

Rethinking Landscapes in Transition through an Anthropocene Lens

Karolína Pauknerová

DOI: 10.21104/CL.2024.3.01

Abstract

This article delves into the theoretical dimensions of landscapes in transition, provides a comprehensive literature review and outline summary, and contextualizes the theory within the contemporary Anthropocene framework. It is focused on synthesizing and interconnecting the theoretical approaches to landscape in transition in the articles in this special issue, the scope of which is extended by incorporating additional perspectives to supplement and enrich the understanding of the issue. Through an Anthropocene lens, the article conceptualizes landscapes as crucial intermediaries, vividly depicting the convergence of large-scale, global influences or planetary events and local occurrences. The conclusion advocates a pluralistic understanding that embraces differentiated perspectives and a more-than-human approach.

Key words

landscape in transition, landscape theory, landscape studies, Anthropocene, Anthropocene lens, more-than-human approach

Acknowledgment

This research has been funded by the Cooperatio Programme – research area Transdisciplinary Research of the Anthropocene, Charles University.

Contact

Mgr. et Mgr. Karolína Pauknerová, Ph.D., Center for Theoretical Study, Charles University, Jilská 1, 110 00 Prague 1, Czech Republic; e-mail: pauknerova@cts.cuni.cz
ORCID iD 0000-0001-5592-2297

Jak citovat / How to cite

Pauknerová, Karolína. 2024. Rethinking Landscapes in Transition through an Anthropocene Lens. *Český lid* 111: 271–297. <https://doi.org/10.21104/CL.2024.3.01>

Introduction¹

The article delves into the theoretical dimensions of landscapes in transition, exploring diverse perspectives on this subject. It is a literature review and an outline summary of the issue. It provides a synthesis and interconnection of theoretical approaches to landscapes in transition in the articles in this issue. To complete the comprehensive picture, additional approaches are incorporated, thereby enriching the understanding of the subject. An Anthropocene lens frames the complex, intertwined, far-reaching or global relationships. Recognizing the landscape's crucial role as a vital intermediary, it vividly depicts the convergence of global influences with local occurrences and developments. The conclusion advocates adopting a pluralistic understanding that embraces various perspectives, highlighting the significance of multiple viewpoints and a more-than-human approach in comprehending the complexity of landscapes in transition.

The primary objectives of this article are to contextualize the theory of landscape in transition within the contemporary framework of the Anthropocene and reflect on theories pertaining to transitioning landscapes within the broader perspective of the Anthropocene era (Anthropocene lens). Moreover, it endeavours to align the theoretical foundations concerning landscape transition and change as delineated in the other articles in this issue and encompass diverse strands of thought concerning landscapes in transition.

Anthropocene lens

First, I will very briefly introduce the Anthropocene and then move on to views of the Anthropocene lens. The Anthropocene could be conceptualized as a rupture (cf. Hamilton 2016), a new geological era (Crutzen – Stoermer 2000), the alarming end of the natural world (for discussion, see, e.g., Stubblefield 2018), or, much more productively, as a “thinking machine”, which was used by Serenella Iovino in her foreword to *Venice and the Anthropocene*, because it “acts as a framework for dispersed phenomena, a ‘pattern that connects’ to use Gregory Bateson’s famous expression” (Baldacci et al. 2022: 6; Bateson 1979). We are now living in a world that is almost entirely influenced by human activities. Studies show that almost everything on our planet has been changed by humans. According to Ken-

1 Thank you to the reviewers for their insightful comments and valuable suggestions, which significantly improved the quality of the text and its dramaturgy. For this text I used the DeepL translator and ChatGPT 3.5 for linguistic and stylistic purposes.

nedy et al. 95% of lands have some indication of human activities and 5% of unmodified lands are concentrated in less productive and remote areas in high latitudes (Kennedy et al. 2019: 816).

The Anthropocene became a buzz word after Paul Crutzen and Eugene Stormer postulated that human activity has developed into a significant morphological force that has reached the level of a geological driver and suggested a new geological era of the Anthropocene, which follows the Holocene (Crutzen – Stoermer 2000; Crutzen 2002). Subsequently, an “Anthropocene Working Group” was formed, which is an interdisciplinary think-tank. Only last year (2023), a Global boundary Stratotype Section and Point was identified to define the Anthropocene as a series/epoch in Crawford Lake in Canada (for candidate sites, see Waters et al. 2023).

Further developments regarding the geological definition of the term came in spring 2024. On March 5, 2024, the *New York Times* published the news that the Subcommittee on Quaternary Stratigraphy (SQS), one of the bodies of the parent International Commission on Stratigraphy (ICS) had refused to recognize the Anthropocene as a new geological epoch, a proposal which had been prepared and promoted by the Anthropocene Working Group (AWG) (for more details, see, e.g., Voosen 2024 or Randall 2022). In terms of geology, the situation is conceptually unresolved and it is unclear whether the Anthropocene will ultimately be an epoch or an event. Nevertheless, it does not change the fact that in the meantime the term has gained currency in other disciplines, including the humanities and social sciences, as an impulse to rethink the human position in the world, to rethink the dichotomies we live in and the entanglements in which we are immersed.

