Entangled with the interconnected logics of coloniality and modernity, the landscape idea has long been a vehicle for ordering human-nature relations. Yet at the same time, it has also constituted a utopian surface onto which to project a space-time 'beyond' modernity and capitalism. Amid the advancing techno-capitalization of the living and its spatial supports in transgenic seed monopolies, fracking and deep sea drilling, biopiracy and geo-engineering, aesthetic-activist practices have offered particular kinds of insight into the epistemological, representational, and juridical framings of the natural environment.

This book asks in what ways recent bio- and eco-artistic turns have moved on from the subject/object ontologies of the landscape-form. Moving from botanical explorations of early modernity, through the legacies of mid-twentieth century landscape design, up to artistic experimental recodings of New World nature in the 1960s and 1970s and to present struggles for environmental rights and against the precarization of the living, the critical essays and visual contributions included in ~~*Natura*~~ attempt to push thinking past fixed landscape forms. Their interdisciplinary encounters encompass analyses of architectural sites and artworks, ecocritical perspectives on literary texts, experimental place-making practices, and the creation of material and visual ecologies that recognize the agency of non-human worlds.

With contributions by Genaro Amaro Altamirano, Maria Thereza Alves, Jens Andermann, Ursula Biemann, Lisa Blackmore, Dayron Carrillo Morell, Jill H. Casid, Emanuele Coccia, Javier Correa and Victoria Jolly, Álvaro Fernández Bravo, Oliver Lubrich, Eduardo Jorge de Oliveira, and Nuno Ramos.

ANDERMANN, BLACKMORE, CARRILLO MORELL (EDS.) ~~NATURA~~

JENS ANDERMANN
LISA BLACKMORE
DAYRON CARRILLO MORELL (EDS.)

~~NATURA~~

ENVIRONMENTAL AESTHETICS
AFTER LANDSCAPE

THINK ART

the way it is able to ally itself to indigenous epistemologies and address the mesh of life that continues to throb after the end of the world.

Emanuele Coccia

The Cosmic Garden

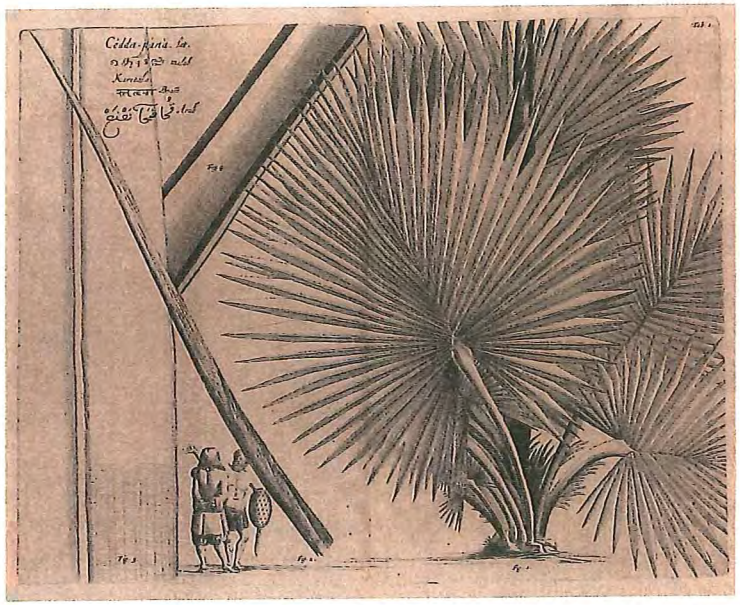

Figure 1. Hendrick Adriaan van Rheede, "Codda panna." Table 1, *Hortus Indicus Malabaricus* (1683–1703). London: Wellcome Collection.

Imagine you have no eyes. There are no colors in front of you. No forms. No patterns. No outlines. The world is not a variety of bodies and intensities of light. It is a unique body with different degrees of penetrability.

Imagine you have no ears. There are no noises, no music, no calls, no language you can understand. Everything is but a silent excitement of matter.

Imagine, too, you have no legs. You can't move unless something hurts you. Or better: you can't move but you can't stop hurting, touching other bodies and other elements. You have

no legs and the world in front of you has no depth. Everything is but a huge, heterogenous, protean, and indefinite *mass* that you can penetrate or that can penetrate you.

