

Introduction

Visions of the »Blue Marble«. Technology, Philosophy, Fiction

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Almost five decades ago, two photographs of planet Earth, taken by Apollo missions 8 and 17 respectively, marked both the end and the beginning of an era: *Earthrise* (by William Anders, 1968, Nasa-ID AS8-14-2383HR) and *Blue Marble* (by Harrison Schmitt, 1972, AS17-148-22727) seemed but an »afterthought«¹ – at first sight a hardly noteworthy side product of the dramatic ›space race‹ between the United States and the Soviet Union that further deepened the divide between the different worlds the hot and cold wars of the 20th century had created – west and east, ›first‹ and ›third‹ etc. At a time when these divisions seemed insurmountable and nothing appeared more remote than the idea of uniting ›the‹ world as a whole, the photographic constructions of this unity and wholeness were not only perceived as a scientific success of empirical representation, but »yoke[d] Earth back to the center of our attention by insisting on an Earthly eccentricity that not even Copernicus had countenanced.«² Although it could have been read as a demonstration of technological superiority on one side of the divide, the space race inadvertently opened an unexpectedly neutral view on Earth from the outside that revealed the unity, the vulnerability as well as the beauty of mankind's home.

1 | Cosgrove 1994, 274: »Ironically, if Earth photography was almost an afterthought in mission planning, it was these low-priority targets of opportunity that would yield some of the most enduring images of the entire Apollo program.« Cosgrove also notes that Soviet Missions did not bring back any photographs of earth similar to those of the Apollo missions (270).

2 | Lazier 2011, 621.

Instead of being received as a proof of American supremacy or as evidence for Earth being a planet like any other, seeing the ›Blue Planet‹ paradoxically created a new and ›global‹ relationship between human beings and their environment in the years and decades to come. In a certain sense, this new ›ecological‹ relationship followed the astronaut's external gaze and rediscovered humanity's connection with its biosphere from the distance of a lifeless satellite: While so many other cartographic or photographic depictions of the globe up to this point had ensured a sense of mankind's superiority over Earth and its nature by marking traces and achievements of human culture – i.e. nations, cities, buildings that were inscribed as artificial names upon the representations of places, regions, and continents – the image of the »naked earth«³ appeared fragile and in need of protection rather than conquest or colonization. Viewed in awe as a whole by the astronauts of the Apollo missions, Earth seemed to render all human borders, conflicts, and even cultural achievements, indifferent.

So it is no surprise that *Blue Marble* is among the most widely disseminated photographs in human history.⁴ It is the ›picture of the world‹ in a twofold sense: an image of the planet as a whole, but also the basis for a collective imaginary of ›our world‹ that as such seems beyond critical reflection.⁵ Therefore, precisely because of its omnipresence, it is especially hard to identify Earth-photography as a specific technology of culture, one that created more than represented an entity and that therefore has to be analyzed within its historical, medial, and epistemological contexts instead of being taken for granted or as empirical evidence. »How are we,« Benjamin Lazier asks, »to write a history of something that ›disappears‹ in its ubiquity? How are we to write a history of an imagination that becomes all the more important as it disseminates and fades, as it seeps into the mental architecture that conditions our most basic, everyday experience?«⁶

These questions are also central to the collection of essays in this volume, and yet they have to be taken far beyond the iconic *Blue Marble* image. The present volume doesn't merely regard the »Earth-

3 | Ibid., 609.

4 | Cf. Lazier 2011, 606.

5 | Cf. Cosgrove 1994, 274.

6 | Lazier 2011, 626f.

rise era« as an effect of »the Globalization of the World Picture«⁷ in terms of the consequences that the new perspective on our planet had had for the various ecological movements of the late 20th century as well as for contemporary ecocriticism. It suggests taking the photographs of planet Earth as a point of departure that enables us to question the general interconnectedness of concepts of »wholeness« and »unity« of the world on the one hand and graphic representations as well as textual discourse on the other.⁸

From this point of view, Whole Earth-photography, innovative as it was at the time, had been anticipated and prepared for a long time. Apart from Stuart Brand's famous demand to finally provide a view of the earth as whole⁹ as well as the subsequent use of whole earth-imagery in the emerging environmental movement, there is a particularly rich and diverse pre-history of drawings and pictures as well as an eminent tradition of philosophical reflection that experiments with and reflects on the possibility of knowing and describing the world as a whole. The various maps and encyclopedias of Early Modern science were an attempt to represent the geographically known earth as well as the world of knowledge »as a whole«. But insofar they were medial representations, they were based not on empirical evidence but on what Bruno Latour calls »drawing things together« in his analysis of the construction of scientific truth by the use of media technologies such as pen and paper, notebooks, graphs etc.¹⁰ Since the age of the printing press, this »paperwork« made representations of the world accessible as »immutable mobiles« all over the world and thus created a homogeneous view that

7 | Lazier 2011 focuses mainly on Hannah Arendt, Hans Blumenberg and Martin Heidegger.

