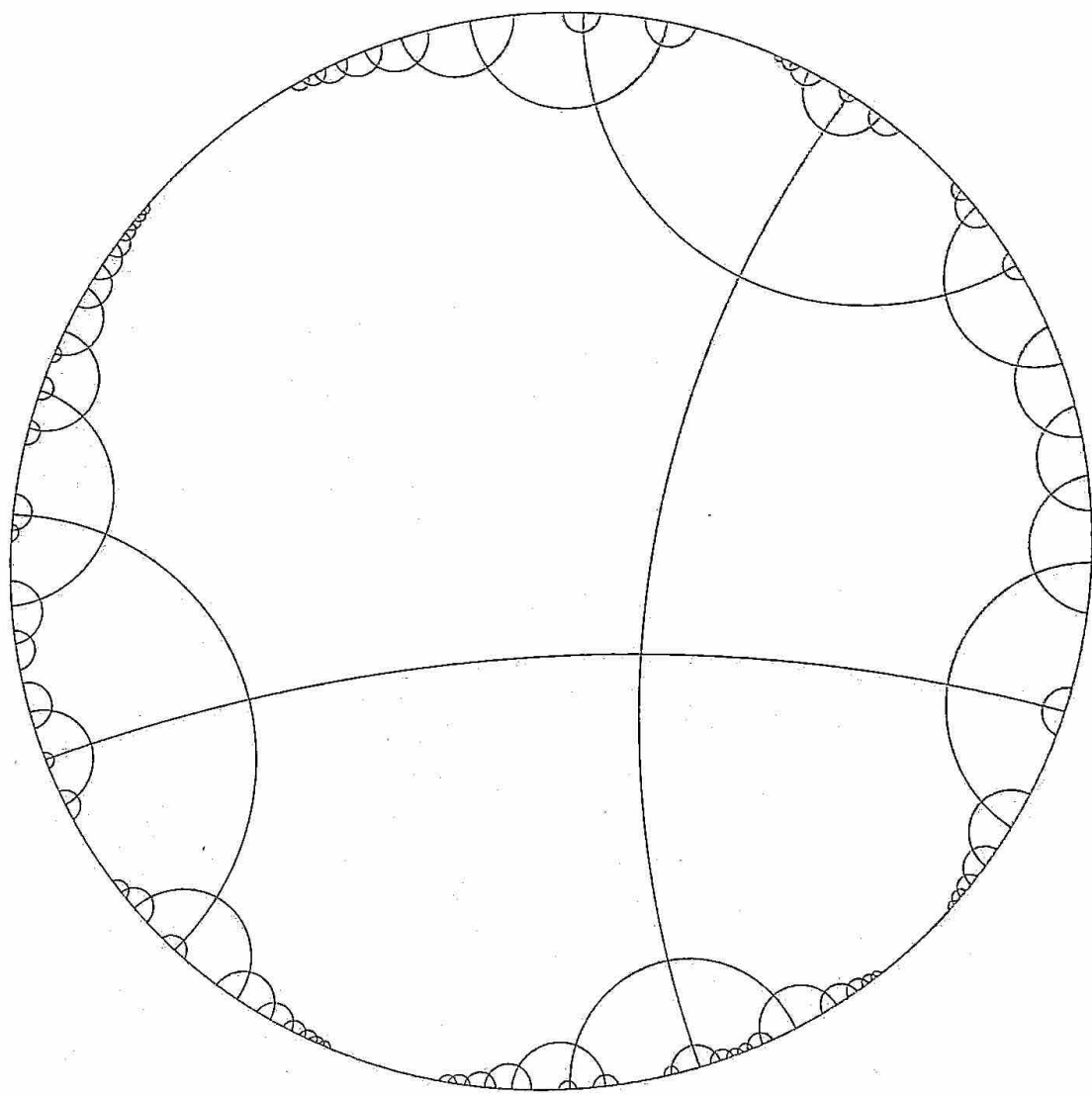


Pamela Prado
Pedro Ignacio Alonso [eds.]

Cycles

Trienal de Arquitectura de Lisboa

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Pamela Prado
Pedro Ignacio Alonso [eds.]

Cycles.

The architects who
never threw
anything away



9

Cycles.
The architects
who never threw
anything away

Pamela Prado &
Pedro Ignacio Alonso

17

**Biogenic construction:
Thatched building façades
for the green transition**

CINARK - Center for Industrialised
Architecture, Institute of
Architecture and Technology,
The Royal Danish Academy

21

The man who never
threw anything away
(c. 1977)

Ilya Kabakov

29

**The (in)visible traces
of the landscape**

École nationale supérieure
d'architecture de Versailles
(ENSA-Versailles) de l'Université
Paris-Saclay, France

33

Material world:
The global supply chains
of construction materials

Charlotte Malterre-Barthes

37

**Maloca:
Cultural centre for the
Ticunas in Amazonia**

Sebastián Contreras Rodríguez
Estación Espacial Arquitectos

41

Four films scripts from
a material world

– **Brick: Uneven geographies**

Marija Barovic
& Elsa Mendoza Andres

– **Wood: Death and Life
of Great Tropical Timbers**

Chris D'Amico

– **Steel: Iron Tail, Iron Tale**

Elif Erez & Shira Grosman

– **Concrete: The Politics
of Displaced Mass**

Kari Roynesdal

49

Corked

Diploma 18 / Architectural
Association: James Westcott,
Aude-Line Duliere, Amaya
Hernandez & Nena Aru, with Arne
Vande Capelle, Rotor

53

Patrick Hamilton
The Red Greenhouse

David Barro

59
Transfigurations

Jorge Ambrosi &
Gabriela Etchegaray

61
**Architecture as
prototyping**

BC architects & studies
& materials

71
**Logbook: Illustrated
strategies for use and reuse**

Bellastock

75
Weave

Joana Rosa in conversation with
Pedro Ignacio Alonso

85
**ReCreate:
Reusing precast concrete
for a circular economy**

ReCreate. Erik Stenberg
& Satu Huuhka

89
Falca

Lara Almarcegui
in conversation with
Pamela Prado

97
**Community kitchen in
Bairro Terras da Costa**

Ateliernob/ Working with the 99% &
Warehouse Collective

101
**Chronicles from
extraction to demolition**

Ruinorama Collective

125
**A New Generation
of architects-repairers**

Master's programme: Transformation
École d'architecture de la ville et
des territoires Paris-Est, Université
Gustave Eiffel, France

129
**The architecture of closed
worlds, or, what is the
power of shit**

Lydia Kallipoliti

139
**Avenida da Índia,
Casas das Galeotas**

Catarina Almada, CAN RAN



Of Latin origin, the word that titles the 6th edition of the Lisbon Triennale is profoundly polysemic. *Terra* simultaneously means the name of our planet, or its solid part as opposed to the sea. In Portuguese, it also means a space or territory, as in a home country – *terra mãe* (motherland) – or one's birth town – *terra natal* (homeland). In a denser or poetic understanding, it alludes to a place or a *community*.

Terra is one of the four classic elements that make up nature – fire, air, water, and earth (*terra*). More literally, it is the disaggregated and loose layer of the terrestrial surface, where vegetation is attached and grows to create essential ecosystems for life with the living beings that dwell above and below it.

As a material, *Terra* has been fundamental to some of the most sustainable building techniques developed by humans since ancient times. *Terra* summons feelings of awareness or security, whether through the phrase *com os pés assentes na terra* (with your feet on the ground), or even setting your feet on *terra firma* (solid ground).

Cycles is a reflection to coincide with the exhibition of the same name curated by Pamela Prado and Pedro Ignacio Alonso. It is co-produced with and presented at the CCB/Garagem Sul, on the occasion of the Triennale 2022, chief curated by Cristina Veríssimo and Diogo Burnay.

In this edition, the Triennale seeks to research how we can think, design, and build, and how regeneration can be fostered to decisively contribute to environmental and social sustainability and, ultimately, the survival of humanity and Earth itself.

José Mateus
Chairman of the Lisbon Architecture Triennale

Chronicles from extraction to demolition

Ruinorama Collective

Architecture and its enormous civil construction chain have profound implications in the climate emergency process. The cycles of civil construction revolve around extensive planetary extraction and the disposal of the rubble that is intended to be invisible.

Against the magical and illusionist perception that infrastructures of modernity promote, we present a set of chronicles with different perspectives (real, fictional, or speculative) on the description of the cyclical process of extraction-demolition in civil construction.

