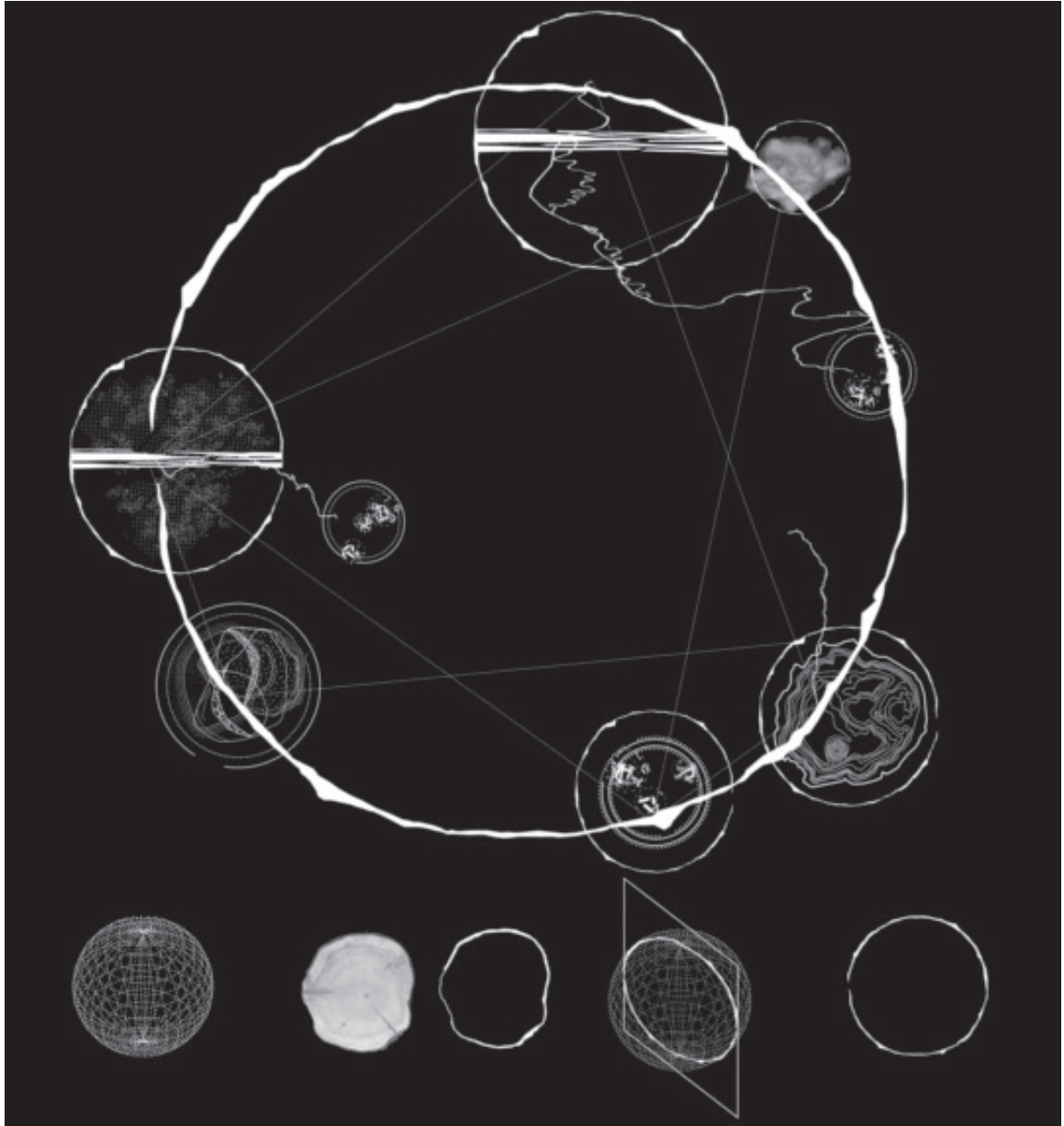


Interview



Alexandra Arènes: *Diagram of the critical zone of the globe: membrane and scientific constellations*, 2017.

Can we land on earth? – an interview with Bruno Latour

Line Marie Thorsen and Anette Vandsø

As with many great intellectuals, it is not exactly straight-forward to assign Bruno Latour to a specific disciplinary native soil. He is in part a philosopher, but also an anthropologist of science and technology, a sociologist of our contemporary world, and much more besides. More than anything, he is a thinker of nature-culture hybrids.