Imagine you have no arms and no hands to catch and touch things, to filter and distinguish in the vast arrays of world components any *objects*—that is, stable, fixed, defined entities. The world is a unique flowing body where nothing can be separated out from it.

Imagine you have no senses and no movement organs, and still you can't stop growing and constantly refashioning, reshaping your own body, its form, its volume, its contours, its extension.

Imagine all this and try to define how the world would look to you.

Imagine all this and you will have a still imprecise but at least approximate idea of the world as observed from the point of view of plants. The world is a body before or beyond space. A body that is not visible, not walkable. *A non-spatial body*.

To imagine all this is not an idle and bizarre thought experiment. It is the condition of possibility of speculative cosmology. This will be the first point of my chapter: *plants are the privileged prism through which to observe and describe the world and its nature*, and even the relationship between living beings *in general* and the world. If we have to imagine this—to imagine the world from the point of view or the point of life of a plant—that is because the world is literally produced by plants. The world is a *vegetal entity*: it is a *garden* much more than a zoo and only because it is a garden can we live in it. *Every cosmological speculation must begin under the form of botany*.

Now, if plants are able to shape the world and not just to be shaped by it, they are *cultural actors*. Culture begins with plants, and conversely, plants regard living matter *and* the living world (living bodies and atmospheres) as their own byproducts. If the world is a garden, plants aren't (or are not really or not just) its *content* or its *inhabitants*. *They are the gardeners themselves*. We

Figure 2. Johann Jakob Römer and Paulus Usteri, "Sphora tetraptera." *Magazin für die Botanik* (Zürich: Ziegler und Söhne, 1787). New York Botanical Garden.

as all other animals are the object of the gardening action of plants. We are one of their *cultural* and agricultural products. Translated into more familiar terms: they are not the landscape, they are the original and very first landscaper. Or, to put it more provocatively, there is no landscape because all things, even the most apparently immobile living beings, are changing the face of the world.

Now, to acknowledge that plants are the gardener means that Earth has nothing transcendental or original. The real object of gardening (that is the original ground of our life) is not the Earth's soil but the sky. That will be my second point: the first, original agriculture is celestial agriculture. Or to put it in a much more direct way, the landscape is always a figure of the sky and not a particular configuration of the surface of the Earth. Landscape is a particular rhythm of breath, a meteorology, and not a geometry. The real landscape is the climate: Earth, and its superficial form, are just an accident.

These are my two points. *First*: What we call *landscape* is a huge number of different landscapers. What we call *garden* is an army of gardeners. *Second*: Gardening is always a climatological operation and not an agricultural or a geological one. It has nothing to do with the soil but concerns the sky and the atmosphere.

1. Cosmology Is a Branch of Botany

Claiming that the world is a garden means, firstly, that it has the status of an artifact, something which is at the threshold between nature and culture. The world is a *cultural* production of a living being and not just the transcendental condition of possibility of life. *Gaia is the daughter of Flora. Or better, she is but the cosmic doll of Flora.*

Plants, indeed, are the major cosmogonic force on our planet, since they have begotten the world as we know it and

inhabit it, they have *made* and continue to make our world in at least three senses. Those three senses are in a way *the gardening activities of plants*, by which I mean *activities that make life on Earth possible.*

In the first place, by conquering the surface of the Earth and spreading all over the globe, plants have produced (and continue to produce continuously) the oxygen-rich atmosphere which made possible the existence of all superior animal life. Higher animals can live only because they can breathe the byproduct and the excretion of plants' metabolism: *oxygen.* Secondly, by exploiting on a larger scale a mechanism invented by cyanobacteria, plants make it possible to transform solar energy into living matter: *organic life is only the consequence of this ability to transform the sun into animated mass.* Photosynthesis is indeed the alchemical operation that allows the storage of solar energy in the form of the chemical bonds of complex molecules. And it is only through the variant process developed by plants of this construction of living matter from solar energy that life on the planet has ceased to be a marginal fact—from both a quantitative and a qualitative point of view—to instead represent its principal characteristic, its very essence. Plants are immediately or indirectly responsible for the production of the planet's biomass; not only do higher plants represent about 99 percent of the eukaryotic biomass of the planet, but they also represent the energetic condition of possibility of the existence and the nutrition of all superior animals. Plants are the living beings that embody the process of storing and transforming solar energy (the most powerful source of energy for life on this planet) into living matter. They are, literally, a sun-power engine. That's also the reason why they are at the origin of most of the objects and tools that surround us (food, furniture, clothing, fuel, medicines).