Although the AWG proposed that the Anthropocene began in the 1950s, in the great acceleration after the Second World War, there are other opinions in academia, and various starting points have been proposed – from anthropogenic changes resulting from early agriculture in Eurasia, which is called the Early Anthropocene Hypothesis (Ruddiman 2003), to the industrial revolution (Zalasiewicz et al. 2010), and other beginnings have also been discussed (for a geography review, see Butler 2021). Once the Anthropocene had been proposed as a new geological era, a number of texts appeared reflecting this term, including critical reflections on its political and other implications. Various versions of the name Anthropocene appeared as a critical response to the original meaning which also shifted the duration of the epoch – as with the Plantatiocene (Haraway et al. 2016) or the Capitalocene (Haraway 2015; Haraway 2016). There were also analyses of the shock or monsters of the Anthropocene type of responses (Bonneuil – Fressoz 2016 or Tsing et al. 2017). For a detailed examination of the genesis of the term see, for example, Zottola – Majo (2022). In Europe

the Anthropocene has been studied at several institutions, such as Aarhus University (AURA: Aarhus University Research on the Anthropocene), the University of Vienna (Vienna Anthropocene Network) and through wider platforms such as the Anthropocene Commons, which grew out of the Anthropocene Curriculum initiative. This term also resonated in Czech academia, and the Centre for Theoretical Studies (Charles University and the Czech Academy of Sciences) has been developing a transdisciplinary approach to the Anthropocene since 2017 (Pokorný – Storch et al. 2020 or Fulínová – Kvíčalová et al. 2024). Eliška Fulínová has published a short summary of how the Anthropocene can be understood in this way: in addition to being seen as a new geological epoch, the Anthropocene can also be seen as a certain type of viewpoint and as a certain type of sensitivity and receptivity. The notion of Anthropocene as a way of viewing, grasping and interpreting reality carries with it how we conceive the present, the past and the future. Through an Anthropocene lens “we see complex bundles of relationships that we are able to untangle locally rather than globally, and in which, at different scales, different types of connections stand out” (Fulínová 2023: 62). This phenomenon, the scaling or transformation of relationships as scales change, is characteristic of the Anthropocene. The Anthropocene also captures a specific sensitivity; it has ethical and existential dimensions. What is new in this epoch is the reach of a sense of (collective) moral responsibility, including events in the distant past and in the future. Fulínová connects this with the interconnectedness of various, even seemingly unrelated phenomena and the shift of attention to so-called hyperobjects (Fulínová 2023; for hyperobjects see Morton 2013, see also Fulínová in preparation). Part of the Anthropocene sensitivity and receptivity is also interspecies connectedness and the realization of immersion in the meshwork or web of life (Ingold 2012). This immersion involves becoming aware of scalar relations between planetary-scale phenomena and their local manifestations, and these relationships must consistently be understood within their political and historical contexts.²

Landscape in transition

“Landscape in transition” refers to a period or state in which any type of environment, as well as our perception and conceptualization of it, are undergoing significant changes. This term often describes alterations in the physical, ecological, or socio-economic aspects of an area, leading

2 Many thanks to the second reviewer for reminding me of the importance of mentioning the historical and political dimensions.

to a transformation in its overall appearance, functionality, or character. However, a landscape in transition is not solely about physical changes; it is intertwined with how people perceive, think about, and understand the environment around them. The transformation of a landscape parallels shifts in human perspectives, values, and interactions with the land.

The concept of landscape has been the subject of extensive theorization within the realm of social science, humanities and philosophy, spanning various definitions that range from narrow to more generalized ones, taking into account physical space, ways of seeing, cultural space, space of power or memory space (e.g., Sauer 1963; Cosgrove 1998; Tilley 1994; Bender 1993; Mitchell 1994; Tolia-Kelly 2010; Alderman – Inwood 2013). A summary of the development can be found, for example, in Davidovic (Davidovic 2018). I myself (co-)authored narrower accounts for anthropology and memory studies (Gibas – Pauknerová 2009; Pauknerová – Gibas 2015; Pauknerová 2019). The above-mentioned theories have their predecessors. Georg Simmel was probably the first to use the term “the philosophy of landscape” in an essay under the same title published in 1913 (Simmel 2007). With regard to ethnography and anthropology, there are many conceptualizations that have useful applications, for example, the post-phenomenological approach of geographer John Wylie, who conceptualizes landscape as follows:

“Thus landscape operates within two overlapping circles. First, it is actualised, it occurs and takes place, as a relation of knowing, perception, and apprehension within the embodied, material situation of gazing [...]. However, and second, the term ‘landscape’ also carries an ontological or, more precisely, ontogenetic sense via its implication with the depth of Deleuzian intensive space. [...] Thus landscape is neither simply seen nor seeing, neither an object seen by a gaze nor a particular way of seeing. [...] The term ‘landscape’ is therefore best defined as the materialities and sensibilities with which we see.”
(Wylie 2006: 530–31)

The landscape as such is always in a constant state of flux, shaped by a multitude of factors that bring about continual change. Weather patterns (cf. Ingold 2010a; Ingold 2010b) create dynamic shifts in the landscape, altering its appearance with each passing season. Atmospheric conditions (Böhme 2013; Stewart 2011) contribute to the ever-evolving character of the land. The pervasive effects of climate change exert a profound influence, often reshaping entire ecosystems, underscoring the presence of stochastic events and natural processes on various temporal scales that operate beyond human influence.