Though he has been a central figure in the field of Science and Technology Studies (STS) since the 1970s, not least via his Actor-Network Theory, Latour's work has gained momentum across a broader sphere of socio-cultural sciences in recent years. Since his early studies of laboratory life, Latour has argued that the Western idea that all things natural exist in a pure state of separation from all things cultural is a *modern* myth, sustained in part by the differentiation between the natural sciences and the humanities since the early 17th century. However, we have in fact never been modern – as one of Latour's most renowned books stated in 1993 – since hybrids of nature and culture have always proliferated. With the earth-spanning climate and environmental crises that we are collectively facing, it has become obvious that the modernist commitment to human (cultural) exploitation of global nature has not worked out very well. In the time of the so-called Anthropocene,¹ it is now abundantly clear that we humans, or rather *earthlings* in Latourian idiom, are inextricably entangled with our non-human others. A good way to see this co-dependency, Latour argues, is to follow the practices of scientists in their laboratories and beyond.

Combining his concern regarding ecological crises and the sciences, Latour has recently followed and studied soil sciences: pedologists, geologists, geo-chemists and others. Learning from soil scientists, he is approaching a new way of figuring out and understanding *where* we reside, once we stop believing that we live on the vast and limitless globe imagined during times of so-called modernity. If we can no longer see ourselves as modern humans living and acting detached from nature, then what kind of attached earthlings are we now becoming? What kind of strange and surprising entanglements must we now take into account to even define the land on which we stand? To Latour, the soil sciences may help provide empirical and philosophical tools in this process. Specifically, he has engaged the

1. The Anthropocene is a geological proposition, designating the current epoch of our earth, potentially succeeding the Holocene. The name comes from the ancient Greek words *anthropos* (human), and *kainos* (new or recent), indicating that earth has entered a period of significant changes determined by human activities measurable in the earth's layers, or strata.

notion of *critical zones*, from the cluster work undertaken in various scientific constellations across the world. In Latour's work, the notion of critical zones is extended from the very specific sections of land studied by soil sciences, to one critically fragile and thin liveable zone spanning our earth – or rather, Gaia.

Gaia is the name Latour adopts for the earth we effectively forgot during our fantasies of modern society on an inexhaustible globe. Gaia is the earth we so desperately need to reorient ourselves towards, to figure out where we are. As Latour writes in his text *A Plea For Earthly Sciences* (2007), we are in fact completely dependent on figuring out how to exist with Gaia, as a war with her is impossible to win: "Either we come out on top of Gaia, and we disappear with her; or we *lose* against Gaia, and she manages to shudder us out of existence." In other words, whether we should defeat or be defeated by earth, we lose.

To Latour, in the Anthropocene – this new time of ecological crises – we are all immersed in a gigantic process of collective reorientation: what kind of earthly beings are we now becoming, and which kind of earth are we submerged in? Part of the answer, he suggests, lies in rediscovering Gaia; that is, literally learning to live *in* a new earth, a new soil and ground, by exploring the critical zone(s) for planetary living conditions. In addition to scientists and many others, Latour argues that contemporary artists bring important skills to this process. Over the years, Latour himself has taken on the task of co-curating several art exhibitions, most recently the *Reset Modernity!* exhibition in Karlsruhe in 2016.

We met Bruno Latour for a conversation on these questions and on the important role that art might play in our effort to rediscover our grounds.

Let's start from the very ground – the soil – because to us and to the artists working centrally with plants, soil is obviously important. One of the things we are curious about asking you is linked to your recent work, where soil, earth, and becoming earthbound play a key role. Why is it so important to think about this, when thinking about Gaia and political ecology?²

One specific element in my interest in soil is that nature is too big. So my argument is that much of the difficulty of political ecology, is that it's associated with the word *nature*. Nature is everything that is not human – from here to the big bang – and goes through such a vast array of different things that it is almost impossible to mobilise anyone to the defence of the access to nature. A computer would

2. Bruno Latour (2004) has worked centrally with the notion of political ecology, especially through the 1990s and early 2000s, as a key concept for rethinking our *politics of nature*. More recently, the concept Gaia has figured more prominently in his writings, as a way of addressing our present ecological crises.

be an artificial part of nature as well as flowers, plants, the big bang, the moon and galaxies and so on. When people hear the word nature they immediately get lost.

So nature in this sense means matter in all kinds of forms?

