



CPCL

EUROPEAN JOURNAL OF
CREATIVE PRACTICES
IN CITIES AND LANDSCAPES

vol.5, n.2 2022
ISSN 2612-0496

AESTHETICS OF THE ANTHROPOCENE PART 2

Edited by
Pierpaolo Ascari and Andrea Borsari

Alison, Ascari, Bolonaki, Borsari,
Di Maio, Diodato, Finch-Race,
Gorzanelli, Lobosco, Mutton, Ratti,
Righi, Tinti, Vindel, Vitali, Zengiaro



EUROPEAN JOURNAL OF
CREATIVE PRACTICES
IN CITIES AND LANDSCAPES

n. **2** 2022
vol. **5**

ISSN 2612-0496
<https://cpcl.unibo.it/>

AESTHETICS OF THE ANTHROPOCENE PART 2

Stefano Ascari
Daniel A. Finch-Race
Jaime Vindel
Andrea Righi
Francesco Di Maio
Rodolfo Vitali
Ivano Gorzanelli
Federico Diodato
Gianni Lobosco
Lorenzo Tinti
Zeno Mutton
Styliani Bolonaki
Nicola Zengiaro
Aurosa Alison
Carlo Ratti
Andrea Borsari



EUROPEAN JOURNAL OF
CREATIVE PRACTICES
IN CITIES AND LANDSCAPES

n.2 2022
vol.5

ISSN 2612-0496

<https://cpcl.unibo.it/>

<https://doi.org/10.6092/issn.2612-0496/v5-n2-2022>

Editors-in-Chief

Carola Hein, Delft University of Technology, Netherlands

Giovanni Leoni, University of Bologna, Italy

Editors

Damiano Aliprandi, Fitzcarraldo Foundation, Italy

Micaela Antonucci, University of Bologna, Italy

Audrius Banaitis, Vilnius Gediminas Technical University, Lithuania

Andrea Boeri, University of Bologna, Italy

Vando Borghi, University of Bologna, Italy

Andrea Borsari, University of Bologna, Italy

Kelly Cotel, ICLEI – Eurocities, Germany

Gamze Dane, Technical University Eindhoven, Netherlands

Amir Djalali, Xi'an Jiaotong Liverpool University, China

Roberto Falanga, University of Lisbon, Portugal

Maria Felidou, Athens School of Fine Arts, Greece

Cristina Garzillo, ICLEI – Eurocities, Germany

Jacopo Gaspari, University of Bologna, Italy

Valentina Gianfrate, University of Bologna, Italy

Giovanni Ginocchini, Urban Center Bologna, Italy

Julie Hervé, Eurocities – ICLEI, Belgium

Jyoti Hosagrahar, UNESCO HQ, France

Cécile Houpert, Eurocities – ICLEI, Belgium

Ana Ivanovska Deskova, SS. Cyril and Methodius University of Skopje, Republic of North Macedonia

Arturas Kaklauskas, Vilnius Gediminas Technical University, Lithuania

Raffaele Laudani, University of Bologna, Italy

Danila Longo, University of Bologna, Italy

Tino Mager, Rijksuniversiteit Groningen, Netherlands

Gino Malacarne, University of Bologna

Ognen Marina, SS. Cyril and Methodius University of Skopje, Republic of North Macedonia

Joao Morais Mourato, University of Lisbon, Portugal

Gabriele Neri, Accademia di architettura di Mendrisio, Università della Svizzera italiana, Switzerland

Valentina Orioli, University of Bologna, Italy

Panagiotis Pagkalos, Athens School of Fine Arts, Greece

Chiara Gemma Pussetti, University of Lisbon, Portugal

Ana Pereira Roders, Technical University Delft, Netherlands

Ania Rok, ICLEI – Eurocities, Germany

Corrado Topi, University of York, United Kingdom

Annalisa Trentin, University of Bologna, Italy

Michele Trimarchi, Magna Graecia University, Catanzaro, Italy

Walter Vitali, Urban@IT, Italy

Francesco Volta, City of Bologna, Italy

Managing Editor

Martina Massari, University of Bologna, Italy

Federico Diodato, University of Bologna, Italy

Scientific Committee

Manola Antonioli, ENSA Paris La Villette, France
Pier Vittorio Aureli, Architectural Association, United Kingdom
Alessandro Balducci, Milan Polytechnic, Italy
Claudio Calvaresi, Milan Polytechnic, Italy
Andrea Cavalletti, University of Bologna, Italy
Neera Chandhoke, Delhi University, India
Gregor Fitzl, Potsdam University, Germany
Kalliopi Fouseki, UCL London, United Kingdom
Elisa Giaccardi, Technical University Delft, Netherlands
David Gissen, California College of the Arts, United States
Torgim Guttormsen, Norwegian Institute for Cultural Heritage, Norway
Noriko Inoue, Otomon Gakuin University, Osaka, Japan
Bernadette Nadya Jaworsky, Masaryk University, Brno, Czech Republic
Antonio Lucci, Humboldt University, Germany
Thomas Macho, Linz University of Art, Austria
Sébastien Marot, EAVT Paris-Est, France
Achille Mbembe, University of the Witwatersrand, South Africa
Alain Milon, University Paris Nanterre, France
Sarah Nuttall, University of the Witwatersrand, South Africa
Vincent Nadin, Technical University Delft, Netherlands
Joan Ockman, University of Pennsylvania, United States
Agostino Petrillo, Milan Polytechnic, Italy
Sofia Psarra, University College London, United Kingdom
Federico Rahola, Genova University, Italy
Henrik Reeh, Copenhagen University, Denmark
Hilde Remoy, Technical University Delft, Netherlands
Kun Song, Tianjin University, China
Teresa Stoppani, London South Bank University, United Kingdom
Pieter Uyttenhove, University of Gent, Belgium
Rashmi Varma, Warwick University, United Kingdom

Editorial Staff

Gül Aktürk, Technical University Delft, Netherlands
Saveria Olga Murielle Boulanger, University of Bologna, Italy
Antony Colclough, EUROCITIES, Belgium
Tianchen Dai, Technical University Delft, Netherlands
Paolo De Martino, Technical University Delft, Netherlands
Jacopo Galimberti, University of Bologna, Italy
John Hanna, Technical University Delft, Netherlands
Stephan Hauser, Technical University Delft, Netherlands
Davide Olori, University of Bologna, Italy
Serena Orlandi, University of Bologna, Italy
Anna Rosellini, University of Bologna, Italy
Rossella Roversi, University of Bologna, Italy
Leonardo Tedeschi, Fondazione innovazione urbana, Italy
Ines Tolic, University of Bologna, Italy
Yanchen Sun, Tianjin University, China
Elena Vai, University of Bologna, Italy
Kaiyi Zhu, Technical University Delft, Netherlands

Graphic Design

Stefano Ascari, University of Bologna, Italy

RÖCK



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 730280.

European Journal of Creative Practices in Cities and Landscapes (CPCL) is scientific journal recognized by ANVUR (Italian National Agency for Evaluation of Universities and Research Institutes) for disciplinary areas 08 and 11. The Journal is indexed in the following databases and search engines: ANCP, BASE, Google Scholar, ROAD, Worldcat, ERIH PLUS, SCOPUS.

EDITORIAL

Introduction: Aesthetics of the Anthropocene 2	6
Pierpaolo Ascari and Andrea Borsari	

MAIN SECTION

Abysses and Ghosts: Remarks for a Discourse on Anthropocene Hyper-aesthetics	11
Stefano Ascari	
Perceiving the Anthropocene as a Public Health Risk via Visual Culture	29
Daniel A. Finch-Race	
Anthropocene as Energy Imaginaries: Fossil Culture between Industrial Revolution and Global Warming	43
Jaime Vindel	
The Currency of the Anthropocene. Dismantling the Theological Presupposition of Neoliberalism in Kim Stanley Robinson's <i>The Ministry for the Future</i>	61
Andrea Righi	
Penetrating Planets: Schelling and the Anthrobscene	78
Francesco Di Maio	
The Form of Happiness. Some Remarks on Art, Mimesis and Technology in the Wake of Adorno's Conception of Natural Beauty	97
Rodolfo Vitali	
The assemblage as aesthetic place. A reading between aesthetics and the Anthropocene of <i>The Mushroom at the End of the World</i>	115
Ivano Gorzanelli	
Soil of Enterprises. A Critical-Historical Analysis	127
Federico Diodato	
Landscape in Transition. The Agency of Time in Understanding and Designing the Landscapes of the Anthropocene	145
Gianni Lobosco and Lorenzo Tinti	
Aesthetics of the Anthropocene and Social Representations. A Case Study on Venice' Exceptional High Tides in November 2019	169
Zeno Mutton	
Rebranding Athens as the Creative City of European South. The contribution of Documenta 14 - A Critical Approach	186
Styliani Bolonaki	

Ecosemiotics of the City. Designing the Post-Anthropocene	204
Nicola Zengiaro	

PRACTICES

“Nature that Takes Back its Spaces”: When Architecture Teaches How to Trace Roots	229
Aurosa Alison, Carlo Ratti	

POSITION

On the Aesthetics of the Anthropocene: The Sublime and beyond – other Concepts and Forms of Visualizations	242
Andrea Borsari	

Erratum	259
----------------------	-----

CPCL

EUROPEAN JOURNAL OF
CREATIVE PRACTICES
IN CITIES AND LANDSCAPES

EDITORIAL

Introduction: Aesthetics of the Anthropocene 2

Pierpaolo Ascari – University of Bologna – Contact: pierpaolo.ascari@unibo.it
Andrea Borsari – University of Bologna – Contact: a.borsari@unibo.it

Following up on the call that identified the controversial aspects of the idea of the Anthropocene, its relationship to philosophical reflection and forms of artistic expression, as well as the transformations and impact that related phenomena have had on the city and the urban and sub-urban landscape, the previous issue of the journal, also entitled to the Aesthetics of the Anthropocene and constituting with the present one a thematic and argumentative continuum, explored a number of theoretical notions, exemplary figures of thought and paradigmatic cases of the relationship between the two terms. In this way, the definition of the world implied in the debate on a critical theory of the Anthropocene, the risks of catastrophic narratives of the ecological crisis, the need for an anthropological foundation of the relationship between environment and architecture, as well as the everyday dimensions in which relationships to health and environmental crises are declined, have come to the fore. Bernard

<https://doi.org/10.6092/issn.2612-0496/16752>

ISSN 2612-0496

Copyright © 2022 Pierpaolo Ascari and Andrea Borsari



Stiegler's perspective on perceptual impoverishment and socio-political transformations and Peter Sloterdijk's metaphorical spatial spectrum then provided opportunities to deepen the theoretical grounds for redefining the very concept of the Anthropocene, while case studies turned to nineteenth-century public parks and the aestheticization of nature, conflicts in land use planning, and site-specific and temporary architectural interventions to refine responses to environmental challenges.

With the second issue presented here, it was possible to further expand the lines of investigation that focused on visual culture and the imaginary, on certain authors and theoretical junctures (Schelling, Adorno, Tsing), on relations with territory and landscape, on the urban dimension and its social representations, on the return of nature in architecture and in ecosemiotic studies, and finally concluding on a review of the possible relations between the conceptual heritage of aesthetics and the counter-visualization modes of the Anthropocene.

About visual culture, in his remarks for a discourse on Anthropocene Hyper-Aesthetics, **Stefano Ascari** refers to the figurative and visual outcomes that have been produced within the specific reflection associated with the representation of global climate change. Just as the definition of Anthropocene has been widely questioned both from a terminological and chronological point of view, the visual contents in fact turn out to be partial and, in some cases, misleading. In order to articulate the theme and insert these results in a more effective and broader framework, it is necessary to retrace the history of those images and integrate this narrative heritage with aesthetics generated, even if only apparently, outside the context traditionally referred to the Anthropocene. Also referring to visual culture, in this case as a way of perceiving the Anthropocene as a public health risk, **Daniel A. Finch-Race** takes its cues from the widespread scientific and cultural evidence that Earth's planetary boundaries are being exceeded in irreparable ways due to unsustainable behavior in the Global North's resource-hungry nations in particular, but responsiveness to the climate crisis is still lagging. He then questions about how galvanizing socially just degrowth in the face of barriers to individual commitment that range from a sense of powerlessness to disinterest in futures-thinking. In this context, it is worth considering the motivational power of ecological dangers in terms of the potential for personal harm and develop an artistically and emotionally oriented approach to the totalizing extractivism of the Anthropocene as a source of public health problems, not least the COVID-19 pandemic.

Also fossil culture, investigated by **Jaime Vindel** between industrial revolution and global warming, shows to refer to an imaginary, more appropriately, an imaginary of energy. The transformations that took place in the energy matrix of productive processes, with the new social and geographical organization of work derived from the use of fossil fuels, had their

correlate in the appearance of a series of discourses and images with a strong ideological component. The emergence of thermodynamic science, based on the observation of the processes of energy transformation, was underpinned by narratives oriented to boost the denigration of subjects who resisted integration into the productive devices of the industrial world. These imaginaries contributed to naturalize a certain worldview, where the universe was assimilated to an immense repository of energy at the service of the West civilizational project. Even the case examined by **Andrea Righi** of the Kim Stanley Robinson's latest Sci-fi novel, *The Ministry for the Future* (2020) focuses on key narrative elements developed in the text that offer solutions to our current climate crisis. Although fictional, these ideas are theoretically relevant because they challenge the current symbolic system of neoliberalism based on a sacrificial economy and a notion of transcendence that demands the infinite accumulation of surplus value.

Converging on a more strictly philosophical level are the contributions of **Francesco Di Maio**, **Rodolfo Vitali** and **Ivano Gorzanelli**. The first one, Di Maio, analyzes the early recurrences of the concept of "Anthrobscene", as proposed in media studies by Jussi Parikka, in the aesthetics of Friedrich Wilhelm Joseph von Schelling, as advanced especially in "On the Relationship of the Plastic Arts to Nature" of 1807. The second one, Vitali, investigates the relationship between the concepts of mimesis, technology and art in Theodor W. Adorno, in the light of some epistemological implications of the Anthropocene and proposes an interpretation of the work of art which identifies its natural moment in the peculiar kind of productive praxis that takes place within it. Art in this sense is a mimetic technology that does not only imitate nature as an object, but also imitates the productive process of nature. The third one, Gorzanelli, proposes an interpretation of the category of "assemblage", starting from Anna Lowenhaupt Tsing's reflection in *The Mushroom at the End of the World* (2015). The assemblage becomes both the concrete experience of a place and a way of observing that allows an aesthetic reading and a critique of Landscape and cultural heritage to be combined.

Federico Diodato questions a central tool in French land policies from the 1960s onward, the *Zone d'Activité Économique*, and shows how their impact on soil artificialization and the fragmentation of agricultural land forces us today to question their ability for the sustainable development of the territory. **Gianni Lobosco** and **Lorenzo Tinti**, for their part, examine the representation of landscape temporal scale as a driver for landscape design and planning, questioning the univocal relationship between human and environmental processes, both from an aesthetic and procedural point of view. Thus, they explore how the merging of time and space represents a prerequisite for landscape designers, and a necessary exercise for students, in order to critically address design practices within the context of landscapes in transition.

Starting from the case study of Venice' Exceptional High Tides in November 2019, **Zeno Mutton** investigates the social representations of the city stressed by an event connected to the Anthropocene. The results of the research show that there are several intersections between aesthetics of Anthropocene and social representations of the event analyzed, with particular concern for the themes "sublime" and "future as a threat", and their relation to attribution of responsibility processes. These findings reflect an elaboration of what happened based on aestheticization and trends of "deresponsibilization". Another case study presented in **Styliani Bolonaki's** contribution is the examination of the impact of the art institution *Documenta* on the Athenian urban environment which aims to give an answer to the question of how and why the art exhibition "Learning from Athens" gained such popularity in urban and economic developers, locally and globally, that has not yet led to enough critical discussion on the cultural, and political researchers.

Nicola Zengiaro's ecosemiotics of the city tries to demonstrate that every kind of space is a habitat for those who survive in it and to deconstruct the opposition between nature and culture, thanks to a semiotic reading of the city, especially of the urban park. The attempt is to rethink our time in a multi-species project aimed at the post-Anthropocene, imagining a posthuman that can survive the catastrophe and thinking a new space for a peacefully coexistence with non-humans. **Aurosa Alison's** interview with the architect **Carlo Ratti** seeks to understand how to interpret the human impact on the environment, and the concrete design of architecture can do so much to this purpose. The approach to the sensitivity and phenomenology of the present is the central aspect to be understood as a starting point to read future elements. In this regard, an architect creates a warning for the future generations who will inhabit the earth.

Finally, the concluding text by **Andrea Borsari** aims to establish a tentative assessment of the possibilities of countervisualization and lines of research within the conceptual field of aesthetics for a different rendering of relations with phenomena linked to the notion of the Anthropocene. He explores the relationship between the conceptual heritage of the aesthetic-philosophical tradition and its metaphorical variants with the thematic core of the Anthropocene. On the other hand, he also attempts to define how this process intertwines and interferes with the forms of visualization of the "human epoch" and thereby conditions the possible reactions that descend from such representations.

Pierpaolo Ascari teaches Aesthetics at the Department of Architecture, University of Bologna. He received his master's degree in philosophy at the University of Bologna, and his Ph.D. at the Scuola Normale Superiore, Pisa. He is author of *Ebola e le forme* (Rome: Manifestolibri, 2017), *Attraverso i confini. Lettura, storia ed esperienza estetica in Stendhal e Flaubert* (Milan: Mimesis, 2018), *Corpi e recinti. Estetica ed economia politica del decoro* (Verona: Ombre Corte, 2019) and *The Adventure of Form: Aesthetics, Nature and Society* (Delft: BK Books, 2021). He was a fellow at the Alsos Foundation in Bologna for the research program "Migrations and migrants in Italy" and he edited the volume *Oggetti contesi. Le cose nella migrazione* (Milan: Mimesis 2020).

Andrea Borsari is full professor of Aesthetics at the Department of Architecture, University of Bologna, directs the book series "Life and Forms" (Bup) and is deputy editor of "Iride. Journal of Philosophy and Public Discussion" (Il Mulino). He has recently been a visiting professor at UCLA, ENSA-Paris La Villette, the 4 Cities Unica Euromaster in Urban Studies - University of Copenhagen and the University of Sichuan. His publications include *Mondo, cose, immagini. Sulle forme dell'esperienza estetica* [World, Things, Images. On the forms of aesthetic experience, Bup, 2018], *Mimicry. Estetica del divenire animale* [Mimicry. Aesthetics of Animal Becoming, Mimesis, 2018], together with G. Leoni, *Hypermnnesia and Amnesia: Remembering (with) the Body and Post-Conflict Memorials and Architectures*, «Heritage, Memory and Conflict Journal», 2022, and, co-curated, *Temporary. Citizenship, Architecture and City* (Springer, 2022).

MAIN SECTION

Abysses and Ghosts: Remarks for a Discourse on Anthropocene Hyper-Aesthetics.

Stefano Ascari – University of Bologna, Italy
Contact: stefano.ascari@unibo.it

ABSTRACT

In reflecting on a possible aesthetic of the Anthropocene, it seems spontaneous to refer first of all to the figurative and visual outcomes that have been produced within the specific reflection on the topic or at least traditionally associated with the representation of global climate change. Just as the definition of Anthropocene has been widely questioned both from a terminological and chronological point of view, the visual contents in fact (well represented by the 2018 exhibition “Anthropocene: Burtynsky, Baichwal, de Pencier”) turn out to be partial and in some cases misleading. They are in fact representative, at most, of one of the possible discourses on the aesthetics of the Anthropocene. In order to articulate the theme better and insert these results in a more effective and broader framework, it is necessary to retrace the history of those images and integrate this narrative heritage with aesthetics generated, even if only apparently, outside the context traditionally referred to the Anthropocene.

KEYWORDS

Representation; Anthropocene; Nonhuman Agency; Photography; Narrative

PEER REVIEWED

<https://doi.org/10.6092/issn.2612-0496/14824>

ISSN 2612-0496

Copyright © 2022 Stefano Ascari

Introduction

In reflecting on a possible aesthetic of the Anthropocene, it seems spontaneous to refer first of all to the figurative and visual outcomes that have been produced within the specific reflection on the topic or at least traditionally associated with the representation of global climate change. Just as the definition of Anthropocene has been widely questioned both from a terminological and chronological point of view, the visual contents in fact (well represented by the 2018 exhibition “Anthropocene: Burtynsky, Baichwal, de Pencier”) turn out to be partial and in some cases misleading. They are in fact representative, at most, of one of the possible discourses on the aesthetics of the Anthropocene. In order to articulate the theme better and insert these results in a more effective and broader framework, it is necessary to retrace the history of those images and integrate this narrative heritage with aesthetics generated, even if only apparently, outside the context traditionally referred to the Anthropocene.

The sublime hyperobject

The images we currently associate with the Anthropocene have a sinister allure. Whether they are more or less arbitrarily chosen as symbols and metaphors (such as the well-known image of the polar bear consumed by hunger taken in 2017 by Cristina Mittermeier¹) or the outcome of a specific research project (such as the images by Burtynsky, Baichwal, and de Pencier) they tend to evoke in the observer a feeling of sublime consternation. In this regard, Bénédicte Ramade, at the end of her review of the “Sublime” exhibition at the Georges Pompidou-Metz Center in 2016, writes “the sublime will not have written a new mythology and woven a new regime of belief from the Anthropocene, but it will have dictated, with unquestionable brilliance, a dark and fatal prophecy plagued by doubts and regrets.”² In this position lies the power and the limit of the association between Anthropocene and the sublime on the aesthetic side. As already theorized by Fressoz, in fact, the Anthropocene, if read in relation to the transformations of the landscape or to the “invention of new landscapes”³, manifests itself in a sublime form under three main perspectives: “To the sublime of quantity, the Anthropocene adds the geological sublime of ages and aeons, from which it draws its most striking effects. [...] The

1 Cristina Mittermeier, “Starving-Polar-Bear Photographer Recalls What Went Wrong” in *National Geographic*, August 2018 (<https://www.nationalgeographic.com/magazine/article/explore-through-the-lens-starving-polar-bear-photo>) cit. in Marco Malvestio, *Raccontare la fine del mondo. Fantascienza e Antropocene* (Milano: nottetempo, 2021), 92.

2 “le sublime n’aura pas écrit une nouvelle mythologie et tissé un nouveau régime de croyance à partir de l’anthropocène, mais il aura dicté, avec un brio incontestable, une sombre et funeste prophétie en proie aux doutes et aux regrets.” (translated by the author). Bénédicte Ramade, (2016). “Review of Le sublime réinventé / The Sublime Reinvented / Sublime. Les tremblements du monde”, *Espace*, (114), 66–71.

3 “invention de nouveaux paysages” (translation by the author). Baldine Saint Girons (dir.), *Le Paysage et la question du sublime*, Editions de la RMN, ARAC, musée de Valence, 1997, p. 76.

discourse of the Anthropocene cultivates this aesthetic of suddenness, of the bifurcation and of the event. The sublime of the Anthropocene resides precisely in this extraordinary encounter: two centuries of human activity, an infinitesimal duration, almost negligible in terms of the Earth's history, will have been enough to provoke an alteration comparable to the great upheaval at the end of the Mesozoic 65 million years ago. The third source of the Anthropocene sublime is the sublime of the sovereign violence of nature, that of earthquakes, storms and hurricanes. The promoters of the Anthropocene readily mobilize the romantic sublime of ruins, vanished civilizations, and collapses."⁴

Whichever way one looks at the images currently associated with the Anthropocene, the relationship with the categories of the Sublime is thus evident: the vertigo of physical and temporal scales, the shock of superhuman manifestations of natural phenomena, a certain seductive expulsion of the human: these are all elements that characterize the imagery of the Anthropocene and that at the same time are installed in an extremely codified visual history. In some cases, the dance of visual themes and strategies is so intertwined and ancient that it even produces an anaesthetic effect as Mirzoeff notes: "the conquest of nature, having been aestheticised, leads to a loss of perception (aesthesis), which is to say, it becomes an anaesthetic."⁵ Although the debate on the Anthropocene is relatively recent, in its catastrophic accents it is in fact part of a system of ancient narratives that are rooted in eschatological and apocalyptic myths: since we are able to tell, we are always telling and representing the same story that is, apparently, the story of our end or of our possible endings. The idea of witnessing the end of the (or of a) world is at the very root of the view of the romantic landscape which, according to Yvon Le Scanff is "fundamentally apocalyptic, on the one hand because he is interested in the borderline states of the landscape (its disappearance and its birth)"⁶ and is particularly pervasive in the current context where, according to Fisher,

4 "Au sublime de la quantité, l'Anthropocène ajoute le sublime géologique des âges et des éons, duquel il tire ses effets les plus saisissants. [...] Le discours de l'Anthropocène cultive cette esthétique de la soudaineté, de la bifurcation et de l'événement. Le sublime de l'Anthropocène réside précisément dans cette rencontre extraordinaire : deux siècles d'activité humaine, une durée infime, quasi-nulle au regard de l'histoire terrienne, auront suffi à provoquer une altération comparable au grand bouleversement de la fin du Mésozoïque il y a 65 millions d'années. La troisième source du sublime anthropocénique est le sublime de la violence souveraine de la nature, celle des tremblements de terre, des tempêtes et des ouragans. Les promoteur-riche-s de l'Anthropocène mobilisent volontiers le sublime romantique des ruines, des civilisations disparues et des effondrements [...]" (translation by the author). Jean-Baptiste Fressoz, "L'Anthropocène et l'esthétique du sublime" in Hélène Guenin (Dir.), *Sublime. Les tremblements du monde* (Metz : Editions du Centre Pompidou-Metz, 2016), 45.

5 Nicholas Mirzoeff, "Visualizing the Anthropocene", *Public Culture* 26, no. 2 (2014), 220.

6 "fondamentalement apocalyptique, d'une part parce qu'il s'intéresse aux états-limites du paysages (sa disparition et sa naissance)" Yvon Le Scanff, *Le Paysage romantique et l'expérience du sublime*, Seyssel, Champ Vallon, coll. "Pays/Paysages", 2007, p. 143.

“it’s easier to imagine an end to the world than an end to capitalism”.⁷

The interpretation of the Anthropocene as the context of the tale of the end brings us forcefully back into the realm of narratives and imaginary constructs that cannot, as we will say later, be expelled from a debate that appears only superficially scientific and technical: “from chaos to the Apocalypse, from the Flood to the end of time, from the Tower of Babel to the year 1000, from the disorder that generates order in the founding myths to the clean slate that leads to the ‘great night’ [...], countless are the imaginary constructions that bring back to the catastrophe as to a constant around which humanity has sought to define itself by defining under the sign of the accidental its relationship to the world.”⁸

This opening on the imaginary allows us to better understand the real narrative texture that underlies the work of Burtynsky, Baichwal and de Pencier and it is also useful to clarify that, if crushed on an exclusively environmental, landscape and apocalyptic dimension, the Anthropocene is likely to manifest itself according to scripts and strategies already known and codified and therefore less useful to an “awareness essential to understand what is happening to us. Because what is happening to us is not an environmental crisis, it is a geological revolution of human origin.”⁹

It is therefore appropriate, to trigger a more profitable and effective reflection, to extend the category of the sublime and our idea of the Anthropocene to embrace other aesthetics: the concept of hyperobject proposed by Morton can provide a useful indication in this sense.

The author indicates in fact as a key example of this formulation the climate change: we propose here to extend the category to the Anthropocene in a broad sense (of which climate change is one of the most obvious phenomenological outcomes). It is in fact primarily viscous or pervasive and much closer than we want to admit, something that “haunt my social and

7 The phrase is usually associated with Mark Fisher who uses it as the title of the first paragraph in Mark Fisher, *Capitalism Realism. Is there no alternative?*, London: Zero Books, 2009. Fisher himself attributes it in turn to Frederic Jameson in the context of a debate with James Ballard *The Seeds of Time* (New York: Columbia University Press, 1994), xii; and “Future City,” *New Left Review* 21 (May/June 2003), 76. The original combination of the end of capitalism and the end of the world, where the statement made is quite different, is found in H. Bruce Franklin, “What Are We to Make of J. G. Ballard’s Apocalypse?”, in *Short Story Criticism*, vol. 1, Gale, 1988. Originally published in Claerson, Thomas D. (ed.), *Voices for the Future Essays on Major Science Fiction Writers*, vol. 2, Bowling Green: University Popular Press, 1979, pp. 82-105.

8 “[...] du chaos à l’Apocalypse, du Déluge à la fin du temps, de la tour de Babel à l’an mil, du désordre qui engendre l’ordre dans le mythes fondateurs à la table rase qui conduit au ‘grand soir’ [...], innombrables sont les constructions imaginaires qui ramènent à la catastrophe comme à une constante autour de laquelle l’humanité a cherché à se définir en définissant sous le signe de l’accidentel son rapport au monde » (translation by the author). Annie Le Brun, *Perspective dépravée : entre catastrophe réelle et catastrophe imaginaire* (Bruxelles: La Lettre volée, 1991), 19.

9 “[...] prise de conscience essentielle pour comprendre ce qui nous arrive. Car ce qui nous arrive n’est pas une crise environnementale, c’est une révolution géologique d’origine humaine.” (translation by the author). Christophe Bonneuil and Jean-Baptiste Fressoz, *L’Événement Anthropocène. La Terre, l’histoire et nous* (Paris: Editions du Seuil, 2016), XIII.

psychic space with an always-already."¹⁰ Viscosity is a continuum from which it is difficult to distance oneself and abstract oneself, a condition that perfectly accounts for the fundamental paradox of the definition of a historical epoch carried out within that same epoch and coined by an observer who at the same time proclaims himself the main agent of the phenomenon observed. The attribute of non-locality then accounts for the spatial dislocation and the impossibility of experiencing the Anthropocene hyper-object in its entirety: "Global warming is an object of which many things are distributed pieces: the raindrops falling on my head in Northern California. The tsunami that pours through the streets of Japanese towns. The increasing earthquake activity based on changing pressure on the ocean floor. [...] Convincing some people of its existence is like convincing some two-dimensional Flatland people of the existence of apples, based on the appearance of a morphing circular shape in their world."¹¹ Simply being exposed to episodic manifestations of a hyperobject that are difficult to trace back to a causal chain therefore makes it difficult to truly believe that it exists. This is perhaps the most important and misunderstood aspect of the Anthropocene phenomenon, and it is the reason that makes most disaster films both spectacular and comforting. In many of these, the climatic apocalypse is in fact associated with phenomena "endowed with a more visible and more easily contextualized catastrophe than that which these phenomena actually have,"¹² triggered by an intelligible sequence of specifically connected events, a connection that is maintained visible and objectified by the speed with which the catastrophic phenomenon is triggered.

Everything happens so fast and in such an apparently logical way that, implicitly, it is suggested that, with timely and predictive capabilities, the catastrophe can be defused by cutting the blue wire, just when the timer marks one second to the end of the countdown. The archetypal figure of the eccentric scientist unheard for years, who is suddenly recognized as the repository of the solution to the problem is the personification of this mechanistic and linear vision of catastrophic events. The spatial non-uniformity of the phenomena related to the Anthropocene becomes even more critical if we consider the wave-like (or rather fluctuating) nature of planetary events in temporal terms: it is not by chance that the temporal limits of the Anthropocene itself fluctuate vertiginously according to the phenomenon that is chosen as a marker of the beginning of this era.

Non-locality and temporal waviness insert the hyperobject to the space of phases: specific moments in space and time in which individual aspects of the hyperobject manifest and become visible. "That's why you can't see global warming. You would have to occupy some high-dimensional

10 Timothy Morton, *Hyperobjects, Philosophy and Ecology after the End of the World* (Minneapolis: University of Minnesota Press, 2013), 29.

11 *ibid.*, 49.

12 Malvestio, *Raccontare la fine del mondo*, 93.

space to see it unfolding explicitly"¹³: transcending the current dimension is an operable but hardly imaginable concept that concerns the hypothesis about a space that we have no words or similes to describe (but only predictive mathematical models, such as Lorenz's attractor model, cited by Morton). Ultimately, the notion of interobjectivity is instrumental in articulating the immanent and indistinguishable relationships between the elements of the hyperobject and in defining intersubjectivity as an anthropocentric subset of a boundlessly larger space. Based on these five characteristics, the Anthropocene hyperobject presents itself as irreducible to an unambiguous aesthetic and requires contemplating a multitude of aesthetic discourses involving possible visual and narrative outcomes that are also distant from each other. Let us now examine some of these possible fronts in order to define the first coordinates of a possible hyper-aesthetic discourse on the Anthropocene.

Satellite vision and war imagery

On a conceptual level, the work of Burtynsky, Baichwal and de Pencier is in continuity with a consolidated history of critical landscape photography ranging from the works of Ansel Adams and Nancy Newhall¹⁴, to the project of Yann Arthus Bertrand (*Earth from Above*, 2004), from the visual research of Godfrey Reggio in his "Qatsi" trilogy¹⁵, to the work of the exponents of the Dusseldorf School (Andreas Gursky, Thomas Struth, and Thomas Ruff among others) and the artists involved in the 1975 exhibition *New Topographics: Photographs of a Man-altered Landscape*¹⁶ (Robert Adams, Lewis Baltz, Nicholas Nixon, and Bernd and Hilla Becher).

If we analyse Burtynsky's images and, in general, all the photographic images conceived with the aim of showing the effects of human intervention on the landscape, we can easily find the common denominator of the zenithal setting and the width of the shot (which in cinematographic terms would be defined as a very long field): the effects of the Anthropocene on the landscape are therefore, apparently, better perceived if seen from above and, if possible, from a great distance. The idea that the large-scale effect is particularly effective (i.e., capable of making evident the impact of human activity on the ecosystem and, by implication, triggering a critical review of that activity) seems intuitive and suitable for "document the scale of anthropogenic activity on the surface of the planet"¹⁷, yet it is as

13 Morton, *Hyperobjects*, 70.

14 Ansel Adams and Nancy Newhall, *This is the American Earth*, (Oakland: The Sierra Club, 1960), 36.

15 *Koyaanisqatsi. Life Out of Balance*, directed by Godfrey Reggio (Island Alive, 1982), *Powaqqatsi. Life in transition*, directed by Godfrey Reggio (The Cannon Group, 1988) and *Naqoyqatsi. Life as War*, directed by Godfrey Reggio (Miramax Film, 2002).

16 William Jenkins, *New Topographics: Photographs of a Man-Altered Landscape*, Rochester, NY: International Museum of Photography at the George Eastman House, 1975.

17 Sophia Hackett, Andrea Kunard and Urk Stahel (eds.), *Edward Burtynsky, Jennifer Baichwal, Nicholas de Pencier, Anthropocene*. Fredericton: Goose Lane Editions, 2018.

natural as it is contradictory in terms.

From time immemorial, the view from above has been accompanied by an "idea of control"¹⁸. The seat of the divinities, who rule over creation and creatures, is normally placed in the heavens and the challenge to this dimension, whether it takes the form of the biblical Tower of Babel or the flight of Icarus or Phaeton, is harshly punished in the mythical narrative as a challenge to the divine prerogative of the view from above. The location of military outposts follows the same logic (opposite to that of human settlement, which prefers instead flat places rich in waterways) choosing positions from which it is possible to dominate, even in purely ballistic terms, the largest portion of territory possible. Also, military cartography soon detached itself from the trigonometric (and horizontal) construction of portolans to marry the aerial-photogrammetric or satellite view that is still used in the navigation software of civil and military devices. It is therefore not surprising that this strategy of representation somehow incorporates a belligerent idea of the relationship with nature that "keeps us believing that somehow the war against nature that Western society has been waging for centuries is not only right; it is beautiful and it can be won."¹⁹ The zenithal vision, in addition to telling us about a militarized and warlike imaginary, produces, incidentally, seductive, and geometrically curious images: it amplifies in this way the effect of confinement of experience in photogenic image theorized by Susan Sontag.²⁰ It comes implicitly to consider that if the Anthropocene is so photogenic, perhaps it is not so threatening. The gaze from above has a further double aesthetic consequence: it turns downwards, towards the abyss, but at the same time it can move away to sidereal spaces and radically change its meaning.

The view from above, whether recorded from the top of a skyscraper or from the flight height of an airplane, remains in fact in the realm of possible human experiences and implies the concept of vertigo that pertains to the idea of the sublime. Natural abysses, urban abysses transfigured in science fiction imagery into metropolises of planetary proportions (from the Metropolis of Fritz Lang's film,²¹ to the Los Angeles of "Blade Runner"²² to the Coruscant of "Star Wars" movies²³), forms and artefacts recognizable only on a large scale, do not question the identity of the observer, the agency of those who record this type of image and seduce at the same

18 Simon Garfield, *In Miniature. How Small Things Illuminate the World*. (Edinburgh: Canongate Books, 2018), 15.

19 Mirzoeff, "Visualizing the Anthropocene", 217.

20 "Taking photographs...is a way of certifying experience, [but] also a way of refusing it – by limiting experience to a search for the photogenic, by converting experience into an image, a souvenir... The very activity of taking pictures is soothing and assuages general feelings of disorientation that are likely to be exacerbated by travel". Susan Sontag, *On Photography* (New York: Farrar, Straus & Giroux, 1977), 177.

21 *Metropolis*, directed by Fritz Lang (1927; UFA Universum Film)

22 *Blade Runner*, directed by Ridley Scott (1982; Warner Bros.)

23 In this regard, see Alain Musset, *Station Metropolis, Direction Coruscant, Ville, science-fiction et sciences sociales* (Saint Mammès: Le Béal, 2019).

time with suggestive and powerful images. This powerful aesthetic of the city of the future as a place of height and vertigo resonates in Burtynsky's zenithal images by implicitly associating them with an imagery of narrative and fiction.

If we move the point of observation beyond the atmosphere, we find ourselves in orbit with Apollo 8 at the time of the shooting, in 1968, of the famous image "Earthrise". Although the image was taken thanks to a clearly human agency (the crew of the spacecraft) the feeling that it conveys is captured to perfection by McLuhan in the article, which precedes it by a decade, entitled "At the moment of Sputnik the planet became a global theatre in which there are no spectators but only actors", where he wrote, "[...] perhaps the largest conceivable revolution in information occurred on October 17, 1957, when Sputnik created a new environment for the planet. For the first time the natural world was completely enclosed in a man-made container. At the moment that the earth went inside this new artifact, Nature ended, and Ecology was born."²⁴ The vision from space would therefore have created a new environment for the entire planet: a point of observation that, although traceable to human means and initiatives, transcended the human becoming other. This sensation of estrangement (and this drastic rescaling of human ambitions) is often associated with the rhetoric of the artifact visible from space: for a long time, this attribute was recognized only to the Chinese wall, while in recent times many of the environmental transformations induced by human action have received the same qualification (see for example the proliferation of ghost forests mentioned below). This ambivalent relationship with a stellar gaze includes the vague feeling of unease provoked by McLuhan's assertion ("there are no human spectators") and at the same time is inscribed in the visual history of the view from above. The openness to this non-human and sidereal agency, together with the conception of the Anthropocene phenomenon as a hyperobject, are two elements that can redeem the aesthetics of top-down viewing from its potentially anaesthetic dimension.

Ghosts and trees

As we have seen, the gaze from above captures some of the phases through which the Anthropocene breaks into our perception. The hyperobject, however, can also be narrated through a gaze that has an orthogonal course with respect to the previous one, a horizontal course at human height that characterizes, for example, Burtynsky's series of images at the Dandora Landfills.²⁵

24 Marshall McLuhan, "At the Moment of Sputnik the Planet Became a Global Theater in Which There Are No Spectators but Only Actors", *Journal of Communication*, vol. 24, no. 1 (1974): 48-58. <https://doi.org/10.1111/j.1460-2466.1974.tb00354.x>

25 Hackett, Kunard and Stahel, *Anthropocene*, 62.

But it is the Mississippi Delta that provides us with a fatally perfect example of this horizontal aesthetic that becomes, immediately, a phantasmatic aesthetic, inhabited and possessed by hyper-ghosts that manifest themselves in the form of phantom forests. "Ghost forests are chaotic stands of dead and dying trees, leafless and lifeless, bleached white by the stealthy rising of the seas. Ghost forests mark the invisible flood-line of the salty tides. The skeletal trees are visible emissaries of the planetary upheavals of the Anthropocene, but like other ghosts they also point to places of half-buried, concealed, or erased violence."²⁶

The flooded oaks, dying and covered with whitish filaments by the saline tide, are at the same time "a mourning and a warning."²⁷ They have a dual role, on the one hand witnessing hidden violence and mourning, and on the other warning and haunting the living with a sign. The delta of the Mish Sipokni / Mississippi River presents some concomitant characteristics that make it a fundamental element to open further aesthetic discourse on the Anthropocene. It is in fact a ghostscape in which different souls are stirred: it is the product of the millennial work of the river that has built and sedimented the emerged areas; it was the scene of the implementation of the slave trade in the nineteenth century; it has been the subject of the most intense extractive infrastructure in all of North America; it has been affected by natural phenomena of unspeakable violence such as hurricanes and, finally, it is being rapidly submerged and disappeared due to global warming.²⁸

Not surprisingly, McClintock summarizes the nature of this place as a synthesis of "invasive colonialism, slavery, native genocide, oil". As anticipated above, the extension of these ghost forests has become, in recent years, visible from space, that is, it has reached that planetary scale that we have seen certify the results of human ambition. Louisiana is the image of a present "haunted by the past and destined to haunt all our tomorrows,"²⁹ the anticipation of a watery world inhospitable and hostile to humans.

However, this scenario is not simply the result of a naturalistic or geographical investigation: it is a narrative context endowed with a powerful aesthetic that has found in the first season of the successful series "True Detective"³⁰ a moment of synthesis and important visual production.

As McClintock writes "[...] ghost forests mark disturbances in arrangements of property, thefts and troubled legacies, historical crimes and

26 Anne McClintock, "Ghost Forest: Atlas of a Drowning World", *E-Flux, Accumulation Project*, January 2022, <https://www.e-flux.com/architecture/accumulation/440704/ghost-forest-atlas-of-a-drowning-world/>

27 *ibid.*

28 Laura Tenenbaum, "The Mississippi River Delta is the Fastest Shrinking Delta in the World. NASA Wants to Know Why," *Forbes*, February 24, 2020.

29 McClintock, "Ghost Forest".

30 *True Detective*, Cary Joji Fukunaga, director, Nic Pizzolatto, writer (HBO, 12 January - 9 March 2014).

family secrets, great forgettings, eerie unburials, and ruptures in time and space. Ghost forests are labyrinths of loss. The stricken trees create visual disturbances across the land, apparitions of shocked space and torn time that signal something is amiss: faraway melting ice caps, the invisible floods of rising saltwater; hidden burial places on slave plantations; half-remembered cemeteries of Native school children; drowning Native lands and sacred mounds; half-buried military munitions and abandoned petrochemical wastelands. I call these ecological disturbances 'ghostscapes': damaged landscapes where traces of disavowed violence haunt the margins of the visible and can now be read to animate forgotten histories and envision alternative futures"³¹ she seems to introduce the setting and the key elements of *True Detective's* plot, which is to all intents and purposes an "Anthropocene fiction"³² located in a Louisiana that, beyond the various nicknames attributed by the chronicle such as "cancer alley"³³ or "chemical corridor"³⁴ or "petroscape"³⁵, is configured in effect like a "landscape of fear"³⁶.

The series takes place in Vermilion Parish: the landscape photography handled with great skill and attention by director Cary Joji Fukunaga shows us a fatally compromised territory, ecosystem, bodies, social relations. In this context apparently devoid of future but devoured by its own past ("This place is like somebody's memory of a town, and the memory is fading. It's like there was never anything here but jungle."³⁷) the figures of the two detectives, Rustin Cohle and Martin Hart, recover only in appearance a dimension typical of noir (that is, the embodiment of a sense of justice that includes the contradictions and aporias of the American social and judicial system) but, in their struggle to bring out the truth, they represent a desire to escape from the past, not to sink with Louisiana, which makes them alien to the context in which they act. In this sense, the two protagonists represent an external, stubbornly clinical gaze: the investigation thus becomes a pretext for narrating and commenting on the effects of the Anthropocene hyperobject in all its manifestations and phases.

The manifestations are many: the degradation of the natural landscape ("Nothin' grows in the right direction."³⁸), the loss of value of human life

31 McClintock, "Ghost Forest".

32 Adam Trexler, *Anthropocene Fictions: The Novel in a Time of Climate Change*. (Charlottesville: University of Virginia Press, 2015), 4.

33 Abigail Blodgett, "An Analysis of Pollution and Community Advocacy in 'Cancer Alley': Setting an Example for the Environmental Justice Movement in St James Parish, Louisiana", *Local Environment*. 11, n. 6 (2006): 647–661.

34 Barbara L. Allen, *Uneasy Alchemy. Citizens and Experts in Louisiana's Chemical Corridor Disputes*, Cambridge, MA: MIT Press, 2003.

35 Delia Byrnes, "I Get a Bad Taste in My Mouth Out Here: Oil's Intimate Ecologies in HBO's *True Detective*," *The Global South* 9, no. 1 (Spring 2015): 91.

36 Yi-Fu Tuan, *Landscapes of Fear* (New York: Pantheon Books, 1979).

37 "The Long Bright Dark". *True Detective* (TV series). Season 1. Episode 1. January 12, 2014. HBO.

38 "After You've Gone". *True Detective* (TV series). Season 1. Episode 7. January 12, 2014. HBO.

(the victims of the ritual murders under investigation are lost and hidden among the dozens of victims of the hurricane), the deterioration of moral codes (the undermining of political and religious institutions,³⁹ commingling with atavistic rituals of human sacrifice), the compromise of the intimate and sexual dimension (“non-futural, non-reproductive, and, non-optimistic”⁴⁰) the extreme poverty and hostility of the environment to the human, the lack of a historical perspective or a dimension of hope (enunciated literally by the character of Detective Chole who summarizes in his positions a fascinating pastiche of nihilistic theses, quotes from Schopenhauer, Cioran, Lovecraft and Ligotti⁴¹).

The impact of the hyperobject in this narrative is declined with different modalities and visual languages. The bird’s-eye view shots on the bayou, the slow zoom-out movements that open “taking off” on the landscape, closely recall the above-mentioned works by Burtynsky, Baichwal and de Pencier, but especially Richard Misrach’s Petro-chemical America series that, because of the narrative context of the series, convey a feeling of greater compromise.

Misrach’s photographs of “Cancer Alley” were published in Petrochemical America (2012), though his photographic series of the region began in 1998 and continued for years. Misrach’s landscape photography work is closely tied to the iconography of True Detective: for example, the image “Sugar Cane and Refinery, Mississippi River Corridor” constitutes the initial still of the opening title sequence to HBO’s series. If the images of the Anthropocene Project seem to be captured by a silent drone, the landscape of True Detective is visualized from the point of view of a predatory bird, ready to dive to the ground at the first sign of life. The ruin of the human, the strange animal kin and the atavistic permanence of the landscape find a representation, so to speak, happy, even in the sets drawn by the independent New Orleans-based artist Joshua Walsh. Walsh has been able to give shape to the vegetable and animal nightmare of the place that will reveal itself, at the end of the series, as the site of the celebration of the heinous rituals that are the subject of the investigation: the Fort Macomb State Historic Site. The military fort of 1822 has in fact been transformed by the artist with animal bones, oyster shells, and twisted branches into the spectral Carcosa, a place where the impact of the Anthropocene hyper-object has generated a terrifying synthesis of human and non-human.

39 Rodney Taveira, True Detective and the States of American Wound Culture, *The Journal of Popular Culture* 50.3 (2017), 585–603.

40 Byrnes, “I Get a Bad Taste in My Mouth Out Here”, 88.

41 Thomas Ligotti, *The Conspiracy Against the Human Race: A Contrivance of Horror*, New York: Hippocampus Press, 2010.

Non-human.

Some of the aspects highlighted above could also be found in other television productions inspired by the same theme (such as “Treme” by David Simon⁴²) but what makes “True Detective” relevant in this discourse on the aesthetics of the Anthropocene, in addition to the extreme symbolic relevance of the setting to the theme, is an aspect that lies outside the narrative context.

In the series there are in fact some clear references to weird literature, such as the “King in Yellow” by R. W. Chambers and “Carcosa”, a city of invention created in the short story “An Inhabitant of Carcosa” (1886) by Ambrose Bierce and then cited by H. P. Lovecraft. Those references are never made explicit as such, conveying the impression that the story is located in an alternative reality where these texts have never actually been published. This strategy generates a tension that makes very strong reference to a Lovecraftian aesthetic and a potentially occult dimension (which for Pizzolatto is both the occult history of the infrastructural exploitation of the country and the history of the unnameable cults of the bayou) have forcibly placed the series in a supernatural dimension despite the clear naturalistic intentions of the author⁴³. But the shift towards the supernatural risks reducing the real impact of these aesthetics on our discourse: in fact, it is the weird suggestion of a non-human agency that seems most interesting to us in relation to an aesthetic discourse on the Anthropocene. In True Detective, non-human is the gaze that flies over the swamp, non-human is the agency that deforms and hybridizes the nature of landscape and population. The visionary transformation of man into a creature of the woods, the progressive advance of the forest recalls the works of Fina Miralles⁴⁴ or Ana Mendieta’s plant simulacra:⁴⁵ all these are elements that hybridize human, animal and vegetable with outcomes that explicitly recall the reflection of Donna Haraway.⁴⁶ A relationship is configured between the aesthetics staged in True Detective, the work of Howard Philip Lovecraft (or rather his insights into non-human agency) and the

42 *Treme*, created by David Simon (HBO, 2013).

43 In an interview with Nic Pizzolatto, creator of the series, conducted by Jeff Jensen for Entertainment Weekly in 2014 we read the following exchange.

JJ - You’ve cultivated so much palpable dread that some are convinced that supernatural forces are at work.

NP - Like Cthulhu is going to rise up and take control of the world of True Detective?

JJ - Ummm... is it?

NP - I hope the audience will be pleasantly surprised by the naturalism of the entire story. If you look at the series so far, what seems supernatural actually has real-world causes, like Cohle’s hallucinations, or even the nature of the crime. It has occult portents, but there is nothing supernatural about it.

<https://ew.com/article/2014/02/27/true-detective-nic-pizzolatto-season-1/>

44 Fina Miralles, “Générer des relations inattendues”, in Hélène Guenin (Dir.), *Sublime. Les tremblements du monde* (Metz : Editions du Centre Pompidou-Metz, 2016), 187.

45 Ana Mendieta, “Le germe de l’écoféminisme”, in Hélène Guenin (Dir.), *Sublime. Les tremblements du monde* (Metz : Editions du Centre Pompidou-Metz, 2016), 176-179.

46 Donna Haraway, *Staying with the Trouble. Making Kin in the Chthulucene* (London: Duke University Press, 2016).

theses of Donna Haraway. The latter, also in light of the profoundly racist and misogynist profile of the writer from Providence, in the past clearly refused the connection claiming the autonomy⁴⁷ of its reference to the spider Pimoc Cthulhu compared to the monstrous creature protagonist of the story "The Call of Cthulhu".⁴⁸ Yet it is to Lovecraft that we owe the fundamental intuition of modern weird literature, that is, the introduction of an idea of cosmic horror that derives from the hypothesis of a (marginal) contact with a totally non-human agency with respect to which our system of values is not subverted but simply ignored: a position not so distant from Donna Haraway's suggestions about tentacular thought.

The Great Old Ones of Lovecraft (monstrous entities of cosmic dimensions) are creatures that never manifest themselves directly on the physical plane: the descriptions provided in the stories are deliberately elliptical and, since even the mere mention of their name leads to madness, it is not possible in any way to describe them if not by negative. It is also not possible to perceive them distinctly, yet they pervade our reality and infest it with episodic local phenomena: they are, in a certain sense, hyperobjects that, in their being totally alien to the human, arouse in us a boundless terror. Lovecraft associates this horror to rural contexts, where in a regressive way the boundaries between human, animal and plant become thinner, and it is here, in the aesthetic and narrative context of *True Detective*, that it enters into a short circuit with the reflections of Donna Haraway.

True Detective thus charts a course that sits at the confluence of two contrasting approaches to the theme of the non-human, staging one of the possible aesthetic discourses on the Anthropocene that encompasses a wide range of relationships. Economy, bodies, the animal world, the plant world: points of impact of the hyperobject linked by a deformed and, at times, fatal kinship.

Findings

While, as we have seen, a wide spectrum of the imagery of the Anthropocene derives its forms from a military language and borrowed from the science fiction of the great urban abysses and "easy" planetary catastrophes, it seems interesting to keep open a debate on the possible aesthetics of the Anthropocene to those narratives intrinsically linked to the manifestation of this hyperobject such as, precisely, the first season of *True Detective*. This opening allows us to understand other imaginaries (such as Lovecraft's one) that digs inside bodies, remote and altered territories, integrating Haraway's thought on kinship and non-human relations. These imaginaries enable us to evoke an impact perhaps more significant and less anaesthetic than spectacularized and (tending to)

47 *ibid.*, 101.

48 Howard Philip Lovecraft, "The Call of Cthulhu", *Weird Tales* (February 1928).

abstract representations. There is a whole horizontal aesthetic of bodies and horizons transformed by the Anthropocene (by oil in the case of *True Detective*) that deserves careful examination, perhaps involving more disturbing and, only apparently, less scientific narratives. It is the aesthetics of the monstrous, the corrupt and the ruined. And while the need to explore the latter direction may lead to the establishment of hierarchies or priorities among aesthetic discourses, Morton's final contribution to this reflection is that arguably, the Anthropocene hyperobject is traceable to a kind of hyper-aesthetic (or a series of hyper-aesthetics) that is articulated and integrated according to its multiple local and non-linear manifestations.

Stefano Ascari (1975) PhD at UNIBO and École des hautes études en sciences sociales, Paris, contract lecturer at the Degree Course in Industrial Product Design, currently research fellow at the Department of Architecture, University of Bologna. His research focuses on the representation and narration of urban space in an analytical and design dimension. His latest publications include "Parole, immagini e muri. Il fumetto come scrittura dello spazio urbano" (in *Espressioni Urbane*, Milan: Mimesis, 2022), "Telling Dark Cities: glimpsing the future through shared imagery" (in *Envisioning Architectural Narratives*, Huddersfield: University of Huddersfield, 2021) and "Qui e (non) ora: la spazializzazione del tempo in Here di Richard McGuire" (*Archiletture. Forma e narrazione tra architettura e letteratura*, Milan: Mimesis, 2019).

References

- Adams, Ansel and Newhall, Nancy, *This is the American Earth*. Oakland: The Sierra Club, 1960.
- Allen, Barbara L., *Uneasy Alchemy. Citizens and Experts in Louisiana's Chemical Corridor Disputes*, Cambridge, MA: MIT Press, 2003.
- Azam, Geneviève, *Le Temps du monde fini: vers l'après-capitalisme*. Paris: Les Liens qui libèrent, 2012.
- Blodgett, Abigail, "An Analysis of Pollution and Community Advocacy in 'Cancer Alley': Setting an Example for the Environmental Justice Movement in St James Parish, Louisiana", *Local Environment*. 11, n. 6 (2006): 647–661. <https://doi.org/10.1080/13549830600853700>
- Bonneuil, Christophe and Fressoz, Jean-Baptiste, *L'Événement Anthropocène. La Terre, l'histoire et nous*. Paris: Editions du Seuil, 2016.
- Brion, Marcel, *L'art fantastique*, Paris: Albin Michel, 1961.
- Byrnes, Delia, "I Get a Bad Taste in My Mouth Out Here: Oil's Intimate Ecologies in HBO's True Detective," *The Global South* 9, no. 1 (Spring 2015): 86-106. <https://doi.org/10.2979/globalsouth.9.1.07>
- Cometa, Michele and Motandon, Alain, *Vedere. Lo sguardo di E. T. A. Hoffmann*. Palermo: :duepunti edizioni, 2009.
- Fisher, Mark, *The Weird And The Eerie*. London: Repeater Books, 2016.
- , *Capitalism Realism. Is there no alternative?.* London: Zero Books, 2009.
- Franklin, H. Bruce. "What Are We to Make of J. G. Ballard's Apocalypse?", *Short Story Criticism*, vol. 1, Gale, 1988. Originally published in Claerson, Thomas D. (ed.), *Voices for the Future Essays on Major Science Fiction Writers*, vol. 2, Bowling Green: University Popular Press, 1979, 82-105.
- Fressoz, Jean-Baptiste, "L'Anthropocène et l'esthétique du sublime" in Hélène Guenin (Dir.), *Sublime. Les tremblements du monde*. Metz: Editions du Centre Pompidou-Metz, 2016, 44-49.
- Freud, Sigmund, *Das Unbehagen in der Kultur*. Wien, Internationaler, Psychoanalytischer Verlag, 1930 trad. by Strachley, James, *Civilization and its Discontents*. New York: W. W. Norton & Company, 1962
- Garfield, Simon, *In miniature. How Small Things Illuminate the World*. Edinburgh: Canongate Books, 2018.
- Hackett, Sophie, Kunard, Andrea and Stahel, Urk (eds.), *Edward Burtynsky, Jennifer Baichwal, Nicholas de Pencier, Anthropocene*. Fredericton: Goose Lane Editions, 2018.
- Haraway, Donna, *Staying with the Trouble. Making Kin in the Chthulucene*, London: Duke University Press, 2016. <https://doi.org/10.2307/j.ctv11cw25q>
- Jenkins, William, *New Topographics: Photographs of a Man-Altered Landscape*, Rochester, NY: International Museum of Photography at the George Eastman House, 1975.
- Koolhaas, Rem, *Delirious New York. A Retroactive Manifesto for Manhattan*, New York: The Monacelli Press, 1994.
- Le Brun, Annie, *Perspective dépravée: entre catastrophe réelle et catastrophe imaginaire*. Bruxelles: La Lettre volée, 1991.
- Ligotti, Thomas, *The Conspiracy Against the Human Race: A Contrivance of Horror*. New York: Hipocampus Press, 2010.
- Lovecraft, Howard Philip, "The Call of Cthulhu", *Weird Tales* (February 1928).

- Malvestio, Marco, *Raccontare la fine del mondo. Fantascienza e Antropocene*. Milano: nottetempo, 2021.
- McClinotck, Ann, "Ghost Forest: Atlas of a Drowning World", E-Flux, *Accumulation Project*, January, 2022, <https://www.e-flux.com/architecture/accumulation/440704/ghost-forest-atlas-of-a-drowning-world/>
- McLuhan, Marshall, "At the Moment of Sputnik the Planet Became a Global Theater in which There are No Spectators but Only Actors.", *Journal of Communication*, vol. 24, no. 1 (1974): 48-58. <https://doi.org/10.1111/j.1460-2466.1974.tb00354.x>
- Mendieta, Ana, "Le germe de l'écoféminisme, in Héléne Guenin (Dir.), *Sublime. Les tremblements du monde*. Metz : Editions du Centre Pompidou-Metz, 2016, 176-179.
- Miralles, Fina, "Générer des relations inattendues", in Héléne Guenin (Dir.), *Sublime. Les tremblements du monde*. Metz : Editions du Centre Pompidou-Metz, 2016, 187.
- Mirzoeff, Nicholas, "Visualizing the Anthropocene", *Public Culture* 26, no. 2 (2014): 213-232. <https://doi.org/10.1215/08992363-2392039>
- Mittermeier, Cristina, "Starving-Polar-Bear Photographer Recalls What Went Wrong" in *National Geographic*, August 2018, <https://www.nationalgeographic.com/magazine/article/explore-through-the-lens-starving-polar-bear-photo>
- Morton, Timothy, *Hyperobjects, Philosophy and Ecology after the End of the World*. Minneapolis: University of Minnesota Press, 2013.
- Musset, Alain, *Le syndrome de Babylone - Géocoïnflits de l'apocalypse*. Paris : Armand Colin, 2012.
- Musset, Alain, *Station Metropolis, Direction Coruscant, Ville, Science-fiction et Sciences sociales*. Saint Mammès: Le Béliat, 2019.
- Ramade, Bénédicte, "Review of Le sublime réinventé / The Sublime Reinvented /Sublime. Les tremblements du monde", *Espace*, no. 114 (Fall 2016): 66–71.
- Saint Girons, Baldine (dir.), *Le Paysage et la question du sublime*, Editions de la RMN, ARAC, musée de Valence, 1997.
- Stengers, Isabelle, *Au temps des catastrophes, Résister à la barbarie qui vient*, Paris: Editions La Découverte, 2009.
- Schrödinger, Erwin, "Die gegenwärtige Situation in der Quantenmechanik (The present situation in quantum mechanics)". *Naturwissenschaften* 23, no. 48 (1935): 807–812. <https://doi.org/10.1007/BF01491891>
- Sontag, Susan, *On Photography*, New York: Farrar, Straus & Giroux, 1977.
- Sugimoto, Hiroshi, *Dioramas*, Bologna: Damiani, 2014.
- Tenenbaum, Laura, "The Mississippi River Delta is the Fastest Shrinking Delta in the World. NASA Wants to Know Why," *Forbes*, February 24, 2020.
- Trexler, Adam, *Anthropocene Fictions: The Novel in a Time of Climate Change*. Charlottesville: University of Virginia Press, 2015.
- Tuan, Yi-Fu, *Landscapes of Fear*, New York: Pantheon Books, 1979.
- Vidler, Anthony, *The Architectural Uncanny. Essays in the Modern Unhomely*, Londra: MIT, 1992.

Filmography

Fukunaga, Cary Joji, *True Detective*, HBO, 12 January - 9 March 2014.

Lang, Fritz, director, *Metropolis*. Universum Film (UFA), 1927.

Reggio, Godfrey, director, *Koyaanisqatsi. Life Out of Balance*. Island Alive, 1982.

Reggio, Godfrey, director, *Powaqqatsi. Life in transition*. The Cannon Group, 1988.

Reggio, Godfrey, director, *Naqoyqatsi. Life as War*. Miramax Film, 2002.

Simon, David, creator, *Treme*, HBO, 2013.

Scott, Ridley, director, *Blade Runner*. Warner Bros, 1982.

MAIN SECTION

Perceiving the Anthropocene as a Public Health Risk via Visual Culture

Daniel A. Finch-Race - University of Bologna, Italy
Contact: daniel.finchrace@unibo.it

ABSTRACT

There is widespread scientific and cultural evidence that Earth's planetary boundaries are being exceeded in irreparable ways due to unsustainable behavior in the Global North's resource-hungry nations in particular, but responsiveness to the climate crisis is still lagging. It has become clear that significant numbers of people have limited engagement with ecological risks accumulating on a scale much bigger than the micro-level human actions causing them, such as the day-to-day build-up of industrial pollutants including nitrogen dioxide. How best to go about galvanizing socially just degrowth in the face of barriers to individual commitment that range from a sense of powerlessness to disinterest in futures-thinking? Given the extent to which a preoccupation with wellbeing spans walks of life across the globe, it is worth considering the motivational power of ecological dangers in terms of the potential for personal harm. With that end in mind, this article fleshes out an artistically and emotionally oriented approach to the totalizing extractivism of the Anthropocene as a source of public health problems, not least the COVID-19 pandemic.

ACKNOWLEDGEMENTS

The reasoning here was honed through exchanges with Cristina Baldacci, Shaul Bassi, Emiliano Guaraldo, Josh Habgood-Coote, Susan Harrow, Joanna Jordan, Katja Kwastek, Sara MacBride-Stewart, the postgraduates in Andrea Borsari's courses on "Estetiche per la città" and "Aesthetics of the City and Landscape" at the University of Bologna's Department of Architecture in November 2022, and attendees of the panel on "Narrare il rischio"—organized by Lucia Masotti and Carlo Mambriani—at the University of Insubria during the 12th Study Day of the Società di Studi Geografici in December 2022.

KEYWORDS

Cultural geography; Enviro-medical humanities; Nineteenth-century art; Pollution; Will-to-wellbeing

PEER REVIEWED

<https://doi.org/10.6092/issn.2612-0496/15990>

ISSN 2612-0496

Copyright © 2022 Daniel A. Finch-Race

Increasingly frequent disruptions to the Earth system are the result of longstanding irresponsible conduct in privileged parts of the world where ethical concerns appear to have taken something of a back seat to the affordances of capitalism. Pressing problems such as greenhouse gas emissions compounding extreme weather are the bitter fruit of key nations' industrial quantum leaps: "in the 'West' during the 18th and 19th centuries [...] coal-fired steam engines generated novel workplaces, new industries and products, huge factories, vast cities and machine-based movement."¹ These transitions contributed directly and indirectly to a planetary crisis. Anthony McMichael and Colin Butler's "Promoting Global Population Health while Constraining the Environmental Footprint" traces the spread of the trouble: "as economies grew and fossil fuels became central to industrial capitalism, environmental air pollution and the chemical fouling of waterways took on a more community-wide, even regional, character."² Micro-level choices stoked a cascade of slow violence at the meso and macro level, especially affecting regions lacking the capacity to insulate themselves against climate instability. In *The Great Derangement: Climate Change and the Unthinkable*, Amitav Ghosh is forthright about the situation amounting to deleterious deeds "returning to haunt us in unthinkable shapes and forms."³ Without much regard for how ecosystems' integrity and the finitude of organic life go hand in hand, the impulse to profit from so-called "natural resources" continues to unfold. Seeing as "a capitalist system [...] is constitutionally driven toward ceaseless growth on a finite planetary resource base,"⁴ the prospects for righting the ship can seem rather slim.

What is to become of the Anthropocene, the epoch in which humans have acquired geological agency? Its properties are becoming more and more pronounced: "economic globalisation; cultural cosmopolitanism; Earth System science; health pandemics."⁵ Even if some societies have boomed in the course of this unprecedented state of affairs, it would be rash not to take account of the fact that problems like eco-anxiety or COVID-19 are occurring with greater frequency. Regarding the burden of responsibility here, much is to be said for interrogating the apparently monolithic *anthropos*. As part of efforts to address "the lexical and scientific vanishing point of the Anthropocene,"⁶ it is fitting that "the language(s) of climate

1 John Urry, "Editorial: The Problem of Energy," *Theory, Culture & Society* 31, no. 5 (2014): 10.

2 Anthony J. McMichael and Colin D. Butler, "Promoting Global Population Health while Constraining the Environmental Footprint," *Annual Review of Public Health* 32 (2011): 182–183.

3 Amitav Ghosh, *The Great Derangement: Climate Change and the Unthinkable* (Chicago: University of Chicago Press, 2016), 32.

4 Alok Amatya and Ashley Dawson, "Literature in an Age of Extraction: An Introduction," *Modern Fiction Studies* 66, no. 1 (2020): 4.

5 Abbey Ballard and John Parham, "Editorial—Ties that Bind: International Studies in Ecocriticism," *Green Letters* 24, no. 2 (2020): 104.

6 Phillip John Usher, "Untranslating the Anthropocene," *Diacritics* 44, no. 3 (2016): 60.

change should be called into question.”⁷ Where alternative designations for the phase beyond the Holocene have sprouted in the humanities and social sciences, ranging from the Capitalocene to the Plantationocene, questions of intersectionality are of real urgency. In *Climate Change, Capitalism, and Corporations: Processes of Creative Self-Destruction*, the political economists Christopher Wright and Daniel Nyberg emphasize that “‘business as usual’ scenarios [...] singularly fail to acknowledge the desperate exigencies of a carbon-constrained world.”⁸ With symptoms of ecological disturbance spreading across the planet, a multi-pronged strategy is needed to set enough people against sources of harm insidiously embedded in the everyday, not least pollution from heavy industry that goes back to the nineteenth century.

A fruitful method of accounting for rising threat levels is proposed in Molly Wallace’s *Risk Criticism: Precautionary Reading in an Age of Environmental Uncertainty*, comprising the recognition that “global warming is at once ‘fabulously textual’ and absolutely material, a product of expert assessment, media presentation, political accord, and public reception, as much as it is an interaction of CO₂ and methane gases in the atmosphere.”⁹ Situating risk between materiality and textuality opens up space for delving into the qualitative dimension of a predicament such as greenhouse gas emissions, the consequences of which have been extensively mapped from various perspectives within the applied sciences. According to a place- and people-focused team led by Petra Tschakert in “One Thousand Ways to Experience Loss: A Systematic Analysis of Climate-Related Intangible Harm from around the World,” it must be borne in mind that “quantitative approaches to [...] risk assessments [...] are often at odds with the lived and felt realities of harm.”¹⁰ Research in the energy humanities similarly highlights the importance of feelings ahead of facts: “given the cognitive biases that limit how far people ‘own’ the problem of climate change, emotional identification with the issue is the more important aspect of narrative persuasion to leverage.”¹¹ To what extent might the sentiments and storying at stake in cultural artifacts like Berthe Morisot’s *Hanging the Laundry out to Dry* (1875) or Giovanni Battista Costa’s *Unloading Coal in the Port of Genoa* (1892) help to mediate the complexities of empirical data surrounding Hothouse Earth and the like? As Angela Last explains, “artworks often promote a closer identification with a greater planetary

7 Uwe Küchler, “Signs, Images, and Narratives: Climate Change across Languages and Cultures,” in *Teaching Climate Change in the Humanities*, ed. Stephen Siperstein, Shane Hall, and Stephanie LeMenager (London: Routledge, 2017), 154.

8 Christopher Wright and Daniel Nyberg, *Climate Change, Capitalism, and Corporations: Processes of Creative Self-Destruction* (Cambridge: Cambridge University Press, 2015), 72.

9 Molly Wallace, *Risk Criticism: Precautionary Reading in an Age of Environmental Uncertainty* (Ann Arbor: University of Michigan Press, 2016), 20.

10 Petra Tschakert et al., “One Thousand Ways to Experience Loss: A Systematic Analysis of Climate-Related Intangible Harm from around the World,” *Global Environmental Change* 55 (2019): 59.

11 Simon Bushell et al., “Strategic Narratives in Climate Change: Towards a Unifying Narrative to Address the Action Gap on Climate Change,” *Energy Research & Social Science* 28 (2017): 47.



FIG. 1 World Wildlife Fund, "Air Pollution Comes from 5 Main Human Sources," *Twitter*, June 5, 2019, <https://twitter.com/WWF/status/1136185193272938502>.

history that might translate into new political demands and new forms of identity and participation.¹² Since social engagement with environmental challenges is acutely needed, this could well be the time for all things creative to come into their own.

At Venice's Architecture Biennial in 2021, the Catalan Pavilion hosted 'Air/Aria/Aire', foregrounding the European cities most polluted by nitrogen dioxide at a cost of thousands of deaths per year, with Turin 3rd, Paris 4th, Milan 5th, and Brussels 8th. Gary Fuller goes as far as warning that "the Po Valley in northern Italy [...] is one of Europe's most polluted regions [...] with ozone forming close to the ground, particle pollution and nitrogen dioxide," and that "ozone pollution in Paris is around twice as high today as that measured over 100 years ago."¹³ In the words of a pan-European epidemiological team led by Rob Beelen, "particulate matter air pollution is ubiquitous and [...] reductions [...] can be expected to reduce the mortality risk."¹⁴ This issue corresponds to the United Nations' Sustainable Development Goals on "Good Health and Well-Being" and "Climate Action," which subtended the orientation of World Environment Day 2019 toward #BeatAirPollution.¹⁵ Twitter surged with responses to the major hazard in ways shaped by emotion as much as science, with high-profile organizations and figures posting images of smokestacks that attracted hundreds

12 Angela Last, "We Are the World? Anthropocene Cultural Production between Geopoetics and Geopolitics," *Theory, Culture & Society* 34, no. 2–3 (2017): 148.

13 Gary Fuller, *The Invisible Killer: The Rising Global Threat of Air Pollution—and How We Can Fight back* (London: Melville House, 2019), 100–01, 113.

14 Rob Beelen et al., "Effects of Long-Term Exposure to Air Pollution on Natural-Cause Mortality: An Analysis of 22 European Cohorts within the Multicentre ESCAPE Project," *The Lancet* 383 (2014): 793.

15 United Nations Environment Program, "Chemicals and the Right to Breathe Clean Air," *United Nations Environment Program*, June 6, 2019, www.unep.org/news-and-stories/story/chemicals-and-right-breathe-clean-air.



FIG. 2 Camille Pissarro, *Banks of the Oise at Pontoise/Saint-Ouen-l'Aumône*, 1867. Oil on canvas, 18 x 28 inches. Denver Art Museum, Denver, CO. Gift of the Barnett and Annalee Newman Foundation in honor of Annalee G. Newman, 2001.310. © Denver Art Museum.

of likes and re-tweets.¹⁶ Such iconography, echoing Impressionist paintings including Camille Pissarro's *Banks of the Oise at Pontoise/Saint-Ouen-l'Aumône* (1867), indicates how certain aesthetics carry weight in environmentalism. Given that "air pollution and its effects are surprisingly ubiquitous in literature and art,"¹⁷ there is a wellspring of stimuli to do with ecological risk. Andrew Patrizio's *The Ecological Eye: Assembling an Ecocritical Art History* reasons out "artworks metabolis[ing] the earth's materials into objects of value and aesthetic experiences that themselves set up chains of transformation."¹⁸ Undoubtedly, it is worth heeding non-specialist pathways for broaching intricate subjects like noxious carbonways or ocean acidification.

Public perception of environmental changes and associated health questions tends to be rooted in emotion before logic, chiefly in terms of how information aligns with a person's worldview. Scientists seeking to convey the severity of Earth's condition have pursued an incontestable level of data but precise modeling has yet to hold sway as extensively as needed. Those unconvinced about what is at stake are even proving to be repelled by statements that diverge from their standpoint, most often "increas[ing] their opposition to both proposed governmental and personal climate

16 Bloomberg Quicktake, "Today Is #WorldEnvironmentDay," *Twitter*, June 5, 2019, <https://twitter.com/Quicktake/status/1136085588963205122>; Global Landscapes Forum, "Today, 5 June, Is #WorldEnvironmentDay," *Twitter*, June 5, 2019, <https://twitter.com/GlobalLF/status/1136106697997586432>; The Anthropocene Project, "Today Is #WorldEnvironmentDay," *Twitter*, June 5, 2019, <https://twitter.com/anthropocene/status/1136276864866168832>; World Wildlife Fund, "Air Pollution Is a Global Issue Affecting People and the Planet," *Twitter*, June 5, 2019, <https://twitter.com/WWF/status/1136185210079461376>.

17 Anna Souter, "Dirty Pretty Things: Air Pollution in Art from JMW Turner to Today," *The Guardian*, October 28, 2020, www.theguardian.com/artanddesign/2020/oct/28/jmw-turner-air-pollution-in-art-rain-steam-and-speed, paragraph 9.