8 | This collection thus carries forward Denis Cosgrove's project of a »cultural history« of representations of the globe: »A cultural history of imagining, seeing, and representing the globe – Apollo's Eye – stitches elements of a historically deep geographical imagination to practices of globalization that have helped define the West through continuous reworkings of an expanding archive of global images, narratives, and myths.« Cosgrove 2001, 3.

9 | Stuart Brand, founder of the Whole Earth Catalog, printed his influential question »Why haven't we seen a photograph of the whole earth yet?« on badges in 1966. Cf. Diederichsen/Franke 2013, 6.

10 | Cf. Latour 1990, 19-68.

seemed all the more ›true‹ as it was generalized by an ever growing market for mass media products. In addition, technologies of transport, communication, and warfare in the 19th century further contributed to the idea of being able to cover the world without residue.¹¹

The »Earthrise era«¹² is but the tipping point of a long tradition of drawings, maps, and models: taken from space, the furthest frontier of human advancement so far, it also represents a look *back* on the history of human discovery and – at a point in history when all the blank spots on the maps are filled and humanity progresses beyond the limits of maps – it presents its results in a single view.¹³ But the »Earthrise era« is also a tipping point in the sense of the paradox alluded to earlier. Insofar this look back on a history of culture, technology, and exploration became an icon of the environmental movement, it marks the end of the assumption that Earth's resources are infinitely exploitable, and it reinstated the notion that what we see from the distance in these photographs is not only an object of research and representation, but also the ›home base‹ for all these endeavors.

Therefore, representations of wholeness are not only epistemologically but also politically significant. Did *Earthrise* and *Blue Marble* indeed open the path for a new ecological awareness as well as for the idea of creating a globalized community? Or was the shot from outer space just another version of the imperial gaze that rather promoted the destruction of our planet and the divergence of human society, in the way Denis Cosgrove analyses the historical relations between aerial photography and geopolitics, by enabling the perception of photography as an objective account »of the Earth ›as it really is‹«¹⁴ as well as the »Contested Global Visions« of the planet as a globalized »One-World« or a united »Whole Earth«?

In his *Cartographic Genealogy of Earth in Western Imagination*¹⁵, Cosgrove traces the origins and precursors of the (seemingly new) at-

11 | Cf. Krajewski 2006.

12 | Lazier 2011, 605.

13 | Ironically the first time the full earth has been photographed (by human beings) has so far been the last time and marks the end of the space program's manned missions outside of Earth's orbit. Cf. Cosgrove 1994, 274.

14 | Cosgrove 1994, 279.

15 | Cosgrove 2001.

tempt to take the whole world into *one* view back to Ptolemy's famous world maps and to representations of the totality of the world in various sacred and scientific as well as imperial and colonial contexts.¹⁶ All those diverse images of the planet depend on what Cosgrove calls the »Apollonian gaze« – a perspective »which pulls diverse life on earth into a vision of unity«¹⁷ and enables the (imagined) beholder to take its entirety and totality into a single view. As such, this Apollonian perspective isn't (and has never been) purely objective. It »is individualized, a divine and mastering view from a single perspective. That view is empowering and visionary, implying ascent from the terrestrial sphere into the zones of planets and stars.«¹⁸ In consequence, Cosgrove concludes that to see the earth as a whole is to actually lift oneself above it – physically and morally.¹⁹ By relating modern photography to ancient mythology, Cosgrove not only hints to the long tradition of medial representations and epistemological reflection that preceded the new perspective of the Apollo mission, but also to the poetic and philosophical implications evoked by its eponym.