Yes, nature in this sense becomes equivalent to matter, to objectivity, to what is known by the natural sciences. And it's very difficult to re-politicise such a vast conglomerate of completely different things. One of my interests in soil arose when I encountered – watching soil scientists [pedologists] whom I studied many years ago – a new type of geo-scientists. They cut in earth and nature, a very specific domain which seems to be difficult to grasp for political and artistic engagement. A domain that you don't get when you have *nature*, and you don't get when you have *the globe*. Like nature, the globe is made of everything from way below in the core as well as when you go up, including the moon, the stars and the planets. This is, of course, of great scientific and cosmic interest, but it's very difficult to reconcile with our own concerns. *My* interest in soil, which is slightly larger than the *soil* of soil scientists, is basically the little zone – the critical zone, as they call it – around earth, made and maintained by living forms. The membrane that goes a few kilometres up and a few kilometres down. And it's very important for artists that we see it, not from above like the photo of earth as the blue marble, but sideways, so to speak. That we only see it from the inside (fig. 1).

So we are inside the soil and earth you are interested in, as opposed to the image of the earth we might have from school geography books, where the earth is sliced through and we are very far away on the outside, looking in? Does this mean that we need new ways of representing this earth – new ways of representing Gaia?

Yes, Gaia has long protested the limited ways in which we represent her. And she's saying: "You don't understand me, you are not capturing my existence well".³ I gave a performance lecture in a theatre a few months ago, where I tried to show the difference between visualising nature and visualising soil, or rather, the critical zone of earth. Compared to the totality of the globe, the critical zone is a very small rim, nothing more than a varnish.

3. Bruno Latour is here referencing an article by Swedish scholar Martin Gren entitled "Mayday – a letter from the Earth" (Gren, forthcoming).

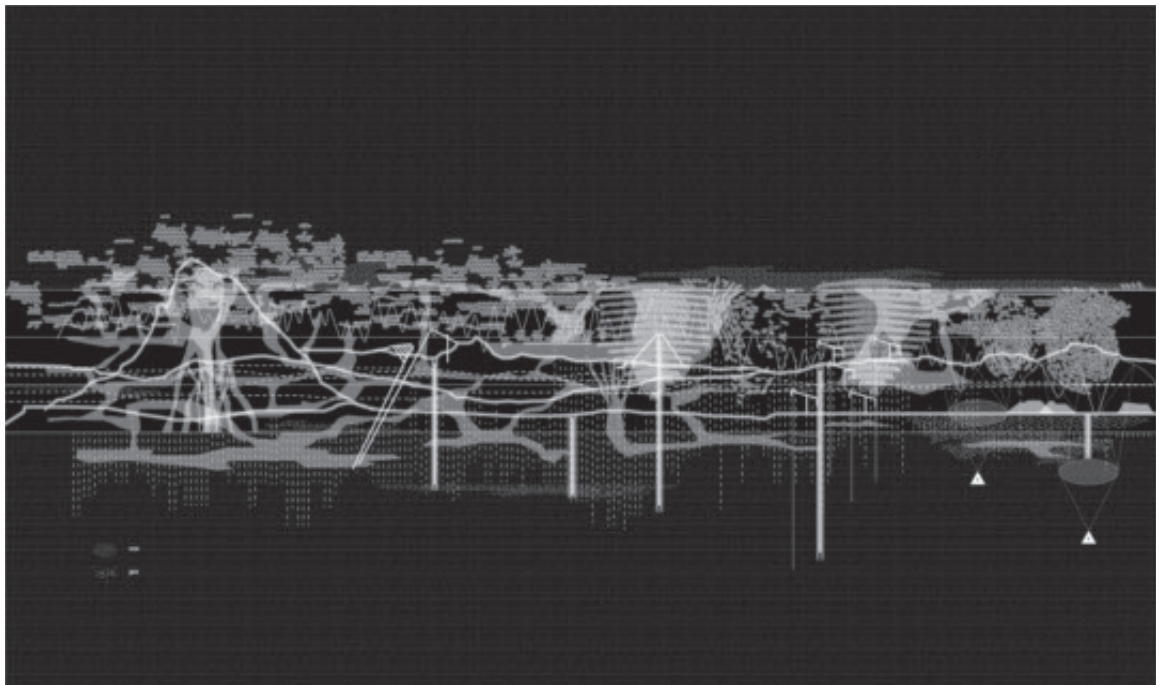


Fig. 1. Alexandra Arènes: *Cross section of the critical zone, sideways layers*, 2016

So you have borrowed the notion of critical zones from a group of scientists; are these soil scientists?

They include soil scientists. But they are actually coming more from geochemistry and bio-geochemistry, and they are interested in hydrology and geomorphology and the broader discipline of biology and eco-systems. But within this notion of critical zones, they are bringing together lots of disciplines that are looking at the same layers but in different ways. Critical zones bring these disciplines together, much like the work done in AURA [Aarhus University Research on the Anthropocene] with the brown coal beds in Jutland.⁴ That is, you take a field site and try to understand as much as you can from this site, mixing high science with boots-on-the-ground science. In the critical zones I've studied, they bring instruments of high accuracy, and then, from one site to another they collaborate to standardise the data. It's close to what we usually call geography, but it's a new way to reenergise the many things geographers are doing, with a very strong anthropogenic aspect. This work is a way of bringing people and disciplines together, trying to make them collaborate with each other.

