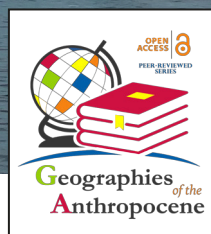


NARRATIVES IN THE ANTHROPOCENE ERA

Charles Travis, Vittorio Valentino (Editors)

Preface by Kirill O. Thompson

IL Sileno
Edizioni



Narratives in the Anthropocene era

Charles Travis
Vittorio Valentino
Editors



IL Sileno
Edizioni

“Narratives in the Anthropocene era”

Charles Travis, Vittorio Valentino (Eds.)

is a collective volume of the Open Access and peer-reviewed series
“Geographies of the Anthropocene”
(Il Sileno Edizioni), ISSN 2611-3171.

www.ilsileno.it



Cover: Photo by Melissa Bradley on Unsplash

Copyright © 2021 by Il Sileno Edizioni
International Scientific Publisher “Il Sileno”, VAT 03716380781
Via Piave, 3/A, 87035 - Lago (CS), Italy, e-mail: ilsilenoedizioni@gmail.com

This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivs
3.0 Italy License.



The work, including all its parts, is protected by copyright law. The user at the time of
downloading the work accepts all the conditions of the license to use the work, provided
and communicated on the website

<http://creativecommons.org/licenses/by-nc-nd/3.0/it/legalcode>

ISBN 979-12-80064-27-1

Vol. 4, No. 2, December 2021



Geographies *of the* Anthropocene

OPEN
ACCESS



PEER-REVIEWED
SERIES

ISSN 2611-3171

Geographies of the Anthropocene

Open Access and Peer-Reviewed series

Editor-In-Chief: Francesco De Pascale (Department of Culture and Society, University of Palermo, Italy).

Associate Editors: Salvatore Cannizzaro (University of Catania, Italy); Fausto Marincioni (Department of Life and Environmental Sciences, Università Politecnica delle Marche, Italy), Leonardo Mercatanti (Department of Culture and Society, University of Palermo, Italy), Francesco Muto (Department of Biology, Ecology and Earth Sciences, University of Calabria, Italy), Charles Travis (School of Histories and Humanities, Trinity College Dublin; University of Texas, Arlington).

Editorial Board: Mohamed Abioui (Ibn Zohr University, Morocco), Andrea Cerase (Sapienza University of Rome, Italy), Valeria Dattilo (University of Calabria, Italy), Dante Di Matteo (Polytechnic University of Milan, Italy); Jonathan Gómez Cantero (Departamento de Meteorología de Castilla-La Mancha Media, Spain), Eleonora Guadagno (University of Naples “L’Orientale”, Italy); Davide Mastroianni (University of Siena, Italy), Giovanni Messina (University of Palermo, Italy), Joan Rossello Geli (Universitat Oberta de Catalunya, Spain), Gaetano Sabato (University of Palermo, Italy), Nikoleta Zampaki (National and Kapodistrian University of Athens, Greece).

International Scientific Board: Marie-Theres Albert (UNESCO Chair in Heritage Studies, University of Cottbus-Senftenberg, Germany), David Alexander (University College London, England), Loredana Antronico (CNR – Research Institute for Geo-Hydrological Protection, Italy), Lina Maria Calandra (University of L’Aquila, Italy); Salvatore Cannizzaro (University of

Catania, Italy), Fabio Carnelli (EURAC Research, Bolzano, Italy); Carlo Colloca (University of Catania, Italy), Gian Luigi Corinto (University of Macerata, Italy), Roberto Coscarelli (CNR – Research Institute for Geo-Hydrological Protection, Italy), Girolamo Cusimano (University of Palermo, Italy), Bharat Dahiya (Director, Research Center for Integrated Sustainable Development, College of Interdisciplinary Studies Thammasat University, Bangkok, Thailand); Sebastiano D’Amico (University of Malta, Malta), Armida de La Garza (University College Cork, Ireland), Elena Dell’Agnese (University of Milano-Bicocca, Italy; Vice President of IGU), Piero Farabollini (University of Camerino, Italy), Massimiliano Fazzini (University of Camerino; University of Ferrara, Italy; Chair of the “Climate Risk” Area of the Italian Society of Environmental Geology); Giuseppe Forino (University of Newcastle, Australia), Virginia García Acosta (Centro de Investigaciones y Estudios Superiores en Antropología Social, CIESAS, México); Cristiano Giorda (University of Turin, Italy), Giovanni Gugg (LESC, Laboratoire d’Ethnologie et de Sociologie Comparative, CNRS – Université Paris-Nanterre, France), Luca Jourdan (University of Bologna, Italy), Francesca Romana Lugerì (ISPRA, University of Camerino, Italy), Cary J. Mock (University of South Carolina, U.S.A.; Member of IGU Commission on Hazard and Risk), Enrico Nicosia (University of Messina, Italy), Gilberto Pambianchi (University of Camerino, Italy; President of the Italian Association of Physical Geography and Geomorphology), Silvia Peppoloni (Istituto Nazionale di Geofisica e Vulcanologia, Italy; Secretary General of IAPG; Councillor of IUGS), Isabel Maria Cogumbreiro Estrela Rego (University of the Azores, Portugal), Andrea Riggio (University of Cassino and Southern Lazio, Italy), Jean-Claude Roger (University of Maryland, College Park, U.S.A.; Terrestrial Information Systems Laboratory, Code 619, NASA Goddard Space Flight Center, Greenbelt, U.S.A.); Vito Teti (University of Calabria, Italy), Bruno Vecchio (University of Florence, Italy), Masumi Zaiki (Seikei University, Japan; Secretary of IGU Commission on Hazard and Risk).

Editorial Assistant, Graphic Project and Layout Design: Ambra Benvenuto;

Website: www.ilsileno.it/geographiesoftheanthropocene;

The book series “Geographies of the Anthropocene” edited by Scientific International Publisher “Il Sileno Edizioni” will discuss the new processes of the Anthropocene epoch through the various worldviews of geoscientists and

humanists, intersecting disciplines of Geosciences, Geography, Geoethics, Philosophy, Socio-Anthropology, Sociology of Environment and Territory, Psychology, Economics, Environmental Humanities and cognate disciplines.

Geoethics focuses on how scientists (natural and social), arts and humanities scholars working in tandem can become more aware of their ethical responsibilities to guide society on matters related to public safety in the face of natural hazards, sustainable use of resources, climate change and protection of the environment. Furthermore, the integrated and multiple perspectives of the Environmental Humanities, can help to more fully understand the cultures of, and the cultures which frame the Anthropocene. Indeed, the focus of Geoethics and Environmental Humanities research, that is, the analysis of the way humans think and act for the purpose of advising and suggesting appropriate behaviors where human activities interact with the geosphere, is dialectically linked to the complex concept of Anthropocene.

