despite the life in refugee camps that make dreams of us as human beings broken, hopeless, looking for a job, for food, for a land, looking for the sky for movement for freedom. This appointment opened a great doors to the youth of

Palestine to contribute in science and learning the art of building the satellite, I hope one day to see a real Palestinian satellite moving in orbit to discover outer space."

These projects open the section of the exhibition centred on Agencies, understood both in terms of Space Agency and to have Agency, that is the capacity to act on the world. The African Space Research Program, also part of this section and headed by Chris Nsambe, is working towards nationalist space participation, for Uganda and Africa. His tireless work combines technological experimentation and building space vehicles with political lobbying in continual precarity. Like VUFOC from Indonesia and Pilar Quinteros from Chile, the group is also fascinated by aliens and UFOs, indeed ASRP was originally founded in the hope that the first discovery of extraterrestrial life would be African. Leila Lopes, a black womans activist from Brazil and explicitly inspired by afrofuturism (the appropriation of future narratives for black realities), imagines in her photo compositions the possibility of an escape from earth and the return to the original black planet with a spaceship body, ancestral African knowledge, breasts like moons and the yearning for a lost world. Similarly La Oficina de Asuntos Extraterrestres from Bogotá, Colombia mix practises of the indigenous peoples of Colombia with 20th century space flight, exorcising the American moon landings and explicitly linking ancestral practises with contemporary technologies and imaginaries in what we could, maybe, name as ancestrofuturism.

The Kongo Astronauts, based in Kinshasa, DR Congo, explicitly refer to afrofuturism and postcolonialism when they describe their practise. The Congo is a country that has been viciously colonised and is now the main world source of coltan and a wide array of other precious metals and minerals that are fundamental for the 21st century global civilisation while the majority of the population is submerged in poverty and war. In their videos and photographs we see an astronaut, in a spacesuit made of recycled materials, making unexpected appearances in popular neighbourhoods, or in the forest. The video that is shown in the exhibition, "Postcolonial Dilemma Track 3", shows our astronaut trapped in barbed wire, a monkey appears, and then he is walking through the forest, he seems to be exploring, sensing. Its not clear if he is an alien visitor or an exile returning from a journey of light years to a familiar but unknown world. It has often been said that science fiction narratives can have a special sense for those who have experienced the radical displacement of slavery or colonial regimes, and thus it becomes a laboratory of postcolonial thought and action.

When the exhibition was being set up and it was the moment to send the material the internet was cut in the Congo and it was impossible to send anything. The Kongo Astronauts suggested that we look for a painter in Quito who could effectuate this teletransportation equatorial, inspiring themselves in the world of the KA. The translation of KA from Kinshasa to a canvas in Ecuador, painting a portal where we see the Astronaut stepping in to the chakana, the Andean cross that represents the Andean cosmovision and its relation with the solstices y equinoxes.

Amongst the over 30 groups and artists from Latin America, Africa, Asia and Europe that participate 6 of them belong to equatorial nations, reactivating the Bogotá Declaration signed by 6 equatorial nations in 1976 to demand territorial rights over the geostationary orbit above their territory. Declaration that was roundly ignored by the international community but was rediscovered and investigated by Alejandro Duque and space investigator and artist Joanna Griffin, author of some of the most interesting contemporary satellite and space research, who includes in the exhibition her interpretation of the Declaration through exercises with chalk and stones to help us imagine it. And yes, really, the Instituto Espacial Ecuatoriano (IEE), part of the Armed Forces, has declared its support for geostationary orbital sovereignty and in the constitution of Colombia the geostationary orbit (38 000 km) is included in its national territory. Maybe the African-Latin American summit of 2016 in Quito could be a critical moment to reactivate the Declaration and herald a new era of horizontal collaboration.

Cristobal Cobo at least would be happy. He is one of the principal experts in astroarchaeology, tracing the celestial alignments of precolombian constructions and directs the Quitsato project in Cayambe, an hour from Quito, that takes care of a solar observatory situated exactly on the Equator. A guided visit was part of the Observatories workshop that accompanied the exhibition (as well as a satellite and antenna workshops) that consisted in visits to ancestral and contemporary observatories, including a satellite ground station abandoned by NASA in the 80s and currently recuperated by the IEE. Cobo explains that our view of the world with north above and south below is false in relation to the sun, in fact the earth is orientated east-west (that's why the sun rises and sets in these directions) and that this vision could have profound implications for our view of the world, replacing the imaginary of the equator north-south divide with an east-west union.