18 Andrew Patrizio, *The Ecological Eye: Assembling an Ecocritical Art History* (Manchester: Manchester University Press, 2019), 6.

change action.”¹⁹ In parallel to potentially antagonism-inducing scientific expertise, an ostensibly less technical object can be apt for establishing an emotional connection with macro-scale risk, as was intimated in winter 2019 in exhibitions of contemporary art at the Royal Academy in London (“Eco-Visionaries: Confronting a Planet in a State of Emergency”) and the MAST Foundation in Bologna (“Anthropocene”). Opportunities for an ecological reckoning through the arts extend to all-the-rage reproductions of canonical paintings from the time of the Industrial Revolution in the form of canvas bags, coffee mugs, flasks, laptop cases, surgical-style masks, and T-shirts.²⁰ These items are an underestimated conduit for engagement with the Anthropocene’s problems via the logic of Ellen Winner’s *How Art Works: A Psychological Exploration*, which identifies how such stimuli are typically cognized: “when we respond to visual art, narrative art, or music with negative emotional content, we experience a combination of negative and positive emotions [...]—the more negative the content, the more positive and moved people feel.”²¹ There thus appears to be scope for tackling the climate crisis by bringing into play realistically ominous creative depictions.

Considering the idea of “art [...] shap[ing] reality [...] in a compellingly new way,”²² what practices would seem suited to spurring individuals to climate action over the long term? Several attempts to make an enduring impact on the public consciousness have centered on exposing threats to health, stirring up a mix of negative and positive feelings. A case in point is the “art attacks” in October 2022 at London’s National Gallery and Potsdam’s Barberini Museum by Just Stop Oil (@JustStop_Oil) and Letzte Generation (@AufstandLastGen). There was shock value by the bucketload in the lobbing of tomato soup at Vincent van Gogh’s *Sunflowers* (1888) and mashed potatoes at Claude Monet’s *Haystacks* (1891), with coverage of the latter in *The Guardian* stressing how “the stunt was designed as a wake-up call in the face of a climate catastrophe.”²³ The shortcoming targeted by the

19 Jack Zhou, “Boomerangs versus Javelins: How Polarization Constrains Communication on Climate Change,” *Environmental Politics* 25, no. 5 (2016): 802.

20 MasterpieceCafe, “Factories at Asnières Coffee Mug,” Zazzle, September 28, 2009, www.zazzle.com/factories_at_asnieres_by_vincent_van_gogh_coffee_mug-168554557097358505; MasterpieceCafe, “Factories at Asnières Tote Bag,” Zazzle, May 7, 2010, www.zazzle.com/factories_at_asnieres_by_vincent_van_gogh_tote_bag-149398704726871695; MasterpieceCafe, “Factories at Asnières T-Shirt,” Zazzle, September 28, 2009, www.zazzle.com/factories_at_asnieres_by_vincent_van_gogh_t-shirt-235449501386056905; PaintingArtwork, “Bathers at Asnières Adult Cloth Face Mask,” Zazzle, December 17, 2020, www.zazzle.com/georges_seurat_bathers_at_asnieres_adult_cloth_face_mask-256321481616492774; PaintingArtwork, “Bathers at Asnières Laptop Sleeve,” Zazzle, July 30, 2022, www.zazzle.com/georges_seurat_bathers_at_asnieres_laptop_sleeve-12450355822664320; PaintingArtwork, “Bathers at Asnières Stainless Steel Water Bottle,” Zazzle, February 3, 2021, www.zazzle.com/georges_seurat_bathers_at_asnieres_stainless_steel_water_bottle-256335961982440496.

21 Ellen Winner, *How Art Works: A Psychological Exploration* (Oxford: Oxford University Press, 2018), 99–100.

22 Andrew Simms, “Why Climate Action Needs the Arts,” *The Guardian*, June 3, 2015, www.theguardian.com/environment/2015/jun/03/why-climate-action-needs-the-arts, paragraph 14.

23 Sam Jones, “Climate Activists Throw Mashed Potatoes at Monet Work in Germany,” *The Guardian*, October 23, 2022, www.theguardian.com/environment/2022/oct/23/climate-activists-mashed-potato-monet-potsdam-germany, paragraph 3.

activists—slowness in cutting back pursuits that are responsible for rising global surface temperatures—is perennial: “carbon is not a salient consideration in everyday decision-making, [...] misperceptions exist, and [...] the disparity between knowledge and behaviour (the ‘value-action gap’) would suggest certain barriers constrain the ability of even knowledgeable and motivated individuals to act.”²⁴ It might well be possible to get around this stumbling block by diversifying modes of reflection and knowledge transmission. In the words of reporting by Vox, “threaten[ing] the destruction of art [...] and the cultural value we ascribe to it [...] in the fight to save the planet [...] raises all kinds of questions.”²⁵ When looking to contend with the Anthropocene’s myriad facets and scales, the weightiness of internationally revered forms of culture is not to be sniffed at.

A culturally oriented understanding of our planet’s endangerment can bring new levels of meaningfulness to intersectional problems associated with certain economic and political creeds. Sara MacBride-Stewart, Yi Gong, and Jessica Antell observe that “there is an inequality in the distribution of environmental hazards and health risks [...] influenced by policy, economics and the social conditions of gender.”²⁶ Increasingly, disciplines running the gamut from art history to anthropology are rounding out data from the natural sciences about disruptions in biogeochemical flows, soil degradation, and much besides. Jonathan Rigg and Lisa Reyes Mason specify that “social sciences and humanities [...] can lead to a different kind of climate science—one characterized by deep interdisciplinarity, meaningful public engagement and the recognition that global processes have distinct local signatures.”²⁷ Some of the most innovative work in this regard has to do with how “medicine and the environment [...] overlap [...] in the field of health and well-being.”²⁸ Scores of enviro-medical lessons are to be learned from sites of injustice like the sacrifice zone colloquially known as “Cancer Alley,” the 85-mile stretch along the Mississippi between Baton Rouge and New Orleans where roughly 150 facilities handle a quarter of the United States’ petrochemical production. *The Bloomsbury Handbook to the Medical-Environmental Humanities* opens with Scott Slovic, Swarnalatha Rangarajan, and Vidya Sarveswaran remarking that “a particularly ubiquitous concern in the Anthropocene [is] the public health ramifications of widespread toxicity, a byproduct of

24 Lorraine Whitmarsh, Gill Seyfang, and Saffron O’Neill, “Public Engagement with Carbon and Climate Change: To What Extent Is the Public ‘Carbon Capable?’,” *Global Environmental Change* 21, no. 1 (2011): 64.

25 Aja Romano, “How Many Van Goghs Is One Earth Worth?,” *Vox*, October 24, 2022, www.vox.com/culture/23414590/just-stop-oil-van-gogh-sunflowers-protest-climate-change, paragraphs 10–11.

26 Sara MacBride-Stewart, Yi Gong, and Jessica Antell, “Exploring the Interconnections between Gender, Health and Nature,” *Public Health* 141 (2016): 283.

27 Jonathan Rigg and Lisa Reyes Mason, “Five Dimensions of Climate Science Reductionism,” *Nature Climate Change* 8, no. 12 (2018): 1031.

28 Tom Crook, “Thinking Ecologically: A Systems Approach to the History of MedEnv,” *MedEnv Network*, September 10, 2020, <https://medenvnetwork.wordpress.com/2020/09/10/thinking-ecologically>, paragraph 2.

industrialization.”²⁹ Right now, suffering is being perpetuated to the greatest measure in disadvantaged areas; soon enough, no-one will be able to run from this predicament.

Breaking the cycle of extractivism is to be deemed no mean feat, especially with the traction of disposable consumables in countries that are uppermost in the United Nations Development Program’s Human Development Index. Andrew Jameton’s “Outline of the Ethical Implications of Earth’s Limits for Health Care” goes to the heart of the problem: “without a healthy environment, people cannot stay healthy in the long run; the human ability to provide [...] food, shelter, immunity, and a toxic-free environment depends on the fundamental good health of the Earth.”³⁰ That said, swathes of the general public do not come across as overly preoccupied with the extent to which ecosystem health entwines with quality of life, notwithstanding initiatives to spread the word by organizations including the British Broadcasting Corporation: “there is no Earth *and* us—we are one.”³¹ Significant numbers continue to treat their circumstances as somehow detached from the state of the world, which is of deep concern. The philosopher Corine Pelluchon is insistent that “our vulnerability is connected to our corporality—the fact that we eat, depend on air, on water and so on. [...] Ecology cannot be separated from existence.”³² By the same token, Astrida Neimanis and Rachel Loewen Walker point out, “the weather and the climate are not phenomena ‘in’ which we live at all—where climate would be some natural backdrop to our separate human dramas—but are rather of us, in us, through us.”³³ In the hyperconnected era of globalization where unsustainable choices in high-income countries are co-extensive with climate change, the supposed separateness of Nature/Culture does not hold water.

The risks of the Anthropocene can be tough to grasp because they operate on a scale that is much larger than each activity causing them. As Serpil Oppermann underscores, “thinking the human impact in million-year spans is difficult.”³⁴ Environmentalism has tended to lose out to matters perceived as closer to home in a value hierarchy, with *utility* taking

29 Scott Slovic, Swarnalatha Rangarajan, and Vidya Sarveswaran, “Introduction: Toward a Medical-Environmental Humanities. Why Now?,” in *The Bloomsbury Handbook to the Medical-Environmental Humanities*, ed. Scott Slovic, Swarnalatha Rangarajan, and Vidya Sarveswaran (London: Bloomsbury, 2022), 5.

30 Andrew Jameton, “Outline of the Ethical Implications of Earth’s Limits for Health Care,” *Journal of Medical Humanities* 23, no. 1 (2002): 45.

31 Eleni Dimou, British Broadcasting Corporation, and Flock London, “Is It Time to Reassess our Relationship with Nature?,” *BBC Ideas*, July 17, 2020, www.bbc.co.uk/ideas/videos/is-it-time-to-reassess-our-relationship-with-natur/p08l2xcb, 4:27–31.

32 Corine Pelluchon, “We Live in a World which Dehumanizes Us: Covid and Ecology,” *The New Institute*, December 22, 2020, <https://thenew.institute/en/news/covid/covid-and-ecology>, paragraphs 3–4.

33 Astrida Neimanis and Rachel Loewen Walker, “Weathering: Climate Change and the ‘Thick Time’ of Transcorporeality,” *Hypatia* 29, no. 3 (2014): 559.

34 Serpil Oppermann, “The Scale of the Anthropocene: Material Ecocritical Reflections,” *Mosaic* 51, no. 3 (2018): 2.

precedence over *virtue*. According to the sociologist Philip Smith and the cultural geographer Nicolas Howe in *Climate Change as Social Drama: Global Warming in the Public Sphere*, “climate change looks to be a chronic rather than an acute condition. It suffers relative to immediate threats, such as the S[evere]A[cute]R[espiratory]S[yndrome] virus, because life never appears to be in clear and present danger. This keeps it on the back burner.”³⁵ An ironic twist of fate is how chronic ecological problems augment the frequency of acute threats like SARS-CoV-2 that draw resources away from initiatives to address the underlying condition. In “Integrating Health and Environmental Impact Analysis,” an enviro-medical team led by the atmospheric chemist Stefan Reis makes no bones about the degree to which “the daunting challenge of maintaining and improving public health in the face of rapidly accelerating environmental change at the local, but especially the planetary level, is not being adequately met.”³⁶ Building consensus around endangered wellbeing comes down to issues of time and space—the very stuff of artistic objects, both narratively and materially.

Everyday industrially led toxification since the nineteenth century is a principal component of the disorder whereby “most of the earth has warmed.”³⁷ *The Paris Agreement*—the fruit of the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change in 2015—sets out a rationale for “pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change.”³⁸ This type of benchmarking is expedient for getting big players pulling in the right direction, though the enterprise cannot stop there. “What the Coronavirus Curve Teaches Us about Climate Change” sees the economist Howard Kunreuther and the psychologist Paul Slovic advocating for “no longer delay[ing] aggressive actions to halt and reverse what otherwise will be inevitable pandemic-like crises arising from climate change. Already, tipping points have been reached.”³⁹ Swift societal adjustments appear a bitter pill to swallow in some quarters, but the whole of humanity is in jeopardy of too little, too late. Hilary Graham and Piran White—rooted in medical sociology and ecosystem services—declare that “challenges to public health and environmental sustainability are interconnected. [...] [B]oth human health and the planetary environment are [...] outcomes of

35 Philip Smith and Nicolas Howe, *Climate Change as Social Drama: Global Warming in the Public Sphere* (Cambridge: Cambridge University Press, 2015), 3.

36 Stefan Reis et al., “Integrating Health and Environmental Impact Analysis,” *Public Health* 129, no. 10 (2015): 1387.

37 William J. Burroughs, *Climate Change: A Multidisciplinary Approach* (Cambridge: Cambridge University Press, 2007), 206.

38 United Nations, *Paris Agreement* (Bonn: United Nations Framework Convention on Climate Change Secretariat, 2015), 3.

39 Howard Kunreuther and Paul Slovic, “What the Coronavirus Curve Teaches Us about Climate Change,” *Politico*, March 26, 2020, www.politico.com/news/magazine/2020/03/26/what-the-coronavirus-curve-teaches-us-about-climate-change-148318, paragraph 13.

dominant forms of economic and social development.”⁴⁰ As the clock runs down on the prospect of heading off full-blown climate breakdown, it is opportune to bring multifarious resources to bear on inaction linked to the impression of powerlessness and analogous hindering factors. What might be achieved through galvanizing the capacity for taking onboard small situated cues about looming scenarios, including those encapsulated in particular aesthetics?

All kinds of communities are motivated by a will-to-wellbeing, which suggests that correctives to the severe health risks of the Anthropocene would result from proper acknowledgment of processes of contamination and the like. According to Norman Daniels in *Just Health: Meeting Health Needs Fairly*, “many societies [...] financ[e] health-care institutions that deliver public health and medical services more equitably than many other goods.”⁴¹ Essentially, a grasp of physical enfeeblement coinciding with ecological deterioration should pave the way for degrowth-aligned living in line with a person’s values. In “Shaping Perceptions to Motivate Healthy Behavior: The Role of Message Framing,” Alexander Rothman and Peter Salovey emphasize that a “message needs to be processed in sufficient depth, so it can be integrated into an individual’s mental representation of the health issue.”⁴² Creative works have the potential to prompt this type of processing in subtle ways, thereby creating space for deeper psychological assimilation. Indeed, when it comes to “the costs of pollution [that] are hidden, [...] nudgelike steps [...] can help to reduce the problem.”⁴³ Futures-thinking can be fueled by quite different perspectives on threats and rewards, so there ought to be room for a softly-softly approach—somewhere closer to carrot than stick—in going about lifting the veil on the pitfalls of carbon-intensive realities originating in the Global North. Ultimately, sizable benefits are to be obtained from addressing vulnerability through a variety of cultural artifacts.

40 Hilary Graham and Piran C. L. White, “Social Determinants and Lifestyles: Integrating Environmental and Public Health Perspectives,” *Public Health* 141 (2016): 275.

41 Norman Daniels, *Just Health: Meeting Health Needs Fairly* (Cambridge: Cambridge University Press, 2008), 29.

42 Alexander J. Rothman and Peter Salovey, “Shaping Perceptions to Motivate Healthy Behavior: The Role of Message Framing,” *Psychological Bulletin* 121, no. 1 (1997): 17.

43 Richard H. Thaler and Cass R. Sunstein, *Nudge: Improving Decisions about Health, Wealth, and Happiness* (London: Penguin, 2009), 190–191.

Daniel Finch-Race FHEA FRGS is Assistant Professor in Geography (RTDa Green) at the University of Bologna, Communications Consultant for Economia&Ecologia, and Deputy Treasurer for the European Society of Comparative Literature. He sits on the editorial boards of *Modern & Contemporary France* and *Storicamente*. His solo articles and themed issues encompass journals such as *Lagoonscapes* and *Nineteenth-Century Contexts*. He co-edited *French Ecocriticism* (Peter Lang) and *Textures* (Peter Lang), plus three ecocritical issues of *Dix-neuf* and *L'esprit créateur*. He is contracted to co-author *The Cambridge Introduction to Women's Poetry in French* (Cambridge University Press) and co-edit *Italian Science Fiction and the Environmental Humanities* (Liverpool University Press).

References

- Amatya, Alok, and Dawson, Ashley. "Literature in an Age of Extraction: An Introduction." *Modern Fiction Studies* 66, no. 1 (2020): 1–19. <https://doi.org/10.1353/mfs.2020.0000>
- Ballard, Abbey, and Parham, John. "Editorial—Ties that Bind: International Studies in Ecocriticism." *Green Letters* 24, no. 2 (2020): 101–107. <https://doi.org/10.1080/14688417.2020.1830618>
- Beelen, Rob, Raaschou-Nielsen, Ole, Stafoggia, Massimo, Andersen, Zorana Jovanovic, Weinmayr, Gudrun, Hoffmann, Barbara, Wolf, Kathrin, et al. "Effects of Long-Term Exposure to Air Pollution on Natural-Cause Mortality: An Analysis of 22 European Cohorts within the Multicentre ESCAPE Project." *The Lancet* 383 (2014): 785–795.
- Bloomberg Quicktake. "Today Is #WorldEnvironmentDay." *Twitter*, June 5, 2019. <https://twitter.com/Quicktake/status/1136085588963205122>.
- Burroughs, William J. *Climate Change: A Multidisciplinary Approach*. Cambridge: Cambridge University Press, 2007. <https://doi.org/10.1017/CBO9780511803819>
- Bushell, Simon, Satre Buisson, Géraldine, Workman, Mark, and Colley, Thomas. "Strategic Narratives in Climate Change: Towards a Unifying Narrative to Address the Action Gap on Climate Change." *Energy Research & Social Science* 28 (2017): 39–49. <https://doi.org/10.1016/j.erss.2017.04.001>
- Crook, Tom. "Thinking Ecologically: A Systems Approach to the History of MedEnv." *MedEnv Network*, September 10, 2020. <https://medenvnetwork.wordpress.com/2020/09/10/thinking-ecologically>.
- Daniels, Norman. *Just Health: Meeting Health Needs Fairly*. Cambridge: Cambridge University Press, 2008. <https://doi.org/10.1017/CBO9780511809514>
- Dimou, Eleni, British Broadcasting Corporation, and Flock London. "Is It Time to Reassess our Relationship with Nature?." *BBC Ideas*, July 17, 2020. www.bbc.co.uk/ideas/videos/is-it-time-to-reassess-our-relationship-with-natur/p08l2xcb.
- Fuller, Gary. *The Invisible Killer: The Rising Global Threat of Air Pollution—and How We Can Fight back*. London: Melville House, 2019.
- Ghosh, Amitav. *The Great Derangement: Climate Change and the Unthinkable*. Chicago: University of Chicago Press, 2016. <https://doi.org/10.7208/chicago/9780226323176.001.0001>
- Global Landscapes Forum. "Today, 5 June, Is #WorldEnvironmentDay." *Twitter*, June 5, 2019. <https://twitter.com/GlobalLF/status/1136106697997586432>.
- Graham, Hilary, and White, Piran C. L. "Social Determinants and Lifestyles: Integrating Environmental and Public Health Perspectives." *Public Health* 141 (2016): 270–278. <https://doi.org/10.1016/j.puhe.2016.09.019>
- Jameton, Andrew. "Outline of the Ethical Implications of Earth's Limits for Health Care." *Journal of Medical Humanities* 23, no. 1 (2002): 43–59. <https://doi.org/10.1023/A:1013089403498>
- Jones, Sam. "Climate Activists Throw Mashed Potatoes at Monet Work in Germany." *The Guardian*, October 23, 2022. www.theguardian.com/environment/2022/oct/23/climate-activists-mashed-potato-monet-potsdam-germany.
- Küchler, Uwe. "Signs, Images, and Narratives: Climate Change across Languages and Cultures." In *Teaching Climate Change in the Humanities*, edited by Stephen Siperstein, Shane Hall, and Stephanie LeMenager, 153–160. London: Routledge, 2017.

Kunreuther, Howard, and Slovic, Paul. "What the Coronavirus Curve Teaches Us about Climate Change." *Politico*, March 26, 2020. www.politico.com/news/magazine/2020/03/26/what-the-coronavirus-curve-teaches-us-about-climate-change-148318.

Last, Angela. "We Are the World? Anthropocene Cultural Production between Geopoetics and Geopolitics." *Theory, Culture & Society* 34, no. 2–3 (2017): 147–168. <https://doi.org/10.1177/0263276415598626>

MacBride-Stewart, Sara, Gong, Yi, and Antell, Jessica. "Exploring the Interconnections between Gender, Health and Nature." *Public Health* 141 (2016): 279–286. <https://doi.org/10.1016/j.puhe.2016.09.020>

MasterpieceCafe. "Factories at Asnières Coffee Mug." *Zazzle*, September 28, 2009. www.zazzle.com/factories_at_asnieres_by_vincent_van_gogh_coffee_mug-168554557097358505.

MasterpieceCafe. "Factories at Asnières Tote Bag." *Zazzle*, May 7, 2010. www.zazzle.com/factories_at_asnieres_by_vincent_van_gogh_tote_bag-149398704726871695.

MasterpieceCafe. "Factories at Asnières T-Shirt." *Zazzle*, September 28, 2009. www.zazzle.com/factories_at_asnieres_by_vincent_van_gogh_t-shirt-235449501386056905.

McMichael, Anthony J., and Butler, Colin D. "Promoting Global Population Health while Constraining the Environmental Footprint." *Annual Review of Public Health* 32 (2011): 179–197. <https://doi.org/10.1146/annurev-publhealth-031210-101203>

Neimanis, Astrida, and Loewen Walker, Rachel. "Weathering: Climate Change and the 'Thick Time' of Transcorporeality." *Hypatia* 29, no. 3 (2014): 558–575. <https://doi.org/10.1111/hypa.12064>

Oppermann, Serpil. "The Scale of the Anthropocene: Material Ecocritical Reflections." *Mosaic* 51, no. 3 (2018): 1–17.

PaintingArtwork. "Bathers at Asnières Adult Cloth Face Mask." *Zazzle*, December 17, 2020. www.zazzle.com/georges_seurat_bathers_at_asnieres_adult_cloth_face_mask-256321481616492774.

PaintingArtwork. "Bathers at Asnières Laptop Sleeve." *Zazzle*, July 30, 2022. www.zazzle.com/georges_seurat_bathers_at_asnieres_laptop_sleeve-124503558222664320.

PaintingArtwork. "Bathers at Asnières Stainless Steel Water Bottle." *Zazzle*, February 3, 2021. www.zazzle.com/georges_seurat_bathers_at_asnieres_stainless_steel_water_bottle-256335961982440496.

Patrizio, Andrew. *The Ecological Eye: Assembling an Ecocritical Art History*. Manchester: Manchester University Press, 2019. <https://doi.org/10.7765/9781526153371.00007>

Pelluchon, Corine. "We Live in a World which Dehumanizes Us': Covid and Ecology." *The New Institute*, December 22, 2020. <https://thenew.institute/en/news/covid/covid-and-ecology>.

Reis, Stefan, Morris, George, Fleming, Lora E., Beck, Sheila, Taylor, Timothy, White, Matthew, Depledge, Michael H., et al. "Integrating Health and Environmental Impact Analysis." *Public Health* 129, no. 10 (2015): 1383–1389. <https://doi.org/10.1016/j.puhe.2013.07.006>

Rigg, Jonathan, and Mason, Lisa Reyes. "Five Dimensions of Climate Science Reductionism." *Nature Climate Change* 8, no. 12 (2018): 1030–1032. <https://doi.org/10.1038/s41558-018-0352-1>

Romano, Aja. "How Many Van Goghs Is One Earth Worth?." *Vox*, October 24, 2022. www.vox.com/culture/23414590/just-stop-oil-van-gogh-sunflowers-protest-climate-change.

Rothman, Alexander J., and Salovey, Peter. "Shaping Perceptions to Motivate Healthy Behavior: The Role of Message Framing." *Psychological Bulletin* 121, no. 1 (1997): 3–19. <https://doi.org/10.1037/0033-2909.121.1.3>

Simms, Andrew. "Why Climate Action Needs the Arts." *The Guardian*, June 3, 2015. www.theguardian.com/environment/2015/jun/03/why-climate-action-needs-the-arts.

Slovic, Scott, Rangarajan, Swarnalatha, and Sarveswaran, Vidya. "Introduction: Toward a Medical-Environmental Humanities. Why Now?." In *The Bloomsbury Handbook to the Medical-Environmental Humanities*, edited by Scott Slovic, Swarnalatha Rangarajan, and Vidya Sarveswaran, 1–10 (London: Bloomsbury, 2022). <https://doi.org/10.5040/9781350197336.ch-001>

Smith, Philip, and Howe, Nicolas. *Climate Change as Social Drama: Global Warming in the Public Sphere*. Cambridge: Cambridge University Press, 2015. <https://doi.org/10.1017/CBO9781316217269>

Souter, Anna. "Dirty Pretty Things: Air Pollution in Art from JMW Turner to Today." *The Guardian*, October 28, 2020. www.theguardian.com/artanddesign/2020/oct/28/jmw-turner-air-pollution-in-art-rain-steam-and-speed.

Thaler, Richard H., and Sunstein, Cass R. *Nudge: Improving Decisions about Health, Wealth, and Happiness*. London: Penguin, 2009.

The Anthropocene Project. "Today Is #WorldEnvironmentDay." *Twitter*, June 5, 2019. <https://twitter.com/anthropocene/status/1136276864866168832>.

Tschakert, Petra, Ellis, Neville R., Anderson, Christopher, Kelly, Aya, and Obeng, James. "One Thousand Ways to Experience Loss: A Systematic Analysis of Climate-Related Intangible Harm from around the World." *Global Environmental Change* 55 (2019): 58–72. <https://doi.org/10.1016/j.gloenvcha.2018.11.006>

United Nations. *Paris Agreement*. Bonn: United Nations Framework Convention on Climate Change Secretariat, 2015.

United Nations Environment Program. "Chemicals and the Right to Breathe Clean Air." *United Nations Environment Program*, June 6, 2019. www.unep.org/news-and-stories/story/chemicals-and-right-breathe-clean-air.

Urry, John. "Editorial: The Problem of Energy." *Theory, Culture & Society* 31, no. 5 (2014): 3–20. <https://doi.org/10.1177/0263276414536747>

Usher, Phillip John. "Untranslating the Anthropocene." *Diacritics* 44, no. 3 (2016): 56–77. <https://doi.org/10.1353/dia.2016.0014>

Wallace, Molly. *Risk Criticism: Precautionary Reading in an Age of Environmental Uncertainty*. Ann Arbor: University of Michigan Press, 2016. <https://doi.org/10.3998/mpub.8831301>

Whitmarsh, Lorraine, Seyfang, Gill, and O'Neill, Saffron. "Public Engagement with Carbon and Climate Change: To What Extent Is the Public 'Carbon Capable'?" *Global Environmental Change* 21, no. 1 (2011): 56–65. <https://doi.org/10.1016/j.gloenvcha.2010.07.011>

Winner, Ellen. *How Art Works: A Psychological Exploration*. Oxford: Oxford University Press, 2018. <https://doi.org/10.1093/oso/9780190863357.003.0016>

World Wildlife Fund. "Air Pollution Is a Global Issue Affecting People and the Planet." *Twitter*, June 5, 2019. <https://twitter.com/WWF/status/1136185210079461376>.

Wright, Christopher, and Nyberg, Daniel. *Climate Change, Capitalism, and Corporations: Processes of Creative Self-Destruction*. Cambridge: Cambridge University Press, 2015. <https://doi.org/10.1017/CBO9781139939676>

Zhou, Jack. "Boomerangs versus Javelins: How Polarization Constrains Communication on Climate Change." *Environmental Politics* 25, no. 5 (2016): 788–811. <https://doi.org/10.1080/09644016.2016.1166602>

MAIN SECTION

Anthropocene as Energy Imaginaries: Fossil Culture between Industrial Revolution and Global Warming

Jaime Vindel

Contact: vindel.jaime@gmail.com

ABSTRACT

This essay proposes a reading of the Anthropocene from the reconstruction of the energy imaginaries at the beginning of industrial civilisation. The transformations that took place in the energy matrix of productive processes, with the new social and geographical organisation of work derived from the use of fossil fuels, had their correlate in the appearance of a series of discourses and images with a strong ideological component. The emergence of thermodynamic science, based on the observation of the processes of energy transformation, was underpinned by narratives oriented to boost the denigration of subjects who resisted integration into the productive devices of the industrial world. These imaginaries contributed to naturalise a certain worldview, where the universe was assimilated to an immense repository of energy at the service of the West civilisational project, where the development of industry should guarantee the production of exponential wealth. In this context, the imaginaries of energy contributed to constituting a new socio-environmental relationship that, for the last two centuries, has conditioned the cultural development of fossil modernity, while generating eco-systemic effects that are at the origin of the climate crisis.

ACKNOWLEDGEMENTS

This essay has been written thanks to the aid RYC2018-024943-I financed by the MCIN/AEI /10.13039/501100011033 and the FSE "El FSE invierte en tu futuro"; and as part of the CSIC (PIE 202010E005) and the Ministry of Science and Innovation (PID2019-109252RB-I00, PID2019-107757-RB-100 and PID2020-113272RA-I00, financed by MCIN/AEI /10.13039/501100011033/ FEDER "Una manera de hacer Europa") research projects that I lead or in which I participate.

KEYWORDS

Anthropocene, Energy Imaginaries, Fossil Culture, Industrial Revolution, Global Warming

PEER REVIEWED

<https://doi.org/10.6092/issn.2612-0496/14657>

ISSN 2612-0496

Copyright © 2022 Jaime Vindel

Fossil culture

Ecological awareness of the serious consequences of reaching the planet's biophysical limits is present in public opinion, although not widely. Furthermore, we have yet to see a more precise genealogy of how cultural imaginaries have contributed to a very powerful inertia in understanding the relationship between energy and modernity. To transpose the content of an essay by Martin Heidegger, we could say that fossil modernity is the age of the energetic image of the world (the world is seen as a huge container of energy), but also the age in which a certain implementation of energy has made it easier to perceive the world as an image.¹ Without industrial modernity, for example, the technological development that allows us to have an aerial mapping of the planet, one of the most aesthetically relevant products of the Cold War and the development of which forms the basis of contemporary forms of control and surveillance, would have been unthinkable.

Although the assignment of an industrious value to nature goes back to classical sources, the coincidence of the development of industrial modernity in the nineteenth century, the mass and systematic use of fossil fuels as a primary energy source, and the conclusions of thermodynamic physics was to give new content to this imaginary. The "productivist" link between energy and labour, productivity and social recognition was to find a historical formulation that is still present today. The worker's body, his masculinised image, was to be the catalyst of cosmic energy, the guarantor of the production of social wealth as a prerequisite for collective well-being.

If energy is, first and foremost, a physical reality and, secondly, a cultural and aesthetic construct, in the case of culture the opposite occurs: its construction seems more evident than its materiality. A concept as changeable as that of culture refers in the first place to its discursive character and its relationship with a series of daily habits, subject to relative variability in the many contexts and periods of human history. From this point of view, there is just one physical reality, contrasting with the plurality of cultural formations. Having said that, the fact that the concept of culture is exempt from the tyranny of physical laws such as universal gravitation does not mean that it does not have a material persistence. As Terry Eagleton points out, today it is easier to level a mountain than to put an end to sexism.²

Furthermore, the time scales assigned to the natural and the cultural seem to have been interchanged. The gradualism and long duration that we usually associate with geological and natural history have been altered

1 Martin Heidegger, "The Age of the World Picture," in *Science and the Quest for Reality*, ed. Alfred I. Tauber (London: Palgrave Macmillan, 1997), 70–88.

2 Terry Eagleton, *Culture* (Yale: Yale University Press, 2016).

by the conversion of the civilization that emerged from industrial modernity into a biogeochemical surface force, capable of altering the planet's climatic and ecosystemic reality. Human history turned into a natural agency, which would seem to be precipitously changing the evolution of terrestrial systems. The Anthropocene, a notion proposed in 2000 by Paul Crutzen, Nobel Prize for Chemistry, is the concept that describes this mutation, adopted somewhat uncritically by recent cultural theory.³ But aside from the scientific discussion on the possibility of delimiting a new geological period in the Earth's history, the concept of the Anthropocene has had a strong impact on the imaginaries of late modernity, turning the relationship with the whole of planetary dynamics into a major geopolitical issue.⁴ In this article, I am interested in underlining that this new geopolitical imagination can find precedent in the genesis of fossil modernity and the emergence of a new concept of energy whose cosmovision effects continue to this day.

Ecosystemic transformations in recent decades seem to demonstrate an acceleration of time in contrast with the stranding of utopian imagination that has followed the crisis of emancipatory narratives. Some authors have associated this political and cultural climate with the "slow cancellation of the future", a form of subjectivity that signals the triumph of neoliberal reason, frequently associated with Margaret Thatcher's much-cited statement: "There is no alternative."⁵ The fall of the Berlin Wall and the death of communism overlap with the advanced phase of what scientists call the Great Acceleration of the environmental crisis, the period following World War II that definitively divided the paths of civilization and ecological sustainability. The end of History (or at least of a way of understanding it) coincides with the return of nature as a radical force, paradoxically located outside human control due to anthropic activity. At this juncture, nature steps into the avant-garde that modernity had reserved for culture and politics.

Meanwhile, the capacity for mutation that we usually associate with cultural phenomena (and, more specifically, with the protean vertigo of the modernist age) has slowed. The shrinking of cultural innovation (noticeable in areas such as popular music)⁶ is further evidence of the resistance to change of a civilization determined to perish due to its inability to respond to the demands of an ongoing ecosocial crisis. Nor have the emancipatory movements of recent decades been able to create shared social imaginaries with an institutional anchor that presents a real alternative to neoliberalism. The appreciation made by Cornelius Castoriadis

3 Paul J. Crutzen and Eugene F. Stoermer, "The Anthropocene," *Global Change Newsletter* 41 (2000): 17-18; Paul J. Crutzen, "Geology of Mankind," *Nature* 415 (2002): 23.

4 Eva Löwbrand, Malin Mobjörk and Rickard Söder, "The Anthropocene and the Geo-political Imagination: Re-writing Earth as Political Space," *Earth System Governance* (4), 2020.

5 Mark Fisher, *Capitalist Realism: Is There No Alternative?* (Alresford: Zero Books, 2009).

6 Mark Fisher, *Ghosts of My Life: Writings on Depression, Hauntology and Lost Futures* (Alresford: Zero Books, 2014).

in the eighties is still valid: “we are not currently witnessing a phase of historical creation, strongly instituted. At best, it is a phase of repetition; at worst—and much more likely—it is a period of historical destruction [...]”⁷ In most contexts, the global wave of indignation that followed the 2008 crisis was expressed more as a force to depose (directed at the political class and finance) than as an affirmative proposal of institutional imagination with a marked anti-systemic component.

Whereas postmodernity consisted in making it easier to envisage the end of the world than the end of capitalism,⁸ the present age barely manages to repress a death drive in which the end of capitalism and the end of the world tend to converge. Faced with the hibernation of the creative imagination, apocalyptic narratives about the ecological crisis are attractive because they channel an escape: a symptom of the need we experience to free ourselves, even at the cost of making things worse, of the mental malaise that grips us. The inclination to generate dystopian images of the future can, in this sense, be interpreted as the emergence of a certain *jouissance* that, while evading repetition of the same, reproduces the collapse that neoliberalism represents for the strategic imagination of systemic alternatives. The melancholic left and catastrophic imagination are the two sides of the same historical sensibility.⁹ They represent the fatalism, nihilism and escapism of those who feel overwhelmed by political challenges that they consider too great and that require an unbiased analysis of the political legacy of the twentieth century.

Tenacity facing the change in acquired cultural inertias (consider, for example, the association between free time and mass consumption: the proletarianization of sensibility studied by Bernard Stiegler¹⁰) reveals that the assignment of a contingent character to cultural formations has an ideological component. It is based on an idealistic contrast between Culture (the mutable life of the spirit) and Nature (seen as a kind of permanent material substrate) that is subject to criticism by theoretical approaches such as decolonial anthropology. This same duality has protected the dominance of modern Man (monopoly holder against the rest of the animal world of the benefits of Culture) over Nature. From this point of view, the Anthropocene represents the consecration of an image of Superman, who, having killed God, embodies in History the will of the universal Spirit to subdue Nature. However, Anthropocene Man and the proletarianization of consumption represent two illusory sides of the same coin. The demiurgic, Promethean omnipotence of the former and the subjugation

7 Cornelius Castoriadis, *Sujeto y verdad en el mundo histórico-social. Seminarios 1986-1987. La creación humana I* (Buenos Aires: Fondo de Cultura Económica, 2004), 16 -translated by the author.

8 Fredric Jameson, “Future City,” *New Left Review* 21 (2003): 76.

9 For a different approach to left-wing Marxist melancholy, Enzo Traverso, *Left-Wing Melancholia. Marxism, History and Memory* (New York: Columbia University Press, 2019).

10 Bernard Stiegler, “The Proletarianization of Sensibility,” trans. Arne de Boever, Lana Turner. *A Journal of Poetry and Opinion*, 4 (2011): 124-140.

of the latter to an induced culture are conditioned by the history of capital. Anthropocene Man is like a ventriloquist's dummy whose voice is provided by the tyrannical subject of value accumulation. The proletarian consumer is being faced with a commodity endowed with the life of which they feel deprived. In the Anthropocene epoch, arrogance and alienation emerge along with the phantasmagoria of capital's designs.

Fossil capital

The use of fossil fuels does not respond to a historical explanation independent of the confrontation between social classes. As Andreas Malm has shown, the synthesis between the use of coal and the development of machines during early industrial capitalism (particularly the application of the steam engine to the textile industry, with the appearance of the various inventions concerning the spinning machine and the power loom) was socially conditioned.¹¹ Malm contests modern interpretations based on technological determinism, according to which it is advanced in technology that drives the processes of change in means of production and constitutes social relations. This conviction was summed up in a famous statement by Karl Marx in *The Poverty of Philosophy* (1847), the invective he dedicated to the French revolutionary Pierre-Joseph Proudhon:

In acquiring new productive forces men change their mode of production; and in changing their mode of production, in changing the way of earning their living, they change all their social relations. The hand mill gives you a society with the feudal lord; the steam-mill society with the industrial capitalist.¹²

In keeping with political Marxism (following the works of Robert Brenner and Ellen Meiksins Wood), Malm turns the tables, pointing out that at the start of industrial modernity, it was, conversely, social struggles that drove technical innovations (the various versions of the steam engine) and the increasing exploitation of fossil fuels as counterrevolutionary responses by the capitalist class. In this interpretation of industrial modernity, the class struggle precedes technological development, rather than the latter itself generating social formations. This is how, from an eco-Marxist viewpoint, Malm describes the political genesis of the Industrial Revolution and fossil capital. His research seeks to demonstrate not only that the business as usual of the history of fossil capitalism has distributed its benefits in an increasingly unequal way, but also that, originally, subordinate life forms have assumed this device of power in a conflictive fashion.

Malm, whose work is situated in the field of environmental history, highlights the ambivalence that the concept of power has in English. This refers

11 Andreas Malm, *Fossil Capital. The Rise of Steam Power and the Roots of Global Warming* (London: Verso, 2016).

12 Karl Marx, *Collected Works* (Moscow: Progress Publishers, 1975-), V, 43.

both to the force that serves to activate energy transformation processes and to political domination. The generalization of fossil culture was an extremely violent process. Only the dispossession of the livelihoods of traditional communities (closely linked to farming and stock-keeping), based on the enclosure of common land and the urban concentration of growing masses of factory workers, made possible the meeting of the new social division of labour, the application of fossil energy to industry (particularly the textile sector) and the appearance of various versions of the steam engine. These factors provided the basic conditions for the exponential growth rates required by the capitalist economy.

The historical development of the steam engine (an invention attributed to British engineer James Watt) starting in the late eighteenth and continuing into the nineteenth century represented the synthesis of the carbonization of production processes (and the atmosphere) and the genesis of the concept of energy coined by thermodynamic physics. Coal provided the steam engine with a source of energy, optimizing the conversion of heat into motion. Observation of this engineering device in operation was to inspire the creation of the new science of energy. The steam engine was based on scientific foundations that were known long before its industrial reinvention.¹³ Handcrafted steam engines had been created in China as early as the fourteenth century. As for coal, the Asian country had also used huge amounts to produce iron in the eleventh.¹⁴ In England, although coal had been increasingly monopolized as an energy source since the sixteenth century (by 1700 it already accounted for half of the consumption), its use had not been developed as a prime mover in industrial production. It was in this industrial context that, given the growing scarcity of timber, the transition from charcoal to mineral coal also occurred.

Parallel to these changes in the energy matrix, a process of social transformation was accelerated, dispossessing the popular communities of their livelihoods. As Karl Polanyi points out, industrialization was a process of technical innovation preceded by a successful plan of social engineering, which unequally ended both pre-capitalist forms of economic domination and the ambivalence of traditional social relations (which combined regressive cultural elements with more supportive community ties).¹⁵ The generalization of the figure of the free worker who sells his labor

13 This is recalled by Kropotkin in his cooperativist rereading of Darwin's evolutionary biology. Kropotkin points out that Watt could have reduced the time spent devising the steam engine if he had had the knowledge accumulated during the Middle Ages by craftsmen in cities such as Florence, Nuremberg and Bruges. And he suggests that it was the dismantling of community ties in the medieval city that prevented this technical innovation from having a political meaning diametrically opposed to the one that characterized the capitalist accumulation processes of the nineteenth century. Piotr Kropotkin, *Mutual Aid. A Factor of Evolution* (Manchester: Extending Horizons Books/Porter Sargent Publishers, 1970).

14 Ramón Fernández Durán and Luis González Reyes, *En la espiral de la energía. Historia de la humanidad desde el papel de la energía* (Madrid: Libros en acción, 2018), I, 273-274.

15 Karl Polanyi, *The Great Transformation: The Political and Economic Origins of Our Time* (Boston: Beacon Press, 2001).

power in exchange for a wage was one product of this event. The need to reduce wages to increase the profits of capital has since prompted the creation of new technologies to replace the workforce. Before this great transformation, the use of servile or slave labor (in the case of the colonies) provided productive processes with endosomatic energy (within the human body), which delayed the need to resort to technical mediation that extracted exosomatic energy (from outside the human body) from the natural environment.

However, that exosomatic energy source could have taken the form of the flow of wind or water rather than coal. Why did this not happen? For Malm, the introduction of the steam engine/fossil fuel binomial had a political rather than a technological justification. Actually, the steam engine powered by fossil fuels was neither more efficient nor cheaper than the energy produced by water mills driven by the current of rivers. As early as in the sixteenth century, the privatization of common land in the British Isles had established a model of appropriation of fossil deposits that was later to favor their systematic exploitation by industrial capitalism. But the decisive elements in the generalization of the use of coal and the steam engine lie elsewhere. The water mill model, applied to the textile industry, brought with it a series of problems. The first was the dispersion of the productive structures across the territory since facilities had to be located where currents were favourable. The centrifugal nature of the hydraulic model contrasted with the centripetal model associated with the use of coal. Unlike flowing water, it could be transported to urban industrial centers. The stockpiling of fossil resources in city space accompanied the geographical densification of the so-called reserve army of labor, used to cut back workers' wages and working conditions. The conjunction of coal and engines gave the capitalist class this advantage in the class struggle. Secondly, the hydraulic model meant that the employer had to meet the basic needs (infrastructure, services, food, etc.) of the workers who lived in these productive colonies, often far from any other centre of the population. Furthermore, this concentration of the labour force favored riots and automatically empowered wage earners, since the owner of the means of production did not have a reserve army like the one generated in big cities.

This pressure on the productivity of the hydraulic model was exacerbated as the Chartists' calls for a ten-hour working day (Ten Hours Act [1847], ending the exploitation of child and female labour) and greater political rights (particularly universal male suffrage) spread throughout British industrial regions. Its legal recognition by Parliament prompted the capitalist class to opt for a combination of fossil fuels and technological innovation. Timetables were incompatible with the variability of river currents, which required production times to be extended depending on the intermittence of the flow. Since the working day restricted the possibility of increased exploitation by means of absolute surplus value (total number of hours worked), coal and the steam engine met the need to intensify

the extraction of surplus value per time unit of social production (relative surplus value). Technological development was used to try to counteract the growing power of the workers in industrial centres and mines who began to combine methods of rioting and the general strike (the first took place during the Plug Plot Riots in 1842, involving coal miners and mill workers),¹⁶ and sabotaging boilers and industrial machinery by flooding coal pits.

Malm points out how this historic victory of the first labour movement prompted a redefinition of the capitalist political economy, leading to a growing abstraction of labour, subjected to exploitation by metric units of time, and a fetishistic transfer of productive capacity from labour force to machinery (reinforcing the power of the bosses over the working class). The decline of formal slavery in the colonies (approved by a decree of 1833) therefore coincided with its silent extension by means of free labour, based on the availability to the employer of the wage-earning workforce, fossil fuels (easier to harness than water) and technological innovation.

The consolidation of fossil industrialism paved the way for a new phase of struggles that enabled the working classes to conquer a series of rights. This dialectic was to continue until World War II. To use Timothy Mitchell's terms, the carbon democracy, based on the material power of miners, extended to the partial empowerment of workers in the workplace.¹⁷ Industrial democracy improved their working conditions and even gave them decision-making capacity as regards the organization of production, provided this did not challenge private ownership of the means of production. The gestation of the social state as a way of containing proletariat revolution is also set against this historical background. Western states sought to counteract this historical inertia after 1945 with the decision to substitute coal with oil as a primary energy source. The extraction of crude oil requires less labour (breaking up collective forms of antagonism) and locates the practice of sabotage beyond the workplace (the objective then becomes the pipeline), at the same time facilitating a geographical relocation of hydrocarbon exploitation, since the semi-liquid condition of oil makes it easier to transport than coal.

The other side of this process of constitution of fossil democracies is the history of fossil colonialism. In addition to increasing the social division of labour and facilitating the integration of markets at international level, the synthesis of the steam engine and coal helped to strengthen the relationship of dependency between the peripheries and the centre of the capitalist world system. Western energy imperialism has often denied the popular classes in other parts of the world the rights that have been conquered in countries of origin. Capitalism has, then, monopolized the

16 The succession of strikes, encouraged by Chartism, began in Staffordshire and later spread to Lancashire, Yorkshire and the Welsh coal mines.

17 Timothy Mitchell, *Carbon Democracy. Political Power in the Age of Oil* (London: Verso, 2011).

reservoirs of cheap (if not unpaid) labour and energy that globally underpin the dynamics of exploitation of wage labour and the coverage, to varying degrees, of social rights.

The coal-iron-steam engine triad also sparked a revolution in the field of transport. The extension of the railways (trains, incidentally, were used to transport coal before passengers) had its imperial complement in the application of the steam engine to the British navy. The *Nemesis*, a warship built partly of iron with a mixed sail and steam navigation system, was the cutting edge of the installation of the fossilist model in the China Sea. The Labuan mines on the island of Borneo then experienced a coal fever previously unknown to its native inhabitants.¹⁸ This is just one more example that the Anthropocene narrative, which sees the industrial burning of fossil fuels as the culmination of a pyromaniac passion beginning with the invention of fire, is a Western artifice. There is no biblical curse that affects the fate of the entire species.

Although the use of coal and colonial dynamics in no way provide a complete, unambiguous explanation of the history of Western fossil democracies, some data inevitably attracts our attention. For example, in the 1840s, the mobilizations and protests that ended with the passing of the Ten Hours Act (1847) and led to the replacement of water mills by the steam engine coincided in time with the biggest infrastructural leap of the railway network and steam navigation, and with the proliferation of colonial settlements in the Far East after the end of the First Opium War (1839-1842). The transformation of coal into capital facilitated the geographical expansion of processes of unpaid appropriation of resources and labour force in the colonies,¹⁹ the increase in the relative exploitation of the salaried population in British factories and the breakdown of the metabolic balance in relations between country and city.

The pollution that began to affect industrial work spaces can be seen from our historical vantage point as a harbinger of what was progressively to spread to the entire planetary atmosphere. For Malm, we are the heirs to that civilizational watershed. Climate change has its historical roots there. Unlike what happened in other past times when the climate influenced the course of history (I am thinking, for example, of the famines caused by climate change during the fall of the Roman Empire), the particularity of global warming is that it is history that has disturbingly influenced the climate. The sky is more than a field of meteorological study: the atmosphere we breathe is also a record of the relationship between fossil fuels and class struggle over the last two centuries.

This interpretation of industrial modernity could be seen as a climatic

18 Andreas Malm: "Who Lit This Fire? Approaching the History of the Fossil Economy", *Critical Historical Studies* 3, 2 (2016): 215-248.

19 Jason W. Moore, *Capitalism in the Web of Life* (London: Verso, 2015): 134-137.

critique of fossil capitalism, pointing out the need to reverse the dynamics introduced by that historical event: we have to return from stock to flow, directing our steps towards a stage prior to the replacement of water mills by steam engines. From this perspective, Malm's approach seeks to complement the geographical turn of Marxism proposed by authors such as David Harvey with the redefinition of the dimension that is most applicable to him: the historical.

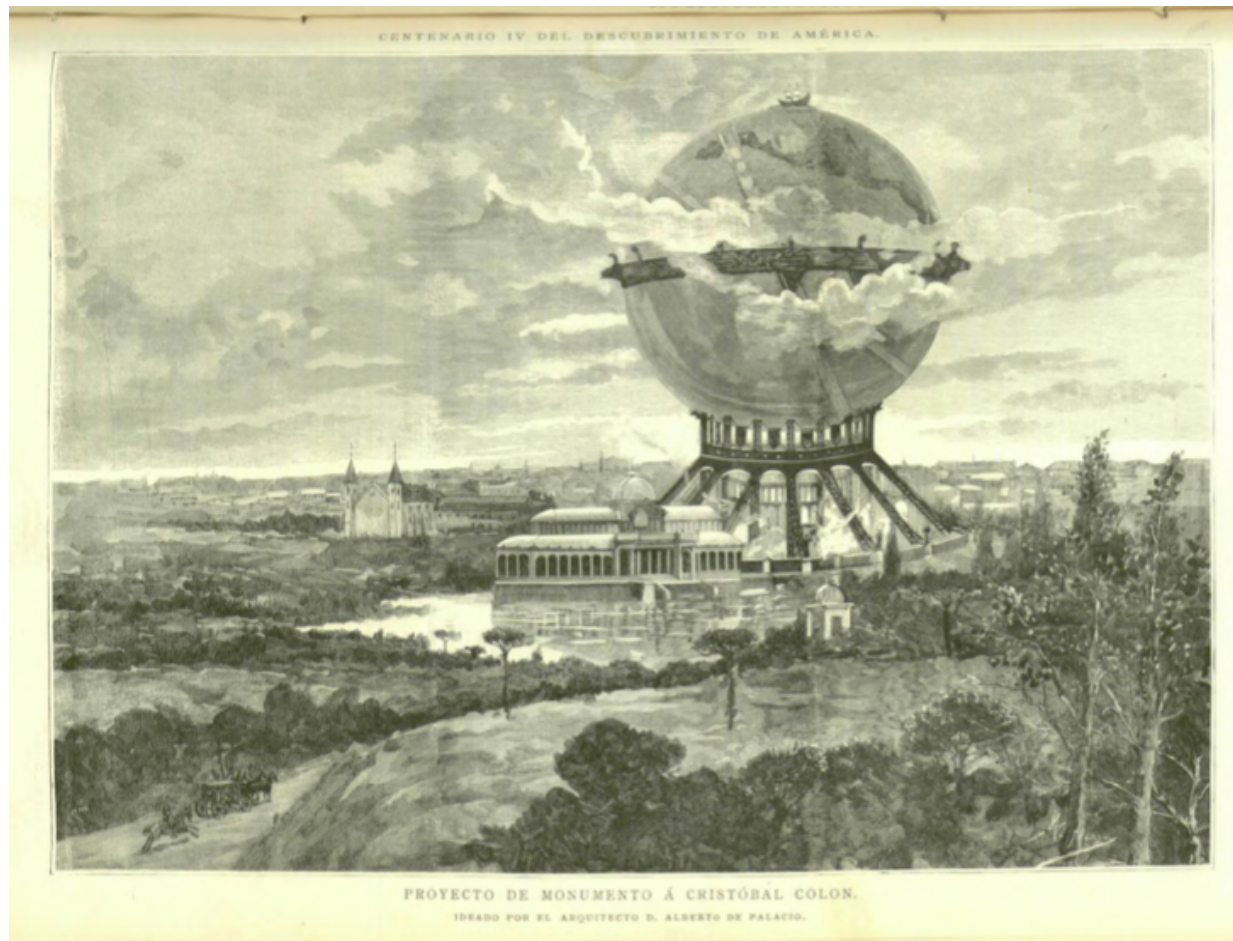


FIG. 1 Alberto Palacio, "Proyecto de Monumento a Cristóbal Colón" [Project for the Monument to Christopher Columbus], in *La Ilustración Española y Americana*, year XXXV, issue XXXI, Madrid, 22 August 1891, p. 101

Fossil imaginaries

The paradox of industrial modernity lies in the fact that the immobility and the geological scale of fossil formations are placed at the service of mobility (of fuels, goods and human beings) that serves to intensify the performance of productive factors and accelerate the pace of history in an unusual way. The solidity of stock literally vanishes into thin air, giving new content to the quote included in the *Communist Manifesto* (1848).²⁰

Industrial modernity is precisely that: putting the Earth, on a geological scale, to work. But this would not have been possible without not just

20 Marshall Berman, *All That Is Solid Melts into Air: The Experience of Modernity* (London: Verso, 1983).

the application of the extreme violence that Marx related to the “primitive accumulation of capital”, but also the gestation of new cultural imaginaries anchored in the historical and scientific development of the nineteenth century. This is the aspect that I am interested in highlighting: the way in which energy industrialism has been configured as a kind of cultural unconscious of capitalist modernity.

The transformation of Gaia into a colossal steam engine had a visual translation, testifying to the impact of fossil capitalism on cultural imaginaries. The 25 October 1890 issue of *Scientific American* opened with an illustration by Spanish architect Alberto Palacio, who planned the creation of a monument to Christopher Columbus that was never built and was later recovered on the occasion of the Chicago World’s Fair (1893), organized to commemorate the fourth centenary of the “Discovery” of America. In it, the Earth was arranged on a pedestal (built not coincidentally of iron, the metal that symbolized industrial progress) and crowned by one of the caravels from Columbus’s voyage to the West Indies. The monument, some 300 meters high, was supposed to be taller than the Eiffel Tower. A panoramic walkway was built around the equator, while the black clouds visible in the sky linked the colonial genesis of capitalist modernity with its fossil and industrial prolongation. The inside of the planet contained a characteristic spiral structure associated with the acceleration of historical time, which inspired later, equally productivist designs such as the ramp towards the cosmos that Vladimir Tatlin devised for the Monument to the Third International.

Palacio’s image is picked up by Cara New Daggett in her book *The Birth of Energy. Fossil Fuels, Thermodynamics and the Politics of Work* (2019), in which she traces how, as of the mid-nineteenth century, the construction of the energy culture of industrial modernity brought together these three dimensions: the use of fossil fuels, the conclusions of thermodynamic physics and the productivist imaginaries of work.²¹ After training at the Barcelona School of Architecture, Palacio was able to travel to Paris, where he became a disciple of Gustave Eiffel and had access to innovations in iron architecture. On his return to Spain in 1883, he applied this knowledge (in collaboration with Ricardo Velázquez Bosco and ceramist Daniel Zuloaga) first in the construction of Velázquez Palace (1883-1884) and, later, in the “Palacio de Cristal” (“crystal palace”) (1887), both of them situated in El Retiro Park in Madrid. The latter incorporated more decidedly one of the most advanced typologies of the synthesis of architecture and engineering to characterize the nineteenth century: the combination of iron and glass as a technical resource that enabled the construction of large interior spans with natural lighting.

The origin of this synthesis was a typology that was very thermodynamic

21 Cara New Daggett, *The Birth of Energy. Fossil Fuels, Thermodynamics and the Politics of Work* (Durham/London: Duke University Press, 2019).

in nature: greenhouses, developed in the 1830s and 1840s. Though equally concerned with maximizing the use of heat energy (in this case, the sun), this new architectural typology represented the other face of coal-based steam engines. The clean nature of solar energy and the open spaces of glass architecture contrasted with the dirt and darkness of the industrial factories or the boilers of the railways. Eduardo Prieto describes how the greenhouses, as “solar machines”, aspired to generate a kind of climatic utopia in a closed space, using glass structures to concentrate light rays, thereby maintaining a homeothermic constancy inside the rooms.²²

What I am interested in highlighting is that this climatic utopia, materialized in the benign nature of the air that could be breathed in the greenhouses, was developed alongside the consolidation of the fossil model of exploitation of labour and nature. This presents a kind of dialectical image that contrasts the atmospheric goodness of the greenhouses with the unbreathable smoke of the factories. Its climatic utopia emerges as the other, immaculate face of the greenhouse-effect dystopia that we are experiencing today, of the carbon bond that industrial capitalism was forging between fossilist modernity and global warming.

In addition, greenhouses had a colonial component: they contained botanical species from naturalist expeditions overseas. The climatic utopia reproduced the temperate air of the tropics in the cold heart of the fossil Empire, in an image that was, however, somewhat illusory. Although it was not the only heating system used to be combined with solar action, the greenhouses did resort to the steam engine to consolidate their benign climate. In this respect, the climatic utopia of the greenhouses was also a transparent screen that concealed its fossil dependence.

This typological innovation did advance beyond its initial functionality. The combination of glass and iron (or steel) was to extend to other architectures than the thermal utopia of the greenhouse, in a very important process to understand the cultural gestation of industrial modernity. One of the main architects of the evolution from hothouses to the new glasshouses was Joseph Paxton, who, in 1843, built a prototype in Chatsworth that was replicated and developed. Paxton of course is known for designing Crystal Palace (1851), which was also heated by a steam engine. This crystal palace moved beyond the climatic scale of the greenhouse to become a temple of merchandise and a eulogy of colonialism, displaying products from various points of the globe.

The effect on Marx himself of a visit to the universal exhibition held there is well known, to the point of relating the experience in one of the best-known epigraphs of *Capital* (1867): “The fetishism of commodities and the secret thereof.” Marx reflected on the way in which capitalist commodities were arranged before the public’s gaze as a contradictory reality:

22 Eduardo Prieto, *Historia medioambiental de la arquitectura* (Madrid: Cátedra, 2019), 104.

their sensible appearance was abstracted from the social relations of production, according them a life of their own that erased all traces of labour. Something similar could be said of the architectural arcadas under glass: their apparent weightlessness and transparency concealed their association with heating machines and the colonial campaigns of fossil capitalism.

The architectural and ideological spirit of the universal exhibitions was later picked up by the event that justified the construction of the Madrid version (less megalomaniac than its London counterpart) of the Crystal Palace. The building of Velázquez Bosco, Zuloaga and Palacio was constructed on the occasion of the Philippine Exposition (1887), an event by means of which a declining, decadent Spanish empire sought to equate itself with the modernity of European nations. In addition to the exhibition of native plants under the glass structure, during the event a Philippine Zoo was created in El Retiro Park, where both the animals that made up the fauna of those islands and their indigenous peoples were placed on view. Colonial fever made no speciesist distinctions between humans and non-humans. Photographs taken during the event, together with the illustration from *Scientific American*, make up a montage stretching in time from the start of the colonial process of appropriating nature, triggered by the conquest of America, to the inability of a southern European nation to board the train of fossil modernity. This superposition of images was created long before these lines were written. An illustration dated 1891 shows the fossil Gaia imagined by Palacio for the tribute to Columbus, against a backdrop of the Madrid skyline (Fig. 1). The lightness and transparency of modern architecture stand out against the image of the Earth turned into a huge fiery engine, its smoke rushing to join the clouds to conceal its fossil origin. The montage featured in 1891 in the journal *La Ilustración Española y Americana*, along with a text by Emilio Castelar, former president of the First Republic, which grandly summed up the perception of the world in which fossil culture was to take its place:

The centenary of Columbus ascends to the feast of humanity on the wings of fervid universal enthusiasm [...] This unexpected creation, invented at a providentially opportune hour, changed the relations of men with other men, as well as the relations of men with the Universe and all Nature, our species seeming like a new species, and another planet our planet [...] in the discoverer and in the adventurer, the sketches of the modern industrial working individual were found [...] There the soul was redeemed; here Nature is redeemed. We come into possession of our consciousness through one, and through the other we come into possession of our planet.²³

23 Emilio Castelar, "Proyecto de monumento a Colón, ideado por el ingeniero D. Alberto Palacio," *La Ilustración Española y Americana*, 35, 31 (1891): 99-100.

Thanks to Palacio's visual montage and Castelar's textual passage, we are able to refer the extractivist rationality of modernity back to its colonial origin. Dialoguing with Malm's interpretation of the emergence of the fossil economy, this illumination provides us with precise historical keys to understanding the biogeochemical mutation that shapes the climate, ecological and energy crisis. As opposed to explanations of the Anthropocene that emphasize technical issues (the invention of the steam engine) or anthropological questions (the use of fossil fuels by a species—humans—with an irrepressible tendency to hubris), the colonial dimension of the Capitalocene underscores the need to go back to the historical shift that both the conquest of America and scientific revolutions in areas such as astronomy, cartography and surveying represented for the process of global expansion of the West. Using the term Anthropocene, in this sense, is a way of camouflaging the Eurocentric component of this civilizational logic.²⁴

As Donald Worster has recounted, the "discovery of America" glorified by the Palacio's monument was a central event in forging the imaginaries of abundance that have accompanied the development of modernity to the present day, concealing the perpetuation of inequality and scarcity in the midst of that abundance. Worster has described the conquest of America as a truly historic turning point for human ecology and its conflicting relationship with planetary dynamics.²⁵ It opened a new era of history that helped to create the modern link between material abundance and freedom, later redefined by liberalism. Associated in 16th century cartography with a "Second Earth", the "discovery" of America freed European societies from the feeling that they had run up against their ecological limits, an anguish that would only disappear from Western imaginaries in the 20th century. One of the main tensions of the Anthropocene is that, while questioning the possibility of finding an untouched territory that promises a new era of abundance, this coexists with the prolongation of the dependence that the daily social reproduction and our desires for personal fulfillment show with a perpetuation of the extractivist and imperial relation that we maintain with Nature (particularly that of the Global South), in which the use of fossil fuels (strongly linked to liberal imaginaries of affluence) has played and continues to play a central role.²⁶

Based on the explanation thus far, we can infer that the connection between fossil fuels, coloniality and capitalism had an aesthetic component, in that it was arranged as a civilizing worldview. Whereas Heidegger stressed that modernity was characterized by being the age of the image of the world, I am interested in determining the specific role that the

24 Jason W. Moore, Op. cit., 172-173.

25 Donald Worster, *Shrinking the Earth. The Rise and Decline of American Abundance* (Oxford: Oxford University Press, 2016).

26 Ulrich Brand and Marcus Wissen, *The Imperial Mode of Living. Everyday Life and the Ecological Crisis of Capitalism* (New York: Verso, 2021).

productivist vision of the cosmos played in the unfolding of this historical process. This vision has gone from a delusional idea to realization on an unprecedented geographical scale, conditioning forms of desire and expectations of welfare in advanced capitalist societies. Although it is not the only explanatory variable, it is impossible to understand this transition from the idea to its realization without the appearance of fossil fuels. We are petrocultural beings because dependence on hydrocarbons is inscribed aesthetically (that is, in a sensible way) in what our bodies do and imagine.

Jaime Vindel, European PhD in Art History and Master in Philosophy and Social Sciences. Researcher of the Ramón y Cajal Programme (2018) of the Institute of History of the Spanish National Research Council, where he is Head Researcher of the projects: "Fossil Aesthetics: a political ecology of art history, visual culture and cultural imaginaries of modernity" (PIE, ref. 202010E005) and "Energy humanities. Energy and sociocultural imaginaries between the industrial revolutions and the ecosocial crisis" (PID2020-113272RA-I00, ENERGEHUM). He was coordinator of the "Cultural Ecologies" contents block of the Independent Studies Programme of the Museum of Contemporary Art of Barcelona (2017-2018 and 2019-2020 editions) and is the author of books such as *Estética fósil. Imaginarios de la energía y crisis ecosocial* (Barcelona: Arcadia, 2020). This essay has been written thanks to the aid RYC2018-024943-I financed by the MCIN/AEI /10.13039/501100011033 and the FSE "El FSE invierte en tu futuro"; and as part of the CSIC (PIE 202010E005) and the Ministry of Science and Innovation (PID2019-109252RB-I00, PID2019-107757-RB-100 and PID2020-113272RA-I00, financed by MCIN/AEI /10.13039/501100011033/ FEDER "Una manera de hacer Europa") research projects that I lead or in which I participate. The content of the essay is a revised version of the arguments I developed in the first chapter of my book *Estética fósil. Imaginarios de la energía y crisis ecosocial* (Barcelona, Arcadia, 2020), hitherto unpublished in English.

References

- Berman, Marshall. *All That Is Solid Melts into Air: The Experience of Modernity*. London: Verso, 1983.
- Brand, Ulrich and Wissen, Marcus. *The Imperial Mode of Living. Everyday Life and the Ecological Crisis of Capitalism*. New York: Verso, 2021.
- Castelar, Emilio. "Proyecto de monumento a Colón, ideado por el ingeniero D. Alberto Palacio," *La Ilustración Española y Americana* 35, 31 (1891): 99-100
- Castoriadis, Cornelius. *Sujeto y verdad en el mundo histórico-social. Seminarios 1986-1987. La creación humana I*. Buenos Aires: Fondo de Cultura Económica, 2004.
- Crutzen, Paul J. and Stoermer, Eugene F. "The Anthropocene," *Global Change Newsletter* 41 (2000): 17-18.
- Crutzen, Paul J. "Geology of Mankind," *Nature* 415 (2002): 23. <https://doi.org/10.1038/415023a>
- Daggett, Cara New. *The Birth of Energy. Fossil Fuels, Thermodynamics and the Politics of Work*. Durham/London: Duke University Press, 2019. <https://doi.org/10.1215/9781478005346>
- Eagleton, Terry, *Culture*. Yale: Yale University Press, 2016.
- Fernández Durán, Ramón and González Reyes, Luis. *En la espiral de la energía. Historia de la humanidad desde el papel de la energía*. Madrid: Libros en acción, 2018, I.
- Fisher, Mark. *Capitalist Realism: Is There No Alternative?* Alresford: Zero Books, 2009.
- Fisher, Mark. *Ghosts of My Life: Writings on Depression, Hauntology and Lost Futures*. Alresford: Zero Books, 2014.
- Heidegger, Martin. "The Age of the World Picture," in *Science and the Quest for Reality*, edited by Alfred I. Tauber. London: Palgrave Macmillan, 1997.
- Jameson, Fredric. "Future City," *New Left Review* 21 (2003): 76.
- Kropotkin, Piotr. *Mutual Aid. A Factor of Evolution*. Manchester: Extending Horizons Books/Porter Sargent Publishers, 1970.
- Lövbrand, Eva, Mobjörk, Malin and Söder, Rickard "The Anthropocene and the Geo-political Imagination: Re-writing Earth as Political Space", *Earth System Governance* 4, 2020. <https://doi.org/10.1016/j.esg.2020.100051>
- Malm, Andreas. *Fossil Capital. The Rise of Steam Power and the Roots of Global Warming*. London: Verso, 2016.
- Malm, Andreas. "Who Lit This Fire? Approaching the History of the Fossil Economy", *Critical Historical Studies* 3, 2 (2016): 215-248. <https://doi.org/10.1086/688347>
- Marx, Karl. *Collected Works*. Moscow: Progress Publishers, 1975-, V.
- Mitchell, Timothy. *Carbon Democracy. Political Power in the Age of Oil*. London: Verso, 2011.
- Moore, Jason W. *Capitalism in the Web of Life*. London: Verso, 2015.
- Polanyi, Karl. *The Great Transformation: The Political and Economic Origins of Our Time*. Boston: Beacon Press, 2001.
- Prieto, Eduardo. *Historia medioambiental de la arquitectura*. Madrid: Cátedra, 2019.

Stiegler, Bernard. "The Proletarianization of Sensibility," trans. Arne de Boever, Lana Turner. *A Journal of Poetry and Opinion*, 4 (2011): 124-140.

Traverso, Enzo. *Left-Wing Melancholia. Marxism, History and Memory*. New York: Columbia University Press, 2019.

Worster, Donald, *Shrinking the Earth. The Rise and Decline of American Abundance*. Oxford: Oxford University Press, 2016

MAIN SECTION

The Currency of the Anthropocene. Dismantling the Theological Presupposition of Neoliberalism in Kim Stanley Robinson's *The Ministry for the Future*

Andrea Righi – Miami University of Ohio, USA
Contact: righia@miamioh.edu

ABSTRACT

This essay analyzes Kim Stanley Robinson's latest Sci-fi novel, *The Ministry for the Future* (2020), by focusing on key narrative elements developed in the text that offer solutions to our current climate crisis. Although fictional, these ideas are theoretically relevant because they challenge the current symbolic system of neoliberalism based on a sacrificial economy and a notion of transcendence that demands the infinite accumulation of surplus value. In particular, I examine the import of Robinson's argument regarding the need for political representation of future generations through the creation of an ad hoc intragovernmental branch (the above-mentioned Ministry of the title of his novel) and a new understanding of value based on the concept of the Carbon Coin reward system.

KEYWORDS

Anthropocene, Carbon Coin, Transcendence, Neoliberalism, Alterity

PEER REVIEWED

10.6092/issn.2612-0496/15217

ISSN 2612-0496

Copyright © 2022 Andrea Righi

Darko Suvin famously pointed out that a fictional novum or “cognitive innovation” is a structural element in science fiction, which works as a “totalizing phenomenon or relationship deviating from the author’s and implied reader’s norm of reality.”¹ In Kim Stanley Robinson’s latest novel *The Ministry for the Future* (2020)—a polyphonic near-future account of how our present environmental collapse produces a global revolution that dissolves capitalism—the novum is not so much a scientific invention but an economic, political, and philosophical paradigm shift. It has been said that this is a concept novel. Granted that this category can be applied to virtually any novel or work of art, *The Ministry for the Future* (from now on *MF*) is not only an exceptional attempt to represent our climate apocalypse in its globality—and not as the usual backdrop for some dystopian plot—but also a powerful depiction of a revolution that dismantles the theological presupposition ruling neoliberalism and its hyper-utilitarian and extractive vision of the world.

Several scholars have demonstrated how historically there is no clear distinction between the symbolic domains of theology and economy.² This is particularly true when considering the organization of power via the notion of *transcendence*. Western societies display a tendency to imagine the dimension of the absolute—be it power, value, time—in a beyond-like realm that governs reality from the outside. In this power structure, transcendence captures the social potential of human life via a tributary bond. In other words, transcendence manages the excessive energy of human social production—the ever-expanding circuits of credits and debts that constitute relationality—by channeling it into an exchange module (or a moral bookkeeping) based on rewards and punishments, in short, a pactional structure that forces individuals to comply with the demands of the Other (God, the King, the Church, etc.). Eric Santner described this mechanism as a narrative of *payability of debt*, which manages the oscillation between lack and excess that constitutes us as symbolic animals by dictating that scarcity can and should always be “made good.”³ I will say more about payability in the first part of this essay. This framework will be instrumental to illustrate how Robinson’s novel disarms this symbolic mechanism by activating three counter-narratives: a new dimension of time revealed by the Anthropocene (or Capitalocene as Donna Haraway calls it), a different relationship with the *other* from that established under a transcendent regime, and an immanent concept of value through a new currency.⁴

1 Darko Suvin, “Science Fiction and the Novum,” in *Defined by a Hollow* (Oxford: Peter Lang, 2010), 68.

2 See Giacomo Todeschini, *Come l’acqua e il sangue* (Rome: Carocci, 2021).

3 Eric Santner, “A Critique of Mana-Theism,” *Narratives of Debt*, 2019, <https://youtu.be/j4fNKG0JNcY>.

4 See Haraway Donna, *Staying with the Trouble: Making Kin in the Chthulucene* (Durham: Duke University Press, 2016), 47.

What is redemption?

The trifold innovation of *MF* emerges against the backdrop of neoliberalism as a symbolic model that has at its center the notion of *redemption*. Redemption is both a religious and economic term tied with the discourse of making good with one's debts, i.e., payability. As observed, this tributary logic is a device that administers the infinite creation of social relations that constitute the social ontology of any society. Procreation is a material example of such social infinity because it is continuous and never-ending. These infinities are social objects in the sense that they have a clear human origin, yet mankind represses their derivation producing narratives or institutions that seem non-human. Because the infinite nature of social life is repressed, transcendence absorbs such infinity thereby shining with the splendor and glory of all its might, insignia which are normally assigned to power.

The basic symbolic structure of neoliberalism is homologous to the template I just described; it only substitutes a theological transcendence with an economic one. This logic follows a sacrificial economy because it forces us to pay tribute to a transcendent authority that mobilizes vast regions of our life.⁵ However, under capitalism, transcendence does not grant nor promise redemption. As Walter Benjamin famously pointed out, capitalism has a specific cultic structure "that makes guilt and debt pervasive. Capitalism is probably the first instance of a cult that creates guilt, not atonement."⁶ Transcendence demands a tribute that is unpayable and establishes a relation where the subject is never in compliance but rather is chased by pending liabilities and works to sustain the eternal growth of surplus value. To follow our metaphor, in our societies the logic of payability has no maturity date.