I have chosen the landscape, which is a truly anthropocentric point of view and may seem problematic within the era of the Anthropocene. However, it has been done intentionally, as I see landscapes as naturecultures, which in the complex world of the Anthropocene is still relevant as an essential mediator, a scale that humans understand and may use as an interface by means of which they see how large global issues and connections that otherwise transcend the human horizon are written into the world. I use the term naturecultures, which was coined by Donna Haraway to conceptualize the intertwined histories of a multitude of life forms, to enable new ways of thinking about our world, to transcend the dichotomy of nature and culture by showing that nature cannot stand outside culture and vice versa (Haraway 2003 as “Emergent Naturecultures” or Haraway 2004: 2³; or in later works connected with “response-ability” Haraway 2016: 125). Anthropologists and ethnographers have dedicated themselves to exploring the connections between nature and culture, at least since Franz Boas, according to Eben S. Kirksey and Stefan Helmreich. Recently, multispecies ethnographers have started focusing on the subjectivity and agency of organisms entangled with human existence (Kirksey – Helmreich 2010) and new onto-epistemological approaches to studying materiality have also appeared (e.g., Ingold 2012 or Barad 2003).

In the scale of the landscape people feel, for example, solastalgia, a distress caused by environmental change (Albrecht et al. 2007) or feel the beauty of the landscape, which matters for us to feel at home in the world (see Krebs 2014). I prefer to use landscape rather than more neutral terms such as environment or space, because landscape enables emotional connections. This sense of emotional connection makes the landscape matter. In the scale of the landscape we can understand the context and consequences of what we do, and our position in the meshwork (Ingold 2012) of the world. Andreas Weber developed a perspective of “enlivenment”, which is a way “to view all beings as participants in a common household of matter, desire and imagination – and economy of metabolic and poetic transformations” (Weber 2019: 1). He uses the term commons to “stand for relationships of reciprocity and mutual co-creation” and goes on to argue that “[c]ommons are about protecting aliveness through participation and reciprocity” (Weber 2019: 2 and 5). All of these currents shape a new view of human engagement with the world that is relevant

3 For the reader to enjoy the provocativeness of Haraway’s writing: “There is no border where evolution ends and history begins, where genes stop and environment takes up, where culture rules and nature submits, or vice versa. Instead, there are turtles upon turtles of naturecultures all the way down.” (Haraway 2004: 2)

in the Anthropocene. The landscape offers the possibility of emotional connection, the opportunity to experience belonging with others in the world, and also a scale where we experience and have to cope with transitions that are happening or have happened.

Landscape transitions can occur due to various reasons, usually a mix of reasons. At the forefront of our concerns it is now the impact of climatic change. There are transitions caused by draught, erosion, massive fires or the rapid spread of certain organisms or pathogens, which are all caused by a combination of reasons. Geological shifts can, of course, alter landscapes, affecting terrain, water bodies, fauna and flora and human society. Other transitions bring rapid urbanization (for urbanization and landscape change in Europe, see, e.g., Antrop 2004; for wetland loss in urbanization see, e.g., Burgin – Franklin – Hull 2016), extensive construction projects, or infrastructural changes, turning rural areas into built-up areas (e.g., Afriyie – Abass – Adomako 2014). Changes in societal norms, traditions, or demographics can lead to shifts in land use, affecting how landscapes are utilized or perceived (e.g., by becoming heritage and touristic landscape, Paradiso 2022; for the depopulation of rural areas and the search for a new scenario, see Di Figlia 2016). Innovations in technology have the power to transform landscapes, introducing innovative infrastructure or altering land use practices. They may impact landscapes, for instance, through renewable energy installations (e.g., by the installation of solar power plants, Bevk – Golobič 2020) or changes in agricultural practices. Efforts to restore ecosystems can transform a landscape by reintroducing natural features and biodiversity (e.g., for rewilding and its context in Alpine landscape, see Rippa 2023). Socio-political factors such as wars, conflicts, and the creation of buffer zones along borders can significantly change landscapes, leaving lasting imprints (Eckert 2011 or Coates 2014). Certain political changes, such as collectivization during state socialism, also leave their mark and transform the landscape. Additionally, tourism, while offering economic benefits, can bring both positive and negative effects, influencing the landscape through the increased development of tourist infrastructure or conservation efforts in response to visitor demands and impacts. (For an overview of landscape change /transition in Europe, see, e.g., García-Martín et al. 2021 or Pinto-Correia – Primdahl – Pedroli 2018; for the driving forces of landscape change in Europe, see Plieninger et al. 2016.)

Understanding a landscape in transition necessitates a comprehensive examination of the dynamics at play, encompassing both the triggers for change and their far-reaching impacts. It can be researched from disciplinary angles such as historical (Kolářová in this issue) or ethnographical

perspectives (Hagemann – Wellpott and Teleiše in this issue) and it can also integrate insights from several disciplines. To study the landscape in transition, researchers employ various conceptualizations of the term and also a diverse array of qualitative and/or quantitative methods, ranging from in-depth interviews, walking methods to meticulous big data analyses of vegetation cover, demography and archival study. Ethnography and anthropology may play important roles in investigating landscapes in transition by delving into the cultural and social dimensions of these changes and its materiality. Through their immersive and qualitative approach, ethnography and anthropology allow researchers to deeply engage with communities and understand their perspectives, beliefs, and practices regarding the evolving landscape, and understand how cultural norms, traditions, and historical narratives shape people's relationships with the changing landscape. They enable the exploration of how people interact with and attach meaning to their changing environment, shedding light on the complexities of human-environment interactions. Both also explore the intricate web of more-than-human entanglements within the landscape and unveil a rich tapestry of interwoven relationships, where human and non-human elements converge, shaping, redefining, and collectively forming the very essence of the landscape.