The book series “Geographies of the Anthropocene” publishes online volumes, both collective volumes and monographs, which are set in the perspective of providing reflections, work materials and experimentation in the fields of research and education about the new geographies of the Anthropocene.

“Geographies of the Anthropocene” encourages proposals that address one or more themes, including case studies, but welcome all volumes related to the interdisciplinary context of the Anthropocene. Published volumes are subject to a review process (**double blind peer review**) to ensure their scientific rigor.

The volume proposals can be presented in English, Italian, French or Spanish.

The choice of digital Open Access format is coherent with the flexible structure of the series, in order to facilitate the direct accessibility and usability by both authors and readers.

CONTENTS

Preface <i>Kirill O. Thompson</i>	9
--------------------------------------	---

Introduction <i>Charles Travis, Vittorio Valentino</i>	33
---	----

Section I

Resilience: literary and sensory narratives

1. Italian writers and the Anthropocene <i>Chantal Colomb</i>	40
2. Extinction, atavism and inevitability: life after collapse. A study of The Eternal Adam by Jules Verne and of The Death of the Earth by J.-H. Rosny aîné. <i>Kevin Even</i>	57
3. We are not alone in the world <i>Noé Gross</i>	72
4. Animals' Optical Democracy in the fiction of Cormac McCarthy <i>Geneviève Lobo</i>	91
5. Idyll and threat: man-nature relationship in the history of music, art and literature <i>Federico Volpe</i>	107
6. Countering Anthropos with Trans-Corporeal Assemblages in Rita Indiana's Tentacle <i>Sarah Sierra</i>	122
7. On the environmental issue: when poets listen to Mother-Land <i>Sébastien Aimé Nyafouna</i>	140

Section II

Transformative Action and Global Ecological Sustainability

8. Becoming aware of the living air: from scientific and indigenous narratives to care ethics
Clément Barniaudy 164
9. An Evaluation of a Shambaa Community's Tradition of Adaptation to Local and Global Forces to Maintain Socio-economic and Ecological Sustainability, and Plague Resilience in Lushoto, Tanzania
Raymond Ruhaak, Philemon Mtoi 182
10. Fire and Form: First Nation Eco-Georgic Practices in "Borri is Fire Waru is Fire" by Lionel Fogarty
Trevor Donovan 216
11. All my earthothers: Levinasian tools for deep ecology
Erika Natalia Molina Garcia 232
12. Bio-deconstructing Bioremediation: Tailings Ponds, Oil-eating Bacteria, and Microbial Agency
Aaron Bradshaw 251
13. Healing the Earth, transforming the mind: how the COVID-19 pandemic generates new insights through the Econarrative writing workshop
Angela Biancofiore 266

Section III

Crisis and pandemic: dynamics of writing and thinking

14. COVID-19 as a wake-up call. Potential for more sustainable attitudes and behaviors in Poland
Justyna Orlowska, Alicja Piekarz 285
15. Young People's Geographies in the Times of Covid-19: System Threat as a Chance for System Change?
Lydia Heilen, Andreas Eberth, Christiane Meyer 302

16. Mapping the Anthropocene: The Harrisons' and The Deep Wealth of this Nation, Scotland <i>Inge Panneels</i>	321
17. Prolegomena to containment tourism. Happy and smart self- deconfinement sheet or "links to free oneself" <i>Charlie Galibert</i>	343
<i>The Authors</i>	356

15. Young People's Geographies in the Times of Covid-19: System Threat as a Chance for System Change?

Lydia Heilen¹, Andreas Eberth², Christiane Meyer³

Abstract

The far-reaching consequences of the Covid-19 pandemic have not only demonstrated the economic vulnerability of the current capitalistic system, but also the positive ecological consequences of rapid policy action. Previous studies have shown that economic threats lead to a sense of lost control along with a subsequent differentiation of oneself in comparison to others. The question that arises is whether young people as drivers of the sustainability transformation will see the pandemic's impact as a positive example of fast action and therefore an opportunity, or whether they will view the phenomenon as a threat to their status quo. In this study 150 young people ages 15-24 were interviewed using an online questionnaire. The results show that young people see the Covid-19 crisis as an example of rapid, consistent action by politics and society. They demand that restrictions benefitting the climate be maintained to mitigate the climate crisis. This suggests that it is helpful to show positive examples of successful communal efforts to overcome massive threats and uncertainties, as such examples motivate young people and give them a sense of collective efficacy.

Keywords: Covid-19, Sustainable Development, Post-growth Economy, Young People's Geographies, Collective Efficacy.

In this chapter, we draw on research which states that a system change must take place, shifting from a capitalistic to an eco-focused sustainability worldview which places ample consideration into post-growth perspectives

¹ *Corresponding Author.* M.Sc. Leibniz University Hanover, Institute for Science Education, Geography Education, Am Kleinen Felde 30, D-30167 Hannover, Germany; e-mail: heilen@idn.uni-hannover.de.

² Leibniz University Hanover, Institute for Science Education, Geography Education, Am Kleinen Felde 30 D-30167 Hannover, Germany; e-mail: eberth@idn.uni-hannover.de.

³ Leibniz University Hanover, Institute for Science Education, Geography Education, Am Kleinen Felde 30 D-30167 Hannover, Germany; e-mail: meyer@idn.uni-hannover.de.

(e.g., Haraway, 2015; Escobar, 2018; Braun, 2005; Nolet, 2016). We connect these approaches with debates on young people's geographies (Bethan, 2008; Jeffrey, 2011; Skelton & Aitken, 2019) and the current Covid-19 pandemic, focusing on young people's perspectives on the behavioural and political implications of the pandemic. The question that arises is whether they see this as a positive example of rapid and effective change that could be transferred to climate action efforts or not. The perspectives of young people warrant particular importance, as they are a main driving factor of sustainability transformation (UNESCO, 2020).

1. System Change: Covid-19 and Climate

The Covid-19 pandemic was preceded by worldwide demonstrations by the youth-led and organised Fridays for Future protests. At the time, the slogan “system change not climate change” was chanted repeatedly. This demand for a change of the system can be related to questions concerning the economic system. It also challenges existing human-environment relationships by demanding different priorities for economic, ecological as well as social factors.