The chronicle is attentive to the situated dimension of our everyday life, up to the smallest part of our experience on Earth. In this minor sense, the chronicle can re-establish a necessary consciousness of people and planet and, at the same time, elicit through the smallest things a full range of planetary problems.

1
Capital
Wellington Cançado

2
Mining-city
Thiago Benucci

3
Who does this sand
belong to?
Guilherme Paschoal

4
Just one less wall
Iazana Guizzo

5
Hearses
Nathalie Ventura

6
Superbug
Beatrice Perracini

7
A region of swamps
and ponds
Nathalie Ventura

8
Disurbanism
Wellington Cançado

9
The day the river came
out through the hole, or,
the Marginal Tietê's
crater
Eleonora Aronis

10
Aboard the Collapse
Guilherme Paschoal

11
Gunpowder ground
Rodrigo Messina

12
Gamboa Forest
Iazana Guizzo

13
Earth-moving
Beatrice Perracini
& Laura Pappalardo

14
Disarming the ruins
of the colony
Rodrigo Messina

15
After banana trees
monocultures
Laura Pappalardo

16
Forest-becoming
Thiago Benucci

1 Capital Wellington Cançado

A geological map of Brasilia, presenting a complete panorama of mineral resources of economic interest for the future of Brazil, is being prepared by the National Department of Mineral Production Geology Division technicians. The first geological interpretations of the terrain indicated the occurrence of several minerals, such as pyrolusite, talc, ilmenite, bauxite and rock crystals, hyaline - the last three representing a great find and signal the possibility of raising impressive sums through their exportation. The collected samples, which are relatively large, suggest that there might exist economically exploitable alluvial deposits of ilmenite in the region. Most of the ilmenite was found in the Alvorada Palace surroundings, an official presidential residence.

The most modern machines, capable of extracting tonnes of the mineral daily, have already been purchased and are now somewhere in the Indian Ocean, on their way to Brazil. Cultural Heritage organisations, previously mobilised against the installation of the mining enterprise in the backyard of this unquestionable national (and world) monument, were convinced by the President, in a private meeting, that the gigantic pit and the steep tailings mountain that will emerge on the horizon of the Cerrado will become brand new scenic attractions in the flat monotonous landscape of the federal capital, becoming important tourist attractors. This will certainly be an impactful work and will go down in history as one of the largest interventions in Brasilia since the Plano Piloto was

built, reaffirming the pioneer vocation and the exploratory nature of the Brazilian people.

But Alvorada Mine, as the complex will be renamed - the Palace will be completely redecorated and adapted to function as a tourist support centre and a spectacular viewpoint for the pit - won't become the capital's largest mining enterprise, despite its epic scale. Laterite nodules already evolving into bauxite, found in profusion in Parking Lot 4 of Annex 3 of the National Congress, stunned geologists and prompted expeditions of transdisciplinary teams throughout the Satellite Cities, with the first field analyses reports and laboratory test results proving what had been assumed for decades: there are considerable quantities of this ore, with high aluminium content, in the outskirts of Brasilia.

The amount of reserves is of such magnitude that, in the next few days, a decree should be signed by the President instituting the Campaign for the Eradication of the Satellite Cities, which foresees the mass expropriation of these human agglomerations which were never fully integrated to the Plano Piloto and the "de-candanguisation" of the population, in order to finally enable the return of the so-called "candangos", the people who came from all states of Brazil to build the capital, to their lands of origin. Those who want to stay will be a welcome workforce of Planalto Central's new development phase, but they will have to find another place in which to build their homes.

Another important mineral, hyaline rock crystal - an indispensable raw material in the optics' field and used in the manufacture of radar instruments with a wide application in electronics production - has been found in several

gravel pits dug to provide material for road paving. Studies being carried out by the engineers of the Geology Division in the Paranoá Lake region will continue with greater intensity in the coming weeks, and the survey should be complete in 60 days. A memorandum from the chief engineer released by the Presidency's Secretariat of Communication on social networks last week foresees unthinkable volumes of hyaline crystal deposited at the bottom of the lake, which would also explain the colour, brightness, and clarity of that immense water mirror (besides, of course, its mystical character).

Also in the document, technicians recommended the immediate emptying of the reservoir and complete dredging of the soil layers to a depth of three metres, which was promptly accepted by an Executive power who have now already designated that the rafts and dredges used by the Brazilian Army in the mining of the former Indigenous Territories in the Amazon should be mobilised and moved to the Planalto Central. A major war-style operation is already being prepared to deal with the urgency of extracting the Paranoá crystals, which will contribute decisively to the Brazilian trade balance surplus.

Meanwhile, right in the nerve centre of the city, at the *rodoviária* (bus station), where the urban axes that structure the modern capital intersect, another important mineral possibility is imposing its pace. Given the complete scarcity of cement in the world due to the validity of the International Treaty for an Extractive Moratorium signed in the UN last month – not ratified by Brazil, though it makes the exportation of primary cement by the country unfeasible – the National Cement Industry Union came out to the

public to present the ambitious and innovative program of *reverse clinkerisation* that foresees the transformation of buildings and concrete structures into cement again. Taking advantage of the credit lines and tax incentives created by the Bank of Brazil in order to accelerate the re-primarisation of the national economy, a 100% Brazilian technology of demolition, grinding, bagging, and logistics for instant exportation is already in the operational testing phase.

Brasília, which during its construction was accused of causing the "Cement Crisis", now with the unilateral agreement signed on the 9th of this month between the consortium of the companies Cauê, Ponte Alta, Itaú, Barroso, and Votorantim with the European Union, will contribute to the production of 150,000 cement bags per month for the construction of new buildings in the Global North, without disorganising or affecting the Brazilian internal market. With a capacity that is higher than 40,000,000 tonnes per year, Brasília is certainly the Brazilian city which is best equipped to offer concrete structures that, once destroyed and milled, will be able to satisfy the national exportation needs. A great monument to cement and bituminous modernity, the capital will actively contribute to the programme by providing emblematic buildings such as the bus station, the TV tower, the Mané Garrincha Stadium and most likely the National Congress, whose domes have become highly valued and coveted internationally since the Treaty was signed.

As can be seen, Brazil has spared no effort to ignite the pioneering soul of its people, offering its own capital as a laboratory of opportunities for entrepreneurship, driving a new wave of progress.

2

Mining-city

Thiago Benucci

“Mining is all that is out there.” This is how indigenous artist Daiara Tukano associated the logic of mineral extraction with the materiality of the metropolis of São Paulo, seen from the forty-third floor of a skyscraper in the city centre. Since then, I started to look at cities and at “all that is out there” in another way.

Devastating rivers and forests, digging holes in the earth and eating whole mountains, mineral extraction is a condition for the construction of cities and for the reproduction of the urban way of life on the planet. In each city that is built or rebuilt on a daily basis, the monoculture of the urban shares the same grammar of mineral matrix: cement, sand, stone, and iron. In this sense, if “cities are the real cradles of monoculture”, as the philosopher Emanuele Coccia suggests, it is because they are essentially constituted as mineral spaces, produced through the “mineral fury of modern urbanism.”

All this mineral matter, however, does not usually spring from within the city limits. It will come from other places, which in fact we barely know about. The mineral extraction logic of the “earth eaters” – in the words of Davi Kopenawa Yanomami, whose land is seriously affected by illegal gold mining – not only consumes this supposedly indistinct and available outside, but also builds, concretely, “all that is out there”.

This is how the mineral cycle works – one place is eaten so another can be made. The Earth becomes architecture and the mountains become holes, inverted topographies in the Earth’s body. As the indigenous thinker

Ailton Krenak points out, “it is necessary to demolish a mountain to make a city”, because “the city only grows by eating the world around it.” Rivers do not escape the furious mineral cycle either. As in the case of the Rio Doce in Minas Gerais – following the precise definition of Krenak, who reside upon its banks – which “was molded by mining mud to produce cities”.

It is not uncommon for cities to emerge or develop related, more or less directly, to the history of mineral exploration. The city of São Paulo itself, founded as a Jesuit mission, was also an important region of gold extraction in colonial Brazil, although it is now not really known for it. In an illustrative declaration in 1601, after a series of political manoeuvres aimed at maintaining the exploitation of slave labour in the gold mines, Governor General Dom Francisco de Souza recorded in the Chamber’s General Registry that the small village of São Paulo: “With divine favour, *it shall be a city* and its inhabitants will have great privileges and favours that I will seek with your majesty because it was the first and main part where through the favour of God I discovered these mines.”