In the research of landscape, we have to be attentive to the intricate network of relations and the complexity of relations (Strathern 2020). This network, or relations within the landscape, is scalar, rising from the individual to the global, and on every scale it entails a conscientious awareness of environmental, social, cultural, historical and political transitions, necessitating nuanced responses that inherently shape landscapes and the way we understand and think about them. For example, Mellissa Baird, drawing on critical heritage theory, shows how heritage landscapes face social and ecological crises and how heritage landscapes are sites of power and control (Baird 2022). Most recently the Anthropocene perspective pointed to more-than-human relations, unveiling the necessity to explore multispecies histories and their interconnection with landscapes (Tsing – Mathews – Bubandt 2019), reshaping anthropological perceptions of what constitutes a landscape. Navigating these diverse terrains necessitates embracing a holistic anthropological/ethnographical perspective that acknowledges the intricate interplay between human actions and politics, environmental dynamics, heritage, and the intricate relationships between diverse species in shaping our collective narrative within the broader canvas of anthropological landscapes.

Landscape transition and change as theorized in the contributions in this issue

This issue navigates the intricate theoretical landscapes concerning transition and change within the landscape. The authors interweave diverse strands of thought, each presenting a distinct perspective on theorizing the dynamics and essence of transition and change. These perspectives encompass heritage processes aimed at capturing and presenting past practices. This segment of the article serves to introduce, juxtapose, and harmonize the distinct theoretical approaches. It examines how these contributions collectively theorize and illuminate the multifaceted nature of change across diverse contexts, considering the intertwined influences of both human and non-human actors. This exploration works toward a comprehensive understanding of transitions and change. Although the authors do not directly address or thematize the concept of the Anthropocene, which is specifically the topic of this article, their focus on landscape transition incorporates Anthropocene themes: energy transition in a mining region, global political change and life in post-industrial city, and the birth of tourist/recreational spaces and their effects on the landscape. Through their analysis of local manifestations and local landscapes in transition, they touch on global issues and show them on a small, regional or everyday scale.

Jenny Hagemann and Hannah Wellpott provide a comprehensive exploration of the theoretical framework surrounding uncertainty in lignite-mining and soon-to-be post-mining landscapes in Lusatia. It investigates the nature of insecurity and unsafety, examining how these concepts relate to the challenges faced in these landscapes, such as recultivation and socio-cultural transitions. The categorization of insecurity, unsafety (Schwell 2021; Baumann 2000), and uncertainty (Giddens 1990) within the context of deindustrialization is discussed, shedding light on the complexities involved. Moreover, the text emphasizes the critical role played by both human and non-human actors, emphasizing their interconnectedness in the heritagization process. This process is crucial for establishing stability and continuity within these evolving landscapes, offering insights into how these spaces are negotiated and preserved amidst change (Macdonald 2013; Brumann 2015; Hall 2005; Harrison 2013).

In her text about the post-industrial urban landscape of the two former Soviet industrial cities of Alytus and Marijampolė, Aušra Teleišė intriguingly unfolds the emotional and landscape impacts brought about by post-Soviet deindustrialization. It goes beyond mere analysis and delves deeper into the profound shifts in emotional resonance and physicality within landscapes. It articulates how these changes are not only external alterations

but deeply embedded in the fabric of human experiences. By considering the materiality of built environments as archives of lived experiences and social practices, the text captures the essence of human interaction with evolving landscapes, showcasing how these environments encapsulate human narratives and histories.

Anna Kolářová eloquently illuminates the adaptive nature of tourism in response to socio-economic uncertainties in her historical analysis of tourist perceptions of the Bohemian Forest region in the Czech Republic. It explores the temporal dimensions of landscape perception, showing how time intertwines with spatial understanding to create a nuanced perspective of landscape transitions. By accentuating the temporal aspects of landscape appreciation, it introduces a fresh viewpoint, highlighting the dynamic interplay between space, place, and time. This approach enriches our comprehension of landscapes, offering new insights into how human engagement with these spaces evolves over time.

The three examples of extensive landscape transitions in this issue have different impacts, implications and consequences for different types of actors. The first case (Hagemann – Wellpott) is a landscape transition caused by the (virtual) abandonment of lignite mining. This situation gives rise to different kinds of uncertainties within lived experience and results in heritagization processes. In the second case (Teleišé), we are presented with a landscape transition due to deindustrialization, specifically, due to the end of a *kombinat*, which in lived experience led to feelings of resentment and pain relating to the abandonment of industrial places and the sense of unrelenting shrinkage resulting from the disappearance of factories, expressed by the people feeling the places to be empty. In the third, historical case (Kolářová), we encounter landscape transition from a region that economically benefitted from its transition from logging into a tourist area from the late 1870s. This transition was connected with the need to change the local economy after the economic decline of the region following its rapid development connected to the elimination of the damage caused by a bark beetle outbreak.

Each of these three landscape transitions resulted in varied resilience strategies for coping with a complex world in which global and local economies are interlinked with political and cultural developments and environmental changes. In the first case, namely, the post-mining landscape in Lusatia, the resilience strategy was connected with a new interpretation of the past as an imagined future of the region. The second case was focused on the post-industrial urban landscape in Lithuania, where emptiness after the disintegration of *kombinat* was filled by new enterprises and new uses for the the ruins. The third transition concerning the Bohemian Forest

highlighted how tourism acted as a resilience strategy or an adaptation for facing up to an uncertain future.