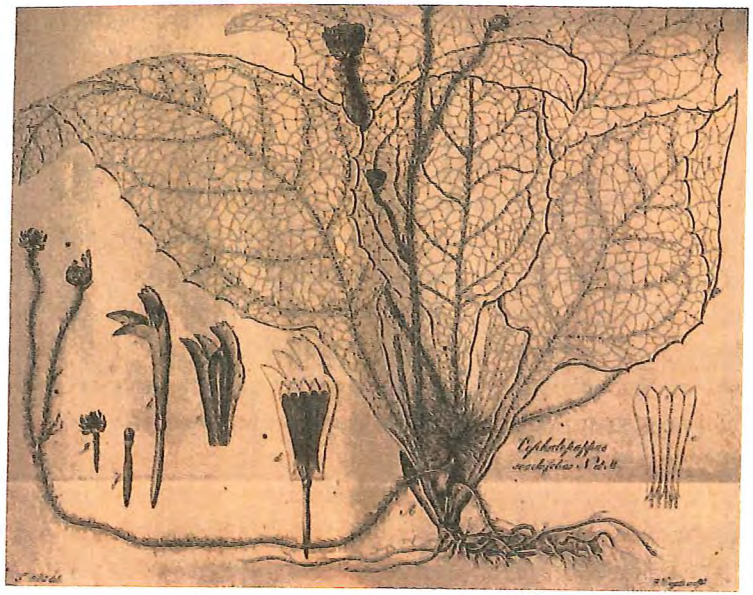

Figure 3. Maximilian Prinz von Wied-Neuwied, "Cephalopappus sonchifolius N. et M." Table 7, in *Beitrag zur Flora Brasiliens* (Halle, 1823–1825). Missouri Botanical Garden, Peter H. Raven Library.

Plants, finally, have invented a body that is structured not to oppose exteriority but to adhere to it as much as possible—or rather, to confuse oneself with the world to better modify it. Unlike animals, that already in the embryogenetic process of gastrulation produce a body defined by an interior space that will host the most important life processes of the organism, the life of a plant takes place almost exclusively on the surface of its body.

For these three reasons, to search for the nature of the world means to search for the nature of plants: cosmology is just a branch of botany. That is the epistemological consequence of the claim that the world is a garden. And yet, this claim denies at least three postulates of traditional cosmology. In the first place, I claim that the principle that engenders the world is a

Figure 4. Augusta Innes Withers, "Epidendrum macrochilum *var.* roseum," in James Bateman, *The Orchidaceae of Mexico and Guatemala* (London: Ridgeway, 1837–1843). Missouri Botanical Garden, Peter H. Raven Library.

worldly element and not a super-subject that is prior and external to the world: there is a world only because cause and consequence, origin and its expression, are contained in one another. There cannot therefore be a reflection on a worldly object which is not, de facto, *a cosmological reflection*. Secondly, the origin of the world is not to be sought in a remote place and time: it is everywhere and it exists always, for the genesis of the world, of our world (*photosynthesis*), is not a singular event (a Big Bang) but a process *which is constantly taking place*. The world always starts at its center, in the middle, and so there is no history that is not cosmology. Thirdly, every living form is at the same time a form of the world which it simultaneously produces and contemplates. In order to observe the world, we do not need a point of view, but a point of life: the universe lives, it is a product of the living, at any scale, and it is by observing the living that we can explain the universe, not vice versa (contrary to what Quentin Meillassoux thinks, we can never go beyond our *point of life*: speculative realism presupposes the presence of the living that can speak, write, breathe, but it cannot explain it).[1]

2. World-Gardening Is a Form of Air-Conditioning

The main gardening activity of plants doesn't operate on the ground but first and foremost in the *air*. Indeed, if the universe we inhabit is the result of their action and their life, it is because of their ability to irreversibly change the nature of the *most vulnerable and yet the most important part of our world:* the atmosphere. Scientists used to call this event (which is at the