Although neoliberalism claims that payability is a universal truth, a group is exempted from the liabilities of this pactional economy. Therein an exclusive path to redemption emerges for the 1%. Bail-outs are for those who run the financial machine, Mladen Dolar points out, as these elites are always granted assistance because they are "in the mercy," eternally saved because of "their very position which entitled them to speculation."⁷ While this caste socializes its losses, it is always too big to fail, neoliberal governments staunchly promote the virtuousness of austerity measures. The founding principle of this narrative, which Stephanie Kelton has dubbed the deficit myth, assimilates the household's budget to that of a sovereign state.⁸ Projected onto the state, this misguided doctrine demands

5 See Andrea Righi, *The Other Side of the Digital* (Minneapolis: University of Minnesota Press, 2021).

6 Walter Benjamin, "Capitalism as Religion," in *Selected Writings* (Cambridge: Belknap Press, 1996), 288.

7 Mladen Dolar, "The Quality of Mercy Is Not Strained," *The Yearbook of Comparative Literature* 60 (2014): 18.

8 Stephanie Kelton, *The Deficit Myth* (New York: Public Affairs, 2020).

the slashing of spending to avoid insolvency of future generations. This claim draws its force on a moral argument (the future of our children) that presents itself as absolute, yet the economic school of Modern Monetary Theory has demonstrated that its fallacy originates in the misunderstanding of the nature of taxes and money.⁹ Let us briefly explore the deep-seated causes of this distortion and its socially and environmentally devastating consequences.

Contrary to mainstream economics, Modern Monetary Theory maintains that the state does not use taxes to fund its operations but to ensure the circulation of its currency. Randal Wray argues that “because of this, the only real debt incurred by a government that issues a nonconvertible currency is the promise to accept that currency in payment of tax liabilities.”¹⁰ Taxes do not create money. The state creates money, which it then proceeds to redeem via taxes, fines, and other instruments. In this sense, “the word redemption is used in two ways: accepting your own IOUs [money] in payment and promising to convert your IOUs, to something else (such as gold, foreign currency, or the state’s IOUs).”¹¹ All money is FIAT money. It is the state that decides the amount of liquidity to service society’s needs. But this mobilization must be ensured through permanent fiscal operations. Here we encounter a second conceptual error in common economics. State money is not a *thing* but a function. As Scott Ferguson writes “money is not an alienable entity government amass or hemorrhage. It is a limitless writing instrument for mobilizing social production and provisioning the public purpose.”¹² To follow Ferguson’s metaphor, the revenue system is a curator, it guarantees the legibility of this writing by ritualistically taking currency out and back into circulation. This is why there is “perpetual redemption at the center of money’s spiraling temporality.”¹³ Salvation does not expect us in the afterlife nor is it something a transcendent entity will grant us. Salvation is the immanent process that nourishes social reproduction.

If this understanding of salvation seems inappropriate, it is because it defies the definition Christianity adopted from Roman law, which referred to the ransom paid by the Senate to entities who held captive Roman soldiers at the time of the Republic. This model, which is at the root of how Christianity envisions redemption in theological terms, rests on the trust

9 Modern Monetary Theory understands money both as credit and as Fiat money—i.e., money made by governments decree. From this integration, it constructs an alternative to austerity focusing on the underutilization of public resources. See Randall Wray, *Modern Monetary Theory: A Primer on Macroeconomics for Sovereign Monetary System* (New York: Palgrave, 2015).

10 Randal Wray, *Introduction to Credit and State Theories of Money* (Cheltenham, U.K.: Edward Elgar, 2004), 8.

11 Wray, “Modern Money Theory: How I Came to MMT and What I Include in MMT,” October 1, 2018, Multiplier Effect, <https://multiplier-effect.org/modern-money-theory-how-i-came-to-mmt-and-what-i-include-in-mmt/>.

12 Scott Ferguson, *Declarations of Dependence* (Lincoln: University of Nebraska Press, 2018), 63.

13 Ferguson, *Declarations of Dependence*, 63.

that some *Other* (called *redemptor*) will act and the tributary relationship to a benefactor.¹⁴ Therein a contractual system of reward and punishment emerges as a dominating institution. This is not the place to show how the accounting of the soul in the afterlife is far from being mathematically sound. On earth, Christian societies did engage in various forms of redemption by declaring amnesties or adopting systems of basic welfare for the community. In the Middle Ages, the general tendency to invest in the needs of the *communitas* was called *fructuatio*, while the imperative to donate quotas of capital for good works at the end of one's life fell under the term *restitutio*. Despite these social conventions, one finds a specific spiritualization of the pactional system in Christianity that leads to Neoliberalism. The Good news of the Gospel seems to be particularly susceptible to a more integral form of extraction. This paradoxical conclusion arises from the understanding of "the infinite value of Christ's body, or of the ecclesiastic community embodied by the Church."¹⁵ It is this (abstract) infinite dimension that shifts the focus from redistribution in life to the one beyond that. Things in the Old Testament were somewhat different. Although in the Hebrew tradition redemption was never exclusively understood as a factual gain, the Levitical model for salvation called for the cancelling of material obligations: the *jubilee* was the moment in which society would begin again from a clean slate, a common institution in antiquity.¹⁶

Insisting on investment and growth, Christian theology rewrites the clauses of the Jewish covenant opening a pathway for dismantling its base of reciprocity. It is no coincidence that one of its targets is the Sabbath year of the Leviticus. First of all, let us remember that even the rightful economic basis for salvation codified by *restitutio* may easily slip into instruments of social control if not worst.¹⁷ Giacomo Todeschini points out, for instance, how it was not uncommon for religious authorities like the IX-X century bishop Raterius of Verona to claim that the poor who wants riches sins, while the rich, who is unencumbered by wealth, is an example of piety.¹⁸ Ignoring earthly justice, other authorities like the XI-century Benedictine Monk, Peter Damian, went a step further offering a remarkable argument against the debt-relief practice prescribed in the Leviticus. He pointed out that

the precepts of the law are truly fulfilled when they are carried out in accord with the spiritual meaning for which they were instituted. Formerly, while they were being carried out physically, they were

14 See Tiziana Faitini, "The Redemption between Law and Theology" *Ius commune graeco-romanum* (Leuven: Peeters Publisher, 2019).

15 Giacomo Todeschini, "The Incivility of Judas" *Money, Morality, and Culture in Late Medieval and Early Modern Europe* (New York: Routledge, 2016), 38.

16 See David Graeber, *Debt. The First 5,000 Years* (Brooklyn, NY: Melville House, 2012), 65.

17 See Giacomo Todeschini, *I Mercanti e Il Tempio* (Bologna: Il Mulino, 2002). 188.

18 *Ibid.*, 191.

empty, that is, a shadow or image of the thing, and not the thing itself.¹⁹

It is the (abstract) infinite dimension of transcendence that shifts the focus from redistribution in this life to the one beyond that. Debt forgiveness on this world is only an illusory copy of true forgiveness. Peter Damian projects value to the elsewhere of the divine thus undercutting the legitimacy of earthly salvation. Therein, the idealization of infinity supersedes the social infinity of human relations. This innovation to the pactional economy hints at the modulation of transcendence in modern times. As an economic virtue that will be rewarded, neoliberal austerity follows the same sacrificial formalism enacted by the elsewhere of Peter Damian's "thing in itself." Under advanced capitalism, the spiritualization that appreciates the value of the beyond dissolves any limit and possibility of solvency for people on earth because virtuosity is now defined by its efficacy in expanding surplus value.

Not surprisingly, the elite's easy-access to grace on earth generates two behaviors equally dominated by surplus value: conspicuous opulence, think of the new space craze among U.S. oligarchs, and avarice, another of those theological categories behind capitalist accumulation. The miser is the perfect example of somebody driven by the desire of accumulation for accumulation's sake. As Dolar points out, the miser's wealth becomes the object of all objects, a metaphysic entity or "surplus object," that which augments totality not because of some specific goal but because it mirrors infinity. The surplus object is what "in money is more than money, the general equivalent without equivalent."²⁰ This surplus object is the neoliberal God of Christianity: the creed that demands infinite valorization through extractive practices and debt economy. It is an imaginary *Other* that is leading us to extinction.

Time in the Anthropocene

I argued that by structuring itself around a transcendent Other that demands the endless creation of surplus value, neoliberalism advances an extractive program that degrades societies and the environment while blocking the necessary injection of liquidity to address our climate and social crisis. Transcendence also impresses a teleological mark on the progress of time by setting salvation as an endpoint in one's life and now, under neoliberalism, by substituting redemption with the endless work of restitution (what we have called a debt or sacrificial economy). However, the problem is not the *other* but the relation we imagine to have with this alterity. For instance, the jubilee complied with a sacred function by alleviating a structural problem in the ancient world. Facing a planetary

19 Damian Peter, *Letters 1-30* (Washington: The Catholic University of America Press, 1989), 70.

20 Dolar, "Avatars of Avarice" *Jnanapravaha Mumbai Conference*, 2019, <https://youtu.be/b13eEBHgn9I>.

collapse, instead, the neoliberal response ranges from outright denial to inadequate promises that are always geared toward surplus value. Inflation is a plague. State budgets are limited—except for wars—while the private sector must always be protected in order to insure a country's competitiveness in the global market. Ultimately, the transcendent logic of capitalism accommodates its polar opposites—i.e., denialism and paralyzing anxiety—because it has coopted terms like nature itself. As Timothy Morton writes, neoliberalism can always explain away the cost of externalities and ecological destruction because both capital and nature “exist in an ethereal beyond,” which is capable of absorbing anything.²¹

The technical innovations imagined by Robinson in *MF* redefine the implacability of this ideological approach to reality. The novel is an exercise in what Haraway called sympoesis, the narrative “yoke for becoming with, for staying with the trouble of inheriting the damages and achievements of colonial and postcolonial naturalcultural histories in telling the tale of still possible recuperation.”²² In this case, recuperation entails the attempt to bring the *other* and its infinities into the fold of the social dimension. The novel begins in the mid 2020s and closes a couple of decades later mapping how a global movement, aided by an avantgarde team of bureaucrats, pushes modern society to embrace a revolution that includes the rights and voices of the *future* into today's politics. The center of this transformation is a political institution—the ministry that gives the title to the novel—tasked to represent the future, that which commonsense dictates does not exist. This political device is a “subsidiary body” charged with the mission of advocating

for the world's future generations of citizens, whose rights [...] are as valid as our own. This new subsidiary body is furthermore charged with defending all living creatures present and future who cannot speak for themselves, by promoting their legal standing and physical protection.²³

The Ministry complies with this function not only via legal means but also by promoting and financing initiatives that fight climate change. The office is held by a combative politician, “Mary Murphy, an Irish woman of about forty-five years of age, ex-minister of foreign affairs in the Government of the Irish Republic, and before that a union lawyer.”²⁴ Mary and her international cabinet members are the co-protagonists of the polyphonic and multiform movement that culminates in the revolution of 2048. I will say more about this event later on. For now, it is important to take stock of

21 Timothy Morton, *Hyperobjects*. (Minneapolis: University of Minneapolis Press, 2013), 115.

22 Haraway, *Staying with the Trouble*, 125.

23 Stanley Robinson Kim, *The Ministry for the Future* (New York: Orbit, 2020), 16.

24 Ibid., 18. Mary resembles another's of Robinson's heroes from the Mars Trilogy, Tatiana Durova, an engineer, who similarly channels revolutionary change through institutional means. On the sociopolitical framework for the Mars trilogy see Kenneth Knoespel, “Reading and Revolution on the Horizon of Myth and History: Kim Stanley Robinson's Mars Trilogy,” *Configurations* 20, no. 1 (2012), 109-136.

this theoretical principle: through the Ministry, future generations become a stakeholder in today's politics. This alterity finds a form of political representation radically different from the cultic belief heralded by neoliberalism. In other words, this alterity is not a transcendent Other rather it attempts to represent the infinities of human generations, which are already here and need care and tending. The novel aims to depict this new emotional life of society and delineates what Raymond Williams called a new structure of feeling, one in tune with the immediacy of future *others*.²⁵

Robinson operates this shift not only through character development and plotlines, but also by pushing his text toward a certain degree of experimentalism. The point of view adopted in the novel moves from an omniscient perspective to a focalization that is usually internal—whereas an external focalization, where facts and knowledge is held back, never occurs—thus making the amount of narrative information an unavoidable presence, a historical reality open to interpretations but certainly impossible to neglect. The text, in fact, could be read as an archive of events, strategies, and ideas from the near future. Furthermore, the objectivity of the documentary evidence relies not so much a rational understanding of consequences and causes of each singular event, but rather on the radical ex-position. From this standpoint, Buddhism is a key influence in Robinson.²⁶ The work of tending to reality is not carried out via manipulation or mastering. It is a playful frequentation marked by an oblique bond that liquifies the solid foundation of the classic cartesian subject. The responsibility one carries with regard to the world enlivens the book not only through direct dramatizations, but also via its formal architecture. In this sense, the insertions of documentary evidences and fun bricolage of limericks, "it notes," meeting debriefs, etc., can be tied precisely to a Zen philosophy. The *suchness* of experience liberates the individual from a cartesian self-centered understanding of one's relation with the world, a constitutive element of the neoliberal subject afflicted by the logic of payability.²⁷ This is why some of Robinson's inserts work almost as a prosopopoeia. Personification usually humanizes living and inanimate things. Here the opposite is true. By speaking, these objects (Robinson includes "it notes" by animals, photons, the market etc.) de-center the narrative voice, hollowing them out of their subjective pretenses. Their suchness is what matters. Insofar as tending to their existence embodies an ethical way of life, these formal elements add to the oblique structure of the narrative.

The claims of invisible generations of others are not only inspiration for experimental poetics. *MF* stages a shift in the role and actions of the

25 See Raymond Williams, *Preface to Film* (London: Film Drama, 1954).

26 See Istvan Csicsery-Ronay, "Possible Mountains and Rivers: The Zen Realism of Kim Stanley Robinson's *Three Californias*," *Configurations* 20, no. 1-2 (2012), 149-185.

27 Robinson also displaces the typical *SF* narrative mode based on the (male) protagonist as the "human-making machine of history," Haraway, *Staying with the Trouble*, 118.

Ministry that deviates from standard thinking about time. In short, the Ministry functions like a time device, one that embodies the new temporality of the Anthropocene. Our Newtonian understanding of time states that the future is what does not exist. However, Robinson attempts to capture a structure of feeling that roots itself in the idea of the immanence of time. Folding the social infinities into the present means bending time, drawing it into the intimacy of immanence. The novel illustrates this form of temporal immanence in at least two ways. The first is epistemological in nature. Robinson understands environmental change not so much as a near future possibility but as something that has already happened. This is because he is well aware that climate change reveals how reality is an ensemble of hyperobjects. An "hyperobject" is a category of things, Morton argued, endowed with a dimensionality that liquidates words like Nature or the World, which is imagined as a transcendent entity, an empty container that is self-standing. Morton argues that "there is no top object that gives all objects value and meaning, and no bottom object to which they can be reduced independent from other."²⁸ Because of their size, hyperobjects demand a different understanding of time. It is well known that our actions (or inactions) will have a lasting impact on the lifeforms that will populate this planet. Morton summarizes the unusual temporality of the Anthropocene as follows: "the very large finitude of hyperobjects forces humans to coexist with a strange future, a future 'without us.' Recall that plutonium and global warming have amortization rates of 24,100 and 100,000 years respectively."²⁹ The fact that the future is embedded in our present forces upon us what he calls an "intimacy" with the other.³⁰

The second marker of immanence has to do with the temporality of the novel, which unravels through events that disrupt the sameness of neoliberal time. Here, the dystopian situation of the ecological catastrophe takes frontstage. The book opens with a disaster told from the point of view of a young American aid worker, Frank May, living in the north of India when a massive heatwave exterminates millions of people. As the lone survivor of this tragedy, Frank embodies the traumatic but also implacable truth voiced by the witness. His attempted kidnap of Mary functions as a catalyzer for the development of the plot. Particularly, Frank's rebuttal of her institutionalist approach to political change spills over into the rest of the novel as a counteraction to the generalized apathy of Western society. Mary is compelled to address the questions he poses to her; later on, she feels obligated to care for him. This encounter pushes her to act in ways that go beyond the political mandate of a typical UN agency.

The Ministry becomes a kind of shadow directorate for the green revolution. But the rugged road that leads to this transformation emerges

28 Morton, *Hyperobjects*, 116.

29 Ibid., 94.

30 Ibid., 95.

in non-linear bursts of energy. Sometimes there are bloody spikes, as in large-scale attacks by eco-terrorists against the aviation and fossil fuel industry; other times there are more targeted actions like sabotages, strikes, as well as the hilarious contrappasso-like punishment for a number of CEOs who are forced into re-education camps where they attend endless Power Point presentations on human induced effects on the environment. Geopolitical change takes place as well, mostly from the south of the world, India, Africa etc. This turmoil and the catastrophic crescendo culminate in a new Springtime of the Peoples of 1848. Significantly, what inaugurates this momentous year is a fiscal strike by the National Student's Union in the United States.

Student debt was a trillion-dollar annual income stream for the banks, so this coordinated default meant that the banks were suddenly in cash-flow hell. And they were so over-leveraged, and thus dependent on all incoming payments being made to them on time to be able to keep paying their own debts, that this fiscal strike threw them immediately into a liquidity crisis reminiscent of the 2008 and 2020 and 2034 crashes, except this time people had defaulted on purpose, and precisely to bring the banks down [...] But this time the Fed asked Congress to authorize their bailing out the banks in exchange for ownership shares in every bank that took the offer.³¹

This lucky conjuncture of history, where the U.S. Congress does the right thing, inverts the symbolic mechanism of redemption by eliminating the eternal salvation for the elite. It also disrupts the teleology of the debt economy ingrained in such structure because redemption returns to the core of the State's function: not to protect an oligopoly but to serve as an instrument for the mobilization of the social ontology aimed at the benefit of present and future citizens. A growing interconnectedness based on this new sense of time animates the spirit of 2048. From a theoretical point of view, this also means that the logic of social reproduction displaces surplus value as the object of objects and the discourse of payability that administers the endless recreation of social relations. I already observed that because it is infinite, the work of reproduction points to a form of eternity. This timeless dimension thus stretches out toward the future as well, claiming its presence. The high finance of capitalism claims to predict the future when in reality it wants only to dominate. Robinson's efforts go in the opposite direction. In order to safeguard the alterity of the future, humanity creates solutions that protect the ecosystem by nourishing the reproduction of relations of humanity and its many others (people, animals, organisms etc.).

31 Ibid., 375.

The money of social infinity

MF directly critiques the two mechanisms that sustain the discourse of transcendence: grace as a teleological direction of time and surplus value as the top object that harnesses life. If the Ministry is the institutional tool that incorporates a new sense of time, money is the second narrative innovation that ends the model of redemption as we know it. The minutes of a tense cabinet meeting set the stage for this transformation. As rising levels of CO2 unleash unbearable environmental pressures, Mary's team analyzes reports about unprecedented losses and financial exposure for insurance companies:

Lack of predictability means re-insurance companies simply refusing to cover environmental catastrophes, the way they don't insure war or political unrest etc. So end of insurance, basically. [...] Governments therefore payer of last resort, but most governments already deep in debt to finance, meaning also re-insurance companies. Nothing left to give without endangering belief in money.³²

The scale of the devastation opens a fissure in the system by bringing onto the scene the problem of infinity and its economic quantification. This type of infinity is not the spiritual driver of surplus value but of human life. If money is the general equivalent that measures the value of things, these calamities defy standard risk assessment because the cost of remediation defies calculation: "so just call it infinity," says Dick Bosworth, the Australian advisor to the cabinet.³³

The issue of representability emerges here as a productive paradox because it inserts itself in the discourse of payability exploding the pactional cage of neoliberalism. Just like with temporality, the novel operates an immanentization of infinity by recognizing its social character. Dick neatly enunciates this contradiction and draws the rightful conclusions:

if you rate all future humans as having equal value to us alive now, they become a kind of infinity, whereas we are finite ... If we were working for them as well as ourselves, then really we should be doing everything for them. Every good project we can think of would be rated as infinitely good, thus equal to all other projects. And every bad thing we do to them is infinitely bad and to be avoided.³⁴

All our efforts should thus be aimed at the wellbeing of future others. Economists call this the *discount* rate, the rate Central Banks set on money they lend to banks and other depositary institutions that regulates liquidity. The discount rate is thus an estimate of the future value of money; or a way to represent money across time, and thus to compare reality to infinity. Naturally, neoliberalism distorts this asymmetry focusing its decisions

32 Ibid., 54.

33 Ibid., 55.

34 Ibid., 130.

on growth. Therein discount rate oscillates from high rates—this type of quantitative tightening allegedly reigns in inflation—to lower ones to spur borrowing, as in the quantitative easing cycles due to the Great Recession and, more recently, the pandemic. In any case, the theological infinity of transcendence is coopted by the economic, so that the template for the relationship between our present finiteness and future infinity is one where surplus value is always dominant.

Setting aside economicist interpretations, Dick explains the problem of the discount rate by bringing into focus the philosophical paradox of how finitude can comply with infinity. Quantitative easing is not enough to ensure the wellbeing of the future. To finance the mobilization needed to comply with infinity one needs another form of infinity. Robinson imagines the adoption of a new money, borrowing the idea of a digital currency recently developed by Delton Chen, director of the Global Carbon Reward Initiative. Under the new reward-base policy, various private and public actors who sequester carbon (and are certified by appointed agencies) are reimbursed with digital credits. Before I turn to the role of the Carbon Coin, it is important to note that Chen's framework for a carbon reward, in effect, mimics the infinity of transcendence—the bioremediation work needed to restore acceptable environmental conditions is immense although not unlimited, this is why the unit of account for one coin is defined as 1000 kg of CO₂ mitigated for a 100-year duration.³⁵ However, this amount is shaped not so much as a limit but as a stage where new rules apply that allow a proliferation of actions and movement. Robinson's decision to include this monetary innovation is defamiliarizing in multiple ways. It is not a prophecy or a prediction, but a kind of looped temporality (one again that is fully in line with the Anthropocene) that from the future returns back into the past determining it. Furthermore, it offers a counter-narrative to the ideology of Silicon Valley for, ultimately, the Carbon Coin stands out as a counter bitcoin: not an anarcho-capitalist asset but a collective monetary tool.

The novel describes the introduction of carbon credits in a topical moment of history, when the political struggle needs to find the proper socio-economic outlet for it to succeed. Just like a regular digital currency, the Carbon Coin encompasses all three basic monetary functions. It is a unit of account, storage of value, and medium of exchange (Robinson imagines the creation of fractions of a Carbon Coin for daily expenditure called *carboni*).³⁶ But because the exchange rate for the Carbon Coin is set at a level that meets the mitigation target established by the international community, the yield is constantly rising. This is a solution to the problem of the discount rate with its discrepancy between finiteness of the present and infinity of the future. The response is that infinity is already present in

35 See *Global Carbon Reward Initiative*, <https://globalcarbonreward.org/carbon-currency/>.

36 Robinson, *The Ministry for the Future*, 356-57. Chen envisions the Global Carbon Reward as an asset not as a medium of exchange.

the world of humans. It is the work of reproduction of social relations. The nurturing of our material and immaterial needs must find a proper conduit to exist. The Carbon Coin becomes this conduit, an economic policy that avoids relapsing into a new form of adulation for transcendence because its purpose is ensuring a livable ecosphere for the reproduction of social ontology.

Instead of creating a set piece, Robinson introduces this currency via a meeting debrief of Mary's cabinet. Dick's note recaps the gravity of the situation and the need for this technical invention:

Told her about the Chen paper, useful for its clarity, and now getting discussed in several discourse communities, it being one of the earlier of various proposal to create some kind of carbon coin. This to be a digital currency, disbursed on proof of carbon sequestration to provide carrot as well as stick, thus enticing loose global capital into virtuous actions on carbon burn actions on carbon burn reduction... a new influx of fiat money, paid into the world to reward biosphere-sustaining actions.³⁷

The biosphere becomes the most valuable entity, or as Dick summarizes, "its worth to people [becomes] a kind of existential infinity. Gauging the price of saving the biosphere's functions against the cost of losing them would therefore always be impossible."³⁸ Under this arrangement, a reward, or shall I say, a redemption is finally bestowed to those who work for the preservation of this life, not the afterlife of Heaven. This economic revolution deals the final blow to the status quo, as gradually the vast majority of people see neoliberal discourse for what it really is "the world's current reigning religion, it had to be admitted: growth. It was a kind of existential assumption, as if civilization were a kind of cancer and them all therefore committed to growth as their particular deadly form of life. But this time, growth might be reconfiguring itself as the growth of some kind of safety."³⁹ At this point life is not oriented toward transcendence but toward its own immanent reproduction. Grafted on a series of massive events and bloody struggles, the Ministry's push for the Carbon Coin is the economic platform that unites people in a common task. It is an economic device in the highest sense: it provides both a symbolic and a material structure for the reproduction of subjectivity and its ecosystem.

This emphasis on social reproduction is typical of Robinson's poetics, particularly when one considers his acclaimed Mars trilogy, but even a non-Sci-fi novel like *Shaman* (2013). His narrative never seeks comfort into the past, say Fordist society, where limits and protections supposedly regulated society; rather, his speculative fiction engages in a description of social and economic devices that are expansive and collectively rich.

37 Ibid., 172.

38 Ibid., 344.

39 Ibid., 345.

Robinson takes a veritable pleasure in staging the work of social reproduction that builds, sustains, and repairs the infrastructure of society. This is also what anchors Robinson's notion of value and why Chen's monetary proposal is so appealing to him. Robinson's understanding of value is economic but not economicistic. Neoliberalism follows an idealized market-based notion of value, the competition for scarce resources which produces profit. However, value also has an anthropological base that, according to David Graeber, marks "the way people represent the importance of their own actions to themselves; normally, as reflected in one or another socially recognized form."⁴⁰ The new value for the Anthropocene is the preservation of the *other* (the many others that form the biosphere) as an immanent form of life.

40 David Graeber, *Toward an Anthropological Theory of Value* (New York: Palgrave MacMillan, 2001), 47

References

- Benjamin, Walter. "Capitalism as Religion," *Selected Writings*. Cambridge: Belknap Press, 1996.
- Csicsery-Ronay, Istvan. "Possible Mountains and Rivers: The Zen Realism of Kim Stanley Robinson's Three Californias." *Configurations* 20, no. 1-2 (2012): 149-185. <https://doi.org/10.1353/con.2012.0003>
- Dolar, Mladen. "Avatars of Avarice" *Jnanappravaha Mumbai Conference*, 2019, <https://youtu.be/b13eEBHgn9l>.
- . "The Quality of Mercy Is Not Strained," *The Yearbook of Comparative Literature* 60, 2014. <https://doi.org/10.3138/ycl.60.x.9>
- Faitini, Tiziana. "The Redemption between Law and Theology," *Ius commune graeco-romanum* Leuven: Peeters Publisher, 2019. <https://doi.org/10.2307/j.ctv1q26r6s.6>
- Ferguson, Scott. *Declarations of Dependence*. Lincoln: Nebraska, 2018. <https://doi.org/10.2307/j.ctvqhswb>
- Graeber, David. *Debt. The First 5,000 Years*. Brooklyn, NY: Melville House, 2012.
- . *Toward an Anthropological Theory of Value*. New York: Palgrave MacMillan, 2001.
- Haraway, Donna. *Staying with the Trouble: Making Kin in the Chthulucene*. Durham: Duke University Press, 2016. <https://doi.org/10.2307/j.ctv11cw25q>
- Kelton, Stephanie. *The Deficit Myth*. New York: PublicAffairs, 2020.
- Knoespel, Kenneth. "Reading and Revolution on the Horizon of Myth and History: Kim Stanley Robinson's Mars Trilogy." *Configurations* 20, no. 1 (2012): 109-136. <https://doi.org/10.1353/con.2012.0000>
- Morton, Timothy. *Hyperobjects. Philosophy and Ecology After the End of the World*. Minneapolis: University of Minneapolis Press, 2013.
- Peter, Damian. *Letters 1-30*. Translated by Blum, Owen. Washington: The Catholic University of America Press, 1989.
- Righi, Andrea. *The Other Side of the Digital. The Sacrificial Economy of New Media*. Minneapolis: University of Minnesota Press, 2021. <https://doi.org/10.5749/j.ctv1h7zn4z>
- Robinson, Stanley, Kim. *The Ministry for the Future*. New York: Orbit, 2020.
- Santner, Eric. "A Critique of Mana-Theism," *Narratives of Debt*, 2019, <https://youtu.be/j4fNKG0JNcY>.
- Suvin, Darko. "Science Fiction and the Novum." In *Defined by a Hollow*, 67-92. Oxford: Peter Lang, 2010.
- Todeschini, Giacomo. *Come l'acqua e il sangue*. Rome: Carocci, 2021.
- . "The Incivility of Judas: 'Manifest' Usury as a Metaphor for the 'Infamy of Fact' (Infamia Facti)." In *Money, Morality, and Culture in Late Medieval and Early Modern Europe*, 33-52: Routledge, 2016.
- . *I Mercanti e Il Tempio*. Bologna: Il Mulino, 2002.
- Williams, Raymond. *Preface to Film*. London: Film Drama, 1954.
- Wray, Randall. *Introduction to Credit and State Theories of Money*. Cheltenham, U.K.: Edward Elgar, 2004. <https://doi.org/10.4337/9781843769842>
- . *Modern Monetary Theory: A Primer on Macroeconomics for Sovereign Monetary System*. New York: Palgrave, 2015.
- . "Modern Money Theory: How I Came to MMT and What I Include in MMT," October 1, 2018, *Multiplier Effect*, <https://multiplier-effect.org/modern-money-theory-how-i-came-to-mmt-and-what-i-include-in-mmt/>.

MAIN SECTION

Penetrating Planets: Schelling and the Anthrobscene

Francesco Di Maio – University of Bologna, Italy
Contact: francesco.dimaio6@unibo.it

ABSTRACT

In this paper I will analyze the early recurrences of the concept of Anthrobscene, as proposed in media studies by Jussi Parikka, in the aesthetics of Friedrich Wilhelm Joseph von Schelling, as advanced especially in "On the Relationship of the Plastic Arts to Nature" of 1807. This work is established within the broader debate on the concept of Anthropocene, which, as known, identifies the human being as the main cause of impact on the Earth system in the era we are living. In the first part, I will introduce this concept in a critical way, to then compare it, in the second part, to the elements of Schellingian thought relevant to this debate. Finally, in the last part, after briefly explaining the new conceptual elements embedded in the term 'Anthrobscene', I will analyze Schelling's *Rede* of 1807, in order to reclaim his aesthetics as properly anthrobscenic.

KEYWORDS

Schelling, Anthropocene, Anthrobscene, Aesthetics, Media

ACKNOWLEDGEMENTS

I thank Camilla Bernava and Irene Sottile for their re-reading and advice.

PEER REVIEWED

<https://doi.org/10.6092/issn.2612-0496/14840>

ISSN 2612-0496

Copyright © 2022 Francesco Di Maio

1. Since the term 'Anthropocene' was first proposed by Paul J. Crutzen in a conference in Cuernavaca (Mexico) in 2000 and reiterated in several articles in the following years,¹ the expression has opened a debate that after more than twenty years does not seem to be extinguished. The definition is now well-known: the Anthropocene is "the present, in many ways human-dominated, geological epoch, supplementing the Holocene—the warm period of the past 10–12 millennia". An indicative beginning of this new era was suggested to be "the latter part of the eighteenth century, when analyses of air trapped in polar ice showed the beginning of growing global concentrations of carbon dioxide and methane". This date also happens "to coincide with James Watt's design of the steam engine in 1784".² It is therefore a new era in which the human presence has begun—and continues to be—so impactful on the Earth system that it has become the main subject of its modification. The impact is such that, if hypothetical geologists of the future were to analyze the stratigraphy of the planet, they could not help but take notice of the singularity of the traces of its history.

This definition, however, has not met unanimous consent by critics, who have questioned at least two points. Firstly, one could ask: what is the instance of enunciation of these traces? Is it necessary to attribute blame and responsibility to the *anthropos* to which the name Anthropocene refers to? And if so, what extension does this term have? Questioning this alleged primacy and displacing this authorship has progressively produced a countless series of counter-proposition to name this new geological era. Secondly, but still related to the first aspect, the threshold determining the historical breaking point and the actual beginning of this new age has been questioned. Considering these misconceptions, Christophe Bonneuil and Jean-Baptiste Fressoz have decided to consider the Anthropocene as a historical event and to enhance the political scope of the onomasiological debate of the term, i.e., on the different pertinentization by recent environmental History studies. It is in the various editions of their *L'Événement Anthropocène* that the two historians analyze the various oligarchocene, thermocene, tanatocene, phagocene, fronocene, agnotocene, capitalocene, polemocene.³ But the list is much more extensive, and it does not show signs of slowing down.⁴ And with each name comes the proposal of a new date, of a new duration, of a new cause for this epoch, thus transforming the Anthropocene into a true "battlefield".⁵

1 Paul J. Crutzen and Eugene F. Stoermer, "The 'Anthropocene,'" *IGBP Newsletter*, no. 41 (2000), 17-8; Paul J. Crutzen, "Geology of Mankind," *Nature* no. 415 (2002), 23.

2 *Ibid.*, 23a.

3 Christophe Bonneuil and Jean-Baptiste Fressoz, *The Shock of the Anthropocene: The Earth, History and us*, trans. David Fernbach (London and New York: Verso, 2016).

4 80 of them are analyzed, for example, by Franciszek Chwałczyk, "Around the Anthropocene in Eighty Names—Considering the Urbanocene Proposition," *sustainability* 12, no. 4458, (2020): 1-33. For a critical introduction to Anthropocene theory, see Paolo Missiroli, *Teoria critica dell'antropocene: Vivere dopo la Terra, vivere nella Terra* (Milano and Udine: Mimesis, 2022).

5 *Azimuth* no. 9 (2017): *The Battlefield of the Anthropocene: Limits, Responsibilities, and the Duty of Flight/Antropocene: un campo di battaglia: Limiti, responsabilità e dovere di fuga*, ed. Sara Baranzoni and Paolo Vignola.

At the same time, there are those who see in the 'Anthropocene' just a linguistic device to feed a merely academic debate, whose confirmation is to be found precisely in the nominal superfetation.⁶

In this paper I would like to underline that the discussion around the Anthropocene certainly implies a certain vagueness and that the definition of the term faces scholars with something of a challenge, but also that, correlatively, it can offer plenty of ethical-political solutions. The last two decades of discussion on the Anthropocene have only extended what was already being discussed—and fought for—for several years in relation to ecological issues. The Anthropocene wants to rethink in new terms what was intended to be a new ethics, a new attitude of human beings towards the environment and, more broadly, towards nature. Considering that ecology is, overall, the reciprocal and retroactive relationships between individuals and environments, the awareness of the changes that the actions of humans have on Earth as a system should lead to a reassessment of these actions themselves and, correlatively, of the political dimension they co-implicate.

As far as its philosophy of nature is concerned, the Anthropocene inherits from ecology a basic ambiguity, which can be schematized through two antithetical and opposite positions: on the one hand there is the awareness of the exceeding of the natural instance as a dynamic force in comparison to the alleged centrality of the human. From a philosophical point of view, this implies the consideration of other or different forms of agentic subjectivity. Certainly widespread, these reasonings start from the pre-logical, that is, for instance, animality, in order to extend it to the whole living if not, even, to the inorganic. On the other hand, a concept such as the Anthropocene should emphasize the assumption of the lead role of men in the impact on the planet, with the consequent need to reduce it or take arms in defense of nature. In this system of belief, nature itself is however to be understood as a weak or powerless instance, something to be preserved.⁷ This is a double evaluation of the role of the human being that has been considered paradoxical, and rightly so.⁸

2. Given the variation of the concept and its underlying ambiguity, it is not surprising that Friedrich Wilhelm Joseph von Schelling's philosophy has been reconsidered through the lenses of the Anthropocene and vice versa. The plurivocity is such that any thematization of the concept of nature can offer the possibility of grafting onto the rootstock of the

6 Jamie Lorimer, "The Anthro-scene: A guide for the perplexed," *Social Studies of Science* 47, no. 1 (2017): 117–42. On the *différance* of the term, we will return.

7 For a schematization of the possible declinations of the concept of nature, see Table 1 in Frédéric Ducarme, "Qu'est-ce que la nature qu'on cherche à conserver? Une approche sémiologique de l'action écologique," *npss* 14, no. 2 (2019): 38.

8 Christopher Lauer, "Confronting the Anthropocene: Schelling and Lucretius on receiving nature's gift," *Comparative and Continental Philosophy* 8, no. 2 (2016): 1.

'Anthropocene', regardless of future rooting. Schelling, as known, is a prominent figure of the German *Naturphilosophie* at the turn of the XVIII century. The coincidence with some periodization of the Anthropocene that indicate its beginning in the invention of the steam engine by James Watts and, in general, with the first industrial revolution, offer more of a justification than a confirmation.

The problematization of the Anthropocene has led to the rediscovery of the Romantic philosophy of nature, in the hope that it will rebalance the relationship of nature and culture.⁹ Indeed, German- and English-speaking 'Anthropocene' readings have emphasized the importance of the philosophy of nature of Schelling and his contemporaries, such as Novalis, Arthur Schopenhauer, Alexander von Humboldt, and Henrich Steffens.¹⁰ For example, Berbeli Wanning recalls how, while Schelling anticipates the insights of material ecology in his conception of matter's agentivity, Novalis is a forerunner of contemporary ecological criticism because he claims poetic imagination in synthesizing the alienated and split fragments of a rationalist civilization.¹¹ Similarly, Philippe Höfele and Lore Hühn praise the importance of Schopenhauer and Schelling beyond the mere history of philosophy. Precisely in a debate such as the one on the Anthropocene, in which the human is found to be the overriding factor within the biosphere of our planet, both authors propose a metaphysic in which the concept of subjectivity is extended to the whole being: the human is only one of the many concretizations of the will (*Wille*), albeit the highest.¹² Christina Pinsdorf emphasizes the value of geographer von Humboldt, and *Naturphilosophie* "first Schelling". Summarizing, they both critique the epistemological paradigm of subject-object and the ontological mechanicism—but in general of every dualism—according to which *natura naturata* is reduced to material calculation and exploitation.¹³ They

9 Robert Schimelpfenig, "The Drama of the Anthropocene: Can Deep Ecology, Romanticism, and Renaissance Science Rebalance Nature and Culture?" *American Journal of Economics and Sociology* 76, no. 4 (2017): 821-1081. See nonetheless Rosa Maria Martelo, "Algunas notas para a salvação do mundo," *Libreto* 26, no. 6 (2021): 31, and 33, and, although surprisingly lacking in references to Schelling, *Readings in the Anthropocene: The Environmental Humanities, German Studies, and Beyond*, ed. Japhet Johnstone and Sabine Wilke (New York and London: Bloomsbury, 2017).

10 It must be underlined how the emergence of the interest of philosophy towards nature must be put in relation with the foundation of contemporary universities at the beginning of the XIX century and the birth of human sciences at the same time. Therefore, the Anthropocene has been, since its origin, an effect of sense of the university discourse. Regarding Schelling, see specifically his lectures *On University Studies*, trans. E. S. Morgan, ed. N. Guterman (Athens, Ohio: Ohio UP, 1966). See Sverre Raffnsøe, *Philosophy of the Anthropocene: The Human Turn* (London: palgrave macmillan, 2016), 46-53.

11 Berbeli Wanning, "Poet and Philosopher: Novalis and Schelling on Nature and Matter," in *Ecological Thought in German Literature and Culture*, ed. Gabriele Dürbeck, Urte Stobbe, Hubert Zapf and Evi Zemanek (Lanham, Boulder, New York and London: Lexington, 2017), 43-62.

12 Philipp Höfele and Lore Hühn, "Vorwort," in *Schopenhauer liest Schelling: Freiheits- und Naturphilosophie im Ausgang der klassischen deutschen Philosophie*, mit einer Edition von Schopenhauers handschriftlichen Kommentaren zu Schellings ›*Freiheitsschrift*‹, hrgs. Ead. (Stuttgart and Bad Cannstatt: frommann-holzboog, 2021), 1-3.

13 On mechanicism as a philosophy on the grounds of climate change and Schelling's critique, see Virgilio Rivas, "The Anthropogenic Takeover of Dual External World," *Cosmos and History* 16, no. 1 (2020): 317-48.

were both sensible, just at the dawn of the first great industrialization, towards the impact of human beings on the various spheres that stratify the planet system (atmo-, hydro-, lith-, cryo-, bio-sphere, and so on) as well as to the problem of the massive extinction of species, both directly on animal environments and retroactively on human ones.¹⁴ Schelling, in the sixth and eleventh lectures of his *On Academic Study* of 1802, published one year later, literally denounces the consequences of Cartesian atomism and mechanicism to be an annihilation of nature.¹⁵ Therefore, their romantic empiricism was aimed at the re-enchantment of the world and, if read retroactively in the light of contemporary ecological crises, it proposes itself as an alternative in which the alliance between natural sciences and human sciences, or in general between nature and culture, could rethink the Cartesian subject-object paradigm.¹⁶ The two already expressed the core “of the fundamental structure of all ecological thoughts, which is expressed in the polarity between potentially infinite connection and potentially infinite diversity (*potenziell unendlicher Verbundenheit und potenziell unendlicher Verschiedenheit*)”, thus clashing as the “ungovernable connectivity of all natural phenomena and their irreducible diversity, the unity connected in and with everything (*in und mit allem verbundene Einheit*) in combination with the infinitely multiple singularity of things”. This is a new epistemology proposal that can grasp nature in its “totality and unity (*Ganzheit und Einheit*)”.¹⁷ Precisely on the mereological comingling of organic and inorganic Schelling was the main influence of his pupil Henrich Steffens, as Jakob Stougaard-Nielsen recalls.¹⁸

But if these readings indicate the richness of the Schellingian philosophical proposal in the dismissal of the primacy of human subjectivity and place the emphasis on the productivity of nature, there is no lack of contributions, such as those of Sean McGrath¹⁹ and Vincent Lê,²⁰ who emphasize the central role of *ánthrōpos*, of its responsibility, and of its goal of protecting the rest of nature. Since Schellingian philosophical anthropology proposes a human that is not self-founded, but on the contrary receives

14 Christina Pinsdorf, “Romantischer Empirismus im Anthropozän: A. v. Humboldts und F. W. J. Schellings: Ideen für die *Environmental Humanities*,” *HiN* 21, no. 40 (2020): 60, and 71-2.

15 Schelling literally speaks of “*Annihilation der Natur*” (F.W.J. Schelling, “Vorlesungen über die Methode des akademischen Studiums” (1803), in *Sämtliche Werke* (abbr. = *SW*), Ab. I, Bd. 5, 275) and of “*Vernichtung der Natur*” (Ibid., 275, and 319).

16 Pinsdorf, “Romantischer Empirismus im Anthropozän,” 84, and 91. On this point, see also the reprise of Goethe and Schelling *contra* Fichte by Markus Moling, “Kritische Reflexionen zu einem fehlgeleiteten Anthropozentrismus im Angesicht der Umweltkrise,” *Brixner Theologisches Jahrbuch* no. 10 (2019): 164.

17 Pinsdorf, “Romantischer Empirismus im Anthropozän,” 66, and 73 ss. Similarly, see Jason M. Wirth, “Dōgen and the Unknown Knowns: The Practice of the Wild after the End of Nature,” *Environmental Philosophy* 10, no. 1 (2013): 39–62.

18 Jakob Stougaard-Nielsen, “Nordic Nature: From Romantic Nationalism to the Anthropocene,” in *Introduction to Nordic Cultures*, ed. Id. and Annika Lindskog (London: UCLPress, 2020), 168.

19 Sean J. McGrath, “In Defense of the Human Difference,” *Environmental Philosophy* 15, no. 1 (2018): 1-15.

20 Vincent Lê, “Schelling and the Sixth Extinction: The Environmental Ethics Behind Schelling’s Anthropomorphization of Nature,” *Cosmos and History* 13, no. 3 (2017): 107-29.

its material basis externally,²¹ the German philosopher can lay the groundwork for the redefinition of the human as a responsible animal.²² Bruce Matthews, by mutual consent, referring to Schelling's "system of freedom", considers the human as a *Mitwissenschaft* of the whole creation,²³ as an "organ of nature" through which nature itself assumes self-awareness. Schelling, in the age of the Anthropocene, proves to be the mean for a new mythology that unites nature and history.²⁴

Finally, there is a third position that should be emphasized not only for its originality, but in relation to its intrinsic value beyond the mere Schellingian cue. Frédéric Neyrat, in his *La Part inconstructible de la Terre*, considers that the greatest contribution that Schelling can offer to the debate on the Anthropocene is precisely the concept of "denatured nature", *natura denaturata*, a third option compared to the traditional ones of *natura naturans* and *natura naturata*.²⁵ The neologism of the French philosopher—the term is not to be found in Schelling's works—proposes this nature to be an instance that, although not translated into the naturalized one, does not belong to the productive principle but, on the contrary stands as an anti-production: "Nature is not simply natured nature (an object to be shaped or that is manipulable), natured nature (a producing subject), but also a denaturing nature—a movement of withdrawal, an antiproduction preceding all production".²⁶ The proposal of Neyrat would be therefore to find in the split between the *naturans* cause and the *naturati* products an umpteenth dualism. As much as romanticism has tried to connect them together, putting in this way an organicist model opposite to the mechanistic one, the only way to think of an exceeding Nature is to explicitly consider an external or not referable part of it, as to the process of production.

Then again, these interpretations are not new: Schelling and the Anthropocene was the subject of a conference given in August 2014: "Schelling in the Anthropocene: Thinking beyond the Annihilation of

21 Thomas Schwarz Wentzer, "Rethinking Transcendence: Heidegger, Plessner and the Problem of Anthropology," *International Journal of Philosophical Studies* 25, no. 3 (2017): 348-62.

22 Id., "Approaching Philosophical Anthropology: Human, the Responsive Being," in *Finite but Unbounded: New Approaches in Philosophical Anthropology*, ed. Id., Kevin M. Cahill, and Martin Gustafsson (Berlin: de Gruyter, 2017), 25-45.

23 Schelling speaks of "*Mitwissenschaft*" (Schelling, *Die Weltalter: Fragmente*, in den Fassungen von 1811 und 1813, hrsg. Manfred Schröter (Munich: Biederstein, 1946), 4; trans. Joseph P. Lawrence, *The Ages of the World: Book One: The Past (Original Version, 1811)* (New York: SUNY, 2019), 57; Id., "Die Weltalter" (1811-1817), in *SW, Ab. I, Bd. 8*: 200; trans. Jason M. Wirth, *The Ages of the World: (Fragment)*, from the handwritten remains, Third Version (c. 1815) (New York: SUNY, 2000), XXXVI), of "*Mitt-wissenschaft*" (Id., *Die Weltalter*, 112; trans. Judith Normann, "Ages of the World", in Id. and Slavoj Žižek, *The Abyss of Freedom/Ages of the World* (Ann Arbor: University of Michigan Press, 1997), 114) and of "*Mitwissenschaft, conscientia*" ("Erlanger Vorträge: (Aus dem handschriftlichen Nachlaß)," in *SW, Ab. I, Bd. 9*: 221).

24 Bruce Matthews, "Schelling in the Anthropocene: A New Mythology of Nature", *Symposium* 19, no. 1 (2015): 94–105, <https://doi.org/10.5840/symposium20151918>.

25 On this conceptual paradigm, see Olga Weijters, "Contribution à l'histoire des termes '*natura naturans*' et '*natura naturata*' jusqu'à Spinoza," *Vivarium* 16, no. 1 (1978): 70-80.

26 Frédéric Neyrat, *The Unconstructable Earth: An Ecology of Separation*, trans. Drew S. Burk (Fordham: Fordham UP, 2018), 134. See also Id., "Returning from Afar: Returns in slight delay on *La Part inconstructible de la Terre*," trans. Jean-Sébastien Laberge, *La Deleuziana* no. 4 (2016): 11-8.

Nature" at the Bard Graduate Center in New York, which goes on to corroborate the many ecological readings of Schellingian thought, whether through recent speculative realism²⁷ or Maurice Merleau-Ponty's reading in his course on *The Concept of Nature*.²⁸

There is, however, a further reason that links Schelling to the Anthropocene and to its debate: as it is well known, Schelling's path of thought presents such an evolution and rethinking throughout his career that he deserves the epithet of "Proteus of philosophy" and his philosophy that of a "*philosophie en devenir*".²⁹ The most pedantic historians have even pointed out seven phases of his thought, in some of which it is possible to mark radical rethinking points, therefore moments of his thought contradict one another. In this way it is not difficult to find within his philosophy an element that can best suit one's research or position. If these are the textual conditions that can explain Schelling's versatility towards the ecological debate, it is possible, however, to reverse the question and ask ourselves, if anything, how the concept of Anthropocene can help us to read Schelling. The aim would not only be to illuminate a specific interpretation of the philosopher himself, but to fully appreciate what this author has to offer when recontextualized in the modern discourse. The already mentioned "Confronting the Anthropocene", by Christopher Lauer, proposes the concept of nature as a *gift*: in fact, it is given; it is offered; it comes from outside; it does not necessarily require the receiver to respond to those who offered it, insofar as the gift is to be understood as absolute (otherwise it would be an *exchange*). The reaction towards the nature-gift is therefore, on one hand, a field of possibility of new horizons, on the other, it is proposed as an instance of responsibility towards which we are destined. Lauer, therefore, rethinks nature also as a *pharmakon* since the paradox of too much or too less responsibility must be reread through an intensive type of relationship between humans and nature.³⁰ For this reason, Lauer, as well as Mattias Martinson,³¹ proposes to take up the concept of "positive philosophy" of the last Schelling in which the hypostatization of

27 Ben Woodard, "Schellingian Thought for Ecological Politics," *Anarchist Developments in Cultural Studies* no. 2 (2013): 86-108, which is based on Iain Hamilton Grant, *Philosophies of Nature After Schelling* (London and New York: Continuum, 2006).

28 Maurice Merleau-Ponty, *The Nature: Course Notes from the Collège de France*, ed. Dominique Ségler, trans. Robert Vallier (Evanston, Ill.: Northwestern UP, 2003), 36-51. It has been taken up later by Manlio Iofrida, "Per una rifondazione filosofica dell'ecologia," in *Per un paradigma del corpo: Una rifondazione filosofica dell'ecologia* (Macerata: Quodlibet, 2019), 45-56, and Gianluca De Fazio, "Il chiasma tra Natura e trascendentale: 'Un'originaria duplicità': L'ecologia filosofica tra il sistema di Schelling e l'ontologia di M. Merleau-Ponty," *Lo Sguardo* 30, no. 1 (2020): 323-42. Merleau-Ponty's Schelling is finally irreconcilable with that advanced by speculative realism, since "the chiasm between subject and world, while placing the subject in a sphere of fundamental passivity, does not annul it as such and makes it impossible, by virtue of its situated partiality, to grasp the real Absolute, which is instead the theoretical goal of these currents of thought" (P. Missiroli, "Natura e istituzione: Note in vista di un'ecologia politica," in *Res publica: La forma del conflitto*, ed. Id. and Andrea Di Gesù (Macerata: Quodlibet, 2021), 203 note 37).

29 The reference is to Xavier Tilliette, *Schelling: Une philosophie en devenir*, tt. I-II (Paris: Vrin, 1970, 1992²).

30 Lauer, "Confronting the Anthropocene."

31 Mattias Martinson, "A Truth That Can Save Us? On Critical Theory, Revelation, and Climate Change," *Toronto Journal of Theology* 35, no. 2 (2019): 134-49.

an indeterminate positive instance, external to thought, is advanced and which is its presupposition.³² Nature, this way, turns out to be an exceeding remainder that can never be pertinentized in an exhaustive way, that stands as an *a priori* of reason and therefore a limit, both internal and external, to human rationality.

This reading offers us the hitch perhaps for an over-interpretation, or, if nothing else, for a trace of it. Insofar as Schelling's philosophy, that of nature, is formed precisely at the same time as the event of the Anthropocene and its development of thought, although it implies elements of continuity, is, as anticipated, punctuated by rethinking. It is therefore possible to draw a parallel between the evolution of his philosophy and the progressive intensification of human impact on the planet in the first half of the XIX century. A hyper-constructivist view would not hesitate to point to Schelling's parable as a reaction to the epochal rupture due to the awareness of the finiteness of nature and the corruptibility of the planet, giving an explanation for the passage from a first philosophy, that posited a single principle permeating nature as *anima mundi*, then retraced and summarized it in the human being, to one that instead feels the need to hypostatize an external *quid* that can never be subsumed.

3. Among the paronyms of 'Anthropocene' that have followed, I would now like to take up one, namely that of 'Anthrobscene' proposed by Jussi Parikka in his research on media archaeology.³³ Unlike other proposals of pertinentization, that of the Finnish scholar makes explicit the aesthetic character of the Anthropocene from the beginning. 'Anthrobscene', in fact—and this is a point that Parikka seems not to have emphasized—, being a homophone of 'Anthropocene', stands as its *differance*: only by seeing and reading the two terms in writing is it possible to distinguish one from the other, in the same way only the reading of the stratigraphic analysis of the planet allows one to distinguish between epochs. Indeed, it is precisely the *segnatura* of the world and its reading that allow the distinction.³⁴

But what is the Anthrobscene? The term shares the same periodization of Crutzen, pointing out how already for Antonio Stoppani, Italian geographer also recalled by the Dutch engineer, the stratigraphic representation of the planet included not only the remains of prehistoric eras, but already showed the signs of human technological inventions and their remains

32 Schelling, "Philosophie der Offenbarung" (1841-2), in *SW*, Ab. II, Bd. 3-4; trans. Bruce Matthews, *The Grounding of Positive Philosophy: The Berlin Lectures* (Albany: SUNY, 2007).

33 Cfr. Jussi Parikka, *The Anthrobscene* (Minneapolis: University of Minnesota Press, 2014). See also *Urban Political Ecology in the Anthro-obsene: Interruptions and Possibilities*, ed. Henrik Ernstson and Erik Swyngedouw (London: Routledge, 2019).

34 The limit of what might be called as *Lesbarkeit der Welt ohne Lesern* in reference to the Anthropocene can be found in Claire Colebrook, "Archivolithic: The Anthropocene and the Hetero-Archive," *Derrida Today* 7, no. 1 (2014): 21-43.

and ruins. Simply put, Anthrobscene shows how “the earth as media” was already being thought about in the XIX century.³⁵ The planet, in fact, is “part of media both as a resource and as transmission. The earth conducts, also, literally, forming a special part of the media and sound artistic circuitry”.³⁶ In a nutshell, the Anthropocene is first and foremost a geological writing practice and effect, which has caused the planet to pose itself as media, not only as a source and place of media waste, but also as media itself.

4. It is therefore possible to reread the places in which Schelling expresses his aesthetics in a more systematic way, underlining how there emerges a progressive awareness of the transfiguration of the planet, accompanied by a modification of the image of the same. First, the *Akademie-Rede* of 1807 opens precisely on the crisis of the mimetic paradigm in the works of figurative art of his time. The purpose of art has always been, according to tradition, the *mimesis* of nature, and, as they are both characterized by a productive process, they are in a relationship of analogy.³⁷ However, according to Schelling, the concept of nature exhibits ambiguities which are the cause for misunderstanding of his contemporary visual artists contemporary on the matter to be emulated. In fact, the German philosopher recalls that “[s]ome think nature is nothing more than the dead aggregate of an indeterminate amount of objects, or space into which objects are put as in a container. For others it is just the land from which they draw their food and sustenance”. This led to a disorientation of the visual art of the early XIX century, considering that the conception of these painters and sculptors proposes a nature as a mere juxtaposition of bodies, understanding these latter as simple elements extending in space. On the contrary, “[o]nly to the inspired researcher is it the holy and eternally creative primordial force of the world, which generates and actively produces all things out of itself. This principle would be highly meaningful if it taught art to emulate this productive force”.³⁸ Only nature in its productive making, and not in the mere intellectual semblance of the parts of its creation, is and should therefore be the true object of imitation of art. From this point of view, the concept of “mimesis” as proposed in Schelling’s *Rede* is not so much to be understood as an imitation of a given object, as commonsensically understood. It is, instead, a performative act through which it takes on properties analogous to the object in question, as now shared

35 Parikka, *The Anthrobscene*, 7.

36 *Ibid.*, 12.

37 On this point, see Hans Blumenberg, “Imitation of Nature: Toward a Prehistory of the Idea of the Creative Being” (1957), trans. Anne Wertz, rev. Hannes Bajohr, in *History, Metaphors, Fables: A Hans Blumenberg Reader*, ed. H. Bajohr, Florian Fuchs and Joe Paul Kroll (Ithaca and London: Cornell UP, 2020), 316-57.

38 Schelling, “Über das Verhältnis der bildenden Künste zu der Natur” (1807), in *SW*, Ab. I, Bd. 7: 293; trans. Jason M. Wirth, “On the Relationship of the Plastic Arts to Nature,” *kabiri* no. 3 (2021): 135.

by contemporary aesthetics studies. In Schelling the act of creation turns out to be specifically *mimetic* in that, just as occurs in nature, there is not so much a problematization of similarity to the object represented as of its *presentation*, its *Darstellung*. Just as nature produces itself and presents its own forms, so art leads to reflect on the unconscious production of its own.

Here Schelling revises the symptoms on the poietic level of what he was denouncing a few years earlier on what we could call geo-economic level. If we take up the section dedicated "Von den Unterschieden der Qualität im Universum" of the "Aphorisms as an introduction to *Naturphilosophie*" of 1805 we can read in fact as "[o]nly in so far as the things appear as corporeal, i.e., as affections of unity and infinity, only in so far also all of things, nature itself, appears as corporeal, but it is affectionless substance. We may, of course, penetrate into the planet empirically as deeply as we want [*in den Weltkörper empirisch so tief eindringen, als wir wollen*], so we find soils, metals, and other similar things, but these, as such, are by no means the eternally existing being, the substance, which as the apriori of all corporeal things is necessarily not corporeal itself".³⁹ The following aphorism emphasizes: "By virtue of the same way of looking at things, through which the infinite nature appears corporeally (as a planet [*Weltkörper*]), it happens that we oppose the Idea looked at in relation (abstracted from infinity) with another one, which again is only a relative (central body), not the absolute unity, and so onto the infinite". Schelling demonstrates how this is "only a consequence of the confused way of looking at things, by which the universe is transformed for us into a system of bodies, but truly it is the infinite and immortal God, who lives in the world system, and who is not body, not matter, but general affectionless substance".⁴⁰ Nature here is already that original living being, *das Urlebendige*, on which *Weltalter* will open. It is the living being indifferent to its individual and extended material articulations, and of which the attempted work of the years 1811-1817 is nothing but the problematization of its historical translation in the form of the world.⁴¹ Lastly, "where all qualities of nature meet, the periphery (as in the world body) becomes equal to the center [*dem Centro*], and the unity with infinity exists not only simultaneously, but in absolute equality: there all potency disappears, and the divine itself emerges and shines through in the qualityless and dimensionless reason, which is the face of God resting on creation".⁴² Planetary penetration is nothing but the practical translation of the Cartesian mechanistic model whose dangers, as we have

39 Id., "Aphorismen zur Einleitung in die Naturphilosophie" (1805), § 201, in *SW*, Ab. I, Bd. 7: 181. There is only a partial English translation of the "Aphorismen", limited to the first 80. See Schelling, "Aphorisms as an introduction to *Naturphilosophie*," in "Schelling's Aphorisms of 1805," edited by Fritz Marti, *Idealistic Studies* no. 14 (1984): 244-258.

40 Id., "Aphorismen," §202, in *SW*, Ab. I, Bd. 7: 181-2.

41 On this point, see Gianni Carchia, "La nascita della forma: L'estetica cosmica de *Le età del mondo*," in *Interpretazione ed emancipazione: Studi in onore di Gianni Vattimo*, ed. G. Carchia and Maurizio Ferraris (Milano: Cortina, 1995), 181-205.

42 Schelling, "Aphorismen," §204, in *SW*, Ab. I, Bd. 7: 182.

seen, Schelling denounced already in his *On Academic Study* of 1802. The planet here is taken as tautegory of the whole of nature⁴³, that stands as the instance of nature, prior to any division by *nomos*.⁴⁴ To confirm this, in the *Statement on the True Relationship of the Philosophy of Nature to the Revised Fichtean Doctrine*, again in 1806, Schelling uses the planet, literally the “body of the world”, as an example and paradigm in talking about the concept of togetherness of the unity and multiplicity of nature: “[i]t is the same with the earth [...] [whose] true essence can be known only in the bond which gives it: the power to posit its unity eternally as the multiplicity of its things, and on the other hand also this multiplicity as its unity. [T]his necessary and indissoluble oneness of unity and multiplicity is what you call [earth’s] existence”.⁴⁵

It is therefore not surprising that Schelling feels the need for a new aesthetic epistemology. The aim is to make visual art a means of knowing nature, not in its mere articulation of simple forms, but to be able, as such, to show the strength and the process that underlies the genesis of itself and that ultimately unifies and shows them in their own identity.⁴⁶

We would therefore like to bring attention to a specific passage in the so-called *Akademie-Rede*. Schelling, in his lecture, defines grace as a “being [Wesen], which [...] is ungraspable yet perceptible to everyone”.⁴⁷ It is a living, transcendent essence that runs through the artwork. It is content with terminative aspectualization that manifests the agreement of body and soul in nature. It emerges at the conclusion of the process of individuation of the forms that, just from an initial imbalance and a liminal stage, allows for the full unfolding of the essence. It is, after all, the ultimate result of the fundamental contrast that lies at the origin of creation and assumes rigorousness of form as the genesis of development. Grace on the one hand is the perfectly elaborated form; while on the other hand is a constant “δαίμων [daimōn]” of the development itself, which stands as a sign of the opening of the finite form to the infinite essence to which it refers.⁴⁸

43 With the concept of tautegory, so defined only by the late Schelling in reference to mythology, the German philosopher attempts to indicate figures indistinguishable from their meaning. They are their content. In other words, these, however finite, refer to an infinite content, from which they can be distinguished only formally. It seems to us for this reason that the concept of planet as indicated in the “Aphorismen” can be a tautegorical symbol of the whole of nature. In this regard, see Daniel Whistler, *Schelling’s Theory of Symbolic Language: Forming the System of Identity* (Oxford: OUP, 2013), 192-8.

44 See Joseph Albernaz, “Earth Unbounded: Division and Inseparability in Hölderlin and Günderrode,” in *Nothing Absolute: German Idealism and the Question of Political Theology*, ed. Kirill Chepurin and Alex Dubilet (New York: Fordham UP, 2021), 128-9, and 140-1 note 20.

45 Schelling, “Darlegung des wahren Verhältnisses der Naturphilosophie zur verbesserten Fichteschen Lehre: Eine Erläuterungsschrift der Ersten” (1806), in *SW*, Ab. I, Bd. 7: 56; trans. Dale E. Snow, *Statement on the True Relationship of the Philosophy of Nature to the Revised Fichtean Doctrine: An Elucidation of the Former* (Albany: SUNY, 2018), 51.

46 Pinsdorf, “Romantischer Empirismus im Anthropozän,” 80.

47 Schelling, “Über das Verhältnis...,” 311; trans.: 150. On grace, see Daniele Campesi, “Natura, arte, bellezza: Il tema della grazia nella *Akademie-Rede* di Schelling,” *SpazioFilosofico* (2016): 327-36.

48 Schelling, “Über das Verhältnis...,” 313; trans., 150.

In doing so, natural forms take on the purpose of being like the soul, which can grasp the infinite essence, which can manifest itself. Within the *Rede*, in fact, one can precisely witness this reversal: “[h]ere art [...] goes through and beyond itself, and again makes itself a medium [*macht sich selber wieder zum Mittel*]. From this peak, sensuous grace again becomes the mere husk and body of a higher life. What was earlier whole is treated as part, and the supreme relationship of art to nature is thereby reached. Nature is made the medium within which the soul becomes visible [*daß sie diese zum Medium macht, die Seele in ihr zu versichtbaren*]”.⁴⁹ There is in this passage, in that inversion we have revealed, a symptom of the chiasmatic structure of the Schellingian system: from an art that has the imitation of nature as its aims, we come to one in which it is nature that becomes the medium of manifestation of the soul.⁵⁰

The Schellingian *Akademie-Rede*—this is my thesis—can offer the basis for an anthropocenic aesthetics, specifically anthrobscenic. The dismembering of the “body of the world” of the planet-nature assumes its own tragic connotation if the very representation of the creative process at the basis of the same allows for a denounce of the limits of mechanicism and thus to come to grasp the underlying soul of nature. At the same time, this approach could be short-circuited if the fetishization of the geological writing process is achieved. Here grace, of which nature is the medium, can only be achieved starting from an initial imbalance and the closure of a form, a moment that many contemporary works explicitly dedicated to the Anthropocene seem to stop at. We believe that this possibility is still due to the ineluctable ambiguity of the concept of nature, present both in Schelling and in our contemporary times, and nothing prevents us from slipping from one conception to another, misunderstanding the proposal of the German philosopher.⁵¹

These remarks are established in a reading of Schelling as an “organological” philosopher, insofar as his proposal of an advanced organic form as a counter-model to the mechanical one makes the Schellingian cosmos a cosmotechnics.⁵² As each part is a function of the whole, morphogenesis

49 Ibid., 316; trans., 150.

50 On this point, see Tilliette, “La philosophie de l’art” (1975), in *L’Absolu et la Philosophie: Essais sur Schelling* (Paris: puf, 1987), 90.

51 In this respect we do not feel like contradicting Slavoj Žižek, *The Indivisible Remainder: Essays on Schelling and Related Matters* (London and New York: Verso, 1996, 2007²), 80-1 note 17.

52 Yuk Hui, “De la forme organique de Schelling: La philosophie de la nature à l’époque de l’Anthropocène” (2015), https://www.academia.edu/15244123/De_la_forme_organique_de_Schelling. The presentation of this paper can be listened to at the URL = <https://www.youtube.com/watch?v=Q2TIEaLesDE>. See also his “The Parallax of Individuation: Simondon and Schelling”, *angelaki* 21, no. 4 (2016): 77-89. The Chinese philosopher specifies how “Schelling doit être considéré comme le premier penseur de l’organologie générale au lieu de Bergson” *contra* Georges Canguilhem who “propose [...] l’Évolution créatrice [...] comme un traité sur l’organologie générale” (Hui, “De la forme organique,” 12). Wanting to corroborate historiographically the proposal of Yuk Hui, it should be remembered that there is a closeness between Bergson and Schelling filtered by Félix Ravaisson, master of the first and student of the second. Bergson will reject the philosophical legacy of the German philosopher only for anti-Germanic spirit.

stands as a transformative process and form as a technical device. In other terms, taking up the specific object of our examination, the “body of the world” in Schelling stands as a true aesthetic device. Precisely from this point of view, the concept of *Organon* proposed in the sixth chapter of the *System of Transcendental Idealism* takes on its literal meaning: art is an instrument that allows the expression of the forces of nature and its unconscious and technical character:⁵³ “[w]hereas the unconscious (blind) activity is reflected out of the organic product as a conscious one, the conscious activity will conversely be reflected out of the product here under consideration as an unconscious (objective) one; whereas the organic product reflects its unconscious activity to me as determined by conscious activity, the product here being derived will conversely reflect conscious activity as determined by unconscious”. More briefly, “nature begins as unconscious and ends as conscious; the process of production is not purposive, but the product is so”.⁵⁴ If we take up what has been developed previously, in the light of the conception of the planet as a medium, we seem to be able to advance the thesis that Schelling not only has laid the foundations of a productive unconscious, as so much criticism has shown, but also the first form of both technological and planetary unconscious: “[i]f aesthetics intuition is merely [intellectual] intuition become objective, it is self-evident that art is at once the only and true and eternal organ and document of philosophy, which ever and again continues to speak to us of what philosophy cannot depict in external form, namely the unconscious element in acting and producing, and its original identity with the conscious”.⁵⁵

In conclusion, after having shown how the debate of the Anthropocene inherits richness and ambiguity of perspective from the ecological debate, we have underlined how Schelling stands up for its specificity, both for what concerns a doubling of the concept of Anthropocene itself in his *Denkweg*, and for the availability of problematizations and solutions that the German philosopher advances. In the specifics of my contribution in this debate, it seems to me that one of the most interesting perspectives moved by Schelling can be found precisely in his aesthetic proposal. On one hand, his organicism makes his philosophy propose itself as a philosophy of technique and nature, as he describes it: a ‘cosmotechnics’. Art therefore proves to be the *Organon* of philosophy in the literal meaning of the term. Planet Earth, of which Schelling denounces exploitation and abuse, implicit in a mechanistic conception of nature of Cartesian matrix, is shown in three ways: first of all as the “body of the world”, that

53 I am grateful—and this paper is certainly indebted to him—to Giacomo Croci who allowed me to read a preview of the drafts of his “The Aesthetic Intelligibility of Artefacts: Schelling’s Concept of Art in the *System of Transcendental Idealism*” in which the entire *System* of 1800 is reread as a treatise on the concept of the artefact.

54 Schelling, “System des Transscendentalen Idealismus” (1800), in *SW*, Ab. I, Bd. 3: 612-3; trans. by Peter Heath, *System of Transcendental Idealism* (1800) (Charlottesville: UP of Virginia, 1978), 219.

55 *Ibid.*, 623-8; trans., 231.

is, the object of reality to be preserved and defended; secondly, it reaffirms the dynamism of the natural principle that cannot be reduced to the mere planet Earth, its concretion; third, the planet as the medium that art can exploit for the reflection of grace. This last aspect reiterates how, if Schellingian philosophy of nature is a philosophy of technique, then its planetary aesthetics is exquisitely mediological and ultimately anthrobscenic.

To summarize, we reassert how the German philosopher's path stands in direct relation to the problematic of the Anthropocene. This has been highlighted by a reading of the more specifically aesthetic components of Schellingian texts, with a focus on the production of the first decade of the 19th century, from the *System* of 1800 to the *Rede* of 1807, with a look at the later production. Specifically, the analogical and mimetic connection established between nature and human poietic production, on the one hand, shows the relevance of Schellingian aesthetics and, on the other hand, allows us to emphasize a traditional trait of the most recent media studies, here reprised from the concept of Anthrobscene and, in general, media archaeology. At the same time, the ambiguity of the Anthropocene concept, as indicated, allows us an unprecedented reading of the German philosopher, whose evolution of thought is the result of the emergence of such a philosophy of nature rethinking the relationship between human and environment from an ethical point of view. Indeed, this ambiguity is reflected in the evolutions of the Schellingian conception of nature. In particular, it is found in the conception of nature as the medium of grace, which, precisely in the reversal indicated in the concluding section of the *Rede*, is nothing but a repetition of the ambiguity mentioned earlier. Grace can in fact be an index of beauty as well as yet another mode of exploitation of the planet, indicating perhaps an inseparability of the two. In Schelling himself, however, some lines of flight can be found, such as the concept of *natura de-naturans*, which some authors, as quickly mentioned above, seem to discover in his later production. In any case, nature remains a space of conflict, and Schelling's aesthetics shows all its relevance to analyze it.

Francesco Di Maio (b. 1992) is actually a PhD candidate in Architecture and Design Cultures (XXXVI Cycle) at the University of Bologna (UniBO), in cotutorship with the école doctorale Droit, Études Politiques, Philosophie (DEPP) of École des Hautes Études en Sciences Sociales (EHESS) in Paris. He is currently undertaking a research period abroad at the Centre/Zentrum Marc Bloch in Berlin. In various guises, he is a member of PreTesti, Prospettive italiane, officinaMentis and Settima Lettera. He edited the Italian edition of *Dark Deleuze* by Andrew Culp (Mimesis 2020). His *Univocità e individuazione: Gilles Deleuze lettore di Giovanni Duns Scoto* is forthcoming. His research project, entitled *Space, art and nature in F.W.J. Schelling*, is dedicated to the problem of spatialization and architecture in the aesthetics and in the *Naturphilosophie* of the German philosopher.

References

- Albernaz, Joseph, "Earth Unbounded: Division and Inseparability in Hölderlin and Gründerröde," in *Nothing Absolute: German Idealism and the Question of Political Theology*, edited by Kirill Chepurin and Alex Dubilet. New York: Fordham UP, 2021. <https://doi.org/10.5422/fordham/9780823290161.003.0007>
- Baranzoni, Sara, and Vignola, Paolo (eds.), *Azimuth no. 9 (2017): The Battlefield of the Anthropocene: Limits, Responsibilities, and the Duty of Flight/Anthropocene: un campo di battaglia: Limiti, responsabilità e dovere di fuga*.
- Blumenberg, Hans, "Imitation of Nature': Toward a Prehistory of the Idea of the Creative Being" (1957), translated by Anne Wertz, rev. Hannes Bajohr, in *History, Metaphors, Fables: A Hans Blumenberg Reader*, edited by H. Bajohr, Florian Fuchs and Joe Paul Kroll. Ithaca and London: Cornell UP, 2020. <https://doi.org/10.7591/cornell/9781501732829.001.0001>
- Bonneuil, Christophe, and Fressoz, Jean-Baptiste, *The Shock of the Anthropocene: The Earth, History and us*. Translated by David Fernbach. London and New York: Verso, 2016.
- Carchia, Gianni, "La nascita della forma: L'estetica cosmica de Le età del mondo," in *Interpretazione ed emancipazione: Studi in onore di Gianni Vattimo*, edited by G. Carchia and Maurizio Ferraris. Milano: Cortina, 1995.
- Camposi, Daniele, "Natura, arte, bellezza: Il tema della grazia nella Akademie-Rede di Schelling." *SpazioFilosofico* (2016): 327-36.
- Colebrook, Claire, "Archivolithic: The Anthropocene and the Hetero-Archive." *Derrida Today* 7, no. 1 (2014): 21–43. <https://doi.org/10.3366/drt.2014.0075>
- Chwałczyk, Franciszek, "Around the Anthropocene in Eighty Names—Considering the Urbanocene Proposition." *sustainability* 12, no. 4458 (2020): 1-33. <https://doi.org/10.3390/su12114458>
- Crutzen, Paul J., and Stoermer, Eugene F., "The 'Anthropocene.'" *IGBP Newsletter*, no. 41 (2000): 17-8.
- Crutzen, Paul J., "Geology of Mankind." *Nature* no. 415 (2002): 23. <https://doi.org/10.1038/415023a>
- De Fazio, Gianluca, "Il chiasma tra Natura e trascendentale: 'Un'originaria duplicità': L'ecologia filosofica tra il sistema di Schelling e l'ontologia di M. Merleau-Ponty." *Lo Sguardo* 30, no. 1 (2020): 323-42.
- Ducarme, Frédéric, "Qu'est-ce que la nature qu'on cherche à conserver? Une approche sémiologique de l'action écologique." *npss* 14, no. 2 (2019): 23-60. <https://doi.org/10.7202/1062506ar>
- Ernstson, Henrik, and Swyngedouw, Erik (eds.), *Urban Political Ecology in the Anthro-po-obscene: Interruptions and Possibilities*. London: Routledge, 2019. <https://doi.org/10.4324/9781315210537>
- Grant, Iain Hamilton, *Philosophies of Nature After Schelling*. London and New York: Continuum, 2006.
- Höfele, Philipp, and Hühn, Lore, "Vorwort," in *Schopenhauer liest Schelling: Freiheits- und Naturphilosophie im Ausgang der klassischen deutschen Philosophie*, mit einer Edition von Schopenhauers handschriftlichen Kommentaren zu Schellings ›*Freiheitsschrift*,‹ hrgs. Ead. Stuttgart and Bad Cannstatt: frommann-holzboog, 2021.
- Hui, Yuk, "De la forme organique de Schelling: La philosophie de la nature à l'époque de l'Anthropocène," (2015), https://www.academia.edu/15244123/De_la_forme_organique_de_Schelling; URL = <https://www.youtube.com/watch?v=Q2TIEaLesDE>.
- , "The Parallax of Individuation: Simondon and Schelling." *angelaki* 21, no. 4 (2016): 77-89. <https://doi.org/10.1080/10491042.2016.1191111>

org/10.1080/0969725X.2016.1229427

Iofrida, Manlio, "Per una rifondazione filosofica dell'ecologia," in *Per un paradigma del corpo: Una rifondazione filosofica dell'ecologia*. Macerata: Quodlibet, 2019. <https://doi.org/10.2307/j.ctvsf1n1zj>

Johnstone, Japhet, and Wilke, Sabine (eds.) *Readings in the Anthropocene: The Environmental Humanities, German Studies, and Beyond*. New York and London: Bloomsbury, 2017.