These diverse landscape transitions, each a unique tapestry woven with lived experiences and responses to evolving socio-economic and environmental shifts, collectively embody the intricate relationship between communities and their changing surroundings. From the uncertain terrains forged by the cessation of lignite mining to the poignant narratives of deindustrialization's aftermath and the adaptive resilience witnessed in the rise of tourism, each transition illuminates the multifaceted nature of human-nature interactions. What emerges is a narrative of adaptation, in which communities navigate uncertainty, loss, and transformation by intertwining heritage, resilience, and innovative responses. In all three cases the landscape transition tested the capacity for adaptation and people's ability to reimagine, reinterpret, and reconstruct the future in the face of dynamic change.

About landscape in transition in other ways

In this section, in order to widen the perspective and to build on the approaches presented by the authors in this issue concerning the theorization of landscape in transition, I will expand the conceptual horizon to prepare the field for landscape in transition through the Anthropocene lens. This will be achieved by introducing a curated selection of four additional perspectives. Firstly, the integration of a “big data” approach provides an expansive lens, allowing for comprehensive analysis and understanding of changing landscapes. Moreover, the vast quantities of data we can now both acquire and process are themselves typical of the Anthropocene. Secondly, the scope expands beyond traditional urban or industrial landscapes, i.e., significantly changed landscapes, to encompass less obviously diverse human-made environments, such as recreational or tourist-centric landscapes and those dedicated to nature preservation, including the innovative practices of rewilding and heritage-linked conservation efforts. This second perspective supplements the studies by Anna Kolářová and Jenny Hagemann and Hannah Wellpott. Thirdly, emphasis is placed on an approach focused on “telling other stories,” which advocates the inclusion of lesser-known or marginalized narratives. This is a way of working with attunement (Stewart 2011) and developing practices of attentiveness to the complex ways that we dwell in (cf. van Dooren – Kirksey – Münster 2016: 3). Finally, the conceptualization of landscape as an emergent phenomenon takes precedence, emphasizing its perpetual state of flux and focusing on transient spaces and the ephemeral nature of change within these environ-

ments. Within the Anthropocene the landscape research should be acutely aware of the complexity of the world we inhabit, paying attention to the temporal and spatial scales of transitions we experience. These multidimensional approaches collectively contribute to a more comprehensive and nuanced understanding of landscapes in a continual state of transformation.

Of course, the “big data” approach referred to above is not a theoretical approach *sensu stricto*. Quantitative research with big data incorporates many different approaches. As this is not my field of expertise, I will only mention three examples of such research in geography, given that geography is related to the content of this journal, and so that they are not omitted or the impression is not given that they may be less important in researching landscapes in transition.

Processes of landscape change in the Czech Republic in the period 1990–2010, after the collapse of communism, were mapped and analysed by the geographers Lucie Kupková and Ivan Bičík (Kupková – Bičík 2016). They studied the change on both national and local levels. On the national level they mapped and localized the four most important processes of landscape change: afforestation, grassing over, intensification (increase of arable land and permanent cultures), and urbanization. On separate maps they also demonstrated both the index of change (the proportion of area affected by any type of land use change) and extensification (the shift to less intensive use of land such as forests and grasslands). On the larger scale of Eastern Europe, an analysis of latent drivers between landscape transformations and socioeconomic changes was conducted by Marcela Prokopová, Ondřej Cudlín, Renata Včeláková, Szabolcs Lengyel, Luca Salvati and Pavel Cudlín (Prokopová et al. 2018). The authors presented an extensive review of land-use trends in Eastern Europe in three periods covering around the last 70 years. For other parts of the world a similar type of approach has been used, for example, in research on the long term transition of the *satoyama* landscape (see below) in two topographically different areas in the hinterland of the Tokyo area between 1880 and 2001 (Ichikawa et al. 2006). The authors Kaoru Ichikawa, Nozomi Okubo, Satoru Okubo and Kazuhiko Takeuchi collected and linked different types of data to document and demonstrate in several time slices the dramatic change from agricultural to urban landscape.

At this point I would like to elaborate on a few less obvious examples of human-induced and purposefully shaped landscape transformations and how they are theorized. These are recreational or tourist-centric landscapes, landscapes dedicated to nature preservation, including the innovative practices of rewilding and heritage-linked conservation efforts.

Transition in landscapes can also be caused by landscapes becoming protected and becoming reserves of various types or heritage landscapes.

Theano Terkenli summarizes that the evolution of tourism is closely intertwined with the transformation of landscapes, both spatially and socially. The emergence of new landscapes, tailored to meet evolving social, cultural, and economic demands, has been an ongoing phenomenon in the realm of tourism. However, what distinguishes these contemporary landscapes is not just their novelty but their unprecedented nature, scale, and geographic characteristics, which defy the traditional typologies of tourist environments. This evolution blurs the boundaries between leisure, tourism, work, culture, and daily life, fostering a gradual merging of spaces dedicated to satisfaction, comfort, play, and routine, and ultimately leading to a fluid de-differentiation across various facets of human experience (Terkenli 2004: 346–47).