What would you then say is the connection between these very concrete critical zones of soil and other sciences, and the way you work with critical zones as a concept? One of the interesting things you write about critical zones is that a critical zone can be a lot of different things: it can be a garden and it can be the Amazonian Basin.

This difference is also what I'm interested in. Because the scientists of critical zones work from a more classical paradigm of science – they are interested in the specificities of particular places. And these specific critical zones are amazingly heterogeneous. When you are on the earth-system, every single kilometre, metre and centimetre is different, and they confront and enhance the heterogeneity of the critical zone, which is why I find them so interesting. They are recovering the heterogeneity of the land, so to speak. But critical

4. The cross-disciplinary research group, Aarhus University Research on the Anthropocene (AURA), has been collectively researching the former industrial brown coal beds in Søby, Denmark as a local Anthropocene landscape. In June 2016, Bruno Latour visited AURA and the brown coal beds along with Belgian philosopher of science Isabelle Stengers. For the exhibition *Moving Plants*, Camilla Berner has also worked and conceived her art at the brown coal beds of Jutland.

zones are better than *land* because it's much more than land or even soil. It's also better than *the globe* and it's better than *nature*. However, to the scientists of critical zones they are just critical because we live in it and it's fragile, and, thermodynamically, it is far from equilibrium. They use the term critical in a common-sense manner.

But you add a philosophical substance to it?

Yes, it was too good to not be used. So I generalise it, as when I say "the critical zone of the globe". This is not their term.

This seems to connect to your thinking about "the land of old", "the globe" and "the earth".

Ah yes, then I politicise the whole thing. I work with artist and architect Alexandra Arènes in trying to figure out the relationship between these three poles or attractors (fig. 2). The third pole, the earth or critical zone – the new place we need to locate – is neither the globe nor the neo-local, and Alexandra tries to visualise what it is: this new thing that artists, art historians and scientists are collectively trying to describe. It's a very interesting movement, where everyone is trying to figure out what this thing is. This third pole has many different scales and it can be a garden as well as an entire landscape, but it's layered and because of this it's never *exactly* what you see: you are embedded into it, you never see it from above. You see it sideways.

In the performative lecture that I did in the theatre a few months back, I'm actually *within* the layers. We wanted to project the layers of the third pole [earth] on the floor, so that I was walking within it, so to speak. But the spectators couldn't see a thing, which is actually a beautiful philosophical point because we don't see the critical zone in which we reside. That is what's interesting and that's why it's something artists and scientists have to work on together. *Seeing* the critical zone belongs to a different register of visualising or scopic regime that has to be explored. This is the work that Alexandra Arènes is doing, collaborating with critical zonists⁵ – biochemists and others – to describe and find ways of visualising critical zones. The scientists are as eager as us to do this work.

