

REVIEW: HOW TO LAND ON EARTH. FROM CRITICAL ZONES TO THE TERRESTRIAL

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ABSTRACT

The oeuvre *Critical Zones. The Science and Politics of Landing on Earth* addresses the climate crisis mainly through the few-kilometers thick layer of *critical zones* that surrounds planet Earth, within the scope of *New Climate Regimes*. It proposes the redefinition of concepts such as *Gaia*, and suggests new ones, namely *Terrestrial*. The book is the product of a collective endeavor from scientists, artists, philosophers, historians, and activists, arguing that areas, disciplines and all living beings are connected. While associated with the ongoing scientific project *Critical Zone Observatories*, it was developed and launched during the exhibition *Critical Zones - Observatories for Earthly Politics*, in May 2020 at ZKM Karlsruhe, and edited by its two main curators, Bruno Latour and Peter Weibel. This review will introduce an impressively complete work, whose reading is as stimulating as necessary, and which contributes remarkably to what will be the most important debate of our century.

Keywords: Critical Zones; Earth; Climate crisis; Science; New climate regimes; Art.

Latour, B & Weibel, P. (2020). *Critical Zones: The Science and Politics of Landing on Earth*. MIT Press & ZKM | Center for Art and Media Karlsruhe.

In *Critical Zones – The Science and Politics of Landing on Earth*, artists, scientists, philosophers, and writers “portray the disorientation of a world facing climate change”. Edited by Bruno Latour and Peter Weibel, the book was launched by occasion of *Critical Zones – Observatories for Earthly Politics*, at ZKM | Center for Art and Media Karlsruhe (May 2020 - January 2022), the two curators’ fourth *Gedankenausstellung* (thought exhibition), an exhibition of objects, through which a subject is discussed and answers are sought. Such project counted additionally with Bettina Korintenberg and Martin Guinard-Terrin, as co-curator and guest curator.

The book also discloses the investigation behind Critical Zones Observatoires (CZO), endowing it with a scientific rigor, hence being more than an exhibition brochure or catalogue. The various guest authors examined how changes in cosmology do interfere with politics and what, in this context, is required from us humans. Rather than the globe-like and iconic “blue marble”, they found a series of critical zones that are “patchy, heterogenous, discontinuous”. The preface, by the two editors, addresses the title of the book and the urgency of the theme, allowing a glimpse into the character and relevance of its more than four hundred pages of text. At the end of the book one finds the biographies of those who contributed to it, such as Donna Haraway, Emanuele Coccia and Jennifer Gabrys, references of the exhibition’s artists, and an index of names.

Although reading following the book’s structure is recommended, it is useful to check *Glossolalia: Tidings from Terrestrial Tongues* (Latour &

Weibel, 2020, pp. 318-325), where Korintenberg, Libesking, Preusse and Rau enunciate some crucial concepts. Furthermore, the eight parts that organize the book – *Disorientation, Disconnected, Critical Zones, Gaia, Terrestrial, Divided, Depiction, Suspended* – guide the proposed debate and reflection. The reading thus begins with the recognition that we are in a state of *Disorientation* (Part I) (Latour & Weibel, 2020, pp. 20-71). As Latour (2020, p. 23) explains, the global – what modernity was supposed to deliver on the planet’s surface – is in conflict with the planetary, resulting in what geologists named the Anthropocene. And, in the passage from the Holocene to the Anthropocene, we were left in dubious space and time, somewhat *Disconnected* (Part II) (Latour & Weibel, 2020, pp. 72-117).

To relocate ourselves, we’ll start by identifying the *Critical Zones* (see *The Critical Zone, a Buffer Zone, The Human Habitat*, Gaillardet in Latour & Weibel, 2020, pp.122-129), which names the book and its Part III (pp. 118-163). The concept represents the “thin envelope” over the entire Earth, studied in a set of observatories, through human, material and technical means.

It comprises the various disciplines of planetary sciences, that focus on a qualitative analysis of the ecosystem’s sustainability. This is precisely the field of the project *CZO*, which, although fundamentally scientific, is based on the conviction that nature is more than its modern conception, that is, more than the elements of “natural origin”. As Jérôme Gaillardet (*The Critical Zone, a Buffer Zone, the Human Habitat* in Latour & Weibel, 2020, p. 127) explains, to study the critical zones, scientists analyze critical places, and, quoting Alexander von Humboldt (*Cosmos: A Sketch of a Physical Description of the World, vol.2, 1845-62*), “nature is indeed only a reflex of the whole”. The universe of the natural results from the intersection of areas, disciplines and entities, this being the organizational principle for the exhibition at ZKM, where observatories were not limited to scientific inquiries (more on the exhibition in *Sensing the Critical Zones*, Guinard & Korintenberg in Latour & Weibel, 2020, pp. 402-429).

At the same time, as highlighted in the book’s introduction, *critical* has many meanings, such as fragile, interface, something to be protected, and *zone* is broader than terrain, territory or landscape. Hence, the concept *Critical Zone* breaks with the “cartographical view of planet Earth” and disputes the “legal and political unity of any global view” (Latour & Weibel, 2020, p.14). There are no territorial boundaries, and the territory isn’t a specific space but “all the entities that allow a particular agent to subsist” (“*We Don’t Seem to Live on the Same Planet*” - *A Fictional Planeatarium*, Latour in Latour & Weibel, 2020, pp. 276-281). As exemplified by Pierre Charbonnier (“*Where is Your Freedom Now?*” *How the Moderns Become Ubiquitous*, Latour & Weibel, 2020, pp. 76-79) from the tragic Amazon fires in 2019, all effects extend beyond the space defined by human globalization, as legal, political and ecological spaces converge.