Lauer, Christopher, "Confronting the Anthropocene: Schelling and Lucretius on receiving nature's gift." *Comparative and Continental Philosophy* 8, no. 2 (2016): 1-20. <https://doi.org/10.1080/17570638.2016.1200317>

Lê, Vincent, "Schelling and the Sixth Extinction: The Environmental Ethics Behind Schelling's Anthropomorphization of Nature." *Cosmos and History* 13, no. 3 (2017): 107-29.

Lorimer, Jamie, "The Anthro-scene: A guide for the perplexed." *Social Studies of Science* 47, no. 1 (2017): 117-42. <https://doi.org/10.1177/0306312716671039>

Martelo, Rosa Maria, "Algumas notas para a salvação do mundo." *Libreto* 26, no. 6 (2021): 23-34. <https://doi.org/10.21747/978-989-54784-7-7/lib26a2>

Martison, Mattias, "A Truth That Can Save Us? On Critical Theory, Revelation, and Climate Change." *Toronto Journal of Theology* 35, no. 2 (2019): 134-49. <https://doi.org/10.3138/tjt.2019-0092>

Matthews, Bruce, "Schelling in the Anthropocene: A New Mythology of Nature." *Symposium* 19, no. 1 (2015): 94-105. <https://doi.org/10.5840/symposium20151918>

McGrath, Sean J., "In Defense of the Human Difference." *Environmental Philosophy* 15, no. 1 (2018): 1-15. <https://doi.org/10.5840/envirophil201822660>

Merleau-Ponty, Maurice, *The Nature: Course Notes from the Collège de France*, edited by Dominique Séglaard. Translated by Robert Vallier. Evanston, Ill.: Northwestern UP, 2003.

Missioli, Paolo, "Natura e istituzione: Note in vista di un'ecologia politica," in *Res publica: La forma del conflitto*, edited by Id., and Andrea Di Gesù. Macerata: Quodlibet, 2021. <https://doi.org/10.2307/j.ctv1p6hppc.15>
 ———, *Teoria critica dell'antropocene: Vivere dopo la Terra, vivere nella Terra*. Milano and Udine: Mimesis, 2022.

Moling, Markus, "Kritische Reflexionen zu einem fehlgeleiteten Anthropozentrismus im Angesicht der Umweltkrise." *Brixner Theologisches Jahrbuch* no. 10 (2019): 151-71.

Neyrat, Frédéric, "Returning from Afar: Returns in slight delay on La Part inconstructible de la Terre," translated by Jean-Sébastien Laberge. *La Deleuziana* no. 4 (2016): 11-8.

———, *The Unconstructable Earth: An Ecology of Separation* (2016). Translated by Drew S. Burk. Fordham: Fordham UP, 2018. <https://doi.org/10.5422/fordham/9780823282586.001.0001>

Parikka, Jussi, *The Anthrobscene*. Minneapolis: University of Minnesota Press, 2014.

Pinsdorf, Christina, "Romantischer Empirismus im Anthropozän: A. v. Humboldts und F. W. J. Schellings: Ideen für die *Environmental Humanities*." *HiN* 21, no. 40 (2020): 59-97. <https://doi.org/10.25932/publishup-47355>
 Raffnsøe, Sverre, *Philosophy of the Anthropocene: The Human Turn*. London: palgrave macmillan, 2016. <https://doi.org/10.1057/9781137526700>

Rivas, Virgilio, "The Anthropogenic Takeover of Dual External World." *Cosmos and History* 16, no. 1 (2020): 317-48.

Schelling, Friedrich Wilhelm Joseph, *Sämmtliche Werke*, Ab. I-II, Bd. 1-14, hrsg. K.F.A. Schelling. Stuttgart-Augsburg: Cotta, 1856-1861.

——, *System of Transcendental Idealism* (1800). Translated by Peter Heath. Charlottesville: UP of Virginia, 1978.

——, *On University Studies* (1803). Translated by E. S. Morgan, edited by N. Guterman. Athens, Ohio: Ohio UP, 1966.

——, "Aphorisms as an introduction to *Naturphilosophie*" in "Schelling's Aphorisms of 1805," edited by Fritz Marti. *Idealistic Studies* no. 14 (1984): 244-258. <https://doi.org/10.5840/idstudies198414329>

——, *Statement on the True Relationship of the Philosophy of Nature to the Revised Fichteian Doctrine: An Elucidation of the Former* (1806). Translated by Dale E. Snow. Albany: SUNY, 2018.

——, "On the Relationship of the Plastic Arts to Nature" (1807), trans. by Jason M. Wirth. *kabiri* no. 3 (2021): 132-58.

——, *Die Weltalter: Fragmente*, in den Urfassungen von 1811 und 1813, hrgs. Manfred Schröter. Munich: Biederstein, 1946.

——, *The Ages of the World: Book One: The Past* (Original Version, 1811), edited by Joseph P. Lawrence. New York: SUNY, 2019.

——, *The Ages of the World: (Fragment)*, from the handwritten remains, Third Version (c. 1815), edited by Jason M. Wirth. New York: SUNY, 2000.

——, *The Grounding of Positive Philosophy: The Berlin Lectures*. Edited by Bruce Matthews. Albany: SUNY Press, 2007.

Schelling, Friedrich Wilhelm Joseph, and Slavoj Žižek, *The Abyss of Freedom/Ages of the World*, edited by Judith Norman. Ann Arbor: University of Michigan Press, 1997.

Schimelpfenig, Robert, "The Drama of the Anthropocene: Can Deep Ecology, Romanticism, and Renaissance Science Rebalance Nature and Culture?" *American Journal of Economics and Sociology* 76, no. 4 (2017): 821-1081. <https://doi.org/10.1111/ajes.12196>

Stougaard-Nielsen, Jakob, "Nordic Nature: From Romantic Nationalism to the Anthropocene," in *Introduction to Nordic Cultures*, edited by Id. and Annika Lindskog. London: UCLPress, 2020. <https://doi.org/10.2307/j.ctv13xprms.17>

Tilliette, Xavier, *Schelling: Une philosophie en devenir*, tt. I-II. Paris: Vrin, 1970, 1992².

——, "La philosophie de l'art" (1975), in *L'Absolu et la Philosophie: Essais sur Schelling*. Paris: puf, 1987. <https://doi.org/10.3917/puf.tilli.1987.01>

Wanning, Berbeli, "Poet and Philosopher: Novalis and Schelling on Nature and Matter," in *Ecological Thought in German Literature and Culture*, edited by Gabriele Dürbeck, Urte Stobbe, Hubert Zapf and Evi Zemanek. Lanham, Boulder, New York and London: Lexington, 2017.

Wentzer, Thomas Schwarz, "Rethinking Transcendence: Heidegger, Plessner and the Problem of Anthropology," *International Journal of Philosophical Studies* 25, no. 3 (2017): 348-62. <https://doi.org/10.1080/09672559.2017.1320017>

——, "Approaching Philosophical Anthropology: Human, the Responsive Being," in *Finite but Unbounded: New Approaches in Philosophical Anthropology*. Edited by Id., Kevin M. Cahill, and Martin Gustafsson. Berlin: de Gruyter, 2017. <https://doi.org/10.1515/9783110523812-003>

Weijters, Olga, "Contribution à l'histoire des termes *natura naturans* et *natura naturata* jusqu'à Spinoza", *Vivarium* 16, no. 1 (1978): 70-80. <https://doi.org/10.1163/156853478X00049>

Whistler, Daniel, *Schelling's Theory of Symbolic Language: Forming the System of Identity*. Oxford: OUP, 2013. <https://doi.org/10.1093/acprof:oso/9780199673735.001.0001>

Wirth, Jason M., "Dōgen and the Unknown Knowns: The Practice of the Wild after the End of Nature," *Environmental Philosophy* 10, no. 1 (2013): 39–62. <https://doi.org/10.5840/envirophil20131014>

Woodard, Ben, "Schellingian Thought for Ecological Politics," *Anarchist Developments in Cultural Studies* no. 2 (2013): 86-108.

Žižek, Slavoj, *The Indivisible Remainder: Essays on Schelling and Related Matters*. London and New York: Verso, 1996, 2007².

MAIN SECTION

The Form of Happiness. Some Remarks on Art, Mimesis and Technology in the Wake of Adorno's Conception of Natural Beauty

Rolando Vitali – University of Bologna, Italy
Contact: rolando.vitali86@gmail.com

ABSTRACT

The article investigates the relationship between the concepts of mimesis, technology and art in Adorno, in the light of some epistemological implications of the Anthropocene. In order to do so, it starts from the problematic concept of natural beauty, by showing its internal dialectic between social and natural moments. Then, an interpretation of the work of art is proposed, which identifies its natural moment in the peculiar kind of productive praxis that takes place within it. Art in this sense is a mimetic technology that does not only imitate nature as an object, but also imitates the productive process of nature. Finally, on the basis of this mimetic moment, the article analyses the emancipatory potential of art, interpreted as a form of transformative praxis, which modifies the relationship between technology and nature.

KEYWORDS

Theodor W. Adorno, Natural Beauty, Artwork, Technology, Mimesis

PEER REVIEWED

<https://doi.org/10.6092/issn.2612-0496/14728>

ISSN 2612-0496

Copyright © 2022 Rolando Vitali



Works of art are thus defined as models of a nature that does not await the day, and thus does not await judgment day either; they are defined as models of a nature that is neither the staging ground of history nor a human domicile.

Walter Benjamin, Letter to Florens Christian Rang, December 9, 1923

I. Anthropocene and Adorno's program for a "natural history"

The concept of the Anthropocene has been defined in many ways. Depending on which aspect is focused, the accent is placed on the geological and natural dimension,¹ or on the specifically social and historical dimension of the phenomenon (which may lead to questioning its very definition)². It is not necessary to adopt a unilateral position, since the specificity of the concept of the Anthropocene may lie precisely in the fact that it challenges the "modern" dichotomy between society and nature, as well as any presumption to privilege one aspect over the other. Within the actual process of climate change, triggered by human productive activity, it is not possible (if it ever was) to clearly distinguish social and cultural moments from natural and environmental ones. In facing the Anthropocene, "we are gradually forced to redistribute entirely what had formerly been called natural and what had been called social or symbolic": Anthropocene forces us not simply to "go beyond" this division, or to reconcile "nature and society into a larger system that would be unified by one or the other", but rather to "circumvent" this distinction "entirely".³ If in the Western metaphysical tradition nature was "the basic word that designates fundamental relations that Western historical man has to beings, *both to himself and to beings other than himself*",⁴ the dynamic of the Anthropocene forces us to reconsider this approach. We are not anymore in the condition neither to define society (and ourselves as "human") in opposition to nature, nor to determine nature as opposed to society. As Bruno Latour puts it, "where we were dealing earlier with a 'natural' phenomenon, at every point now we meet the 'Anthropos' [...] and, wherever we follow human footprints, we discover modes of relating to things that had formerly been located in the field of nature".⁵ The entire theoretical debate concerning the Anthropocene is essentially focused on reconsidering the dichotomy between history and nature, i.e. between human agency and

1 Simon L. Lewis and Mark A. Maslin, 'Defining the Anthropocene', *Nature* 519 (March 2015): 171–80, <https://doi.org/10.1038/nature14258>.

2 Jason W. Moore, ed., *Anthropocene or Capitalocene?: Nature, History, and the Crisis of Capitalism* (Oakland, CA: PM Press, 2016).

3 Bruno Latour, *Facing Gaia: Eight Lectures on the New Climatic Regime*, trans. Catherine Porter (Cambridge: Polity Press, 2017), 120.

4 Martin Heidegger, 'On the Being and Conception of Φύσις in Aristotle's Physics B, 1', *Man and World* 9, no. 3 (1976): 121, <https://doi.org/10.1007/bf01249371> [my emphasis].

5 Latour, *Facing Gaia*, 120.

natural processes. In Chakrabarty's words, "anthropogenic explanations of climate change spell the collapse of the age-old humanist distinction between natural history and human history".⁶

This need to overcome the dichotomy between nature and culture repeats almost verbatim the philosophical project that Theodor W. Adorno explained in 1932 in *The Idea of Natural History*:⁷ the explicit goal that Adorno made clear at the very opening of this conference was namely that of "pushing" the concepts of "nature and history [...] to a point where they are mediated in their apparent difference".⁸ The idea of "natural history", which Adorno presents as an alternative to the interpretation of history and nature as ontological structures, consists precisely in a dialectical understanding of their "concrete unity".⁹ Its methodological maxim is "to comprehend historical being in its most extreme historical determinacy, where it is most historical, as natural being, or if it were possible to comprehend nature as an historical being where it seems to rest most deeply in itself as nature".¹⁰

In order to fully understand the relationship between Adorno's position and the methodological turn implied by the Anthropocene, it is necessary to precisely distinguish the general process of anthropization of the environment from the specific process of integration between nature and culture that characterizes the Anthropocene. In other words, in order to understand the specific exploitative relationship to nature that characterizes our current form of life and production it is necessary to distinguish it from the more general process of anthropization. As we will see, in fact, it is only from the specific exploitative relationship that characterizes the Anthropocene that it is possible to understand also how artworks and the aesthetic experiences may play a crucial role in this context.

We can start by noting that with the concept of anthropization we indicate a much broader and general process than the Anthropocene: a process, which follows the appearance of the human species on earth. It designates the general fact that human productive and reproductive activity, as well as any other forms of animal life, affects the environment – even in a destructive way. The anthropization has significantly "reshaped ecosystems", "altered their functioning" and "changed the planet", but is the outcome of "a long history of co-evolution between humans and non-humans

6 Dipesh Chakrabarty, 'The Climate of History: Four Theses', *Critical Inquiry* 35, no. 2 (January 2009): 201, <https://doi.org/10.1086/596640>.

7 Theodor W. Adorno, 'The Idea of Natural History', trans. Bob Hullot-Kentor, *Telos* 1984, no. 60 (1 July 1984): 111–24, <https://doi.org/10.3817/0684060111>; See also Anders S. Johansson, 'Why Art? : The Anthropocene, Ecocriticism, and Adorno's Concept of Natural Beauty', *Adorno Studies* 3, no. 1 (2019): 66.

8 Adorno, 'The Idea of Natural History', 111.

9 *Ibid.*, 117.

10 *Ibid.* See Mario Farina, 'Adorno e l'idea della storia naturale', *Intersezioni. Rivista di storia delle idee*, no. 2 (2018): 239–64, esp. 251 ff, <https://doi.org/10.1404/90481>.

that has proceeded uninterrupted for the last 200,000 years".¹¹ From a methodological point of view, the recognition of anthropization simply implies that it is not possible to strictly distinguish between "anthroposphere biosphere, and geosphere".¹² At first glance, the concept of the Anthropocene seems to share the same characteristics. As already mentioned, the concept of Anthropocene forces us to consider the three spheres of human, biological and geological activities in a unified perspective; moreover it seems to describe the same anthropological impact on the environment, designated by the anthropization. And yet it indicates a radically different phenomenon, not only in quantitative but also in qualitative terms. The Anthropocene not only "denotes a more global, systemic effect", but it can also be considered as a specific declination of a more general process, related to a specific mode of production and to a specific relationship between nature and human. The fact that its beginning is usually dated between the seventeenth and nineteenth centuries tells us that the Anthropocene has a special relationship with modernity. Anthropocene "may become the most pertinent philosophical, religious, anthropological, and [...] political concept for beginning to turn away for good from the notions of 'Modern' and 'modernity'",¹³ precisely because it describes the very process of "modernization" from a non-modern point of view. For our argumentative purposes, we can define modernity in very general terms as a historical epoch characterized by two distinct and yet simultaneous processes: the affirmation of the capitalist mode of production on the one hand, and the imposition of the scientific-naturalistic interpretation of the world on the other. From an epistemological point of view, modernity establishes a radical distinction between the human subject and the natural object. As Descola puts it, the naturalistic view of the moderns is "founded on the claim, unprecedented in all the history of humanity, that there is a difference in kind between humans and non-humans".¹⁴ Fighting against the mythical, magical interpretation of the natural world, in which it has always seen a form of "anthropomorphism, the projection of subjective properties onto nature",¹⁵ modernity transforms nature into "mere objectivity".¹⁶ As is well known, the connection between this process of objectification of nature accomplished by the natural sciences and that of material domination and value extraction exerted by the capitalist mode of production, is emphasized by Adorno and Horkheimer: "technology is the essence" of modern "knowledge", but it aims to produce neither concepts nor images, nor the joy of understanding, but method,

11 Philippe Descola, 'Humain, trop humain', *Esprit*, no. 12 (2015): 11, <https://doi.org/10.3917/espri.1512.0008>.

12 Ibid.

13 Latour, *Facing Gaia*, 116.

14 Descola, 'Humain, trop humain', 15.

15 Theodor W. Adorno and Max Horkheimer, *Dialectic of Enlightenment Philosophical Fragments*, trans. Edmund Jephcott (Stanford: Stanford University Press, 2002), 4.

16 Ibid., 6.

exploitation of the labor of others, capital".¹⁷ Capitalism requires a very particular integration of nature within its production process: on the one hand, nature remains the source of all value; on the other hand, nature, as living labor, is assumed exclusively as passive material of the production process. Nature is both the condition of possibility implicit in the process of production and its repressed (*verdrängte*) moment. The material level of production and the epistemological level of science are different aspect of the same form of life: on the productive level, nature is the necessary material of all work activity and the source of all value; this corresponds, on an epistemological level, to the reduction of nature to an indeterminate and passive entity, which is no less a presupposition of all experience. The rigid distinction between the human domain of the spirit on the one hand, and the realm of nature on the other, is thus functional to achieve the subsumption of the latter into the productive process.

It is precisely on the basis of this philosophical-historical context that it becomes possible to understand the qualitative difference between anthropization and Anthropocene: the Anthropocene, as an outcome of capitalist modernity, differs from the more general process of anthropization precisely because of its specific way to incorporate nature within the production process. The decoupling between exchange value and use value and the primacy of the former over the latter, have made possible to render everything "convertible into anything else through the equalizing power of money"; this, in turn, has generated the "great illusion of the last two hundred years: the idea that nature is an infinite resource, allowing infinite economic growth based on infinite technological advances".¹⁸ The Anthropocene is the result of a civilization that reduces nature to the material of an infinite process of valorization. Nature, from active subject, becomes purely passive object; human reason, from the faculty of understanding and setting rational ends becomes purely instrumental reason.

In order to understand the value of aesthetic practices and experiences with regard to this situation, I start from their definition in Adorno, for he defines aesthetic experience and artistic practice precisely in contrast to the logic we have already outlined. As we shall see, the artwork, by suspending the reified relationship between material and labor, allows to experience nature and to revoke the relationship of exploitation. The early program for a "natural history", which aimed to grasp the concrete unity of nature and history, is therefore substantiated in the late aesthetic elaboration Adorno's. The aesthetic experience, in fact, allows us to grasp nature as history and history as nature and to rearticulate their relationship.

17 Ibid., 2.

18 Descola, 'Humain, trop humain', 16.

II. The experience of nature through the artwork

As we have seen, a double movement characterizes the historical condition of the Anthropocene: on the one hand, nature is negatively defined in relation to the human, as its absolute otherness; on the other hand – and thanks to this disqualification – nature is totally integrated as passive material within the production process. In this situation, it is not possible to experience nature as “first nature”. Of course, we can visit a natural reserve, but the relationship that we will experience here with “nature” will not only be mediated by society (a fact that always occurs within all anthropization processes): moreover, it will be constructed by artificially suspending the specific social relationship that our culture and our mode of production entertains with “nature”. In other words, to make something like “first nature” possible it is necessary not only to circumscribe an “environment” defined as “natural”, but to artificially maintain this delimitation precisely through the same means that allow the exploitation of the natural element. The naturality of the nature reserve is artificially constructed: it is a product in every sense – not least in that of being a commodity. The experience of nature that takes place there is reified, because reified is the practical, material relationship that makes it possible. Even in this case, nature is reduced to a passive object, a material of aesthetic consumption.

Adorno proves to be fully aware of this fact. His critique of the concept of natural beauty¹⁹ is grounded on the recognition that “in every particular aesthetic experience of nature the social whole is lodged”:²⁰

Society not only provides the schemata of perception but peremptorily determines what nature means through contrast and similarity. Experience of nature is coconstituted by the capacity of determinate negation. With the expansion of technique and, even more important, the total expansion of the exchange principle, natural beauty increasingly fulfills a contrasting function and is thus integrated into the reified world it opposes.²¹

Yet, to make explicit the ideological character of natural beauty, “does not amount to the condemnation of the category of natural beauty *tout court*”.²² The fact that nature is “coconstituted” by society as its determined negation, does not mean that nature is “constructed” by society. The reduction of nature to a social construct would reflect the dominant ideology, which considers nature as “posed” by man, at his disposal; Similarly, its hypostatization to absolute otherness would also be false; Its being the result of a determinate negation, on the contrary, indicates a dialectical relationship toward the false totality. In the age of the Anthropocene, nature emerges

19 For a reading of the natural beauty in Adorno see Giovanni Matteucci, *L'artificio estetico: moda e bello naturale in Simmel e Adorno* (Milano: Mimesis, 2012).

20 Theodor W. Adorno, *Aesthetic Theory* (London: Continuum, 2002), 68.

21 Ibid.

22 Ibid., 69.

thus as internal contradiction of the social totality that points to transcend its false universality. The fact that nature may be experienced only as a determinate negation of social totality implies that its image – as natural beauty – should be considered “the allegory of this beyond in spite of its mediation through social immanence”.²³ It is important to emphasize that, according to Adorno, nature cannot be restored through a return to the past, to the origin. Nature manifests itself not as the primordial origin, but as the promise of a future reconciliation.

It is precisely from this double character of nature, irreducible to human production but internally mediated by the latter, that it is possible to understand the essential link between nature and artworks. If nature cannot be experienced as immediacy in its purity, the experience of it finds refuge precisely in the artwork. Thanks to the natural element, the artwork appears as something that, although it is the product of human work, is at the same time “something not made by human beings”.²⁴ The natural moment represents in it the “incomprehensible” enigma, “that questioningly awaits its solution”.²⁵ “Above all else it is this double character of natural beauty that has been conferred on art”.²⁶ The artwork shares with the natural beauty the same double character: on the one hand, it is history – i.e. the product of human production – on the other hand, it is nature, irreducible to human intention. The artwork is therefore capable of manifesting nature in its being socially mediated. This is why it also represents the privileged gateway to experience nature in general. However, we have to clarify how it is able to do that.

The experience of natural beauty is the reversion of the relationship of dominion over the natural element: “nature, as appearing beauty, is not perceived as an object of action”.²⁷ By suspending the primacy of instrumental reason, the artwork is able to include a natural moment and to maintain the autonomy of the latter as aesthetic appearance. “The experience of natural beauty”, as “entirely distinct from the domination of nature”²⁸ is thus possible within the mediation offered by the artwork. In this sense, “art is not the imitation of nature but the imitation of natural beauty”.²⁹ for it is only through the aesthetic suspension of exploitative activities that it is possible to revoke the relationship of dominion over nature. In artwork nature is liberated only within the aesthetic field; and only insofar as the work is performed in this aesthetic field does it become the image of a different praxis. In a recent article, Anders S. Johansson explained how the artwork in Adorno “contains another compartment

23 Ibid.

24 Ibid., 70.

25 Ibid., 71.

26 Ibid.

27 Ibid., 65.

28 Ibid., 66.

29 Ibid., 71.

than the *Naturbeherrschung*”, by showing that it “provides [...] a possibility of an action that is also a passivity”.³⁰ The contemplative moment, proper to the aesthetic experience, represents here the central element for understanding how thanks to the artwork is made possible the revocation of the relationship of dominion over nature. Now it is necessary to understand in a more determined way the nature of this relationship. Such a relationship, in fact, cannot be conceptually defined only by the presence of an aesthetic-contemplative moment, understood as a moment of passivity of the subject. In this case, in fact, the determination of the practical, productive relationship with nature specific of the artwork would be subordinated to its simple revocation in contemplation. In other words, the diversity of the relationship toward nature would be defined without determining its content as praxis, but simply associating it with an antithetical moment of passivity. As such, the relationship with nature would remain unaltered, although mitigated by the contemplative moment opposed to it. Instead, in order not to fall back on a passive interpretation of aesthetic experience and artistic praxis, it is necessary to determine in what sense artistic praxis is able, as *practical relation to nature*, to revoke the relation of domination and exploitation of nature. The artwork cannot consist in a simple juxtaposition of contemplation and production, which maintains both moments without transforming them: rather it represents their synthesis, in the sense that it simultaneously transforms their essence. The artwork is not activity *and* contemplation, but a *different kind* of activity and contemplation. The experience of nature made possible by the artwork, in fact, can only be true if it does express nature not as an object, as a passive material (according to the instrumental rationality) but as an active power, as a *subject*. For this reason, it is necessary to define the practical, productive activity specific of the artwork, not negatively by opposing it to the contemplative moment, but positively.

III. Art as production

Adorno tells us that the natural moment expresses itself in “art’s renunciation of any usefulness whatever”.³¹ Adorno thus establishes a direct connection between the moment of nature’s expression in the artwork and the renunciation of the latter to serve as instrument. As we have already mentioned, the suspension of the instrumental approach is made possible by the autonomy of the aesthetic field: for the artwork “nature is exclusively appearance, never the stuff of labor and the reproduction of life”.³² Nevertheless, artistic production process is a technical and manipulative procedure: art is, in this sense, part of the process of “rationalization”. Adorno is very clear about it: “this [rationalization] is the source of all of

30 Johansson, ‘Why Art?’, 74.

31 Adorno, *Aesthetic Theory*, 74.

32 *Ibid.*, 65.

art's means and methods of production".³³ Art consequentially entertain a special relationship whit technology ("technique [...] inheres in this ideology as much as it threatens it")³⁴ as much as with rationality. The rationality of art coincides with the constructive moment, which results in the "the dissolution of materials and their subordination to an imposed unity":³⁵ "rationality in the artwork is the unity-founding, organizing element, not unrelated to the rationality that governs externally".³⁶ In this sense, art does not suspend instrumental rationality. On the contrary, art radicalizes it, by exhibiting the irrationality of an absolutely instrumental rationality: "for the aim of all rationality – the quintessence of the means for dominating nature – would have to be something other than means, hence something not rational".³⁷ Moreover, the imposition of unity exercised by art does not "repress" the material, reducing it to a means, instead it draws from it its own principle, its own formal law, making construction and expression coincide: "artworks do not repress; through expression they help to make present to consciousness the diffuse and elusive without [...] 'rationalization'".³⁸ Thanks to the aesthetic field constructed by the artwork, rationality expresses itself here as form, that is to say as "nonviolent synthesis of the diffuse that nevertheless preserves it as what it is in its divergences and contradictions".³⁹ The aesthetic production of art is still "a type of productive labor modeled on material labor":⁴⁰ a labor that, however, organizes its own material according to the material itself, making the latter its own working principle. A work that, in other words, handles the material as an end, and not as a means. The synthesis imposed by human labor and rationality, is here "not simply forced on its elements", i.e. on the material; "rather, it recapitulates that in which these elements communicate with one another; thus *the synthesis is itself a product of otherness*".⁴¹ In other words, synthesis is obtained by artworks not through the primacy of the spirit over nature, but "in the spirit-distant material dimension of works, in that in which synthesis is active".⁴²

This rearticulation of the relationship between labor and its material enables the artistic activity to prefigure a different relationship between human and nature. Art in this sense is not only an aesthetic experience of nature as mediated through human production: it is at the same time a different *practical relation* to nature. In this sense, it is possible to interpret

33 Ibid., 54.

34 Ibid.

35 Ibid., 57.

36 Ibid., 55.

37 Ibid., 54.

38 Ibid., 55.

39 Ibid., 143.

40 Ibid., 77.

41 Ibid., 7 [my emphasis].

42 Ibid.

the works of art as *practical objects*, insofar as “they provoke us to negotiate new practices”: “in art, objects provoke various activities by means of which humans seek to define (or redefine) the rest of their activities”.⁴³ In my reading, artworks provoke such activities not just because they are a “practice that is self-determined”, intertwined with self-reflection and “interpretative practices”,⁴⁴ but primarily because of the peculiar relation that they establish between human productive activity (labor) and its material (nature): in art labor is neither directed to the satisfaction of a need, nor to a particular, instrumental goal, but, so to speak, it is carried out for the sake of the material itself. The formal synthesis, brought by labor over its material, is directed to let the material to express itself. Because of this, “the process enacted internally by each and every artwork works back on society as the model of a possible praxis in which something on the order of a collective subject is constituted”.⁴⁵

In order to clarify the artwork as transformative practice and, most importantly as alternative model of production in the context of Anthropocene, we have to trace back its structure within the frame of the peculiar rationality emerged with the modernity, characterized by the autonomization of art, as distinguished from the broader concept of *τέχνη*. As we shall see, the renounce to the mimetic element of *τέχνη* is an essential step for establishing technology as the model of rationality itself.⁴⁶

IV. The mimesis and form of happiness

According to an interpretation essentially shared by Adorno (and Horkheimer), the modern productive and technical rationality is based on the dismissal of the mimetic character of the *τέχνη*⁴⁷ and on the consequent decoupling between mimetic and mechanical arts. As we have already seen, the new rationality embodied in modern technology is achieved by reducing natural phenomena to passive objects devoid of any intrinsic agency. Whereas “magic like science is concerned with ends, but it pursues them through mimesis, not through an increasing distance from the object”,⁴⁸ modern, enlightened rationality “is altogether

43 Georg W. Bertram, *Art as Human Practice: An Aesthetics*, trans. Nathan Ross (London: Bloomsbury Academic, 2019), 159, <https://doi.org/10.5040/9781350063174>.

44 Ibid., 160.

45 Adorno, *Aesthetic Theory*, 242 (my emphasis).

46 See Adorno and Horkheimer, *Dialectic of Enlightenment Philosophical Fragments*, 2.

47 For what follows see Hans Blumenberg, “Imitation of Nature”: Toward a Prehistory of the Idea of the Creative Being’, trans. Anna Wertz, *Qui Parle* 12, no. 1 (1 June 2000): 17–54, <https://doi.org/10.1215/quiparle.12.1.17>.

48 Adorno and Horkheimer, *Dialectic of Enlightenment Philosophical Fragments*, 7.

the demythologization of mimetic modes of procedure".⁴⁹ In this sense, in the modernity "art is a refuge for mimetic comportment",⁵⁰ or to put it differently, the attempt to preserve the mimetic, imitative character of τέχνη. Classically, what distinguishes art from technology is considered the imitation of nature as an *object* of representation: art is mimetic in the sense that it imitates natural objects in their aesthetical appearance. But art's mimetic approach toward nature is not limited to its *representative* motives: in the Anthropocene epoch and after the eclipse of the figurative character of artworks it is now possible (and necessary) to focus on the productive and practical dimension of mimetic art. It is art's operative procedure that, in this case, should be interpreted as the "refuge" of the mimetic dimension: a mimetic dimension, which marks technology's productivity from the very beginning⁵¹ and that, according to Adorno represent the first emergence of rational procedures. As is well known, for Adorno the mimetic moment is not opposed as such to domination. On the contrary, it represents its presupposition and one of its preparatory stages: mimesis shares with rationalization precisely the same attempt to dominate natural forces.⁵² And yet, by exercising its dominion through imitation, mimesis implies a unity of subject and object that precedes their separation in the form of objectification and thus manifests their "affinity".⁵³ In fact, "the mimetic element of knowledge" expresses "the element of elective affinity between the knower and the known",⁵⁴ through which the human being experiences itself as nature. The experience of this affinity is the necessary presupposition to transcend both the submission of human being and the one of nature. It is in fact as *nature* that man becomes the object of exploitation. The "denial of nature in the human being for the sake of mastery over extrahuman nature and over other human beings"⁵⁵ implies that only

the self which, after the methodical extirpation of all natural traces as mythological, was no longer supposed to be either a body or blood or a soul or even a natural ego but was sublimated into a transcendental or logical subject, formed the

49 Theodor W. Adorno, *Against Epistemology: A Metacritique*, trans. Willis Domingo (Cambridge: Polity Press, 1982), 142. "The mimetic motif", so continues Adorno's argument, "survives in reflection on cognition. This is perhaps not simply an archaic holdover, but is rather due to the fact that cognition itself cannot be conceived without the supplement of mimesis, however that may be sublimated. Without mimesis, the break between subject and object would be absolute and cognition impossible".

50 Adorno, *Aesthetic Theory*, 53.

51 See Gianni Vattimo, 'Il concetto di fare in Aristotele', in *Opere complete I. Ermeneutica* tomo 1 (Milano: Meltemi, 2007), 39ff. The attention to these aspects of the Greek concept of τέχνη is crucial in Benjamin's understanding of the "the work of art in the age of mechanical reproduction". See Fabrizio Desideri, 'The Mimetic Bond: Benjamin and the Question of Technology', in *Walter Benjamin and Art*, ed. Andrew E. Benjamin (London ; New York: Continuum, 2005), 108–20.

52 Adorno and Horkheimer, *Dialectic of Enlightenment Philosophical Fragments*, 6ff.

53 On the concept of "affinity" see Matteucci, *L'artificio estetico*, 129 ff.

54 Theodor W. Adorno, *Negative Dialectics* (London: Routledge, 1973), 45.

55 Adorno and Horkheimer, *Dialectic of Enlightenment Philosophical Fragments*, 42.

reference point of reason, the legislating authority of action.⁵⁶

The split between empirical, natural individuality and abstract transcendental subject pointed to the necessary subordination of the former to the latter.⁵⁷ Man, as a natural being, becomes enslaved to the same abstractions that allow the dominion over nature. Thus, the recognition of the affinity between human being and nature is the presupposition of their mutual liberation: the emancipation of nature passes through that of the human being and vice versa.⁵⁸

Now this affinity emerges through artistic practice, insofar as here a mimetic, *but not representative*, kind of *productive praxis*⁵⁹ to nature is enacted. The utopia of art is therefore not so much to imitate nature as object of representation, but rather to imitate nature as subject, that is, as living force, as autonomous process of production and generation. In his influential monograph, Bernstein linked this revival of non-anthropocentric teleological thinking to a rehabilitation of the fundamental insight of animism: “The idea of things having ends ‘for themselves’.”⁶⁰ To consider nature as agent thus means to overcome not only “the split between animate and inanimate”, but also “the division of subject and object is prefigured in it”.⁶¹ In this sense, mimesis does not *represent* nature as object, but *enact* it as agentic subject. Strictly speaking, “the mimesis of artworks is their resemblance to themselves”⁶² and not to nature, since it does not consider the latter as an object, but as an autonomous productive process that the artworks re-enact. “The excess beyond phenomenal appearing” that artwork’s appearance entails, “relates to what has powers of resistance to the subject and its own ends, possesses a ‘life’ of its own”.⁶³

In artistic productive praxis, natural and technical processes appear to be mutually intertwined through mimetic procedures. The artwork in the age of the Anthropocene can emerge as the attempt to reactivate the mimetic

56 Ibid., 22.

57 See Theodor W. Adorno, ‘On Subject and Object’, in *Critical Models: Interventions and Catchwords*, trans. Henry W. Pickford Introduction by Lydia Goehr (New York: Columbia University Press, 2005), 248: “The doctrine of the transcendental subject faithfully discloses the precedence of the abstract, rational relations”.

58 See Alfred Schmidt, *The Concept of Nature in Marx* (London: Verso Books, 2013).

59 Art as reconciled production would simultaneously overcome of the aristotelian split between production and action: that is, it would be a production that is simultaneously an action, insofar as it makes happiness its immanent end. See Henry W. Pickford, ‘Poiësis, Praxis, Aisthesis: Remarks on Aristotle and Marx’, in *Aesthetic Marx*, ed. Samir Gandesha and Johan Hartle (London: Bloomsbury, 2017), 23–48.

60 Jay M. Bernstein, *Adorno: Disenchantment and Ethics* (Cambridge: Cambridge University Press, 2001), 192, <https://doi.org/10.1017/CBO9781139164276>.

61 Adorno and Horkheimer, *Dialectic of Enlightenment Philosophical Fragments*, 11.

62 Adorno, *Aesthetic Theory*, 104.

63 Bernstein, *Adorno*, 193. For a critique of Bernstein’s identification of nature and life see Deborah Cook, *Adorno on Nature* (London/New York: Routledge, 2014), 42 ff, <https://doi.org/10.4324/9781315730141>.

tension out of τέχνη, understood as the consummation (perficere)⁶⁴ of nature. It is in this sense, that Benjamin defines art as the “perfecting mimesis” (*vollendende Mimesis*), namely as “a suggested improvement on nature: an imitation [*Nachmachen*] whose most hidden depths are a demonstration [*Vormachen*]”.⁶⁵ Here Benjamin seems to recall the famous passage in *Protrepticus*, where Aristotle writes: “nature does not imitate the art, but it imitates nature, and it exists to help by filling in even what nature has omitted”. In the context of modern rationalization, in which the indefinite enhancement of the means has lost any τέλος, artistic “perfecting mimesis” inevitably implies the re-appropriation of the ability to set ends to production. Whereas the ends of production in the actual mode of production are extrinsic as much to the use-value as to the natural material, artistic creation works by deducing its ends in relation to the material: so to speak, by making them spring from it. The purposefulness without a purpose of modern artworks, “takes sides with repressed nature, to which it owes the idea of a purposefulness that is other than that posited by humanity”.⁶⁶ By reactivating the idea of a purposefulness “other than that posited by humanity”, art’s mimetic comportment “draws on an unrestrained rationality in its technical procedures, which are, in the supposedly ‘technical world’, constrained by the relations of production and thus remain irrational”.⁶⁷ The “aesthetic comportment”, defined as “the capacity to perceive more in things than they are”,⁶⁸ is thus closely connected with the capacity to set scopes that transcend the given reality and thus to overcome the actual relations of production. The artistic rehabilitation of the suppressed mimetic moment in technological rationality would mean to “possess in technology not a fetish of doom but a key to happiness”.⁶⁹ However, while for Benjamin the natural moment inheres the reproductive powers of modern technology,⁷⁰ for Adorno the former is expressed in the qualitative, irreproducible moment of the latter. There

64 I understand “consummation” following Dewey’s use of the term, as an “active and dynamic field of integrated participation” (Dinesh C. Mathur, ‘A Note on the Concept of “Consummatory Experience” in Dewey’s Aesthetics’, *The Journal of Philosophy* 63, no. 9 (28 April 1966): 225–31, <https://doi.org/10.2307/2024608>).

An “experience [...] is carried to consummation”, when “the experience of an event, object, scene, and situation [is carried] to its own integral fulfillment” (John Dewey, *Art as Experience* (London: Perigee Books, 1980), 137 ff.), and yet “the time of consummation is also one of beginning anew” (17).

65 Walter Benjamin, *Gesammelte Schriften*, ed. Hermann Schweppenhäuser and Rolf Tiedemann, trans. Pierre Klossowski (Frankfurt am Main: Suhrkamp Verlag, 1974), 1047.

66 Adorno, *Aesthetic Theory*, 288.

67 *Ibid.*, 289.

68 *Ibid.*, 330.

69 Walter Benjamin, ‘Theories of German Fascism: On the Collection of Essays War and Warrior’, Edited by Ernst Junger, *New German Critique*, no. 17 (1979): 128, <https://doi.org/10.2307/488013>.

70 Desideri, ‘The Mimetic Bond: Benjamin and the Question of Technology’, 112: “The technological-reproductive instance here actually rivals the auto-poiesis of nature, directing its internal finalism to include even this feature in the automatic reiterability of its procedures. As a result [...] technology – independently of the perfective or mimetic character of its products and even in the case of their perfect artificiality – attests to its mimetic bond with the auto-generative process of *physis*”.

is namely a close connection between the re-appropriation of the teleological moment and the qualitative, mimetic attitude, since “ends, the *raison d’être* of *raison*, are qualitative, and mimetic power is effectively the power of qualitative distinction”.⁷¹ In reactivating the qualitative moment of rationality and technology, art unveils both the renounce to happiness of our technical, instrumental apparatus, and the false self-referentiality of identifying reason. The renounce to “happiness” and the removal of the qualitative, non-identical moments within the conceptual frame of the modern rationalization – i.e. its falseness – are two sides of the same process. The telos of reason is namely “a fulfillment that is in-itself necessarily not rational”, since “happiness is the enemy of rationality and purpose, of which it nevertheless stands in need”.⁷² By making “this irrational telos its own concern”,⁷³ art “represents truth in a double sense: It maintains the image of its aim, which has been obscured by rationality, and it convicts the status quo of its irrationality and absurdity”.⁷⁴ Art shows the irrationality of the purposeless enhancement of productive capacities, by showing the irrationality of a rationality that has renounced to mimesis.⁷⁵ And yet, being possible only as appearance, “art is the ever broken promise of happiness”:⁷⁶ only its concretization as form of production could fulfill that promise.

With regard to the challenges posed by Anthropocene, Adorno’s aesthetic theory can help us to avoid two complementary mistakes.⁷⁷ The first one, most obvious, is to maintain the traditional anthropocentric view that treats nature as a passive object and that believes it is possible to simply readjust our relation to nature in a more “sustainable” way. The second one that, seeking to unhinge modern anthropocentrism, deludes itself into the illusion that it can acquire a neutral (or “natural”) point of view, which transcends human positioning and mediation in and of nature. The understanding of the work of art as a mimetic technology that dialectically intertwines teleological moments, both human and natural ones, let sparkle the recover of a solidarity between man and nature, in the pursuit of common ends. This “legitimate anthropomorphism”⁷⁸ means at the same time the assumption of a radical ecology, able to refuse both the “pragmatic” attitudes that confirm the existing state of affairs and the

71 Adorno, *Aesthetic Theory*, 331.

72 Ibid., 289.

73 Ibid.

74 Ibid., 43.

75 See Fabrizio Desideri, ‘Ratio, Mimesis, Dialectics: On Some Motifs in Theodor W. Adorno’, *Discipline Filosofiche*, 26, no. 2 (2016): 126: “A ratio that has lost the capacity of going beyond the horizon of universal fungibility that characterizes the technological dominion of the world, a ratio without mimesis, in short, is a ‘ratio that denies itself’”.

76 Adorno, *Aesthetic Theory*, 136.

77 For an overview on the possible convergence between Adorno’s concept of nature and radical ecologism see Cook, *Adorno on Nature*, 121 ff.

78 Bernstein, *Adorno*, 196. According to Bernstein this represents nothing less than “Adorno’s philosophical project” itself.

natural ontologies that push for a return to an alleged natural order substantively understood. Artworks stands as prefigurations of a unity of man and nature, which is yet to come.⁷⁹ precondition to it, is the recognition of nature as history and of history as nature, that is to say the recognition of nature as autonomous agency, as a moment of human emancipation itself and vice versa.

79 See Tom Huhn, 'Heidegger, Adorno, and Mimesis', *Dialogue and Universalism*, no. 11–12 (2003): 43–52. In his interesting reading "mimesis [...] transforms imitation to anticipation" of a, quoting Adorno's *Aesthetic theory*, "thing-in-itself yet to come, of something unknown and to be determined by way of the subject" (48).

Rolando Vitali, works on aesthetics, modern German philosophy, and Frankfurt School critical theory. He studied between the universities of Bologna and Berlin. In 2021, he received a PhD from the Friedrich Schiller Universität in Jena and the University of Bologna with a thesis on the relationship between aesthetic categories and subjectivity in early Nietzsche's philosophy. He is currently pursuing a research fellowship at Vienna's Akademie der bildenden Künste.

References

- Adorno, Theodor W. *Aesthetic Theory*. London: Continuum, 2002.
- . *Against Epistemology: A Metacritique*. Translated by Willis Domingo. Cambridge: Polity Press, 1982.
- . *Negative Dialectics*. London: Routledge, 1973.
- . 'On Subject and Object'. In *Critical Models: Interventions and Catchwords*, translated by Henry W. Pickford Introduction by Lydia Goehr, 245–58. New York: Columbia University Press, 2005.
- . 'The Idea of Natural History'. Translated by Bob Hullot-Kentor. *Telos* 1984, no. 60 (1 July 1984): 111–24. <https://doi.org/10.3817/0684060111>.
- Adorno, Theodor W., and Max Horkheimer. *Dialectic of Enlightenment Philosophical Fragments*. Translated by Edmund Jephcott. Stanford: Stanford University Press, 2002.
- Benjamin, Walter. *Gesammelte Schriften*. Edited by Hermann Schweppenhäuser and Rolf Tiedemann. Translated by Pierre Klossowski. Frankfurt am Main: Suhrkamp Verlag, 1974.
- . 'Theories of German Fascism: On the Collection of Essays War and Warrior, Edited by Ernst Junger'. *New German Critique*, no. 17 (1979): 120–28. <https://doi.org/10.2307/488013>.
- Bernstein, Jay M. *Adorno: Disenchantment and Ethics*. Cambridge: Cambridge University Press, 2001. <https://doi.org/10.1017/CBO9781139164276>.
- Bertram, Georg W. *Art as Human Practice: An Aesthetics*. Translated by Nathan Ross. London: Bloomsbury Academic, 2019. <https://doi.org/10.5040/9781350063174>.
- Blumenberg, Hans. "'Imitation of Nature": Toward a Prehistory of the Idea of the Creative Being'. Translated by Anna Wertz. *Qui Parle* 12, no. 1 (1 June 2000): 17–54. <https://doi.org/10.1215/quiparle.12.1.17>.
- Chakrabarty, Dipesh. 'The Climate of History: Four Theses'. *Critical Inquiry* 35, no. 2 (January 2009): 197–222. <https://doi.org/10.1086/596640>.
- Cook, Deborah. *Adorno on Nature*. London/New York: Routledge, 2014. <https://doi.org/10.4324/9781315730141>.
- Descola, Philippe. 'Humain, trop humain'. *Esprit*, no. 12 (2015): 8–22. <https://doi.org/10.3917/espri.1512.0008>.
- Desideri, Fabrizio. 'Ratio, Mimesis, Dialectics: On Some Motifs in Theodor W. Adorno'. *Discipline Filosofiche*. 26, no. 2 (2016): 125–38. <https://doi.org/10.1400/247218>.
- . 'The Mimetic Bond: Benjamin and the Question of Technology'. In *Walter Benjamin and Art*, edited by Andrew E. Benjamin, 108–20. London ; New York: Continuum, 2005.
- Dewey, John. *Art as Experience*. London: Perigee Books, 1980. <http://archive.org/details/deweyjohnartasanexperience>.
- Farina, Mario. 'Adorno e l'idea della storia naturale'. *Intersezioni. Rivista di storia delle idee*, no. 2 (2018): 239–64. <https://doi.org/10.1404/90481>.
- Heidegger, Martin. 'On the Being and Conception of Φύσις in Aristotle's Physics B, 1'. *Man and World* 9, no. 3 (1976): 219–70. <https://doi.org/10.1007/bf01249371>.
- Huhn, Tom. 'Heidegger, Adorno, and Mimesis'. *Dialogue and Universalism*, no. 11–12 (2003): 43–52.
- Johansson, Anders S. 'Why Art? : The Anthropocene, Ecocriticism, and Adorno'S Concept of Natural

Beauty'. *Adorno Studies* 3, no. 1 (2019): 64–79.

Latour, Bruno. *Facing Gaia: Eight Lectures on the New Climatic Regime*. Translated by Catherine Porter. Cambridge: Polity Press, 2017.

Lewis, Simon L., and Mark A. Maslin. 'Defining the Anthropocene'. *Nature* 519 (March 2015): 171–80. <https://doi.org/10.1038/nature14258>.

Mathur, Dinesh C. 'A Note on the Concept of "Consummatory Experience" in Dewey's Aesthetics'. *The Journal of Philosophy* 63, no. 9 (28 April 1966): 225–31. <https://doi.org/10.2307/2024608>.

Matteucci, Giovanni. *L'artificio estetico: moda e bello naturale in Simmel e Adorno*. Milano: Mimesis, 2012.

Moore, Jason W., ed. *Anthropocene or Capitalocene?: Nature, History, and the Crisis of Capitalism*. Oakland, CA: PM Press, 2016.

Pickford, Henry W. 'Poiêsis, Praxis, Aisthesis: Remarks on Aristotle and Marx'. In *Aesthetic Marx*, edited by Samir Gandesha and Johan Hartle, 23–48. London: Bloomsbury, 2017.

Schmidt, Alfred. *The Concept of Nature in Marx*. London: Verso Books, 2013.

Vattimo, Gianni. 'Il concetto di fare in Aristotele'. In *Opere complete I. Ermeneutica tomo 1*. Milano: Meltemi, 2007.

MAIN SECTION

The Assemblage as Aesthetic Place. A Reading between Aesthetics and the Anthropocene of *The Mushroom at the End of the World.*

Ivano Gorzanelli - University of Bologna, Italy
Contact: ivano.gorzanelli3@unibo.it

ABSTRACT

The text proposes an interpretation of the category of assemblage starting from Anna Lowenhaupt Tsing's reflection in *The Mushroom at the End of the World*. The hypothesis we suggest is that through the theoretical figure of assemblage, as image, place, concept, space of livability, Tsing along the multi-voiced itinerary of her text deconstructs the linearity and compactness of certain landscape histories. In doing so, Tsing resorts both to a precise and pointed critique of the idea of progress - especially thanks to W. Benjamin - as well as the search for a modelling of the landscape that has above all in the indeterminate and in chance encounters the reasons for its being. In Tsing's text, the assemblage becomes both the concrete experience of a place and a way of observing that allows an aesthetic reading and a critique of Landscape and cultural heritage to be combined.

KEYWORDS

Assemblage, Landscape, Cities, Progress, History

PEER REVIEWED

<https://doi.org/10.6092/issn.2612-0496/16095>

ISSN 2612-0496

Copyright © 2022 Ivano Gorzanelli



Anna Lowenhaupt Tsing with her already classic *The Mushroom at the End of the World* stands at the end of time, or rather, at the end of that time that we call modernity and that has shaped the existential and political expectations of every generation since the post-war period until a few years ago. Gone the possibility of reading life on Earth as a glorious march towards the emancipation of man from dependence on nature, here we are again faced with the indeterminate, the precarious, the ruins of a broken world: "What if, as I'm suggesting, precarity is the condition of our time or, to put it another way, what, if our time is ripe for sensing precarity? What if precarity, indeterminacy, and what we imagine as trivial are the centre of the systematicity we seek?"¹ If one accepts to walk through Tsing's text accompanied by this question, by the centrality of marginality, one actually accepts to open one's reflection in both a historical and aesthetic sense to precisely that particular condition that is the Anthropocene today.² A condition that, it is understood, will no longer be the sum of man's actions and representations that produce adverse effects on ecosystems, but rather a condition that aspires to place the history of relations between man and the Earth within a much broader framework that precedes and decides whatever decisions and perspectives man wants to undertake. That this also has an aesthetic significance, is what we want to demonstrate from some considerations of this text by Anna Lowenhaupt Tsing.

Tsing's proposal can be defined as aesthetic because it is a way of observing the world that is inseparable from a critique of the idea of progress, which coincides with a critique of a representation dictated by this idea of historical time and individual affirmation: "Progress is a forward march, drawing other kinds of time into its rhythms. Without that driving beat, we might notice other temporal patterns."³ Ecology and economics have long since become fields for algorithms of expansion and progress where instead, Tsing argues, the world is primarily a selection not of forms or individuals, but of relationships. "Each living thing remakes the world through seasonal pulses of growth, lifetime reproductive patterns, and geographies of expansion"; the condition Tsing invites us to look at is quite different from the promises of happiness and emancipation that capitalism summed up in the idea of progress still in the early 20th century.

1 Anna Lowenhaupt Tsing, *The Mushroom at the End of the World. On the Possibility of Life in Capitalism Ruins* (Princeton: Princeton University Press, 2015), 20.

2 On the Anthropocene as a condition see at least: Paolo Missiroli, *Teoria critica dell'Antropocene*, (Milan: Mimesis, 2022), 93-138. In particular, this page seems very precise: 'The human being [...] is, on the contrary, terrestrial to the core, inevitably in relation to the biological and abiotic forces that traverse the planet. Completely reversing the Promethean discourse on the Anthropocene, one could say that Homo sapiens is an intrinsically eco-logical animal, that is, imaginable only in a network of relationships with humans and non-humans', Missiroli, *Teoria critica*, 109. Tsing focuses his investigation from the ruins of late capitalism, accepting the idea that the historical and anthropological understanding of this phase is to be found in the study of relations and contaminations between humans and non-humans. Tsing's effort is thus internal to a perspective where the Anthropocene functions as a category that re-actualises the earthly aspect of humans, the inescapable belonging to the Earth System; Dipesh Chakrabarty, *The Human Condition in the Anthropocene* in "The Tanner Lectures in Human Values", (New Haven: Yale University Press, 2015).

3 Tsing, *The Mushroom at the End of the World*, 21.

Tsing's wager acquires a quality that is both political and aesthetic at the same time as her anthropologist's gaze moves on the trail of the matsutake seekers.

Anthropology always runs the risk of talking about itself while it intends to let the protagonists of its observations speak. Tsing interrogates matsutake seekers on the traces of a polyphony of voices, from white American war veterans to exiles from Laos or Cambodia, to Americans of Japanese and Chinese origin, shaping the modelling of the landscape: "within a given species, multiple planes of time composition are identified, in which organisms fit in and coordinate to shape landscapes".⁴ The theme of landscape represents in this contribution the line in which the legacy of a certain twentieth-century critical thought on the subject, Siegfried Kracauer above all, and Walter Benjamin's reflection on history converge, in the itinerary between the places where the different realities and communities of matsutake seekers coexist. From a theoretical point of view, the concept of assemblage gives us this possibility; assemblages based on landscapes offer the theoretical and practical possibility of dealing with the interaction between the activity of many organisms. It is not a question of offering an overview of the relationship between humans and animals, organisms should not show any equivalence, rather it is "if we are interested in livability, impermanence, and emergence, we should be watching the action of landscape assemblages"⁵ as they coalesce, change, and dissolve. It is therefore appropriate to closely explore Tsing's use of the term assemblage to understand its facets: Tsing develops a direct analogy between the concept of assemblage and the transformative practices that can be observed in communities of matsutake mushroom seekers; the often dubious, suffered when not the downright traumatic origin of the people who gather in these places shows how the emergence of assemblage as well as the appearance of matsutake mushrooms, is something that is difficult to explain with the formula of summary or subsumptive relation between hierarchies of values and concepts. Every concept born to explain the origin of an assemblage has the duty to place itself in a stable relationship with the indeterminate, the occasional, the fortuitous, the conflictual, the uncertain and the proximity to conflict as well as encounter.⁶

Assemblage is defined by Tsing on several temporal and spatial levels as the creation of a scene, an "open-ended gathering" full of indeterminacy,⁷ assemblages "scenes for considering livability - the possibility of ordinary life on a human-disturbed⁸ earth "that allows one to question the effects of common living without taking them for granted; an assemblage is a

4 Ibid., 21.

5 Ibid., 158.

6 Ibid., 66.

7 Ibid., 43.

8 Ibid., 23.

physical place in the forests of Oregon in this case in the form of transient communities born out of survival needs that are found for short or long periods around places intensively exploited by the timber industry. Assemblage is also a theoretical space that renders visible the encounter and manifestation of unstable categories⁹ that hold for short periods of transformation, a condition of livability for many marginalised subjects. Assemblages are thus also ephemeral translations of spaces into sociological, political and aesthetic categories with which to look beyond the dimension of progress in unexpected directions. In these assemblages, it is shown how in the emergence of matsutakes and in life in general, a “transformative mutualism” given by encounters is fundamental. It is not the form, genetic make-up or individual origin that are decisive for the assemblage as much as the capacity that this place possesses to accommodate different histories and make them collaborate in caring for themselves and the forest. There is no cultural coherence that defines the contours of the assemblage, rather a challenge:

The challenge for thinking with precarity is to understand the ways projects for making scalability have transformed landscape and society, while also seeing where scalability fails – and where nonscalable ecological and economic relations erupt.¹⁰

Tsing’s discourse becomes interesting when distinguishing itself from the dominant and scalable economies, represented par excellence by the food industry and the plantation model, the assemblage becomes something that makes history, not in the aesthetic and political recognisability of the model it imposes, but above all in the indeterminacy of the interweaving of formation times and biographies, for example through smell. The assemblage eludes representation if by this is meant the ability to determine the essence of a place or an event. The smell of the matsutake, often repulsive to Western people, Tsing writes, has transformed it in a physical way by pursuing both the natural stories of indeterminacy in mushroom picking and the cultural stories of the seekers; against the idea that life possesses one form and one form only, and that this includes old age and an end. The matsutake is there to demonstrate that in reality precariousness and indeterminacy contribute more to the definition of assemblages than established forms; smell assembles many ways of being potentially conflicting or collaborative, and creates interweavings given by the economic necessity of harvesting as well as by the nostalgia of memory; the smell in fact binds war veterans, groups of elderly people from South East Asia in search of their roots transfigured in forests thousands of kilometres away, it unites expectations and stories that come together precariously, generating history.

The analogy between the gathering of matsutake and the lives suspended

9 Ibid., 29.

10 Ibid., 42.

over a landscape now dominated by the ruins of a post-capitalist society allows Tsing to explore the pre-capitalist roots of capitalism itself and to decipher the apparent compactness of the representation of the world trade in mushrooms through the encounter of cultic histories that are difficult to reduce to simple economic transactions. The assemblages in their ephemeral reality allow capitalism embodied in skilled buyers to decipher the cultural peculiarities of the gatherers and to weave from patches and discontinuous, non-reproducible assemblages, stories and profit. What Tsing calls “salvage accumulation”¹¹ is precisely the way in which the characteristics of the many stories that make up an assemblage acquire a form that satisfies the demands of international brands or corporations; “to understand capitalism (and not just its alternatives) then, we can’t stay inside the logics of capitalism; we need an ethnographic eye to see the economic diversity through which accumulation is possible”. The assemblage is not a culturally coherent and clear unit but resembles an interweaving of stories that need to be unravelled in order to understand their instances, values and proximities.

Now, wanting to approach the theme from an aesthetic point of view, it can be said that the concept of assemblage, as mentioned earlier, allows Tsing to explore a convergence of historical and natural times, and to do so through the polyphony of voices that make up these precarious places that cannot be fully represented within the definition of “ecological community”. A trace in this direction is represented by the interweaving that the site of an assemblage, in this specific case Open Ticket¹² in Oregon, generates between places and ghosts, the ghosts of the great felled trees, of the seekers who died prematurely, of people’s biographies. The ghosts belong to the landscape and the assemblages are precisely landscape modelling in a form that does not recall the conceptual construction often encountered in definitions of landscape. The assemblages possess a peculiarity as landscape constructions: the ambiguity of the images. Indeed, Tsing acknowledges, in a theoretical move that is by no means taken for granted, that capitalism itself “in collecting goods and people from around the world, capitalism itself has the characteristics of an assemblage. However, it seems to me that capitalism also has characteristics of a machine, a contraption limited to the sum of its parts. This machine is not a total institution, which we spend our lives inside; instead, it translates across living arrangements, turning worlds into assets”.¹³

The problem is that capitalism recognises this possibility, of becoming assemblage, only through alienation, that is, the dissolution of all ties with the territory, the loss of a geographicity¹⁴ and intimacy with the Earth. This

11 Ibid., 55-135.

12 Name used by the author to identify a place without necessarily revealing its details and precise geographical location in order to protect the inhabitants of this community.

13 Ibid., 133.

14 Augustin Berque, *Écoumène. Introduction à l'étude des milieux humains*, (Paris: Belin, 2000).

alienation must correspond to a kind of one-sidedness of representation and history that cancels out the cultural richness of stories and voices. The relationship that assemblages bear with the creation and modelling of landscape and history belongs to this theoretical framework where stories are both internal and external to the capitalist model; put another way, assemblages in order to be an alternative to the capitalist model must question their representativeness by expanding their capacity to the ambiguity and power of the image, which in this case does not testify to power, but to the recursiveness and capacity to accommodate a variety of voices. The landscape, the shaping of the landscape, is thus a bursting of stories within a framework dominated by the ruins of capitalism where living, human and non-human, reaffirm alternative and subterranean forms of life with respect to the order of the city.

The ambiguity of the images is shown precisely in the figures chosen by Tsing to describe the oppositions and affinities of the assemblages; if the dance offers a ritual to the communities of Japanese who emigrated to America, rediscovering in movement the memory of times gone by and the capacity to explore unknown places with naturalness,¹⁵ the city represents an alternative pole, the place of a consolidated and more rigid social order. Dance offers a relationship with memory and time that dialecticises present and past by putting them in resonance, which is only possible in the assemblage constructed as “a hodgepodge of escapes from the city”.¹⁶ *Open Ticket* “is far from the concentration of power; it is the opposite of a city”. That city and assemblage are opposites may not come as a surprise, although in Tsing’s research there is an evident attempt not to oppose the dimension of the metropolis to that of the forest, but rather to describe the ways in which an experience is constructed that is inseparable from the shaping of a landscape that originates in the disruption generated by capitalist economies in search of cheap raw materials. The image of the city in its ambiguity is not exclusively identified by Tsing in its functional and ordered aspects, but explicitly referred to when describing the networks that mycorrhizas create in the forest by aiding the growth of trees: “Mycorrhizas form an infrastructure of interspecies interconnection, carrying information across the forest”.¹⁷ A scientific gaze limited to reproduction understood almost exclusively as interspecies reproduction has prevented us from observing and thinking about the “extraordinary architecture of underground cities” that mycorrhizas create by helping mycetes to reproduce and defend the forest. That the theme of the city develops both as a critique of the disciplining and functionalist dimension, and as the construction of underground realities that decide on life and relations between humans, cannot but recall the Walter Benjamin of *The Passages of Paris*:

15 Ibid., 244.

16 Ibid., 76.

17 Ibid., 138.

Paris is built over a system of caverns from which the din of Métro and railroad mounts to the surface, and in which every passing omnibus or truck sets up a prolonged echo. And this great technological system of tunnels, thoroughfares interconnects with the ancient vaults, the limestone quarries, the grottoes and catacombs which since Middle Ages have time and again been reinterred and traversed.¹⁸

Benjamin's reflection shows a central affinity with Tsing's text in its search for figures and places of transit and passage. Benjamin's city is the place where the phenomenon of the border and the threshold can be grasped. We arrive at the underground city above all in the ability to observe the passages that our dreams make legible by connecting past and present. Tsing's concept of assemblage recalls this tension between the past and the urgency of the present. Benjamin writes again in a passage that could serve as a theoretical description of the role of assemblage in landscape modelling: "One knew a places in ancient Greece, where the places let down into the underworld. Our waking existence likewise is a land which, at certain hidden points leads down into the underworld, a land full of inconspicuous places from which dreams arise".¹⁹ In Tsing's pursuit of marginalised existences and inconspicuous places from the ruins of progress, it is possible to find ambiguity and dialectics of threshold images: the assemblage becomes the place where, thanks to the search for mushrooms, it is possible to explore a subterranean and magmatic reality. In Benjamin's passages, the individuals who undertake this journey to the "place of dreams" are stripped of their surface identity to become marshy creatures, vegetable elements, reinforcing the idea that the analogy between matsutake mushrooms and seekers, between places and stories, is the theoretical place that Tsing calls assemblage and that Benjamin locates in dialectical imagery. If in the passages the usual space-time distinction is abolished, this is because in these places one accesses a congealed and dense temporal dimension where the representation of the surface becomes a mirror image of the magmatic reality of dream and memory. Tsing's stories are also possibilities of indeterminate encounters that generate knowledge of the landscape made through the memory that resurfaces from the past bursting forth like "tiger's leap into the past".²⁰ The past condenses in the smell, in the encounters of the searchers and here, in this space born and 'built' on the ruins of capitalism, past and present meet as knowledge of the landscape. Mushrooms 'know' the landscape by modelling it in the encounter with other species and plants; men encounter in the smell and in the search for matsutake the memory of a past, redemption from the same, the possibility of another life.

18 Walter Benjamin, *The Arcade Project*, (Cambridge: The Belknap Press of Harvard University Press, 1999) 85.

19 Ibid., 84.

20 Walter Benjamin, *On the Concept of History*, in *Selected Writing* (Cambridge: The Belknap, Press of Harvard University Press, 2003) 395.

The disturbances of history, the moments of great danger and maximum tension, are opportunities for the rejuvenation of forests; the daily efforts of farmers reacting to great changes show how the aesthetic theme of landscape has its own political and historical importance. Indeed, Tsing argues that in order to understand the interpenetration of history and history, of how “small perturbations swirl within currents of great perturbations”, it is necessary ‘to turn away from the nostalgia-driven reconstructions of Japanese advocates and volunteers, which lull us out of history by their aesthetic perfection’.²¹ Nostalgia is the aesthetic figure of ambiguity, an ambiguous and powerful image, becoming both an element of transformation and contamination that induces the rediscovery of practices, smells and places antithetical to the order of the city imposed by finance and world trade, and pure aesthetisation good for lulling some conservative into their memories, thus distancing the present condition, life and its possibilities among the ruins, as well as history.

In the first part of this contribution, an attempt was made to delineate the relationship between history and landscape through the concept of assemblage; the polyphonic co-presence of times and histories concurs to redefine a relationship between living beings, human and non-human, which proceeds by contamination through uncertain, ephemeral, yet decisive relationships. Tsing, with the concept of assemblage, organises the heterogeneity of materials and histories within a theoretical framework that goes as far as explaining the most detailed dynamics of world trade, but above all returns a stratified and ambiguous image of capitalism where international transactions are defined through the co-presence and translation of local practices and radically non-capitalist cultural histories. Tsing investigates the relationship, and this also appears as a deliberately benjaminian passage, between governmental apparatuses of governance and ecological processes. Forest ruins are the result of the replacement of ecological processes with public-private dreams. It is here that it becomes necessary to decipher the complexity of the images that crowd commercial networks as marginal places not to enhance a nostalgic and glossy aesthetic of ruins, but to understand how to survive beyond progress and its dreams, in a world of ruins. The final step of the contribution is to show how Tsing’s own idea of landscape, of shaping and constructing the landscape, can be juxtaposed with one of the most significant 20th century philosophical reflections on landscape in what seems more than an affinity or analogy.

The idea that there are forest restoration projects all over the world and that local effects and dynamics make them radically different from each other, moves Tsing towards a consideration: human activities are certainly part of the contribution to forest regeneration, but non-human activities as well: humans, pines, matsutake and other species contribute

21 Tsing, *The Mushroom at the End of the World*, 187.

together to the definition of the landscape. In Tsing's research, the landscape becomes not the outcome of an intentional design that deliberately generates matsutake, but it is precisely the impossibility of cultivating these precious mushrooms that have made it clear that in reality "pine, matsutake, and humans all cultivate each other unintentionally".²² Tsing adds that:

This idiom has allowed me to consider how landscape more generally are products of *unintentional design*, that is, the overlapping world-making activities of many agents, human and not human. The design is clear in the landscape's ecosystem. But none of the agents has planned these effects. Humans join others in making landscapes dramas of unintentional design.²³

Humans and other species come together to create landscapes from unintentional projects where what can be observed is the overlapping of intentionality and non-intentionality. Similarly, in 1931, Siegfried Kracauer distinguished two images of cities:

One can distinguish between two types of cityscapes: those that are consciously formed and those that arise unintentionally. The former arises from an artistic will, which is realised in squares, vistas, groups of buildings and perspective effects, which the Baedeker generally illuminates with an asterisk. These, on the other hand, come into being without having been planned beforehand. They are not compositions that, like the Pariser Platz or the Concorde, owe their existence to a uniform sense of building, but creatures of chance that cannot be called to account. Wherever masses of stone and streets come together, the elements of which are the result of very different interests, such a cityscape comes into being that has never itself been the object of any interest. It is as little shaped as nature and resembles a landscape in that it asserts itself unconsciously. Unconcerned about its face, it dawns through time.²⁴

Kracauer's intention, not far from Benjamin's for that matter, is to recognise the city as an image of the network of streets that is interpenetrated with dreams. The network of lines and entanglements that mycetes constructs in the underground clearly recalls Benjamin's considerations of underground Paris and Kracauer's considerations of the relationship between landscape and unintentionally, showing us how a reflection that starts from the present condition, the Anthropocene, can draw on images and categories that throughout the philosophical twentieth century have offered tools to grasp the relationship between project and chance, surface and underground, memory and present in the city. Knowledge and

22 Ibid., 152.

23 Ibid., 152.

24 Siegfried Kracauer, *Berliner Landschaft*, in *Werke Band 5.3* (Berlin: Suhrkamp, 2011) 700-702. The translation is our responsibility.

landscape modelling are inseparable in Tsing's thinking; she shows us that the network of encounters and conflicts that generates the emergence of matsutake is the way in which the mushroom knows the forest, just as the matsutake seeker creates, together with many other living things, an assemblage that constructs landscape in the form of the relationship between chance and planning, conflict and encounter, rejection of the city and discovery of the underground city of mycetes.

Tsing helps us to understand that knowledge today is the understanding of the role we play from the ruins, that is, from the condition of the Anthropocene as a place of our thinking, but she also leads us to reflect on the aesthetic dimension of this condition by working on the ambiguity of images, their power over us and the need to construct landscapes beyond the anthropocentric and aestheticising dimension of the 'project'. The need for an aesthetic understanding of landscape stems precisely from Tsing's effort to interrogate the condition of the Anthropocene by showing us how essential it is today to deconstruct the representation of landscape by including not only historical stratification but the totality of randomness, encounters, and opportunities to make history beyond progress and design modelling. Put another way, Tsing does not seem interested in the past of the landscape 'just as it really was', rather, said Benjamin, in retaining an image of the past as it imposes itself unexpectedly in the moment of danger. The images Tsing offers are largely dialectical and dreamlike because they take in the subterranean and unintentional dimension of the landscape and help us to read it aesthetically. Assemblage is a possible form of the dialectical image translated into the experience of matsutake research today.

Ivano Gorzanelli holds a PhD in Aesthetics with a thesis on Siegfried Kracauer. He has published several essays in national and international Journals, among them: Intervista a Tim Ingold, in *Officine Filosofiche*, no. 1/2015, Modena, Mucchi, pp. 23-33; Figures of Concreteness. Redemption of the material and the autobiographical gaze in *Siegfried Kracauer*, *Iride*, no. 3, Bologna, Il Mulino, 2016, pp. 605-616; Architecture and Literature, Phantasmagoria of Places and Images of Cities in Siegfried Kracauer, in *Archiletture. Form and Narration between Architecture and Literature*, edited by A. Borsari, M. C. Simonetti, G. Iacoli, Mimesis, Milan, 2019; Traces for an Idea of Project: Discussing the Contribution of Richard Sennett, Tim Ingold and Bruno Latour, *The European Journal of Creative Practices in Cities and Landscapes*. Vol 2, no 2 (2019).

References

Anna Lowenhaupt Tsing, *The Mushroom at the End of the World. On the Possibility of Life in Capitalism Ruins*. Princeton: Princeton University Press, 2015.

Paolo Missiroli, *Teoria critica dell'Antropocene*. Milan: Mimesis, 2022.

Dipesh Chakrabarty, *The Human Condition in the Anthropocene* in "The Tanner Lectures in Human Values". New Haven: Yale University Press, 2015.

Augustin Berque, *Écoumène. Introduction à l'étude des milieux humains*. Paris: Belin, 2000.

Walter Benjamin, *On the Concept of History, in Selected Writing*. Cambridge: The Belknap Press of Harvard University Press, 2003.

Walter Benjamin, *The Arcade Project*. Cambridge: The Belknap Press of Harvard University Press, 1999.

Siegfried Kracauer, *Straßen in Berlin und anderswo*. Suhrkamp: Frankfurt am Main, 2009.

MAIN SECTION

Soil of Enterprises. A Critical-Historical Analysis

Federico Diodato – University of Bologna, Italy / University of Paris-Est, France
Contact: federico.diodato2@unibo.it

ABSTRACT

In France, from the 1960s onwards, a tool for productive territorial planning was put into place: the *Zone d'Activité Économique* (ZAE). As sites reserved for the establishment of enterprises within a given perimeter, outside inhabited centres, ZAEs have since grown steadily and become one of the major factors responsible for the peri-urbanisation of the French territory. Their impact on soil artificialisation and the fragmentation of agricultural land forces us today to question their ability for the sustainable development of the territory. Can the soil of the activity sites be considered the 'active operator' of productive processes, a heritage to be maintained and valued within the economic process?

KEYWORDS

Productive Territory, ZAN, Enterprises, Zoning, Peri-urban

PEER REVIEWED

<https://doi.org/10.6092/issn.2612-0496/14775>

ISSN 2612-0496

Copyright © 2022 Federico Diodato



“The basis of everything is soil, without soil you have no food, it is the basis of everything. Once sealed, it’s over.”¹

With these words, a farmer concludes *La terre en morceaux*, a documentary depicting the citizens’ struggle of the *Ferme des Bouillons*, a farmstead situated near Rouen (Normandy, France) threatened in 2012 by the creation of a *Zone d’activités économiques* (ZAE) to accommodate a new shopping centre of the Auchan group.