1.1 System Change: shifting the economic paradigm and transforming people's worldviews

The current economic model, characterised by capitalism and neoliberalism, is increasingly coming under criticism. While young people are demanding a system change in the context of the Fridays for Future demonstrations, there are also many well-founded scientific critiques of current political-economic systems (e.g. Harvey, 2018; 2019; Jackson, 2016). These critiques emphasise a clear connection between the climate crisis and the economic growth paradigm (Harvey, 2020, p. 96ff.; p. 136ff.; Haraway, 2016, p. 99ff.). In this regard, critiques focus particularly on the dramatic extent of deforestation and the use of land for the cultivation of monoculture cash crops. Such phenomena prompted Donna Haraway (2015; 2016, p. 99ff.) to speak of the current era not necessarily as the Anthropocene, but as the Plantationocene and Capitalocene. There are many concrete examples of this, based on well-founded (geographical) field studies. Monocultural cash crop cultivation of the modern plantation system stands as a symbol for the exploitation of human labour. Furthermore, it is

an ecologically unsustainable economic system that leads to devastated landscapes, a fact that has acquired a scientific consensus (Sassen, 2014). The Kenyan Nobel Peace Prize winner Wangari Maathai describes such changes in human-environment relations as the result of Western colonisation and missionary projects (Maathai, 2009, p. 174). Similarly, Arturo Escobar found that the development of modern plantation products within the Colombian port city of Tumaco had gradually replaced mangrove and rain forests, echoing the histories of colonialism. Escobar points to two important aspects regarding the dramatic change from forests to plantations:

... first, the plantation form effaces the relations maintained with and by the forest-world; emerging from a dualist ontology of human dominance over nature, the plantation is one of the most effective means to bring about ontological occupation of local relational worlds. Second, plantations are unthinkable from the relational perspective of forest-worlds (2018, p. 70).

To understand the emergence of unsustainable practices of intensive agriculture, one must first link it to the promises of and desire for rapid economic profit. Unsustainable exploitation of the earth and the labour of ‘others’ appears entrenched within our every mode of thinking and acting within the capitalist mode of production we live in (Moore, 2017). Capitalism and climate are therefore increasingly understood as antagonists to one another (Klein, 2014). Nevertheless, alternatives continue to be conceived and experimented on within various scales. This applies to various changing economic models, including “Doughnut Economics” posited by Kate Raworth (2017), degrowth or post-growth campaigns (Lange *et al.*, 2021; Escobar, 2018, p. 137ff.) and Utopian projects (e.g. Haraway, 2016). In addition, a multitude of initiatives around the world are working on alternatives to growth orientated economies (e.g. Burkhart *et al.*, 2020). Despite their very different emphases, all these initiatives are working on coming closer to a kind of “sustainability worldview” (Nolet, 2016) to help promote democratic, participatory, inclusive, pluriverse, and sustainable societies (Escobar, 2018).

1.2 Covid-19 Crisis and Climate Crisis

“Corona can be an effect of climate; not the other way around. More importantly, the two are interlaced aspects, on different scales of time and

space, of what is now one chronic emergency” (Malm, 2020, p. 91). Andreas Malm (2020, p. 36ff.) summarises his argument by stating that a possible transmission of the SARS-CoV-2 Corona virus from wildlife to humans could be closely related to a global increase in land cover along with changes in land use. Historical corollaries on human agency and environment support this, a notable example being the Spanish flu, as its spread was related to steamship travel (Malm, 2020, p. 69ff.). Even though viruses mutate naturally, it is questionable whether there are any real natural disasters. It depends on human action whether the circumstances of mutation become life-threatening. It has been argued that the magnitude of the effects of a vastly spread virus on the economy and society as a whole depend on the pre-existing weaknesses of the capitalist economy along with its hegemonic orientation (Harvey, 2020, p. 180ff.). David Harvey observed that “within the geographic discipline, diagnoses of ‘crisis’ are often associated with neoliberalism and capitalism apparently producing manifold social, economic and political stresses” (Brinks & Ibert, 2020, p. 1; also see Jones & Ward, 2002; Larner, 2011). Analyses in times of crisis show the vulnerability of an economic system that is geared towards mass consumption:

COVID-19 is underpinning not a wild fluctuation but an almighty crash in the heart of the form of consumerism that dominates in the most affluent countries. The spiral form of endless capital accumulation is collapsing inward from one part of the world to every other. The only thing that can save it is a government-funded and inspired mass consumerism conjured out of nothing (Harvey, 2020, p. 186).

The tourism sector is a particularly vivid example of this. Before the Covid-19 restrictions came into place, international tourism was on the rise, increasing from 800 million international visits to 1.4 billion between 2010 and 2018. For this kind of consumerism, a great amount of infrastructure was needed, including airports, airlines, hotels and restaurants and cultural events. However, due to global travel restrictions that ensued as a result of the pandemic, every aspect of tourism began to struggle in 2020 and continued to do so well into 2021, with airlines on the verge of bankruptcy, empty hotels trying to stay afloat, and the hospitality industry inundated with mass unemployment (Harvey 2020, p. 185). In addition, restaurants and bars in general have been affected with the Covid-19 restrictions. In many places they have been closed or reduced to a take-out service, which

many people still find too risky. Furthermore, employees of the ‘Gig’ economy and other similar types of service have been laid off without effective and adequate compensation and support (ibid.). This illustrates that: “Much of the cutting-edge model of contemporary capitalist consumerism is inoperable under present conditions” (ibid.). The slumps within the tourism sector also illustrate how quickly nature is able to recover from being overused by mankind. Tourism is closely linked to the mobility sector and therefore to global air traffic and cruises both being notorious for their negative impact on the environment. After the outbreak of the Covid-19 virus in China, domestic flights dropped by 70 percent in just two weeks leading to a significant decrease of CO₂-emissions in total for China. Emissions dropped by a quarter in only one month – the most significant drop that has ever been measured. This is especially remarkable, considering that China is one of the biggest polluters worldwide and that, due to the widening of the pandemic, similar mechanisms and restrictions would be repeated all over the world (Malm, 2020, p. 8f.; for further examples see Harvey, 2020, p. 188; Näre *et al.*, 2020, p. 1).