It must be said that the gold rush is not over, nor is the exploratory fury under the logic of the mining-city, with history repeating itself more and more sinisterly. In November 2021, a new gold rush attracted attention to the municipality of Autazes, in Amazonas, aggravating the situation of illegal mining on the Madeira River that has been going on for years. In the newspapers, headlines denounced the construction of a city on the waters of the mouth of the Madeira River. A floating city, sudden and illegal, emerged from a rumour, with more than

three hundred ferries equipped with dredgers and lined up like houses in long parallel streets. In this case, the city did not grow by eating the world around it, but by literally sucking the world from under its own feet, with precarious miners-divers searching for gold.

After an action by the Army and the Federal Police, about one hundred and thirty ferries of this new floating city were set on fire, in an attempt to demobilise the structure of illegal mining in the region. The others fled, sailing along the river, probably founding new cities elsewhere. Here, unlike cities founded and maintained by the logic of extraction, the urban logic is liquid and the city mobile. This city moves, and behind it are the trails of destruction. In the other case, however, the trail of destruction is the city itself, a kind of monument to mining and mineral extraction. In both, the logic is the same: zoning waters, mountains, and forests to extract "all that is out there" and, with that, also build "all that is out there".

3

Who does this sand belong to?

Guilherme Paschoal

"Oops Doctor, there is no more sand around here!" Despite not having taken the Hippocratic oath, nor presenting an extensive curriculum, I understood that these words were directed at me. After a long and fruitless discussion, I asked, "Okay, how many bags can I buy?" Again, "Doctor, sand is cheap! Buy about 30 bags and it should be enough." In this informality through which part of the planet Earth is negotiated, there isn't even the need for a simple arithmetic count.

The long construction shop

warehouse corridor showed an unimaginable variety of sandbags. Bags of various sizes, colours, functions, and prices. Despite the variety, all the packaging refrained from announcing the grains' origins. "Bagged and packed in such and such place", all the words used disguised the fact that nobody knows for sure where each grain comes from.

Generically, we can assume that they come from the bottom of some river – but even so, it is not enough. In the store, I was bothered by how the shelves displayed the sand, a stop in this chain of matter exchange. Expatriates, without knowing when they may return to their origin, awaiting their destiny. Sad, sadistic, catastrophic, global, local.

To whom does the sand belong? Which body of water interacted with each micro grain? At some point in our tragic history, did anyone have the decency to ask if it could be commercialised? I believe they haven't. Why is it so cheap? How is its value attributed?

When entering the sand world, one realises that there is a ridiculous sequence of steps that doesn't justify the low cost of such a beautiful material. An obscene amount of sand is removed from the bottom of rivers, and in order to do this, large and inelegant dredgers are used. They suck up the riverbeds and store dunes on their decks, floating deserts sailing for a few days until they return to the pier from which they departed. When they dock again, these dunes are transferred to several trucks, which, while burning diesel fuel, transport the river depths to the interior of the country. These inland sand-ports, nowhere near the water, disorderly pile up trillions of grains of sand of different origins into a landscape resembling immense confined deserts. With dunes

and mechanical conveyors working non-stop, the trucks arrive and leave, uninterrupted, unloading grains and more grains. In this Hollywoodesque apocalyptic scenario, the sand is sifted to remove its *impurities*. Once sifted, they are bagged and taken on carts to building supplies stores where they await burial in some construction bathroom. After such an epic trajectory, it seems dishonest to treat sand as something minor.

- Next!

- Good afternoon.

- It is one hundred and twenty-five Reals and seventy cents. Credit or debit?

That's it. I was an accomplice in this environmental crime scheme. I was part of a huge club. Sand, such an unvalued material, is in fact the second most used material in the world, second only to water. Ashamed of my actions, I decided to research the subject. Computer chips, glass, cell phones, asphalt, concrete - sand's omnipresence, though logical, frightens me. This essential matter for contemporary Western capitalist way of life is still treated, apparently, as subordinate. Louise Gallagher, researcher at the Global Sand Observatory, has stated in a CNBC interview that we are on the verge of a major sand scarcity crisis for construction, since too much sand is extracted and no one knows where this looting of the earth is taking place¹. We continue to treat sand as *something else*, infinite, without value, without importance, without history, without memory - and without origin.

Once, I came across a sand port in the interior of São Paulo, in Eldorado.

Porto 7 Praias, like most sand ports, had this vast artificial desert. Built by dredgers, trucks and mechanical conveyors, the huge dunes grew while the horizon of those who walked there. I watched and walked through this scenery that seemed as if straight from Tarkovsky's imagination - his Stalker *zone* here replicated in the centre of São Paulo, a surrealism that for countless reasons dominated my perceptions.

Today, I feel like I stepped on this ruin, on something dislocated from its time, a relic that shows itself for the last time before being usurped. There, dislocated from its origin, in this inversion of Earth - what was once at the bottom is now the surface - I admired the grains not because of their constructive possibilities, but for their simple existence. What were once large and imposing rocks, after millennia of weathering, showed resistance. These great dunes, where billions of grains agglomerate, represent one last breath, one last public presentation before becoming part of some uniform mass that will compose our necessary infrastructure. They have resisted everything for years, then we came and buried their existence. Who allowed it? Did we ask anyone if we could do that? Why does it seem normal to take sand from the bottom of the rivers, transport it, sift it, then commercialise it? After all, who does this sand belong to?

4

Just one less wall

lazana Guizzo

As I write, I feel the wind on my skin in a small apartment in Copacabana. I am not on the balcony, the entire apartment becomes a space that has great contact

1. CNBC (2021). *Why The World Is Running Out Of Sand*. [online] [www.youtube.com](https://www.youtube.com/watch?v=6KzP-tobpMU). Available at: <https://www.youtube.com/watch?v=6KzP-tobpMU> [Accessed 27 Jun, 2021].

with the outside. It wishes to be a hut. Even the bed is suspended, enabling my eyes to meet the treetops like a child's wish. The wind is windy now and the desk situated in the middle of the apartment is taken up with the skin and the bustle of the forest.

There is no wall that separates me from the Atlantic Forest as reforested 150 years ago by Dom Pedro II due to the lack of water in the city. During the apartment renovation, the back façade's wall was torn down, undone, demolished, or deconstructed. The name doesn't matter, what matters is the act of being one less, of doing less. Thought quickens with the sound of the leaves swaying. It was a very daring renovation and it cost me a lawsuit, but it gave my body back to me. I smell, I hear the forest, I see shadows in the vastness outside, or am I just delirious? The rain calms me deeply, the storm nourishes me, the cold freezes me. Seeing the moon is a rare event, but there is a time of the year, when it is full, it places itself in the gap between the hill and the building, its light touching the edge of the apartment floor in the middle of the night. I dream again. At four o'clock in the morning, fireflies rain. Yes, the forest is poetic. It is erotic.

After two years of little luck looking for a place to live, I found it right when I had given up, just as it happens in love encounters. It was a possible apartment, and not exactly as I had dreamed it. I imagined a place with a wide view or with ground contact to plant. The apartment I found had neither one thing nor the other, but it had a possibility of transformation that allowed me to create and make a double metamorphosis of it. At the same time that the space was conceived, I myself became another, in a becoming where landscape and character

are made from experience.

At this point in my life, I already designed architecture with a corporal methodology, in a way to allow our bodies to be populated by inhuman agents, to escape from the prison of consciousness, of colonialism, rationalism, patriarchy. Some say it is witchcraft, I call it body, or better, the potency of a body understood as earth. It was this way of designing with the body that brought down the wall, suspended the bed, created the Gaudí-Suassuna guardrail that is made of iron remnants and was whispered in my ear by the Swords of São Jorge at the foot of the trees. It is fashionable to say that there is no distinction between body and mind, between subject and object, nature, and culture. There is no distinction, but who practices this inseparability?

As a learner, I have been cultivating certain rites of mixing worlds for some time. Indigenous people, Afro-descendants, women, and their eternal mismatches teach me how to practice it. It is difficult to incorporate it all into the demands of today's life, but daily, and against the tide, there is space for cultivating it. I try to incorporate these contrary flows when designing – and also when living – because the house is a body. The city also is, as is the forest, the invisible, the cosmos. But they like to put up barriers when I try to introduce the invisible when designing. How difficult it is to be taken seriously when the body and affections guide design.