The newspaper *Paris-Normandie* described the “great incomprehension” when the demolition permit for the ten buildings on the Farm was granted. Immochan, a real estate subsidiary of the Auchan group, had just bought this farm complex located in an area called *Bel Event*: an agricultural site on the edge of a “natural area of ecological, faunistic and floristic interest”. The project was to build a hypermarket just like the *Ferme du Sart*, a commercial activity zone located in Villeneuve-d’Ascq (59) which seeks, through the marketing of short circuits, to establish a link with local agriculture. Faced with this project, the citizens loudly demanded that the socialist mayor Patrice Colasse reviewed the *Plan local d’urbanisme* (PLU) to “restore the site’s status as a natural zone, lost in 2006”.² A citizens’ group organised itself, founded the *Association pour la protection de la Ferme des Bouillons* (APFB) and on December 6, 2012, began to occupy the farm: their objective was to preserve the agricultural character of the site and avoid the demolition of the buildings.

Based on this situation, Ariane Doublet, the director of *La terre en morceaux*, opens up on the practices of artificialisation of agricultural land in the Rouen region up to Le Havre. By giving a voice to the actors involved (from developers to farmers, via the mayors of the villages concerned), she reveals the power dynamics between companies, developers, elected officials and inhabitants, and shows the double dimension of this disconnection: environmental and social. As described by *Le Monde*, in this documentary the actors themselves highlight the mechanisms of this process. Ariane Doublet explores processes that can be observed at the local level, but which resonate very strongly on a wider scale. The documentary states that on a national scale, this type of “devastating transformation” of territories is the equivalent, size-wise, to one department every seven years, of which 25% of the artificialisation of soils is caused by activity sites. In this process, agricultural land is caught between excessive expropriations, on the one hand for the creation of zones, roads, etc., and on

1 «La base de tout c’est la terre, sans la terre on n’a pas à manger, c’est la base de tout. Une fois qu’elle est bétonnée, c’est fini» (translated by the author) in *La Terre en morceaux*, Documentary (Quark Productions, ARTE France, 2015), http://www.film-documentaire.fr/4D ACTION/w_fiche_film/23224_1.

On this subject, see the article “Sols à défendre” that I wrote with Emmanuelle Raoul-Duval in *Zones en devenir – en déshérence* edited by Canal architecture, Paris, 2023

2 Caroline Heurtault, ‘Les Bouillons en danger’, *paris-normandie.fr*, 12 December 2012, sec. Planet, https://web.archive.org/web/20160323224349/https://www.paris-normandie.fr/detail_article/articles/PN-880789/hemertheque/les-bouillons-en-danger-0-880789#.VvMcOzP06h.

the other hand by constantly expanding farms, without leaving room for family-size owned farms.

Almost 10 years after the beginning of this citizens' struggle, several critical elements that directly concern the planning of the French territory remain relevant:

First of all, it underlines the complexity of the relationship between economic and productive activities and soil, a relationship that encompasses a multitude of actors with varied interests.

In face of this complexity, it is impossible to separate environmental issues (in this case that of land reclamation) from social issues:

In a context where land use has such an impact on the value of land, independently of its quality, sustainable spatial planning is intertwined with the economic and political dimension.

Secondly, it shows the inadequacy of the development tools for economic and productive activity sites (in this case the ZAE), off-ground models, disconnected from the physical and social context, which struggle to respond to contemporary issues.

Nearly 60 years after their creation, it questions whether these tools are still appropriate for a sustainable spatial planning.

And finally, it also warns us of the difficulty of developing strategies that address this complexity of factors.

The “devastating transformation” of soils

“We have to do away with business zones, industrial zones, commercial zones, residential zones, leisure zones. The old functionalism is dead. It has done enough damage. Let's go back to mixing”.³ On April 29, 2009 Nicolas Sarkozy presented the Grand Paris project and enacted the end of zoning. A few months later, the article *Comment la France est devenue moche* in the magazine *Télérama* analysed a territory invaded by industries of all types and sizes, in a seemingly chaotic and uncontrolled process of peri-urbanisation of the territory, and asked the question: should we speak of a “transformation”, or indeed “destruction” of the French territory?⁴

The *Télérama* article and the Grand Paris project have provided an opportunity to open a debate on the role that business sites and the tools of the ZAE play in the process of territorial fragmentation: these planning models are the spatial concretisation of an urbanism that has internalised the

3 Nicolas Sarkozy, 'Déclaration de M. Nicolas Sarkozy, Président de la République, sur le projet du Grand Paris, à Paris le 29 avril 2009', vie-publique.fr, 29 May 2009, <https://www.vie-publique.fr/discours/175124-declaration-de-m-nicolas-sarkozy-president-de-la-republique-sur-le-pr> (translated by the author).

4 Xavier de Jarcy and Vincent Remy, 'Comment la France est devenue moche', *Télérama*, 12 February 2010, <https://www.telerama.fr/monde/comment-la-france-est-devenue-moche,52457.php>.

productive system and considers itself entirely at the service of production. The urbanism that determines these planning tools is the project of an industrialised society that seeks the means of optimisation and rationalisation through its spatial component.⁵

This “devastating transformation”, which mainly concerns agricultural land, is reflected in the change of land use and its possible sealing. In this process, business sites play a major role, which has been widely taken into account in recent years in the more general debate about the fight against soil artificialisation. The theme of soil artificialisation is central to research, reports and public policies in the field of urban and territorial planning, and it has also now become topical in the field of architecture.⁶ The report on soil artificialisation is unambiguous⁷ and there is a general consensus on the need to curb it, as it is considered “one of the main causes of the erosion of biodiversity”.⁸ On a European scale, great importance is given to the effects of soil sealing, a process responsible for dissociating the relationship that soils maintain between the biosphere and the lithosphere, disrupting its potential functions.⁹

Ghislain Géniaux, coordinator of the chapter on the impact of artificialisation on the quality of agricultural soils in the 2017 Inra-Ifsttar report, raises specific concerns about the future of agricultural soils, areas that present particular frailties in the face of the phenomenon of urban sprawl. These are the soils whose quality is most threatened by artificialisation, as they are often located close to cities and therefore subjected to the process of urban sprawl, and, at the same time, the least preserved by public policies, which have historically been more attentive to other natural areas. The notion of “quality” applied to a soil “is evaluated according to the services expected from it”¹⁰ and the analyses that propose an estimate of the productive capacity of a soil indicate the decrease, or even the loss, of the agricultural production capacity due to artificialisation. In particular, the research cited in the report

5 André Lortie, ‘De quoi l’urbanisme est-il le projet ?’ (Dossier d’habilitation à diriger des recherches, Panthéon-Sorbonne, 2021).

6 As a demonstration of this awareness, several events have taken place in recent years: On 4 May 2019, the first *Biennale d’architecture et de paysage d’Ile-de-France* (BAP!) opened and for the section dedicated to landscape, Alexandre Chemetoff, curator of the exhibition, chose the title *Le goût du paysage*, putting the production of agricultural soils in the spotlight of the event. “A return to the earth” in search of a renewed balance between town and country. *Le goût du paysage* follows another important event, *Capital agricole* at the Pavillon de l’Arsenal, which, in a work that is both analytical and forward-looking, highlights the agricultural potential of the Ile-de-France region.

7 Lauriane Thomas, *Le foncier d’activités économiques, variable d’ajustement des modèles de développement local ? : an application to the Provence Alpes, Côte d’Azur region*, University of Avignon, Avignon, 2021, p. 15 (translated by the author).

8 Béatrice Béchet, Yves Le Bissonais, and Anne Ruas, ‘Sols artificialisés et processus d’artificialisation des sols : déterminants, impacts et leviers d’action. Rapport’ (INRA, December 2017), <https://doi.org/10.15454/731a-nn30>.

9 European Environment Agency, *Soil resource efficiency in urbanised areas*, Luxembourg, Publications Office of the European Union, 2016

10 This is a debated definition, see *Ibid.*, 278.

stresses that this process regards mainly soils of very high quality.¹¹ Artificialisation is therefore mainly “seen as a process of urbanisation of agricultural and natural areas” which has a major impact on the loss of soil quality. However, the INRA-lfsttar report, following analytical work carried out on the international Web of Science (WOS) database, stresses that the definition remains little discussed in the literature: it remains a “scientifically ambiguous” object that lacks precision, as the notions of “artificial soils” and “soil artificialisation” refer respectively to specific modes of occupation and changes in land use,¹² the differences between which and the process of sealing remain controversial.

Artificialisation is defined “by the negative”, an artificialised soil is therefore described by what it is no longer : “surfaces removed from their natural state (fallow land, natural grassland, wetlands, etc.), or from their forest or agricultural uses”.¹³ By encompassing multiple ways of using and occupying land, this process combines land “strongly shaped by human activity (housing, industrial buildings, but also building sites, quarries, mines, landfills, etc.)” with others on which there is less human interference, for example “green spaces associated with these uses (parks and gardens, sports and leisure facilities, etc.)”.¹⁴ The enduring ambiguity in the definition of the term “artificialisation” remains because of the complexity of assessing the various degrees of human action that impact artificialised land, depending on its use. In a territory that is almost entirely anthropised, artificialisation is one factor amongst others,¹⁵ however, as Jean Cavailhès ironically points out, “concrete or garden, don’t confuse them: tomatoes don’t grow on concrete”.¹⁶

The *Centre d’études et d’expertise sur les risques, l’environnement, la mobilité et l’aménagement* (Cerema), in its 2019 report on the rate of soil artificialisation, uses the definition proposed by Inra-lfsttar and considers artificialised any space that is neither natural, agricultural nor forested.¹⁷ The same report, based on a comparison of Teruti-Lucas sources and

11 Gergely Tóth, ‘Impact of Land-Take on the Land Resource Base for Crop Production in the European Union’, *Science of The Total Environment* 435-436 (October 2012): 202-14, <https://doi.org/10.1016/j.scitotenv.2012.06.103>; Ece Aksoy et al, ‘Assessing and Analysing the Impact of Land Take Pressures on Arable Land’, *Solid Earth* 8, no. 3 (20 June 2017): 683-95, <https://doi.org/10.5194/se-8-683-2017>.

12 Béchet, Bissonnais, and Ruas, ‘Sols artificialisés et processus d’artificialisation des sols’.

13 Arnaud Bouteille, ‘Vers une redéfinition de l’artificialisation ? (ou, devrait-on dire, une première définition ?)’, *Fonciers en débat* (blog), 15 April 2021, <https://fonciers-en-debat.com/vers-une-redefinition-de-lartificialisation/> (translated by the author).

14 Béchet, Bissonnais, and Ruas, ‘Sols artificialisés et processus d’artificialisation des sols’, 13 (translated by the author).

15 Philippe Bihoux, Sophie Jeantet, and Clémence De Selva, *La ville stationnaire : Comment mettre fin à l’étalement urbain* (Arles : Actes Sud, 2022).

16 Jean Cavailhès, ‘Artificialisation des sols : de quoi parle-t-on ?’, *Constructif* 57, no. 3 (2020): 23, <https://doi.org/10.3917/const.057.0021> (translated by the author).

17 Cerema, ‘L’artificialisation et ses déterminants d’après les Fichiers fonciers. Période 2009-2017 - Chiffres au 1er janvier 2017’ (Lille : Cerema, 2019), 9 (translated by the author).

fichiers fonciers,¹⁸ estimates that at the national level the overall proportion of soil artificialized is in France 9.58%. This surface is distributed according to use: 68% is used for housing, 26% for activities, 4% for unknown uses and 2% for mixed uses. The analyses show an overall increase in land consumption between 2016 and 2019, despite with a decrease between 2009 and 2016. Business sites are not the main factor in the artificialisation of land: the main destination of the artificialised surface is housing, but their impact is far from negligible and represents around a quarter of the artificialised surface, with a +6.8% of artificialised land per year extension rate (much higher than that for households, around +1.6% per year).

Business sites are therefore “one of the driving forces behind the consumption of space in the peri-urbanisation of cities”,¹⁹ which results in the expansion of artificialised land on ever larger and more distant areas. Despite its major role, it is of little interest to specialists in the humanities and urban planning, who are more interested in the impact of suburban housing and the consequent relationship between the city and the countryside. According to the researcher Patricia Lejoux, the wealth of this work has often made us forget that “institutional actors and companies have also played an important role in the development of peri-urban spaces”.²⁰

The earth in pieces

Eric Glon’s pioneering work on the Seuil de l’Artois, already in the early 1990s, described the ZAE as an essential aspect of peri-urbanisation, and its role in the standardisation of peri-urban landscapes, characterising the entrances to the cities and offering “an anarchic juxtaposition of parking spaces and more or less well-kept buildings, without the slightest aesthetic research”.²¹ A territory free of all constraints that escapes the classic regulatory framework, subjected to the hegemony of the economy, described by David Mangin’s research on the franchised city. Mangin analyses the characteristics of these “large, private, secure and less and less free areas” and notes the “progressive scarcity of public spaces within this new urban organisation, which appears to be antinomic with the foundations of the city”.²² Through their establishment, the groups of corporate capitalism are creating a form of territorial organisation centred on

18 *Fichiers fonciers* are land records providing a detailed description of the land and the property rights associated.

19 Cerema, ‘Les déterminants de la consommation d’espaces. Période 2009-2019 - Chiffres au 1er janvier 2019’ (Lille : Cerema, 2020), 57 (translated by the author).

20 Patricia Lejoux, ‘Les entreprises, actrices de la périurbanisation en France’, in *Aux marges de la ville. Paysages, sociétés, représentations*, ed. Denis Menjot, Sophie Collin-Bouffier, and Claude-Isabelle Brelot (Paris : L’Harmattan, 2015), 195-204, <https://halshs.archives-ouvertes.fr/halshs-01283968>.

21 Éric Glon, ‘L’impact croissant des zones d’activités dans la périurbanisation et la rurbanisation : l’exemple du seuil de l’Artois’, *Hommes et Terres du Nord* 3, no. 1 (1993) : 199-210, <https://doi.org/10.3406/htn.1993.2441>.

22 David Mangin, *La Ville Franchisée* (Paris: Edition de la Villette, 2004).

privatisation²³ and favouring the constitution of new polarities determined by fragmentation and spatial discontinuity. Since the 1960s, this process has been accompanied by the distance between homes and jobs, which intensified in the 1980s and 1990s. A growth of employments that relies on several mechanisms mainly linked to:

1) the relocation of companies setting up outside the cities, 2) the creation of new economic activities seeking to be closer to the inhabitants of the peri-urban territory, 3) and finally, the new jobs created in the companies already established on the outskirts.²⁴

Over the last sixty years, “new peri-urban centralities” have been established in the territory, around companies whose activity diversifies according to the needs of the municipalities, “business parks and areas, logistics platforms, technology parks, leisure parks...”,²⁵ the first hypermarkets and the first shopping centres: secondary centres where it is possible to find some of the services of the urban centres²⁶ and “living centres” which attract urban and peri-urban consumers. As Martin Vanier points out, it is characterised by “situations of interweaving and hybridisation between town and country, of segmentation, fragmentation and re-differentiation of two worlds, the urban and the rural, which are used to living through each other, but also to proclaiming their respective unity, which has however been shattered”²⁷. The process of urban sprawl has given rise to a large body of research that, looking at both the environmental and social impact, demonstrates the difficulty of associating this process with sustainable territorial development.

The productive system, through its planning tools, produces a continuous exploitation of natural resources and makes social ties increasingly fragile and precarious.²⁸ Soil is an element of nature inextricably linked to the actions of humankind. Productive activities have compromised this “complex whole”, in which labour is part of life, and land remains part of nature.²⁹ As Karl Polanyi points out, the productive function is only one of the functions of soil, and the reduction of its functions to that of a simple support for production shows its complete subordination to the needs of the productive system. In this regard, Paul Guilibert, analysing the relationship between land and capital, introduces the concept of “extractivism”

23 Patricia Lejoux, ‘Quelle place pour la zone d’activités économiques dans la fabrique de la ville contemporaine ?’, in *Les nouvelles fabriques de la ville. Objets, référentiels et méthodes*, by Guy Baudelle and Gilbert Gaultier (Rennes : Presses Universitaires de Rennes, 2018), 25-32, <https://halshs.archives-ouvertes.fr/halshs-01844571>.

24 Lejoux, ‘Les entreprises, actrices de la périurbanisation en France’.

25 Ibid.

26 Béchet, Bissonnais, and Ruas, ‘Sols artificialisés et processus d’artificialisation des sols’, 190 (translated by the author).

27 Martin Vanier, ‘La relation «ville / campagne» excédée par la périurbanisation’, *Les Cahiers français : documents d’actualité*, no. 328 (October 2005) : 16 (translated by the author).

28 Rosario Pavia, *Tra suolo e clima: la terra come infrastruttura ambientale* (Roma: Donzelli editore, 2019).

29 Karl Polanyi, *The Great Transformation* (New York: Farrar & Rinehart, 1944).

precisely to indicate “a model of accumulation based on the overexploitation of largely non-renewable natural resources and on the displacement of the boundaries of territories hitherto considered as ‘unproductive’”.³⁰ The “extractivist” model is not exclusive to “strictly extractive” practices, but it also includes other productive activities that perform an “irresponsible appropriation” of resources, which, because of this very exploitation, become non-renewable. The objective of this exploitation of resources is the accumulation of capital, which does not only lead to “environmental destruction”: the deterioration of the soil is accompanied by the loss of links with and between the community, “communal social relations are destroyed in the same way as the relations to the land on which they were based are destroyed”.³¹

Some research, considering the peri-urbanisation of the territory as a ‘step’ towards new relations between town and country, proposes to develop strategies allowing to inscribe peri-urban territories in more sustainable trajectories and to establish new forms of territoriality.³²

What is the role of productive activities in this process?

It should already be pointed out that the ZAE, while remaining the most widespread tool for the planning of economic activity sites, is “an old concept, but constantly renewed”³³ which coexists with variants. Since the 1980s, with the development of environmental awareness in the general public, it has become increasingly difficult for companies to establish a business without considering the environmental consequences and the effects on public opinion. Environmental certifications are becoming widespread practices to improve performance, as well as a means of promotion and corporate communication. The various reports on sustainable development open the possibility of reconciling ecology with economic development, give “ecological legitimacy to the system”³⁴ and the consideration of soil and its landscaping becomes central to develop a brand image that distinguishes the product and gives it its own identity. The purpose of soil is to socially mark the space.³⁵

In France, the development tool of *Parc d’activités économiques* (PAE) was set up in the 1980s to address these challenges and meet the communication needs of companies, and, with the use of the word “park”,

30 Paul Guillibert, *Terre et capital: pour un communisme du vivant* (Paris: Éditions Amsterdam, 2021), 152 (translated by the author).

31 Ibid.

32 Vanier, ‘La relation “ville / campagne” excédée par la périurbanisation’.

33 Glon, ‘L’impact croissant des zones d’activités dans la périurbanisation et la rurbanisation’, 1 (translated by the author).

34 Matthias Petel, ‘La nature : d’un objet d’appropriation à un sujet de droit. Réflexions pour un nouveau modèle de société’, *Revue interdisciplinaire d’études juridiques* 80, no. 1 (2018): 207–39, <https://doi.org/10.3917/riej.080.0207>.

35 Bernadette Mérenne-Schoumaker, ‘Des zones industrielles aux parcs scientifiques, technologiques et d’affaires. Trente ans de mutation des sites d’entreprises’, *Hommes et Terres du Nord* 2, no. 1 (1991) : 155, <https://doi.org/10.3406/htn.1991.2334> (translated by the author).

underlining the will to integrate economic spaces into their geographical environment.³⁶ Three categories of parks can be identified:

Science and research parks, technology parks and business parks.³⁷ The first site developed to accommodate productive activities, Trafford Park, is a business park, which served in the 1950s as a model for industrial and commercial zones.

Indeed, it is the same zoning logic that determines the choice of location for business sites, whether they are called zones or parks. In both cases, these sites have been modulated to meet the requirements of companies, particularly high-tech ones.³⁸ The location of these companies generally favours strategic land, characterised by its proximity to the motorway network and a “green setting” which is preserved by low land use coefficients (0.25 to 0.10).³⁹

A more recent evolution of PAE is the eco-park, a model defined by ecological and environmental characteristics that also provide economic benefits. The eco-park integrates new technologies, and, inspired by the principles of industrial ecology, “challenges the usual mode of production by paying particular attention to the management of natural resources”.⁴⁰ It refers to the Eco-Industrial Park (EIP), a model theorised in the mid-1990s by Brendan Doyle, Ernest Lowe and Stephen Moran, and defined as “a Community of Companies [...] seeking enhanced environmental and economic performance through collaboration in managing environmental and resource issues”.⁴¹ The objective of an EIP is, through the use of sustainable design strategies, the integration of industrial ecology principles⁴² and the cooperation between companies, to improve environmental (pollution reduction, optimisation of energy expenditure, etc.) and economic performances that are far greater as a collective than the sum of their isolated parts.

36 Jean-François Saigault, 'Zones et parcs d'activités économiques en Île-de-France' (Paris : IAU IdF- Institut d'Aménagement et d'Urbanisme de la région Île de France, 8 November 2018), https://www.institutparisregion.fr/fileadmin/DataStorage/user_upload/OK_Etude_zones_et_parc_d_27activite_s_en_IDF_octobre_20188_V9_Definitif.pdf.

37 Mérenne-Schoumaker, 'Des zones industrielles aux parcs scientifiques, technologiques et d'affaires. Thirty years of change in business sites'.

38 Ibid, 153.

39 Ibid, 168.

40 Elisa Conticelli and Simona Tondelli, *La pianificazione delle aree produttive per lo sviluppo sostenibile del territorio* (Firenze: Alinea, 2009).

41 Brendan Doyle, Ernest A. Lowe, and Stephen R. Moran, *Fieldbook for the Development of Eco-Industrial Parks: Final Report* (Indigo Development, 1996), 12 (translated by the author).

42 Concerning the notion of industrial ecology, refer to the seminal work of Robert A. Frosch, 'Industrial Ecology: A Philosophical Introduction', *Proceedings of the National Academy of Sciences of the United States of America* 89, no. 3 (1992): 800-803, <https://doi.org/10.1073/pnas.89.3.800>.

Beyond a sustainable development of productive territories

Even if these models show that taking environmental issues into account is a priority, combining them with sustainable planning is not obvious. Firstly, the progression of business parks and eco-parks, which are still reserved for a medium to high-end market, has not prevented local authorities from creating and developing ZAEs for local SMEs. Secondly, most of the efforts made by public authorities and companies have focused on the link between the economy and the environment, but with “much less attention being paid to the social or community dimension of sustainability”.⁴³ Seemingly placing the land as the main protagonist in the development of business sites, these models highlight the lack of questioning of the very system that produced them. In this regard, the geographer Fabienne Joliet, using Augustin Berque’s notion of the “*paysagement* era”,⁴⁴ analyses the development of business parks in which “every space becomes a landscape”:

By considering business sites as a landscape motif in their own right, the park model would generate a “pernicious and dangerous banalisation that would alter the landscape diversity⁴⁵ “. David Mangin emphasises that the quality of these vegetated spaces is directly subjected to the image of the brand, which offers, through the park, “a perfect model for thinking about spacing and enclosing a privileged piece of nature”.⁴⁶

On the other hand, in these parks, the logic of monofunctional, CCTVed zones remains, which constitute reserved and privatised “enclaves without overly visible enclosures”.⁴⁷

Whether they are zones, parks or eco-parks, the soil of business sites is considered as a surface solely dedicated to economic and productive activities, and not as a support for living spaces inserted in a territory on which they do not only have an impact, but with which they establish a relationship. By seeking to define valid models without taking into account the diversities of the context and questioning the logic of the productive system, these models propose partial solutions that risk tending dangerously towards a privatisation (franchising, to use Mangin’s term) of the territory. The design of these business parks is still anchored in a logic of short-term profitability, disconnected from the territory, whose soil is not taken into account as a heritage to be maintained and developed.

43 Raymond P. Côté and Edward Cohen-Rosenthal, ‘Designing Eco-Industrial Parks: A Synthesis of Some Experiences’, *Journal of Cleaner Production* 6, no. 3 (1 September 1998): 181-88, [https://doi.org/10.1016/S0959-6526\(98\)00029-8](https://doi.org/10.1016/S0959-6526(98)00029-8).

44 Augustin Berque, *Médiance: de milieux en paysages* (Montpellier: GIP Reclus, 1990).

45 Fabienne Joliet, ‘Paysages d’entreprises’, *Espace géographique* 25, no. 3 (1996) : 257-59, <https://doi.org/10.3406/spgeo.1996.994>.

46 Mangin, *La Ville Franchisée*, 145 (translated by the author).

47 Ibid.

Beyond the park and eco-park models, the need to find planning strategies capable of reducing land artificialisation has prompted public authorities, following the European Union directives,⁴⁸ to impose a target designed to challenge the very tools and planning of business sites: it is the Zéro artificialisation nette (ZAN) target, which proposes to “eliminate any net increase in the area of occupied land by 2050”.⁴⁹

This target, initially included in the 2018 biodiversity plan, has been integrated into the *Loi climat et résilience* with two objectives: reduce the artificialisation of land and combat the degradation of biodiversity.⁵⁰ Objectives that directly concern the development of business sites: Article 220 of the *Loi climat et résilience* provides rules that directly regard the relationship between land and business parks, by stipulating that the *Établissement public de coopération intercommunale* (EPCI) that manages them must carry out an inventory identifying the surface area of the land, its division into plots, its occupants and its vacancy rate.

ZAN is defined as “the balance of soil artificialisation and renaturation recorded within a given area and over a given period of time”, in which artificialisation is “the most lasting alteration of all or part of the ecological functions of a soil” and renaturation the opposite process.⁵¹ In line with an ecosystem-based conception of land, ZAN proposes an openly quantitative objective, centred on a “surface” balance, which, in order to guarantee a “net” balance, introduces a biodiversity compensation logic based on the sequence - avoid, reduce, compensate.⁵² This compensation, which in the spirit of the law will be applied through measures to renaturalise artificialised land, presents critical points outlined by several specialists, who stress the difficulty of renaturalising a living ecosystem, which is the product of complex interrelations. As Jean Gadrey points out, soil is not simply a heritage to be preserved, but a living heritage “that must be cared for by preserving or maintaining the dynamics and functionalities linked to it, which goes beyond the injunction to use sparingly the ‘resources’ that support it. To compensate for its biodiversity, it is necessary to re-establish its ‘vital interrelations’ and its ‘functionalities’ within the living world”.⁵³

48 ‘Roadmap to a Resource Efficient Europe’ (Brussels: European Commission, 20 September 2011), <https://eur-lex.europa.eu/legal-content/FR/TXT/PDF/?uri=CELEX:52011DC0571&from=EN>.

49 Cerema, ‘L’artificialisation et ses déterminants d’après les Fichiers fonciers. Période 2009-2017 - Chiffres au 1er janvier 2017’, 9 (translated by the author).

50 Ibid.

51 JURIDIQUE - La loi “Climat et résilience” du 22 août 2021 inscrit la lutte contre l’artificialisation des sols dans les grands objectifs de l’urbanisme’, [cerema.fr](http://outil2amenagement.cerema.fr/juridique-la-loi-climat-et-resilience-du-22-aout-a3069.html), 2 September 2021, <http://outil2amenagement.cerema.fr/juridique-la-loi-climat-et-resilience-du-22-aout-a3069.html> (translated by the author).

52 Bihouix, Jeantet, and De Selva, *La ville stationnaire*.

53 Jean Gadrey, ‘La biodiversité n’est pas une ressource naturelle’, *Reporterre*, 9 September 2014, <https://reporterre.net/La-biodiversite-n-est-pas-une-ressource-naturelle>.

Maintaining the dynamics of this living heritage encourages us to move away from a simply quantitative approach to artificialisation, an approach that denies the social, economic and environmental complexities of the territories, and towards a qualitative approach which, on the contrary, could contribute to a revision of planning thinking.⁵⁴ Éric Charmes, who raised this issue back in 2013, considers that the impacts on agricultural land “are due less to the quantity of artificial land than to the methods of artificialisation [...]. In other words, the challenges of artificialisation are not so much quantitative as qualitative: what land is artificialised and how?”⁵⁵ The discontinuity of peri-urbanisation (which Charmes considers to be a process of *émiettement*)⁵⁶ has an impact on biodiversity and agricultural land that is greater than the amount of artificial land, causing the disruption of ecological corridors and increasing the fragmentation of the territory, because “it is not enough to declare that artificialisation is an evil that should be reduced to nothing to solve the problem”.⁵⁷ Recognising the problems with this measure and the inadequacy of environmental compensation schemes, the authors of *La ville stationnaire* propose to move from ZAN to *Zéro artificialisation brute* (ZAB): or to stop artificialisation altogether. Cities would develop according to “a new ‘contract’: the protection of all soils, agricultural and non-agricultural - including those already open to urbanisation - which would be considered a rare and non-renewable resource, a ‘common good’, preserved for future generations, for their nourishing potential, but also their capacity to provide ‘ecosystem services’, to contribute to climate regulation, to host biodiversity...”.⁵⁸ They therefore propose the notion of a “*ville stationnaire*”, a city that focuses on itself, its renewal, its densification and its repair. In this reflection, the land of business sites is directly concerned: by considering it as “density reserves”, a “land deposit” that is artificial and “largely under-exploited”,⁵⁹ through the optimisation of spaces, their mutualisation and their reasoned densification, business sites could play a central role in the development of cities.

This notion leads us to rethink the role of business sites in a “balanced” urban development. Several research-action projects have already been supported recently towards this goal by the PUCA,⁶⁰ by the *Conseil*

54 Stéphane Cordobes et al, eds, *Repenser l'aménagement Du Territoire : Colloque de Cerisy, Au Fil Du Débat. Études* (Colloque de Cerisy, Boulogne-Billancourt : Berger-LevraultLevrault, 2020).

55 Éric Charmes, ‘L’artificialisation est-elle vraiment un problème quantitatif ?’, *Études foncières*, no. 162 (15 March 2013): 23 (translated by the author).

56 Éric Charmes, *La ville émiettee* (Paris: Presses Universitaires de France - PUF, 2011).

57 Éric Charmes, ‘De quoi le ZAN (zéro artificialisation nette) est-il le nom ?’, *Fonciers en débat* (blog), 25 September 2021, <https://fonciers-en-debat.com/de-quoi-le-zan-zero-artificialisation-nette-est-il-le-nom/> (translated by the author).

58 Bihouix, Jeantet, and De Selva, *La ville stationnaire*, 209 (translated by the author).

59 *Ibid*, 253 (translated by the author).

60 PUCA supports a research program on the theme of the productive city, see PUCA, ‘Ville productive’, Plan Urbanisme Construction Architecture, 30 November 2022, <http://www.urbanisme-puca.gouv.fr/ville-productive-r140.html>. See in particular the research project directed by Gilles Novarina.

d'architecture, d'urbanisme et de l'environnement (CAUE)⁶¹ of various departments, in this sense. However, this notion and these experiences should not make us forget that “refraining from sealing new soils, favouring short cycles and building with biosourced, recycled or recyclable materials”⁶² is not enough to compensate the damage of the last two centuries. We should rather consider the “very act of building” as an act of repairing our soils and our territories. A conception of architecture that opens up the possibility of considering architecture as a means of maintaining and enhancing the territory, in which the restoration of the soil embodies both the condition of harmony and the modality of its resistance through time.⁶³ The aim? To ensure that architecture can participate in the development of strategies “truly equal to the Anthropocene challenge and the need to build a new way in which we can live with dignity tomorrow”.⁶⁴

Conclusion

The difficulty of combining the planning models for business sites with the possibility of maintaining and enhancing the physical and social complexities of the territorial contexts in which they are inserted, means that the strategies adopted are not only an inadequate response to the socio-environmental issues raised, but are part of a long tradition of urban planning determined by the imposition of industrial logics on the territory. These logics contribute to the development of the productive system by providing it with the means of spatial implantation, the main purpose of which is the production of economic value, and the resulting planning tools remain locked into logics of economic profitability, hence the exploitation and domination of natural resources.

Faced with a planning of productive activities that is inadequate for the development of the territory, and which does not manage to escape a logic of exploitation of resources, it is necessary to ask a question: what is the project of urban planning?⁶⁵

The question is central today, because, if the very purpose of urban planning is to guarantee the development of a durable territory, in the sense

61 See in particular the *MIX CITE 3* competition launched on 20/05/2022 by the CAUE of Haute-Savoie, *MIX CITE 3*; *mixcite.caue74*, 3, accessed 10 December 2022, <http://mixcite.caue74.fr/mixcite-3/>. See the seminar *Reconnaître les sols urbains* proposed by the architect Patrick Henry with the CAUE92.

62 Paul Landauer, *Making the Case for Restorative Architecture*, Podcast, 12 May 2021, <https://www.rue89lyon.fr/2021/05/10/plaidoyer-architecture-reparation/>.

63 In this regard Paul Landauer points to a particularly stimulating parallelism between the act of repairing the soil and Alberti's theories in *De re aedificatoria*: “Alberti integrated the act of building into a terrestrial and aquatic cycle that had to be constantly perfected, completed and maintained. From then on, the architect had to explore both the thickness and the surface of the soil”. See Paul Landauer, ‘Repairing the Soil: The Lesson of Alberti’, in *The Project of the Soil*, ed. David Peleman et al, Oase 110 (Rotterdam: nai010 publishers, 2021), 17.

64 Stéphane Cordobes, ‘Repenser l'aménagement des territoires’, *Constructif* 60, no. 3 (2021): 61–65, <https://doi.org/10.3917/const.060.0061>.

65 Lortie, ‘De quoi l'urbanisme est-il le projet ?’

that it is capable of matching the needs of the productive system with those of a territorial development inscribed in the long term, it is necessary to re-examine its very foundations concerning the technique and the notion of sustainability. Without questioning the productive system itself, planning strategies that aim at sustainable development risk being reduced to their technical component “to the detriment of a real transformation of the productive system”.⁶⁶ As Daniel Tanuro states, “what is called an ‘ecological crisis’ is rather a historical crisis of the relationship between humanity and its environment”, and, given that the problem is structural, a change that is itself structural is required.⁶⁷

This article is dedicated to the analysis of the relationship that the productive system establishes with the soil, but, from my point of view, in order to develop a “radical approach”, it is necessary to consider the act of planning in relationship to the notion of *durée* by understanding the territory as a “living organism”: “organism” because characterised by the synergetic interaction of its components (natural and social), “living” because constantly evolving in a creative evolution that “changes without ceasing”.⁶⁸ By taking into account this co-evolutionary and cooperative link between community, productive activities and natural resources, it will participate to reclaim natural resources, respect their ecological cycles and rhythms on the one hand, and to identify elements of response to the social crisis on the other. An approach in which the community has an active role, and gives the territory its meaning and participates in its maintenance and enhancement in the long term⁶⁹.

66 Pierre Caye, Durer: *Éléments pour la transformation du système productif* (Paris: Belles Lettres, 2020).

67 Daniel Tanuro, *L'impossible capitalisme vert* (Paris: La Découverte, 2012) (translated by the author).

68 This conception of the territory has been expressed already at the begging of the 19th century by the biologist Patrick Geddes. For the concept of creative evolution Patrick Geddes openly refers to Henri Bergson, in Patrick Geddes and J. Arthur Thomson, *Evolution* (London: Williams & Norgate, 1911), 204.

69 An important approach is the one developed by *Società dei territorialisti/e*. Regarding the synergetic relationship between the production system and the territory see in particular Giacomo Becattini, *La coscienza dei luoghi. Il territorio come soggetto corale*, Saggine (Roma: Donzelli Editore, 2015), 10; Alberto Magnaghi, *Il principio territoriale* (Torino: Bollati Boringhieri, 2020).

Federico Diodato is a PhD student in Architecture at the University of Bologna and at the University of Paris-Est, OCS laboratory - UMR AUSser 3329. Both an architect and an urban planner, he currently is a partner at the Paris-based architecture office faire and since January 2020, he has been journal manager of the scientific review *The European Journal of Creative Practices in Cities and Landscapes* (CPCL) edited by the University of Bologna and TU Delft. In 2022 he was a visiting researcher at the University of Edinburgh to carry out research at the Patrick Geddes Archive.

References

- Aksoy, Ece, Mirko Gregor, Christoph Schröder, Manuel Löhnertz, and Geertrui Louwagie. 'Assessing and Analysing the Impact of Land Take Pressures on Arable Land'. *Solid Earth* 8, no. 3 (20 June 2017): 683–95. <https://doi.org/10.5194/se-8-683-2017>.
- Becattini, Giacomo. *La coscienza dei luoghi. Il territorio come soggetto corale*. Saggine. Roma: Donzelli Editore, 2015.
- Béchet, Béatrice, Yves Le Bissonnais, and Anne Ruas. 'Sols artificialisés et processus d'artificialisation des sols : déterminants, impacts et leviers d'action. Rapport'. INRA, December 2017. <https://doi.org/10.15454/731a-nn30>.
- Berque, Augustin. *Médiance: de milieux en paysages*. Montpellier: GIP Reclus, 1990.
- Bihouix, Philippe, Sophie Jeantet, and Clémence De Selva. *La ville stationnaire: Comment mettre fin à l'étalement urbain ?* Arles: Actes Sud, 2022.
- Bouteille, Arnaud. 'Vers une redéfinition de l'artificialisation ? (ou, devrait-on dire, une première définition ?)'. *Fonciers en débat* (blog), 15 April 2021. <https://fonciers-en-debat.com/vers-une-redefinition-de-lartificialisation/>.
- Cavailhès, Jean. 'Artificialisation des sols : de quoi parle-t-on ?' *Constructif* 57, no. 3 (2020): 21–24. <https://doi.org/10.3917/const.057.0021>.
- Caye, Pierre. *Durer : Eléments pour la transformation du système productif*. Paris: Belles Lettres, 2020.
- Cerema. 'L'artificialisation et ses déterminants d'après les Fichiers fonciers. Période 2009-2017 – Chiffres au 1er janvier 2017'. Lille: Cerema, 2019.
- . 'Les déterminants de la consommation d'espaces. Période 2009-2019 – Chiffres au 1er janvier 2019'. Lille: Cerema, 2020.
- Charmes, Éric. 'De quoi le ZAN (zéro artificialisation nette) est-il le nom ?' *Fonciers en débat* (blog), 25 September 2021. <https://fonciers-en-debat.com/de-quoi-le-zan-zero-artificialisation-nette-est-il-le-nom/>.
- . *La ville émiettée*. Paris: Presses Universitaires de France - PUF, 2011.
- . 'L'artificialisation est-elle vraiment un problème quantitatif ?' *Etudes foncières*, no. 162 (15 March 2013): 23.
- Conticelli, Elisa, and Simona Tondelli. *La pianificazione delle aree produttive per lo sviluppo sostenibile del territorio*. Firenze: Alinea, 2009.
- Cordobes, Stéphane. 'Repenser l'aménagement des territoires'. *Constructif* 60, no. 3 (2021): 61–65. <https://doi.org/10.3917/const.060.0061>.
- Cordobes, Stéphane, Xavier Desjardins, Martin Vanier, and Philippe Aubert, eds. *Repenser l'aménagement Du Territoire: Colloque de Cerisy*. Au Fil Du Débat. Études. Boulogne-Billancourt: Berger-Levrault, 2020.
- Côté, Raymond P., and Edward Cohen-Rosenthal. 'Designing Eco-Industrial Parks: A Synthesis of Some Experiences'. *Journal of Cleaner Production* 6, no. 3 (1 September 1998): 181–88. [https://doi.org/10.1016/S0959-6526\(98\)00029-8](https://doi.org/10.1016/S0959-6526(98)00029-8).
- Doyle, Brendan, Ernest A. Lowe, and Stephen R. Moran. *Fieldbook for the Development of Eco-Industrial Parks: Final Report*. Indigo Development, 1996.

'Feuille de route pour une Europe efficace dans l'utilisation des ressources'. Bruxelles: Commission européenne, 20 September 2011. <https://eur-lex.europa.eu/legal-content/FR/TXT/PDF/?uri=CELEX:52011DC0571&from=EN>.

Frosch, Robert A. 'Industrial Ecology: A Philosophical Introduction'. *Proceedings of the National Academy of Sciences of the United States of America* 89, no. 3 (1992): 800–803. <https://doi.org/10.1073/pnas.89.3.800>.

Gadrey, Jean. 'La biodiversité n'est pas une ressource naturelle'. Reporterre, 9 September 2014. <https://reporterre.net/La-biodiversite-n-est-pas-une-ressource-naturelle>.

Geddes, Patrick, and J. Arthur Thomson. *Evolution*. London: Williams & Norgate, 1911.

Glou, Éric. 'L'impact croissant des zones d'activités dans la périurbanisation et la rurbanisation : l'exemple du seuil de l'Artois'. *Hommes et Terres du Nord* 3, no. 1 (1993): 199–210. <https://doi.org/10.3406/htn.1993.2441>.

Guillibert, Paul. *Terre et capital: pour un communisme du vivant*. Paris: Éditions Amsterdam, 2021.

Heurtault, Caroline. 'Les Bouillons en danger'. *paris-normandie.fr*, 12 December 2012, sec. Planète. https://web.archive.org/web/20160323224349/https://www.paris-normandie.fr/detail_article/articles/PN-880789/hemertheque/les-bouillons-en-danger-0-880789#.VvMcOOzP06h.

Jarcy, Xavier de, and Vincent Remy. 'Comment la France est devenue moche'. *Télérama*, 12 February 2010. <https://www.telerama.fr/monde/comment-la-france-est-devenue-moche,52457.php>.

Joliet, Fabienne. 'Paysages d'entreprises'. *Espace géographique* 25, no. 3 (1996): 257–59. <https://doi.org/10.3406/spgeo.1996.994>.

cerema.fr. 'JURIDIQUE - La loi "Climat et résilience" du 22 août 2021 inscrit la lutte contre l'artificialisation des sols dans les grands objectifs de l'urbanisme', 2 September 2021. <http://outil2amenagement.cerema.fr/juridique-la-loi-climat-et-resilience-du-22-aout-a3069.html>.

La Terre en morceaux. Documentaire. Quark Productions, ARTE France, 2015. http://www.film-documentaire.fr/4DACTION/w_fiche_film/23224_1.

Landauer, Paul. Plaidoyer pour une architecture de la réparation. Podcast, 12 May 2021. <https://www.rue89lyon.fr/2021/05/10/plaidoyer-architecture-reparation/>.

———. 'Repairing the Soil: The Lesson of Alberti'. In *The Project of the Soil*, edited by David Peleman, Martina Barcelloni-Corte, Elsbeth Ronner, and Paola Viganò, 17. Oase 110. Rotterdam: nai010 publishers, 2021.

Lejoux, Patricia. 'Les entreprises, actrices de la périurbanisation en France'. In *Aux marges de la ville. Paysages, sociétés, représentations*, edited by Denis Menjot, Sophie Collin-Bouffier, and Claude-Isabelle Brelot, 195–204. Paris: L'Harmattan, 2015. <https://halshs.archives-ouvertes.fr/halshs-01283968>.

———. 'Quelle place pour la zone d'activités économiques dans la fabrique de la ville contemporaine ?' In *Les nouvelles fabriques de la ville. Objets, référentiels et méthodes*, by Guy Baudelle and Gilbert Gaultier, 25–32. Rennes: Presses Universitaires de Rennes, 2018. <https://halshs.archives-ouvertes.fr/halshs-01844571>.

Lortie, André. 'De quoi l'urbanisme est-il le projet ?' Dossier d'habilitation à diriger des recherches, Panthéon-Sorbonne, 2021. <https://docausser.fr/dyn/portal/index.xhtml?alold=22586&page=alo&cid=112202c9-e958-4210-8c2e-c2c-355cda59d>.

Magnaghi, Alberto. *Il principio territoriale*. Torino: Bollati Boringhieri, 2020.

Mangin, David. *La Ville Franchisée*. Paris: Edition de la Villette, 2004.

Mérenne-Schoumaker, Bernadette. 'Des zones industrielles aux parcs scientifiques, technologiques et d'affaires. Trente ans de mutation des sites d'entreprises'. *Hommes et Terres du Nord* 2, no. 1 (1991): 152–57. <https://doi.org/10.3406/htn.1991.2334>.

mixcite.caue74. 'MIX'CITE 3'. Accessed 10 December 2022. <http://mixcite.caue74.fr/mixcite-3/>.

Pavia, Rosario. *Tra suolo e clima: la terra come infrastruttura ambientale*. Roma: Donzelli editore, 2019.

Petel, Matthias. 'La nature : d'un objet d'appropriation à un sujet de droit. Réflexions pour un nouveau modèle de société'. *Revue interdisciplinaire d'études juridiques* 80, no. 1 (2018): 207–39. <https://doi.org/10.3917/riej.080.0207>.

Polanyi, Karl. *The Great Transformation*. New York: Farrar & Rinehart, 1944.

PUCA. 'Ville productive'. Plan Urbanisme Construction Architecture, 30 November 2022. <http://www.urbanisme-puca.gouv.fr/ville-productive-r140.html>.

Saigault, Jean-François. 'Zones et parcs d'activités économiques en Île-de-France'. Paris: IAU IdF- Institut d'Aménagement et d'Urbanisme de la région Île de France, 8 November 2018. https://www.institutpari-region.fr/fileadmin/DataStorage/user_upload/OK_Étude_zones_et_parcs_d_27activite__s_en_IDF_octobre_20188_V9_Definitif.pdf.

Sarkozy, Nicolas. 'Déclaration de M. Nicolas Sarkozy, Président de la République, sur le projet du Grand Paris, à Paris le 29 avril 2009.' vie-publique.fr, 29 May 2009. <https://www.vie-publique.fr/discours/175124-declaration-de-m-nicolas-sarkozy-president-de-la-republique-sur-le-pr>.

Tanuro, Daniel. *L'impossible capitalisme vert*. Paris: La Découverte, 2012.

Thomas, Lauriane. 'Le foncier d'activités économiques, variable d'ajustement des modèles de développement local ? : une application à la région Provence Alpes, Côte d'Azur'. Université d'Avignon, 2021. <https://tel.archives-ouvertes.fr/tel-03675208>.

Tóth, Gergely. 'Impact of Land-Take on the Land Resource Base for Crop Production in the European Union'. *Science of The Total Environment* 435–436 (October 2012): 202–14. <https://doi.org/10.1016/j.scitotenv.2012.06.103>.

Vanier, Martin. 'La relation "ville / campagne" excédée par la périurbanisation'. *Les Cahiers français : documents d'actualité*, no. 328 (October 2005): 13–17.

MAIN SECTION

Landscape in Transition. The Agency of Time in Understanding and Designing the Landscapes of the Anthropocene

Gianni Lobosco – Department of Architecture - University of Ferrara, Italy
Contact: gianni.lobosco@unife.it

Lorenzo Tinti – Department of Architecture - University of Ferrara, Italy
Contact: lorenzo.tinti@unife.it

ABSTRACT

This contribution examines the representation of landscape temporal scale as a driver for landscape design and planning, questioning the univocal relationship between human and environmental processes, both from an aesthetic and procedural point of view. The aim of controlling and measuring the physical space by representing it has progressively evolved into an attempt to narrate the dynamic, ecological and social interactions that characterize its change in order to aesthetically penetrate the reality of objects that ontologically withdraw from us. Design directions can be developed from the quantification and representation of environmental time-based processes and directed towards future-oriented landscape transformations strategies and imagery. Among these perspectives, this essay interweaves the concepts of time and space, exploring how this merging represents a prerequisite for landscape designers, and a necessary exercise for students, in order to critically address design practices within the context of landscapes in transition.

ACKNOWLEDGEMENT

Lobosco is Co-responsible for the overall conception of the article and, independently, for writing the first and last paragraphs. Tinti is Co-responsible for the overall conception of the article and, independently, for writing the second and third paragraphs.

KEYWORDS

Landscape Architecture, Landscape Representation, Time Based Drawing, Design Process

PEER REVIEWED

<https://doi.org/10.6092/issn.2612-0496/15320>

ISSN 2612-0496

Copyright © 2022 Gianni Lobosco e Lorenzo Tinti

Time as condition

We live in an era of fast change where time-scale conditions become increasingly crucial for addressing the project of landscape face to global warming and other massive phenomena arising from human agency. If we accept the definition of the Anthropocene, i.e. the fact that mankind has triggered processes so vast in time and space that human history and the earth's geology coincide, then we cannot think about the world around us without somehow posing the problem of representing this coexistence. In light of this premise, new ways of visualizing and presenting information coming from different dimensions and perspectives are needed to steer design practices toward more challenging outlooks. By referring to the vast scientific literature in this regard and especially the book edited by Marc Treib about the role of representation in landscape architecture¹ it is possible to detect a *fil-rouge* into the discipline (and around it), showing how the temporal dimension, understood as process and sequence, has progressively become indistinguishable from the spatial one with direct repercussions in the potential way of acting and designing the landscape. But it was not an easy journey.

In this regard, it is pretty interesting to note that one of the first attempts to translate the temporal sequence into landscape representation² by Humphry Repton was labelled by contemporaries (more so by his competitors) as an illusionist effort to deceive clients. During his career (between the late eighteenth and early nineteenth centuries), the English landscape gardener produced over 100, so-called, Red Books for most of his major commissions. A typical album contains his observations on the present state of a client's property and his recommendations on how it might be improved. Several watercolour illustrations would accompany the text, some of them furnished with hinged or sliding overlays making it possible to compare before-and-after views of the same scene [Figure 01]. At the time, Repton's technique was an innovation, so different to plans and maps produced by landscape designers before, that early became a standard for a profession that more than others has to deal with the long duration and procedural changes (of vegetation, topography, hydrology and so on). Since the very beginning of the nineteenth century, such emergence of time in representation entailed a shift from purely spatial description to the attempt to report—and understand—how phenomena act in space. In cartography, we can find multiple examples of this transition starting from the 1832 "Report on the march and the effects of the Cholera-morbus in Paris"³ where, probably for the first time, topological

1 Marc Treib, *Representing Landscape Architecture* (New York: Taylor & Francis, 2008), XVIII.

2 Humphry Repton, *Fragments on the Theory and Practice of Landscape Gardening* (London, J. Taylor, 1816).

3 Louis-François Benoiston de Châteauneuf and Charles Picquet, *Rapport sur la marche et les effets du choléra-morbus dans Paris et les communes rurales du Département de la Seine* (Paris: Imprimerie Royal, 1834).



BLENDEN HALL, KENT, J. SMITH, ESQ^r



Published by J. Taylor & Son

FIG. 1 Comparison of pre and post-landscape gardening interventions on Blenden Hall by Humphry Repton, 1816. Source: Internet Archive, San Francisco.

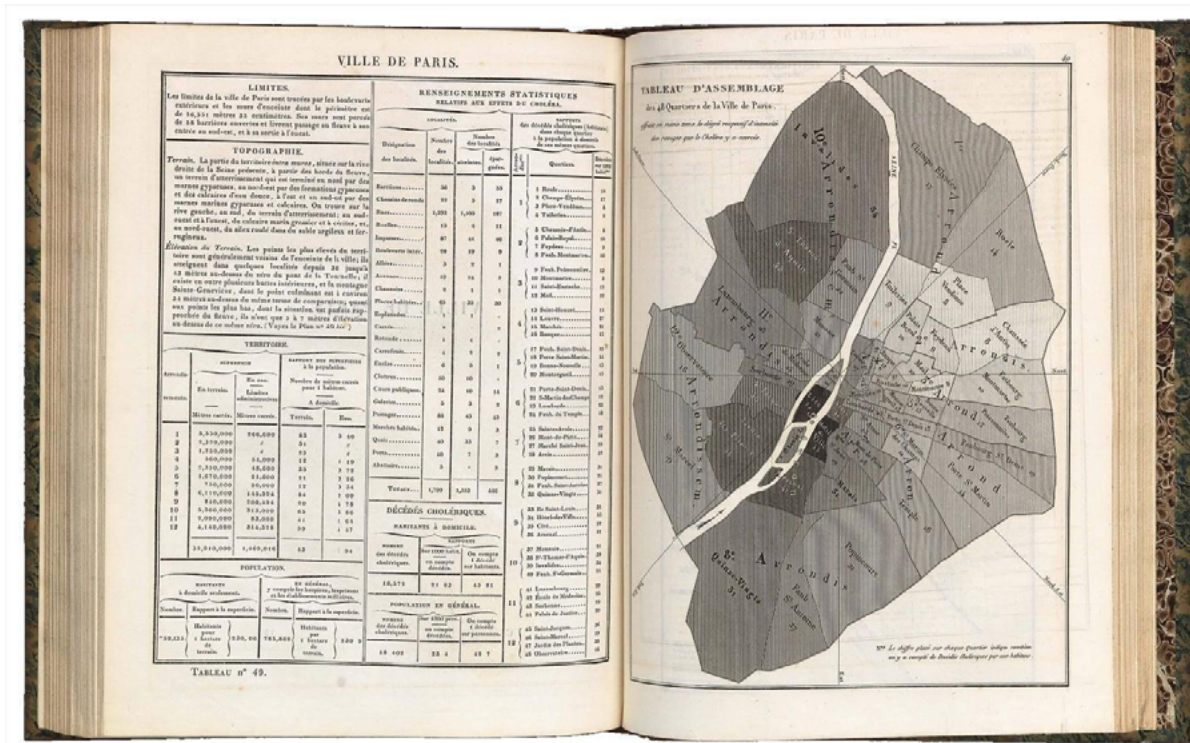


FIG. 2 The first epidemiological map regarding cholera effects in Paris by Louis-François Benoiston de Châteauneuf and Charles Picquet, July 1834. Source: Daniel Crouch rare books, London.

features and event-related data (i.e. number of deaths) were synthesized on maps [Figure 02].

Within a few years, this approach evolved into the “spatial analysis” that we find applied in the fullest sense by the John Snow’s notorious Ghost Map⁴ of 1855. Here, representation becomes the agent for interpreting and understanding the causes of the spread of cholera in a particular London neighbourhood with a high death rate [Figure 03]. Starting from the hypothesis that the virus was in some way connected to the drinking water extraction pumps, Snow draws the isochronous line describing the average travel time (15 minutes) within which the houses that were supplied with it could be included and discovers a clear correlation with deaths.

In this case, the map becomes both an *ante-litteram* forensic architecture as well as proof of the *Vibrio cholerae* bacterium existence itself before it was even discovered in 1854.⁵ Under an OOO⁶ perspective and referring to Graham Harman’s quadruple object formulation⁷ [Figure 04], the Ghost Map can be interpreted as an aesthetic attempt to access the object of Cholera through the space-time tensions between the object and its

4 John Snow, “On the Mode of Communication of Cholera”, *Edinburgh Medical Journal* 1.7 (1856): 668.

5 Raymond Borremans, *Le grand dictionnaire encyclopédique de la Côte d'Ivoire*, tome 2 (Abidjan: Nouvelle Éditions Africaines, 1988), 32.

6 Object Oriented Ontology.

7 Graham Harman, *Guerrilla Metaphysics: Phenomenology and the Carpentry of Things* (Chicago: Open Court, 2011).



FIG. 3 Map produced by John Snow showing the correlation between cholera and drinking water distribution points along Broad Street, July 1855. Source: Wellcome Library, London.

sensual qualities even before its real qualities were even codified. But more interesting is the fact that Snow reached that result by putting human and non-human entities on the same heuristic level: the water supply network and its wells, the urban morphology that determines the habits and movements of people to fetch water, the faults in the sewerage network that caused the contamination of the water, as well as the number of the dead bodies in each house, are all equally understated in a representation that is more powerful, macabre and certainly closer to reality than the image of the bacterium seen through the lens of a microscope can be.

Grounding on such “flat ontology”, the access to reality is based on the interactions between objects with no preconceived hierarchy between human beings and things. As Harman argues against correlationism,⁸ if we assume this flatness we also should accept the fact that interactions

⁸ The OOO as Speculative Realism rejects the Kantian idea that philosophy can only speak about what human mind is able to think.

between things are just as deep, and just as limited, as the interaction between them and human thought. Entities entering into a common field of relations do not exhaust each other because any single object has always a residue of reality inaccessible to others. This condition is ultimately what makes it infinitely more interesting and fruitful to render such tensions through an aesthetic rather than materialist, constructionist or even literal approach. Since we can just allude to the object's reality, the most efficient strategy to do that is via metaphors rather than analytical explanations. And in the visual representation, there is no doubt that time is one of the ultimate metaphoric devices.

When we look at Claude Monet's Rouen Cathedral series [Figure 05], the transfiguration operated by time to the object-cathedral is not limited to an account of the progression of hours and seasons but refers to the historical dimension of an artefact whose stone, as Marcel Proust says, "[...] nature has taken back by immersing it in itself."⁹ Thus, like time, the space of representation cannot be enclosed by the frame of the canvas, or limited to the dichotomy between subject and context, inasmuch that into the series, as Giulio Carlo Argan points out, "the image tends to enlarge itself, to occupy the whole space of our consciousness, to go beyond it even. One feels that the facade extends beyond the limits of the painting, goes out of our field of vision: therefore, the field of vision does not coincide with the field of consciousness."¹⁰ Monet erodes the comfortable aesthetic distance proper to Romanticism by letting the colours float free of specific forms and crowd toward the viewer and beyond the always partial framing of the building. In this way, instead of referring to the vertigo of a Romantic infinity or the reassuring otherness of an ideal nature, the artwork plunges us directly into the object, or rather, into a series of objects perturbing each other as much as they do with the material of the canvas and our interpretation.

This aesthetic breakthrough occurs not surprisingly at a moment of history, around the year 1900, when the fall of some scientific and philosophical certitudes prefigures the advent of what would later be called the Anthropocene: quantum and relativity theories question the spatial-temporal cohesion of objects, while Husserl's phenomenology shows us the limited nature of human thought incapable of grasping the dark side of entities. In spite of everything, however, the eternal theme of the Kantian

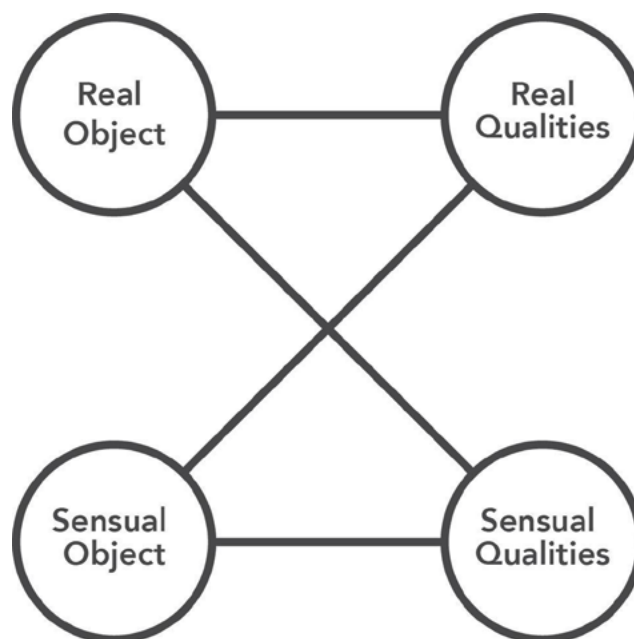


FIG. 4 The quadruple object diagram by Graham Harman, 2011.

9 Gérard-Georges Lemaire, *Monet in Art dossier*, (Firenze: Giunti Editore, 1990).

10 Giulio Carlo Argan, *L'arte moderna 1770/1970* (Firenze: Sansoni, 1978).



FIG. 5 Claude Monet's last paintings depicting Rouen Cathedral, 1894 series. Source: Arteworld.

gap between phenomenon and things will remain stuck in the correlationist circle and into an anthropocentric worldview for a century to come until recently when the Speculative Realism movement began to move beyond this conception, in part because of the awareness of global warming and the very fact that, being in the Anthropocene, a genuine ecological perspective cannot treat reality as an exclusively human affair. But the temptation is always strong, and this is demonstrated by the term Anthropocene itself, which is quite self-contradictory in that it overemphasizes the human genesis of certain phenomena while it should designate the period in history when for the first time the non-human emerges and comes into decisive contact with us humans in a way that we, however, struggle to locate in space and time.

Climate change is an example of this: it does not exist as a function of our knowledge or perception, it just exists. Like other objects, it retracts, it is irreducible to a univocal scale as well as it is inexhaustible by our admittedly vast knowledge in the same way it is by the, perhaps more limited but certainly different, knowledge of a cetacean. Humankind can statistically study some of its manifestations, sensitive or relational, at the local level, but no one will ever be able to completely describe its contours or report it everywhere at the same time scale. According to

Timothy Morton's definition¹¹, such entities, which he calls "hyperobjects", are something deeper than processes since they occupy the multidimensional space of phases, which means they cannot be located at a single point in time or space. So, climate change, like other hyperobjects, exhibits its effects only in an "interobjective" manner; that is, it can only be detected in a space that consists of the reciprocal relationships between the aesthetic (sensible) properties of objects, whether human, artefact, animal or social constructs.

In this sense, the representation of landscape as a device for aesthetic mediation with reality can be extremely effective in alluding to entities so complex and large in space and time, even beyond the purpose and intentions of those who produce them. A very powerful demonstration of this statement can be found, for example, in the historical cartography produced by Harold Fisk in his 1944 "Geological Investigation of the Alluvial Valley of the Lower Mississippi River" that, after the two devastating floods of spring 2011, was brought to the public's attention by the media as the evidence of a lost environmental awareness about the river and its dynamics. Fisk's work was pragmatically aimed at a more efficient regimentation of the Mississippi for the protection of crops and settlements, for its navigability or for the mining of sedimentary deposits¹². Although, as Morris¹³ notes, today the study of Fisk's drawings inevitably suffers from certain ecological rhetoric which is extraneous to the original purpose of the author and his clients, the visual power of the representation, and the techniques used to capture the diachronic processuality of landscape formation, are still there anticipating one of the central challenges of the contemporary project.¹⁴

Precisely because we are in the Anthropocene and the idea of climate change looms large in our minds, now we can better appreciate the innovative approach Fisk used to visualize landscape evolution reconstructing the Mississippi's ever-changing routes along the 600 miles of its course and through the ages [Figure 06]. As described in the introduction to the technical report, the reconstruction of the development phases of the river system owes much to the aerial photographs taken after the great flood of 1927. Much of the work carried out by Fisk has consisted in interpreting and retracing the "[...] scars of abandoned channels and associated features [...] discernible from the patterns of soils, vegetation and drainage"¹⁵.

11 Timothy Morton, *Hyperobjects: Philosophy and Ecology after the End of the World* (Minneapolis: University of Minnesota Press, 2013).

12 Ellis L. Krinitzky, "The Contributions of H.N. Fisk to Engineering Geology in the Lower Mississippi Valley", *Engineering Geology* 45(1) (1996).

13 Christopher Morris, "Reckoning with "the Crookedest River in the world": The Maps of Harold Norman Fisk", *The Southern Quarterly* 52(3) (2015).

14 Gianni Lobosco, "Visualising Time and Uncertainty. Harold Fisk's Mississippi River Maps", *Oase* 107 (2021).

15 Harold N. Fisk, *Geological Investigation of the Alluvial Valley of the Lower Mississippi River: US Army Corps of Engineers* (Vicksburg: Mississippi River Commission, 1944).

some features of the “agency of mapping”¹⁶ derived from his work are still valuable to be transposed into future planning and design perspectives. And this is exactly what Anuradha Mathur and Dilip da Cunha did in their visionary book “Mississippi Floods”¹⁷ by superimposing to Fisk’s maps additional layers of drawings, photos and newspaper clippings for moving the narrative about the river away from the pervasive rhetoric of disaster and risk. They investigate and criticize how the representations of the Mississippi River over time have mainly been used as ideological instruments to build an unambiguous meaning for those landscapes, ultimately framing design and management policies within a rigid and more controllable system. As a result of this mystification, the authors argue that only two ways of representing floods seem possible: as a natural disaster that should be controlled by engineering interventions, or as a cultural catastrophe that requires the displacement of human settlements. By rejecting this dichotomy, shifting the focus to the description of both the dynamic nature of the landscape and the idea that we make of it – i.e. its representation – the authors demonstrate how this process can provide fertile ground for the creation of “new imagery”.

The book somehow enlarges the Corboz’s notion of “palimpsest”—which describes the territory as a set of layers in which the signs of transformation are deposited, superimposed, accumulated and partially erased¹⁸—by rendering Morton’s “interobjectivity” between a plethora of entities simultaneously presented although they seem so far. Under these premises, the future landscape is therefore configured as a necessary overwriting of existing structures in which the ways of supporting either continuity or opposition to preexisting patterns is an owed act of critical interpretation of time. The diachronic processuality of landscape formation anticipates one of the central challenges of contemporary design that also develops and progresses through representation: the ability to assimilate the temporal scale within landscape and territorial design processes.

We can find this ability, for example, in the famous map with which OMA depicts the distortion of European geography following the realization of the high-speed rail network.¹⁹ In this case, by bending space-time, the infrastructure redefines relationships, centralities and hierarchies of the territory on a scale that escapes human perception, but which will (we have since ascertained) have a more than significant impact on the social and economic structures of the old continent. Somehow, therefore, its profound imprint on reality is no longer measurable and detectable through the filter of direct perception but is articulated on scales that resound with

16 James Corner, “The Agency of Mapping: Speculation, Critique, and Investigation” in *Mappings*, edited by D. Cosgrove. London: Reaktion books, 1999.

17 Anuradha Mathur and Dilip Da Cunha, *Mississippi Floods: Designing a Shifting Landscape* (Yale: Yale University Press, 2001).

18 André Corboz, “The Land as Palimpsest”, *Diogenes* 31.121 (1983).

19 Rem Koolhaas and Bruce Mau, *S, M, L, XL* (New York: The Monacelli press, 1995).

broader processes. As in the case of Cholera or Mississippi floods, we cannot represent the fullness of such an infrastructure in its deeper effect on reality because it exceeds local dimensions, but we can anyway grasp some of its manifestations involving time as a mapping condition.

Today, while we are into the Anthropocene, the very high definition of satellite images, the digital reconstructions of the terrain and the dynamic analyses made possible by predictive algorithms (morphological and hydrodynamic analyses, but also biological, biodynamic and ecological ones) give us the feeling that we can manage the complex stratification of spatial-temporal information. But the uncertainty implicit in the forecasts and statistical models makes us aware of the fact that the future is not an equation. So, the objective of controlling and measuring physical space through its representation has progressively evolved into an attempt to narrate the dynamic, ecological and social interactions that characterize its change. In this perspective, the analogical function of representation has replaced the purely descriptive and analytical one, projecting itself more and more towards an operative design tool. This does not imply a renunciation of the description and analysis of physical space but rather pushes the research deeper towards those characteristics of the landscape that simultaneously resume a plurality of meanings.

On this topic, the contemporary landscape architecture panorama is questioning itself to find possible answers. According to Girot, for example, the concept of "topology"²⁰ powerfully encapsulates different meanings and processes, expressed by the poetics of a three-dimensional points cloud that together give back the continuity and complexity of the landscape. With a quite different approach, Mathur and da Cunha use the power of representation for questioning the way social and cultural constructs have often mystified the comprehension of human-inhabited environments. For example, in the book *Soak*²¹ they propose a new visualization of Mumbai's terrain for demonstrating how to move this mega-city out of the language of flood and the widely accepted trajectory of war with the sea and monsoon that this language perpetuates. With this aim, they explore the potential of topography by reconstructing through a sequence of sections an image "[...] of Mumbai not as an island periodically attacked by floods but rather as an estuary that will seasonally soak, a place where the sea and the monsoon are perceived not as invaders but as insiders."²²

From these and other theoretical positions, as we'll see in the next section, it seems that the landscape representation has finally come to a cross-roads where different conceptualization of reality risk colliding.

20 Christophe Girot et al., *Topology. Topical Thoughts on the Contemporary Landscape* (Berlin: Jovis Verlag GmbH, 2013).

21 Anuradha Mathur and Dilip da Cunha, *Soak: Mumbai in an Estuary* (New Delhi: Rupa & Co., 2009).

22 Nicholas Pevzner and Sanjukta Sen, "Preparing Ground. An Interview with Anuradha Mathur and Dilip da Cunha", *Places Journal* (2010): on-line.

Landscape representation approaches

Even in the face of the challenges imposed by climate change and its effects, landscape design in recent decades has been radically transformed from a practice-oriented toward the perception and visual composition of outdoor space to a more ecologically oriented discipline for which an understanding of the environment, in its biotic and abiotic components, is a key element. This trend, which has its roots in the work of Ian McHarg²³, has naturally influenced the methods of land representation and investigation that have themselves become an integral part of a design approach largely inspired by the notion of landscape design as a hermeneutic practice theorized by James Corner in his two essays²⁴ published in *Landscape Journal* in 1991. Thirty years later, the then-emerging dialectic between the conception of landscape architecture as scenography or infrastructure, although from a purely theoretical point of view, now seems to have been overcome in favour of the latter (i.e. infrastructure), in practice, it remains a perfectly valid opposition when analyzing the forms of representation still used today. In this regard, as noticed by Richard Weller²⁵, a distinction can be done in the current types of representation assuming as a reference both the concept of “hyperreal” and the already mentioned notion of “hyperobject”.

Hyperreal representations are structured as “picturesque” images (in terms of perspective and points of view) and with a certain erotic tone. They contrast vividly with the context to enhance the “greenish” sharpness of the proposed intervention. One of the characteristics of frequently used representations is that of freezing the image in the future, showing a mature intervention (think of plants usually depicted as mature, tall and lush, i.e. in a condition that takes decades to reach) without focusing on what are instead the long, lived phases of an environmental-landscape-type intervention. What the images associated with the hyperreal concept present is a suggestion of “confidence and comfort” linked to an idea of an “ecological paradise” [Figure 07]. The focal point is that such images mask the landscape and its processes, do not show the deeper, structural ecological and social problems of contemporary cities by playing on a totally “passive” observation. The deep-seated and widespread problem with the hyperreal is that “it is suspended between truth and fiction without exercising and enjoying the full potential of both.”²⁶ On the other hand, representing the landscape “not as scenic but as complex

23 Ian L. McHarg, *Design with Nature* (New York: American Museum of Natural History, 1969).

24 James Corner, “A Discourse on Theory I: Sounding the Depths—Origins, Theory, and Representation”, *Landscape Journal* 9 (1990). James Corner, “A Discourse on Theory II: Three Tyrannies of Contemporary Theory and the Alternative of Hermeneutics”, *Landscape Journal* 10 (1990).

25 Richard Weller, “The Hype of Representation: Some Thoughts on the Roles of the Hyperreal and the Hyperobject in Contemporary Landscape Architecture”, *Ri-Vista* 02 (2020): 30.

26 *Ibid.*, 32.

environmental processes"²⁷ is instead the theme related to hyperobject representation that proactively includes the temporal dimension and identify the human as "one actor in larger ecological and political networks wherein all species and all forms of matter have both rights and agency."²⁸ While it is true that this excess of reality nonetheless surpasses our perception, it is also true that today we are increasingly able, thanks to digital tools, to expand our awareness of the landscape beyond horizons and substances that were until recently obscure.

Analyzing the ecological component in its most technical and scientific part by distancing oneself from purely aesthetic positions reveals the landscape as a system in which the balance of forces is the only true impartial judge. Flows, forces, behavior, relationships. These are the factors that, in their becoming, continuously and irrepressibly shape the landscapes around us. Beginning to perceive and represent invisible but extremely present factors is a fundamental prerequisite for a critical landscape exploration. Describing both the dynamic nature of the landscape and the image we perceive of it—i.e. its representation—the time-scale representation process can provide fertile ground for the creation of new imaginary to shape new landscapes. Reasoning on J. B. Harley²⁹ position regarding the fact that time-space relation is a fundamental element for spatial planning and that a dynamic multiplicity of urban processes cannot be contained within a singular, fixed spatial frame, James Corner states that "projecting new urban and regional futures must derive less from a utopia of form and more from a utopia of process—how things work, interact and interrelate in space and time. Thus, the emphasis shifts from static object-space to the space-time of relational systems. And, it is here, in this complex and shifty milieu, that maps, not plans, achieve a new instrumental significance."³⁰ As Weller noticed, since the subject at the center of the hyperobject is the processes of change, it is necessary to incorporate the dimension of time within landscape imagery. Engaging with the aesthetics of time in itself is difficult enough, but the more "important challenge is not only to illustrate change but to show how certain forms of human intervention (design) can affect, redirect, accelerate or slow down change."³¹ In other words, the challenge of working with hyperobjects is not to indulge in what we might today call a contemporary sublime dictated by the aesthetics of the Anthropocene, but to insert ourselves with greater precision and critical sense into the environmental processes (and not only) that shape the landscape with the aim of understanding and redirecting them towards coherent and sustainable design practices.

27 Ibid., 30.

28 Ibid., 34.

29 J. Brian Harley, "Maps, Knowledge, and Power.", in *Geographic Thought: a Praxis Perspective*, edited by G. Henderson and M. Waterstone. New York: Routledge, 2009).

30 James Corner, "The Agency of Mapping", 228.

31 Richard Weller, "The Hype of Representation", 35.



FIG. 7 Photo-realistic image by landscape architect Grant Associates for a new urban park in northern China, 2017. Source: Grant Associates, Bath.

Mapping the future

As Deleuze and Guattari said, “Make a map not a tracing! What distinguishes the map from the tracing is that it is entirely oriented toward experimentation in contact with the real. The map does not reproduce an unconscious closed in upon itself; it constructs the unconscious. It fosters connections between fields, the removal of blockages on bodies without organs, the maximum opening of bodies without organs onto a plane of consistency [...]. The map has to do with performance, whereas the tracing always involves an ‘alleged competence.’”³² To represent an object is therefore to approach its understanding. In such perspective especially in the case of landscape architecture, wishing to be far removed from mere picturesque rhetoric, the temporal scale must be given as much importance as the spatial one with the objective of clearly and specifically identifying all the factors that could potentially affect the object and or be the subject of a project. In this sense, perhaps one of the greatest contributions of landscape architecture to the way contemporary design challenges are conceived and addressed lies precisely in the acceptance of uncertainty. Concerning representation, this translates into the concept of accuracy which recalls a strategic attitude to selective precision: conscious or unconscious omissions and the coexistence of potential alternative paths become essential characteristics of a resilient design process. This does not imply a renunciation of the description and analysis of physical space but pushes the research deeper into those features of the landscape that simultaneously take up a plurality of meanings.