Nature has indeed “become the strongest divisive force in contemporary politics” (p.275) and ecology and politics are intertwined

in geopolitics. So, “What is the difference between social and natural systems? Should a social welfare state be fundamentally different from the natural state?” (Weibel in Latour & Weibel, 2020, p. 396). As Latour (in Latour & Weibel, 2020, p. 321-322) clarifies, one’s stance toward the climate situation defines their core values more than whether they are on the left or the right, as climate turned into one of today’s most urgent political topics. Thenceforth, *New Climatic Regimes* arise.

Within this framework, new concepts are required since, for instance, *Earth* has become insufficient to define where we are. James Lovelock in *Gaia: a new look at life on Earth* (1979), calls Earth’s ever-changing biofilm *Gaia* (see *Life in a Bubble: The Failure of Biosphere 2 as a Total System*, Korintenberg in Latour & Weibel, 2020, pp. 184-187), and uses *life* as a proper noun (see *Gaia Is Alive*, Dutreuil in Latour & Weibel, 2020, pp. 180-183). Likewise, *Ecology*, as explained by Coccia (*Nature Is Not Your Household*, in Latour & Weibel, 2020, pp. 300-303), no longer fits Ernst Haeckel’s primitive application of human society models to non-humans. The term *Terrestrial* (Part V) (Latour & Weibel, 2020, pp. 224-271) is also suggested to represent what we should aim for, since “If we want to land on Earth for good, neither Critical Zones nor Gaia offer a good enough feel” (Latour & Weibel, 2020, p. 226). New placements and understandings of science, law, sovereignty, and all entities are identified (Latour & Weibel, 2020, p.227), originating a “Gaia plus the political”. In other words, as explained by Latour (in Latour & Weibel, 2020, p. 281), it’s the same planetary body as the Anthropocene, but with the politicisation of nature.

As suggested by Coccia (*Nature is Not Your Household*, in Latour & Weibel, 2020, pp. 300-303), Gaia must serve as an example for our politics, since it is autonomous and self-generated. It reacts to human interaction and action through *feedbacks* and *Earth tidings* (messages), a term translated as *Erdkunde* (see *Geognosy*, Koerner in Latour & Weibel, 2020, pp. 114–117), Geography in German. This is not declaring Earth as an organism but diluting the separation of living beings from the habitability conditions that allow them to survive (Latour & Weibel, 2020, p. 167). As mentioned at the beginning of Part IV (*Gaia*, Latour & Weibel, 2020, pp. 164-223), “Shifting attention from Critical Zones to Gaia – the second step in our landing on Earth – means a deep change in the agents at work in what we used to call “nature”. “Nature is no longer outside us but under our feet, and it shakes the ground” (Latour in Latour & Weibel, 2020, p. 276). In this sense, we must end the dualism *us / others*, and nurture a symbiotic relationship with other biological, chemical, and geological realities, since we all merge.

Everything is connected and in contamination, so facing the ecological crisis requires collective and trans-disciplinary actions. So much was inferred under the form of numerous media from ZKM’s exhibition, which was structured in six areas, beginning with *Starting to observe!* and closing with *Becoming terrestrial*. Science, art and technology were combined, spheres that extend their own fields as much our natural perceptions, revealing new territories of reality (see *My Earth Odyssey*,

Weibel in Latour & Weibel, 2020, pp. 386-401). Weibel argues that technology surrounds the Earth much like the atmosphere, as “a medium of wireless transmission of data around the globe” (Weibel in Latour & Weibel, 2020, p. 391), which he calls *Infosphere*.

As for art, it has the potential to represent the most diverse objects and summon infinite subjects. As Latour (in Latour & Weibel, 2020, p. 158) mentions from Sarah Sze’s artwork *Timekeeper* (2018), “It took a sculptor to curb our obsession with the globe, as if the fine arts could also yield discoveries able to give object lessons to scientists and their findings”. Humboldt already defended that theoretical reflections, and scientific arguments are representable by images. Nature, such as “sun and moon appear in this *Naturgemälde*”, that is, in illustrations and writings (see *Nature Painting*, Koerner in Latour & Weibel, 2020, pp. 330-341). In the scientist’s case, in literature, painting, mythology and travelogues. The editing of *Critical Zone*’s book, in columns and spreads, was itself inspired by Humboldt’s *Tableaux de la nature*.

Artists “propose marking the emerging cultural sensibility towards the geologic”, and thus they “recalibrate the sensorium” (see *Trajectories of Modernization in Russia: Artists Recalibrating the Sensorium*, Mille in Latour & Weibel, 2020, pp. 374-379). As Koerner (in Latour & Weibel, 2020, p. 333) indicates, the relation between the human gaze, the features in nature and God, is revealed in painting. Hence this book offers through art and science an accurate *Depiction* (Part VII) (Latour & Weibel, 2020, pp. 326-381) of where we are and for what we stand.

Critical Zones. The Science and Politics of Landing on Earth is therefore a remarkable oeuvre that guides us to *landing*, while fomenting critical and active thinking about the current crisis. Meanwhile, being ourselves somewhat *Suspended* (Part VIII), we must recognize that, as Donna Haraway tells us in *Carrier Bags for Critical Zones* (Haraway in Latour & Weibel, 2020, pp. 440-445), “We do not so much land on Earth as learn that we are of the Earth, not in or on it, much less above it. We are beings of the holobiont that is Earth”.

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