The realisation of the effects of mass tourism as well as its collapse during the Covid-19 pandemic, have lead tourism studies to discuss alternatives under the slogan “The end of tourism as we know it” (Kagermeier, 2021, p. 205). This seems to be an example of how the pandemic can be seen as a portal, a “gateway between one world and the next” (Roy, 2020). It can be the trigger to imagine another world even on a broader level (ibid.): “We can take this situation as an opportunity to rethink our way of life. Rethinking requires both individual and collective effort” (Näre *et al.*, 2020, p. 3f.). In regard to human agency, Fareed Zakaria (2020, 235) outlines the possibility that the Covid-19 crisis will give more impetus to the acceptance of mitigation measures in response to climate crisis. Change is already occurring, and in times of change further measures become easier to implement. Also, the perception of one crisis could enhance that of another since all crises are perceived in terms of uncertainty, threats and urgency (ibid; Brinks & Ibert, 2020). However, in comparing the climate crisis with the Covid-19 crisis, one central difference becomes apparent: the time factor. As Zakaria stated in his work, “Even the most alarming scientific reports about climate change are not sufficient to mobilise a collective sense of urgency” (Zakaria, 2020, p. 277). This differs from the urgent and direct perception of threat of the Covid-19 pandemic. Accordingly, reactions include fear, denial, and measures of adaption (ibid., p. 2). At the state level, fundamental differences between the Covid-19 and climate crisis become evident. Many countries, including the European

Union, are sealing themselves off, borders are being closed, measures are being taken at the nation-state level, with vaccines being procured by states. In contrast, to fight climate change, not the state level is pivotal but instead decisive international supranational action is needed (ibid., p. 13).

2. Young People's Perspectives on the Covid-19 Pandemic: System Threat as a Chance for System Change?

It is not clear how young people perceive both crises and if they see more similarities or differences between them. Due to worldwide restrictions on individuals' social behaviours, the Covid-19 pandemic has placed global youth protests on hold. At the same time, governments around the world are spending immense sums of money to fight the economic downfall the many restrictions left in their wake. Both the implementation of behavioural restrictions, as well as economic constraints, could be a first step in changing environmentally unfriendly behaviour and serve as an example for consequent, fast action by politicians, society, and corporations in crisis:

Corona and climate share one structural quality that invites comparison; the amount of death is a function of the amount of action or inaction on the part of states. Left untreated, both afflictions become self-amplifying – the more people infected, the more will be infected; the hotter the planet, the more feedback mechanisms heat it up further – and once underway, the sole way to terminate such spiralling burns is to cut the fuse. States in the global North have now offered proof that this is possible. It will not be easy to erase (Malm, 2020, p. 26).

Hence forth people may recognize the pandemic as a transformational starting point and demand the implementation of policies that can be quickly realised. In other words, the pandemic shows that alternative priorities can be set within a very short time. Globally active companies like General Motors (GM), for example, have vowed to no longer pursue profit as their top priority. Car manufacturers suddenly switched their production to produce respirators, while coffee filter manufacturers like the Melitta company used their production capacities to make face masks (Malm, 2020, p. 7). However, the pandemic could also have the opposite effect. Psychological studies show that people tend to become more prone to status symbols due to a sense of losing control in life threatening situations such as

the Covid-19 pandemic (Fritsche *et al.*, 2008; Greenberg *et al.*, 2004). Along with the threat of losing one's life, our economic threats can also result in feelings of losing control (Fritsche & Jugert, 2017). To gain back control people tend to place themselves before other groups, e.g., other ethnic groups but also non-humans and ecosystems (Stephan & Stephan, 2000; Fritsche & Häfner, 2012; Vaes *et al.*, 2014), which consequently prevent people from demanding a transformative process. Instead it would lead to a continued capitalistic exploitation of the ecosystem.

On average, the Covid-19 crisis has been found to have a far greater impact on low-income populations than on those who are financially better off. In this respect, social divisions have tended to increase during the pandemic (Zakaria, 2020, p. 147ff.). Various studies show how important it is to examine the geographical concepts of place, emotional geographies and everyday geographies in order to better understand young people's geographies (Tani & Surma-aho, 2012; Pimlott-Wilson, 2017; Blazek, 2018; Eberth, 2021). This is particularly evident in relation to the Covid-19 crisis, as its repercussions are directly felt in the everyday lives of young people and provoke strong emotional reactions. While of course applicable to the illness itself, the effects of this pandemic also extend to politically enforced protective measures, such as shop closures or curfews. Areas of sustainable development and climate protection have also been impacted and, in this respect, young people as addressed by UNESCO.

... have, and continue to envision, the most creative and ingenious solutions to sustainability challenges. In addition, young people are an important consumer group and the way their consumption patterns evolve will greatly influence the sustainability trajectory of their countries (2020, p. 32).

What we see here is “that entire generations of young people [...] are targeted and invested with responsibility for a nation's future” (Horton & Kraftl, 2014, p. 129) – and currently that means not only on the national scale but on a global scale for the world's future. John Horton and Peter Kraftl state “that almost all youth policies, to some extent, display a social construction of young people as ‘the future’” (2014, p. 130). This example also explains the special role young people play regarding the three geographical concepts previously mentioned. Many decisions related to sustainability and climate protection will have to be made in everyday life on local levels which will be accompanied by different emotions, as well as cognitive conflicts. For example, the collective emotional statements of

young people and their political demands articulated in the context of the Fridays for Future protests are based on their perceived conflicts of implemented climate action in regard to research findings such as the IPCC reports. However, geographical analyses show that such protests are an expression of a strong youth agency. Craig Jeffrey highlighted the perseverance and resourcefulness of young people while theorising their agency as a whole (2012, p. 250). On the one hand, he emphasised the local engagement of young people and on the other the increase in global networking via digital (social) media (ibid.). He even traces, “how ‘youth’ can provide a window on subaltern responses to economic restructuring” (ibid., p. 245). Against this backdrop, we show below what perspectives young people from Germany have taken on the Covid-19 and climate crises and whether or not they see a connection between these crises and, if so, to what extent.

As aforementioned, the perspective of young people is especially important as they are a relevant driving factor in the sustainability transformation which they demand more and more publicly (see e.g. Fridays for Future). At the same time, adolescents are more in danger of experiencing a greater loss of control when they perceive the pandemic as threat, particularly in individualistic cultures. They are especially susceptible to harsh and unpredictable environments but cannot utilize their regular coping mechanisms as their freedom is restricted (Chang *et al.*, 2019; Zhu *et al.*, 2020). This leads to the question of whether the Covid-19 crisis will be seen as the tipping point that will change priorities or a threat to the status quo. The following section of this chapter will examine young people's understanding of the Covid-19 pandemic. Do they believe it will simply reinforce the dynamics of the multiple crises that already exist (Brand, 2016)? Or do they perhaps see the experiences with the pandemic as a means to implement climate protection in a more committed and effective way?

3. Research Findings of Young People's Perspective on Covid-19 and Sustainable Development

The reflections in the previous chapters lead to the following research questions:

1. What importance do young people attach to system change in the sense of post-growth⁴?
2. How do they assess the influence of the Covid-19 pandemic on climate protection and sustainable development measures?
3. Do young people see the Covid-19 crisis as a threat or as a positive example for fast changing behaviours and priorities?