Focusing on the uncertainty and intertwining of the concepts of precision and stratification, we worked with fifth-year students from the Department

32 Gilles Deleuze and Felix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. and foreword by Brian Massumi (Minneapolis: University of Minnesota Press, 1987): 12.

of Architecture in Ferrara as part of the Final Master Thesis Studio on a workshop about the representation of landscape transformations over long-term time horizons. The exercise we proposed is designed to develop an effective method of representing the landscape by confronting dimensional and temporal scales such as to stimulate critical reasoning on the transformative processes that may affect a given environmental context. The work was carried out in three phases corresponding to as many plates they had to draw:

1 / Current scenario. Based on the available information, an initial drawing describing the current condition of the chosen landscape had to be done. In particular, notable and recurring landscape elements were depicted, such as topography, vegetation system, hydrogeology, anthropogenic components and so on. The location was left to the free choice of each student.

2 / Transformation processes. Concerning the context described in phase 1, the possible effects that phenomena, events or dynamics (water levels, drought, hydrogeological instability, abandonment of agricultural areas, development of infrastructure, deforestation, etc.) could potentially have on the landscape are identified and represented to project its possible transformation.

3 / 100-year scenario. The third phase consisted in redesigning the landscape analyzed, according to the same rules used for the current one, but projected over a 100-year time horizon. The permanence or transformation of the anthropic and environmental systems is decided according to the previously hypothesized processes. This new landscape balance was matched by a coherent spatial articulation of the elements described in phase 1.

Besides this assignment, a few more contents were given, concerning for example the use of colours and, in particular, the fact that each phase had to be drawn in a plan to a scale of 1:5000, no matter what location they chose to investigate. Such a relatively restricted viewport on the landscape should have emphasized, or not, the correlation between some transformative dynamics and their field of influence. In other words, the work aimed to explore how the relationship between a given period and a given dimensional scale interfered with the representation of the landscape and its understanding. Asking the students to limit the map to a certain framing has been a way to encourage them to think outside the box (and the boundaries of representation) for finding larger phenomena that may affect the transition of the physical space; which is, in the end, the very challenge that any landscape project should address in our times.

The results extrapolated from the exercise were very heterogeneous so that some areas examined seemed not to significantly change while others showed major variations. By way of example, we will briefly compare hereafter two works that highlight, in slightly different geographic contexts, the impacts of time [Figure 8].

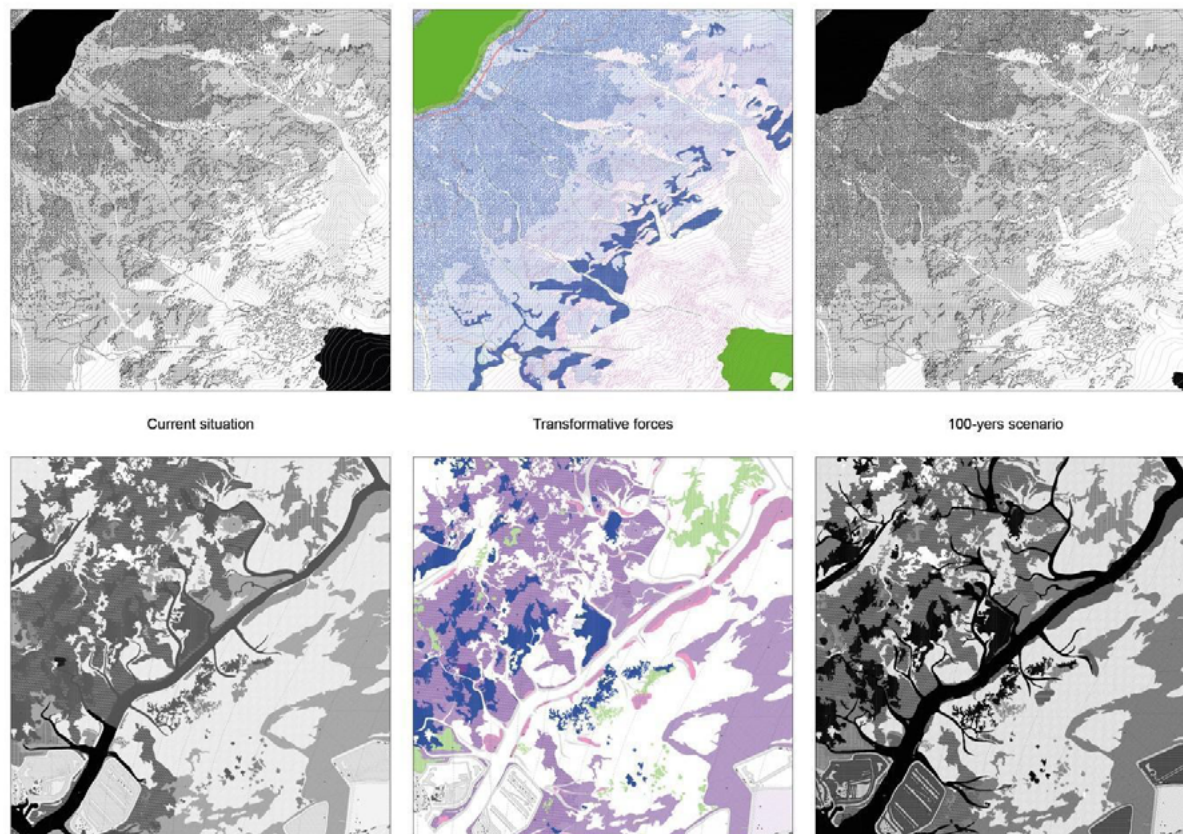


FIG. 8 Two examples of the maps produced by students of the Final Master Studio at the Architecture Department of Ferrara. Above, the hypothetical 100-years evolution of the Gioveretto Glacier in the province of Bolzano, Italy (elaborated by Gianluca Sartin); below, the analogous period investigated for an area in the Grado Lagoon in Friuli-Venezia Giulia, Italy (elaborated by Yasmine Nouira).

The first case study focuses on the landscape between Lake Gioveretto and the glacier of the same name that currently extends to just below Rabbi's Peak in the province of Bolzano, Italy, at an elevation of about 3250 meters. The study of climate trends related to rising average temperatures has made it possible to estimate the actual retreat of the glacier within a century. This phenomenon is accompanied by a whole series of impacts on the hydrological and vegetation structure that will lead to a drastic change in the landscape. These include the likely rise in the mean lake level downstream of the glacier and the consequent need to relocate part of the road infrastructure bordering it. This will be accompanied by a gradual expansion of coniferous forests at higher elevations and simultaneously the extension of pioneer vegetation into areas that currently lack them.

The effects of sea level rise within the Grado Lagoon in Friuli-Venezia Giulia were addressed using the same methodology. This second case study examined an eastern quadrant of this ecosystem currently characterized by the coexistence of different biotopes (salt marshes, mudflats, etc.) whose variety is closely related to the position of soils concerning tidal levels. In the elaboration of the 100-year projection, a heavy anthropogenic intervention—consistent with the current directions of lagoon landscape conservation—was assumed to compensate for the rise of the

mid-sea through backfilling operations of the excavated material from the navigable canals, guaranteeing as much as possible the permanence of the wet, semi-wet areas and their related habitats. In this case, the future scenario is nothing more than a sweetened, and equally artificial, version of the current one: visible only through a representation that shows what is happening below the surface of the water, but which otherwise would not be clearly perceptible by a hypothetical observer on the field.

Looking at these examples, it is quite clear that is only by the means of representations that baulk at man's intrinsic perception that we are able to grasp the already mentioned hyperobjects or, at least, realize what changes they might produce on a certain landscape. Only by taking a critical-descriptive approach we can channel this information and project it towards concrete and coherent scenarios that go beyond a postcard image of reality. Far from being a purely speculative exercise, approaching the landscape through the representation of its ongoing and future dynamics is essential for approaching design and planning much more aware of the forces that, blending together, shape the environment in which we live.

Time as agent

What finally emerges from the reported experiences is the research (by drawing) of a "transversal" reading of space and time that even current technologies and digital cartographic representations, although ultra-precise and at a very high definition, obviously cannot yet entirely depict. As we have tried to demonstrate by synthetically retracing some of the most important stages in landscape representation, the aim of controlling and measuring the physical space has progressively evolved into an attempt to narrate the dynamic, ecological and social interactions that characterize its change. In this perspective, the analogical function of representation has replaced the purely descriptive and analytical one in order to aesthetically penetrate the reality of objects that ontologically withdraw from us. Although, some idealistic forms of representation (like the "hyperreal" ones) still persist and permeate the media, new approaches are rising for questioning the "very large finitude"³³ of the hyperobjects featuring the Anthropocene.

Among these certainly the use of artificial intelligence programs to generate images based on textual (and other) inputs is the phenomenon that has been attracting the most interest in recent times both in the media and the international scientific community. In particular, since the release on July 12, 2022, of the open-beta version of the *Midjourney* algorithm, application experiences of this technology have proliferated in a very short

33 Timothy Morton, *Hyperobjects*.

time from the field of digital art to architecture.³⁴ As we write, the debate between those who are against or in favor seems to trace the same dualism between “apocalyptic and integrated” already analyzed by Umberto Eco³⁵ in his 1964 essay on the relationship of intellectuals with the mass media. Beyond the internal contradictions of both positions, what we are interested in emphasizing on the subject are some aspects that may have strong repercussions in the future even in the ways of landscape representation and production.

It is now well known that one of the key issues related to artificial intelligence in its various uses is the so-called “algorithmic bias” that is, the tendency of the digital mind to systematically repeat the same choice—which may turn out to be discriminating or limiting—on the basis of the programming inputs or datasets from which it extracts information to generate its outputs. Simply put, the algorithm is not neutral in that the spectrum of information from which it draws or the logical procedures it adopts are preordained by a group of persons whose ethical, social, aesthetic, and cultural orientation indirectly affects the system.

That said, it is quite evident how even in transposing a user-submitted prompt into images, the artificial intelligence is tapping into a figurative universe that, while vast, is still structured on predetermined linguistic archetypes, rules, priorities and associations. *Midjourney’s* operation, however, is slightly more sophisticated in that, relying on the social platform (not surprisingly) for video gamers “Discord”, it nourishes itself on the interaction and feedback provided by users to refine its performance according to the classic procedure of “machine learning”. Somehow, then, the algorithm’s response to the individual’s commands is also the fruit of the imagination of a community that shares in writing the rules of the game. But it is precisely this playful aspect, with its arbitrary and sometimes frustrating limitations, that constitutes the most interesting side of the tool and makes it a means of representation (despite appearances) closer to the field of hyperobjects than to the one of hyperreality as defined by Weller.

As Ian Bogost—another of the philosophers ascribable to OOO—explains well in his latest book *Play Anything*³⁶, the ethics of play, by forcing us “[...] to consider things as they are, rather than as we want them to be,”³⁷ frees the subject from his self-referential isolation to immerse him in the world with its limitations. In clear contrast to modern thought that places the concept of freedom (even creative freedom) on a human subject alienated

34 Matias del Campo and Neil Leach (Eds.), *Machine Hallucinations: Architecture and Artificial Intelligence* (New York: John Wiley & Sons, 2022).

35 Umberto Eco, *Apocalittici e integrati: comunicazioni di massa e teorie della cultura di massa* (Milano: Bompiani, 1964).

36 Ian Bogost, *Play Anything: The Pleasure of Limits, the Uses of Boredom, and the Secret of Games* (New York: Basic Books, 2016)

37 *Ibid.*, 14.



[PROMPT] /imagine: a meandering river with branches in the landscape, meanders, morning light, bird-eye view, ultra realistic, detailed, 8k --upbeta --testp

FIG. 9 Three examples of the Midjourney's response to same prompt ("/imagine: a meandering river with branches in the landscape, meanders, morning light, bird-eye view, ultra realistic, detailed, 8k --upbeta --testp"), tested about a month apart. Source: Gianni Lobosco, through Midjourney's artificial intelligence.

and separated from the world (think of the historical artistic avant-gardes), Bogost instead locates this freedom in the inherent potential of the constraints determined by the very objects (human and non-human) that surround him. After all, accepting the constraints of a situation and trying to do something new within them is something that anyone involved in design experiences daily and knows to be far more fruitful than being faced with a blank canvas.

In this sense, the representations generated through artificial intelligence have that something that paradoxically brings them closer to the real than the virtual because even before they exist in that given form that progressively appears to us on the screen they are already present among the meshes, constraints and layering of messages that inform the algorithm. In the same way as hyperobjects, such images can be viewed as partially opaque entities that contain others: momentary manifestations of a collective aesthetic process that continues to work over time. The image that springs from a given prompt at a given moment will not be the same a few days later because in the meantime the rules and the language from which they come have evolved [Figure 9]. The interaction of textual input with these variables takes each time the form of *mise-en-scène* in which the director, the acting company, and even the audience's tastes are no longer the same. While this uncertainty is understandably destabilizing, it also prefigures, in a still embryonic way, a novel approach to the construction—co-creative and dynamic—of images, concepts and mental associations.

If, as the history of art and societies teaches us, there is no landscape without representation, then the landscape of the future will also pass through these kinds of "rendering machines" that we should not ignore precisely because of their increasing pervasiveness and manifest imperfections.



FIG. 10 "Ammassalik" wooden maps of the East Greenland coast. Source: Robert Petersen, "East Greenland before 1950", 624.

Our creative, and therefore ethical, engagement certainly requires us to be increasingly militant even in these hitherto little-explored fields precisely because they can affect that "social imaginary" which will be as valid for the Anthropocene as it has been for past eras.

In 1885, the Danish explorer Gustav Holm brought back from Greenland some wooden artefacts received from an Inuit hunter native of Ammassalik. These objects [Figure 10], known as "Ammassalik maps", seemed to give a fairly precise three-dimensional representation of the fjords that characterize large portions of the Inuit coast. According to a western-centrist vision, these easily portable, floating and recognizable-by-touch objects were soon interpreted by anthropologists as very functional maps to be used for orientation during overnight seal hunting.

The most recent studies based on Holm's testimonies, attribute instead to these artefacts a social, almost ritualistic function: they are story-telling and theatrical³⁸ devices. In the context of our discourse, such an anecdote tells two things. The first one is that, like in Inuit tradition, the act of

38 Graham Harman, *Object-Oriented Ontology: A New Theory of Everything*. (London: Penguin Book, 2018).

making a map is frequently as much important as the finished map itself.³⁹ Moreover, the true essence of the map lies not elsewhere, not in its causes or effects,⁴⁰ but actually in the object-map itself which, shining with its sensual qualities, enables the creation of new metaphors for the world.

In a very similar way, in the contemporary design culture, the production and reproduction of the landscape need to be increasingly configured as an imaginative act aimed at establishing a field of comparison, a horizon of meaning from which to develop multiple narratives for the future. The project is thus identified as a field of possibilities related to interdependent—and in any case variable—environmental (vegetal, geological and morphological) patterns, rather than as a univocal response to specific needs. Instilling a critical awareness of the dynamism linked to the intrinsic processes of the landscape means taking on the burden of a fundamental step to design it. Therefore, it is important to incorporate the “agency of time” in representation, addressing those environmental, social and cultural forces we have tried to summarize in the image of “landscapes in transition”.

39 Robert A. Rundstrom, “A Cultural Interpretation of Inuit Map Accuracy”, *Geographical Review* (1990).

40 Here we refer to the concept of the irreducibility of objects to their properties (undermining) or to their actions (overmining), extensively analyzed by Graham Harman in all his writings on the *Object Oriented Ontology*.

Gianni Lobosco, Architect, PhD in Landscape Architecture at the University of Ferrara where he teaches Parametric Landscape Design & Infrastructure Planning in the Final Master Thesis Class. Within the Architecture Department of the same university, he is director of the Research Centre Sealine (Sustainable Development of Coastal Systems). He has been visiting expert and teacher in several academic institutions among which, in 2017, the Master in Landscape Architecture at the Polytechnic University of Catalonia, Barcelona. His academic and professional activities focus on the emerging relationships between landscape and infrastructures rising from the evolution of global phenomena such as tourism and climate change. These topics' investigation is carried out in collaboration with public management bodies and private companies interested in addressing their decision-making process with more landscape-oriented and resilient strategies.

Lorenzo Tinti, landscape architect and PhD student at the Department of Architecture, University of Ferrara (Italy). Within the working group of the Sealine Departmental Centre, he carries out teaching and research activities mainly in the field of landscape architecture, with a focus on infrastructure and environmental resilience. Professionally, he works as a consultant in the field of landscape architecture and design.

References

- Argan, Giulio Carlo. *L'arte moderna 1770/1970*. Firenze: Sansoni, 1978.
- Bogost, Ian. *Play Anything: The Pleasure of Limits, the Uses of Boredom, and the Secret of Games*. New York: Basic Books, 2016.
- Borremans, Raymond. *Le grand dictionnaire encyclopédique de la Côte d'Ivoire*, Tome 2. Abidjan: Nouvelles Éditions Africaines, 1988.
- Châteauneuf, Louis-François Benoiston and Picquet, Charles. *Rapport sur la marche et les effets du choléra-morbus dans Paris et les communes rurales du Département de la Seine*. Paris: Imprimerie Royal, 1834.
- Corboz, André. "The Land as Palimpsest", *Diogenes* 31.121 (1983): 12-34. <https://doi.org/10.1177/039219218303112102>
- Corner, James. "A Discourse on Theory I: Sounding the Depths - Origins, Theory, and Representation", *Landscape Journal* 9 (1990): 61–78. <https://doi.org/10.3368/lj.9.2.61>
- . "A Discourse on Theory II: Three Tyrannies of Contemporary Theory and the Alternative of Hermeneutics", *Landscape Journal* 10 (1990): 115-133. <https://doi.org/10.3368/lj.10.2.115>
- . "The Agency of Mapping: Speculation, Critique and Invention", in *Mappings*, ed. Denis Cosgrove (London: Reaktion Books, 1999), 213-252.
- del Campo, Matias and Leach, Neil (Eds.). *Machine Hallucinations: Architecture and Artificial Intelligence*. New York: John Wiley & Sons, 2022.
- Deleuze, Gilles and Guattari, Félix. *A Thousand Plateaus: Capitalism and Schizophrenia*. Translated by Brian Massumi. Minneapolis: University of Minnesota Press, 1987.
- Eco, Umberto. *Apocalittici e integrati: comunicazioni di massa e teorie della cultura di massa*. Milano: Bompiani, 1964.
- Fisk, Harold N. *Geological Investigation of the Alluvial Valley of the Lower Mississippi River: US Army Corps of Engineers*. Vicksburg: Mississippi River Commission, 1944.
- Giroto, Christophe et al., Topology. *Topical Thoughts on the Contemporary Landscape*. Berlin: Jovis Verlag GmbH, 2013.
- J. Brian Harley, "Maps, knowledge, and power.", in *Geographic thought: a praxis perspective*, eds. G. Henderson and M. Waterstone (New York: Routledge, 2009), 129-148.
- Harman, Graham. *Object-Oriented Ontology: A New Theory of Everything*. London: Penguin Book, 2018. <https://doi.org/10.1093/acrefore/9780190201098.013.997>
- . *Guerrilla Metaphysics: Phenomenology and the Carpentry of Things*. Chicago: Open Court, 2011.
- Koolhaas, Rem and Mau, Bruce. *S, M, L, XL*. New York: The Monacelli press, 1995.
- Krinitzsky, Ellis L. "The Contributions of H.N. Fisk to Engineering Geology in the Lower Mississippi Valley". *Engineering Geology* 45(1) (1996): 45–58. [https://doi.org/10.1016/S0013-7952\(96\)00006-3](https://doi.org/10.1016/S0013-7952(96)00006-3)
- Lemaire, Gérard-Georges. *Monet*, in Art dossier. Firenze: Giunti Editore, 1990.
- Lobosco, Gianni. "Visualising Time and Uncertainty. Harold Fisk's Mississippi River Maps". *Oase* 107 (2021): 114-116.

Mathur, Anuradha and Da Cunha, Dilip. *Mississippi Floods: Designing a Shifting Landscape*. Yale: Yale University Press, 2001.

———. *Soak: Mumbai in an Estuary*. New Delhi: Rupa & Co., 2009.

Morris, Christopher. "Reckoning with "the Crookedest River in the world": The Maps of Harold Norman Fisk", *The Southern Quarterly* 52(3) (2015): 30–44.

Morton, Timothy. *Hyperobjects: Philosophy and Ecology after the End of the World*. Minneapolis: University of Minnesota Press, 2013.

Petersen, Robert. "East Greenland before 1950", in *Handbook of North American Indians*, Vol. 5: Arctic, ed. D. Damas (Washington, DC: Smithsonian Institution Press, 1984), 622–639.

Pevzner, Nicholas and Sen, Sanjukta. "Preparing Ground. An Interview with Anuradha Mathur and Dilip da Cunha". *Places Journal* (2010). <https://doi.org/10.22269/100629>

Rundstrom, Robert A. "A Cultural Interpretation of Inuit Map Accuracy", *Geographical Review* (1990): 155-168. <https://doi.org/10.2307/215479>

Repton, Humphry. *Fragments on the Theory and Practice of Landscape Gardening*. London: J. Taylor, 1816

Snow, John. "On the Mode of Communication of Cholera", *Edinburgh Medical Journal* 1.7 (1856): 668.

Treib, Marc. *Representing Landscape Architecture*. New York: Taylor & Francis, 2008. <https://doi.org/10.4324/9780203412817>

Weller, Richard. "The Hype of Representation: Some Thoughts on the Roles of the Hyperreal and the Hyperobject in Contemporary Landscape Architecture", *Ri-Vista* (2020): 30-39.

MAIN SECTION

Aesthetics of the Anthropocene and Social Representations. A Case Study on Venice' Exceptional High Tides in November 2019

Zeno Mutton – University of Bologna, Italy
Contact: zeno.mutton2@unibo.it

ABSTRACT

This research investigates the social representations of exceptional high tides occurred in Venice (Italy) between 12th and 18th November 2019 through the analysis of YouTube contents. Those events could be considered as a local manifestation of Anthropocene, and therefore could be linked to its representations. Moreover, after a summary of aesthetic literature on Anthropocene, this research aims at considering how aesthetics contribute to the definition of social representation of exceptional high tides. Twenty-nine YouTube videos were collected and analyzed using Reflexive Thematic Analysis. The results show that there are several intersections between aesthetics of Anthropocene and social representations of the event analyzed, with particular concern for themes “sublime” and “future as a threat”, and their relation to attribution of responsibility processes. These findings reflect an elaboration of the event based on aestheticization and trends of “deresponsibilization”.

KEYWORDS

Anthropocene, Social Representations; Aesthetics; Sublime; Reflexive Thematic Analysis

PEER REVIEWED

<https://doi.org/10.6092/issn.2612-0496/14707>

ISSN 2612-0496

Copyright © 2022 Zeno Mutton



Introduction

Between the 12th and the 18th of November 2019, Venice was subjected to four exceptional high tides. Three of them exceeded the level of 150 cm AMSL, and the most intense reached the level of 187-189 cm AMSL during the night of the 12th of November, flooding 90% of the city. Since the time high tides were first measured, in 1872, this has been the first time that these events have occurred with this frequency. The tidal peak of the 12th of November is the second highest in history¹ and caused extensive damage to the city:² the wind uprooted newsstands, pushed boats along the canals and the alleys of the city and caused strong currents of water down the streets.³ Usually, the high tide in Venice is a normal phenomenon and does not exceed the level of 110 asl. It is caused by astronomical and meteorological factors, and by the conformation of the Adriatic Sea and the Venice Lagoon. However, these increasingly frequent exceptional events reflect the impact of human activities on ecosystems at local and global level, with particular concern for sea-level rise, subsidence,⁴ wind wave-induced erosion, and salt marshes reduction.⁵

These phenomena could be considered as local manifestations of the Anthropocene,⁶ which is the scientific proposal considering the advent of a new geological epoch, which substitutes the Holocene. The Anthropocene is characterized by the central role of humankind, considered as a global geological force, which influences the balance of the ecosystems at a planetary level.⁷

Moreover, due to the international resonance they have reached, the exceptional high tides have shed a light on the importance of the representations and manifestations of the Anthropocene. This work aims at exploring social representations⁸ (SR) of the exceptional high tides in Venice as a local manifestation of the Anthropocene, through the Social Representation Theory (SRT). Moreover, considering the relevance of aesthetics in the strategies of visualization and representation of the

1 CPSM, ISPRA and CNR-ISMAR, *Novembre 2019 un mese di maree eccezionali. Dinamica e anomalia dell'evento del 12 novembre 2019. Dati, statistiche e analisi degli eventi*, (Venezia, CPSM, ISPRA and CNR-ISMAR, 2020): 6

2 Ibid., 10-12

3 Ibid., 9

4 Ibid., 6

5 Andrea D'Alpaos, Luca Carniello and Andrea Rinaldo, "Statistical Mechanics of Wind Wave-induced Erosion in Shallow Tidal Basins: Inferences from the Venice Lagoon", *Geophysical Research Letters*, 40, (2013): 3402

6 Marco Malvestio, *Raccontare la fine del mondo. Fantascienza e Antropocene*, (Milano: Nottetempo, 2021): 9-13

7 Will Steffen, Jacques Grinevald, Paul Crutzen and John McNeill, "The Anthropocene: Conceptual and Historical Perspectives", *Philosophical Transactions of the Royal Society A*, 369, (2011): 843

8 Serge Moscovici, "The Phenomenon of Social Representations", in *Social Representations*, ed. Robert M. Farr and Serge Moscovici, 3-69, (Cambridge: Cambridge University Press, 1984): 17-21

Anthropocene by using certain aesthetic categories, such as the sublime,⁹ the conquest of nature,¹⁰ the plantation¹¹, or the catastrophe,¹² this paper wants to investigate their role in the construction of SR.

Aesthetics of the Anthropocene

Because of its dimension and pervasiveness, the Anthropocene cannot be seen, "it can only be visualized".¹³ Consequently, representations of the Anthropocene are crucial, also in light of the complexity of the debate surrounding it with regards to the heterogeneity of the disciplines involved and the definition of the concept itself.¹⁴⁻¹⁵ In particular, understanding its representations means understanding what these representations "do",¹⁶ that is, how communities interact with them by negotiating, resisting, innovating, and transforming.¹⁷

A critical issue in the conceptualization of the Anthropocene is related to the fact that the responsibility of its advent is attributed to mankind in its entirety, namely to the power relationship between human beings and nature, whereby the former holds power over the latter.¹⁸ This perspective could, on the one hand, lead to neglect the connection between this relationship, capitalism, and economic globalization,¹⁹ as well as the inequalities and violence related to them.²⁰ Despite these inequalities, however, both the populations of the Global South and the Global North are considered to have the same level of responsibility. On the other hand, this narrative could put the responsibility of an abstract and reified concept of mankind²¹ - more precisely, a mankind guilty of its own demise²² - back on the individual.

Within this framework, representations of the Anthropocene revolve around narratives of the end of the world and of mankind as the cause

9 Jean-Baptiste Fressoz, "L'Anthropocène et l'esthétique du sublime", *Sublime, les tremblements du monde*, catalogue d'exposition (Paris: Centre Pompidou Metz, 2016): 1

10 Nicholas Mirzoeff, "Visualizing the Anthropocene", *Public Culture*, 26.2, (2014): 213

11 Michele Bandiera, "Figure dell'Anthropocene negli olivi di Puglia" in *Geografia e Antropocene. Uomo, ambiente, educazione*, ed. Cristiano Giorda (Roma: Carocci, 2019): 122-123

12 Malvestio, *Fine del mondo*, 97-98

13 Mirzoeff, "Visualizing Anthropocene", 213

14 Donna Haraway, "Anthropocene, Capitalocene, Plantationocene, Chtulucene: Making Kin", *Environmental Humanities*, 6, (2015): 159

15 Jason W. Moore, "The Capitalocene, Part I: on the Nature and Origins of our Ecological Crisis", *The Journal of Peasant Studies*, 44.3, (2017): 595

16 Caroline Howarth, "A Social Representation is not a Quiet Thing: Exploring the Critical Potential of Social Representation Theory", *British Journal of Social Psychology*, 45, (2006): 68-69

17 Ibid., 68-69

18 Paul J. Crutzen, "Geology of Mankind", *Nature*, 415, (2002): 23

19 Moore, "Capitalocene", 595

20 Ibid., 596-597

21 Christophe Bonneuil and Jean-Baptiste Fressoz, *The Shock of the Anthropocene. The Earth, History and Us*, trans. David Fernbach, (London: Verso, 2016): 18 (epub version)

22 Malvestio, *Fine del mondo*, 18

of its own end,²³ through the visualization of the catastrophe: the devastating dimension of climate change is overrepresented through apocalyptic imagery of sudden rapid disasters and calamities.²⁴ By mystifying the consequences of the Anthropocene, this approach can risk undermining their realistic impact and comprehension.²⁵ A more effective approach of representation of the Anthropocene should be based on a description of the realistic (and just as serious) consequences that we are experiencing now and that we could experience in the near future. The Anthropocene also evokes the aesthetic category of the sublime.²⁶ Compared to its classical expressions, the sublime of the Anthropocene sees a reversal of the relationship between humankind and nature.²⁷ That is, in this case, the immensity and power of human domain on nature engenders the coexistence of terror of and attraction for the sublime.²⁸ Moreover, this power is such as to leave a geological footprint. The sublime and the catastrophe share a paradox: in aiming to help visualize the Anthropocene and its gravity, they also contribute to its appeal. This aestheticization relegates the aspects of the Anthropocene related to its sensory experiences to the background, and through this process it makes it an “anaesthetic” experience.²⁹ Although the dynamics surrounding the aesthetics of the Anthropocene rely on allegorical constructions that tend to misrepresent the impact of the Anthropocene, they also underline the inability and the obstacles that the empirical realm itself encounters in representing and visualizing the Anthropocene.³⁰

The possibility of having sensory experiences of the Anthropocene is a key point of this work. Indeed, the Anthropocene could be defined as a “hyperobject”, which is an entity “massively distributed in time and space relative to humans”.³¹ Therefore, a hyperobject is complex and immense, and can be experienced only through its partial manifestations, localized in specific spaces and at a specific time.³² Based on these assumptions, Morton stated that the perception of a hyperobject in its entirety is impossible, due to “a radical split between the object and its appearance-for some other entity”.³³ It is within this split that the constructive processes of representation take place.

23 Ibid, 18

24 Ibid., 91-93

25 Ibid., 91-93

26 Fressoz, “Esthetique sublime”, 1

27 Ibid., 1

28 Ibid., 3

29 Mirzoeff, “Visualizing Anthropocene”, 220-226

30 Carolyn Lesjak, “Difference Relates: Allegory, Ideology, and the Anthropocene”, *Historical Materialism*, 29.1 (2021): 124-125

31 Timothy Morton, *Hyperobjects. Philosophy and Ecology after the End of the World*, (Minneapolis: University of Minnesota Press, 2013): 1

32 Ibid., 1

33 Ibid., 3

Despite the important findings of aesthetic philosophy on these issues, there is paucity of research concerning the SR of the Anthropocene.³⁴ The aim of this research is to contribute to this debate by investigating the SR of the exceptional high tide of Venice, considered as a localized manifestation of the Anthropocene. Particular concern is attributed to the aesthetics involved in these SR.

Social Representation Theory

The SRT³⁵ investigates social and intersubjective construction processes of everyday knowledge. Within this theoretical framework, knowledge could be divided into two main categories: the reified universe, containing solid, abstract, and decontextualized ideas of society, and the consensual universe, represented by the continuous and visible transformation of society. In the reified universe we can find scientific and technical knowledge, while in the consensual universe we find everyday knowledge and SR.³⁶ In other words, SR are forms of practical and shared knowledge constructed by social exchange and interactions.³⁷ They take place through two generative processes: anchoring and objectification.³⁸ While the former consists in associating novel elements with predefined social categories, the latter is a simplifying and condensing process by which an abstract idea is transformed into a concrete object. An additional level of analysis is related to media contribution to the construction of SR.³⁹ This focus has been recently extended to the analysis of social media.⁴⁰

Recent developments argue that SRT and aesthetics have a crucial role in the construction of social representations. Art works, for example, could be situated in the reified universe, as forms of knowledge that transcend social situations.⁴¹ They are considered as the result of aestheticization processes, through which a phenomenon is decontextualized from the situation in which it was generated. However, the sensory relation between the individual and the objects represents a process of recontextualization, that is, the introduction of a reified concept in the consensual universe, transforming it thus in SR. A focus on Aesthetics, intended as both the

34 Serena Eréndira Serrano Oswald and Clarilza Prado de Sousa, "Building a Sand String: Social Representations for the Anthropocene", in *Social Representations for the Anthropocene: Latin American Perspectives*, ed. Clarilza Prado de Sousa and Serena Eréndira Serrano Oswald (Cham: Springer, 2021): 4

35 Serge Moscovici, *Psychoanalysis: Its Image and Its Public*, (Cambridge: Polity Press, 2008): 22

36 Moscovici, «Social Representations», 21

37 Denise Jodelet, *Les représentations sociales*, (Paris: Presses Universitaires de France, 1989): 36

38 Moscovici, *Psychoanalysis*, 54

39 Ibid., XIV

40 Brigitta Höijer, "Social Representations Theory. A New Theory for Media Research", *Nordicom Review*, 32.2 (2011): 14

41 Dany Boulanger, "Aesthetic Social Representations and Concrete Dialogue across Boundaries: Toward Intergenerational Characterization", *Culture & Psychology*, 26.4, (2020): 792

aestheticization process (meant as the decontextualization of a phenomenon from its context, in order to represent it and visualize it), and aesthesis (as the sensory relation between the individual and the phenomenon), may enhance the understanding of the transformation processes of knowledge in its transition between the reified and the consensual universe. Furthermore, the aesthetics of the representations have spread through social media, influencing the reproduction of aesthetic and social norms.⁴² Within this perspective, Aesthetics has to be considered both as a process and as a product of SR.

The exceptional high tide events occurred between the 12th and the 18th of November in Venice have reached a wide international resonance. This resonance has been amplified by the large amount of material published on social media related to those events. The aim of the research is to identify the SR of exceptional high tides and their connection to the aforementioned aesthetics of the Anthropocene.

The paper takes into account videos published on YouTube referred to these events, and analyzes their textual narratives in order to answer the question: Which aesthetic imaginary constitutes the SR of the exceptional high tides that hit Venice?

Methodologies

1. Construction of the data set

Data collection was conducted during February 2022, focusing on YouTube, since it is considered one of the most popular video platforms.⁴³ The following keywords were employed: "Acqua alta Venezia",⁴⁴ "Venice high water", "Venice high tide" and "Venice flooding". The same keywords were then used adding a specific time period: "2019". Since YouTube does not show the total amount of items indexed through a certain keyword, it is not possible to quantify the related material present on the platform. A total of 251 videos were collected. These videos were subsequently filtered based on the following criteria: 1) Videos not effectively related to the time range between 12th and 18th November were excluded; 2) Only videos with references to anthropic influences on the object of analysis were included (particularly sea-level rise, global warming, climate change, subsidence, and other human impact on the Venice Lagoon); 3) Only videos aimed at an Italian public were included. Based on this selection, 29 videos were collected, for a total duration of 4h, 16', 07" (471,273 views,

42 Irene Bronsvort and Justus L. Uitermark, "Seeing the Street through Instagram. Digital Platforms and the Amplification of Gentrification", *Urban Studies*, 00.0, (2021): 9

43 Yusmarhaini Yusof, Sharifah Fatimah Syed-Ahmad, Azizah Mainal and Jamie Murphy, "A YouTube Analysis of Muslim Scholar Reactions to Trump's Electoral Outcome: Social Work Implications", *Journal of Religion & Spirituality in Social Work: Social Thought*, 9.1, (2020): 6

44 Venice high water

18,431 likes, and 1,206 comments as of 29th March 2022).⁴⁵⁻⁴⁶

The data set was heterogeneous, including material made through different languages, such as journalistic, political, informative, and entertainment languages.

2. Procedures of analysis

Because of the attention on aesthetics, the analysis focused on the contents of the videos and not on the interactions among users. As was done in other recent studies, the analysis was conducted focusing in particular on the textual components of the videos.⁴⁷ The researcher downloaded the video transcriptions and corrected the errors.⁴⁸ Based on the theoretical framework, a Reflexive Thematic Analysis was conducted (RTA).⁴⁹ RTA consists in identifying significant themes in narratives. Themes are defined as configurations of shared meanings, grounded in a “central organizing concept.”⁵⁰ The analysis is reflexive because the individuation of the themes is realized through an interpretative and recursive coding process, which implies the subjective involvement of the researcher. Therefore, “themes are creative and interpretative stories about data, produced at the intersection of the researcher’s theoretical assumptions, their analytic resources and skills, and the data themselves.”⁵¹ Procedures of analysis require six phases.⁵² Firstly, the researcher familiarized with the data, noting down initial thoughts. Secondly, he generated initial codes systematizing quotations of interest. Subsequently, the initial codes were organized in order to identify potential themes. During the fourth phase, the researcher assessed if the identified themes worked in relation to the initial codes and to the entire data set, and generated the thematic “map” of the analysis. Lastly, the names of the themes, their relations and the story that the analysis tells, were refined. The sixth phase consists in reporting the results, which will be noted in the next paragraph.⁵³

The RTA was conducted through “paper and pencil” procedure.

45 Although the collected videos are public, the author decided to not reveal the identity of the users. For information about the data set, kindly contact the author.

46 It is possible to watch one of the video included in the analysis as an example at the following link: <https://www.youtube.com/watch?v=JD49mWnUH98&list=PL4jats0oeFMiZAJMf1qZ-AWKtSp84Y3wY&index=1&t=3s>

47 Yusof, Syed-Ahmad, Mainal and Murphy, “YouTube Analysis”, 7

48 Ibid., 7

49 Virginia Braun and Victoria Clarke, “Reflecting on Reflexive Thematic Analysis”, *Qualitative Research in Sport, Exercise and Health*, 11.4, (2019): 589

50 Ibid., 593

51 Ibid., 594

52 Virginia Braun and Victoria Clarke, “Using Thematic Analysis in Psychology”, *Qualitative Research in Psychology*, vol. 3.2, (2006): 87

53 The analysis was conducted by the author. He has had several experiences of qualitative analysis and received appropriate training during university courses and, after graduation, at workshops and a summer school on qualitative methods. However, the fact that the analysis was conducted by a single author constitutes a limitation.

Results

The RTA allowed for the identification of three themes - the *sublime*, *agency*, and *disclosure* - and four subthemes.

1. The sublime

According to the aforementioned literature, the sublime is an aesthetic category which implies the coexistence of terror, astonishment, and attraction in relation to disastrous events. This theme is used to describe narratives that exalt the grandeur of the exceptional high tide, emphasizing both its disastrous and its stunning characteristics. In reference to the analysis conducted on the data set, the sublime is composed of four subthemes: exalting the exceptionality; the transfiguration of Venice; awareness of human limits and the future as a threat.

1.1 Exalting the exceptionality

This subtheme refers to the representation of the gravity of the situation through emphasis on its exceptionality. This narrative refers to various aspects of the phenomenon, such as the recording of the measures of the high tide:

“Hello to everyone, good evening from Venice. We couldn’t miss this opportunity. The news just came in; in fact, the sirens just sounded. A peak of one meter and seventy is expected by 11 p.m. A meter and seventy! It’s unheard of, a record, it’s extraordinary. The problem is that a meter and fifty, a meter and sixty, is predicted for tomorrow as well.”⁵⁴ [V 13]

Another aspect attributable to this narrative consists in highlighting the spectacular dimension of the exceptional high tide:

“Elena is equipped with high boots too, but as you can see, the height [of the water]⁵⁵ is really unsettling. Now the wind is calm, but until ten minutes ago the wind was really impressive, I have to admit it. I think that we’ll wait until 11 p.m. to see the show”. [V 13]

1.2 The Transfiguration of Venice

The Transfiguration of Venice is an argumentative form based on the contrast between the usual image of Venice, and the image of Venice during these events. Some content, for example, highlights the contrast between typical and stereotypical aspects of Venice and the destructivity of the flood:

54 The quotes are mainly in Italian and have been translated by the author.

55 Noted by the author.

"The images I saw left me completely open-mouthed. They show canals completely out of the basins, streets completely flooded with water, and *vaporetti* [typical venetian steamers] run aground on the walking banks ["fondamenta"]; deaths - there have been two; rocks that cover what once... what until yesterday was the lagoon, because water has reached exorbitant levels, which haven't been reached in decades; trees completely uprooted; houses rendered completely uninhabitable, and people who lost everything they had within a few hours" [V 6]

Other excerpts use similes to describe how the landscape of St. Mark's Square has radically changed:

"I am almost at the center of St. Mark's Square. I am obviously equipped with high boots, high boots that go above the waist, and I have to say that if I didn't have them, I couldn't get all the way here. Water is really high, it's really impressive. It actually looks like a lake. St. Mark's Square looks like a lake." [V 13]

1.3 Awareness of human limits

This theme reflects a variation in a classical aspect of the sublime, according to which the power of nature allow us to be aware of our limits. The *awareness of human limits* could also be related to the inversion in the relationship between humankind and nature present in the configuration of the sublime of the Anthropocene.⁵⁶ This subtheme is related to the theme of *agency*, which will be reported later. The quotations considered evidence the need to limit human action to protect nature. In some cases, the limit is referred to the territorial dimension of the event:

"They're really focused on digging canals inside the Venice Lagoon, but by doing so the stream of water that enters and exits the Lagoon is deeply modified. This means that instead of having adequate canals for the Lagoon, and appropriate rivers, we end up having like water highways, where the sea enters with more and more strength and violence. And by the way, it's absolutely insane to continue digging canals in the Venice Lagoon to let the big ships pass" [V 18]

Other excerpts, instead, are more focused on the anthropic influence on ecosystems at a global level:

"I think there was something I wanted to talk about, because, from afar, I felt the weight of what happened. I am 300 km away from Venice... but the images, what I've seen, what my friends have told me, really got to me. And I think that there should be more awareness, not only on our part, having gone and still going through certain experiences, but also on the part of those in higher positions. Denying the evidence

56 As reported in the second section of this paper "Aesthetics of the Anthropocene".

is absurd, you should be ashamed of yourselves, you ugly bastards. Venice now is basically the ghost of what Venice used to be hundreds of years ago. And that's how it's going to be if we don't figure out how to act" [V 6]

1.4 The future as a threat

Within this subtheme, the sublime is expressed through the use of images of the future which threaten crucial aspects of globalized society. In some extracts the focus is on the threat posed on cities with a high symbolic value:

"The average sea level rises and cities like Venice, Amsterdam and Buenos Aires are submerged. Unfortunately, these are not scenes of an apocalyptic film, but fairly likely predictions." [V 1]

In other extracts, instead, this image is evoked in relation to the cultural heritage of Venice:

"Cultural heritage, as well as treasures from the rich history of the Republic, are all at risk as Venice suffers floodings. And the rising sea levels threaten to cover all of it sooner or later, making Venice a second Atlantis." [V 8]

2. Disclosure

This theme is less frequent than the others (two quotations recorded). Nonetheless, according to the RTA methodology, in which the quantitative frequency of a code is not a crucial criterion to the definition of a theme, the author decided to consider these quotations as a theme, due to their relevance for the research questions.⁵⁷ In particular, *disclosure* consists of a first-person narrative that tries to evoke the subjective experience of the event. Indeed, if the sublime is fascinating because it is distant from the observer (in the case of this research, distance is represented by the platform of YouTube), *disclosure* tries to reduce the distance by focusing on the psychological experience of the event. Through the description of the emotional experience of a flood, this representation strategy constitutes a communication approach in which the subject is engaged in the phenomenon. This approach could be considered alternative to the use of aestheticization (the representation and the visualization of the phenomenon through the decontextualization from its context). In the case that follows, the author of the video "discloses" his own personal experience of a flood:

"Do not underestimate the psychological effect of a flood. I witnessed one in first person some years ago. Fortunately, I was not directly involved. In addition to being with the evacuees through the *protezione*

57 Braun and Clarke, "Using Thematic Analysis", 82

civile,⁵⁸ I helped my neighbors and their friends and families during the early hours. Keep in mind, I was a little over twenty years old at the time and I had no skills, but that's not the point: I know people that, to this day, after a long time, still panic when it rains during the night, because they have seen houses and streets destroyed, they have suffered considerable damage etc. So, greatest respect and solidarity to the people hit. Sometimes one may think it's just water, but it absolutely isn't." [V 2]

3. Agency

Agency describes those narratives which express the possibility to act and change the existing conditions. It is a concept closely related to the Anthropocene, because if, on the one hand, the change in the geological epoch can be defined, under certain criteria (e.g. the golden spike), on the other hand, the identification of the *agent* of this change is more complex.⁵⁹ As was for the subtheme *awareness of human limits*, this theme is also related to the inversion in the relationship between humankind and nature representative of the sublime of the Anthropocene. However, in contrast with the sublime as it was identified in the data set, the discourses about agency, by suggesting how to solve the problem, also reveal the construction of the problem itself. In the example below, agency is expressed mainly through the attribution of responsibility, because as well as indicating what needs to be done, it also indicates *who* should do it. Most of these passages refer to political responsibility, which, in this specific case, is strongly linked to the problems related to the Mose:⁶⁰

"Can we talk about finishing this Mose? Mayor, sir, I don't want to get into controversy, but can I just say that this is shameful? I'll take full responsibility for saying this. Because it's been *many* years and it's still not finished! No controversies, no ifs or buts, we have to get over with this! As soon as possible! There's been talk about December 2021; I would gather lots and lots of workers and try to finish it earlier." [V 22]

This theme also refers to scientific and technical responsibilities. These are both considered through a positivistic perspective, of progress that leads to a better future:

"Let's start from Venice, let's study climate change here! I proposed to Europe and to the UN to conduct an important study here. In these years, while we're building the Mose, let's study sea pollution, let's study the effects of climate change! Let's do it in Venice! Let's turn this

58 Civil protection.

59 As reported in the second section of this paper: "Aesthetics of the Anthropocene".

60 Mose is a project of temporary isolation of the Venice Lagoon from the Adriatic Sea, to protect Venice (and the other cities of the Lagoon) from exceptional high tides. Mose is a highly controversial topic, both in relation to its environmental impact and to judicial matters. In November 2019 Mose was not functioning yet.

tragedy into a great opportunity to relaunch our entire country. Let's not feel sorry for ourselves, let's fight, fight, fight, because we can make it!" [V 22]

And progress as a component of a more complex framework, aimed at protecting the territory:

"Well, how do we defend ourselves from these events? It's not as banal as it might seem. Creating a rigid barrier parallel to the coast, that defends the entire coast, is not an option because, of course, the environmental impact of such a structure... So, I mean... the creation of water parks and beaches is not even conceivable, it's unthinkable. There clearly is the possibility to intervene locally, but we have to consider that the situation is quite serious, in the sense that almost half of the Italian coasts are subjected to erosion. And this is a fact. Protection could be done locally, and indeed it ought to be." [V 14]

There is only one quotation in which the reference is to individual responsibility, both through the possibility of changing habits and the possibility of influencing socio-political levels:

"The thing we have to focus on, in my opinion, is the request of solutions to our administrators, obviously without ignoring the reduction of consumption to contain the rise of global average temperatures. As a tenant of the world, who rents this planet for less than a hundred years, I must leave things better than how I found them. In turn, however, those in charge must think about long-term solutions. I hope I was clear and to have offered you an alternative point of view on the debate on climate change." [V 1]

Discussion

The exceptional high tide in Venice engendered a relevant public debate, which represents the attempt to collectively elaborate the event. This could be considered as a socially shared sense-making process through which positionings are configured in order to address the issue at hand. In this research, contents of YouTube videos were analyzed, as media which significantly influences the construction of SR.⁶¹ Results highlight that there is an interrelation between aesthetic imagery (the *sublime*) and the attribution of responsibilities ("agency"). More specifically, they both revolve around the "awareness of human limits", which on the one side reflects the inversion in the relationship between humankind and nature in the sublime of the Anthropocene⁶², and on the other side reflects the need to identify and distribute responsibilities. Furthermore, with regard to the aestheticization processes of the event, an analogy with the aesthetics of the Anthropocene was identified.

61 Höijer, "Social Representations Theory", 14

62 As reported in the second section of this paper: "Aesthetics of the Anthropocene".

These processes are represented by the spectacularization of the event (“exalting the exceptionality”), and the emphasis on future scenarios (“future as a threat”). “Agency”, instead, mostly regards the attribution of responsibilities to technical and political spheres (almost always related to Mose), relieving thus the viewer of the video of feeling responsible for neglecting the individual level (only one quotation in this regard).

Interesting analogies and differences with the aesthetics of the Anthropocene concerning the “sublime” were also identified. As regards “exalting the exceptionality” and the “transfiguration of Venice”, a classical expression of the sublime seems to emerge. According to this perspective, it is the violence of nature that devastates the harmony of human civilization. This could be related to the specific characteristics of the event, which could be categorized as a disaster. If in the works of Monet analyzed by Mirzoeff, the Anthropocene is expressed in its unfolding through ordinary life,⁶³ a disaster represents a break in it. The “awareness of human limits”, instead, is a theme less focused on the representations of the event itself as it is on the representation of its implications. Human responsibilities are more evident here, and they are articulated mainly through political judgments.

Therefore, the identified themes underline the necessity to combine SRT and aesthetic philosophy in their theoretical and methodological aspects. Recently, contributions have been published which aim at developing this pathway.⁶⁴ This approach is at its initial stages and the results suggest continuing in this direction.

A critical aspect of this research lies in the fact that the object are the SR of a local manifestation of the hyperobject, the Anthropocene. A relevant aspect of the data set is that the word “Anthropocene” is never mentioned. This poses the problem of defining if the identified themes could be considered as the Anthropocene’s SR or not. On the one side, this could point out a limit in the concept of Anthropocene itself. Indeed, unlike other issues,⁶⁵ this concept has not consistently permeated public opinion yet. Additionally, being a hyperobject could have less phenomenic salience than its local manifestations. On the other side, it is possible to identify a limit of the SRT: one of the conditions that engendered SR, as specified by Moscovici, is the focus on a particular object.⁶⁶ Due to the absence of an explicit reference to the Anthropocene in the data set, identifying its SR becomes problematic. The problem that emerges here is the dependence of SR on verbal language on a methodological level. However, in other contributions, Moscovici argues that SR are not always manifested

63 Mirzoeff, “Visualizing the Anthropocene”, 221-223

64 Boulanger, “Aesthetic Social Representations”, 792-796

65 Valentina Rizzoli, Diego Romaioli and Alberta Contarello, “The Crisis Tsunami. Social Representations of the Economic Crisis in the Italian Press”, *International Review of Social Psychology*, 30.1, (2017): 81

66 Augusto Palmonari and Francesca Emiliani, *Paradigmi delle rappresentazioni sociali. Sviluppi e prospettive teoriche*, (Bologna: il Mulino, 2009): 37-82

through language, they can also be expressed by art and images.⁶⁷ From this perspective, new ways to access SR could unfold, involving sensory experience in its complexity, rather than reducing it to the linguistic reference to the object. A development of SRT which takes aesthetics into account could contribute to a complex understanding of the way subjects feel and think about the world.⁶⁸ Consequently, a future perspective of this research could be a visual analysis of the images of the data set.

Conclusions

In summary, in reference to the question “What do social representations *do?*,”⁶⁹ the hypothesis proposed herein is that SR of exceptional high tide contribute to create a psychological detachment from the event, through aestheticization, “de-responsabilization,” and by referring to an abstract humankind. The theme of *disclosure*, precisely due to the fact that it is less frequent compared to the others, highlights this general trend. Therefore, it could be useful to deepen the dialogical relation between this distance and the conceptualization of the Anthropocene as the “epoch of mankind.” In particular, it would be desirable to explore how communities and social groups elaborate a form of protection from the idea of being considered responsible for the change we are facing.

67 Serge Moscovici, “Attitudes and Opinions”, *Annual Review of Psychology*, 14.1, (1963): 231-260

68 Serge Moscovici, “The Myth of the Lonely Paradigm: a Rejoinder”, *Social Research*, 51.4, (1984): 946-947

69 Howarth, “Social Representation”, 68-69

Zeno Mutton is a PhD candidate in Architecture and Design Culture at the University of Bologna (Department of Architecture). He graduated in Psychology at the University of Padua. His research interests are focused on the role of person-place bonds in shaping subjectivity, intersubjectivity, and place-making; and on the Social Representation Theory as a theoretical framework through which explore the interpretation and the social construction of environments and places.

References

- Bandiera, Michele. "Figure dell'Antropocene negli olivi di Puglia" In *Geografia e Antropocene*, edited by Cristiano Giorda, 120-139. Roma: Carocci, 2019
- Bonneuil, Christophe, and Fressoz, Jean-Baptiste. *The Shock of the Anthropocene. The Earth, History and Us*. Translated by David Fernbach. London-NewYork: Verso, 2016.
- Boulanger, Dany. 2020. "Aesthetic Social Representations and Concrete Dialogue across Boundaries: Toward Intergenerational CHARACTERization." *Culture & Psychology* 26 n. 4 (2020): 778-802. <https://doi.org/10.1177/1354067X19888198>
- Braun, Virginia, and Clarke, Victoria. "Reflecting on Reflexive Thematic Analysis." *Qualitative Research in Sport, Exercise and Health* 11.4 (2019): 589-597. <https://doi.org/10.1080/2159676X.2019.1628806>
- . "Using Thematic Analysis in Psychology." *Qualitative research in Psychology* 3.2 (2006): 77-101. <https://doi.org/10.1191/1478088706qp063oa>
- Bronsvorot, Irene, and Uitermark, Justus L. "Seeing the Street through Instagram. Digital Platforms and the Amplification of Gentrification." *Urban Studies* 00.0 (2021): 1-18.
- CPSM; ISPRA; CNR-ISMAR; *Novembre 2019 un mese di maree eccezionali. Dinamica e anomalia dell'evento del 12 novembre 2019. Dati, statistiche e analisi degli eventi. [November 2019 a Month of Exceptional High Tides. Dynamics and Anomaly of the 12 November 2019's Event. Data, Statistics, and Events' Analysis]*, Venezia: CPSM, ISPRA, CNR-ISMAR, 2020.
- Crutzen, Paul J. "Geology of Mankind." *Nature* 415 (2002): 23. <https://doi.org/10.1038/415023a>
- D'Alpaos, Andrea and Carniello, Luca and Rinaldo, Andrea. "Statistical Mechanics of Wind Wave-induced Erosion in Shallow Tidal Basins: Inferences from the Venice Lagoon." *Geophysical Research Letters* 40 (2013): 3402-3407. <https://doi.org/10.1002/grl.50666>
- Fressoz, Jean-Baptiste. «L'Anthropocène et l'esthétique du sublime». *Sublime, les tremblements du monde*. Catalogue d'exposition. Paris: Centre Pompidou Metz, 2016
- Haraway, Donna. "Anthropocene, Capitalocene, Plantationocene, Chtulucene: Making Kin." *Environmental Humanities* 6 (2015): 159-165. <https://doi.org/10.1215/22011919-3615934>
- Höjjer, Brigitta. "Social Representations Theory. A New Theory for Social Media." *Nordicom Review* 32.2 (2011): 3-16. <https://doi.org/10.1515/nor-2017-0109>
- Howarth, Caroline. "A Social Representation is not a Quiet Thing: Exploring the Critical Potential of Social Representation Theory." *British Journal of Social Psychology* 45 (2006): 65-86. <https://doi.org/10.1348/014466605X43777>
- Jodelet, Denise. *Les représentations sociales*. Paris: Presses Universitaires de France, 1989.
- Lesjak, Carolyn. 2021. "Difference Relates: Allegory, Ideology, and the Anthropocene." *Historical Materialism* 29.1 (2021): 123-133. <https://doi.org/10.1163/1569206X-12342001>
- Malvestio, Marco. 2021. *Raccontare la fine del mondo. Fantascienza e Antropocene*. Milano: Nottetempo, 2021.
- Mirzoeff, Nicholas. "Visualizing the Anthropocene." *Public Culture* 26.2 (2014): 213-232. <https://doi.org/10.1215/08992363-2392039>

Moore, Jason W. "The Capitalocene, Part I: On the Nature and Origins of Our Ecological Crisis." *The Journal of Peasant Studies* 44.3 (2017): 594-630. <https://doi.org/10.1080/03066150.2016.1235036>

Morton, Timothy. *Hyperobjects. Philosophy and Ecology after the End of the World*. Minneapolis: University of Minnesota Press, 2013.

Moscovici, Serge. "Attitudes and Opinions." *Annual Review of Psychology* 14.1 (1963): 231-260. <https://doi.org/10.1146/annurev.ps.14.020163.001311>

———. *Psychoanalysis: Its Image and its Public*. Translated by David Macey. Cambridge: Polity Press, 2008.

———. "The Myth of the Lonely Paradigm: a Rejoinder." *Social Research* 51.4 (1984): 939-967.

———. "The Phenomenon of Social Representations." In *Social Representations*, by Robert M. Farr and Serge Moscovici, 3-69. Cambridge: Cambridge University Press, 1984.

Oswald, Serena Eréndira Serrano, and Clarilza Prado de Sousa. "Building a Sand String: Social Representations for the Anthropocene." In *Social representations for the Anthropocene: Latin American Perspectives*, by Clarilza Prado de Sousa and Serena Eréndira Serrano Oswald, 1-32. Cham: Springer, 2021. https://doi.org/10.1007/978-3-030-67778-7_1

Palmonari, Augusto, and Francesca Emiliani. *Paradigmi delle rappresentazioni sociali. Sviluppi e prospettive teoriche*. Bologna: il Mulino, 2009.

Rizzoli, Valentina, Diego Romaioli, and Alberta Contarello. "The Crisis Tsunami. Social Representations of the Economic Crisis in Italian Press." *International Review of Social Psychology* 30.1 (2017): 80-91. <https://doi.org/10.5334/irsp.103>

Steffen, Will and Grinevald, Jacques and Crutzen, Paul and McNeill, John. "The Anthropocene: Conceptual and Historical Perspectives." *Philosophical Transactions of the Royal Society A* 369 (2011): 842-867. <https://doi.org/10.1098/rsta.2010.0327>

Yusof, Yusmarhaini, Syed-Ahmad, Sharifah Fatimah and Mainal, Azizah and Murphy, Jaime. "A YouTube Analysis of Muslim Scholar Reactions to Trump's Electoral Outcome: Social Work Implications." *Journal of Religion & Spirituality in Social Work: Social Thought* 39.1 (2020): 1-26. <https://doi.org/10.1080/15426432.2019.1650690>

MAIN SECTION

Rebranding Athens as the Creative City of European South. The contribution of Documenta 14 A Critical Approach

Styliani Bolonaki — National Technical University of Athens
Contact: st_bolonaki@yahoo.gr

ABSTRACT

The following article presents a very brief review of the impact of the art institution Documenta on the Athenian urban environment aims to give an answer to the question of how and why the art exhibition "Learning from Athens" gained such popularity in urban and economic developers, locally and globally, that has not yet led to enough critical discussion on the cultural, and political researchers. The article approaches two views on this impact. One linked to the Athenian urban ruins of the Greek economic recession through which emerged a new (exotic) touristic destination to the European periphery. And the other linked to the politics of the Creative City which function as the main strategy of the present Athens cultural-led gentrification including heritage and planning politics, real estate, touristic, entertainment, and creative industries. The article is setting up a number of important questions to cultural and political researchers about city rebrand processes and the generated change and innovation produced; the social inequalities in particular.

KEYWORDS

Creative City Athens, City Branding, Creative-Led Urban Renovation, Post Colonial Urbanism, Cultural Industries

PEER REVIEWED

<https://doi.org/10.6092/issn.2612-0496/13537>

ISSN 2612-0496

Copyright © 2022 Styliani Bolonaki

Introduction

Since 2019, the city of Athens experiencing major regeneration processes. Along with the lavish renovations of Elliniko and Faliro bay, is taking place a series of inner-city structural changes, including plans such as the ambitious project of the Great Walk, which promises to connect the two main Athenian squares—Syntagma and Omonia—with a tree-lined avenue, the extension of metro in the neighborhoods of Exarhia and Kolonaki, the redevelopment of the Athenian hills, the converting of architecturally significant buildings into state and cultural venues, the opening of international galleries, the enactment of a range of artist-run spaces and art residencies in central districts are some examples of those ongoing gentrification processes.¹ The migration of artists that sporadically began in areas of downtown Athens in 2012 has evolved in an organized policy of rapid urban regeneration, having completely transformed the cultural geography of the city, causing the displacement of local creative activities from specific neighborhoods such as Exarhia, Kypseli or Koukaki.

Athens gentrification proclaims urban welfare through fostering collaboration and engagement among government, NGOs, the private sector, and individual citizens according to the strategic plan of “Athens Resilience Strategy for 2030”² launched by the Rockefeller Foundation, which was posted on 14 June 2017. ACRS Strategy involves various interdisciplinary groups of stakeholders from different governmental, academic, and non-profit institutions, covering a broad range of expertise led by the Mayor of Athens. In particular, “Athens Resilience through Culture Report,”³ commissioned by the British Council in collaboration with 100 RC, encourages the rise of cultural industries, the rebranding of Athens from a cultural perspective beyond its renowned monuments, and the development of Athens as a cultural destination, among others. As far as the city’s cosmopolitanism is concerned, the German institution of Documenta functioned as an urban gentrification forerunner, “creating a challenging but attractive environment,” as the ACRS report points out.⁴

In many respects, the art exhibition “Learning from Athens” in 2017 has expanded the notion of Athens’s urban cultural heritage, producing a new exotic destination in the European South “towards a tourism and real estate market that seeks local authenticity.”⁵ The art venture of

1 From the beginning of the pandemic, COVID-19 have appeared over twenty new art spaces in the broader center of Athens, a considerable number for a city that was not used to be an art boom, including new galleries or ranches of international galleries, self-managed art spaces, art residencies, generally, spaces that involve somehow with art domain.

2 Resilient Athens, *Athens Resilience Strategy for 2030: Redefining the City Report*. (Athens: Resilient Athens & The City of Athens, 2017).

3 Robert Palmer, *Athens City Resilience through Culture Report* (Athens: British Council and 100 Resilient Cities, 2018).

4 Resilient Athens. *Athens Resilience Strategy for 2030: Redefining the City Report*, 167.

5 Jamie Peck, “Struggling with the Creative Class,” *International Journal Of Urban And Regional Research* 29, no. 4, (2005): 747.

Documenta transformed particular localities into areas with a hipster atmosphere, ethnic diversity, and vibrant nightlife, pre-settling the creative capital needed to increase Athenian urban competitiveness amongst world cultural regions. Athens saw a “massive rise in short-term rentals (Airbnb) after 2017, triggering gentrification and touristification processes.”⁶ Thus the concept of creativity and innovation has become the driving force of Athenian urban development processes.

Using art as an agent, not a means of redemption but of “economic accumulation,”⁷ the new Athenian “creative districts” establish spatial classifications, defining particular roles and behaviors to their users. Athens’s gentrification policy has straightly connected with the promise of “restoring law and order,” which was one of the pre-election campaign themes of the current government of Nea Demokratia in 2018. Significantly, the Athenian redevelopment processes put an end to Athens’ experiment with the squats movement, estimated that housed over 1,500 immigrants, including the evacuation of the City Plaza Hotel in Victoria Square, the largest of its kind, forcing the inhabitants to move to the refugee camps. Under a program of inner-city beautification, has also been removed the graffiti that was for long the visual representation of social-political disinvestment and austerity of the Greek capital. Nowadays, graffiti in Athens has become officially commissioned art, “signalling the end of the financial and social crisis the city has gone through.”⁸

In many ways, the central areas of Athens have commodified access to its urban spaces, policing privileged access and soliciting the agency only of those classes held sufficient social and financial capital to enjoy the right to the city and all its associated resources and infrastructures. Rather than the cultivation of urban life, current urban strategies commodify the arts and cultural resources, transforming Athens into a revanchist city, where “the victors are increasingly defensive of their privilege, such as it is, and increasingly vicious in defending it,”⁹ as Neil Smith writes.

The following article intends to discuss the effects of the expansion of global cultural industries on peripheral cities, and their impact on the creation of a homogenized urban identity. The article will focus on socio-spatial changes occurring in Athens through a detailed interrogation of the curatorial tactics of the project “Learning from Athens” of the German Institution of Documenta, which may have enriched the global art industries, but mainly achieved the re-launching and the re-activating Athens through the “cultural touristification.” Indeed, Documenta 14 imported the corporate

6 Dimitris Balampanidis et al., *Informal Urban Regeneration as a Way out of the Crisis? Airbnb in Athens and its Effects on Space and Society*. (Athens: Polis 2021).

7 David Ley, “Artists, Aestheticisation and the Field of Gentrification,” *Urban Studies* 40, no. 12, (2003): 2542.

8 Dimitris Tziouvas, *Greece in Crisis: The Cultural Politics of Austerity* (London, New York: I.B. Tauris, 2017), 209.

9 Neil Smith, *The New Urban Frontier: Gentrification and the Revenachist City* (London: Rutledge, 1996), 222.

global art world into Athens, actuating a cosmopolitanism, but at the same time degraded the rights to the city “into narrower plans and exclusionary aesthetics.”¹⁰ In this regard, current Athens’s culture-run regeneration strategy is “characterized by spontaneity, fragmentation, and tolerance of speculation,”¹¹ as the geographer Georgia Alexandri pointed out.

Documenta 14 in Athens

From April to September 2017, the German institution Documenta formulated its public sphere in the urban space of Athens, mainly addressing the international art world. Documenta, which produces exhibitions at the forefront of contemporary art and theory every five years in Kassel, Germany, with stable financial commitments from public funders such as the city of Kassel, and Hessen as well as the German Federal Cultural Foundation, signals cultural, political, and aesthetic projects outside the art market despite that most of the time the participating artists are much known to this market. Continuing the curatorial tactics of overcoming its natural borders within Kassel that started Documenta 11 in 2002, recognized for its ambitious post-colonial geographical dispersion “which redefined the structure and meaning of art institutions according to a globalized and, potentially, decolonized model of art,”¹² the 14th edition of Documenta, under the direction of Adam Szymczyk, split into two parts taken place first in Athens and then in Kassel with artists to present works in both cities.

Szymczyk proposed, upon his election in 2013, that Documenta should manifest in the form of two autonomous, simultaneous, and related exhibitions in two very different cities “to express the dissolution of barriers separating those who lack the simplest means from those who are usually all too willing to give them lessons but seldom a hand.”¹³ Given the tension in the relations between Greece and German due to the austerity measures forced by the EU, spearheaded by German politicians on the Greek banking industry, the exhibition “Learning of Athens” worked as a connecting bridge between the two countries. Thus, the equal budget partition between Kassel and Athens was considered part of the German support for the Greek “bailout” plan experiment. In this sense, the exhibition of Documenta 14 was perceived as a “gift” to Athens, as mentioned by the local cultural stakeholders. However, the donation in the cycle of economic exchange can be assumed as debt and, therefore, cannot be

10 David Harvey, *Spaces of Capital: Towards a Critical Geography* (Edinburgh: Edinburgh University Press, 2001), 408.

11 Georgia Alexandri, “Planning Gentrification and the ‘Absent’ State in Athens,” *International Journal of Urban and Regional Research* 41, no. 1, (2018).

12 Anthony Gardner, & Charles Green, “Post-North? Documenta11 and the Challenges of the “Global” Exhibition,” *On Curating* 33, (2017): 109-121.

13 Adam Szymczyk, “Documenta 14: Learning from Athens,” in *60 Years of Documenta: The Local History of Globalization* ed. Hans Eichel (Berlin: B&S Siebenhaar, 2015), 220-273.

considered an altruistic act, as Jacques Derrida has argued.¹⁴

If the division between Kassel/Athens symbolically referred to the division between benefactor/bankrupt, the working title “Learning from Athens” directly constructed alterity, predisposing to ethnographic practices of “observer-observed.” Although the curators assumed that “learning is unlearning” and thus “the great lesson is that there are no lessons,”¹⁵ the art event unaltered the demarcation between we/others into a frame of philosophical narcissism, leading to a range of assumptions and representations of ‘Other.’ Significantly, the curator of the Public Program of Documenta 14, Paul Preciado, exoticized the Athenian urban landscape as authentically indigenous and innovatively political. Preciado, through an article in *Liberation*, in 2016, recovered the old European-generated fantasies of Orientalism, exciting the Western imagination by displaying Athens as an irrational and unreasonable place inhabited by people with a hybrid Eastern identity.¹⁶ According to Preciado, Athens is the city of an endless superposition of monuments—archeological-historical—and modern ruins. Above all, these strata now rise to the new neoliberal ruins sown by the fall of Europe. Athens stands metonymically for the rest of the imperfect world’s “privileges,”¹⁷ according to Szymczyk. Thus Athens was vaguely exoticized with all the “Others” of the Global South. Precisely this distance from the West enabled Szymczyk to impose Athens as a working object from which the Western world has to learn.

In an irreproachably “leftist-inspired” curatorial narrative that exposed the contradictions and conflicts of neoliberalism, Documenta 14 promoted itself as an apparatus for resistance and rebellion against the financial and refugee crises whose epicenter was in Athens. According to Szymczyk, the exhibition would become “an agent of change and a transformative experience for its audience and participants.”¹⁸ In many respects, the exhibition promoted art as “a refuge from oppression; as a means of resistance; as a way to mobilize solidarity; as a response to crisis; as an adaptation to adversity.”¹⁹ Although the exhibition little approached the city as an everyday living organism without directly engaging in issues about the Greek crisis, the curatorial oratory produced its own political and theoretical notion about Athens. Based on contemporary art post-colonial sensibilities on diversity, the exhibition was related to questions of immigration, racism, or xenophobia, directly understood as democratizing

14 Jacques Derrida, *Given Time: I. Counterfeit Money*, trans. Peggy Kamuf (Chicago and London: The University of Chicago Press, 1992).

15 Hili Perlson, “The Tao of Szymczyk: Documenta 14 Curator Says to Understand His Show, Forget Everything You Know,” *Artnet*, (2017). <https://news.artnet.com/art-world/adam-szymczyk-press-conference-documenta-14-916991>.

16 Paul B. Preciado, “Athenian Revolts,” *Libération*, (2016).

17 Szymczyk, “Documenta 14: Learning from Athens,” 243

18 Ibid.

19 Andrew-Stefan Weiner, “The Art Of The Possible: With And Against Documenta.” *Biennial Foundation Magazine*, (2017). <https://biennialfoundation.org/2017/08/art-possible-documenta-14/>

art-curatorial practices. In this context, the promotion of diversity through artistic forms took on the responsibility of connecting emotions and experiences between artworks and audiences. Giving the message that the effects of neoliberalism started with the Greek situation and applied globally, the works of around 160 participating artists presented a range of readymade practices and concepts “from here” that could also be delivered somewhere else, which were intertwined with the general issues of global society, though avoiding the specific topics of the Athenian society.

Although the project “Learning from Athens” did not provide remarkable works concerning social-political realities in Athens, the display literally embedded itself within the city’s physical and cultural fabric. The artworks, apart from the public and private cultural venues, were spread across the city; in archaeological sites, universities, theaters, cinemas, parks, archives, squares, streets, clubs, shops, parks, paths, workspaces, apartments, and even Athens First Cemetery sometimes for only to find one single artwork, to listen to sounds, or to see a locked empty building.²⁰ Documenta introduced a range of heterogeneous arts-led place-making practices, transforming land uses in terms of artistic creativity. Thus, the exhibition guide functioned as a touristic guide, sending art viewers around in circles or to the opposite end of town to discover the obscure sites of the Athenian urban space. According to Szymczyk, “these places one should visit when coming to the city and not just go up and down the rock.”²¹ Following the strategy of the creation of cultural activities’ pockets, Documenta 14 imported new areas for real estate speculation (e.g., Exarhia, Koukaki or Victoria Square) except for the districts of Gazi, Keramikos, and Metaxourgeio where the gentrification process had advanced enough, having incorporated marginal gentrifiers and independent artists alongside more affluent professionals. And, although Athens cannot be compared with the traditional European art hubs such as London, Paris or Berlin, the project “Learning of Athens” fundamentally affected the Athenian urban transformation, putting the city into perspective for the production of trans-locality related mainly to global markets’ dynamics.

Rebranding Athens

On the occasion of the exhibition of Documenta 14, mainstream media, which already had played a vital role in the dissemination of stereotypes during the economic crisis through the attribution of the crisis’ roots to

20 It is about the work of Maria Eichhorn “Building as Unowned Property,” an empty Athenian Neoclassical building in Patisia acquired in funding from Zurich’s Migros Museum, aiming to turn it into art studios or residencies.

21 Deutsche Welle, “Documenta Art Director Warns Against Nationalism,” interview by Adam Szymczyk, (2017). <https://www.dw.com/en/documenta-art-director-warns-against-nationalism/a-38234426>.

Greek culture²² proposed Athens as the New Berlin first appeared in 2015 in the German newspaper «Die Zeit» under the title “Is Athens the New Berlin?,” while others like BBC and New York Times indicated Athens as the potential new arts capital of Europe. Although Berlin was, and is in a range of ways particular and shaped by framing conditions that are nowhere else to be found, the comparison between Berlin and Athens mainly concerned the availability of space in the center of Athens, which in many ways did not repeat Berlin’s history. The crucial role had the reunion of Berlin that, accompanied by an oversupply of abandoned buildings and outdoor spaces on the eastern side, produced alternative living conditions for creative professionals who transformed the city into one of the world’s foremost centers for cultural events, resulting the rise of creative industries, and cultural enterprises that contributed to the city’s designation as “Creative City Berlin.” Without any doubt, for the last forty years, “Berlin was a massive turnover of properties, brought markets to play a previously unheard-of role in new urban changes.”²³

In the case of Athens, creativity works mainly literary for culture-based place-making. The development of Athenian neighborhoods as new “creative districts” such as Exarhia, Metaxourgeio, and Koukaki for example, is based on the domination by new economic activities, new forms of work and employment patterns, as well as new land uses. Creativity, having the role of a strong marketing tool has become a new index for the appropriation of the Athenian districts by leisure, culture, and tourist enterprises. As the author, Eric Weiner, put it, “places such as ancient Athens, or Silicon Valley today, are creative because they attract smart, ambitious people.”²⁴

According to the media, Athenian creativity was imprinted on the walls of the vacant buildings, which were covered with tagging, graffiti, stenciling, and murals even though the streets were inhabited by a population of unemployed, homeless, immigrants, and drug users; i.e., the remains left behind the welfare state’s collapse. Thus, Athenian creativity is a result of the “Greek crisis.” Specifically, Athens was supposed to experience a cultural renaissance, becoming the new Mecca for street art. Athens was promoted as an ideal place of provocative aesthetics and political radicalization, while graffiti was considered an artistic tourist-worthy product full of anti-materialistic, anti-panoptic perspectives and disordered, and multicultural humanist sentiments. According to the sociologist Vassilis Vambakas it is about a “positive orientalist approach bearing signs of renewed classism that do not be interpreted by the usual schemes that

22 International media interpreted the economic Greek crisis as a crisis of the national identity: Greece failed to reform where necessary due to the domination of the traditional political culture that is to be blamed for the failed transition since to postwar European modernity. See: Hara Kouki, Antonis Liakos, “Narrating the Story of a Failed National Transition: Discourses on the Greek Crisis, 2010-2014,” *Historein* 15, (2015).