5. A term Bruno Latour has proposed to describe the mixture of disciplines working on and in critical zones.

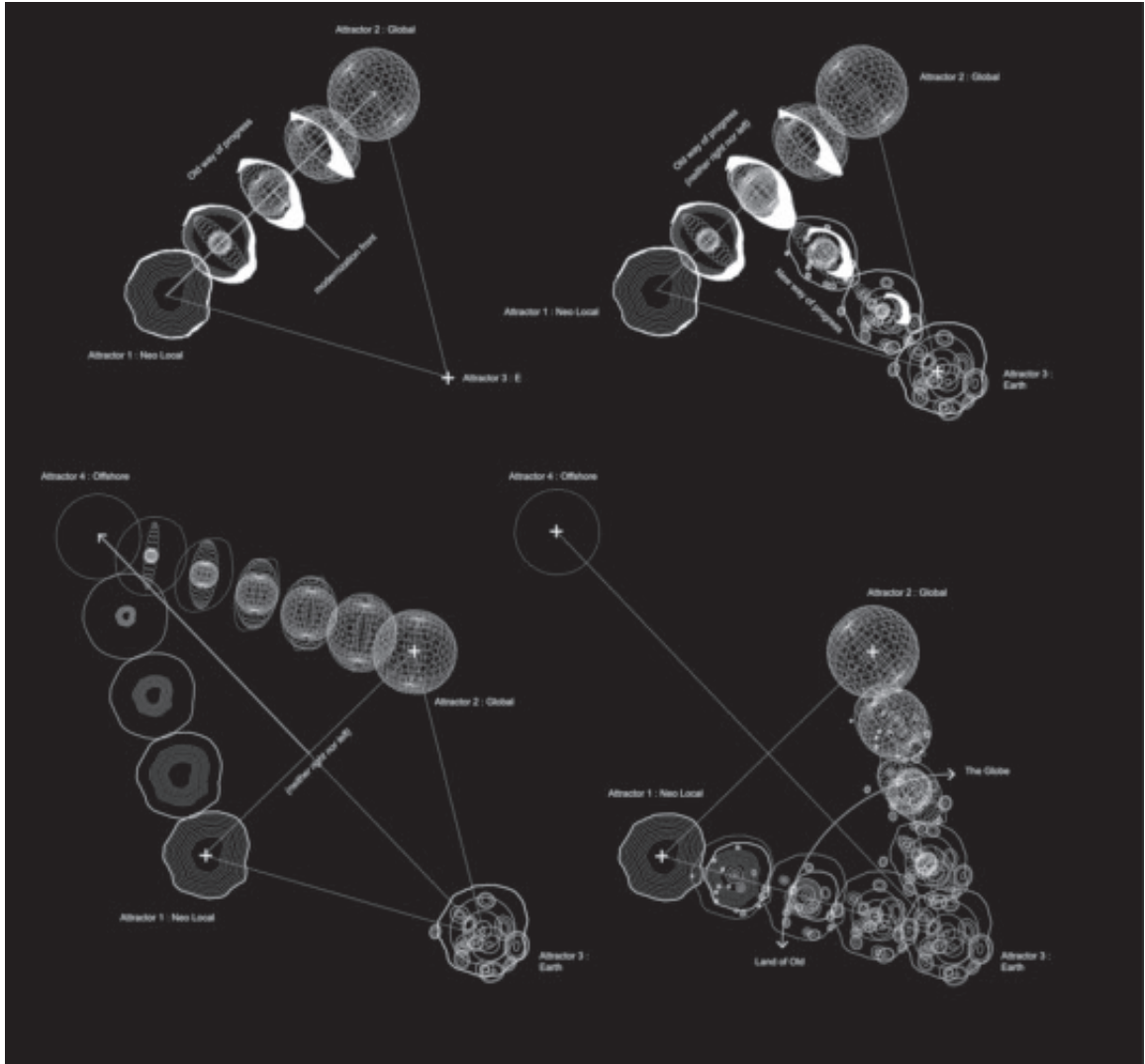


Fig. 2. Alexandra Arènes: *The political attractors*, 2017.

And does this relate to your writing on how we need to be in the earth rather than on the earth? Is this what art might be capable of—getting us in the earth?

This is the argument. I'm trying to find words for what everyone is feeling. But it's very interesting that when you do exhibitions about this, like I did recently in Karlsruhe with the *Reset Modernity!* show, it just isn't very attractive. Because it has this mundane, earthly, ruinous, brown, layered character, which is not the sort of thing that looks like the global horizon of modernity.

There was a moment when the arts still existed with the accelerationist movement,⁶ which pushed further along the modernising line. This, of course, still exists, but it's the wrong direction, because there's no earth corresponding to the modern globe. The globe and the earth are now physically, politically, diplomatically and geopolitically distinct. This is why, in the diagram (fig. 2), I added a little thing on the bottom left figure. This is Mr. Trump. Mr. Trump is inventing a fourth attractor. It's simultaneously the extreme ideal of the traditional soil or land of old [the first attractor], but also the extreme of exploiting globalisation [the second attractor]. It's simultaneously completely global – with billionaires running the show – but while telling people we should go back to where we were in the 1950s.

I think I invented this fourth attractor because it has to do with our understanding of fascism. However, it's not a fascist invention, because a fascist invention would be more along the traditional line [the land of old]. But Trump has invented something else, which is simultaneously a return to the land of old but reinvented, which is why I call it neo-local. It's a new local, a new land of old, but combined with business, with real estate and reality TV – which is completely contradictory, and detached from any sort of things. I find it interesting how all of the members of the American government and all of the establishment in place now are climate deniers. And if you look at the diagram, the position of this neo-local [the fourth attractor] is exactly the opposite of 'the earth'. Trump is the first completely ecological government, except in the negative. You cannot make sense of it and its complete *unreality* if you don't realise that it's actually built on the denial of the ecological crisis.

6. Following Latour's notion of modernity, part of it is the ideal of progressive acceleration forward: the post something or other. This has also been a central ideal to artistic practices. In this context, Latour is also hinting at and generalising an actual theoretical movement that arose in the 2000s under the banner of accelerationism.

One of the things I really like about the diagram is that down here, where the critical zone is [the earth or third attractor], it becomes a big mess.