Our collection of essays takes on this project by bringing together studies of the conditions and consequences of Whole Earth-images with analyses of fictional attempts to create a perspective of planet Earth as a whole. The discussion of fictional (and non-fictional) texts and their respective perspective on Earth, however, is based on the aforementioned traditions of the imagination of the planet as well as on the long tradition of Western philosophy that discussed the problem of representing wholeness. Opposed to the ancient ontology of *kósmos* (the harmonic order of physical materiality) as well as the metaphysical concepts of *universitas rerum* or *aggregatio corporum* (brought forth,

16 | Cf. Cosgrove 2001 and Brotton 2013.

17 | Cosgrove 2001.

18 | Ibid., xi.

19 | »The Apollonian perspective prompts ethical questions about individual and social life on the globe's surface that have disturbed as often as they have reassured a comfortable Western patriarchy. It also prompts a poetics of global space, an attachment beyond the material and visible surface.« (Cosgrove 2001, 3) It is possible to read the *Genesis-petition*, a finally granted petition that asked the astronauts of Apollo 8 to read – while looking at Earth – the biblical story of creation on Christmas Eve 1968 in accordance with Cosgrove's claim. Cf. also: Poole 2008.

e.g., in Leibniz's *Theodicee*), the rise of empirical science in the course of the 17th and 18th centuries no longer considered totality a proof of truth. In his *Critique of Pure Reason*, Immanuel Kant contrasts the pre-critical notion of the world as an ontological totality with the selective constructions of reality by the human mind and its categories of perception. In consequence, Kant reflects on the two possible notions of »cosmical concepts, partly because [of] this unconditioned totality [that] also underlies the concept [of the world-whole] [which] is itself only an idea [...]; partly because they concern only the synthesis of appearances, therefore are only empirical syntheses.«²⁰ The world, in other words, can be conceived either transcendently as an abstract idea of totality, or empirically as an endless series of phenomena and causal relations. But in both cases, it is not representable in its wholeness and therefore merely a regulatory concept.

Eighteenth and nineteenth-century philosophy and science show evidence for both notions of the world. Attempts to classify and measure Earth in its geographical and biological totality include Carl von Linné's *Systema Naturae* or Alexander von Humboldt's *Kosmos*, and such an effort still resonates in the first paragraph of Ludwig Wittgenstein's *Tractatus*: »The world is everything that is the case.«²¹ This idealistic approach was most famously elaborated in the objectification of the *Weltgeist* in Hegel's system as well as in Arthur Schopenhauer's *The World as Will and Idea* that radicalized Kant's notion of the subjective construction of reality.

But in the 20th century, both subjectivism and constructivism once again question the possibility of representing the world as whole. In *Being and Time*, Martin Heidegger contradicts metaphysical as well as empirical ontologies by defining human *Dasein* (being-there) as *In-der-Welt-sein* (being-in-the-world), i.e. by being absorbed in the functional interrelations of all actions and perceptions among each other. Therefore, the concept of an empirical world is replaced by a referential notion of worldliness (*Weltlichkeit*). »Dasein« means to merge into the practical and meaningful interrelations of the world as opposed to its theoretical description – a mode of being that Heidegger calls caring (*Sorge*), implying that human life is never isolated or self-satisfied, nor does it objectify

20 | Kant 1929, 385 (my emendations according to the German original, B 434).

21 | Wittgenstein 2001, 5.

the outside world empirically. Rather, it is constantly in the process of using and interpreting what is around, guided by a tacit understanding of the network of relations between its actions and the functional dimension of objects, the caring of other beings, and the process of history. »The referential context that constitutes worldliness as significance,« Heidegger posits, »can be formally understood in the sense of a system of relations.«²²

Thus, the meaning of the »wholeness« of the world loses all empirical features, but at the same times also rejects idealistic implications. The world is where and what we live in practically and that we only understand as long as we do not try to theoretically describe or explain it. Heidegger's hermeneutical approach is thus based on a notion of the »world« as a frame of reference and meaningful environment in the sense in which his teacher Edmund Husserl borrowed the term »Umwelt« from biologist Jakob von Uexküll.²³ In the same way modern biology describes the specific milieus living beings constitute for themselves, Husserl's concept of »Lebenswelt« also aims at the pre-theoretical pragmatic orientation of everyday human life. And as pre-theoretical and pragmatic, the »life-world«, too, is beyond representation.