Satoyama is an example of a cherished and prominent landscape. The theme of *satoyama* landscape and its preservation resonated strongly with environmental specialists and also scholars using more-than-human perspectives (Gan – Tsing 2018). The elusiveness and mutability of the very nature of the notion of the landscape, aside from landscape in transition, is well illustrated by the fact that, although much has been written about *satoyama*, to find “the precise definition of this landscape, or system, remains obscure” (Chakraborty – Chakraborty 2013: 46). *Satoyama* is not natural, as it is a set of land mosaics shaped by rural communities over time. For some it is a “buffer landscape” between plains and mountains, while for others it is mountain forests, grasslands, secondary plantations and agricultural landscapes, but also an embodiment of romantic nostalgia, tied to the destruction of the Japanese vernacular landscape. *Satoyama* was at risk of totally disappearing but is now protected and cherished. Abhik Chakraborty and Shamik Chakraborty analysed the discourse of *satoyama* and identified two major problems, or dichotomies: “One is that the contemporary discourse consistently undervalues the process of change in these landscapes that becomes obvious when a longer time frame is adopted. By focusing on the Edo period as a model of ‘nature harmonious society’, *satoyama* researchers ignore the fact that by Edo, substantial tracts of natural mountain forests were already devastated...” The second problem is “the telescopic nature of this contemporary discourse”, as the term *satoyama* gives “a telescopic effect to landscape history.” Even though there are noticeably different spatial variants and there was development throughout the periods, *satoyama* has been homogenized (Chakraborty – Chakraborty 2013: 59–62). Here we see a landscape that used to be in transition, varied and in the making, co-created by humans, which was threatened with extinction, and therefore, from the 1980s, has been the focus of interest of experts and the public and is now under protection – in the process of which it is being homogenized and channelled to suit its own discourse. This is the case of many heritage landscapes.

Heritage landscapes include urban and post-industrial landscapes, wilderness areas, indigenous places, castle complexes etc. and they function as “tourist attractions, entertainment venues, recreational playgrounds, respites and refuges, chronicles of historical events, and memorials and performance spaces. They also serve to legitimize identities and promote state and industry interests.” (Baird 2022, chapter 1) Heritage landscapes might look like areas where development and the opportunity to change was halted for the sake of their preservation. However, preserving the desired appearance and meaning of heritage landscapes requires a lot of management and management practices, which have consequences on different time scales. One such consequence is the (over-) turistification of historical city centres that has destroyed the previous life of the city and totally transformed the preserved area (for the example of Venice, see Salerno 2022), which is similar for areas of natural beauty. On the other hand, the process of heritagization of landscapes serves as a resilience strategy, as in the case of the post-mining Lusatia region.

It is also worth noting here that even very wild looking landscapes or those presented as wildernesses are in transition in both senses of the word – material and ideological. There are natural processes going on, but there is also a significant influence of humans causing the transition. Even a “virgin forest” like the primeval forest of Boubín in the Czech Republic, a nature reserve since 1858, is in a certain sense a human creation, fenced off and monitored. Activity to make or keep some areas wilder, and rewilding of various forms includes human-influenced or hands-on management practices (Deary – Warren 2019).

A very different example of how to conceptualize and understand a landscape in transition can be found in the research of George Steve Jaramillo, which was focused on the Peak District in the United Kingdom (Jaramillo 2017). The landscape of the Peak District is a traditional Romantic landscape, which is seen in a particular way. His focus revolved around exploring subversive practices, unwanted fragments, and local narratives that tell alternative stories about the landscape. By spotlighting these alternative stories, focusing on waste and fragments, the landscape’s heritage is in the making and unmaking, constantly evolving and redefining. The aim of his research was to develop an attunement, as conceptualized by Steward (2011), to a different way of practising landscape, crafting an alternate narrative apart from prevailing accounts and established heritage discussions, allowing for diverse interpretations and reinterpretations. As a result, in the discussion a different landscape emerges “from an assemblage of rubble, waste and toxic remains”. The seven selected stories offer a break from the dominant narratives. He frames the landscape as an assemblage, as relational and fragmented.

Identified and seen fragments then serve as focal points of “repressed and forgotten memories” and emotions. These narratives hold significance, as they illustrate the enduring nature of these landscapes through the endeavours of both people and animals, alongside the production, encounter, and abandonment of materials (Jaramillo 2017).

Within the spectrum of landscape transitions, an intriguing facet deserving of attention is the ephemeral nature within the landscape, as highlighted by Mick Atha (2018). This perspective portrays the landscape as an emergent phenomenon constantly in flux, emphasizing its perpetual state of change and illuminating the significance of ephemeral elements. Contrary to misconceptions, the transient or short-term aspects of the landscape should not be equated with insignificance. Instead, their ephemeral nature underscores the potential for substantial impacts, debunking the notion that brevity diminishes importance. Ephemeral or short term does not mean unimportant or with a small impact. Atha brings examples from former studies of intentionally created landscape ephemera in rural landscape. In the non-agricultural sphere he mentions ephemera of woodland management, or the use of fire by hunters and gatherers. Within urban landscape these ephemera include in-between areas, “where land lies in limbo”. In his case study, he researched “the ephemeral landscape of a traditional, decennially occurring religious event known as the Kam Tin Jiao Festival” in Hong Kong. He explored how transient features hold cultural importance. The study highlights the challenge of integrating these aspects into conventional assessment frameworks. Ephemeral elements, though fleeting, are closely intertwined with socio-historical events, shaping community identities. For instance, in the Kam Tin Jiao Festival, temporary installations play a vital role, reflecting the Tang clan’s cultural identity. Understanding and valuing these ephemeral landscapes, from street markets to religious festivals, is crucial amid today’s constant change. Embracing their affective benefits helps navigate the relentless flux of the Anthropocene era (Atha 2018).

The purpose of this review was to broaden the conceptual horizon, given that contemporary research on landscapes in transition grapples with themes that extend beyond the local context. The use of “big data” enables us to identify broader trends. I wanted to show that we can think about connectedness between nature and culture in less obvious human-induced and purposefully shaped landscapes. I wanted to highlight the transformations that bring recreational or tourist-centric landscapes, some of which are dedicated to nature and heritage preservation. By training our attention and ability to study through attunement to fragments, we can uncover and tell other stories. Focusing on landscapes in transition requires us to be attentive to landscape as an emergent phenomenon and

to the significance of ephemeral elements. The intricacy of the web of relations, more pronounced in the Anthropocene, prompts us to reevaluate diverse scales of themes or issues within our research. The subsequent focus revolves around the lens of the Anthropocene.