Well it is, and Alexandra found a way to elicit one concept of the big mess, which is that it's more worldly than the neo-local, and it's much more localised than the global, which is of course what we are all struggling with: not linking local and global, but reinventing at different scales for different objects, many ways of being local and global simultaneously.

So where does this put us in terms of rediscovering earth?

Well, we do the exact opposite of saying it's either the land of old or globalisation. We are here, at the third attractor, the earth. It's the same globe, just diverted. The globe in real estate is a very strange thing. Of course, real estate has a contact with soil, but it's a most stupid and uninteresting way of defining soil. It's the old soil of the first attractor, of the land of old. But now, in rediscovering earth, we are simultaneously reinventing what it is to *have soil* and I find the desire of people to have soil absolutely legitimate, because we can't find our ground.

In my view, Alexandra has found a very beautiful way of visualising the earth, not the globe, but the earth as Gaia (fig. 3 and 4). And it doesn't have the same aesthetic as the globe. It's partly a ruin because it's completely anthropogenic and destroyed, but at the same time it's also full of different entities.

So if we are experiencing a representational crisis regarding Gaia or earth, what kind of merits would you think art can have over, for instance, science or religion, which you have also dealt with in terms of rediscovering the earth and representing it?

The representational crisis is a common problem for everybody. It's not that art has specific competencies for this – I mean, I think it has specific competencies – but the crisis is an enigma all disciplines have in common. We don't know how to represent the place where we have to land after we tried to be modern, so we need resources from all sorts of places, and one of them is arts, another is sciences. Of course, we also need religion but we are completely dependent on artists and scientists because here we have a massive amount of competencies to produce alternative forms. But it's not