1 Rick Dolphijn and Iris van der Tuin, eds., "There is Contingent Being Independent of Us, and This Contingent Being Has No Reason to Be of a Subjective Nature. Interview with Quentin Meillassoux," in *New Materialisms: Interviews and Cartographies* (Ann Arbor: Open Humanities Press, 2012), p. 71–81. E-book, accessed October 2016. DOI: http://dx.doi.org/10.3998/ohp.11515701.0001.001.

same time something which continuously takes place, at every single moment) the Great Oxygenation Event (GOE), or the Oxygen Catastrophe (or in some variants, the Oxygen Crisis, Oxygen Holocaust, Oxygen Revolution, or Great Oxidation). This catastrophe consisted in the production of dioxygen (O_2) by the first photosynthetic organisms, like cyanobacteria, which changed the composition of Earth's atmosphere. Only the development and the diffusion of vascular plants on Earth allowed the atmosphere to stabilize: the amount of free oxygen (a byproduct of photosynthesis) was able to exceed the oxidation threshold and accumulate in free form. In turn, the massive presence of oxygen led to the extinction of many anaerobic organisms that inhabited land and sea, to the benefit of aerobic life-forms. This paradox is extremely important. The origin of our world was a catastrophe. Or to say it again in a more direct way: the first, most powerful gardening act of our world is a pollutant event. Gardening is pollution, and pollution is one of the most powerful options in gardening.

More importantly, the definitive settlement of living beings on land coincided therefore with *the radical transformation of the airspace surrounding and enclosing the Earth's crust*: thanks to the plant invasion, the earthly atmosphere could lastingly change its internal composition and become the first environment of all living beings. Plants demonstrate that our world is not just or not really the external *solid* crust of the planet (the exterior limit of its solid mass), but the circulation of gas, fluid, and solid bodies that we call *atmosphere*. If the world is a garden, it is only thanks to the atmosphere and only within this metaphysical cycle of *transformations of matter* made possible by the atmosphere.

This is exactly what a very long tradition in biological study, from Lamarck's hydrogeological research[2] to Vernadsky's con-

2 Jean-Baptiste Lamarck, *Hydrogeology*, trans. Albert V. Carozzi (Champaign: University of Illinois Press, 1964 [1802]).

cept of biosphere[3] or Lovelock's first articles on Gaia,[4] tried to express: there is life on Earth (that is, Earth is a garden) not because of the solidity of the ground but because there is a metaphysical space—the atmosphere—that allows everything to become everything else, a sort of alchemical cosmic laboratory. The paradigm and the evidence of the inner dynamic of the atmosphere is *the breath*. To inhabit the world, that is, to inhabit the atmosphere, means to breathe Atmosphere (which is the condition of possibility of breath); it is the movement through which the body with which we are merged penetrates us with the same force that *we have* to penetrate it. Breath is the dynamic form of a very special kind of mixture, and thanks to breath, the atmosphere is the structure, the form, and the force of the universal mixture of beings (living or not) which compose a world.

Only because of the atmosphere—because of breathing—is the world the space of the mutual cohabitation of an infinite number of living beings. Only because of its atmospheric structure, does the world have a unity. Conversely, thanks to plants, the Earth definitely becomes the metaphysical space of the breath. To conclude the second point: *Every garden is the production of an atmosphere. Every garden is a technique that has to make breathing possible.*

3. What Is a Garden?

The Earth is a garden only because of the atmosphere. We can say that plants redefine a garden as an atmospheric condition. To define the atmosphere means to define the garden. Now,

3 Vladimir I. Vernadsky, *The Biosphere*, trans. D. B. Langmuir (New York: Copernicus, 1998 [1926]).

4 James E. Lovelock, "Gaia as Seen Through the Atmosphere," *Atmospheric Environment* 6, no. 8 (1972): p. 579–580; James E. Lovelock and Lynn Margulis, "Atmospheric Homeostasis by and for the Biosphere: The Gaia Hypothesis," *Tellus* 26, no. 1 (1974): p. 2–10.

the atmosphere is not just a space. It is a unifying force, which produces a very special type of unity which does not presuppose identity in substance or form between the things it unifies. Saying that the world exists firstly as an atmosphere, as a climate, means that it is not a collection of the totality of things, nor the infinite horizon within which all objects exist, nor a super-object, but the mixture of everything, with the status of global mixture.