Landscape in transition through the lens of the Anthropocene

In the previous section, we focused on various aspects of landscape in transition relating to the landscape transitions explored in the articles in this issue, which are about structural landscape transitions associated with energy transition, wider socio-political and economic processes. These specific articles address the post-mining landscape in Lusatia, the post-industrial urban landscape in Lithuania, and a historical landscape with incipient tourism in the Czech western borderland mountain region after its economic decline. Four additional approaches were introduced to broaden perspectives and expand upon the previously introduced examples and approaches, specifically, a “big data” approach, tourist and heritage landscapes, “telling other stories” and ephemeral landscapes.

Why introduce the Anthropocene perspective when exploring the theorization and conceptualization of landscapes in transition? The answer becomes evident when we consider that all our examples are entangled within the intricate weave of diverse impacts and influences, in which it is difficult and problematic to distinguish who is the originator, and whether they are phenomena in nature, in society, in global politics or in the actions of individuals or others. These processes exhibit a remarkable complexity, involving a diverse array of actors operating across multiple scales. It is within this rich tapestry of interconnectedness that the need for a broader lens emerges. Hence, I have chosen to explore and contextualize the theory of landscape in transition through the lens of the Anthropocene perspective. Within this framework, the landscape assumes a pivotal role, serving as a crucial intermediary that vividly captures the intersection of global impacts and everyday events and occurrences. At this middle-ground scale, planetary events find expression and permanence, translating into tangible manifestations within our immediate surroundings.

The Anthropocene lens may have both a qualitative type of research, such as the ephemeral landscape research mentioned above (Atha 2018) and strands of landscape research that deal with big data. Barau and Ludin, for example, explored the interconnectedness of the Anthropocene, the

Fourth Paradigm⁴ (i.e., data science) and landscape sustainability. Their study contends that globalization and urbanization are pivotal drivers of the Anthropocene, which significantly impact landscapes. The paper advocates the Fourth Paradigm's role in providing free data for interdisciplinary landscape research, emphasizing its potential in addressing environmental crises through improved planning (Barau – Ludin 2012).

However, other approaches are much closer to the scope of ethnology or anthropology than big data. I have chosen two examples that demonstrate how to think about and research landscape in transition through the Anthropocene lens, both of which are from the more-than-human sphere of anthropology.

Unlike traditional approaches, the more-than-human lens extends the study beyond human experiences, recognizing the interconnectedness of humans with other life forms. This approach emphasizes the intricate relationships within the ecological context, promoting a comprehensive understanding of the social world. It views the world as a dynamic interplay of biological, ecological, historical, cultural, and social dimensions, necessitating a holistic study of their interdependence (for an overview, see e.g., Schroer 2021). Thom van Dooren, Eben Kirksey and Ursula Münster try to address the questions: “What does it mean to live with others in entangled worlds of contingency and uncertainty? More fundamentally, how can we do the work of inhabiting and co-constituting worlds well?” They argue that in our current condition (be it defined as the Anthropocene or in another way) “what it seems to demand are detailed practices of attentiveness to the complex ways that we, all of us, become in consequential relationship with others” (van Dooren – Kirksey – Münster 2016: 3, questions from the abstract). They guide the reader from noticing to attentiveness, turning simple observation into deep attentiveness, into developing skills for both actively listening to others and responding meaningfully. This complex, multispecies way of study needs to newly address the political and ethical aspects of understanding others, and how this understanding can reshape our ways of living and dying in a diverse yet interconnected world (van Dooren – Kirksey – Münster 2016: 6). For research methods and examples of multispecies studies, it is worth

4 According to Barau and Ludin: “The Fourth Paradigm or data intensive science entails using scientific data, also referred to as ‘big data’ or ‘data deluge’, for the analysis, visualisation, exploration, communication and dissemination of research output.” (Barau – Ludin 2012: 5) They explain that: “Like its three predecessors, the Fourth Paradigm relies on the collection, curation, analysis and visualisation of data. Landscape researchers use theories or explanations (first paradigm); statistical, field and laboratory analyses (second paradigm) and computer-based simulation of landscapes (third paradigm).” (Barau – Ludin 2012: 14) For more on the Fourth Paradigm, see Hey – Tansley – Tolle 2009.

consulting “Rubber Boots Methods for the Anthropocene” by Bubandt – Andersen – Cypher (2022).

In the current complex global world it is necessary to grasp intricate, frequently perplexing, and interconnected relationships. For this purpose, I offer the way of “phenomenological attunements to specific multispecies histories” (Tsing – Mathews – Bubandt 2019: abstract) and the way of “tracing the ghostly forms that have emerged from past encounters between people, plants, animals, and soils” (Mathews 2018: 386).