23 Matthias Bernt, et al., *The Berlin Reader: A Compendium on Urban Change and Activism* (Bielefeld: Transcript Verlag, 2013): 110.

24 Eric Weiner, *The Geography of Genius: A Search for the World’s Most Creative Places from Ancient Athens to Silicon Valley* (New York: Simon & Schuster, 2016), 29.

examine graffiti in terms of a counter-culture, but as a result of a social and politically volatile and disrupted situation."²⁵ In other words, the city's struggles with riots, the wide-reaching ramifications of the refugee crisis and the high unemployment rates having transformed urban space into a realm of radical tactics—protests, squatting, guerrilla gardening, and urban occupations—were considered the seductive realm of radical aesthetics by the media, and the global art world.

Indeed, the urban space of Athens, affected by the policies implemented during the economic crisis, stressed the concept of spontaneity within a range of mobilizations as a counter-discourse to the stigmatization of bankruptcy.²⁶ The emergence of a strong, diverse social movement turned Athens into a battlefield of conflicting interests, where grassroots dynamics played a significant role in the spatialization of resistance in the city's public space.

Those actions of reclaiming hegemony over state power, the capital, and the commons transformed Athens into a socio-political laboratory that attracted the attention of activists, researchers and artists, both local, and foreign. Putting into play the notion of colonialism in its literal sense, the inflow of individuals in particular Athenian districts produced creative poles that forced urban class domination over the inhabitants.²⁷ The "creative clustering" under the political vocabulary of purification and rationalization of the inner city, particularly in the area of Exarhia, which was considered a "ghetto" and "avato" intertwined with the broader Athens security problem, introduced versions of an alternative hype cultural lifestyle brought markets to play an unheard-of role of re-assessing property values. The setting up of the art professionals in the area was accompanied bundle of new social characteristics as well as new enterprises and amenities that redefined and reshaped the identity of the area, rendering it attractive to the "creative class."²⁸ In many ways, the German institution installed in Exarhia a cosmopolitanism that first met the desires of property developers, having created corporate forms of cultural homogenization.

Exarhia has a distinct role in Athenian urban space due to the student uprising at the National Technical University in 1973, which is situated on its borders, helping bring down the military dictatorship. Till 2017, Exarhia was a neighborhood of cultural improvisation where inhabitants interplayed and invented tactics aimed at consolidating and reinforcing common communitarian bonds through squats and community centers like the Social Solidarity Network, Navarinou Park, and "Steki Metanaston"

25 Vassilis Vamvakas, "Athens an Alternative City. Graffiti and Radical Tourism," in *Political and Cultural Aspect of Greek Exoticism*, ed. by Panayis Panagiotopoulos, Dimitris, P. Sotiropoulos (Cham, Switzerland: Palgrave Macmillan, 2020): 153-166.

26 Between 2010 - 2014, in Athens took place 6,266 rallies and mobilizations, according to the official estimates

27 Alexandri, "Planning Gentrification and the "Absent" State in Athens."

28 Richard, Florida, *The Rise of the Creative Class* (New York: Basic Books, 2004).

(immigrant's center). Also, networks of Political and Social rights, such as El Chef or "Piso Thrana." Through the artists' clustering, Exarhia, which was under strict state surveillance, intertwined with the solution of forced repression, after the murder of Alexis Grigoropoulos by the police, in December 2008,²⁹ absolutely has been transformed into a tourist zone that has changed its character from a residential area to a tourist accommodation area. Particularly, the emphasis of Preciado in Exarhia through "top-down" discourses such as "Exarhia is the schizophrenic daughter of a violent and dysfunctional family, permanently associating with a sense of conflict between anarchists and police,"³⁰ crucially depoliticized the radical political movements activated in the area, creating the product of a lifestyle bohemian anarchism³¹ that enriches the Athenian urban space with new codes and symbolisms besides its traditional classical heritage. Interestingly, Documenta 14 transformed local identities through the process of making space for entertainment and leisure.

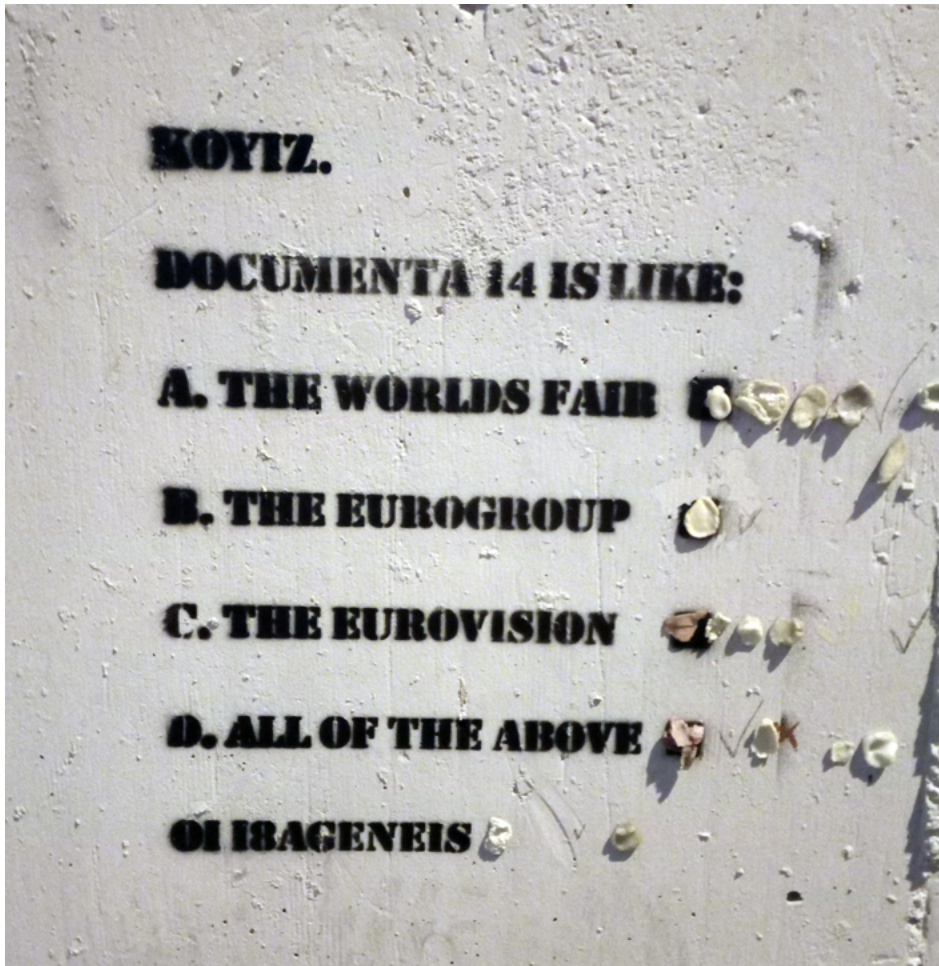


FIG. 1 "Stencil at Kallirois str. in Athens." Photo by Styliani Bolonaki (February 2018).

29 The murder of the fifteen-year-old by the police caused protests and riots in Athens that lasted three weeks and spread throughout Greece. These actions were not only a reaction against police brutality but a more general manifestation of protest against government corruption and its economic policy.

30 Preciado, "Athenian revolts."

31 Many travel companies identify Exarhia under the brand "Sweet Sins and Anarchy."

Documenta 14: Place-making Tactics

The project of Documenta 14 succeeded in creative place-making initiatives that worked as a strategy for Athens's urban renewal, resulting in the overcrowding of artworks in public spaces, which intensified social segregation by destroying integrated communities and creating segregated ones. The curatorial tactics of Documenta set the stage for extensive disinvestment in neighborhoods, communities, and coalitions, letting behind the needs of low-income households and communities of color in Athens.

For example, the Victoria Square Project, an empty store in a pedestrian street within a short distance of Victoria Square, was proposed as a "safe" and creative space for the area. Victoria Square Project, established by artist Rick Lowe in the exhibition frame of Documenta 14, calling his work "social sculpture," i.e. an evolving social and artistic experiment space offering contemporary art at the scale of the neighborhood, has established itself as the main stage for the cultural and social development of the district. The square, once the center of Athenian upper-class society, has been highly affected maybe more than other areas of Athens by the refugee crisis, having transformed into a crossroads for immigrants and refugees newly settled or passing through Greece. In 2016, migrant solidarity activists broke City Plaza's Hotel locks, giving 400 stranded people a home. Over the next year, City Plaza grew into the best-known of over a dozen squats that housed refugees in Athens.

Although the district is a diverse immigrant-rich, Victoria Square Project, in collaboration with the Municipality of Athens, and organizations such as Monumenta, Goethe Institute of Athens or Stavros Niarchos Foundation Cultural Center, seeks the district "regain the glory of the past," under the wish of the Ministry of Citizen Protection and the Municipality of Athens. Thus, today Victoria Square Project and its commissions organize experimental curatorial projects, educational programs, gatherings, and walks around the neighborhood. Sometimes Victoria Square Project occupies the plaza with art installations such as the colossal work "We Apologize," in 2021, feeding the district with streams of art consumerism which gradually "expel migrants and poor to the social, cultural, and economic margin."³²

Creative place-making initiatives by Documenta shifted to the artist's role in building new communities and establishing a cohesive public space character, connecting arts and cultural experiences with urban revitalization. Such was the artwork of "Shamiyaana-Food for Thought: Thought for Change," by the artist Rasheed Araeen promoted as a gesture of hospitality. The work, in front of the City Hall of Athens, concerned a colorful Pakistan wedding tent that was exclusively inviting the audiences of Documenta to enjoy a Mediterranean meal. The work was under the scenario of a

32 Malcom Miles, "A Post-Creative City?," *Revista crítica de ciências sociais* 99, (2013): 124.

communal kitchen and free food being distributed under the auspices of an artwork. This socially engaged art practice was downgrading, concealing, and maybe mocking the strong social kitchen movement in Athens that was run by NGOs, parishes, local companies, and individuals, feeding those inhabitants who had difficulty coping with basic needs such as food or heating.³³ This kind of spatial commodification contributed to the creation of creative place-making patterns, in many ways enriching cultural tourism. On the other hand, those place-making tactics became opportunities for urban regeneration by “newcomers” and local wealthy-class suburbanites. Certainly, the embedding of art projects into the Athenian urban space did not concern either the residents or the local social movements, and art collectives, specifically when these movements expressed their contrasts against Documenta through a real bombing of tags and stencils in Athenian streets.³⁴ That made the creative dynamics of Documenta in Athens contradictory and ambivalent.

The curatorial strategies of Documenta 14 focused on creating new symbolic value in Athens and simultaneously displacing existing socio-political meanings of the Athenian space. For example, the twelve-day event of ‘Exercises of Freedom’ under the project “The Parliament of Bodies” curated by Preciado, took place in the Municipality Art Center and Museum of Anti-dictatorial and Democratic Resistance of Parko Eleftherias (Freedom Park). Within the context of the assembly, Preciado transformed a significant historic place into a meeting point for intellectuals, artists, and audiences to discuss the hot topics of the Western art curatorial context: biopolitics, violence, indigeneity, LGBTQI+ rights, and activist practices. The choice of Documenta to host its gatherings in a place used by Greece’s military dictatorship to interrogate prisoners during the 1970s junta some Greeks found provocative if not insulting. In general, activating regions where history was fragile and fluid, the approach of Documenta 14 to the Greek junta in many ways was nostalgic, sentimental, and confident, offering “easy meanings, emphasizing strong, charming images produced to captivate its international audience.”³⁵

Indeed, Documenta erasure and replaced much of Athenian historical narratives through a process that combined “forgetting” with historical

33 According to the curator Iliana Fokianaki, while the artwork Araeen was taking place, an invigilator was trying to explain to a hungry Greek pensioner that he had to stand up because this was not a food bank but an artwork. See: Iliana Fokianaki, & Yanis Varoufakis, “We Come Bearing Gifts,” *Art Agenda*, (2017). <https://www.art-agenda.com/criticism/240266/we-come-bearing-gifts-iliانا-fokianaki-and-yanis-varoufakis-on-documenta-14-athens>.

34 During the exhibition of Documenta 14 the art collective Artists Against Evictions/AAE was directed against Documenta, the Mayor of Athens, and the state policy on immigration through the international art magazine E-Flux, complaining about the evictions of occupations and the expulsion of refugees in Exarhia on the occasion of the opening of the exhibition. See: “Open Letter to the Viewers, Participants and Cultural Workers of Documenta 14,” E-Flux (2017). <https://conversations.e-flux.com/t/open-letter-to-the-viewers-participants-and-cultural-workers-of-documenta-14/6393>.

35 Despina Zefkili, “Exercises of Freedom: Documenta 14,” *Third Text*, (n.d.). <http://thirdtext.org/exercises-freedom-documenta14>.

revisionism to privilege its group to promote new narratives for Athens and its places. The connotations of the creative place-making tactics of Documenta were that: no one project was responsible for social and political change. On the contrary, the curatorial objective was the creation of a village of like-minded people, artists, businesses, and policymakers to effect urban change. Thus, the creative place-making practices did not have a fixed structure being intrinsically linked to the specific characteristics of each location or neighborhood.

According to Jacques Rancière, “aesthetics of politics” comprises “forms of visibility that disclose artistic practices, the place they occupy, what they ‘do’ and ‘make’ from the standpoint of what is common to the community.”³⁶ In this sense, aesthetics, an integral of an art institution such as Documenta, produced seductive conditions, and instilled the desires of its global audience, creating spectacular exclusionary places, parallel displacing and disempowering the political meaning of those places.

In this frame a crucial artwork was “No Stopping, No Parking, No Loading—Unity Hall” by Ibrahim Mahama, who uses material-tattered jute sacks draped over buildings, concealing their features. In Athens, Mahama chose the location in front of the Greek Parliament, i.e., the central square of Athens, which has served as the starting and ending point for many assemblies and demonstrations. Mahama invited the Athenians to cover the square with jute sacks, organizing an art festival that exclusively addressed the art audience. The work depoliticized the meaning of a significant Athenian spot: Syntagma square, which from September 3, 1843, through today functions as the main spot of sociopolitical claims, and protests.

As the architect Aristide Antonas pointed out, today, indeed, we no longer deny this depoliticization. Under protocols—a keyword that has become quite banal in contemporary discourse as sovereignty—are co-created architectural projects as platforms of social potency. In a sense, that was the power of the place-making policy of Documenta. The German Institution, like the rest of global cultural industries today, used the post-colonial protocols of contemporary art to render creativity both as a naïve social-political concept and as an attempt of describing a new type of cultural power that replaces or displaces urban society to a functional caricature of society.

36 Jacques Rancière, *The Politics of Aesthetics. The Distribution of the Sensible*, trans. G. Rockhill, (London, New York: Continuum, 2004): 13.

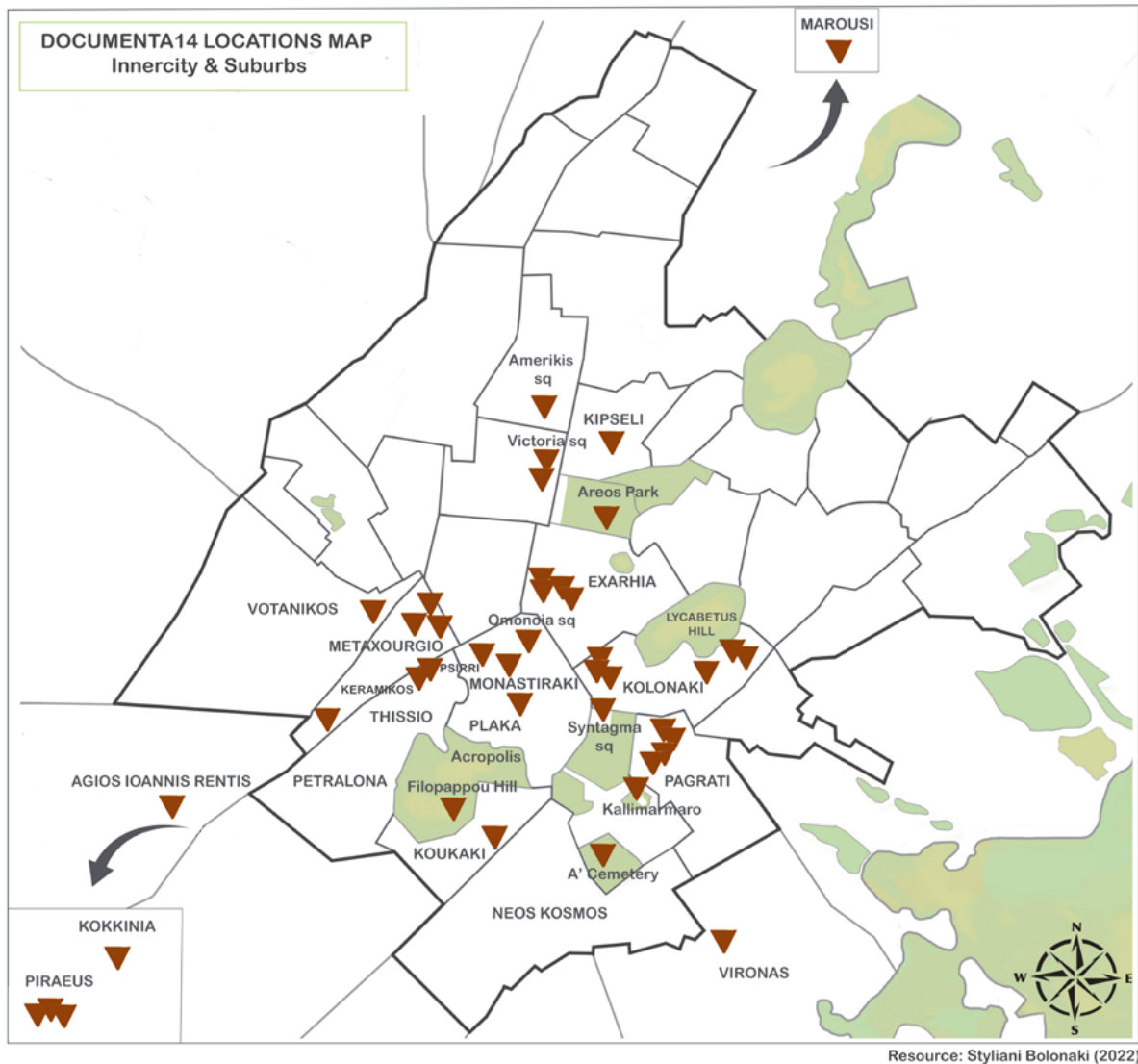


FIG. 2 "Documenta 14 locations map." Design by Styliani Bolonaki (2022).

Conclusion

The text narrates the roots of Athens's urban touristification, focusing on the exhibition of Documenta 14, "Learning from Athens," which functioned as a performative action into Athenian public spaces, changing its status quo. In solidarity with impoverished Greece, Documenta 14 shared its budget evenly between Kassel and Athens, within the veneer of a left-wing narrative against neoliberalism to a purely extractive neocolonial project framed as a gift to Greece, adding insult to injury. Even as the exhibition powerfully affirmed the ability of art to represent all injustices, Documenta as an art institution functions under contaminated conditions. Thus it cannot be separated from power and, therefore, from inequality, if not exploitation of the Greek crisis as an art product.

Documenta invited almost two hundred artists and thousand art critics, journalists, and art viewers to Athens to observe what was happening there under its view, transforming Athens both culturally and materially.

Culturally, the place-making tactics of Documenta transformed the milieu of Athenian places by downgrading local communities, marginalized ethnic groups, and other vulnerable populations by the newcomers who reinforced Athenian cultural cosmopolitanism. On a material level, the transformations of places in cultural infrastructure, the reused of public spaces, and the conversion of vacant houses and stores into art-run spaces and art residencies animated the urban space, rejuvenated the cultural structures and streetscapes, improved the local entertainment and leisure businesses, raised the short-term rentals, and brought the international art world to celebrate and be inspired by the exhibition, radically changing the future of Athens.

Eventually, Athens's re-branding and its management have built the foundations of new forms of exoticism for facing the current increasing cities' competition in the Global South regarding investment and tourism; the notion of the creative city, which considers creativity indelibly connected with the urban regeneration mechanisms significantly impacts on social-political physiognomy of Athenian districts. Athens's promotion as a creative cell formed a climate of newcomers clustering in the neighborhoods, recognized in this gathering the emergence of hype of an alternative subculture, which serves the tourism industry and the Airbnb platform, having already created problems for former residents of the middle and lower socio-economic classes who are forced to move to the Athenian suburbs due to skyrocketing rents in the inner city. The forced creative gentrification has also transformed Athens from a one-stop destination during the summer months into a city break destination for the whole year, affecting several changes in local activities such as the closure of stores that address the needs of permanent residents and the opening of stores primarily aimed at visitors. In many respects, when capital follows the artist into gentrified localities, it is assured of the economic future of the recreation and touristic infrastructures while the diverse local cultural businesses are being pushed out of the city. At any rate, creative city policy eliminates cultural diversity into the restrictive framework of one-dimensional and homogeneous commercial global culture, benefiting mostly the economic, social-political, and cultural elites in Athens. On the other hand, property speculation in Athens moves the still unsolved social problems that plagued the inner city out to the suburbs.

Thus, arguments on creative city mechanisms should enjoin related critical questions about the future socio-political sustainability of cities. The transformation of cities to creative should mainly prioritize in reduces inequalities through as much possible bottom-up urban politics of social care. From the moment segregation and exclusion are spread to societies, cultural-led urban innovations should face marginalization. Athens proves that urban policies that use art as the main urban transformation

apparatus create populations that are non-belonging anymore or belong nowhere. Currently, the social inequality between a hopeless society and the autocratic mechanism of urban control seems to be the future of Athens as well as the future of the cities in European South.

Styliani (Stella) Bolonaki is an Athens-based artist and a postdoc researcher at the National Technical University of Athens/NTUA. Her research questions the connections between contemporary art industries and new urban policies, strengthening counter-discourses on cosmopolitanism, post-colonialism, class, and gender. Bolonaki holds a Ph.D. from the School of Architecture of NTUA. She also holds a MA degree in Art in Architecture from the University of East London, and a degree from the Athens School of Fine Arts. Bolonaki has contributed to such scientific conferences as “City, Environment & Climate Change” (Athens, 2021), and “Political monuments from the 20th to 21st century: Memory, form, meaning” (Thessaloniki, 2019) among others, and has published a range of critical articles about the role of art practices in the city.

References

- Alexandri, Georgia. "Reading Between the Lines: Gentrification Tendencies and Issues of Urban Fear during Athens' Crisis," *Urban Studies* 52, no. 9, (2015):1631-1646.
<https://doi.org/10.1177/0042098014538680>
- Antonias, Aristide. *Archipelago Of Protocols*. Barcelona: dpr, 2016.
- Balabanidis, Dimitris, Papatzani, Eva Pettas, Dimitris. *The Airbnb Short Term Rentals in the Greek Urban Space: Economic, Social and Spatial Effects*. Athens: Polis 2021.
- Bernt, Matthias, Grell, Britta & Holm, Andrej. *The Berlin Reader: A Compendium on Urban Change and Activism*. Bielefeld: Transcript Verlag, 2013.
- Deutsche Welle. "Documenta Art Director Warns Against Nationalism," interview by Adam Szymczyk (2017). Retrieved September 18, 2022, from: <https://www.dw.com/en/documenta-art-director-warns-against-nationalism/a-3823446>
- Derrida, Jacques. *Given Time: I. Counterfeit Money*. Translated by Peggy Kamuf. Chicago and London: The University of Chicago Press, 1992.
- Fokianaki, Iliana & Yanis Varoufakis. "We Come Bearing Gifts." *Art Agenda*, (2017). Retrieved September 10, 2022, from: <https://www.art-adenda.com/criticism.240266/>
 We-come-bearing-gifts-iliانا-fokianaki-and-yannis-varoufakis-on-documenta-14-Athens.
- Gardner, Anthony & Green, Charles. "Post-North? Documenta11 and the Challenges of the "Global" Exhibition." *On Curating* 33, (2017): 109-121.
- Harvey, David. *Spaces of Capital: Towards a Critical Geography*. Edinburgh: Edinburgh University Press, 2001.
- Kouki, Hara, Liakos, Antonis. "Narrating the Story of a Failed National Transition: Discourses on the Greek Crisis 2010-2014." *Historein* 15, (2015): 49-61. <https://doi.org/10.12681/historein.318>
- Ley, David. Artists, Aestheticisation and the Field of Gentrification. *Urban Studies* 40, no. 12, (2003): 2527–2544. <https://doi.org/10.1080/0042098032000136192>
- Markusen, Ann, Anne Gadwa. *Creative Placemaking, Washington: National Endowment for the Arts*, 2010.
- Miles, Malcom. "A Post-Creative City?," *Revista crítica de ciências sociais* 99, (2013): 123-139.
- "Open Letter to the Viewers, Participants and Cultural Workers of Documenta 14," E-Flux (2017). Retrieved September 22, 2022, from: <https://conversations.e-flux.com/t/open-letter-to-the-viewers-participants-and-cultural-workers-of-documenta-14/6393>.
- Palmer, Robert. *Athens City Resilience through Culture*, (report). Athens: British Council and 100 Resilient Cities, 2018.
- Peck, Jamie. "Struggling with the Creative Class." *International Journal Of Urban And Regional Research* 29, no. 4, (2005): 740-770. <https://doi.org/10.1111/j.1468-2427.2005.00620.x>
- Perlson, Hili. "The Tao of Szymczyk: Documenta 14 Curator Says to Understand His Show, Forget Everything You Know," *Artnet* (2017). Retrieved September 18, 2022 from: <https://news.artnet.com/art-world/adam-szymczyk-press-conference-documenta-14-916991>.
- Preciado, B. Paul. "Athenian Revolts," *Libération* (2016). Retrieved September 12, 2022, from: https://www.liberation.fr/debats/2016/12/09/revoltes-atheniennes-par-paul-b-preciado_1534264/.

Rancière, Jacques. *The Politics of Aesthetics. The Distribution of the Sensible*. Translated by G. Rockhill. London, New York: Continuum, 2004. <https://doi.org/10.1017/S2753906700000930>

Resilient Athens. *Athens Resilience Strategy for 2030: Redefining the City*, (report). Athens: Resilient Athens & The City of Athens, 2017.

Sayej, Nadja "Athens-the New Mecca for Street Art?," *Travelettes* (2015). Retrieved September 12, 2022, from: <https://www.travelettes.net/athens-the-new-mecca-for-street-art/>.

Smith, Neil. *The New Urban Frontier: Gentrification and the Revenachist City*. London: Routledge, 1996.

Szymczyk, Adam. *Documenta 14: Learning from Athens, in 60 Years of Documenta: The Local History of Globalization*. Berlin: B&S Siebenhaar, 2015.

Manning Thomas, June. *Redevelopment and Race: Planning a Finer City in Postwar Detroit*. Baltimore, MD: Johns Hopkins University Press, 1997.

Tziouvas, Dimitris, *Greece in Crisis: The Cultural Politics of Austerity*. London, New York: I.B. Tauris, 2017.

Vamvakas, Vassilis. "Athens, an Alternative City. Graffiti and Radical Tourism," in *Political and Cultural Aspect of Greek Exoticism*. Cham, Switzerland: Palgrave Macmillan, 2020. [https://doi.org/10.1016/S1353-4858\(20\)30070-2](https://doi.org/10.1016/S1353-4858(20)30070-2)

Victoria Square Project in Athens. Lonely Planet (2022). Retrieved September 12, 2022, from: <https://www.lonelyplanet.com/greece/athens/attractions/victoria-square-project/a/poi-sig/1574569/359421>.

Weiner, Eric. *The Geography of Genius: A Search for the World's Most Creative Places from Ancient Athens to Silicon Valley*. New York: Simon & Schuster, 2016.

Weiner, Andrew-Stefan. "The Art Of The Possible: With And Against Documenta." *Biennial Foundation Magazine* (2017). Retrieved September 15, 2022, from: <https://biennialfoundation.org/2017/08/art-possible-documenta-14/>

Zefkili, Despina. "Exercises of Freedom: Documenta 14." *Third Text*, (n.d.), Retrieved September 15, 2022, from: <http://thirdtext.org/exercises-freedom-documenta14>.

MAIN SECTION

Ecosemiotics of the City. Designing the Post-Anthropocene

Nicola Zengiaro – Department of Philosophy and Communication, University of Bologna Italy
Contact: zengiaronicola2@unibo.it (ORCID: 0000-0003-3268-7567)

ABSTRACT

The city was thought as the place of culture, a boundary of separation from the wilderness. Recently, ecosemiotics has shown that every kind of space is a habitat for those who survive in it. Thanks to a semiotic reading of the city, especially the urban park, we will try to deconstruct the opposition between nature and culture. Moving beyond this dualism it means to intersect every form of life that make up the city. This essay will attempt to rethink our time in a multi-species project aimed at the post-Anthropocene. Along this path we will try to imagine a posthuman that can survive the catastrophe. In the proposal we will see what can be done to live together with non-humans. For this reason we must think a new space for a peacefully coexistence. The ultimate question is: is it possible project the city by the relation between human and non-human? In the conclusion we will ask: is it possible to live as a holobiont?

KEYWORDS

Anthropocene, Ecosemiotics, Holobiont, Nature/Culture, Posthuman

PEER REVIEWED

<https://doi.org/10.6092/issn.2612-0496/14623>

ISSN 2612-0496

Copyright © 2022 Nicola Zengiaro

What do you see?

Central Park was created in 1856 and after a hundred years, between the 1980s and 1990s, it was redeveloped by landscape architect Brice Kelly. The motivation for the redevelopment was born from the fact that the park was abandoned and degraded at the beginning of the 20th century. This means in some way that the citizens did not use this green area and did not carry out the functions of the park, creating a sort of abandoned place. Starting with the reclamation of the site and its redesign, the landscape architect has rethought the spaces for the citizens' use. Artificial lakes, skating rinks, playgrounds and sports trails have been designed to give new meaning to the city.

In the field of urban semiotics, when we think about the city, the question is not so much what a city is, but who makes the city. Because the object "city" is an object to be constructed. This object is precisely made up of those who inhabit it, i.e., the subjects who make up this urban space. In the same way, if it makes sense to ask who makes the city, when we think about a park it makes sense to ask, "who makes the park?" In the image below we see paths, margins, similar neighborhoods, nodes, and references.¹ Let us now imagine that we enter the park, sit on the grass, and write down in a notebook the subjects that make up the park. A couple running, a yoga group, children playing ball, and a girl lying down reading. We already begin to glimpse a kind of environmental image divided into: 1) identity; 2) structure; 3) meaning.

However, what the landscape architect cannot predetermine is the emergence of new actors in the park. Central Park, in fact, has become the place of settlement for different new actors. The Central Park Wildlife website states that there are now 303 species of birds, 10 different species of mammals (including the coyote), and 223 species of invertebrates, fish, and turtles. So, when we ask "who makes the park?", we have to take into account new actors who bring new meanings to the fore. These are meanings that modify the urban environment not only in the green area but also in the city's policies and social relations. The codes of the city are modified by other species. We can then ask ourselves in a certain sense: the urban park is significant, but in which sense? For whom? In what measure? What rhythms? A park is a place where events take place, a space from which lifestyles and forms of living are grafted. The park is an actant and actor capable of action programs, of producing meaning, proposals of values, alterations of people and animals, plants and things. The park can therefore be investigated in its "explosion of meaning."² This

1 Kevin Lynch, *The Image of the City* (Massachusetts: MIT Press, 1970).

2 Juri Lotman, *Culture and Explosion* (Berlin: De Gruyter Mouton, 2009). The term is taken from Lotman's concept of the "explosion of meaning". He questions the extent to which the world created by language, the cultural sphere, adequately corresponds to the world beyond its boundaries, the "world of nature".



FIG. 1 Central Park New York. Image Credit: © *Creative commons* [<https://pixabay.com/it/photos/new-york-stati-uniti-d-america-nyc-4352072/>]

process of investigation must take one thing into account: the very process of the signification of the park and its actants is characterized by unpredictability and unexpected changes in the course of the “explosion.” Explosion and evolution in the cultural sphere, but also architectural and ecological in a broader sense, are not two phenomena that alternate. On the contrary, they coexist and interact synchronically in the same cultural space, which Lotman sees as a complex, multi-layered conglomerate of planes of human activity. In our semiotic reading of the urban park (identified in ecosemiotics), non-humans also constitute these planes of urban interaction and composition. Planes may be subject to momentary explosions while others develop according to the rules of gradual evolution, but explosions of meaning are also activated by non-humans living in the city. As we will see, non-humans are shrapnel that modifies the city and its meaning.

Maps of urban living: the city as phenomenological space

A very interesting case is birdwatching. There is in fact a mapping of New York City based on sightings of certain bird species. The map marks points of interest and hubs based on the species sighted, species that settle for a short time in New York during a route that takes them across the United States. So not only does a new mapping of the city emerge that has non-human habitats as landmarks, but the map is drawn by citizens themselves who can report sightings. The reference points, the meanings, and the signs with which to read the city change.

It is a well-known fact that most people, despite their subjective perception of a place, have a shared image of cities. However, we might ask ourselves, taking the question to its extreme: is there still a shared image between the New Yorker and the birdwatcher? Is there also a shared image of the city between humans and non-humans? It is about mapping the city according to one's own subjective experiences. So, if an architect and an entomologist walk around the city, do they have the same perception of the city? How will they describe it on their return? What particularity will emerge from their previous knowledge and experience? The city thus becomes a phenomenological space made up of different narratives. Human and non-human narratives. These narratives sometimes intersect, interweaving their plots into a single story yet to be written.

Urban green areas have a profile which, despite the planning, keeps alive a process of urban regeneration with unpredictable outcomes.³ We could think of greenery, a wide-ranging concept, as the inverted image of the city; something that instead of polluting and complicating, makes urban texts breathe and smooth out. Green, then, is a place with different times and rhythms, places of encounter, and contemplation, and suspended from urban performativity. More than an "urban negative" it seems to be an "urban positive" that does not allow itself to be negatively integrated into the rest of the city, except by the flood of waste. Spaces that prefigure an alternative to a society in its tension are made up of paths, prohibitions, duties, rules, obligations, time gears and relational hypocrisies. In the paths of the parks, time is suspended, as in the beginning were the *passages* of Paris according to Walter Benjamin.

Green spaces are the positive side of the city. The negative side of the city is the *terrains vagues*, or "terrains with no definition," as territories of abandonment. Spaces where the citizen feels insecure because they are outside the system of power. As Ciuffi says, we need to look at these spaces from an inverted point of view to reveal their potential. A potential that rises in indetermination, possibility, and contamination. Something that threatens the citizen, child of the urban machine, slave to the marked-out paths without which he would be a disoriented animal. Ciuffi underlines that "these are spaces that ask for meaning, but they have a singular way of asking for meaning, they do not seem to invite us to attribute it in a stable way, rather they trigger a process of incessant resemantization, they invite us to endow them with a provisional meaning, ready to renew itself again, made to renew itself again [...]."⁴

In the same way the green spaces, despite the tracing of paths, margins for humans are always reinserted in a resemantization by the non-human. A non-human that takes its spaces, narrativizing green areas in

3 Martin Krampen, *Meaning in the urban environment* (London: Routledge, 1979).

4 Valentina Ciuffi, "Terrains vagues: il rovescio dei vuoti urbani", in *Linguaggi della città*, eds. Gianfranco Marrone, Isabella Pezzini (Milano: Meltemi, 2008), 182. (Our translation)

unthinkable ecological niches. Tracing footprints in places that are forbidden to domesticated animals, digging, and defecating in places sacred to humans, and trampling on territories that were not intended and designed for use. The local authority is established by non-humans who reinvent and reinterpret a space that has changed from a green area to a landscape. A landscape that is mapped according to their own needs, according to their own semantic categories.

The map is not the territory

“The map is not the territory” is a proposition by Alfred Korzybski that is now part of our shared knowledge. This phrase was taken up in the 1970s by Gregory Bateson, who offered a very lucid analysis in “Steps to an Ecology of Mind”. Borrowing his thoughts on cybernetics, Bateson tells us that what is transferred onto the map is difference. The difference is an abstract entity that stands on a hiatus, a gap, an insurmountable void. The map, as a mental representation, differs from the territory, the terrain that one treads and experiences with the body, because there is an infinite filtering process. In fact, we could say that the difference is the “HS filter,” that is, the view of *Homo Sapiens*. This filter is made up of the retina, spatial perceptions, and information collected and cognitively processed by a human brain. The tracing of the map is an attempt to objectively report

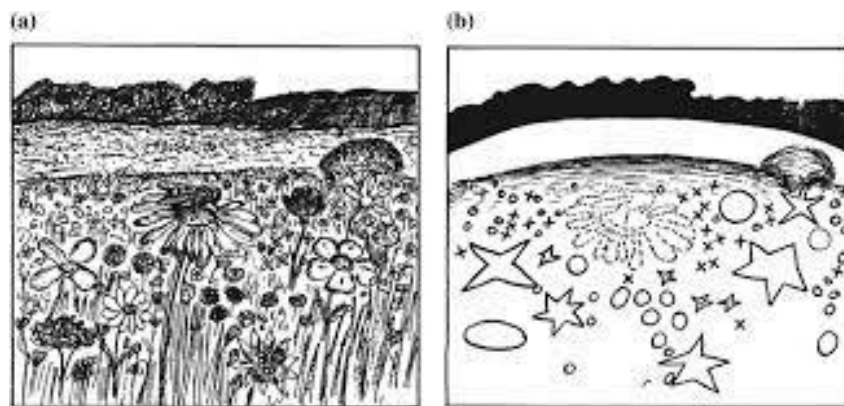


FIG. 2 Umwelt of a bee. Image Credit: © Jacob von Uexküll [https://www.researchgate.net/figure/The-Umwelt-of-a-bee-as-illustrated-in-Von-Uexkuell-1934-a-The-environment-of-a-bee-how_fig2_286444305]

an experience that is to all intents and purposes subjective and singular. For this reason, Bateson asserts that if one asks rigorously why the map is not the territory, one enters a regress to infinity on a series of filtrations that separate the two planes. “Territory never gets in at all,”⁵ he states.

However, we must point out the existence of a metalanguage that allows us to get to talk in a shared way about the map and the territory to identify them. Nevertheless, this meta language is derived from the fact that we participate in the same kind of species; therefore, our species-specific and

5 Gregory Bateson, *Steps to an Ecology of Mind* (Chicago: University of Chicago Press, 1972), 454.

physiological capacities (despite the great diversity) are quite similar.

If we were to ask ourselves through a mental experiment how other animals map the same territory we tread together, we would have to imagine radically different maps. And, as Nietzsche stated, asking ourselves which of our perceptions is the fairest is utterly meaningless. Because we should measure rightness by a paradigm that does not exist. This was demonstrated by the studies of Jacob von Uexküll who clearly showed how every living person lives in a subjective ambient world.⁶ Every *Umwelt* consists of perceptual marks, i.e., signs that are meaningful for the survival of the individual.⁷ Thus, if we were to imagine how a bee sees a field of flowers, we would have to account for its perceptions according to what is relevant to its survival.

Every animal has its own world that is unthinkable for the rest of the living. But semiotics offers us tools to read these unknown and invisible worlds. One branch of biosemiotics, ecosemiotics,⁸ helps us to read the interactions between an individual and its environment.

Ecosemiotics and cognitive landscape

Biosemiotics is an interdisciplinary research program that investigates the myriad forms of communication and signification found in and among living systems.⁹ Ecosemiotics is a branch of biosemiotics and is concerned with the relationships that exist between organisms and the environment, nature, and culture.¹⁰

Ecosemiotics is, in the broadest sense, a branch of semiotics that studies sign processes as responsible for ecological phenomena (relations between species, population patterns, and structures). In particular, it studies the role of environmental perception and conceptual categorization in the design, construction, and transformation of environmental structures.¹¹

6 Jacob von Uexküll, *Umwelt und Innerwelt der Tiere* (Berlin: Springer, 1921).

7 Jacob von Uexküll, "The Theory of Meaning", *Semiotica*, 42 (1) (1982): 1-87.

8 Timo Maran, "Deep Ecosemiotics: Forest as a Semiotic Model", *Semiotic Inquiry*, 38/39 (3) (2019): 287-303; Id., *Ecosemiotics* (Cambridge: Cambridge University Press, 2020).

9 Marcello Barbieri, "A Short History of Biosemiotics", *Biosemiotics*, 2 (2009): 221-245; Donald Favareau, *Essential Reading in Biosemiotics* (Cham: Springer, 2010); Kalevi Kull, "On the history of bio with semio: F. S. Rothschild and the biosemiotics rules", *Sign System Studies*, (27) (1999): 128-138; Kalevi, Kull, et. al., "A Biosemiotic Question", *Biosemiotics*, 1 (1) (2008): 41-55; Thomas Sebeok, "Communication in Animals and Men", *Language*, 39 (1963): 448-466; Nicola Zengiaro, "From Biosemiotics to Physiosemiotics. Towards a Speculative Semiotics of the Inorganic World", *Linguistic Frontiers*, 1 (2022): forthcoming.

10 Timo Maran, "The Ecosemiosphere is a Grounded Semiosphere. A Lotmanian Conceptualization of Cultural-Ecological Systems", *Biosemiotics*, 14 (2021): 519-530; Kalevi Kull, "Semiotic Ecology: Different Natures in the Semiosphere", *Sign Systems Studies*, 26 (1998): 344-371.

11 Timo Maran, Kalevi Kull, "Ecosemiotics: Main Principles and Current Developments", *Human Geography*, 96 (1) (2014): 41.

These relationships are essentially semiotic processes necessary for any form of life to survive in each environment. The organism from the semiotic processes is therefore able to adapt and modify its environment. The functions that connect individual/individual, individual/environment, environment/environment, are mediated by a semiotic component: the “ecofield interface”.¹² The semiotic component is necessary for the organism to correctly interpret how to use a resource. Without semiosis, life would not be able to understand the environment and adapt effectively; in other words, without semiosis, life would perish because it would be inadequate to the context in which it is found.

For ecosemiotics, the landscape is interpreted as a semiotic interface between the resources that the surroundings offer and the organism with its species-specific qualities.¹³ The notion of “cognition” linked to that of landscape is meant to indicate that each organism cognitively selects meaningful spatial configurations for the functions available to the organism to adapt to survive. By resources, we do not mean only food, but also shelters, other individuals, possibilities of camouflage, places to express one’s fitness, etc.

The world of each organism is made of signs that are significant for the individual, while many phenomena and objects are insignificant and therefore are not immediately detected by the functions of the organism. Almo Farina¹⁴ indicates three categories of landscapes:

Neutrally-based Landscape (NbL): the neutral landscape is a space in which the organism is completely immersed but it cannot receive any information either through the senses or through cognitive processes; it is an irrelevant landscape for the organism.

Individually-based Landscape (IbL): the landscape is subjectively perceived by the individual and is constructed from the set of signals that the organism can perceive through its sense organs. The organism collects signals from the outside world of the landscape that surrounds it. The landscape exists through the individual sense organs.

Observed-based Landscape (ObL): the landscape is formed by the potential of the organism that observes its surroundings through intentional cognitive processes. It emphasizes the activity of building the landscape by looking around.

To better understand the theoretical and empirical scope of these levels we pose an example. During an ecology lecture outside the classroom, there are multiple birds chirping. The professor asks the students what

12 Almo, Farina, Andrea Belgrano, “The Eco-Field: A New Paradigm for Landscape Ecology”, *Ecological Restoration*, 19 (2004): 107-110.

13 Almo Farina, *Ecosemiotic Landscape* (Cambridge: Cambridge University Press, 2021); Almo Farina, Andrea Belgrano, “The eco-field hypothesis: Toward a cognitive landscape”, *Landscape Ecology*, 21 (2006): 5-17.

14 Almo Farina, *Il paesaggio cognitivo* (Milano: Franco Angeli, 2006).



FIG. 3 Woman in the forest. Image Credit: © *Creative commons* [<https://www.ifad.org/en/web/latest/-/regional-meetings-in-preparation-for-the-global-meeting-of-the-indigenous-peoples-forum-at-ifad>]

they perceive about the world beyond the classroom. The first Subject X (participating in NbL) answers “nothing.” What is happening is that Subject X is not aware of the birds in the garden, the sound of the chirping is an undifferentiated background (no mental image comes in his mind). Subject Y (IbL) hears that there are birds “singing.” Birdsong triggers a universal image of generic birds. Subject Z (ObL), on the other hand, recognizes that there are fits in the garden. It means that thanks to its prior knowledge and cognitive recognition processes it can bring to mind the image of an individual of a certain species. The third answer is the one that is given to a lesser extent when some subjects are asked to recognize what they perceive of the environment. And this leads us to ask: why don’t we “see” animals and plants (in the city)?

What do we see?

What do we see in the picture? Who’s in it? We see a woman surrounded by greenery, probably belonging to an indigenous population. She is naked,

painted on her body. An anthropologist could recognize her cultural signs, area of origin, age, somatic features, etc.

However, the life around her also has its own peculiarities. For example, some of those plants might be subjects of law, if they participate in some environmental protection; or be morally relevant if endangered, and so on. In short, we might ask: “a fly enters the room, is someone or something there?”¹⁵ Every space and every lived landscape presuppose its “narrative,” that is, a process of value transformation.

Cultural Removal and Blindness

Not “see” indicates a kind of removal such that we don’t recognize both the existence of certain life forms and the identity of some of them. From a semiotic perspective, discursive configurations emerge that show fields of valuations and relationships. We restate a semiotics of forgetting, according to which “from a semiotic point of view, forgetting can be seen both as a moment of fading of meaning, a prelude to a cessation of semiosis, and as that which enables meaning. On the one hand, therefore, forgetfulness is anti-semiosis, i.e., the process that determines what is excluded from semiosis: it is the erased trace or no longer legible, unavailable. On the other hand, it is a “selection mechanism,” a way of functioning of culture that decides in this way what must be preserved and what must be forgotten.”¹⁶ By simplifying, we could find two instances: the first derives from the functionality of human cognitive processes and the second is a cultural removal. However, we must point out that the two dynamics are not separable, as they occur together or imply each other. Every cognitive bias leads to a structural change in culture, also and especially because biases tend to be shared by individuals of the same species, society, community, ethnicity, or living place.

Let’s start with what has been termed “plant blindness.” Plant blindness is the inability to see or notice plants in one’s environment.¹⁷ It is also the inability to recognize the importance of plants in the biosphere and to the human world. The idea is that the visual system in the brain processes systematically ignore plants in the environment. In addition, culture also plays an important role in the establishment of this blindness. A major cause of blindness and subsequent cultural removal stems from the zoocentric perspective. In many societies, subjects are not educated to understand plants as complex living systems with autonomous behaviours, reactions, and movements. This also belongs to society’s misconception of the theory of evolution, imagined as a linear mechanism in which humans are the

15 Roberto Marchesini, *Ospite*, in *A come animale*, eds. Leonardo Caffo, Felice Cimatti (Milano: Bompiani 2015).

16 Francesco Mazzucchelli, *Urbicidio* (Bologna: BUP, 2010), 33. (Our translation).

17 James Wandersee, Elisabeth Schussler, “Preventing Plant Blindness”, *The American Biology Teacher*, 61 (2) (1999): 82-86; Stefano Mancuso. *La pianta del mondo* (Milano: Laterza, 2020).

tip. Moreover, it has been pointed out that the increase in urbanization has led to a cultural deficit towards nature and a decrease in the importance of plants in daily life, observing plant life as a mere aesthetic tool.¹⁸

Blindness to animals is far more subtle. This is because it is not true cognitive invisibility that does not make us see non-human animals. The problem lies that we cannot see animals for what they really are, as their presence has been reduced to pure symbolism. It is a principle that tends to identify animals by their differences from humans or by their usefulness to society. Animals are bearers of meaning only when they are identified as living beings different from humans or when they break into our reality and modify it.¹⁹ The concept of “animal” is a metaphysical category, so the blindness towards the animal world is cultural. The animals thus become an undifferentiated mass,²⁰ an agglomeration positioned under



FIG. 4 (Image on left) Natural Environment. Image Credit: © European Wilderness Society [<https://wilderness-society.org/active-no-active-management/>]; (Image on right) Artificial Environment. Image Credit: © Garry Knight [<https://www.flickr.com/photos/garryknight/6235357984>]

a category that is identified from the opposition with the human. Beyond metaphysical and ontological contentions about what an animal is,²¹ in the contemporary world the relationships humans establish with animals are primarily activated by domestication. We deal with the animals that are inside the house or in the plate. However, today we know very little about the lives of animals. Thus, we fail to notice the lives of animals in cities, where parks, subways, gardens, and basements teem with animals. Both notions, *plant blindness* and what we might call *animal ideology*,²² belong to a cultural removal or distortion. It is the human society that makes invisible these life forms that coexist in the city. Non-human plants

18 Mung Balding, Kathryn Williams, “Plant Blindness and the Implications for Plant Conservation”, *Conservation Biology*, 30 (6) (2016): 1192-1199.

19 Felice Cimatti, “Quando entra in scena l’animale. Perché l’animalità, e perché proprio ora?”, *Fata Morgana*, 14 (2011): 123-140.

20 Bruno Latour, “Where are the Missing Masses? The Sociology of a few Mundane Artefacts”, in *Shaping Technology/Building Society: Studies in Sociotechnical Change*, eds. Wiebe Bijker and John Law (Cambridge: MIT Press, 2006).

21 Tim Ingold, *What is an Animal?* (London: Routledge, 1988).

22 The term “ideology” refers to Umberto Eco’s analysis in Umberto Eco, *Trattato di semiotica generale* (Milano: Bompiani, 1975).

and animals are *indeterminate living things* because they are part of what has generally been called “Nature”. However, the notion of “Nature” is a constructed object. Gianfranco Marrone²³ dealt with the deconstruction of the term, where he presented the difficulty and at the same time the arbitrariness of its use.

Natural vs. Artificial

In the image we see two different ecosystems. The first on the left is considered natural, and the second artificial. If we were to ask why, the answer would appear quite trivial. The space on the right is built and maintained by humans, so it is designed and determined. The lawn is mowed twice a week, the benches have been inserted for some social dynamics, and the sign indicates the way forward. Instead, the natural space seems to be dominated by chaos, a place where life explodes freely. Even the natural ecosystem is determined by a kind of planning and must respect certain conditions. These derive from a relational space that establishes rules. Plants closer to the ground depend on the physiology of taller trees and foliage that allows light to penetrate, there is a dependence on the presence of water, and on the passage of living things that then become fertile humus. This indicates that there are relational rules of coexistence



FIG. 5 Beaver dam above Lundy Lake, California © Fred Moore [<https://theecologist.org/2015/mar/01/beavers-are-saving-californias-wild-salmon>]

determined by the inhabitants of that place. In the same way, the artificial ecosystem too is determined by the passage or not of some non-humans that can modify the aesthetics and ruin the dynamics. The paths as well as the dimensions are provided by a relationship with human physiognomy (the body of the human-animal acts as a measure, but this body is determined by its evolution). In addition, the elements present in the

23 Gianfranco Marrone, *Addio alla natura* (Torino: Einaudi, 2011).

artificial ecosystem, from the bolts of the bench to the tint of the sign-board belong to the organic and inorganic chemistry that is also present in the natural ecosystem. There are no chemical elements present in the artificial model that are separate from those existing on the planet and the universe in general. Therefore, this extraction of the artificial from a natural chaotic background is not so obvious nor so clear cut.

We can ask ourselves: are we sure of this clear division between artificial and natural? Can we indicate precisely where the natural ends and what we call the artificial begins? And this subsequently leads us to ask: why is what human do not natural?

The problem of sense and meaning

Let's look at these images of dams. Both are made by animals, by mammals: one is a primate, the other a rodent. Both are performing, at different levels of complexity, modifications on the environment. Both modifications are activated for the survival of a given species. Certainly, one is organized and worked on with technical tools, which are themselves part of a species-specific endowment, and the other with physiological tools of the species. However, even the rodent builds it with the community to which it belongs, activating design processes that contemplate the possibility of building the dam from environmental elements and ecosystem dynamics. It seems then that both species are determining a kind of design of the ecological niche. So, we might ask: are they both urbanistic forms? Do they belong in the plane of environmental design? These questions may be ridiculous, but they serve to question some of the semantic categories that determine the reading plane of an environmental text.

The semantic categories that emerge from this impossibility of equating the activities of two different animals, one of which is *Homo sapiens*, are the following:

- 1) Human/non-human.
- 2) Planned/spontaneous.
- 3) Artificial/natural.

More could be added, but these are the main ones. There is a hidden question: who decides this semiotic threshold? Sense is lost when we begin to blur the edges. When limits and boundaries become crossable and porous thresholds.

It is not only a problem of the plane of sense but also of meaning. If we retrieve the dictionary definition of "artificial" and "natural" we immediately see that the two terms are defined in opposition. The dictionary tells us that "artificial" means "made, obtained by art, as opposed to what is natural." While "natural" means "of nature, about nature or referring to nature, in its broadest and most inclusive meaning." The two meanings mean

nothing when taken separately. They exist only in opposition. This means that deconstructed one of the two terms, the other loses its meaning. Therefore, it seems that they are not simply contrary terms, but of a participatory opposition.²⁴

Ecosemiotics can help us rethink the relationship between humans and their natural environment, as well as the relationship between nature and culture. However, there is one place that has embodied these dichotomies since the dawn of humanity: the city. The city seems to be the place par excellence of culture, as opposed to the wilderness. However, even in this place there seem to be dynamics that hybridize and mix the two instances. In the city, multiple forms of life have begun to coexist with humans, despite the continuous removal to cleanse the cities of animals. The idea is that in contrast to what is called Nature there is human Culture, a space that abstracts and extracts itself from naturalness and wilderness. It is thought that the moment cities expand, Nature disappears. And starting from this idea we can ask ourselves: is the city part of Nature?

Megacities

During the next ten years, it is estimated that 10 per cent of the world's population will live in just 41 megacities, located in eastern China, India, and West Africa. A "megacity" is defined as a city inhabited by more than 10 million people. In the past, the limit of city expansion was due to the ability to find resources nearby. With modernity, this problem has been resolved thanks to technological innovations in transport and global trade. The exponential migration from the countryside to urban centers was caused by the industrial revolution during the 19th century, especially in Europe, the United States and Japan. We find in this period the origins of the constitution of megacities.

Modern megacities are urban spaces that, with their expansion, interpenetrate neighboring centers, incorporating them through the phenomenon of the conurbation.²⁵ They are real urban agglomerations constantly connected with the urban surroundings of cities and smaller towns that are absorbed. The conurbation is a concept that fits into classical ecogism and sees the city as an ecosystem in balance that allows for the education and development of citizens in a heterogeneous space that nevertheless reinforces social cohesion with ecological awareness.

What we can observe in the macro-expansion of cities is that urban space does not take away habitat from fauna and flora but modifies it. In other words, the city has been seen to influence evolution.²⁶ The cohabitation

24 Marrone (2008) reveals a similar participatory opposition between nature and culture in the essay entitled "Cultura/natura, città/campagna: il caso GNAC".

25 Patrick Geddes, *Cities in Evolution* (New York: Harper & Row, 1915).

26 Menno Schilthuis, *Darwin Comes to Town* (New York: MacMillan, 2018).

of many animal and plant species has led to an adaptation of “anthropophilic” life forms. In this sense, it is not possible to separate the city from the rest of the natural environments, just as it is not possible to separate Nature from Culture. Cities are real habitats with the same dynamics as ecosystems considered “natural.” The division between /Nature and Culture/, as well as the division between /natural and artificial/, does not exist in the ecological representation of the biosphere. It is an ideology to consider the city as something external to “wild” and “uncontaminated” Nature. There is no such Nature, except in the human imagination. Indeed, taking an ecological look at the entire animal world, one must observe that humans and non-humans alike are ultimately ecosystem engineers. There is a need to deconstruct any ideology about the Nature/Culture divide and re-establish a view of human cities as a natural phenomenon, speaking of urban ecosystems.

However, even if we believe that cities are part of a process of building an ecological niche for the human animal that harbors non-human anthropophilic, we must still confront the exponential devastation and pollution of the elements that sustain the biosphere. Indeed, there are disparate narratives about the “end of the world” caused by the human ecological footprint. These post-apocalyptic narratives, however, fail to focus on the real process that is taking place in the Anthropocene.²⁷ What may be coming to an end is the life on the planet of multiple species, including our own. But despite reflections that equate the end of our species with the end of the world, these are ideological narratives that bring us back to the center of any ecological dynamic. Beyond the devastation, there will always exist life forms that will subsist despite the catastrophe we are experiencing. Bacteria, viruses, fungi, plants, and small animals will survive and thrive beyond any ideological “end of the world.” What will happen is the end of the human world, not the world in general. However, there is an inherent vital resilience that intersects Nature and Culture in cities.

The resilience of life: Co-Species Landscape

The Japanese term *hibakujumoku* indicates a tree that has been exposed to the atomic bombing of Hiroshima and Nagasaki. These are trees that despite the radioactive activity suffered have survived or have been able to regrow from the roots.²⁸ The resilience of plants derives not only from the need to survive predators but also from catastrophes. The trees that survived, including some that were 500 meters from the epicenter of the

27 James Bridle, *New Dark Age* (London: Verso, 2018); Matteo DeGiuli and Nicolò Porcelluzzi, *Medusa* (Roma: Nero, 2021); Morton, Timothy, *Humankind* (London: Verso, 2017); Matteo Oreggioni, *Filosofia tra i ghiacci* (Milano: Mimesis, 2021).

28 Database of Hibaku Jumoku Atomic-Bombed Trees of Hiroshima, Unitar.org, United Nations Institute for Training and Research: https://web.archive.org/web/20170329060433/http://www.unitar.org/hiroshima/sites/unitar.org/hiroshima/files/A-bombed%20trees%20worddoc%20as%20of%20Dec.%202011_1.pdf

bombing, were reborn thanks to a modular subdivision in the hinterland, preserving just enough to be able to reborn.

Another fascinating example of resilience is that of those animals who were left to live after the explosion of reactor number 4 of the Chernobyl nuclear reactor. The “zone of alienation,” a 30-kilometer area, became after the human ouster a refuge for multiple animal species that continued to live there.²⁹ Many animals survived the high levels of radiation, certainly being changed by it. In 2019, 30 researchers from England, Ireland, France, Belgium, Norway, Spain, and Ukraine presented the results of a specific study of the area. The survey included work on large mammals, birds, amphibians, fish, bumblebees, earthworms, bacteria, and soil decomposition. The result showed how the area was home to a great biodiversity. The animal and plant populations currently living in the area have not been greatly adversely affected by radiation. The populations are stable and healthy within the area.³⁰

These two examples have a few things in common: in both cases, scientists predicted the impossibility for life to survive such catastrophes. There was an unexpected adaptive response of life to radiation. In fact, it was seen that there was a strong adaptive response that allowed animals to cope with the catastrophe. In the case of the bombed areas, it was predicted that nothing could be born within 75 years, while Chernobyl was considered an area with a deserted future.

The enthusiasm with which disaster-resilient lives have been greeted often leaves space for new relational interpretations between the human and the non-human. We often read about animals “invading” the city. One of the most emblematic cases is that of wild boars, which, despite having often walked through Italian cities, during the lockdown used the city as a habitat and refuge. It is the return of the removed as an unexpected and unforeseen event. When human loses control over other living things it seems that the construct of humanity is dangerously shaken. The wild, the inhuman, the animality, must be dominated.³¹

The question that arises is: are other life forms uncontrollable or do we simply not know how to live with them (without anthropomorphizing them)? The proposal for this analysis is that we should begin to move from an NbL and IbL to an increasingly accurate ObL through semiotics of the environment. By semiotics of the environment, we mean an activity of reading, interpreting, and understanding other forms of life. It is ultimately an education in coexistence that is lacking. It is an activity of reading,

29 <https://theconversation.com/chernobyl-has-become-a-refuge-for-wildlife-33-years-after-the-nuclear-accident-116303>

30 TREE Project (Transfer-Exposure-Effects): <https://tree.ceh.ac.uk/>

31 A very relevant discourse could be activated about the uncontrollability of life and the power relations that are established from this resistance. A very profound reading of this dynamic was done by Foucault on the question of the cynics. Michel Foucault, *Le courage de la vérité* (Paris: Gallimard, 2009).

interpreting, and understanding the forms of life in the maintenance of the biosphere. Semiotics can reinterpret the relationships we have with other living beings in different ecological systems, such as the city, the forest, and the sea; but also, everything that can be interpreted as an ecological text: highways, bridges, gardens, and landfills.

We propose below a further proposal that follows the attempt to educate individuals in the recognition and understanding of other living beings. The aim is to form a Co-species Landscape (CsL). The “Co” in Co-species stands for coexistence-species, but also a cohabit-species understood as peaceful coexistence, a mutual adaptation and forbearance. “Co” understood as a prefix means “all” or “together”, implying a simultaneous existence.³² It is a mode of coexistence from an understanding of other species. It concerns respect for sovereignty and territorial integrity, as well as acceptance of the existence of the other. It is the activity by which it is possible to design a landscape that is hospitable to the multiple forms of life that emerge with their meanings.

As the ecosemiotologist Timo Maran also argues:

Using modelling and umwelt analysis, humans can contribute to this process by creating meaningful structures and resources for other species. Examples of such semiotic engagements could be growing different vegetation layers in gardens and parks, preferring natural soils and mulches, creating water bodies and open flyways, preserving wooden debris and fallen leaves, etc. All these activities raise the possibility that nonhuman species find meaningful engagements in our proximity.³³

CsL is established through a life form ready for coexistence on a planet that is in ruins. It is a design of an intraspecific collaboration to overcome this historical moment called Anthropocene.³⁴ In this way we should begin to design a Co-Specific landscape, integrating the cohabitation of cities. As is now being pointed out, there is a growing need to learn to cohabit in the Anthropocene and to design a post-Anthropocene that reintegrates other life forms as active participants in human existence in the biosphere. A post-Anthropocene that provides for our survival will necessarily be a space of coexistence and re-engagement with other species.

Making naturalcultural communities

The notion of “naturcultural” indicates a synthesis of nature and culture

32 The proposal takes inspiration from the Biennale of Architecture 2021, held in Venice, entitled “How will we live together?”, where art installations represented Co-Habits spaces to imagine a new future together.

33 Timo Maran, “The *Ecosemiosphere* is a Grounded Semiophere”, 527.

34 Nicola Zengiaro, “Eco-realism at the Time of Catastrophe: Imagining Multi-species Points of View to Photograph the History of the World”, *International Journal of Anthropology*, 35 (2) (2020): 23-35.



FIG. 6 Human Dam Theodore Roosevelt Dam [https://commons.wikimedia.org/wiki/File:Theodore_Roosevelt_Dam_%288655562922%29.jpg]

that recognizes their inseparability in ecological relationships that are both biophysical and social. Introduced by feminist philosopher Donna Haraway to describe intertwined multispecies histories, the term illuminates new ways of thinking about the agency and power, difference, and sociality of life forms.³⁵ The term has no single definition. Rather, it represents a vibrant and unruly spectrum of transdisciplinary approaches that are unified by a common argument: participating in worlds that are more than human requires changing the methods of study. In other words, dissolving the boundary between nature and culture means radically remixing the arts, humanities, social sciences, and natural sciences. In this multidisciplinary context, we use semiotics to account for a reinterpretation of the relational meanings between human and non-human within cities as a complex ecosystem. We propose the following theoretical scenarios to reinterpret coexistence.

Making community build naturcultural cities:

1) Recasting these spaces abandoned by humans that become the refuge for many animal and plant species. The reference is the “Third Landscape”

35 Serenella, Iovino and Serpil, Opperamann, *Material Ecocriticism* (Bloomington: Indiana University Press, 2014).

proposed by Gilles Clément³⁶ in which places abandoned by man, places therefore invisible to the human eye, can generate a refuge.³⁷ These are parks, nature reserves, but also uninhabited areas, roadside weeds, brambles, brushwood, and large abandoned industrial areas. These are places where human presence has given way to the birth of ecological change. The human/nature relationship reveals in this context that it can be the human that is removed from a completely non-human living space. It is a culturally based urban regeneration for areas of margin. Places that, also thanks to human intervention, could host more life. It is a collaborative approach to leaving a space completely absent of humans. It is an activity by subtraction, a community based on the residue, derived from leaving space to the set of biological beings that make up the territory. A landscape that expresses neither power nor submission to power.

2) Creating bonds or the making of kinship (Donna Haraway's making kin) leads us to rethink the city from a posthuman perspective. The posthuman city is a hybrid space in which one's presence does not weigh on the surrounding space. It is the hybridization and crossbreeding of urban structures, treating each structure as a trajectory of coexistence. It is a practice of living radically different from how we have thought about it until now, based on welcoming, inclusiveness and multiplicity, thus decentralizing the position of *Homo sapiens*. In the centripetal movement offered by urbanism beyond the human, a shift of the signifier stands out.³⁸ This allows us to reconsider the coexistence of life without any hierarchical relationship.

Making community to build naturcultural populations:

1) Experiences of existential sharing made of a heterogeneous community are shown by Ecovillages. The attempt of such communities is to reduce their impact on the planet and to reintegrate their existence within extra-urban natural dynamics. The communities are organized and constituted according to models of sustainable living from ecological, spiritual, socio-cultural, and economic points of view. The lived spaces become laboratories of social and educational experimentation based on ethical perspectives related to social equity, spiritual harmony, and ecology. The space becomes a place of care, and awareness and anticipates a non-violent culture towards other forms of life. It is promoted in this sense the culture of peace in defense of nature and landscape in relation to the protection of primary common goods (water, air, soil, forests) and the protection of biodiversity in all its forms.

36 Gilles Clément, *Manifeste du Tier paysage* (Paris: Sujet/Objet, 2004).

37 Cal Flynn, *Island of Abandonment* (New York: Viking, 2021).

38 Homi K. Bhabha, *The Location of Culture* (London: Routledge, 1994).

2) Educating a natural gaming semiotics³⁹ in which people are educated to rediscover urban nature through play. A practical example is the City Nature Challenge that has taken off in the United States, an annual challenge in which citizens try for a week to document local biodiversity as a challenge. Or the group *la Belles de Bitume* that organizes an ecological street art in which you have to identify wild plants in city streets.

In these examples, the culture begins to change radically: from a naïve conception of ecology to a new model and project of life. In all cases, sustainability is sought on ecological, social, spiritual, and economic levels.

Anthropocene, Capitalocene, Plantationocene, Chthulucene, Novacene: is Holobiocene the next?

Is there such a radical form of coexistence? Which model should we take inspiration from to contemplate a complete coexistence among life forms? The theoretical proposal is for an existential redefinition. Is it possible to live as a holobiont?

A first definition of holobiont is “an organization formed by an ecosystem of biological agents that do not share the same DNA but interact symbiotically in order to maximize the fitness of the global unit.”⁴⁰ In this sense, the idea would be to establish prolonged interactions that can make the different entities evolve as one. Existential mutuality should lead to a supportive relationship under changing ecological conditions. The important aspect is that coexistence can be established resulting from sharing by spatial and functional proximity, while each maintaining its own autonomy. The goal of this coexistence is to optimize overall fitness in the convergence of community spaces. The city as an ecological space can be read and interpreted through bio-psycho-social aspects and especially with respect to semiotic processes.

The notion of holobiont applied to the city shows how the different lives are linked by a constant precariousness.⁴¹ Redefining this epoch as “Holobiocene”, in a provocative way, we can integrate all together the various labels that have been given to this period we are living in. The idea is to hybridize them as if we were living in a “living period”. Time is a strange chimaera that includes us as part of its monstrous form.⁴² The

39 This is my own definition under development. The idea is that through the use of gamification, the meaning and thus the value of various objects can be changed. In other words, by presenting typical elements of competitive games (i.e., prizes, levels, rewards, accumulation of points, rankings) applied to a semiotic analysis of the environment (eco-semiotics), a different awareness of the value of the environment can be established.

40 Lynn Margulis, René Fester, *Symbiosis as a Source of Evolutionary Innovation* (Cambridge: MIT Press, 1991).

41 Emanuele Coccia, *Metamorfosi* (Torino: Einaudi, 2022).

42 Donna Haraway, *Le promesse dei mostri* (Roma: Derive Approdi, 2019).

idea, already initiated by Haraway and other authors,⁴³ is to deconstruct the centrality of the human as the most significant agent.⁴⁴ We are precarious because we are dependent on one another, bound by ties to entities that compel us to care for them.⁴⁵ In the city and in communities there are paths, boundaries, borders, identities, in which, however, there are overlaps and encroachments. Latour⁴⁶ tells us that in this world we live and die as Earthlings, within shared critical zones.⁴⁷ The concept of environment is meaningless because it is impossible to demarcate the boundary that separates an organism from its surroundings.

Post-Anthropocene Life Forms

In conclusion, how do we envision a posthuman existence?⁴⁸ To prevent the catastrophic age in which we find ourselves, what form of life should we embody? A life form that has undergone evolutionary adaptation and cultural evolution at the same time. And, from the methodological tools of ecosemiotics, we can say that the posthuman is not an ecological being, but an ecosemiotics life form. What is the difference?

In general, ecologism is a political ideology based on the position that the non-human world is worthy of moral consideration and that this should be taken into account in social, economic and political systems. Ecosemiotics is the reading, interpreting, and understanding of the relationships between the components of an ecosystem (the city, the forest, the biosphere).

In this way, we can schematize the division between ecosemiotologist and ecologist in a very general way. In this division, the perspectives concern how to act in accordance with a certain type of theoretical assumption.

1) Ecologist tends to act in accordance with a moral duty (I do it because I must: there is a climate and ecological crisis) transcendental → ethical level.

2) Ecosemiotologist tends to modify one's behavior (pragmatism) in relation to situated interpretation (I do it because I recognize the need) → aesthetic level.

The posthuman is an ecosemiotologist who interprets the world as a complex system made of overlaps. It will be a life form that protects

43 Timothy LeCain, "Against the Anthropocene. A Neo-Materialist Perspective", *International Journal for History, Culture and Modernity*, 3 (1) (2015): 1-28.

44 I have argued this thesis in: Nicola Zengiaro, "The Time of Materials: Rethinking the Anthropocene from Stones", *Versus*, 134 (2022a).

45 Donna Haraway, *Staying with the Trouble* (Durham: Duke University Press, 2016); Anna Tsing, et. al., *Arts of Living on a Damaged Planet* (Minnesota: University of Minnesota Press, 2017).

46 Bruno Latour, *After Lockdown: A Metamorphosis* (Cambridge: Polity Press, 2021).

47 Bruno Latour, *Facing Gaia* (Cambridge: Polity Press, 2015).

48 Rosi Braidotti, *The Posthuman* (Cambridge: Polity Press, 2013); Francesca Ferrando, *Philosophical Posthumanism* (New York: Bloomsbury, 2019).

and designs the world to come, a future where we will be called upon to understand otherness. In this sense, the global pandemic has shown us how fragile ecosystems are, from the human body to the forest, passing through the economy and politics. The virus has shown us once again how interconnected is everything and how we should know to solve catastrophes in a united way, in a global design that takes into account the aesthetic immersiveness that we are required to recognize and know how to interpret.

Nicola Zengiaro is a PhD student in semiotics at the University of Bologna, where he mainly works on biosemiotics and material semiotics. Previously, he graduated under the supervision of Maurizio Ferraris at the University of Turin, specialized in the second level Master in Moral Philosophy at the University of Santiago de Compostela, and worked on biosemiotics during the second Master in Philosophical Sciences at the University of Verona. He is part of the editorial staff of the journal "Animal Studies. Rivista italiana di zooantropologia" and has published several articles in national and international journals on animality and the animal question.

References

- Balding, Mung and Williams, Kathryn. "Plant Blindness and the Implications for Plant Conservation". *Conservation Biology*, 30 (6) (2016): 1192-1199. <https://doi.org/10.1111/cobi.12738>
- Barbieri, Marcello. "A Short History of Biosemiotics". *Biosemiotics*, 2 (2009): 221-245. <https://doi.org/10.1007/s12304-009-9042-8>
- Bateson, Gregory. *Steps to an Ecology of Mind*. Chicago: University of Chicago Press, 1972.
- Bhabha, Homi. *The Location of Culture*. London: Routledge, 1994.
- Baridotti, Rosi. *The Posthuman*. Cambridge: Polity Press, 2013.
- Bridle, James. *New Dark Age: Technology and the End of the Future*. London: Verso, 2018.
- Cimatti, Felice. "Quando entra in scena l'animale. Perché l'animalità, e perché proprio ora?". *Fata Morgana*, 14 (2011): 123-140.
- Ciuffi, Valentina. "Terrains vagues: il rovescio dei vuoti urbani", in *Linguaggi della città. Senso e metropoli II: modelli e proposte d'analisi*, edited by Marrone Gianfranco and Pezzini Isabella. Milano: Meltemi, 2008.
- Clément, Gilles. *Manifeste du Tier paysage*. Paris: Sujet/Objet, 2004.
- Coccia, Emanuele. *Metamorfosi. Siamo un'unica, sola vita*. Torino: Einaudi, 2022.
- DeGiuli, Matteo and Porcelluzzi, Nicolò. *Medusa. Storie dalla fine del mondo (per come lo conosciamo)*. Roma: Nero, 2021.
- Farina, Almo. *Il paesaggio cognitivo. Una nuova entità ecologica*. Milano: Franco Angeli, 2006.
- . *Ecosemiotic Landscape: A Novel Perspective for the Toolbox of Environmental Humanities*. Cambridge: Cambridge University Press, 2021.
- Farina, Almo and Belgrano, Andrea. "The Eco-Field: A New Paradigm for Landscape Ecology". *Ecological Restoration*, 19 (2004): 107-110. <https://doi.org/10.1111/j.1440-1703.2003.00613.x>
- . "The Eco-Field Hypothesis: Toward a Cognitive Landscape". *Landscape Ecology*, 21 (2006): 5-17. <https://doi.org/10.1007/s10980-005-7755-x>
- Favareau, Donald. *Essential Reading in Biosemiotics*. Cham: Springer, 2010. <https://doi.org/10.1007/978-1-4020-9650-1>
- Ferrando, Francesca. *Philosophical Posthumanism*. New York: Bloomsbury, 2019. <https://doi.org/10.5040/9781350059511>
- Flyn, Cal. *Island of Abandonment: Nature Rebounding in the Post-Human Landscape*. New York: Viking, 2021.
- Foucault, Michel. *Le courage de la vérité. Le gouvernement de soi et des autres II. Cours au Collège de France*. 1984. Paris: Gallimard, 2009.
- Geddes, Patrick. *Cities in Evolution: An Introduction to the Town Planning Movement and to the Study of Civics*. New York: Harper & Row, 1915.
- Haraway, Donna. *Staying with the Trouble: Making Kin in the Chthulucene*. Durham: Duke University Press, 2016. <https://doi.org/10.2307/j.ctv11cw25q>
- . *Le promesse dei mostri. Una politica rigeneratrice per l'alterità inappropriata*. Roma: Derive Approdi, 2019.