But insofar the concept is based on von Uexküll's biological theory of relation between livings systems and their environment that later influenced the description of autopoietic organisms by Humberto Maturana and Francisco Varela²⁴, this unrepresentability is also related to constructivist theories such as Niklas Luhmann's sociological systems theory. Here, the world also refers to the sphere of meaning that is the basis for communication within social systems. But insofar as social communication means to select from a potentially unlimited pool of possible statements, this reservoir in its entirety is once again beyond availability or representation: the »whole world is thus present at every

22 | Heidegger 1996, 82 (§ 18). Heidegger's highly influential theory of worldliness lost its innocence when he transformed it into the concept of »Weltbild« (world-image) in a lecture that he delivered in Nazi Germany in 1938 and that immediately supported its anti-Semitic ideology. It wasn't until after World War II that Heidegger transformed this lecture into a seemingly anti-fascist essay upon including it into his collection *Holzwege* in 1950.

23 | Cf. Husserl 1970, 108f.

24 | Cf. Maturana/Varela 1980.

moment; not as *plentitudo entis* [fullness of being], however, but as the difference between actualized meaning and the possibilities accessible thence.«²⁵ Whereas Heidegger concluded that we are always and already merged into an endless network of relations and thus part of the structure we try to explain (which is just another way to define the hermeneutical circle), Luhmann rephrases the same constellation as a problem of observation and theory of difference. The world cannot be observed or represented as a whole because observing and representing necessarily imply a selection (which is what George Spencer-Brown means when he commands to »draw a distinction«). In order to observe the world, we would have to distinguish it from something else, too. But since the world is everything, it would also have to imply what we distinguish it from. »The unity of the world,« Luhmann asserts, »is therefore not a mystery but a paradox.«²⁶

This paradox is the unity of a difference. According to Luhmann modern society is functionally differentiated, i.e. there is no center or control of society as a whole but merely a number of social subsystems that operate autopoietically by drawing the distinction between themselves and their environment. And insofar this environment is everything else other than the system, it remains beyond availability or representability from within the system in the same way the world as a pool of possibilities is the unstructured precondition for actual communicative selections. »The world of modern society is a background indeterminacy (»unmarked space«) that allows objects to appear and subjects to act.«²⁷

Heidegger's and Luhmann's reflections on the theoretical inaccessibility of the world as a whole might, at first sight, seem far afield from the issues of medial representations of planet Earth and their political consequences, which are the main topics of the present volume. And yet, Luhmann's notion of the world as an unmarked background can be retraced to the same historical constellations that are in question when the human species discovers space as the last frontier within the process of discovering and colonizing the world. Thus, it also enables us to reflect on the relation between the terms ›world‹ and ›earth.‹ In Antiq-

25 | Luhmann 2013, 82.

26 | Ibid., 89.

27 | Ibid., 85.

uity as well as during the Middle Ages the known world could be geographically distinguished from an unknown remainder, it could thus be considered whole in itself. But without such areas beyond the borders, wholeness would have to be applied on the whole world which leads us back to the aforementioned paradox. »Society,« Luhmann states, »thus loses the possibility of a binding representation of the world.«²⁸ Since, geographically speaking, Earth is known in its empirical entirety, today, the concept of »world« had to be moved from an empirical category to the state of an »unmarked background« that serves as an »overall horizon of all meaningful experience«²⁹ and as such is present in each act of communication, but absent from any actual »marked« representation.

What Luhmann describes as world society (*Weltgesellschaft*) from a sociological point of view is an immediate consequence of this constructivist process: the functional differentiation of society, supported by the global synchronization of communication by modern mass media, transcends all regional or national borders and establishes a global system of society which is the framework of any social operation and at the same time beyond availability for these operations. So it is precisely the globalized society of today that stands in a way of holistic representations of the world and turns photographic representation of the earth into such an immensely attractive compensation for the loss of the overall »Apollonian gaze.«

But as we have seen, these medial compensation strategies that reenact long lost mythical worldviews are highly controversial themselves. On the one hand, they seem to awaken mankind's awareness for the vulnerability of its home planet and the need to protect it as a unity; on the

28 | Ibid., 87.