At night, when all the interior lights are off and the only thing separating the apartment on the eighth floor from the forest is a screen: magic does indeed happen. The tree starts to glow. It becomes neon, framed right in the

middle of the 4.5m x 3m rectangle composing the entire apartment's façade. The gods are illusionists, the gods are the other life forms that dwell with us, the gods enchant. They make our bodies vibrate with them and have tricks. But of course, as a good apprentice, I will never tell their secrets.

Vibrations allow different beings to communicate without speaking. Architecture could be the art of vibrating the body-earth dwelling. It could be, as it sometimes was and is, the art of practicing the body-house as a cosmic antenna. Cities could lose walls and gain new forests in their midst and contribute to the metamorphosis of our suicidal inhabitation of Earth. Instead, the current isolation of apartments reduces us to the embarrassment of existing.

The learning process of demolishing those walls that separate the apartment from the reforested gains space with practice. It shows us that inhabiting Earth is subtle and intense.

5

Hearses

Nathalie Ventura

On that cloudy day, as I walked downstairs and out through the gates of the condominium, for the first time I properly saw them: two hearses, stationary, one behind the other. They were in front of a row of parked cars, looking like another one of them, except without wheels or license plates, only painted numbers: one was marked with a yellow 101, the other a white 39.

Both 101 and 39 – like all the others of their kind – were feared, since entering them meant, as for many beings on Earth, that the end of a cycle had arrived. It was a difficult encounter, because

evidently no one else would ever know who the materials and beings dumped into 101 and 39 had once been; they would go into anonymity and earn only a generic name: rubble. In that region of the planet, in that grey city, ending up in 101 and 39 was just a matter of time.

The two hearses were nothing more than metallic monuments that we called skip. I didn't know how long the two skips had been there, but the rubble had already accumulated in a heap beyond the height of containing sides. Large and heavy, metallic, and static, simply erected and placed on the ground, such skips epitomise the final stage of an invisible systematic operation that structures the urban logic of construction and demolition.

It started to rain, and I sat on the tree container just inside the railings, still watching them. For a moment I tried to imagine the stories of every piece of matter that ended up in them: the places on the planet each piece of rubble had passed through, the beings they had talked to, the hot days and cold nights, the excavator that brought some of them to Earth's surface, the humans who once coveted them, the processes that made them transform, the names they were given as they took shape, the hands of those who arranged them following the indications of projects, the axes and saws that dismembered them, the huge machines, the bags, the shovels, the grinders, the crushers, the ones that got lost along the way. And now, where would all this go?

A truck crossed the street carrying more stacked skips that would soon be placed on the ground – another paved area where they would land and wait for workers fulfilling orders to dump new temporary inhabitants into the metallic

objects. There have been orders to put an end to such smashed materials, though this has been undermined by the urge of certain humans to live as they wish – at the expense of other humans, and many non-humans.

While trying to make the rubble disintegrate like us, disappear from sight or evaporate, it seems more comfortable to pretend not to realise that, even dead, rubble will live many millennia more.

6

Superbug

Beatrice Perracini

They say living in big cities is lonely. I, for example, live in a stack of 33 other apartments, and on the ground floor people crowd at the counters of the corner bars. It was night-time and an ambulance outside projected flashing red lights on my living room ceiling. It is easy to feel alone lying on the cold floor of the living room on a bustling Friday like that. I had nothing to do and nowhere to go, and that was the loneliest of realisations.

Lynn Margulis once said, “the human body is like a building of bacteria.” We think we are so advanced, building skyscrapers of micro-apartments to live far away from each other, but thousands of microorganisms have built *us* to live in symbiosis. She said that the bacteria collected in one person's arm fold are more alike to bacteria in another person's arm fold, than between the body parts of the same individual. That is, the bacteria in my 33 neighbours' armpits make us more alike than 43% of the cells in my own body that identify me as *Homo sapiens*. I wonder, if everyone knew that humans have fewer animal cells than they have bacteria and fungi, would

cities be different?

They still say that cities are the greatest achievement of civilisation. But what if big cities are just humans' phobia towards nature? Even in parks there are spiked fences to keep pigeons away, not to mention the pruning of trees whose roots tear up pavements, and the flat and dull grass on central avenues. But there is one thing that cities have not yet managed to eradicate: bacteria. In many cities around the world, more than 4,000 species of bacteria and fungi live upon benches in public squares, cold steel handrails in the subways, and food trays in the malls. In more than 90% of the cities, the same 30 types of bacteria occur. Just like my neighbours' armpits, big cities have more similarities than you might think.

Bacteria also enter hospitals through the shoes of doctors on duty, under the vigilant light of the white LED tubes in corridors. This year alone, just over two thousand types of antibiotic-resistant bacteria – referred to as *superbugs* – have been sent to laboratories in Brazil. Thirteen patients infected with *Multidrug-Resistant Pseudomonas Aeruginosa* have been registered in just two Brazilian hospitals. It's possible that by 2050 *superbugs* may become the major cause of global pandemics. You see, the indiscriminate use of antibiotics against bacteria creates an even bigger problem: antibiotic-resistant bacteria. Are cities like antibiotics, have they created bigger problems than themselves?

It is a strange feeling, knowing about living things in that hard, cold, structure of the cities. But even on the walls of my building, inside the mixture of sand, gravel, and mortar, floating on a very heavy slab 30 metres above the Earth, there are also bacteria and microscopic

fungi. A newspaper article said bacteria can be great construction allies. It said that bacteria could take part at the controlled corrosion of certain structures if needed. And in addition to that, architects and engineers were also developing bio-concrete. This concrete is made of its usual components of concrete but also combined with a very resistant type of bacteria. These bacteria – the *Bacillus pseudofirmus* which can live in environments as harsh as the active volcano craters – can mend small cracks on the concrete, working due to the fact that concrete is made with their favourite food.

Outside the apartment, the movement was quieting down a bit. A large crack had been forming in the tiles above my kitchen sink. I ran my fingers through it, glimpsing the concrete breaking from the thin mortar in the wall. What would cities become if a pandemic of concrete *superbugs* took place?

7

A region of swamps and ponds

Nathalie Ventura

From the building's fourth floor it was possible to see a somewhat chaotic central Rio de Janeiro cityscape. In the background there were curving hills, followed by rectangular blocks and houses. Further down, cars ran on flyovers and broad avenues that seemed to fly over trees, rooftops, and warehouses. At the top of the window, the orange sky glowed brightly, and clouds almost touched the outline of the hills. Light streamed through the entire room at 4:58pm, with the low sun transforming the westward framing broken windows into a dusty milky white hue.

The smell of the city took over the atmosphere. Probably over the last century the same smell had lingered as streets were paved and the first skyscrapers erected in that same region. At that time, people said that it was necessary to expand the city with artificial ground over land and water in search of salubrity and beautification, and then manage it to attract the interest and attention of other nations. It is curious how so much time has passed, though some things remain the same.

From the window, men in blue overalls could be seen walking on slabs full of rebar waiting to be concreted. A yellow excavator dribbled piles of earth and construction materials. Everything looked generic yet confusing: a mixture of terracotta, grey, and white, materials that were barely identifiable, metals glinting against lights, stairs, poles, a large blue machine that crossed the terrain, a siding that traced the boundary with the street. It was a scene of the borderline between that which looked abandoned, and which was under construction. Remnants of undergrowth still survived the last moments of life before they were uprooted from there.

The tram passed by, cars were starting to turn on their headlights, and the radiant yellow of the petrol station stood out against the grey landscape under twilight. Amidst the chaos, everything seemed to be in slow motion. There was a silence like in the movies when the volume drops during a war scene. Workers continued their tasks, and the only sound that could be heard was that of the wind, interrupted from time to time by the heavy machinery rumbling from nearby terrain.

But while time kept flowing and everything kept moving, in the middle of

the room on the fourth floor of the abandoned building, something strange happened: a tree trunk emerged inversely from the ceiling heading downwards, its roots sticking out of the concrete and leafy branches almost touching the ground. Life was sprouting from what had long been dead, a sight that *could* have been a metaphor if it wasn't for its strong sculptural presence, probably caused by some fate that a visit upstairs might reveal.