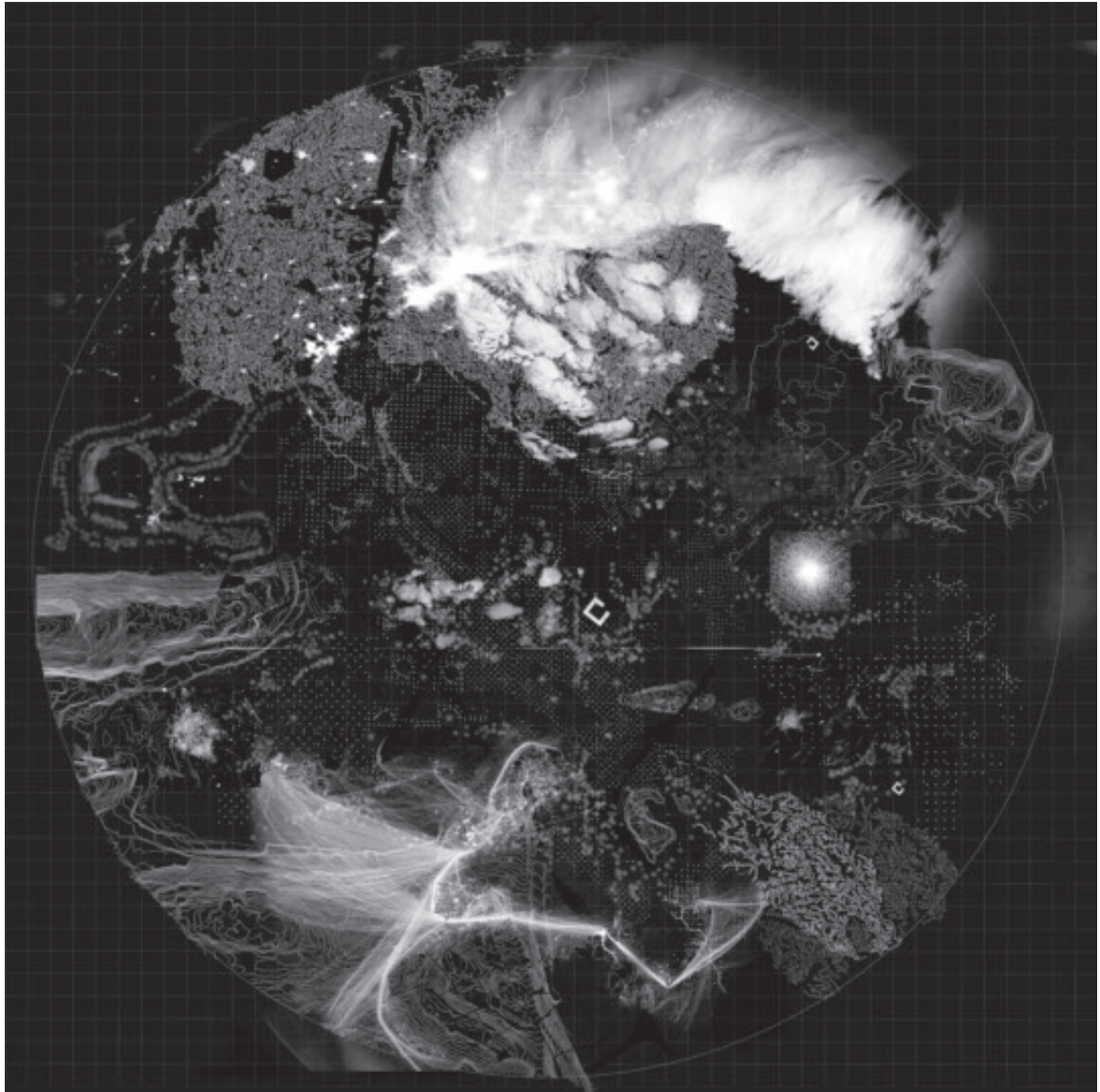


Fig. 3. Alexandra Arènes: *Untitled*, 2015.

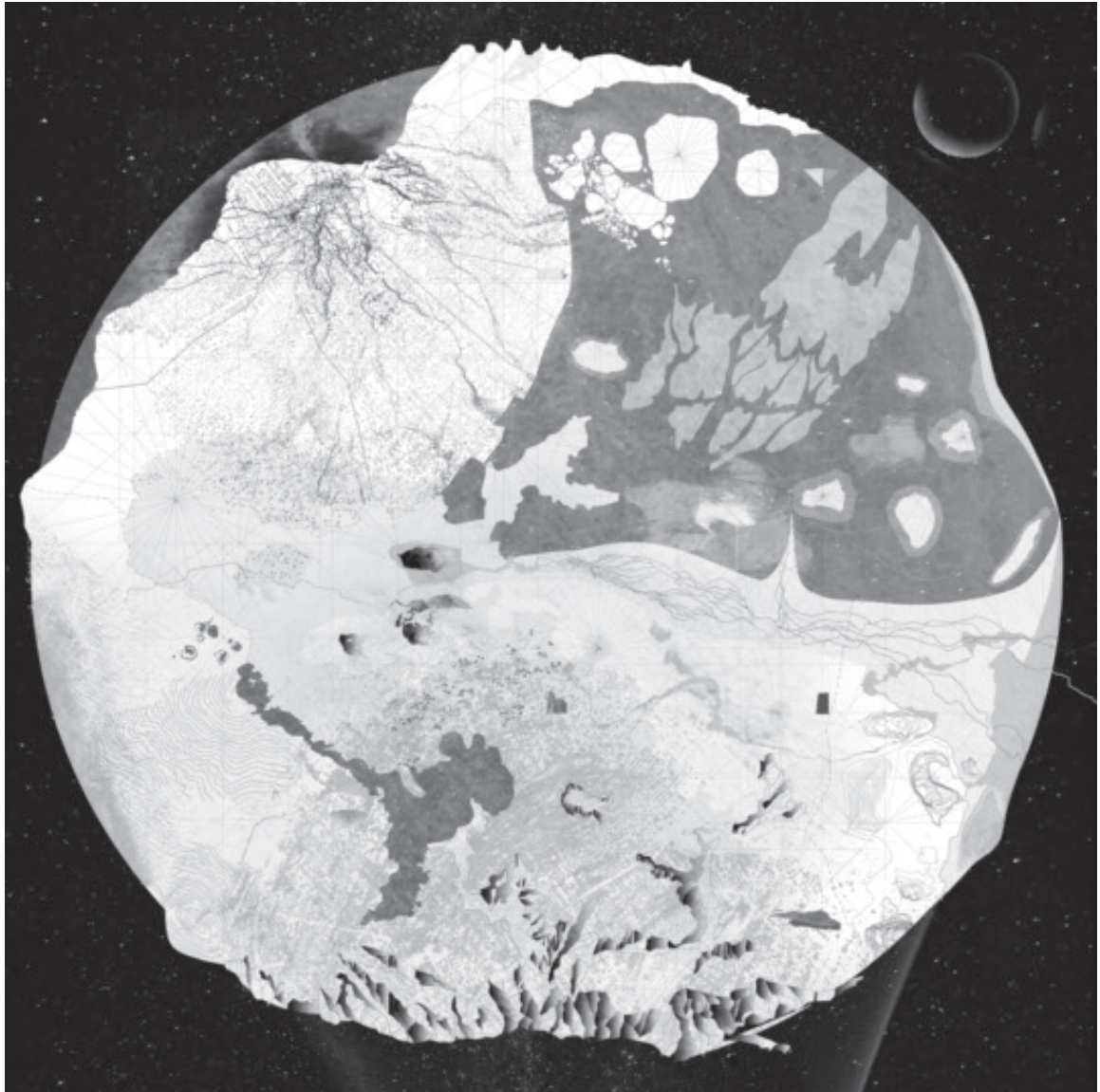


Fig. 4. Alexandra Arènes: *Anthropogenic earth*, 2015.

the arts as *art*; it's the arts as artists equipped with skills, who are learning what the world is made of.