29 | Ibid., 88f: »In present-day thinking, the world is neither a beautiful living being nor an *aggregatio corporum*. Nor is it the *universitas rerum*, the totality of visible and invisible objects, things and ideas. Nor is it finally infinity to be filled, absolute space or absolute time. It is not an entity that »contains« everything and therefore »lasts«. All these descriptions and many more are provided by the world. The world itself is only the overall horizon of all meaningful experience, whether directed inward or outward or forward in time or backward. It is not closed off by its boundaries but by the meaning that can be activated within it. The world is to be understood not as an aggregate but a correlate of the operations taking place in it.«

other, the camera lenses on board Apollo 8 and 17, combined with the rhetoric of space as the last frontier, reinforce precisely the kind of (imperial, patriarchal, colonial, etc.) order that the Whole Earth-discourse, especially within the environmental movement that sprung from Californian counterculture, hoped to overcome.³⁰ While for example Buckminster Fuller's metaphor »Spaceship Earth« implied a controllable machine on a planetary scale, many environmentalists preferred to think of Earth or »the environment« as a harmonious organism not thought of in terms of a machine but rather as a »being.«

But not all environmentally charged imaginations of Earth necessarily depict Earth as a fragile equilibrium, a peaceful »Mother Earth.« Famously, James Lovelock's theory presents Gaia as quite the opposite: as the super-organism, Gaia is all but helpless in reinstating the disturbed equilibrium by raising the global temperature to a point where life will be annihilated – practically burned from the surface of the planet.³¹ Here, the imagination of Earth as a whole is not based on the re-empowerment of an »Apollonian Gaze,« but quite contrary on the disempowerment of humanity by an autonomous ecosystem that has existed and will exist again without its self-proclaimed masters.³² Gaia and other »apocalyptic twins«³³ of Earth, for example Bill McKibben's *Eaarth*³⁴, build upon the fears of the so-called nuclear winter that dominated much of mid-twentieth-century discourse and thus update the image of the mushroom cloud that was originally replaced by *Blue Marble*.³⁵ These and many of the fictional scenarios that recently imagine Earth turning against, annihilating, as well as recovering from its human inhabitants – movies such as *I am Legend* and *2012* or novels such as Frank Schätzing's thriller *Der Schwarm* (*The Swarm*) or Cormac McCarthy's dystopia *The Road* – suggest that the narrative of the Apocalypse has become the last resort to represent wholeness and unity. Thus, imagining Earth can also result

30 | Donna Haraway, for example, criticized this view for being a »god trick« – an only seemingly objective and neutral view that is in fact a disembodied, masculinist, and technoscientific gaze: Haraway 1988, 583.

31 | Cf. for example: Lovelock 1979 and 2006.

32 | Cf. Weisman 2007.

33 | Lazier 2011, 619.

34 | McKibben 2010. Cf. also: Lekan 2014, 171-201.

35 | Lazier 2011, 619. Cf. also Diederichsen/Franke 2013, 6.

in a rather terrifying perspective on an existential conflict between the planet and the species that calls it its home.

Based on this brief outline, the collection will tackle four major distinctions and subsequent questions:

- 1) Image/Discourse: Which media are used to achieve a representation of Earth as a whole and what effect do different media technologies – from textual descriptions to digital simulations – have on the collective imagination of our home planet?
- 2) Fact/Fiction: What is the relation between empirical data and individual or collective imagination within representations of Earth, and how does this relation influence both our view of scientific studies as well as our reception of literary fiction that both claim to depict the world as a whole by their own means?
- 3) Part/Whole: How do both scientific accounts and fictional narratives deal with the problem that wholeness can per definition not be represented as long as the observer is part of the observed, as both Heidegger's and Luhmann's theories suggest?
- 4) Submission/Autonomy: In which sense are attempts to represent Earth as a whole part of a tradition of both scientific as well as political subjection of the world under man-made categories and how does this tradition relate to concepts of self-sufficiency, autopoiesis, and non-human agency of Earth as an autonomous eco-system?

The following essays explore these questions with respect to imaginations of Earth that center on recent framings of the technological and medial conditions of viewing the *Blue Marble*, the conceptualizations of Earth and its environments, as well as on narrative imaginations of the planet.

Gabriele Gramelsberger analyzes the technological innovations and conditions which allow an orbital view on the original *Blue Marble* (1972) and the narrative dimension of the mathematical construction of NASA's *Blue Marble: Next Generation* (2012). Her approach aims at deconstructing object-oriented notions of the planet in favor of investigating the re-construction of Earth as a process by asking »What is it that mathematics contributes to our global views of the world?« By taking a closer look at the technological and epistemological conditions of current imagery, Gramelsberger lays the foundation for questioning concepts of »natural« wholeness and disarms simplified oppositions of inherent versus manufactured wholeness.