- Ingold, Tim. *What is an Animal?* London: Routledge, 1998.
- Krampen, Martin. *Meaning in the Urban Environment*. London: Routledge, 1979.
- Kull, Kalevi. "Semiotic Ecology: Different Natures in the Semiosphere". *Sign Systems Studies*, 26 (1998): 344-371. <https://doi.org/10.12697/SSS.1998.26.15>
- . "On the History of Bio with Semio: F. S. Rothschild and the Biosemiotics Rules". *Sign System Studies*, 27 (1999): 128-138. <https://doi.org/10.12697/SSS.1999.27.06>
- Kull, Kalevi, Emmeche, Claus and Favareau, Donald. "A Biosemiotic Question". *Biosemiotics*, 1 (2008): 41-55. <https://doi.org/10.1007/s12304-008-9008-2>
- lovino, Serenella and Oppermann, Serpil. *Material Ecocriticism*. Bloomington: Indiana University Press, 2014.
- Latour, Bruno. "Where are the Missing Masses? The Sociology of a Few Mundane Artefacts", in *Shaping Technology/Building Society: Studies in Sociotechnical Change*, edited by Wiebe Bijker and John Law. Cambridge: MIT Press, 2006.
- . *Facing Gaia: Eight Lectures on the New Climatic Regime*. Cambridge, Polity Press, 2015.
- . *After Lockdown: A Metamorphosis*. Cambridge: Polity Press, 2021.
- LeCain, Timothy. "Against the Anthropocene. A Neo-Materialist Perspective". *International Journal for History, Culture and Modernity*, 3 (2015): 1-28. <https://doi.org/10.18352/22130624-00301001>
- Lotman, Juri. *Culture and Explosion*. Berlin: De Gruyter Mouton, 2009.
- Lynch, Kevin. *The Image of the City*. Massachusetts: MIT Press, 1970.
- Mancuso, Stefano. *La pianta del mondo*. Milano: Laterza, 2020.
- Maran, Timo. "Deep Ecosemiotics: Forest as a Semiotic Model". *Semiotic Inquiry*, 38/39 (2019): 287-303. <https://doi.org/10.7202/1076237ar>
- . *Ecosemiotics. The Study of Sign in Changing*. Cambridge: Cambridge University Press, 2020.
- . "The *Ecosemiosphere* is a Grounded Semiosphere. A Lotmanian Conceptualization of Cultural-Ecological Systems". *Biosemiotics*, 14 (2021): 519-530. <https://doi.org/10.1007/s12304-021-09428-w>
- Maran, Timo and Kull, Kalevi. "Ecosemiotics: Main Principles and Currents Developments". *Geografiska Annaler: Serie B, Human Geography*, 96 (2014): 41-50. <https://doi.org/10.1111/geob.12035>
- Marchesini, Roberto, "Ospite", in *A come animale. Voci per un bestiario dei sentimenti*, edited by Leonardo Caffo and Felice Cimatti. Milano: Bompiani, 2015.
- Margulis, Lynn and René, Fester. *Symbiosis as a Source of Evolutionary Innovation: Speciation and Morphogenesis*. Cambridge: MIT Press, 1991.
- Marrone, Gianfranco. *Addio alla natura*. Torino: Einaudi, 2011.
- Mazzucchelli, Francesco. *Urbicidio. Il senso dei luoghi tra distruzioni e ricostruzioni nella ex Jugoslavia*. Bologna: BUP, 2010.
- Morton, Timothy. *Humankind. Solidarity with Nonhuman People*. London: Verso, 2022.
- Oreggioni, Matteo. *Filosofia tra i ghiacci. Viaggio verso la fine di un mondo*. Milano: Mimesis, 2021.
- Sebeok, Thomas. "Communication in Animals and Men". *Language*, 39 (1963): 448-466. <https://doi.org/10.2307/411126>

Schilthuizen, Menno. *Darwin Comes to Town. How the Urban Jungle Drives Evolution*. New York: MacMillan, 2018.

Tsing, Anna; Heather, Anne; Elaine, Gan; Nils, Bubandt (eds.). *Arts of Living on a Damage Planet. Ghosts and Monsters of the Anthropocene*. Minnesota: University of Minnesota Press, 2017.

von Uexküll, Jacob. *Umwelt und Innerwelt der Tiere*. Berlin: Springer, 1921. <https://doi.org/10.1007/978-3-662-24819-5>

———. "The Theory of Meaning". *Semiotica*, 42 (1982): 1-87. <https://doi.org/10.1515/semi.1982.42.1.25>

Wandersee, James and Schussler, Elisabeth. "Preventing Plant Blindness". *The American Biology Teacher*, 61 (1999): 82-86. <https://doi.org/10.2307/4450624>

Zengiaro, Nicola. "Eco-Realism at the Time of Catastrophe: Imagining Multi-species Points of View to Photograph the History of the World". *International Journal of Anthropology*, 35 (2020): 23-35.

———. "From Biosemiotics to Physiosemiotics. Towards a Speculative Semiotics of the Inorganic World". *Linguistic Frontiers*, 1 (2022).

———. "The Time of Materials: Reading the Anthropocene from Stones". *Versus*, 134 (2022a).

CPCL

EUROPEAN JOURNAL OF
CREATIVE PRACTICES
IN CITIES AND LANDSCAPES

Photo by Mark Basarab on Unsplash

PRACTICES

“Nature that Takes Back its Spaces”: When Architecture Teaches How to Trace Roots. A Conversation with Carlo Ratti.

Aurosa Alison – Politechnic University, Milan
Contact: aurorarosa.alison@polimi.it

ABSTRACT

Today, the definition of the Anthropocene is still very complex. Indeed, it is not easy to illustrate a concept with many aspects. It is attractive, however, to understand how to interpret the human impact on the environment, and the concrete design of architecture can do so much to this end. In this contribution, I would offer an authentic and sensitive conversation with one of the most concrete architects on the international scene. I like to define Carlo Ratti as a “concrete” architect. Ratti’s anthropocentric aspect is not only related to his design projects. His concept of the architectural project strongly represents the future part of the environmental system. How, more and more, the approach to the sensitivity and phenomenology of the present is the central aspect to be understood as a starting point to read future elements. In this regard, an architect creates a warning for the future generations who will inhabit the earth.

KEYWORDS

Experience, Material imagination, Natural Elements, Phenomenology, Architecture.

<https://doi.org/10.6092/issn.2612-0496/15375>

ISSN 2612-0496

Copyright © 2022 Aurosa Alison



“Nature that takes back its spaces”

The quote “Nature that takes back its spaces”¹ may come closest to the idea I would like to propose of the current relationship between the Anthropocene and Architecture. In the context of the Aesthetics of the Anthropocene, many scenarios open before our eyes:

The Anthropocene implies a rethinking of the dichotomous and dualistic approach at the heart of modern science, which is a fundamental theme in the phenomenological reflections of Edmund Husserl, Maurice Merleau-Ponty, Michel Foucault, and Gaston Bachelard and also in the more recent reflections of Hans-Jörg Rheinberger. From this perspective, the Anthropocene motivates a reinterpretation of the relationship between theory and practice, extending and grounding an idea that seeks to become an ecology of practices.²

Lidia Gasperoni’s recent encyclopedic description captures what I mean by “architecture that teaches how to trace roots.” The concept of ecological practices fits perfectly with the combination of architecture and the Anthropocene. Indeed, architecture, in this confusing age, should teach and set a good example. Architecture implies the correct use of materials, the least possible environmental impact, and above all, educating for a present in which we witness the desire to return to an ethos that involves the co-existence of all living species.

In this regard, we cite an essay by Marcello Barison, *L’Antropocene architettonico. Sulla formazione di mondo*³ [*The Architectural Anthropocene. On the formation of the world...*], in which Barison makes a historical, conceptual, and epistemological overview not only on the term Anthropocene but also of the countless uses and dimensions to which this concept lends itself.

Architecture connects perfectly with the concept of concrete formation of the world, in which all distributions of living species harmonize, creating a synergy of natural elements (e.g., stones, plants) and living beings (animals, humans). The “ecological” relationship represents the concrete level of formation and constitution of the world (understood not only as planet earth but as a dense network of interconnections):

I have shown that architecture is conceivable as that unifying practice that makes it possible for all the different ‘kinds of being’ to become world-formers. [...] Through an innovative extension of the concept of world formation, the philosophy of architecture considers the transformations affecting the planet beyond the distinction between nature and culture. It proves to be a privileged theoretical framework for

1 I am referring to the sentence that the editors of this issue, Andrea Borsari and Pierpaolo Ascari, use in the call for papers: <https://cpcl.unibo.it/announcement/view/485>.

2 Lidia Gasperoni. “Anthropocene”, in *International Lexicon of Aesthetics*. (Milano-Udine: Mimesis, Spring Edition, 2022).

3 Marcello Barison, “L’Antropocene architettonico. Sulla formazione di mondo”, in *Aesthetica Preprint*, n°114 (May-June 2020): 79-97.

interpreting the Anthropocene.⁴

The discourse on the Anthropocene has developed from an aesthetic point of view, both in the field of architecture and the field of design. Unlike architecture, design has become an easier way to quickly access solutions that could improve the convivence of human beings on planet Earth. Design has had different modifiers to represent the impact of the Anthropocene compared to architecture. In 2020, FORMA FANTASMA through CAMBIO an exhibition organized firstly at the Serpentine Gallery in London and then in 2021 at Centro Pecci in Prato, illustrated through the concept of the natural material wood how an element that nature gives us could become a commodity of exchange and destruction. Two years earlier, in 2019, at the Triennale di Milano, Paola Antonelli, with Anna Tannir, Laura Maeran, and Erica Petrillo organized a group show for the XXII International Exhibition entitled: *Broken Nature: Design Takes on Human Survival*. At the center of a complex discussion is the will to “survive” by finding expedients through material creation.

The idea of the Anthropocene signifies a return to the roots, a return to the natural elements reminding us how to honor nature without defacing them. In this regard, we can refer to the current response of architecture to the cave_bureau group that, like a mantra, follows the desire to explore how the reality of nature and the reality of the city can be harmonized. The city is depicted as a natural quarry in which nature and its surroundings strongly influence what happens inside:

The city like the caves is dynamic and complex, both having changed over time, albeit with varying geological timelines. The proposed geological age we live in, The Anthropocene now brings this anthropological and geological relationship to the fore, requiring more holistic modes of inquiry surrounding the city and nature itself. Our work is an exploration into this relationship, where we look for sensitive ways to read, define and produce architecture on the continent.⁵

The work of cave_bureau *The Anthropocene Museum: Exhibit 3.0 Obsidian Rain* presented at the 2021 Biennale di Architettura di Venezia represents the regenerated and rediscovered relationship with the natural element. In the age of the Anthropocene, it is crucial to remember the primordial shelters, in this regard the obsidian is the material of the cave and represents the roots and the materiality of the image of the house of men. The next step of this paper will be focused on the primordial refuges and how they are related phenomenologically to the relationship between nature and humans.

4 Ibid., 92.

5 “cave_bureau”, accessed August 05, 2022, www.cave.co.ke.

The phenomenological bond

The cue that seems very interesting and relevant is the approach of many artists, designers and architects to the natural elements that represent the link between man and nature today. In this regard, Lidia Gasperoni's reference to the phenomenological approach of Merleau-Ponty and Gaston Bachelard seems an excellent connection to the introduction of our conversation with Carlo Ratti.

Ecological practice, in my opinion, lies in acknowledging our connection with the surrounding nature through materials and objects that "phenomenologically" reflect our relationship with the world. I would like to recall how, in this regard, Bachelard introduces the material aspect of imagination and how images of the world represent a continuous link with material reality.⁶ For Gaston Bachelard, the four natural elements—fire, water, air, and earth—are vehicles of our relationship with the world. Indeed, dealing with the matter for him, is an infinite knowledge.

The imagining powers of our mind develop around two very different axes. Some get their impetus from novelty; they take pleasure in the picturesque, the varied, and the unexpected. The imagination that they spark always describes a springtime. In nature these powers, far from us but already alive, bring forth flowers. Others plumb the depth of being. They seek to find there both the primitive and the eternal. They prevail over season and history. In nature, within us and without, they produce seeds—seeds whose form is embedded in a substance, whose form is internal. By speaking philosophically from the outset, we can distinguish two sorts of imagination: one that gives life to the formal cause and one that gives life to the material cause—or, more succinctly, a formal imagination and a material imagination. Thus abbreviated, these concepts seem to me indispensable for a complete philosophical study of poetic creation. Causes arising from the feelings and the heart must become formal causes if a work is to possess verbal variety, the ever-changing life of light. Yet besides the images of form, so often evoked by psychologists of the imagination, there are—as I will show—images of matter, images that stem directly from matter. The eye assigns them names, but only the hand truly knows them. A dynamic joy touches, moulds, and refines them. When forms, mere perishable forms and vain images—perpetual change of surfaces—are put aside, these images of matter are dreamt substantially and intimately. They have weight; they constitute a heart.⁷

Material imagination in Bachelardian phenomenology helps us approach the question of the ecology of "practice," in which, in the Gramscian sense

6 Aurosa Alison, "L'artidesign: il dialogo fruttuoso", in *Aisthesis*, n° 13 – 1 (2020): 47-55.

7 Gaston Bachelard, *Water and Dreams. An Essay on the Imagination of Matter*, trans. Edith R. Farrell, (Dallas: The Dallas Institute of Humanities and Culture, 1983), 1.

of praxis it interconnects with that of experience:

[...] for the philosophy of praxis, the being cannot be separated from thinking, the man from nature, activity from matter, the subject from the object. If you make this detachment, you fall in one of the many forms of religion or in meaningless abstraction.⁸

“Activity cannot escape its materiality,” writes Gramsci, so we should re-educate the anthropocentric approach to a new way of using and experiencing matter. In this regard, I would introduce a very inspiring essay by Yanping Gao: *The symbolic force of rocks in the Chinese Imagination*.⁹ In this essay, Gao illustrates the aesthetic culture developing in China from rock worship. The stone not only represents an object that contains symbolic layering, but Gao underlines how the symbology of rock is related to the Bachelardian relationship highlighted by the material imagination.

The French philosopher Gaston Bachelard, who devoted much of his attention to the poetics of matter in his essay *Earth and Reveries of Will: An Essay on the Imagination of Matter*, concludes, ‘It defies penetration, resists scratching, and stands up to wear.’¹⁰

This solidity, this firmness of rock expands deeply in its material and symbolic purity:

When dealing with imaginings triggered by forms of matter, Bachelard insightfully argues that our imagination could be divided into two distinct types (i.e., the formal imagination and material imagination). In Bachelard’s framework for understanding the imagination, the formal imagination relates to superficial images, which “play on the surface of an element without giving the imagination time to work upon its matter.”¹¹ Conversely, the material imagination ‘deserts depth, volume and the inner recesses of substance.’¹²

Material imagination is the faculty that can go deep into the aesthetic reality of natural elements. According to Gao, Bachelard introduces this aspect into the phenomenological relationship between the imaginal and real world. Another recent reference regarding the relationship between humans and nature in the Anthropocene Era and the issue of Bachelardian material imagination is by Kuan-Min Huang in the essay: *Dwelling Together*

8 Antonio Gramsci, *Quaderni del carcere*, (Torino: Einaudi, 1975), 1224.

9 Yanping Gao, *The Symbolic Force of Rocks in the Chinese Imagination*, in Keith Moser and Ananta Ch. Shukla (eds.), *Imagination and art: Explorations in Contemporary Theory*, (London/ Boston: BRILL, 2020), 708-721.

10 Yanping Gao, “The Symbolic Force of Rocks in the Chinese Imagination”, 714, in this passage Gao refers to: Gaston Bachelard, *Earth and Reveries of Will: An Essay on the Imagination of Matter*, trans. Edith R. Farrell, (Dallas: The Dallas Institute of Humanities and Culture, 2002), 143.

11 Gaston Bachelard, *Water and Dreams. An Essay on the Imagination of Matter*, 10-11.

12 Yanping Gao, “The Symbolic Force of Rocks in the Chinese Imagination”, 715, in this passage Gao refers to: Gaston Bachelard, *Earth and Reveries of Will: An Essay on the Imagination of Matter*, trans. Edith R. Farrell, (Dallas: The Dallas Institute of Humanities and Culture, 2002), 2.

on Earth: An Ecological Consideration from Bachelard's *Cosmo-Analysis*.¹³ In this essay, Huang uses Bachelard's teaching of material intimacy as a model of sharing and conviction in the world. "Dwelling Together" is the answer to the question of the Anthropocene, and the best way to do this is to find internalization patterns capable of bringing the reality around us along with us.

The age of Anthropocene seems to be a realistic description. But in our eyes, it brings another apocalyptic vision: the ruin of planet on the hands of human species. In order to confront with the present and imminent ecological crisis, we should take a step toward a possible solution. The direction to meet the ecological turn in philosophical community is to renew certain concepts in a cosmopolitan situation [...] The first dimension concerns a new concept of subjectivity, not only revealing the intersubjective and interhuman relationship, but also a profound ontological connection intertwining with Nature. The second dimension indicates the condition of dwelling in the sustainable living status, by taking into consideration the sense of environment as house (eco-oikos). The third dimension is cosmological, not seeing the world (cosmos) as representation, but as meaningful network of temporality and spatiality. We human beings live together with other species on earth. But the human species is not a superior host in this planet. A fundamental hospitality offered by the planet is to be recognized. An ecological dwelling requires the innovation of a self-understanding. For these dimensions, Bachelard can give us some hints.¹⁴

In this regard, Bachelard outlines a vademecum on how to dwell with and in the reality, as well as nature. The elements of the Bachelardian philosophy, which suggest this style of dwelling together are: 1) The philosophical dialectical system (big/small; hard/soft; bad/good; feminine/masculine; light/dark; rational/irrational); 2) The intimate connection to matter; 3) The welcoming space of the poetics of space.

We can see also the further development of similar topics, but in the line of space, such as miniature or intimate immensity, in Bachelard's *Poetics of Space*. The separation of *res extensa* and *res cogitans* is renounced by the intimate connection of mind and matter. The value of the material intimacy is shown in this proposition concerning the power of the subject: 'In short, all interior richness extends the inner space in which it is condensed, making it boundless.'¹⁵ In such definition, there is no reason to exclude the necessary role of the material

13 Kuan-Min Huang, "Dwelling Together on Earth: An Ecological Consideration from Bachelard's *Cosmo-Analysis*", in *Bachelard Studies – Études Bachelardiennes – Studi Bachelardiani*, n°1 (2020): 33-46.

14 Ibid., 34.

15 Gaston Bachelard, *Earth and Reveries of Repose: An Essay on Images of Interiority*, trans. Edith R. Farrell (Dallas: The Dallas Institute of Humanities and Culture, 2011), 39.

and natural world for the constitution of subjectivity.¹⁶

The approach to the concept of multi cosmos is to be found in our inner resources, and in this case phenomenological images suggested by Bachelard such as that of intimate immensity¹⁷ or inside-outside¹⁸ can help us understand even better what Huang suggests: “The world is not something outside there. It manifests the mode of intimacy.”¹⁹

The return to a phenomenological approach to nature that the Anthropocene emphasizes, is fundamental to making a material connection with reality. Especially in Bachelard’s philosophy of space, the almost animistic premise of the relationship with primordial spaces such as the native house or the nests and shells²⁰ as a place of welcome arouse in us the possibility of finding refuge in the world.²¹

A conversation with Carlo Ratti

When I chose to ask Carlo Ratti about his vision concerning the phenomenological relationship with nature, I was prompted by his involvement as a designer and especially as an artist on how to improve future aspects of our sensitive relationship with nature. It should be incumbent upon an architect to give concrete evidence of how we might live better with our planet. In one of his recent interviews,²² Ratti responds about his future vision of space. I write “space” because it is good to emphasize that he does not differentiate between urbanism or interior architecture; in fact, it remains fundamental to talk about “space”, preferably “shared space,” remaining in the concept of living together, man and nature.

How do you envision the future? Could you give us three ideas that will guide the next few years?

I do not expect futuristic scenarios of flying cars and alienating technologies prophesied by pessimists. I think we can return to a greater balance between cities and nature. As we were saying, the Anthropocene crisis that we are experiencing forces us to rethink the

16 Kuan-Min Huang, “Dwelling Together on Earth: An Ecological Consideration from Bachelard’s Cosmo-Analysis”, 36.

17 Gaston Bachelard, *Poetics of Space*, trans. Maria Jolas, (Boston: Beacon Press, 1994), Chap. 8, “The intimate immensity”, 183-211.

18 Ibid., Chap. 9 “*The Dialectics of Outside and Inside*”, 211-232.

19 Kuan-Min Huang, “Dwelling Together on Earth: An Ecological Consideration from Bachelard’s Cosmo-Analysis”, 41.

20 See Gaston Bachelard, *Poetics of Space*, Chap.1 *The House. From Cellar to Garret. The Significance of the Hut*; Chap. 4 *Nests*; Chap.5 *Shells*.

21 See Aurosa Alison, *Epistémologie et esthétique de l’espace chez Gaston Bachelard*, (Paris: Mimesis France, 2019), 2nd *L’espace poétique* and 3rd part *L’espace dialectique*.

22 Carlo Ratti. “Futuro antico. Intervista a Carlo Ratti.” Interview by Marco Bassan. Artribune, March 23, 2022. Accessed August 09, 2022. <https://www.artribune.com/progettazione/architettura/2022/03/futuro-antico-intervista-carlo-ratti/>.

urban phenomenon, putting sustainability and the circular economy at the centre of our work. But then I turn on my computer and see that Russia has invaded Ukraine-and I think maybe we should have started over with humans.²³

Our focus is the balance between man and nature, which Ratti considers it the purpose of his work to re-educate people about, we focus on reality’s phenomenological and sensitive aspects. The element of the future that Ratti highlights through the concept of the “Senseable City”²⁴ can be a concrete answer to our many questions.

I came up with only three questions: 1) The importance of sensitive experience with space; 2) In which way we should re-educate to return the human-nature relationship to its origins; 3) The future scenarios and how these will evolve from a new propensity for a practical ecology.

What perceptual experiences and theories/ideas influence your work in articulating sensory space?

Carlo Ratti: for example, I wish I could answer by referring to Gestalt or the theory of pure visibility, which has been very successful in twentieth-century architecture (I am thinking, for example, of Kevin Lynch and his classic *The Image of the City*). But unfortunately, this is not the case. Sensible space for us goes beyond visible space - it is lived space, a contemporary crossroads between the natural and the artificial worlds.

In this sense, we refer to Samuel Butler. He, “Darwin of the machines”, already, in his 1863 paper, proposed an evolutionary analogy between technology and biology, replacing organisms with artefacts and allowing the classification of the synthetic world into genera and species. This concept has been invoked with variations in both theory and practice. If we accept this evolutionary framework, a fundamental question emerges: how can the designer accelerate change in the artificial world? Continuing the biological analogy, the designer might have the primary role of producing anomalies (in the form of new ideas), becoming what in biology is called a mutagen, an agent that causes mutations.

In the Twentieth Century, the idea of an artificial world can respond dynamically, just by learning from the natural world, and is closely linked to the vision of cybernetics. This term was introduced by the American mathematician Norbert Wiener in 1948: the key concept (which even today is the basis of a Smart City or Senseable City) of the feedback loop, i.e., the ability of any system, living or not, to regulate or modify its conditions in response to external stimuli.

The scenario of a world crossed by multidirectional flows was also

23 Ibid.

24 “Senseable City lab”, MIT, <https://senseable.mit.edu>.

imagined by Richard Buckminster Fuller, an American architect and inventor. His Geoscope, designed for the 1967 Montreal World's Fair, consisted of a gigantic geodesic globe inside which present and past data about our planet would be displayed: from geological movements to ocean currents. The second layer of the architecture, the intangible one, represented big data, which remained unrealized, and the technological limits of the time.

A moment of overcoming these limitations came in the 1980s, when the growth of the Internet infrastructure for data exchange led to extraordinary changes, allowing the realization of many dreams of previous decades. In this context, one of the basic concepts for understanding the Senseable City and the Internet of Things was born: the idea of ubiquitous computing, or distributed computing.

Documenting the evolution of digital interfaces and anticipating the era of personal computers, computer scientist Mark Weiser (1991), working at the Xerox Park Research Center, foreshadowed the advent of a new era: "the era of quiet technology, where technology recedes into the background of our lives". This scenario would take the form of the coexistence of a myriad of connected physical objects.

From the first decade of the 2000s, this dream would begin to materialize: 'smart phones' have in a short time not only changed the way hundreds of millions of people communicate but have also established themselves as distributed sensors and actuators capable of transforming our lives. The way we navigate a city today, book a scooter or a car in car sharing, order a book or a crepe at home would not be the same without the smartphones we carry in our pockets. The cyborg sang about by Donna Haraway—a mix of natural and artificial—is now becoming a reality in unexpected ways, in the pockets of our pants.

What strategies do you use to communicate with the public through your projects?

Carlo Ratti: Digital networks have permeated our lives, giving rise to platforms that allow urban planners, architects, and designers to share their ideas online and engage in unprecedented debate with multiple stakeholders.

There are many channels: Online posts; Videos uploaded on YouTube; Images shared on social media; Articles published online or in traditional newspapers and magazines.

It is essential to translate the narrative of architecture—often cryptic and solipsistic—making it accessible to a broader audience. This mechanism allows us not only to democratize our profession but also to establish unprecedented mechanisms of co-creation. We can observe completely new architectural dynamics based on participation. By liberating,

accelerating, and connecting designers with large numbers of potential clients, digital platforms can create a unique design methodology for our century. Shared projects are debated online and become a means of generating consensus or dissent. As with crowdfunding platforms, an agreement, speculative or experimental project can become a reality.

We must imagine a new kind of customer—first and foremost—a collective customer. Continuing to work for traditional clients, the same ones that have led us to today’s Anthropocene crisis, is no longer sufficient. Of course, we architects can choose to remain anchored to the potentates of yesterday, but in that case, we must be aware that we would only be contributing to the construction of their mausoleums. Paraphrasing the famous Buckminster Fuller, it is up to us to decide whether to be “the architects of the future or its victims.”

As designers, we can continue to do client-centred work as we do today. However, we must not allow the “tyranny of the client” to prevent us from tackling today’s significant challenges. If ideas are good, they will eventually come to fruition in the interconnected world we live in.

Amidst the volume and noise of digital platforms, the key ingredient for new ideas to take hold is feedback. Communication and media—explaining and inspiring—can spark a virtuous cycle of support and collaboration. In an age when entire projects can come from well-made 1-minute videos, the ability to share can replace relationships with wealthy clients.

Other opportunities to receive feedback are design events, such as architecture biennials or design weeks. These have allowed new ideas to be put together without constraints from clients. Although it may seem inevitable, if we stop and think about it, it is regrettable that because of Covid-19, many of these events have been postponed or replaced by online meetings. The pandemic is a staggering new challenge: if nothing else, it would require cancellation and the re-launch of events to help overcome it. By experimenting with our design weeks, we can turn to solutions to revive public events that have already begun to gain traction in other environments.

To date, how are cities ready to embrace the digitally sensitive? How do we bring people closer to the new aesthetic phenomenology of inhabiting?

Carlo Ratti: I do not think we are talking about the new aesthetic phenomenology of living. The themes posed by Gaston Bachelard in his “Poetics of Space” remain burningly relevant today. However, the Senseable City allows us to find new answers. The themes are manifold: mobility to energy saving in buildings, optimization of workspaces, waste disposal, municipal services, and civic participation processes.

A key theme is that of responsiveness. If, as it is often said, architecture

is a sort of third skin—after the biological one and the clothes we wear—it has been a hard covering for a long time, we could say almost a corset. At MIT's Senseable City Lab and CRA - Carlo Ratti Associati, we like to work thanks to digital technologies in space. The built environment can better adapt to our habits, giving rise to a dynamic architecture modeled on the life within it, not vice versa. Architecture, in short, is capable of providing new answers to those timeless questions posed by the phenomenology of space.

Conclusions

I wanted to present this conversation at length through topics that can be within everyone's reach. The return to one's origins corresponds to the desire to dwell on our relationship with material reality, such as in the philosophy and phenomenology of Gaston Bachelard. The four natural elements, according to Bachelard, correspond not only to the symbolic and animistic relationship to the soul of objects but also to the images that address us of a wise coexistence with nature.

Nature corresponds to us, belongs to us, and represents us. In this regard, a lesson that architecture can give, as in the case of Carlo Ratti, is of immense richness. It is a shining example of how we can succeed in understanding the digital future and associate it with the care and preservation of what has generated us.

Aurosa Alison, PhD (2014) is currently Fellow Professor in Landscape Aesthetics and Aesthetics at Politecnico di Milano and in Digital Aesthetics at the University of Naples, Federico II. Her research interests are developed through the aesthetic analysis of the different forms of inhabiting, starting from architecture, design, atmospheres and gender studies. Among her recent publications Alison, A. (2022) Can an Extra-terrestrial Dwell on Earth? "ESPES - The Slovak Journal of Aesthetics," Vol. 11/2 - 2022; Alison, A. (2022), The Poetics of Space: Aesthetic Remembrance in Architecture in "Abitare La Terra," N. 59/22.

References

- Alison, Aurosa. "Gaston Bachelard", in *International Lexicon of Aesthetics*. Milano-Udine: Mimesis, Spring Edition, 2021.
- Alison, Aurosa. *Épistémologie et esthétique de l'espace chez Gaston Bachelard*. Paris: Mimesis France, 2019.
- Alison, Aurosa. "L'artidesign: il dialogo fruttuoso", in *Aisthesis*, n° 13 – 1 (2020): 47-55.
- Barison, Marcello. "L'Antropocene architettonico. Sulla formazione di mondo", in *Aesthetica Preprint*, n°114 (2020): 79-97.
- cave_bureau. "cave_bureau." Accessed August 05, 2022, www.cave.co.ke.
- Claudel, Matthew, and Carlo Ratti. *The City of Tomorrow: Sensors, Networks, Hackers, and the Future of Urban Life*. Yale: Yale University Press, 2016.
- Claudel, Matthew, and Carlo Ratti. *La città di domani. Come le reti stanno cambiando il futuro*. Torino: Einaudi, 2017.
- Bachelard, Gaston. *Water and Dreams. An Essay on the Imagination of Matter*. Translated by Frederick Farrell. Dallas: The Dallas Institute of Humanities and Culture, 1983.
- Bachelard, Gaston. *Earth and Reveries of Will: An Essay on the Imagination of Matter*. Translated by Frederick Farrell. Dallas: The Dallas Institute of Humanities and Culture, 2002.
- Bachelard, Gaston. *Earth and Reveries of Repose: An Essay on Images of Interiority*. Translated by Frederick Farrell. Dallas: The Dallas Institute of Humanities and Culture, 2011.
- Bachelard, Gaston. *Poetics of Space*. Translated by Maria Jolas. Boston: Beacon Press, 1994.
- Gao, Yanping. "The Symbolic Force of Rocks in the Chinese Imagination", in *Imagination and art: Explorations in Contemporary Theory*, edited by Keith Moser and Ananta Ch. Shukla, London/ Boston: BRILL, 2020
- Gasperoni, Lidia. "Anthropocene", in *International Lexicon of Aesthetics*. Milano-Udine: Mimesis, Spring Edition, 2022.
- Gramsci, Antonio. *Quaderni del carcere*. Torino: Einaudi, 1975.
- Huang, Kuan-Min. "Dwelling Together on Earth: An Ecological Consideration from Bachelard's Cosmo-Analysis", in *Bachelard Studies – Études Bachelardiennes – Studi Bachelardiani*, n°1 (2020): 33-46.
- MIT. "Senseable City lab." <https://senseable.mit.edu>.
- Ratti, Carlo. *Architettura Open Source*. Torino: Einaudi, 2014.
- Ratti, Carlo. "Futuro antico. Intervista a Carlo Ratti." Interview by Marco Bassan. *Artribune*, March 23, 2022. Accessed August 09, 2022. <https://www.artribune.com/progettazione/architettura/2022/03/futuro-antico-intervista-carlo-ratti/>

POSITION

On the Aesthetics of the Anthropocene: The Sublime and beyond – other Concepts and Forms of Visualizations

Andrea Borsari – University of Bologna
Contact: a.borsari@unibo.it

ABSTRACT

There are many connections that link the aesthetic sphere to the set of phenomena that are encompassed by the general definition of “Anthropocene”. Among them, there are two that are explored in this contribution. On the one hand, it is a matter of getting to the bottom of the relationship between the conceptual heritage of the aesthetic-philosophical tradition and its metaphorical variants with the thematic core of the Anthropocene (§§ 2-7). On the other hand, it is a matter of ascertaining how this process intertwines and interferes with the forms of visualization of the “human epoch” and thereby conditions the possible reactions that descend from such representations (§§ 8-13). Finally, to conclude with a tentative assessment of the possibilities of countervisualization and lines of research within the conceptual field of aesthetics for a different rendering of relations with phenomena linked to the notion of the Anthropocene (§ 14).

KEYWORDS

Sublime, Aesthetic Categories, Visualization, Human Epoch, Dissonance

<https://doi.org/10.6092/issn.2612-0496/16751>

ISSN 2612-0496

Copyright © 2022 Andrea Borsari

1. There are many connections that link the aesthetic sphere to the set of phenomena that are encompassed by the general definition of “Anthropocene”. As the call for papers that gave rise to this and the previous issue of this journal also indicates, philosophical reflection, the study of literature, the social sciences, and the various forms of artistic expression have focused a number of issues in this regard and initiated numerous specific investigations.¹ Among them, there are two that are thought to be worth exploring in this contribution. On the one hand, it is a matter of getting to the bottom of the relationship between the conceptual heritage of the aesthetic-philosophical tradition and its metaphorical variants with the thematic core of the Anthropocene (§§ 2-7). On the other hand, it is a matter of ascertaining how this process intertwines and interferes with the forms of visualization of the “human epoch” and thereby conditions the possible reactions that descend from such representations (§§ 8-13). Finally, to conclude with a tentative assessment of the possibilities of countervisualization and lines of research within the conceptual field of aesthetics for a different rendering of relations with phenomena linked to the notion of the Anthropocene (§ 14).

2. It was the French historian of science, technology, and the environment, Jean-Baptiste Fressoz, who forcefully invoked the concept of the sublime in relation to the Anthropocene in a text that later proved to be very influential. As Fressoz writes: “The strength of the Anthropocene idea is not conceptual, scientific or heuristic: it is above all aesthetic. The concept of Anthropocene is a brilliant way to rename some of the achievements of the Earth system sciences. It emphasizes that the geochemical processes that humanity has set in motion are so inertial that the earth is leaving the climatic equilibrium that took place during the Holocene. The Anthropocene designates a point of no return. A geological bifurcation in the history of the planet Earth. If we do not know exactly what the Anthropocene will bring (simulations of the Earth system are uncertain), we can no longer doubt that something of importance on the scale of geological time has recently taken place on Earth.” And he adds: “The concept of Anthropocene is interesting, but also very problematic for political ecology, as it reactivates the springs of the aesthetics of the sublime, a western and bourgeois aesthetic par excellence, vilified by Marxist, feminist and subalternist critics, as well as by postmodernists”.²

Although it could be pointed out that the author of *The Postmodern Condition* himself, Jean-François Lyotard had shown a convergence toward a, so to speak, dissonant reading of the notion of the sublime. In his

1 See <https://cpcl.unibo.it/announcement/view/485>.

2 Jean-Baptiste Fressoz, “L’Anthropocène et l’esthétique du sublime”, in *Sublime. Les tremblements du monde*, Metz, Centre Pompidou-Metz, 2016, <https://ressourcesplurielles.wordpress.com/2020/06/15/jean-baptiste-fressoz-lanthropocene-et-lesthetique-du-sublime-2016/> pp. 1-10, here p. 1 (all texts quoted from languages other than English and not explicitly referred to a printed translation are to be considered translated by the author of this article).

close reading of the Kantian *Analytic of the Sublime*, Lyotard suggests an interpretation of the sublime as a model for reflexive thinking, in general, thanks to his concept of the *différend*, which emphasizes the inevitability of conflicts and incompatibilities between different notions and “phrases” or “language islands”. And, at the same time, Lyotard proposes a “post-modern sublime” in connection with his analysis of Barnett Newman’s paintings, *Newman: The Instant*, and more extensively with his essay *The Sublime and the Avant-Garde*. Situated in art’s inability to account for what is vast and unlimited, the American artist’s work brings out what is happening: “What we do not manage to think about is something happening, or, more simply, the happening. Not a major event in the media sense, not even a small event. Just an occurrence”.³ What no image can capture nor any words represent, and whose presentification therefore becomes more urgent, is the event itself, that there is something instead of nothingness. If it can be said that that contradictory feelings, such as pleasure and pain, joy and anxiety, exaltation and depression, were renamed or discovered between the 17th and 18th centuries in Europe by the name of the “sublime”: “Perhaps the locus of the whole difference between romanticism and the ‘modern’ avant-garde”—Lyotard continues—“is to translate ‘The Sublime is Now’ as ‘Now the Sublime is This’—not elsewhere, not up there or over there, not earlier or later, not once upon a time, but here, now, ‘it happens’—and it’s this painting”.⁴ The task of the avant-garde with respect of the sublime becomes, according to Lyotard, to “undo spiritual assumptions regarding time” and “the sense of the sublime is the name of the dismantling”.⁵

3. This version of the sublime as disassembly nevertheless does not seem to attract Fressoz’s attention, who instead focuses on the strong similarities he detects between the theses of the proponents of the Anthropocene and Edmund Burke’s classical version of the sublime theory. In his perspective, the discourse of the Anthropocene corresponds quite closely to the canons of the sublime as defined by Edmund Burke in 1757, in his *A Philosophical Enquiry into the Origin of Our Ideas of the Sublime and Beautiful*. According to the Anglo-Irish philosopher, the experience of the sublime is associated with sensations of amazement and terror; the sublime is based on the feeling of our own insignificance in the face of a distant, vast nature suddenly manifesting its omnipotence. And this becomes comparable to the claims of Anthropocene theorists who in proclaiming the transformative nature of humankind into a global geological force: Humanity, our own species, has become so large and

3 Jean-François Lyotard, “The Sublime and the Avant-garde” (1984), trans. Lisa Liebmman, in *Art Forum*, April, 1985, pp. 36-43, p. 37. See also by Lyotard: *The Postmodern Condition: A Report on Knowledge* (1979), trans. Geoffrey Bennington and Brian Massumi, Minneapolis: University of Minnesota Press, 1984; “Newman: The Instant” (1985), trans. David Macey, in *The Lyotard Reader*, ed. Andrew Benjamin, Oxford: Basil Blackwell, 1989, pp. 240-249; *Lessons on the Analytic of the Sublime* (1991), trans. Elizabeth Rottenberg, Stanford: Stanford University Press, 1994.

4 Jean-François Lyotard, “The Sublime and the Avant-garde” (1984), p. 37.

5 *Ibid.*, p. 43.

active that it rivals some of the great forces of Nature in its impact on the functioning of the earth system. The human race has become a global geological force.

Following Fressoz, it becomes possible to juxtapose the two notions, Anthropocene and Sublime, because of three characteristics common to both: magnitude of size, temporal depth, the sovereign violence of nature.

On the first point, magnitude of size, it should be noted how phenomenal quantities of matter are mobilized and emitted by humanity during the 19th and 20th centuries, and that the aesthetics of the gigaton of CO₂ and exponential growth refers to what Burke noted: "greatness of dimension is a powerful cause of the sublime".⁶ And, he adds, the sublime requires the solid and the masses themselves: "the great ought to be solid, and even massive".⁷ More precisely, the Anthropocene transfers the sublime from the vast nature to the "human species". While playing with the sublime, it reverses its classical polarities: the sacred terror of nature is transferred to a geological colossus humanity.⁸

Related to the second point, time depth, the Anthropocene thesis adds the geological sublime of ages and eons, from which it draws its most striking effects and tells us in substance that the traces of our industrial age will remain for millions of years in the geological archives of the planet. Far from constituting an external, impervious and gigantic course, the time of the Earth has become commensurable with the time of human action. In two centuries at most, humanity has altered the dynamics of the earth-system for all or almost all of eternity. Everything that makes a transition excites no terror, as Burke wrote: "the transition from one extreme to the other easy, causes no terror, and consequently can be no cause of greatness."⁹ The discourse of the Anthropocene cultivates this aesthetic of suddenness, of the bifurcation and of the event. The sublime of the Anthropocene lies precisely in this extraordinary encounter: two centuries of human activity, a tiny duration, almost nil in terms of Earth's history, will have been enough to cause an alteration comparable to the great upheaval at the end of the Mesozoic 65 million years ago.

About the third point, the sublime of the sovereign violence of nature, that of earthquakes, storms and hurricanes, Fressoz notices how proponents of the Anthropocene readily mobilize the romantic sublime of ruins, vanished civilizations and collapses, saying for instance that the drivers of the Anthropocene may well threaten the viability of contemporary civilization and perhaps even the existence of homo sapiens.¹⁰ The artistic and

6 Edmund Burke, *A Philosophical Enquiry into the Origin of our Ideas of the Sublime and Beautiful*, London: Dodsley, 1757, p. 51.

7 *Ibid.*, p. 115.

8 See Fressoz, "L'Anthropocène et l'esthétique du sublime", p. 2.

9 Burke, *A Philosophical Enquiry into the Origin of our Ideas of the Sublime and Beautiful*, p. 66.

10 Fressoz, "L'Anthropocène et l'esthétique du sublime", pp. 2-3.

media success of the concept rests on the “painful enjoyment,” on the “negative pleasure” of which Burke speaks: “We delight in seeing things, which so far from doing, our heartiest wishes would be to see redressed [...]. I believe no man is so strangely wicked as to desire to see destroyed by a conflagration or an earthquake [...]. But suppose such a fatal accident to have happened, what numbers from all parts would crowd to behold the ruins”.¹¹

4. On the basis of this parallelism, Fressoz develops his critique of the very notion of the Anthropocene, with the underlying idea of “you who enter the Anthropocene give up all hope”, echoing the warning Dante poses at the entrance to his *Inferno*. In this perspective, the Anthropocene is based on a culture of collapse specific to Western nations, which for two centuries have admired their power by fantasizing about the ruins of their future. The Anthropocene plays on the same psychological springs as the perverse pleasure of wreckage already described by Burke and which feeds the current vogue for disaster tourism from Chernobyl to Ground zero. The violence of the Anthropocene is also that of the haughty and cold science that names the times and defines our historical condition. Violence then of naturalization, of the “putting into species” of human societies: global statistics erase the immense variation of responsibilities between peoples and social classes. Finally, the violence of the geological gaze turned towards ourselves, gauging all of history (empires, wars, techniques, hegemonies, genocides, struggles, etc.) by the measure of the sedimentary traces left in the rock. The geologist of the Anthropocene is even more appalling than Walter Benjamin’s angel of history, who, where we used to see progress, saw only catastrophe and disaster: he sees only fossils and sediments.¹²

As historians of aesthetic ideas remind us, at the origins of the cult of the sublime we find the Alps in the grand tour, as a sign of distinction being able to appreciate glaciers and arid rocks. The Lisbon earthquake of 1755 which provides the real kick-off for reflections on the sublime. Burke, who published his treatise a couple of years later, refers to the aesthetic passion for rubble and ruins that then grips the whole of Europe. In 1756, Immanuel Kant also published a short work on the Lisbon earthquake and, in his later essay on the sublime, he defined sublime a “negative pleasure” that can proceed in two ways: the mathematical sublime felt in front of the immensity of nature (the starry space, the ocean, etc.) as feeling of the immense disproportion and the “dynamic sublime” provided by the violence of nature (tornado, volcano, earthquake). More generally, the sublime seems to insist on the search for the surplus of meaning (“*eccellenza di senso*”): “the sublime is nothing but that surplus of meaning, that invisible ultraviolet toward which we move whenever we try to lean out,

11 Burke, *A Philosophical Enquiry into the Origin of our Ideas of the Sublime and Beautiful*, pp. 26-27.

12 See Fressoz, “L’Anthropocène et l’esthétique du sublime”, p. 3

transforming ourselves, toward the extreme and unexplored boundaries of our experience".¹³ Following Remo Bodei's reconstruction, the transfiguration of the "horrid to amorphous places", that is, "lacking in harmony or symmetry, often incommensurable", into "sublime" places endowed with intense beauty, ambiguous and disturbing, which at the same time attracts and repels, seduces and repulses, which exalts and commands respect with its tremendous majesty, finds its origin in a "fundamental turning point in Western civilization" of which aesthetics is the main revealing reagent.¹⁴ That is, in the shift from direct confrontation with God, for the conquest of "dignity and verticality", to the agonistic confrontation with "nature in its manifestations most disturbing, in its untamed and wild forms", in order to "recognize itself [i.e. Western civilization] as intellectually and morally superior".¹⁵ A challenge from which "springs forth an unexpected pleasure mixed with horror", aimed precisely to reinforce "the idea of intellectual and moral superiority" of beings humans, "forging their individuality", and to make them "discover the voluptuousness of losing oneself in the whole".¹⁶

5. It is precisely on this identification that Fressoz's critique takes its cue. His analysis develops the consequences that the process by which the sublime of the Anthropocene, and its staging of a humanity as "telluric force", marked the historical convergence between the natural sublime of the eighteenth century and the technological sublime of the nineteenth and twentieth centuries: "with the industrialization of the West, the power of the second nature is the object of an intense aesthetic celebration. The sublime transferred to technology played a central role in the diffusion of the religion of progress: railway stations, factories and skyscrapers were its permanent harangues. From that time on, the idea of a world crossed by technology, of a fusion between first and second natures, became the object of reflections and praise. One marvels at the works of art materializing the majestic union of the natural and human sublime, such as viaducts spanning valleys, tunnels crossing mountains and canals linking oceans".¹⁷ To this must be added the aggravation produced on the concept by the relationship with the post-World War II political and cultural climate, to the point that it can be considered that the Anthropocene is part of a version of the technological sublime reconfigured by the Cold War which extends the spatial vision of the planet produced by the military-industrial system: "a vision of the Earth captured from space as a system that could be understood in its entirety, a spaceship earth whose trajectory could

13 Remo Bodei, *Paesaggi sublimi. Gli uomini davanti alla natura selvaggia*, Milano: Bompiani, 2008, p. 182.

14 Remo Bodei, *Le forme del bello*, Bologna: il Mulino, 2017, p. 130.

15 Ibid., pp. 130-131.

16 Ibid., p. 131 (on the sublime, see, more extensively, *ibid.*, pp. 122-137).

17 Fressoz, "L'Anthropocène et l'esthétique du sublime", p. 4.

be controlled thanks to new knowledge about the earth-system".¹⁸ The risk foreshadowed by Fressoz is that the aesthetics of the Anthropocene "feeds more the hybris of a brutal geo-engineering than a patient, modest and ambitious work of involution and adaptation of the social".¹⁹

6. Following Terry Eagleton's analysis,²⁰ Fressoz recalls the diagnosis that the historical change leading to the development of capitalism produced a reorganization and a different placement of aesthetic categories. In particular, with the rise of the category of the sublime, the meaning of the beautiful changed. Against the "emollient aesthetics" of the beautiful, risking to transform the bourgeois subject into "decadent sensualist", the sublime "reenergized the capitalist subject as exploiter or as provider of work". As a result of this relocation, at the end of the 18th century, the sublime became "the effort, the danger, the suffering, the elevated, the majestic and the male", while the beautiful became "the harmonious, the non-productive, the soft and the feminine", thus embodying a potential threat on productivity.²¹

In the terms of this critical perspective, arriving at a tentative assessment of this examination, the sublime aesthetic of the Anthropocene poses some problems. By staging the hybridization between first and second natures, it reenergizes the technological action of the cold warriors (geo-engineering); by disconnecting the individual and local scale from what really matters (the telluric force humanity and geological times), it produces stupefied paralysis and cynicism (no future); finally, the Anthropocene, like any other sublime, is subject to the law of diminishing returns: once the audience is prepared and conditioned, its effect dwindles. In this sense, designating a work of art as "art of the Anthropocene" would be absolutely fatal to its aesthetic effectiveness. The risk is that the ecology of the sublime is then called to a permanent overbidding, similar in that to the rush to the avant-garde in the contemporary art.²²

7. One of the main limitations of resorting to the category of the sublime is that, unlike the situation in which we find ourselves and which the Anthropocene attempts to describe, it is given by the measure of distance and the negative or painful pleasure that comes with it. To set up an in-depth study of this problem to come, three lines of possible development of reasoning will be indicated in the further part of the article.

The first consists of questioning how the Anthropocene is visualized through the brief analysis of a famous film on the subject, *The Human*

18 Ibid.

19 Ibid.

20 See Terry Eagleton, *The Ideology of the Aesthetic*, Oxford: Basil Blackwell, 1990.

21 Fressoz, "L'Anthropocène et l'esthétique du sublime", p. 5.

22 See Fressoz, "L'Anthropocène et l'esthétique du sublime", pp. 5-6. On the connection between the aesthetics of the Anthropocene, the sublime, and the work of architects, see Léa Mosconi and Jean-Baptiste Fressoz "L'Anthropocène chez les architectes d'aujourd'hui", in *L'art Méme*, 78, 2019, pp. 7-9.

epoch, and through discussion of the visualization strategies it displays as a visual translation of the sublime. The second line, on the other hand, proposes to discuss some possible strategies of countervisualization and radical questioning of the position of the observer, i.e., the “Shipwreck with Spectator”. The third, is to examine whether and what other aesthetic categories might better interpret our relation to the phenomena involved in the Anthropocene.

8. A very important role in imaging and visualizing the issues revolving around the definition of the Anthropocene has been played by the work of the Canadian photographer Edward Burtynsky, either alone or in collaboration with others. In particular, his “large-scale prints of industrial landscapes are as seductive as they are horrific, as revealing as they are aestheticizing”.²³ And they look aestheticizing in an extremely disturbing manner when we approach visualizations of the Anthropocene.

According to the critique of University of California - Santa Cruz visual culture scholar J.T. Demos, it is typical in this regard Burtynsky’s tendency: “to make monumental, awe-inspiring photographs from scenes of environmental violence, a violence defined not only locally in terms of the damage to regional landscapes, but also globally in relation to the contribution of industrial fossil fuel production to climate change. At the same time, those scenes are interpreted as depicting the origins of modern development and the guarantee of the American way of life”.²⁴ As much as Demos quotes statements by Burtynsky himself, such as the one below, attesting to some ambivalence in his work, he is nevertheless unwilling to acknowledge him as having any decisive heuristic capacity with respect to the Anthropocene. Burtynsky quotes the following: “But time goes on, and that flush of wonder began to turn. The car that I drove cross country began to represent not only freedom, but also something much more conflicted. I began to think about oil itself: as both the source of energy that makes everything possible, and as a source of dread, for its ongoing endangerment of our habitat”. And he comments: “these images are less about staging that ambivalence – between consumer complicity and industry-led development – and more about dramatizing in spectacular fashion the perverse visual beauty of a technological, and even geological, mastery devoid of environmental ethics. While Burtynsky is right to point out the consumer-based participation in the oil economy, that frequently made observation is also part of the ruse that universalizes responsibility for climate disruption, diverting attention from the fact of corporate petroculturalism’s enormous economic influence on global politics that keeps us all locked in its clutches”.²⁵

23 T.J. Demos, *Against the Anthropocene: Visual Culture and Environment Today*, London: Sternberg Press, 2017, p. 62.

24 Ibid.

25 Ibid., pp. 62-65

9. Considering also Burtynsky's *Oil Fields #27, Bakersfield, California, USA* (2004), which depicts a hydrocarbon geography, not far from Belridge, "where the oil infrastructure appears woven into a gold-bathed *chiaroscuro* that dramatically patterns this hilly topography", Demos also notices: "here too technology merges with nature, unified aesthetically, composing a picture that is, monstrously, not only visually pleasurable, but also ostensibly ethically just – an image of American 'freedom' whose historical progression, according to the familiar patriotic narrative, is necessary, inevitable, even – as pictured here – beautiful. What the photographer constructs is the petroindustrial sublime, emphasizing the awesome visuality of the catastrophic oil economy's infrastructure founded on obsessive capitalist growth, which 'we as a species', as Burtynsky says, have created".²⁶

Critics thus focus on the naturalization process implemented by Burtynsky's translation into images of petroculturalism, "with a mesmerizing imaging machine in thrall to the compositional and chromatic elements of the very framework responsible for our environmental destruction".²⁷ The trend toward mixing naturalization and aestheticization does not turn out to be an isolated phenomenon, Demos notes in the conclusion of his commentary, but Burtynsky's aestheticist version of photography is also taken up, for instance, by photographer Louis Helbig in his catalogue *Beautiful Destruction* (2014), which provides similarly disturbing and seductive imagery of the Albertan tar sands, and by others.²⁸

10. However, if we consider the best-known outcome of Burtynsky's work, the film *Anthropocene: The Human Epoch* (2018) together with Jennifer Baichwal and Nicholas de Pencier,²⁹ the assessments are more controversial. Especially if one takes the gaze from afar and the gaze from above as a method of rendering the order of magnitude of environmental destruction and mammoth transformations of the landscape as well as the exponential scale of consumption, it has been observed that such forms of representation could at least partially escape a demiurgic mode of domination. As an attempt to visually grasp the extent, in Kantian terms, of the "absolutely great" transformation of the world originated by human action, the distant landscapes, "both infernally destroyed and demonically beautiful", that these films and photographs show are thus "removed from the latency of their remaining unnoticed".³⁰

Of the opposite opinion, however, seems to be the New York University's scholar of communication forms Nicholas Mirzoeff, who evokes the pair of aestheticization—one could with Georg Simmel speak of

26 Ibid., p. 65.

27 Ibid.

28 See *ibid.*, pp. 65-70.

29 See Jennifer Baichwal, Nicholas de Pencier, Edward Burtynsky, *Anthropocene: The Human Epoch* (2018): <https://ihavenotv.com/anthropocene-the-human-epoch>.

30 Eva Horn, "Ästhetik", in Eva Horn and Hannes Bergthaler, *Anthropozän zur Einführung*, Hamburg: Junius, 2019, pp. 120-142, here pp. 131-132.

hyper-aesthesia—and anesthetization to explain the effect of these visualizations of the Anthropocene, and their effects of subtracting from perception rather than highlighting. According to Mirzoeff, in fact, “art conquers nature by revealing the universal in a specific material object, leaving no remainder”.³¹ Following his argument, “from Thomas De Quincey’s opium eating to *The Matrix*, we have been aware that we perceive a phantasmagoria that passes for reality but is a qualitatively altered world. As we learn how to look at the (Western, imperial) artwork via aesthetics a paradox results: the conquest of nature, having been aestheticized, leads to a loss of perception (aesthesia), which is to say, it becomes an anaesthetics”.³²

11. Also from the point of view of historical reconstruction, Mirzoeff shows through the analysis of some central works of art between the nineteenth and twentieth centuries how the process of beautification to be put in place resulted in an erasure and concealment of the pollution damage produced by the eruption of the industrial revolution: “the aesthetics of the Anthropocene emerged as an unintended supplement to imperial aesthetics—it comes to seem natural, right, then beautiful—and thereby anaesthetized the perception of modern industrial pollution”.³³ Thus the yellowish hues of Impressionism’s eponymous painting, Claude Monet’s 1873 *Impression: Sun Rising*, as well as a demonstration of the artist’s skill in handling light and color, prove to be an effect of the industrial use of coal: “Coal smoke is yellow, the yellow that predominates at the top of the painting. In the early morning, it encounters the blue morning light and the red of the rising sun, producing the array of refracted color that makes Monet’s painting so stunning”.³⁴ The same coal that appears in another famous Monet painting, *Unloading Coal* (1875), where fleet of coal barges from the mines in the north invade the picture space from the bottom left to the right middle ground: “The product of this primary extraction is carried off the barges by workers who cannot be distinguished individually, precisely because as individuals they do not matter. What counts is the unloading of the coal. [...] The degradation of the air is seen as natural, right, and hence aesthetic, a key step in any visibility: it produces an anaesthetic to the actual physical conditions”.³⁵ Similarly, another painting depicting a scene of young bathers in New York City, according to Mirzoeff, constitutes perhaps the strongest example of anesthetization, George Wesley Bellows’s classic painting *Forty-Two Kids* of 1906: “the scene is dominated by the naked children getting ready to swim in the East River on a hot day. The water is black, which has rarely been mentioned in the literature. It was not a metaphor. At that time, all

31 Nicholas Mirzoeff, “Visualizing the Anthropocene”, in *Public Culture*, 2, April, 2014, pp. 213-232, here p. 220.

32 Ibid.

33 Ibid., see pp. 220-226.

34 Ibid., p. 221.

35 Ibid., pp. 222-223.

the bodily waste of the 6 million people living around New York Harbor was piped straight into the water, along with many dead animals and industrial waste. [...] It appears that the desire to live in the modern city was so great that it literally anaesthetized the senses, or at least allowed people to disregard what they saw and smelled in the water".³⁶ Not even the third capital city of what Mirzoeff calls imperial capitalism, London, escapes a representation—in this case, predominantly through literature, from Dickens to Conan Doyle—for which, except for the tragedy of 1952, smog becomes "a positive sign of the energy and vitality of the modern metropole, whereas the smogs of developing world capitals are miasmas, threatening to health and vitality".³⁷

If we then return to the film *Anthropocene: The Human Epoch*, we can see how the use of looking from above or from afar is accompanied by a reference to the constant suggestion of images implicitly likened to works of art. Thus, the gigantic excavations in red-brown rock in the shape of ammonite, refer back to land art installations, certainly subverting their meaning of reharmonization between human action and landscape with their virtuoso use of aerial photography, such as Robert Smithson's large stone spirals (*Spiral Jetty*, 1970) or Richard Long's circles (1978-2012). Or like the rectangular striped pools in the lithium "salt flats" in the Atacama Desert that turn out to be almost a geometric and chromatic cast of Paul Klee's paintings after his trip to the desert of Tunisia (1914). Or, finally, like the cyclopean rotary diggers crumbling a village in Germany, including houses and church, swallowing it into an open pit coal mine that look like something out of the steampunk imagery of the film *Mortal engine* (2018)—or vice versa?—in which the dystopian scenario of predatory mobile cities devouring each other in global competition for resources reaches the extraction from the land of any remaining usable wealth. In all these cases, but others certainly could be identified upon systematic analysis, the effect of "strategic embellishment" (W. Benjamin) and consequent anesthetization of the awareness of environmental destruction seems precisely assured by the looming forms of attractiveness elaborated within art and then extended, traversing to all aspects of life, which characterizes precisely the process of aestheticization of the world, as it has developed massively since the turn between the nineteenth and twentieth centuries.

12. However, can art and reflection on art play a different function with respect to the phenomena that the Anthropocene highlights or conceals? Can forms of countervisualization, and in parallel rendering into images and concepts in tension with them, be identified that reverse the trend noted thus far? In their *Art in the Anthropocene*, Heather Davis and Etienne Turpin

36 Ibid., p. 224.

37 Ibid., p. 226.

seeks to answer affirmatively to the first question.³⁸ According to them, in fact, the arts are assigned the task of making abstract concept thinkable and perceivable, since they constitute the “vehicle of *aisthesis*” they result: “central to thinking with and feeling through the Anthropocene”.³⁹ The relationship between them can be identified according to multiple layers and different scales: “First, we argue that the Anthropocene is primarily a sensorial phenomenon: the experience of living in an increasingly diminished and toxic world. Second, the way we have come to understand the Anthropocene has frequently been framed through modes of the visual, that is, through data visualization, satellite imagery, climate models, and other legacies of the ‘whole earth’. Third, art provides a polyarchic site of experimentation for ‘living in a damaged world’, as Anna Tsing has called it, and a non-moral form of address that offers a range of discursive, visual, and sensual strategies that are not confined by the regimes of scientific objectivity, political moralism, or psychological depression”.⁴⁰

To these indications, the scholar of cultural theory at the University of Vienna, Eva Horn, combines a call for awareness to which art should contribute in order to communicate the extreme urgency of dealing with the ecological crisis and to make available a new instrumentarium of thought. She also draws on the intervention of Bruno Latour who, in the face of ecological mutations, called for a deep reset with respect to the categories of modernity, precisely by presenting the exhibition he curated *Reset Modernity?*.⁴¹ Exemplarily, Latour’s own reading in his seven *Gaia-Lecture* of Caspar David Friedrich’s painting *Das Große Gehege bei Dresden* [The Great Enclosure near Dresden] (1831/1832) makes a work of art an instrument of knowledge and shows the overcoming of the traditional perspective convention typical of modern art, of a space ordered visually through a fixed point of view at a distance.⁴² The painting depicts a formless landscape made of bank mud, river banks and water surfaces, slightly curved, with the horizon line separating two spaces, the sky and the earth. The convention broken by Friedrich, according to Latour, is the one that governed the relationship of human beings with the things of nature in modernity, and the collocationless gaze of the bewildered observer thus becomes an allegory of the human position within the space of a nature in which human beings no longer occupy a stable and predetermined position: nature in the Anthropocene can no longer be depicted as a stable datum, but becomes non-totalizable and non-objectifiable.

38 *Art in the Anthropocene. Encounters Among Aesthetics, Politics, Environments and Epistemologies*, edited by Heather Davis and Etienne Turpin, London: Open Humanities Press, 2015. See also *Architecture in the Anthropocene: Encounters Among Design, Deep Time, Science and Philosophy*, edited by Etienne Turpin, London: Open Humanity Press, 2014.

39 Heather Davis and Etienne Turpin, *Art & Death: Lives Between the Fifth Assessment & the Sixth Extinction*, in *ibid.*, pp. 3-29, here p. 3.

40 *Ibid.*, pp. 3-4.

41 Horn, “Ästhetik”, p. 121.

42 See Bruno Latour, *Facing Gaia. Eight Lectures on the New Climatic Regime* (2015), transl. Catherine Porter, London: Polity, 2017, pp. 220-223.

13. Latour's reading, Horn comments, is emblematic for an aesthetics of the Anthropocene: instead of an intelligible and transparent order that can be sensitively grasped, we are faced with an impairment of the relationship with the world, a profound disorientation that encompasses the viewer as well as the depicted object. The Anthropocene is thus revealed as the fundamental shattering of the dualism—of object and subject, human and nonhuman, whole and part, position of the observer and space of the depiction—which has marked with itself not only our theoretical and technical access to the world but also the conventions of aesthetics. The Anthropocene is thus also shown as a new way of being in the world in which this unsettling externalizes on two levels, that of the question of how we connect with the nonhuman and through what forms of knowledge, and that of the question of how the relationship between human and nonhuman can become the object of aesthetic representation.⁴³

The construction of an aesthetics of the Anthropocene requires, in this perspective, to move from a frontal position with respect to things—what lies against—to move into things: within climate change, among different forms of life that coexist, surrounded by technologies and their consequences, depending on changing capital and material flows and ecologies in an uncontrolled manner. It may be a matter perhaps, as a columnist of the New York Times has suggested, of implementing a "global weirding", that is, of moving to a relationship with the world based on becoming uncanny of the lifeworld itself.⁴⁴ Thus, connoting such a mode of Anthropocene aesthetics would be a kind of *Verfremdung*, an alienation effect encouraging the audience to look at the familiar in a new way, that is, to make the familiar unfamiliar or strange: "unlike in the aesthetics of classical modernity, nonrepresentability here has to do not with a withdrawal of things, but with an uncanny—uncontrollable, uncircumscribable—intimacy with things, with a hypercomplexity and overdimensionality of the world".⁴⁵

The result is a kind of agenda of the challenges such aesthetics faces, not so much on the level of objects as on the level of form. Such challenging difficulties are represented by latency as a subtraction from perceptibility and representability, as also by entanglement as the structure of a new consciousness of coexistence and immanence. And, finally, by the clash between mutually incompatible scales of magnitude, whether given by the contrast between the brevity of human time and the depth of earth or future time or by the incommensurable spatial dimensions of local forms of life and transformations of the earth system, as well as by the number of actors performing individual practices and their possible multiplication

43 See Horn, "Ästhetik", pp. 122-126.

44 See Thomas L. Friedman, "Global Weirding is Here", in *New York Times*, 17/02/2010, p. 23 (<https://www.nytimes.com/2010/02/17/opinion/17friedman.html>).

45 Horn, "Ästhetik", p. 130.

by billions of times.⁴⁶

14. The shift in point of view that leads us to be included within the relations between things, which thus turn out to be endowed with their own agency, entails a falling away from the classical figure of the Lucretian observer who contemplates disaster (the shipwreck) from afar, as it still resonates in the Kantian evocation of the sublime and as it has been codified in Hans Blumenberg's figural reconstruction.⁴⁷ At this point, not only – following Pascal – are we all embarked, but we are led to embody the viewpoint of the castaways as in the proto-surrealist imagery of Comte de Lautréamont's poem *Songs of Maldoror*.⁴⁸

Unless one prefers to incur the fideistic fallacy that puts believing before seeing, to which the rhetoric of changing mindsets in relation to environmental threats also indulges, it seems appropriate for aesthetics to continue to reflect on new forms of visualization, on a countervisualization that contributes to the decolonization of the imaginary. For example, by accounting in images for the inequalities that the apparent uniformity of human action hides with respect to the geographic and social distribution of those who produce climate change and those who suffer its consequences, as Mirzoeff suggests in his contribution on countervisuality, where he writes: "the project is to create a mental space for action that can link the visible and the sayable. In relation to Anthropocene visibility, a move out of one's place would be the end of the de facto hierarchy of humanity that continues to affect global populations long after anthropologists and other scientists abandoned the formal attempt to classify the human".⁴⁹ And he concludes: "Like all forms of countervisuality, contesting Anthropocene visibility is a decolonial politics that claims the right to see what there is to be seen and name it as such: a planetary destabilization of the conditions supportive of life, requiring a decolonization of the biosphere itself in order to create a new sustainable and democratic way of life that has been prepared for by centuries of resistance".⁵⁰

If, as it has been attempted to show, the historical recourse to the sublime seems to evade any efficacy, in the wake of criticism of its looking from a safe distance and its recourse to pictorialism and aestheticization, it is not for this reason that the contribution that aesthetic categories can make to understanding and differently shaping environmental phenomena and the problems of life on earth is not exhausted. Among the aesthetic concepts

46 See *ibid.*, pp. 130-142.

47 See Hans Blumenberg, *Shipwreck with Spectator: Paradigm of a Metaphor for Existence* (1979), trans. Steven Rendall. Cambridge: MIT Press, 1996.

48 See Comte de Lautréamont (Isidore Lucien Ducasse), *Les Chants de Maldoror*, Paris: Balitout, Questroy et C.e, 1868-1869.

49 Mirzoeff, "Visualizing the Anthropocene", pp. 226-230, here p. 227.

50 *Ibid.*, p. 230.

that can enter into a constellation relationship with phenomena related to the Anthropocene are a few, in addition to the beautiful, which, as we have seen, represents the original rival against which the sublime asserts itself.

Apart from versions of the sublime itself that somehow escape criticism, such as Lyotard's, or others that should be explored—such as the hysterical sublime, with its both euphoric and terrifying effect, the toxic sublime, as a means of analyzing the tensions arising from visual representations of environmental contamination, or the trash sublime, which investigates the delicate balance that is created between the de-aestheticization of art and the aestheticization of commodities, waste, and droppings—there are others categories that show promise and should be focused on more carefully. Just think of a possible apology of the ugly, in which art is called upon to appropriate the ugly no longer to reconcile it with the beautiful, but to denounce through its dissonance the social relations of domination that both produce and expel it. In the same direction move the disgusting, the grotesque, the uncanny, the weird and the eerie. Or why not—if anything—think of the tragic? The tragic, which is centered on the persistence in remaining in divergence without conciliation and in contrast without resolution? An extensive body of work that appears to be far from being completed.⁵¹

51 In whole or in part and in different seminars or personal exchanges, I have had the opportunity to discuss the theses of this paper with some people, Vando Borghi and Emanuele Leonardi (University of Bologna), Marco Deriu (University of Parma), Lidia Gasperoni and Jörg Gleiter (TU - Berlin) and Christoph Wulf (FU - Berlin), whom I all thank for their suggestions, remarks and comments (AB).

Andrea Borsari is full professor of Aesthetics at the Department of Architecture of the University of Bologna and Faculty member at its Doctoral School, directs the book series "La vita e le forme" (Bup) and is deputy director of "Iride. Rivista di filosofia e discussione pubblica" (Il Mulino). He was recently visiting professor at UCLA, ENSA-Paris La Villette, the 4 Cities Unica Euromaster in Urban Studies - University of Copenhagen and the University of Sichuan, and visiting fellow at University of Amsterdam, University of Buenos Aires and Brown University – Providence. Among his publications: *Mondo, cose, immagini. Sulle forme dell'esperienza estetica* (Bup, 2018); *Mimicry. Estetica del divenire animale* (Mimesis, 2018); as editor, *Philosophical Anthropology and Critical Theory* (Iride, 02/2022) and *Temporary. Citizenship, Architecture and City* (Springer, 2023, with P. Ascari and A. Trentin).

References

- Baichwal, Jennifer, Nicholas de Pencier, Edward Burtynsky, *Anthropocene: The Human Epoch* (2018): <https://ihavenotv.com/anthropocene-the-human-epoch>.
- Blumenberg, Hans, *Shipwreck with Spectator: Paradigm of a Metaphor for Existence* (1979), trans. Steven Rendall. Cambridge: MIT Press, 1996.
- Bodei, Remo, *Paesaggi sublimi. Gli uomini davanti alla natura selvaggia*, Milano: Bompiani, 2008.
- , *Le forme del bello*, Bologna: il Mulino, 2017.
- Burke, Edmund, *A Philosophical Enquiry into the Origin of our Ideas of the Sublime and Beautiful*, London: Dodsley, 1757.
- Davis, Heather and Etienne Turpin, *Art & Death: Lives Between the Fifth Assessment & the Sixth Extinction*, in *Art in the Anthropocene. Encounters Among Aesthetics, Politics, Environments and Epistemologies*, edited by Heather Davis and Etienne Turpin, London: Open Humanities Press, 2015, pp. 3-29.
- Demos, T.J., *Against the Anthropocene: Visual Culture and Environment Today*, London: Sternberg Press, 2017.
- Eagleton, Terry, *The Ideology of the Aesthetic*, Oxford: Basil Blackwell, 1990.
- Fressoz, Jean-Baptiste, "L'Anthropocène et l'esthétique du sublime", in *Sublime. Les tremblements du monde*, Metz, Centre Pompidou-Metz, 2016, <https://ressourcesplurielles.wordpress.com/2020/06/15/jean-baptiste-fressoz-lanthropocene-et-lesthetique-du-sublime-2016/> pp. 1-10.
- Friedman, Thomas L., "Global Weirding is Here", in *New York Times*, 17/02/2010, p. 23 (<https://www.nytimes.com/2010/02/17/opinion/17friedman.html>).
- Horn, Eva, "Ästhetik", in Eva Horn and Hannes Bergthaler, *Anthropozän zur Einführung*, Hamburg: Junius, 2019, pp. 120-142.
- Latour, Bruno, *Facing Gaia. Eight Lectures on the New Climatic Regime* (2015), transl. Catherine Porter, London: Polity, 2017.
- Lautréamont, Comte de (Isidore Lucien Ducasse), *Les Chants de Maldoror*, Paris: Balitout, Questroy et C.e, 1868-1869.
- Liotard, Jean-François, "The Sublime and the Avant-garde" (1984), trans. Lisa Liebmann, in *Art Forum*, April, 1985, pp. 36-43.
- , *The Postmodern Condition: A Report on Knowledge* (1979), trans. Geoffrey Bennington and Brian Massumi, Minneapolis: University of Minnesota Press, 1984.
- , "Newman: The Instant" (1985), trans. David Macey, in *The Lyotard Reader*, ed. Andrew Benjamin, Oxford: Basil Blackwell, 1989, pp. 240-249.
- , *Lessons on the Analytic of the Sublime* (1991), trans. Elizabeth Rottenberg, Stanford: Stanford University Press, 1994.
- Mirzoeff, Nicholas, "Visualizing the Anthropocene", in *Public Culture*, 2, April, 2014, pp. 213-232.
- Mosconi, Léa and Jean-Baptiste Fressoz "L'Anthropocène chez les architectes d'aujourd'hui", in *L'art Môme*, 78, 2019, pp. 7-9.
- Turpin, Etienne, ed., *Architecture in the Anthropocene: Encounters Among Design, Deep Time, Science and Philosophy*, London: Open Humanity Press, 2014.

Erratum Corrige

Marco Malvestio, "Theorizing Eco-Dystopia: Science Fiction, the Anthropocene, and the Limits of Catastrophic Imagery"

<https://doi.org/10.6092/issn.2612-0496/16768>

ISSN 2612-0496

The European Journal of Creative Practices in Cities and Landscapes 5, no. 1 (2022), <https://doi.org/10.6092/issn.2612-0496/14532>

When the above article was first published online on October 10th, 2022, the grant agreement 89065 contained an error. The correct grant agreement is 890656.

CPCL's editorial team apologizes for this error.

The correction was announced on March, 2023.