Cristobal is one of a trilogy of Ecuadorian space experts included in the exhibition, the others are UFO expert Jaime Rodriguez, a famous figure in Ecuador for his television series and tireless work communicating and researching the UFO phenomenon, and Ronnie Nader, the only Ecuadorian NASA astronaut and director of EXA, the Ecuadorian Civil Space Agency that recently launched the Pegaso and Krysaor microsateletes. Ronnie is an unwittingly comic figure (actually they both are), completely absorbed in his role as Space Commander and known for his machismo and exaggerated nationalism, but the imagery and discourse that EXA has developed places it firmly amongst the most interesting agencies, blurring the line between imaginaries and technology. Yes I Can, Ronnie shouts out loud in response to a space age remix of Spivak's fundamental question, "Can the subaltern speak?".

Ronnie Nader's EXA opens the third and last section of the exhibition devoted to the fine art of launching satellites, like *Ulises I* the Mexican satellite/art program, and building rockets, like *Copenhagen Suborbitals*. There's something about masculinity and rockets that seems confirmed here by the scarcity of women in this area of the exhibition (with the notable exception of Remi Hoefmueller, sound artist and radio activist, from the *Mur.sat* collective in Austria), even if it's a more ambiguous masculinity like Hong Sojun's, the young Korean artist and designer behind the delightful *Open Source Satellite Initiative*. Co-curator and rocket enthusiast Fabiane Borges contributes a fascinating video interview with Peter Madsen, co-founder of the *Copenhagen Suborbitals*, the only non governmental and non military group that we know about doing serious open source rocket research and testing. Launching rockets is the really problematic part of space exploration, getting out of gravity is dirty, as Rob La

Frenais and Kerry Doyle with Tomas Saraceno and his Aerosolar balloon at White Sands National Monument (New Mexico) show :

"Climate change caused by black carbon, also known as soot, emitted during a decade of commercial space flights using hybrid engines would be comparable to that from current global aviation. A 2010 study published in *Geophysical Research Letters* simulated the impact of 1,000 suborbital launches of hybrid rockets from a single location, calculating that this would release a total of 600 tonnes of black carbon into the stratosphere. .. This unbalance would cause the temperature to decrease by about 0.4 °C in the tropics and subtropics, whereas the temperature at the poles would increase by between 0.2 and 1 °C. The ozone layer would also be affected, with the tropics losing up to 1.7% of ozone cover, and the polar regions gaining 5-6%."

If we want to listen to the satellites that are already up there then we need a map and this is precisely what the software GPredict does, showing us the location, inclination and radius of reception of open satellites on a world map. Lucas Carruba first intervened the software for his work *Sonando Satelites*, translating satellite data to sound, that was developed in the hacker workshop *Orbitando Satelites*, organised by *Plataforma Cero* in *LABoral Art Centre* in 2011. In this new version created for the exhibition he includes, as well as the standard "real" satellites, all the space vehicles that are shown in the exhibition so that all the agencies have their satellite in orbit. Undermining the veracity of the map or engineering it's capacity to generate reality, even if its only a little bit, or, as President Correa mentioned to Ronnie Nader on the launching of Pegaso "its very small, but its a start".

Bolivia's satellite, *Tupak Katari*. A 5 ton commercial telecommunications satellite bought and launched from China in to geostationary orbit above the mountainous country, bringing previously inconceivable national communications coverage. The art and publicity campaign for the project is also totally ancestorfuturist, explicitly connecting ancestral spiritual themes with satellites and space travel. The satellite is named after *Tupak Katari*, an important leader defeated the struggle against Spanish colonisation, and takes as one of its slogan his famous cry as he was dismembered "I will come back and we will be millions". This idea of return runs through the cosmovision of the Andes where time is cyclic and balanced and thus the satellite becomes a new leader to fight against colonialism, but now as millions, the whole Bolivian nation united by the satellite and Evo Morales, the first indigenous president. Ancestral

cosmovision meets contemporary satellite technology generating new intercultural mythologies and plurinational commons. Critics accuse the program as pure propaganda and manipulation of imaginaries by a state intent on perpetuating itself in power, although nobody can deny that it works.

Considerably more speculative but no less visionary is Arcangel Constantini's SIMS project that closes the exhibition, the prototype of a satellite that would bathe the earth in the AUM mantra converted into electromagnetic waves. Basing his investigation on Tibetan prayer wheels and the electromagnetic discoveries of Tesla and Faraday, Constantini proposes an orbital happy ending to the nightmare situation he depicted at the beginning of the exhibition in Haiku-A-Gaia, merging spirituality and technological progress for a world in harmony and balance where everybody has the Overview Effect.

I would like to express my heartfelt gratitude to the Association of Autonomous Astronauts (AAA), for being pioneers of people's space travel back in the 1990s, and the Movimiento Sem Satelites (MSST), a 21st century alliance of activists, ancestorfuturists, performance artists and space investigators, for their inspiration, participation and diversity. And of course to all the wonderful people who contributed to make the exhibition a laboratory for the elaboration of ancient and new kinds of agencies and visions.

Hasta el infinito y mas allá !