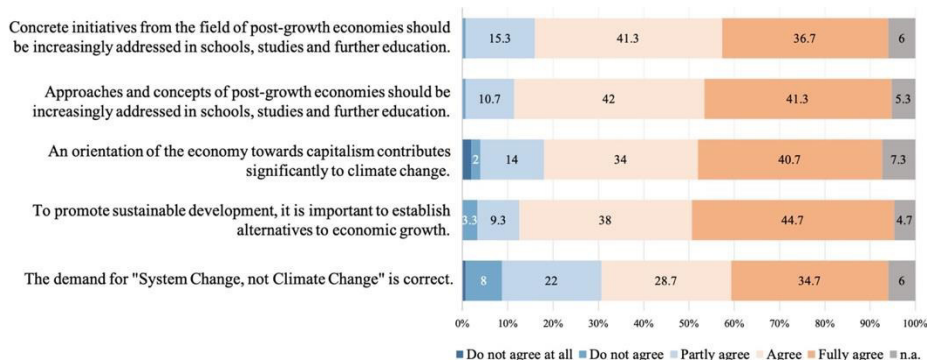
To answer these questions, we conducted a standardized online survey from September 2020 to December 2020 targeting on young people ranging from the ages of 15 to 24 in Germany. The survey focused on priorities and learning effects concerning the current economic system along with sustainable development during and after the Covid-19 pandemic. 150 young people with an average age of 21 participated in the questionnaire. With a share of 91.2 %, the sample group was mainly between the ages of 18-24. The respondents of the online questionnaire were acquired primarily via social media, mailing lists of special organizations like Fridays for Future or study courses and special portals for surveys. Due to these sampling methods, it should come as no surprise that most participants were actively engaged in politics. 63.1 % of the sample group participated in the Fridays for Future demonstrations and 27.1 % were also involved in the organisation of these protests. Furthermore, 6.4 % of all participants were members of environmental organisations. Participants were predominantly female (63.3 %) while 32.7 % identified as male and 2.7 % as non-binary. 65.6 % of the respondents were students at universities. 9.4 % were students at school, most of whom were striving for a Higher School Certificate (“Abitur”). Hence, the sample is characterized by a relatively high level of education, is predominantly female and political active and therefore is not representative of German youth in general. Questions were developed by sourcing literature about post-growth (e.g., Göpel, 2016; Jackson, 2016; Klein, 2014) as well as current media coverage of environmental and economic aspects of the Covid-19 pandemic. The results can be found in table 1 and table 2.

⁴ We relate this term to a growing discourse on alternative and diverse economies, which is conducted under the catchwords de-growth and post-growth. They can be understood as collective terms for activities, initiatives, concepts, models and theories that do not put growth orientation in the foreground and, as a search movement, try out other lifestyles and explore possibilities of sustainable coexistence (Gibson-Graham 2008; D’Alisa *et al.* 2015; Krueger *et al.* 2018, 569).

3.1. Post-growth as a Means to achieving Sustainable Development?

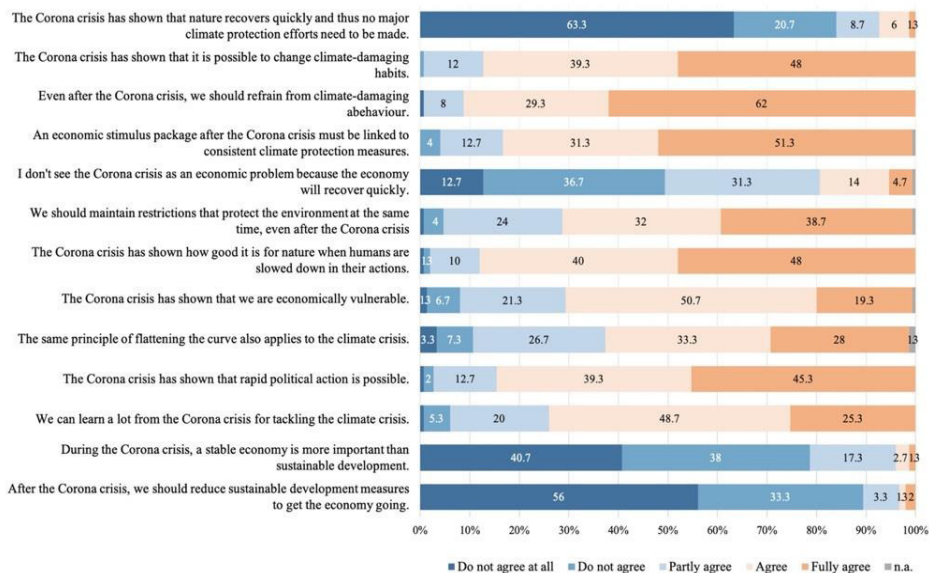
The results of the survey revealed that most respondents had not heard of the concept post-growth yet (92.7 %). Nevertheless, 85.4 % thought that the demand for a “system change not climate change” is at least partly right (see table 1 for results). A majority blamed the capitalistic focus of the economy for the climate crisis (74.7 %) and thought that an alternative to economic growth was necessary in order to achieve sustainable development (82,7 %). Therefore, young people in our survey considered it necessary to implement new ways of thinking about the economy but did not know about specific concepts yet. This insight is in accordance with their wishes, that post-growth as a topic (83.3 %) as well as related initiatives (78 %) should find its way more into schools, universities, and other trainings. Different economic systems and their core aspects should be promoted within educational systems. So far, the neo-liberalisation of markets and politics have also led to a focus on economic growth within education in many countries of the world (Mitchell, 2018). Therefore, curriculums need to be scrutinised and altered to incorporate a broader knowledge of contrasting economic systems. Through this, young people can form more informed opinions and therefore develop concrete strategies and solutions to current problems. To help young people develop a better idea of what an alternative, non-human centred economic system would be like, educators can implement different eco-centred worldviews and stories of their successes into lessons. Geography as a discipline should therefore explore this field more thoroughly and develop pedagogical approaches about post-growth geographies – both at universities as well as within schools (Lange *et al.*, 2021).

Table 1 - This table shows answers to questions about the post-growth economy above 1 %, N = 150.