Angela Krewani investigates the visual traditions in which the cartographic and satellite images of Earth are produced and shows to what extent the concept and media practice of geobrowsing in applications such as Google Earth and Google Maps rely on traditionally conceived imagery and structures of visibility. She claims that contrary to the distanced Apollonic (i.e. both the God and the NASA mission) image of Earth, geoweb-applications effectively use Earth as a centralizing force and by repositioning the human position might be able to allow for a genuinely new perspective.

Gazing upon Earth and human life from a distant perspective has been a trope of science fiction well before the emergence of *Blue Marble*. Bruce Clarke's analysis of ›Gaia‹, James Lovelock's renowned rendering of the planet, connects this tradition to the paradigmatic change in the way we understand life and Earth. Behind the displacement of human self-reference and its figuration into an alien observer looms the question that also resounds in the Whole Earth discourse: what makes Earth so exceptional? Why does this planet sustain life and is it the only one? At the same moment it becomes possible to exchange the figurative projection of this gaze for a literal look upon Earth by means of ›technological prostheses,‹ Gaian science emerges to provide answers of a very different quality to these questions. Clarke examines mediations of Gaia in terms of Gaia theory, discourse, and notions of Gaia in popular culture by tracking the development of the theory as well as its fundamental impact on the concept of life. The realization of the »inextricable coupling of life and Earth« is one of the most fundamental effects of the Whole Earth-era. Not least, Clarke proves how closely this scientific conversion is linked to cultural perceptions and premediations of Earth.

Timothy Morton's essay on the »riddle of ecological awareness« or, as he terms it, »Ecognosis« draws a line from the earliest emergence of agriculture to modern »Anthropocene denial.« In his characteristic style, Morton draws on a variety of concepts to illuminate his argument about the problem of conceptualizing Earth, global warming and the Anthropocene when philosophy apparently limits the ability of directly accessing the real. He proposes to use a holistic understanding of Earth as an entity that exists (in loop form) in relation to other entities and in relation to humans to consider the Anthropocene as »the first truly anti-anthropocentric concept.« Morton thereby turns around common notions of the current ›ecological era‹ as one that de-centers the ›an-

thropos« by making in part of a species or even rendering it disposable for the planet as a whole. Rather, Morton claims, humans now found a way to both epistemologically and physically become the driving force of the planet's fate. While this seems to echo environmentalist claims, the underlying concept of (whole) Earth differs radically and opens up new perspectives for its discussion.

Roughly 350 years prior to NASA's *Blue Marble*, early science fiction features the view of Earth as a central aspect. Hania Siebenpfeiffer compares imaginary space travel by Cyrano de Bergerac and Francis Godwin in order to investigate the exotic depictions of the »tellurian« to show how those accounts shape modern images of the planet (for example, in the choice of color in the cartographic depiction of continents). Siebenpfeiffer is thus able to provide a tradition that is neither scientific nor religious and which predates and prefigures today's *Blue Marble*. Siebenpfeiffer's look at texts that are not commonly part of the discussion of environmental imagery also references a line of literary research that promises insights into the history of global imagination that has so far been overlooked.

Considering its emphasis on the fragmentary, subjectivity and hybridity, contemporary literature might not immediately come to mind as a source of concepts of wholeness. Using W.G. Sebald's *The Rings of Saturn* as an example, Nicolas Pethes asks »what kind of representation of our home planet results from descriptions in literature that question the possibility of a narrative construction of wholeness and totality?« He argues that it is precisely the seemingly small scope of this narrative that allows for a reconsideration of the means by which wholeness is construed. Sebald's narrator, instead of envisioning an idealized whole, detects interconnectedness and unity in the universal destructibility of all things and is able, drawing on Thomas Browne, to see the »slow turning into dark« of the enlightened planet and its civilization.