The first to interpret the unity of the world in terms of an atmosphere were the Stoics. They distinguished three forms of mixture: simple juxtaposition (*parathesis*), where different things form one mass keeping each of them within the limits of its own body without sharing anything with others, as is the case of a mass of seeds or stones. In this model, the world would be the result of simple addition. A second form is fusion (*sugchysis*), where each component is destroyed in order to produce a new object, a super-object, which has a different nature and a different quality than its original material components, as is the case of perfumes. In this case, the world would be the product of the destruction of its components. In the third case, the global mixture, (*krasis, antiparektasis di'olôn*), the different bodies each occupy the place of the other, keeping intact their qualities and their individuality. This coextension is what we generally call *immersion* (when we are in the sea, we are not just in a relationship of inherence with the sea: we are at the same place as the sea and conversely in it). To think the world as a space of immersion means to overcome the idea of composition and fusion. Between the elements of the same world there is an intimacy which is much deeper than the one produced by the physical contiguity of disparate elements: the unity which corresponds to the fact of belonging to the same world is something more than the unity of an amount of seeds, but something less than a fusion. The world is neither a simple addition of elements which have different forms and substance nor the blending and the consequent reduction of the variety of materials,

colors, and patterns in a monolithic unity. If different things make up a world it is because they can mix without losing their identity. Following the Stoics, the unity of the worldly mixture is not a static but a dynamic one: immersion is not the position of something in something else, but a movement of a force which unifies the immerged body with the body in which it is immerged.

The first evidence of this force is our breath, and breath is the name of this dynamic unity. Indeed, whenever we breathe, we are experiencing an immersion in air—and to be immersed in air means to penetrate the air with the same force that it penetrates us. Breathing is nothing other than the germinal movement of what, on a global, cosmic scale, is called *atmosphere*, and conversely, climate is the breath of a cosmos. As Newton will say, "This Earth resembles a great animall or rather inanimate vegetable, draws in aethereall breath for its dayly refreshment & vitall ferment & transpires again with gross exhalations."[5]

From a metaphysical point of view, breathing is firstly characterized by an inversion of the relationship of inclusion. The relationship between content and container is constantly inverted: the place (the air) is converted into the content of another place (ourselves) and the content (the air we exhale) is converted into the place we are in. Taking over a formula of the Greek philosopher Anaxagoras, it could be said that atmosphere is the metaphysical space where everything is in everything (*pan en panti*). Immersion is not just the contingent condition of a body within another body: it is not a relationship limited to two bodies, but a cosmic condition that concerns everything. But more importantly, the idea that everything is in everything means not only that the condition of immersion is a universal one, but that it is a reversible one. Being in something means to become the place of our place. That's exactly what we experience during breathing. To breathe means to experience that the body in which we are is at the same time within us. The global mixture, the atmosphere, the climate is the fact that everything becomes the *place of everything else*, and conversely, that everything which is inside us becomes our place, our world.

5 Isaac Newton, "Of Natures Obvious Laws & Processes in Vegetation" (ca. 1672), Dibner Collection MSS 1031 B (1, n. 30), f. 3v. Washington, D.C.

To conceive of the world as a global mixture, that is, as an atmosphere, means to conceive of space as the kingdom of universal interiority: there is space not because everything is exterior to everything, but on the contrary because everything is inside everything. Or to put it in a more urban language: climate, atmosphere is the ontological inversion of the classical physical idea of space.

Atmosphere as the place where everything inheres to everything is the absolute immanence: immanence no longer conceived of as a foundation or a root, a common ground, but as the fact that every ground is grounded by everything else. Everything is immanent to everything: immanence is not the relationship between something and the world, but the condition of intimacy and proximity with everything. What we call *Anthropocene* is actually nothing but this: the evidence that the world has no substance other than that of a climate, and what we call atmosphere and used to believe to be the exterior and gaseous slice of our Planet (the negation of its geological solidity), is its most intimate core, its nature, and the force of the communication of everything in the world. When the world is an atmosphere, being in the world means that nothing can be considered exterior. Climate presupposes this constant topological inversion, this oscillation between subject and world, object and subject. It is the space where nature and culture cannot be distinguished anymore.