The sun was already hiding behind the mountains as the orange sky turned to a blue hue. Amerigo Vespucci must have been delighted when he arrived on January 1, 1502 – referring to this land as very mild, temperate, and healthy. A region that witnessed such huge urban transformation over the last century saw, much earlier, an occupation initiated from *ground zero* – the clearing of the forest, paving what had been the region of swamps and ponds, imposing an idea of *civilisation*.

On the neighbouring land, a concrete monolith was rising, violating the land as colonisers had before. But from that great hall, the imagination opened to other directions as the forest took its place once again.

8

Disurbanism

Wellington Cançado

Under the blazing sun, two workers walk slowly, with an enviable dexterity through unstoppable vehicles. They carry flexible cones and heavy reflective traffic lights. Just behind them, two other men with plastic helmets, ear plugs, fluorescent vests, grey clothes, gloves, and dirt-soaked safety boots follow their tracks.

After isolating a comfortable area, the first two now scratch the ground and demarcate a micro-territory to the right

of the roadway, unnerving drivers who are watching the traffic lights. The next two then wave to the small support truck that approaches from the other side of the intersection and parks itself in the created space. Next to the truck, an ungainly yellow digger – with the word *CAT* in black Helvetica 416E – moves forward like a leaping, ferocious dinosaur. The driver trots in its stowed cabin. Posted side by side on the striped asphalt, the nervous machines shamelessly puff black smoke over passers-by.

From the truck's body, men begin to remove equipment and tools – heavy and metallic. Soon, the relentless noise takes over, filling every volume of air on the already congested corner. At its 2850 revolutions per minute, the diamond clipper breaks through the steaming asphalt with precise incisions that in an instant reveal the historical thickness of the accumulated asphalt: a perfect rectangle, a hybrid of land art, rupestrian engineering, funereal architecture, but also of an archaeological field.

Outside the ephemeral territory, the excavator snorts and shakes. The first blows of the huge breaking hammer drills the asphalt inside the new squared geometry.

Then, an ownerless whistle signals that it is time for the modern Jurassic machine to complete the work of the anonymous archaeologists. A few manoeuvres later, the spear in position with longitudinal alignment to the outlined plan, the metallic fingers wide open and firmly pressed against the ground, a few strokes later the large clamshell with its five metallic teeth devours a 66cm deep ditch. Layers of new and old asphalt, original stone pavement, sand from some distant river, and gravel reveal the stratigraphic section of urban (geo)logic. Black earth, worms, unknown

roots, sleeping seeds, indecipherable organic matter, insects, and other multiple forms of life erupt beneath the crust of civilisation.

This micro fragment of the *old world*, now discovered and still full of germinating potential. Pulsating life, for the first time in centuries, is now breathing. It exhales a telluric smell.

Further ahead, the earth-eating machine begins to break another chunk of pavement. Then another. Another one. And many more. Synchronised buckets begin to appear out of nowhere, as a precise rehearsed locomotive, and all the cement and bituminous material removed is now on top of the ground and transformed into fine powder, sucked up by a strange hybrid truck-cum-vacuum cleaner, a half concrete mixer already destined for its next construction site.

In a short time, the un-paving of the avenue, as far as the eye can see, is complete. Other trucks, now electric and dangerously silent, are approaching as a moving landscape, carrying in their bodies forest formations ready to be transplanted on the living ground. Further away, tools are being put away, the stabilising legs of the digger are being retracted, beacons and cones tossed carelessly onto the truck, with men huddled behind. Then the pioneer excavation vehicles disappear in the coming and going, in the blink of an eye.

The prefabricated forest blocks – with large, medium, and small trees, foliage, palm trees, vines, and a multitude of tangled plant and animal species – are then meticulously and impressively quickly moved from the trucks by several remotely operated electromechanical arms down to ground level, which seconds earlier had been fluffed and fed with an intense, viscous slurry, then

covered with a considerable layer of organic compost.

The repetitive, robotic movements of the articulated arms overlook the diversity of forest blocks accommodated on the vehicles, and at no time reveal the decisions made in milliseconds by the algorithms of choosing *which* forest block and where to plant it. Having hundreds of thousands of criteria and parameters to analyse in real time – insolation, profiles of human and non-human neighbours, relations with existing buildings and vegetation, type of ground floor uses of the city, and more...

In minutes, that hostile, dry, and hard road of hallucinated and burning traffic gives place to a delicate, humid, mysterious, climatic, micro-cosmic environment. As a vestige of this fulminating disurbanist operation, an anthropic forest with characteristics, species, and ecological relations of the native biome – until recently extinct – reappears in the city and spreads out through it irradiating urbanities of other nature beyond its limits. Humans – up until now only seen in their armoured capsules or despondent facing sad screens – and non-humans repelled long ago by the tectonic ruination of their worlds, are slowly reappearing. Soon, perhaps, they will relearn to coexist.

9

The day the river came out through the hole, or, the Marginal Tietê's crater
Eleonora Aronis

At first no one noticed when the hole cracked open. It started with a tiny fissure that grew a few millimetres in the first hour and, as vehicles crossed the Tietê River over the Marginal Avenue

express lane at an average speed of 90km an hour, nobody really realised it was there. But what began as a small rupture in the asphalt, erupted with such force that it was only luck that cars were not swallowed whole as it came to life.

The technician who was operating the machinery was paralysed. The fright prevented him from running or screaming, though simultaneously his brain begged his body to move away so he wouldn't be seen in front of the hole, drill in hand – presumably without realising that no witness would think such a small tool could have unleashed such damage. The car horns of those who had not yet seen the crater open up in the middle of the road, blocking one of the busiest avenues in the fifth largest metropolis in the world, filled the air nervously and discordantly. The rush of the big city was pulsing fiercely in the background.

It was midday and the traffic had already stopped completely when the water suddenly gushed freely and, in the distance a sound grew like a bountiful waterfall. After so many decades suffocated and driven by underground routes, water ran energetically through the pipes and towards the river, free at last. The scene, which took over an otherwise ordinary day in the big city, looked like the beginning of a science fiction movie – happening there, live and in colour for those trapped in their cars, now useless, as if queued in a junkyard.

Helicopters began to fly over increasing chaos, while those closest to the disaster left their vehicles behind to stare, terrified, into the gorge that seemed to reveal the centre of Earth in the middle of a Wednesday. The news all over the country were about how the future announced in the construction of a new subway had accelerated time in

such a way that the end of the world, after all, was already here. The city that cannot stop, at that moment, was keeping time on hold – it was necessary to wait for the technicians.

But the people inside the cars were restless. Some were filming with electronic devices, others were trying to order food – brought to them on bikes which dodged the crater and made deliveries to impatient and hungry drivers in unusual addresses: third car in the second row after the hole. Those who were frustrated with the impossibility of using their phones due to overloaded networks began to finance the new economic dynamics that took over the aisles between the cars – a true free market supplied by street vendors showing up to sell various goodies. It was not possible for the drivers to move, they had to wait for the technicians.

At this point, some passengers began to get out of their cars and walk, although distressed, between the vehicles – some to stretch their legs, others to try to approach the hole and become the owners of first-hand news. Drivers, on the other hand, didn't dare to leave their wheels with fear that, in case the traffic started moving, their vehicles could be left behind. Many were calling back their peripatetic passengers in anguish. But, while waiting for technicians, people began to interact, mixing their anxiety with coincidental encounters – old college friends greeted each other, ex-lovers exchanged embarrassed waves, and new neighbours swapped business cards. Gradually engines were turned off, and as the newly arrived technicians stared at each other uncertainly, waiting for more technicians, passengers and drivers dared to make larger movements.

Many were now approaching the edge

of the river, shocked by the intense and unusual agitation of waters that had been stagnant for so long – a flow with an intensity worthy of posed touristy portraits; Niagara Falls was now in the Tietê River. Others sat on the asphalt and, while monitoring the delivery of their hamburgers, took the opportunity to sunbathe during this unusual lunch break. The noise of the helicopters that flew over the region live-transmitting “the revolt of the rivers and the failure of the subway” had already become a distant and constant hum. If there were no reporters on the ground interviewing citizens – who at times had resigned to waiting, curiously, and at other times were shouting angrily at the delay of any viable solutions, it was because circulation beyond the hole became unfeasible.

Technicians continued to arrive and to be requested. But the news that reached the drivers and passengers who were anxiously waiting for a hope of movement didn't provide any comfort. After a while, despair took over even the ones who a few hours earlier had been making phone calls relieved, cancelling inevitable and inconvenient appointments – that at this moment were almost preferable to the suffocation of uncertainty.