But it seems to me, in the things you're saying now, that art actually does have a particular position in articulating, or in helping us in finding the way to this earth which we have difficulties locating?

No, I don't think so; the artists were modernist when we were modern and they were formalist when we were formalist. They are like all of us, trying to understand what time and space we are in. It's not because artists have a special flair for it, it's their skills which are specific, when they seriously deal with the same topic as the religious, the scientists and civic society. Because we are so deprived of moves, abilities, forms and feelings, in all the sense of aesthetics, art is important because of artists' skills and how they can be used in collaboration with scientists and civic society.

So to you it's actually the collaborations and the meeting points between all these disciplines that are important? It's not so much arts that are important, but spaces where all these different sensibilities work together – for instance in a critical zone?

Yes. The “here” – where we are – is an enigma. We are all lost, we just know that we have to land somewhere, but we don't know where.

And we need the collective efforts to find our landing spot?

It's swarm work and we need lots of different competing and collaborating skills, trying to figure out where the hell are we landing! So, an anthropologist like Anna Tsing [head of the AURA project, see p. 19] doing field work and inventing concepts like *plantationocene* and *living in ruins*, is as important for the swarm of narration as a biochemist discovering a new phosphorus cycle. As interesting as an artist finding a way to represent in her work the completely unscalable, complex, and non-visible-from-the-outside earth.

Now we are talking about where to land, about space, but is this also a problem of time? Is there also a temporal aspect to our current process of reorientation?

On time, we are slightly more organised, because of the Anthropocene figure. The dispute around time is organised around the dispute about the Anthropocene; the name, the concept, the date, etc. I think it's more elaborated and almost institutionalised now, which is different from the question of space, so *where* we are is even more disturbing than *when*. *Where* is not as organised, precisely because of our understanding of nature: people say that we are now more interested in nature than ever before, but that's completely wrong. It's not nature we are looking for, we cannot do anything with nature. I think that's why many people are so fascinated with soil: it's something completely different from trying to be modern. When you talk about earth, soil, dirt, compost and all of this, it's obviously a different way of imagining the *where*. What I was trying with the diagram (fig. 1) is exactly to orient us towards *where* we are. The urgency makes us think and imagine in another way: where do we land?

Still, somehow the things we are talking about here, people would call nature in common parlance. And of course, while curators, artists and scholars can insist on not using that term, what people see, for instance in an exhibition showing plants or gardens, is nature. So how do you think that we can actually use an exhibition – like you have done in Reset Modernity! – to centre on specific attachments, rather than vast nature, regarding the ecological crisis?

I can only talk as a curator now. But we decided [for *Reset Modernity!*] that there can be no one single plant. Green, global and natural. All these things are completely wrong in terms of finding out where we are. We don't know where we reside, and to help us rediscover earth, art should do things completely different from boring *nature-stuff* and nature art, where you have the globe, homogeneity and *things green*. We did not show one single image which could be even vaguely related to the repertoire of nature. The first thing I told my co-curators was that everything has to be brown, layered and not green whatsoever. It was precisely to help the visitors to shift attention away from what we associate with nature: green, globally unanimous and nice. It was really about earth – about soil.

But if we only have humans and soil, then don't we risk losing the layered texture of critical zones? Don't we lose the heterogeneity of the many layers, if we don't have the green, the plants, animals and such? I'm curious to

what thinking you did for choosing that particular approach, other than just eliminating nature?

It was precisely about seeing the stratigraphy. Of course there are things above, up there, that might be green, but the main affect of the exhibition is that we are in it – the layers of earth – and we are looking at it sideways: we see layers and we are one of the layers. Because the problem with gardens, plants and so on is that they positively reemphasize the notion of artificiality. I wanted to show clearly that it's not about nature *and* artifice, that we can't make the modern disinction this way. We wanted to see the conceptual effect; that we are landing on a different type of territory, so don't believe that you know what it is when we talk about nature!

Of course, it's just one of a hundred ways art deals with the issue, and we need the collective skills from artists, scientists and others, to find out where we are landing. Nothing stands on its own. Neither a tree, nor art, nor anything else.

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