The general acknowledgment of the necessity to change economic paradigms to enhance sustainable development also transfers to young people's views on the Covid-19 pandemic and its toll on the economy. 80.7% of the respondents at least partly recognised that the Covid-19 crisis was also an economic crisis while 70 % agreed that it emphasized the pro-growth economy's vulnerability. There also were high ratings for prioritising sustainable development and acting against the climate crisis (see results in table 2). For example, 82.6% of young people were in favour of an economic recovery plan that consequently implements actions for protecting the environment. Furthermore, 78.7% disagreed that the economy was more important than sustainable development during the Covid-19 crisis. At the same time, young people rejected the idea that the economy should come first by deferring sustainable development measures in order to get the economy going again (89.3% disagreement). These results underline the aforementioned conclusions. Young people place sustainable development over economic growth and therefore prioritise sustainability over economic benefits. Even during a pandemic that hit the global economy hard with thousands of people losing their jobs and/or incomes (El Keshky *et al.*, 2020), adolescents did not waver in their demand for more climate action. It could be argued that this is due to their young age and their status as students, which commonly only allows for them to do certain jobs (e.g., restaurants, cafés, cultural activities). However, many typical student jobs in Germany were also negatively affected by pandemic restrictions. Their personal willingness to restrict economic gains to protect the environment strengthens their general demand for systematic changes geared towards creating an economy that is more eco-friendly.

Table 2 - This table shows the answers to questions about the Covid-19 crisis and sustainability above 1 %, N = 150.



3.2. Young People's Perceptions of the Covid-19 Pandemic in Regard to the Climate Crisis and Sustainable Development

Along with prioritising sustainability over economic interests, respondents also rated sustainability as the driving factor for action. When asked whether restrictions that benefitted the environment should stay implemented after the Covid-19 pandemic, 70.7% supported this idea. Moreover, 91.3% of the respondents agreed that we should refrain from climate-damaging behaviour even after the crisis. These findings suggest young people are willing to restrict their behaviours as long as it benefits the environment. This is helped along by the enhanced perception of collective efficacy that has arisen in the wake of the collective actions undertaken during the pandemic. 87.3 % agreed that the Covid-19 crisis has shown that it is possible to change climate-damaging behaviour. Young people have seen for themselves that the changes they had been calling for over the last few years are indeed possible and that politicians can act quickly when the general population is under threat (84.6 % agreement). Moreover, young people regard the Covid-19 pandemic as a catalyst for overcoming the climate crisis (74 % agreement). Rather than experiencing a loss of control in the face of the pandemics economic and life threats, young people seem

to be looking on the bright side. They instead see the possibilities for positive development in regard to the environment, so long as policies are swiftly and strictly put into action and the society at large participates. Therefore, it does not lead to protecting the pre-pandemic status quo and focusing on one's own social reference group or non-environmental factors (Stephan & Stephan, 2000; Fritsche & Häfner, 2012; Vaes *et al.*, 2014). Young people's sense of collective effectiveness has instead been revitalized. Research on this matter revealed that 88% of young people recognize that nature can recover only if humans take care to curb their harmful actions. The majority therefore understood that nature's restorative powers are no match to human's destructiveness, with 84% disagreeing with the statement "no climate action is needed." Furthermore, news reports of more wildlife sightings, cleaner water and less smog can lead young people to realise the impact of humans on nature and make the decision to act on this knowledge. This perception of the Covid-19 crisis as a tipping point rather than a threat of uncertainty – especially in regard to sustainable development – may be due to its uniqueness as a phenomenon of recent history. In the beginning of the crisis, politicians in Germany acted quickly. Additionally, large media attention focused on the similarities between the Covid-19 and climate crises as well as the positive environmental effects that were occurring from the pandemic. For example, it was widely publicised that the Earth Overshoot Day, marking a date when all-natural resources would be consumed by humans was delayed about three weeks (Earth Overshoot Day, 2020). Furthermore, lots of comparisons were made about the goal of flattening the curve for the Covid-19 pandemic and the climate crisis (Chakhoyan, 2020; Akintunde & Ntousas, 2020). Viewing the positive impact collective action has on the environment can boost young people's sense of control and collective efficacy. This could be especially true as more countries began to realise just how nature has begun to recover when the pandemic brought daily life to a standstill. For example, Thailand now plans to close more than 100 national parks for two to four months a year to allow nature to recover. This tourism ban has led to more and more sightings of rare animals (Carstens, 2020). This is especially remarkable, since tourism accounts for a fifth of the country's economy (*ibid.*). This stands as a positive example of what happens if politicians and society at large realise their effects on the environment. From these experiences, young people can draw hope for success in future actions. Such experiences could also help them not to lose sight of the importance of sustainable development: "Crisis, in other words, is strongly associated with the idea of

an open future [...] that can be created through individual or collective agency” (Brinks & Ibert, 2020, p. 4).

Members of this younger generation were too young to fully experience the financial crisis of 2008, where politicians acted fast and decided on strict behavioural and economic restrictions. This means that the Covid-19 pandemic is the first worldwide crisis they have experienced.

This experience can be a reference point for when young people demand climate action in the future. If politicians can act fast when deciding on far-reaching measures during the Covid-19 pandemic, it stands to reason why they should not be able to do this when addressing the climate crisis. Having seen these actions, young people might not be content with politician’s previous statements that the economy cannot change in a trice and hard cut measures are not possible. This is especially true, since the climate crisis is way more far fetching and dangerous than the Covid-19 pandemic.

4. Conclusion and Outlook

In conclusion, young people’s demand for systematic changes towards a more sustainable world have not ceased despite the Covid-19 pandemic’s impact on society and the economy. The young people who participated in the survey find it important to achieve a system change towards a different economic paradigm, even though they do not know much about other forms of economy. The educational system in Germany has to adhere to young people’s wishes to incorporate more forms of economic systems, such as post growth economy, in their school education. By doing so, young people could learn more about alternatives to the capitalistic mode. This would enable young people to form more reflective and informed opinions when generating solutions to current problems.

The conviction that a change is necessary was not diminished by the Covid-19 pandemic. This shows the deep-rooted conviction of young people that the climate crisis is an immediate threat which can be achieved through an economic paradigm shift. Young people were also in favour of keeping the strict measures used against the spread of the Covid-19 virus that have helped the environment recover and could further prevent climate damage. This is especially interesting since young people are often accused of only wanting to skip school and not really being interested in climate issues in the context of Fridays for Future demonstrations. Wanting to maintain strict behavioural measures as well as restricting personal freedom

to protect the environment, does not fall into this picture. Instead, it shows the determination of young people and their knowledge that a mere continuing does not work. Their determination is coupled with their questioning of the never-ending growth story being predominantly told (Mitchell, 2018).