Suddenly, in a half-expected half-planned act, a man whose car was a few kilometres ahead of the hole and many kilometres from a possible exit in the other direction – realising the uselessness of his vehicle in the midst of this strenuous situation and already dissatisfied with the time wasted in traffic with no seeming beginning, end, or meaning – got up, opened his trunk, took out a bag of tools and unscrewed a rear tyre. While his neighbours watched curiously, he rolled the tyre across the

avenue and, without a blink or a second thought, grabbed it and threw himself into the river. Finally free, floating, imagining what the days of canoeing would have been like many decades ago when his grandfather still lived.

An uproar took over those who observed him taken by the current, and away from the anxious situation. Abandoning their vehicles began to seem like a plausible idea – “let's remove all the tyres and craft them into a vast raft using the gearshift cables”, someone suggested. But while people began to organise – some unscrewing tyres, others would compose the thingamajig – excited with a hope of movement, and a certain fascination with this new game, the technicians, machines and cement arrived confidently. And, while the equipment was powered up, everyone was ordered to return to their vehicles. The cars, then, began to move one by one as concrete filled in the hole where the water had already been controlled – and the drivers slowly left, missing the river that they still weren't able to navigate.

10

Aboard the Collapse

Guilherme Paschoal

Transposition. Infrastructure. Drainage. Logistics. Transportation. Sewage. Just some of the terms used to describe rivers in an urban context. Note that words like swim, fish, play, watch, and talk are rarely in a lexicon of rivers.

Since I was six years old, I have lived in a city that has a river running through the urban mass. This river clearly defines two sides of the city, one that goes *this* way and another one that goes *that* way. The river is curious, it flows towards the interior of the country, not towards the

sea, where it meets its bigger brother. It is 1150km long, but only a few short sections are possible for play, swimming, breathing the air, fishing, and interacting with the waters.

The Tietê River has interested me for a long time. I have always observed it as NASA watches distant celestial bodies, both perhaps seemingly almost impossible places to reach. How can one reach it? I decided to launch myself into it – or more accurately: The Tietê invited me on an excursion along its entire length, from source to mouth. I accepted the challenge, amazed. Finally, I would get to know, up close, someone who for so long silently marked my landscape.

In the metropolitan region where I live, part of the river has been declared dead, like a necrotic limb. The cause of death: us. We have straightened its course, altered the fluvial dynamics, added pollution, blocked it with dams. The justifications: to *improve* it, make traffic more efficient, garner electricity, to aid progress. There was no wake for Tietê, we don't acknowledge its death, much less process it or think it may be reincarnated. We live with its ghost, seeing it but not dialoguing with it. The great purpose of my excursion was an attempt to initiate a dialogue.

I set out on a child's inflatable boat, bought for one hundred and sixty Reais and ninety-nine cents. A bargain. It had to be inflatable, because the sinuous river, full of locks, polluted, canalised, required of me a polyvalence that was both aquatic and terrestrial. The practicality of the boat allowed me to follow the river by walking beside it, as well floating upon its waters. The truth is that only after I had travelled 260km and reached the city of Barra Bonita could I really enjoy the boat, which I had named

Collapse – a tribute to Jacques Cousteau and the emblematic Calypso. In the countryside around this small São Paulo town, I observed a breath of fresh air and respect for the river. Restaurants at the water's edge, crowds of speedboats playing *sertanejo* at high volume, children and their floats, sightseeing tours, street vendors. It was a drastic change to my paulistano perception of the Tietê, which, in Brazil's largest city is known as an impossible-to-approach open-air sewer. Despite the rivers' evident improvement, it is still not possible to hear its voice, or its will. Muffled by civilisation noises, the voice of the Tietê is confused with our human-oid wanderings.

The city of Barra Bonita marked the beginning of an arduous journey for an inexperienced paddler, and an inexperienced boat. From the small town to the mouth of the Tietê River, meeting the Paraná River, the whole trip was made upon my inflatable. We managed to navigate the Tietê waters, and by doing so inserted ourselves in the Tietê River navigation literature, which had until them predominantly considered the murderous explorers of the Brazilian inland, the *bandeirantes*. We were not looking for slaves or land, but instead perhaps a symbiosis. A myth of the Bororo indigenous nation says that they only fish at night, because that is when the river offers fish, since they had eaten all day and were no longer hungry. This is the kind of understanding I sought with my boat. Emanuele Coccia's definition of the word *technique* seems to align very well with the Bororo myth. *Technique*, for the Italian philosopher, would be a dialogue, not a force that opposes life. Aboard the *Collapse*, listening to the myth of the Bororo from

the voice of a resident of Pereira Barreto municipality, the philosopher made himself present and I could better understand his definition. It's not about developing a boat with a new technology, or a fishing rod with Bluetooth, in order to get sustenance from the river, but about understanding when the river doesn't want to eat.

I believe that I only heard the voice of Tietê when I arrived at its end. A few kilometres after Itapura city, the magnitude of the Paraná River can be seen. On the other side, another state, Mato Grosso do Sul, famous for agribusiness and destruction. At this crossroad, surrounded by farmers' lands – and with no cities, recreational boats, inflatable unicorns, or beverages promotions – there was a kind of whispering. The wind marked small mountains on the surface of the water, which when in contact with the Collapse, formed a rhythmic music. Maybe it was the tiredness talking, but I believe it wasn't. What I took from this experience is that as interesting as it is to transform rivers into large leisure spaces, perhaps we should ask if this is what the *rivers* want, and then listen to their answer doesn't require much on our part.

11

Gunpowder ground

Rodrigo Messina

And there was already quite a bit of fire in that place.

There was one time when he went up one of the forty-three hills in the city of Valparaíso, Chile. It was right after one of the biggest fires in the city, and he went up because he wanted to see the damage up close. He went alone on foot and as high as he could. He saw remains of many

houses of blackened logs, a place without the sense of life or movement, the fire having been there a few months earlier. From the hill, the view evoked fantasy: an infinite and salty Pacific Ocean.

He followed an alley down a side slope which passed through a small, crooked, burned wooden gate marking the entrance to a house no longer present. What was *once* the house had become a lookout platform. He was always a little afraid some dog was going to attack him from somewhere – those harbour spirits of the city – but the noise he heard wasn't a dog, but a lady who appeared nearby. She arrived slowly, also stopping to read the view. They both stood there, looking, quietly. He couldn't stand that awkward silence, and broke it by asking the lady if she lived in the neighbourhood.

She said that she had lived exactly where they were standing and took a stick to draw the floor plan of her house into the ash on the ground. As she explained, she told how the house fire came from the ground, from deep underground. "It burned from the inside", she said, explaining it was an outcome of heavy eucalyptus farming, pests around the city planted for firewood, millstones, poles, rural buildings, charcoal, and the manufacture of paper and pulp. The trees steal almost all the water, leaving soil dry and accumulating organic matter from the decomposition of vegetation. This accumulated, waterless organic matter acts as an underground phosphorus sandpaper, so as the strong sun heats the ground subterranean sparks are triggered.

"So", said the lady, "both you and the city are standing on gunpowder. You better step lightly."

12 Gamboa Forest

Iazana Guizzo

The rain falls and doesn't stop. It falls and puddles on the ground, forming a mud that mixes with the sweat of those who rub their feet against the earth to the sound of drums. Rio de Janeiro has been known for stormy moments since the city was formed by countless Tupinambá villages spread all over Guanabara Bay. There is enchantment in its streets, taken over by drums from the time they received the largest number of Africans in diaspora. But the waters that fall intensely from the lead-coloured sky, unfortunately, cannot pass through Praça da Harmonia, in the Gamboa district.

A vital flow in the form of water that inhabits the sky is interrupted, and the rain does not find the other immensity for which it is destined. The waters of the sky cannot encounter the waters that inhabit the ground. And by remaining on the surface, they end up creating a huge mud puddle. How could those two watery masses – the sky and the sea – be prevented from meeting? Some Gamboa residents say that a supposed concrete slab under the ground is responsible for a lack of drainage in the square, but why on earth would such a slab be there?