The attempt to depict a non-anthropocentric view of Earth has brought forth a remarkable number of human-less narratives. Solvejg Nitzke reads Dietmar Dath's novel *The Abolition of Species* as an example for an understanding of Earth as a product of its inhabitants. Dath's novel explores the idea of the Whole Earth in an extreme way by realizing the perfected version of Earth that *Blue Marble* too often suggests. However when Earth becomes its own monument, it ceases to exist as a living planet and ceases to be »Earth.« Nevertheless, reading Dath's vi-

sion in conjunction with Hans Blumenberg's reflections on the nature of the Whole Earth-images delivers a thorough investigation of the history of (life on) Earth as well as the history of its mediation. Earth, Nitzke argues, forms an archive not only of its natural but also of its cultural history. The monumental scope of Dath's novel achieves a macro perspective that combines the spatial and temporal dimensions of the viewpoint implicit in the Whole Earth-image. Thus, it allows for a narrative realization of the merger of cultural and natural history beyond biological and planetary boundaries.

By bringing together researchers from German and Anglophone backgrounds and research traditions, this collection also aims at continuing a rich and promising line of discussion that began at the »Imagining Earth« conference and doctoral workshop held at the Ruhr-University Bochum in 2014. Thanks are due to Erich Hörl (Leuphana University Lüneburg) whose input and support were invaluable for shaping and organizing the conference in Bochum. Sincere thanks go to all participants of this conference for their contributions both to this volume and to the lively and productive discussions that lead to this book. The editors would also like to acknowledge the Ruhr-University Research School who funded the project and continues to enable doctoral researchers in Bochum to pursue projects on an international level. For their help with editing this volume, the editors would also like to thank Livia Kleinwächter and Daria Leila.

BIBLIOGRAPHY

- Brotton, Jerry: *A History of the World in Twelve Maps*, London: Penguin 2013.
- Cosgrove, Denis: *Apollo's Eye. A Cartographic Genealogy of Earth in the Western Imagination*, Baltimore: Johns Hopkins University Press 2001.
- Cosgrove, Denis: »Contested Global Visions: One-World, Whole-Earth, and the Apollo Space Photographs«, in: *Annals of the Association of American Geographers* 84, No. 2 (Jun. 1994), 270-294.
- Diederichsen, Diederich/Franke, Anselm (ed.): *The Whole Earth. California and the Disappearance of the Outside*, Berlin: Sternberg Press 2013.

- Haraway, Donna: »Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective«, in: *Feminist Studies* 14, No. 3 (autumn 1988).
- Heidegger, Martin: *Being and Time*, translated by Joan Stambaugh, Albany: SUNY Press 1996.
- Husserl, Edmund: *The Crisis of the European Sciences. An Introduction to Phenomenological Philosophy*, translated by David Carr, Evanston: Northwestern University Press 1970.
- Kant, Immanuel: *Critique of Pure Reason*, translated by Norman Campbell, London: Macmillan 1929.
- Krajewski, Marcus: *Restlosigkeit. Weltprojekte um 1900*, Frankfurt/M.: Fischer 2006.
- Latour, Bruno: »Drawing Things Together«, in: Michael Lynch/Steve Woolgar (ed.): *Representation in Scientific Practice*, Cambridge: MIT Press 1990, 19-68.
- Lazier, Benjamin: »Earthrise; or, The Globalization of the World Picture«, in: *American Historical Review* 116 (June 2011), 602-630.
- Lekan, Thomas M.: »Fractal Eearth: Visualizing the Global Environment in the Anthropocene«, in: *Environmental Humanities* 5 (2014), 171-201.
- Lovelock, James: *Gaia, a New Look at Life on Earth*, Oxford: Oxford University Press 1979.
- Lovelock, James: *The Revenge of Gaia: Earth's Climate in Crisis and the Fate of Humanity*, New York: Basic Books 2006.
- Luhmann, Niklas: *The Theory of Society*, vol.1, translated by Rhodes Barrett, Stanford: Stanford University Press 2013.
- Maturana, Humberto/Varela, Francisco: *Autopoiesis and Cognition. The Realization of the Living*, Dordrecht: Reidel 1980.
- McKibben, Bill: *Eaarth: Making Life on a Tough New Planet*, Melbourne: Penguin Books Australia 2010.
- Poole, Robert: *Earthrise. How Man First Saw the Earth*, New Haven: Yale University Press 2008.
- Weisman, Alan: *The World Without us*, New York: Thomas Dunne Books 2007.
- Wittgenstein, Ludwig: *Tractatus Logico-Philosophicus*, translated by Brian McGuinness and David Pears, London/New York: Routledge 2001.