Our findings also show that it is important for young people to see that change is possible. Positive examples of communal efforts successfully overcoming massive threats and uncertainties help motivate young people. Through the experience of fast and consequential actions, young people developed a sense of collective efficacy, which can be translated to scenarios regarding the climate crisis. The Covid-19 pandemic has shown that measures can be taken to prevent dangerous crises. Young people now demand that such measures are also taken in regard to the climate crisis or kept if they serve both. Therefore, they do not see the Covid-19 pandemic as a threat to their status quo but as a starting point from which politicians and society should go further to prevent the climate crisis. However, it is important to keep in mind that the sample is not representative of all young people in Germany as the sample group reflects only the perspective of highly educated youths. Therefore, all conclusions drawn focus on this subgroup of young people. Finally, it must be mentioned that the survey was finished before the third wave of the Covid-19 virus in Germany. During the winter months of 2020/2021, the resolute actions of politicians ceased while political strategies changed frequently which meant in the public eye consequent actions were abandoned. This could lead to different results, including a generally more negative viewpoint from participants, but makes it all the more apparent how important it is to convey examples of consequent and positive action.

References

- Akintunde, I., Ntousas, V., 2020, "Flattening the Curve: COVID-19 and the Climate", Hoffmann Centre for Sustainable Resource Economy. Accessed 13rd April 2021. <https://hoffmanncentre.chathamhouse.org/article/flattening-the-curve-covid-19-and-the-climate-emergency/>.
- Bethan, E., 2008, "Geographies of Youth/Young People", *Geography Compass*, 2, 5, 1659-1680. <https://doi.org/10.1111/j.1749-8198.2008.00147.x>.

Blazek, M., 2018, Children and Young People's Emotional Geographies. In: Skelton, T., Aitken, S. (Eds.), *Establishing Geographies of Children and Young People (Geographies of Children and Young People 1)*, Springer, Berlin, 1–21.

Brand, U., 2016, "How to Get Out of the Multiple Crisis? Contours of a Critical Theory of Social-Ecological Transformation", *Environmental Values*, 25, 5, 503–525. <https://doi.org/10.3197/096327116X14703858759017>.

Braun, B., 2005, "Environmental issues: Writing a more-than-human urban geography", *Progress in Human Geography*, 29, 635–650. doi: 10.1191/0309132505ph574pr.

Brinks, V., Ibert, O., 2020, "From Corona Virus to Corona Crisis: The Value of an Analytical and Geographical Understanding of Crisis", *Tijdschrift voor Economische en Sociale Geografie*, 0, 0, 1–13.

Burkhart, C., Schmelzer, M. & Treu, N. (Eds.), 2020, *Degrowth in Movement(s): Exploring Pathways for Transformation*, zero books, London.

Carstens, P., 2020, "Corona-Effekt: Thailändische Nationalparks schließen jedes Jahr für einige Monate - um sich zu erholen", GEO. Accessed 9th April 2021 <https://www.geo.de/reisen/reisewissen/23400-rtkl-thailand-corona-effekt-thailaendische-nationalparks-schliessen-jedes>.

Chakhoyan, A., 2020, "What has COVID-19 taught us about tackling climate change?", World Economic Forum. Accessed 13rd April 2021 <https://www.weforum.org/agenda/2020/10/we-need-to-flatten-the-curve-on-climate-too/>.

Chang, L., Lu, H.J., Lansford, J.E., Skinner, A.T., Bornstein, M.H., Steinberg, L., Tapanya, S., 2019, "Environmental harshness and unpredictability, life history, and social and academic behavior of adolescents in nine countries", *Developmental Psychology*, 55, 890–903.

D'Alisa, G., Demaria, F., Kallis, G., (Eds.), 2015, *Degrowth: A Vocabulary for a New Era*, Routledge, London.

Eberth, A., 2021, Teaching about Space and Place: Everyday Geographies of Young People living in the Slums of Nairobi, Kenya. In: Fargher, M., Mitchell, D., Till, E. (Eds.), *Recontextualising Geography in Education*, Springer Nature, Cham (Accepted, will be published in November 2021).

Escobar, A., 2018, *Designs for the Pluriverse: Radical interdependence, autonomy, and the making of worlds*, Duke University Press, London. <https://doi.org/10.1111/camh.12408>.

El Keshky, M. E. S., Basyouni, S. S., Al Sabban, A. M., 2020, "Getting Through COVID-19: The Pandemic's Impact on the Psychology of

Sustainability, Quality of Life, and the Global Economy – A Systematic Review”, *Frontiers in Psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.585897>.

Earth Overshoot Day, 2020, “Delayed Earth Overshoot Day points to opportunities to build future in harmony with our finite planet”. Accessed 13rd April 2021 <https://www.overshootday.org/newsroom/press-release-august-2020-english/>.

Fritsche, I., Häfner, K., 2012, “The Malicious Effects of Existential Threat on Motivation to Protect the Natural Environment and the Role of Environmental Identity as a Moderator”, *Environment and Behavior*, 44, 4, 570–590. <https://doi.org/10.1177/0013916510397759>.

Fritsche, I., Jonas, E., Fankhänel, T., 2008, “The role of control motivation in mortality salience effects on ingroup support and defense”, *Journal of Personality and Social Psychology*, 95, 3, 524–541. <https://doi.org/10.1037/a0012666>.

Fritsche, I., Jugert, P., 2017, “The consequences of economic threat for motivated social cognition and action”, *Current Opinion in Psychology*, 18, 31–36. <https://doi.org/10.1016/j.copsyc.2017.07.027>

Gibson-Graham, J.K., 2008, Diverse economies: Performative practices for ‘other worlds’, *Progress in Human Geography*, 32, 613–632. doi: 10.1177/0309132508090821.

Göpel, M., 2016, *The Great Mindshift. How a New Economic Paradigm and Sustainability Transformations go Hand in Hand*, Springer, Berlin.

Greenberg, J., Koole, S. L., Pyszczynski, T. A., 2004, *Handbook of Experimental Existential Psychology*, Guilford Press. doi: 10.1002/9780470561119.socpsy001020.

Haraway, D., 2015, “Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin”, *Environmental Humanities*, 6, 159–165. <https://doi.org/10.1215/22011919-3615934>.

Haraway, D., 2016, *Staying with the Trouble. Making Kin in the Chthulucene*, Duke, Durham.

Harvey, D., 2018, *The Limits to Capital*, Verso, London.

Harvey, D., 2019, *Spaces of Global Capitalism. A Theory of Uneven Geographical Development*, Verso, London.

Harvey, D., 2020, *The Anti-Capitalist Chronicles. (Red Letter)*, Pluto Press, London.

Horton, J. & Kraftl, P., 2014, *Cultural Geographies. An Introduction*, Routledge, London, New York.