To complete the mud scene, one can say that square is located in the heart of the port area and is in a tug-of-war. Perhaps by an ironic fate of its name, Harmonia is in full dispute and has been pulled back and forth since the first colonial war. In this ancestral dispute, on one side and forming a full façade is the military police battalion. Another façade is a former mill built with an English vernacular exposed brick, today a São

Paulo construction company has bought it for investment. On a third side of this disputed square, there is a row of colonial houses, long degraded and now on the investment radar. The bars in these *casario* houses are populated by a considerable number of people who enjoy drumming around the bandstand and the Flamboyant tree. But the most unusual is the fourth façade that appears as a plain wall. It conceals a shooting stand built during the military dictatorship.

Unfortunately, this dispute is not allegorical or cordial, but quite violent and asymmetrical. A few metres from the square is the Pretos Novos Cemetery, where the bones of countless Africans from ocean crossings were buried by the Catholic Church in a mass grave. Neither they nor the Tupinambás were able to stay in their lands, nor their descendants who managed to resist the first and second colonial massacre. In fact, today, Rio de Janeiro has one of the police forces that kills the most, with most of the deaths being young black men. Little Africa, as the region is called, continues to be dispossessed of the possibility of existence, now attacked by new names like *gentrification*, *development*, and *revitalisation*. Despite countless plots of land laying available from abundant factories and shipyards of yesteryear, now abandoned, the voracious desire for glass towers and real estate developments does not allow room for accommodation of everyone. Democracy is only a horizon, and it is constantly threatened.

Of the three groups that dispute the square, the one that gets their feet in the mud is a group of people who enjoy a cold drink around the bandstand and, because of this, they themselves have had some unusual news. In their encounter with the pooling waters they

learned of a spell placed on the supposed slab: if the concrete were broken and the evil magic attached to it were also undone, life could once again be abundant in the Port Region of Rio de Janeiro just as in the times of the Tupinambás, when this *terreiro* city was inhabited forest and the water still drew its slopes without embankments.

News of this spell ran through the neighbourhood, spreading amongst the samba goers. After initial laughs, faces began to turn with a suspicious tone. "Could it be true? What if..." After all, those who live in the streets of Rio de Janeiro know that truth can matter little. In the city of scoundrels and fools no one doubts how fiction is endowed with immense power. It is as it says in an aphorism of the *carioca malandragem* (rascality from Rio) "the main virtue of a rascal is to pass himself off as a sucker in front of a sucker who thinks he is a rascal."

With the news that Gamboa could once again become an even more bountiful forest than it once was by now relying on the sensibilities of Little Africa, people began to conceive of ways to break the slab and its shadow. The next morning, Praça da Harmonia, always seemingly about to explode, was taken over by a sizable group of residents and sympathisers with hammers, hoes, and improvised cables, in search of the colonial spell hidden underground. In the middle of excavation imaginations ran wild as to how a Gamboa forest could be. A debate began about which colonial items would remain after this turn-around incited by waters. For now, it seems, only beer would remain, since *cachaça* is considered a transcosmic creation.

Water, trees, stones, animals, and *cachaça* communicate with each other, adding or breaking down relationships through energy flows. The things of this world are endowed with perception and consciousness, and certain compositions can make or break important conversations between different beings. The interruption of flows is dangerous, it creates great illusions, subjecting humans to prisons. It works as a kind of spell. Otherwise, how would it be possible for us to accept such a life exploitation?

Deconstructing a slab and creating passage for interrupted vital flows seems to be a possible project to face the end of the world, and such a feat would not be mere carnival delirium. Those who have been taken through the streets of Rio de Janeiro know that samba is much more than entertainment. It is the possibility of living a whole, magical, or cosmic life despite the colonial massacre. It is an experience that makes energy flow through one's own body, through the city, through the cosmos, and makes these energies cross even inanimate slabs as it affirms a belonging to a world that enchantedly invents itself.

In the same way that a song from Caboclo suggests, "tomorrow came from yesterday and yesterday will still come", in the Gamboa forest there would be no slabs capable of preventing the meeting of the waters, nor our feet from the earth, our heads from the sky, or our bodies from the forest. The waters would finally flow, and we might once again dream with the storms.

13

Earth-moving

Beatrice Perracini & Laura Pappalardo

It was a hellish movement, thousands of cars going over 120km per hour.

The mugginess of a typical tropical summer day rose from the asphalt in the megalopolis. On the digital clocks at the City Hall, the thermometers read 38°C, a small orange band signalling that the air quality was *bad*. It was possible to assume, from the effect of the fog in the city sky on a day like that, that the indication on the dashboard under-reported the causes and effects of the pollution and the high temperature trapped in the black layer of oil paving the highway.

Along both edges of the large road, three lanes wide in each direction, stood a precast concrete wall separating the neighbourhood from the dizzying speed of the automobiles. On the sides of the construction sites abandoned pieces of bodywork and rubber shimmered like carcasses in the sun. Every now and then, bits of trash would snake, trampled at high speed, between cars' tyres.

It was a gigantic road complex, for which incessant construction work had already lasted over two decades. So far, 300,000m³ of concrete had been poured to build the western section of the highway, and 20,000 tonnes of steel had been used to construct three tunnels, six bridges, seven interchanges, and 62 viaducts, mobilising some 1,500 pieces of equipment, with more than 100 pieces of excavation gear and five hundred trucks. In the end, more than three times this volume of material would form a ring road 176km long.

Great machines, like prehistoric creatures, were moving pieces of mountain and forest. There were mounds

of sand and cement and huge piles of earth everywhere. A road builder returned to his post, climbed into the equipment he was driving that day, started the engine, and began to move forward, compacting the earth. A large steamroller eliminated the empty spaces between the soil, filling the last vestiges of air between the earth, crushing ants, worms, and roots. At another spot, a driver was performing a precise cut into the soil with a steel blade, into which concrete was poured. The construction of that chunk of highway had already removed 36km of forest and displaced more than 20m m³ of soil and rock. A slice of land and life, eaten and digested by the daily infrastructural and real estate voracity of one of the largest metropolises in Latin America, embedded over remnants of the Atlantic Forest.

The wind was not blowing that day, which made the heavy effort of the machines and drivers feel lethargic. A builder took refuge after his lunch in the shadows of trees that had been forgotten by the side of the road, the stretch of wall here already partly in ruins despite its recent construction. Leaning back against the trunk of a tree, he lingered on the details of that patch of undergrowth overlooked by the iron chain used to clear the forest to become a highway. An armadillo ran unexpectedly through the foliage, black-capped piprites chirped on a branch, leading the builder to become aware of that animal life, and also of the silent, moist soil life beneath the tree canopy.

He watched the work of a giant ant carrying a pebble from its nest hole at the base of the concrete wall, the ant's work seeming more arduous than his own. One after the other, the red ants went in and out of the earth with debris, leaves,

sand, and stones. It was a daily maintenance activity by the ants in their nest, the need of which had been intensified by disturbances caused by the highway construction. From there, beneath the earth, stretched a vast network of underground paths of the ant's nest, where they gathered food and aerated the soil. The dry leaves that lay on the ground, the builder realised, were not standing still, but they and the soil were silently moving, like a vital organism. The layer of burlap, almost 10cm thick and which makes up the forest floor, was stirred up and eaten every day by arthropods, fungi, bacteria, and species of terrestrial creatures such as worms, snails, and ants – the almost invisible work done by earthworms one of the most important acts in ensuring that organic matter is distributed throughout the soil. One square metre of burlap housed more than a million living beings.

Little by little the builder, under that tree, surrendered to the tranquillity of the slow silence that spread from the beginning of the afternoon. He desired to lie down and sleep amidst the quiet rustling of the leaves on a burlap bed. He dug his fingers and toes into the damp, dark soil, in an unconscious desire to take root and absorb the fertility that was left in the piece forgotten by the machines. He sank deeper and deeper, without anguish or attachment, leaving behind the slow murmur of the digging tractors, impatient cars on the highway, and indistinct voices of the neighbourhood.

A few metres away, in the middle of the road, in the arid earth savannah compacted by the steamroller, a brown-breasted and white-tailed turtledove made a low flight. A worm squirmed on the surface trying to penetrate the hard,

infertile soil. It was captured by the dove's beak, which landed on the low green grass freshly planted on the roadside.

It was already early evening and the builders turned off their tractors and their headlights. They began to move home into the dry twilight of the megalopolis.

14

Disarming the ruins of the colony

Rodrigo Messina

A client asked our office to renovate an old colony house in a 19th century colonial farm near the city of São Paulo. Colony houses are a typology of colonial architecture in which rural workers from sugar and coffee farms lived, but they are also a kind of typology that, so to speak, *formalised the senzala*, usually built into the lower part of the house and where slaves slept. As the farm is now used for cattle breeding and leisure, many of its employees were living in cities near the rural regions, and these colonial buildings slowly became idle ruins taken over by plants and animals.

We could say that it is an abandoned construction, but this would be a way to emphasise, right from the start, an anthropocentric approach that we seek to unravel. As if, to the extent that there is no human care or use, things acquire an abandoned character. This does not seem to be the case, from the moment we consider that what we call *ruins* is taken over by other non-human entities which, in their own way, bring to life a certain artefact built by humans.

We were asked to renovate one of these ruined colonies and transform it into a chapel for local religious celebrations. But how to work with colonial

ruins when we know the disaster of its history and the multispecies that now live there? And what should a chapel look like in such a place, with *this* history, with *these* non-human presences?

"Architecture is a verb," Rafael Iglesias used to say. A verb is an action. An action requires a procedure. A procedure makes a relation. Then a relation creates an existence. The verb *to renovate* is an action whose procedure presupposes the maintenance of the existing relations that form a certain architecture. If this is so, do we want to *maintain* the colonial relations present in a colony?

As an answer, we chose – together with the clients and construction masters – to *disarm* the ruins of the colonies, as this is an action whose procedure presupposes that a construction is made of reinforced materials, like a weave or a fabric. Renovation processes presuppose stable materials, disarming does not, because a brick that was once a wall can become a floor, a stone that was once a floor can become a wall, a tile that was once a roof can become a wall, and so on. The verb *disarm* seeks to change the condition of the materials and to think about the temporality of architectures that were made to last, like the colonial ones.

Like architectures, bodies are also built. Like materials, which when put in relation to each other form architectures, words build a body when interrelated. The word *human* in relation to the word *being*, for example, creates a body that is an exception, because it is distinguished from an animal, plant, or stone. This body condition is like a stone wall of a ruined colonial house that blocks possible continuities not only between inside and outside, but also between sociability

and landscape, subjects, and objects.

If relations have creative powers, what other possibilities could be composed if we *disarm* some of those relations that build an architecture-body known as *human beings*? An action that disarms this stone wall, known as *ourselves*, so that the word-materials which make up this body-architecture, are reconsidered in different relations, to continue not as ourselves, but as a different condition. That is, as *otherselves*.

15

After banana trees monocultures

Laura Pappalardo

They offered me the land: "Ten acres, full of banana trees." I said I would think about it. I asked the banana sellers how that plot of land, a perfect square, came to exist in the middle of the surrounding forest. They explained the strategy to me: "We cut down the lower trees and plant the banana trees, which take an average of one year to grow. As they grow, we remove the taller trees. This way, those who see the satellite images don't realise that we have exchanged the forest for banana trees. After a year, when the land is full of banana trees, without forest, when no inspector will bother us, then we can sell the lot. Buy it, you won't regret it. The banana trees earn an average of 2,000 per hectare, you will earn 20,000 per month in bananas."

I closed the deal. When I moved in, my banana plot was alone, a geometric square embedded in the middle of the forest. The following year I gained three neighbours, with equally square plots. These neighbours planted banana trees around their lots, cutting down the forest, and sold three new 10 hectare

areas to three new owners, who then proceeded to do the same, inventing new plots in the middle of the forest. The buyer of one of the plots cut down their banana trees, already having fulfilled its role of territorial financialisation, and stuck a sign on the land: "New Real Estate Development."

A storm of wind and hail flooded my banana plantation. In the days that followed, the sun warmed the water between the banana trees, their leaves gradually turned yellow, sad, and withered. My neighbours told me I would need to destroy my entire plantation and replant, suggesting I remove all the banana trees and follow the emerging trend of the surrounding area: "Build a high rise. With the rent of ten apartments, you will get 20 thousand a month." Ignoring their recommendation, I walked away, leaving the land.

Years later I returned. A resident of the Quilombo Ivaporunduva, on the other side of the Ribeira de Iguape river, explained to me: "After the rain, the banana trees became home to the banana weevil, which, with its long and curved beak, opened cavities in the banana tree to lay its eggs. The eggs become larvae that perforate your plant tissue, building galleries, opening the way for fungi and bacteria to enter and collaborate in the decomposition of the banana trees. After you left, I was here every day. I know this land so well, it was part of the quilombo where I was born. We came back because in collaboration with the decaying banana trees, we are stewarding the forest. Other species, previously displaced by the monoculture, have also returned. They are, little by little, re-entangling themselves. If you don't plant a monoculture, the land will be repopulated by forest."

I stayed there, in the middle of the 10 hectares of forest growing, listening to the sounds of the frogs, interacting with the mosquitoes and the cicadas. I lay down on the ground and slept. When I woke, another eye was looking at me, with vertical pupils. Observing that my pupil detached from its own, it slid beside me, slowly, with an olive green and yellowish, flaky skin. Its skin had continuous dark brown patches from neck to tail. A Jibóia-do-Ribeira. It had not been seen for 60 years. When a mono-cropper of bananas, or buildings, abandons their plot, who takes care of the land?

16

Forest-becoming

Thiago Benucci

"This is where I was born."

"This was the house my father built."

"There was the health post."

"This is the way to the garden."

"That was the school."

"That was the path to the river."

"And this is where I used to live."

So said the Yanomami at each step taken in the forest, though I could only see the woods. Soon, I realised that we were walking through ruins of a former village, where cultivated species mix with the regenerating forest and columns are confused with trunks as if they were back to life. The most notable trace of occupation of that space, reintegrated by the forest a few decades previously, were the paths – subtle marks on the forest floor that surrounded the houses, once taking former residents to their gardens and stream to bathe and fish.

The perishable materials that once made up the village are like the

continuation of the forest by other means. Straw, vine, and wood turned into dwelling. And now, little is left. Everything has fallen apart. There were no traces left, in the sense of residues that were left behind, but on the contrary have left traces as a form of composition, in the sense of composting and composing. The houses, when reclaimed by the forest, become substrate. When burned, its materials become charcoal and fertilise the land once dry and trodden hard. When left untouched, the houses can become homes for insects, slowly collapsing with winds and rains, covering, and protecting the regenerating soil, or simply crumble with the natural time of things. On the other hand, peach palms and other species cultivated at the back of houses become part of the forest, inscribing stories of life, dwelling and movement. At the same time, they make the forest itself, a space cultivated and constructed over different times. Houses and gardens, like black earth, are thus inscribed as part of the architecture of the forest.

We left the old village which turned into a forest and took a path towards a newer village currently under construction. At the building site, if it weren't for the opposite direction of events, there was an impression of seeing in the new a lapse from the old village's past: incomplete houses among forest fragments. In the case of the new village, the forest fragments did not correspond to a regeneration of the forest, but to the construction process itself. The land was managed to better adapt to the uneven terrain and cleared to open up to light and spirits – spirits who in their own dwellings dance on limpid and gleaming paths and here dance upon open ground in the centre of the clearing. In this

process, trees are removed, becoming firewood or charcoal, while others are brought in, becoming columns and rafters.

Some time later, we returned to the village from which we had just moved. Arriving in the morning, there was a strange silence, only shadows inhabited the houses – recent ruins about to recompose the surrounding forest. The houses were still standing, but with a complete absence of life. But not for a long time, as it had only been a few days since the entire village had left and, later, the houses would be torn down, burned, and reclaimed by the forest. We stood in the centre of the clearing and turned around observing the surroundings. Space and time were on a fine threshold between the present, the past, and the future. A fleeting break of a broader cycle. And in the future, in the middle of the forest, someone may say:

“This is where I was born.”

“This was the house my father built.”

“There was the health post.”

“This is the way to the garden.”

“That was the school.”

“That was the path to the river.”

“And this is where I used to live.”

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Before architecture's organising powers are triggered through the act of design, a building is no more than a formless accumulation of varying materials – the very same components that will eventually re-emerge with a building's demolition years later, when it becomes a bare mountain of formless matter. But architectural design can extend beyond a given form and start operating at the level of a redistribution of matter through design material cycles. This book brings together contemporary architectural practices and artists reflecting upon the art of designing cycles, addressing the past and present of construction, relationships to the geopolitics of extractivism, and possible futures for the building industry.

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