Jackson, T., 2016, *Prosperity without Growth: Foundations for the Economy of Tomorrow*, Sterling VA: Earthscan, London.

Jeffrey, C., 2011, “Geographies of children and youth II: Global youth agency”, *Progress in Human Geography*, 36, 2, 245–253. <https://doi.org/10.1177%2F0309132510393316>.

Jones, M., K. Ward, 2002, “Excavating the Logic of British Urban Policy: Neoliberalism as the ‘Crisis of Crisis-Management’”, *Antipode*, 34, 473–494.

Kagermeier, A., 2021, *Overtourism*, UVK, München.

Klein, N., 2014, *This Changes Everything: Capitalism vs. The Climate*, Simon & Schuster, New York.

Krueger, R., Schulz, C., Gibbs, D. C., 2018, Institutionalizing alternative economic spaces? An interpretivist perspective on diverse economies, *Progress in Human Geography*, 42, 4, 569–589. doi: 10.1177/0309132517694530.

Lange, B., Huelz, M., Schmid, B., Schulz, C., Ed., 2021, *Post-Growth Geographies. Spatial Relations of Diverse and Alternative Economies*, transcript, Bielefeld.

Larner, W., 2011, “C-change? Geographies of Crisis”, *Dialogues in Human Geography*, 1, 319–335.

Maathai, W., 2009, *The Challenge for Africa*, Arrow, London.

Malm, A., 2020, *Corona, Climate, Chronic Emergency. War Communism in the Twenty-First Century*, Verso, London, New York.

Mitchell, K., 2018, Changing the Subject: Education and the Constitution of Youth in the Neoliberal Era. In Skelton, T., Aitken, S., (Eds.), *Establishing Geographies of Children and Young People*, Springer, Singapore, 1–19. https://doi.org/10.1007/978-981-4585-88-0_6-1.

Moore, J.W., 2017, “The Capitalocene Part 1: on the nature and origins of our ecological crisis”, *The Journal of Peasant Studies*, 44, 3, 594–630.

Näre, L., Bendixsen, S., Holley, P., 2020, “Notes on the Corona Crisis”, *Nordic Journal of Migration Research*, 10, 2, 1–4.

Nolet, V., 2016, *Educating for sustainability: Principles and practices for teachers*, Routledge, New York, NY.

Pimlott-Wilson, H., 2017, “Individualising the future: the emotional geographies of neoliberal governance in young people’s aspirations”, *Area*, 49, 3, 288–295.

Raworth, K., 2017, *Doughnut economics: seven ways to think like a 21st century economist*, Chelsea Green Publishing, White River Junction, Vermont.

Roy, A., 2020, “The pandemic is a portal”, *Financial Times*, 3rd April. Accessed 8th April 2021 <https://www.ft.com/content/10d8f5e8-74eb-11ea-95fe-fcd274e920ca>.

Sassen, S., 2014, *Expulsions. Brutality and Complexity in the Global Economy*, Harvard University Press, Cambridge.

Skelton, T., Aitken, S. (Eds.), 2019, *Establishing Geographies of Children and Young People*, Springer, Singapore.

Stephan, W., Stephan, C. W., 2000, An Integrated Threat Theory of Prejudice. In Oskamp, S. (Eds.), *Reducing Prejudice and Discrimination*, Psychology Press, 23–46.

Tani, S., Surma-aho, O., “2012, Young people and the hidden meanings of the everyday: Time-space path as a methodological opportunity”, *International Research in Geographical and Environmental Research*, 21, 3, 187–203.

UNESCO, 2020, “Education for Sustainable Development. A Roadmap”, UNESDOC Digital Library. Accessed 8th April 2021 <https://unesdoc.unesco.org/ark:/48223/pf0000374802.locale=en>.

Vaes, J., Bain, P. G., Bastian, B., 2014, “Embracing Humanity in the Face of Death: Why Do Existential Concerns Moderate Ingroup Humanization?”, *The Journal of Social Psychology*, 154, 6, 537–545. <https://doi.org/10.1080/00224545.2014.953027>.

Zakaria, F., 2020, *Ten Lessons for a Post-Pandemic World*, W. W. Norton, New York.

Zhu, N., O, J., Lu, H. J., Chang, L., 2020, “Debate: Facing uncertainty with(out) a sense of control – cultural influence on adolescents’ response to the COVID-19 pandemic”, *Child and Adolescent Mental Health*, 25, 3, 173–174. <https://doi.org/10.1111/camh.12408>.

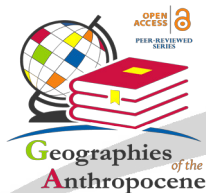
Acknowledgment

This research was funded with funds from the Lower Saxony Vorab of the Ministry of Science and Culture in Lower Saxony, Germany.

"The Anthropocene has still the rank of a scientific hypothesis. Yet, it has already sedimented in our imagination with its stories of climate change and mass extinctions, global pandemics and energy crisis, technofossils and oceanic plastic, social justice and new minerals that are changing the face (and the bowels) of the planet. Investigating this imagination from multiple angles, *Narratives in the Anthropocene Era*, brilliantly edited by Charles Travis and Vittorio Valentino, is an indispensable tool for situating these stories into the conceptual horizon of the environmental humanities".
(Serenella Iovino, University of North Carolina at Chapel Hill)

Charles Travis is an Assistant Professor of Geography and GIS with the Department of History at the University of Texas, Arlington and a Visiting Research Fellow with the Centre for Environmental Humanities in the School of Histories and Humanities at Trinity College, The University of Dublin. With research interests in quantitative and qualitative GIS data applications which integrate methods in literary, cultural, historical geography, the digital, environmental humanities and geo-ethics, Travis is an editorial board member of the journal *Literary Geographies* and the Springer Press *Historical Geography & Geosciences Series* and has published over 120 peer reviewed publications.

Vittorio Valentino, born in Naples in Italy, lived in France for several years, from the late 90's, where he graduated with a thesis in Italian literature studying the theme of travel in Erri De Luca's writing. In 2013, he obtained a PhD in Romance languages working on the link between "engaged" French and Italian literature and migration in the Mediterranean between 1950 and 2013. His research fields include migrant literature, postcolonialism, feminine writing, ecocriticism and Care. He has published several papers focusing on authors like De Luca, Lakhous, Scego, Abate, Santangelo, Camilleri and Iovino. Vittorio Valentino has been teaching as an Assistant professor at the University of La Manouba - Tunis, in Tunisia, since 2015.



ISBN 979-12-80064-27-1

IL Sileno
Edizioni