My first example refers to the work of Anna Tsing, Andrew Mathews and Nils Bubandt, who proposed a way of re-tooling anthropology so it is able to research spatial and temporal aspects of the Anthropocene and who proposed guidelines for thinking structurally about more-than-human social relations. They developed “patchy Anthropocene” as a conceptual tool. The story of the global spread of coffee rust, a fungus detrimental to coffee plants, helps explain this notion of “patchy Anthropocene,” illustrating the uneven conditions of livability in landscapes increasingly shaped by industrial influences. They advocate a broader understanding of social relations that incorporates more-than-human dimensions. In this way anthropology can study the intricacies of specific situations without being narrow-minded. In addressing the multidimensional crises of our era, they propose an anthropology that begins with landscapes, focusing on the structural interconnections between ecology, capital, and the complex histories – human and more-than-human – that continually shape diverse and irregular landscapes (Tsing – Mathews – Bubandt 2019).

A particular application of such approach can be found in my second example in the study on the pine and chestnut forests of the Monti Pisani in Italy, where Andrew Matthews utilized methods from natural history, oral history, landscape walks, interviews, and archival research, along with his own phenomenological experience, to recount diverse histories of landscape change. He builds upon in Anna Tsing’s (2015) notion of landscape from “The Mushroom at the End of the World” as emerging through encounters between people and other beings, including soils, mushrooms, and disease organisms. He describes it thus:

“...the kinds of landscapes and histories that emerge from encounters between people, trees, soils, and terraces in formerly cultivated landscapes in central Italy. Perhaps most important, this kind of landscape description pushes us to think about how particular forms emerge through encounters. Ontologies are transformed through partial relations between these beings, and the forms of plants and terraces offer clues to the biographies of particular organisms.” (Mathews 2018: 389)

These histories, influenced by various causes, result in distinct landscape patterns. Reading landscapes in this manner reveals multiple “throughscapes”, intertwined but shaped by unique more-than-human relations and rhythms. He emphasizes the coexistence of different ontologies and infrastructures. “In the Monti Pisani”, Matthews argues, “different Anthropocenes inspire projects of landscape restoration that draw on specific landscape histories to craft speculative, hopeful, and deeply political imagined futures.” (Mathews 2018, 408-409) He advocates a nuanced understanding of the Anthropocene, recognizing multiple “temporal rhythms and overlapping throughscapes, we are closer to the kinds of events that multiple histories tell us.” He employs a special type of phenomenology – dramatic modes of attention. By that he means the following setting: when we watch a play, we can envision that each character possesses a perspective, and we are open to enjoying an entirely fantastical scenario. This way of understanding the multiplicity is particularly inspiring – the drama stages a multiplicity of coherent but partial worldviews, allowing the audience to witness a multitude of coherent worldviews. Drama does not insist that the viewer select one character’s vision as the correct understanding of the world (Mathews 2018: 408–409).

The concept of “patchy Anthropocene,” (Tsing – Mathews – Bubandt 2019) is useful in navigating a world in which, due to the interconnectedness of contemporary global dynamics, processes and events occur at various scales and often overlap. It is the differentiated view of landscapes in transition, where we ask what kind of change, in what timeframe, and change for whom – as Matthews’ throughscapes perspective would suggest – along with an open approach to the observed as a drama (Mathews 2018) of which we are a part, which offers a complex but structured way of approaching landscape change and landscapes in transition as such within an Anthropocene lens.

Conclusion

In conclusion, the exploration of landscapes in transition through the Anthropocene lens unveils a complex tapestry of intertwined relationships as we navigate the plurality of landscapes, views, and experiences. I explored diverse perspectives, framing landscapes as vital intermediaries converging global influences with local occurrences. The concept of landscape in transition extends beyond physical alterations, intertwining with evolving human perspectives and values. I advocated a nuanced approach, recognizing the scalar nature of landscape relations and the importance of interdisciplinary methodologies, and stressed the necessity of embracing

a holistic anthropological/ethnographical perspective, acknowledging the intricate interplay between human actions, environmental dynamics, diverse species and materialities.

The first part of the article summarized the approaches to landscape in transition of the authors in this issue, which cover such diverse contexts as post-lignite mining, post-Soviet deindustrialization, and tourism as an adaptation strategy. The authors explored landscape transitions that revealed the varied resilience strategies of reinterpreting the past, adapting to tourism and finding a new use. Their articles illustrate human communities navigating uncertainty and transformation, showcasing their adaptability and creativity. The intricate relationship between communities and their surroundings is vividly illustrated. To widen the perspective on the landscape in transition, I introduced additional approaches, including a “big data” approach, examples of transition within tourism and heritage landscapes, and the effect of attention to other narratives, specifically, the approaches of “telling other stories” and conceptualizing ephemeral landscapes.

The attention then shifted to the Anthropocene lens, where I urged a reevaluation of diverse research themes. The more-than-human approaches in anthropology, which have attracted increasing attention in recent years, could work as an inspiration for grasping the complexity. Such approaches explore the uneven conditions of livability. The Anthropocene, which is marked by a significant shift in the influence of human activities on Earth, has generated diverse interpretations, ranging from viewing it as a rupture to a new geological era or a “thinking machine” connecting dispersed phenomena. This event or era, which has become acknowledged globally, highlights the pervasive impact of human activities on nearly all aspects of the planet.

Within the Anthropocene literature this paper focuses on more-than-human anthropological approaches. Particularly inspired by Anna Tsing, Andrew Mathews, and Nils Bubandt’s concept of a “patchy Anthropocene,” these approaches advocate a broader understanding of relations, urging researchers to capture the intricate, perplexing, and interconnected relationships prevailing in the contemporary world. By adopting phenomenological attunements and tracing the emergent forms from past encounters, anthropology can study the specificities of landscapes without being narrowly focused on humans alone. Andrew Mathews’s study of the Monti Pisani forests exemplifies this approach, employing diverse methodologies to recount histories of landscape. The emphasis on encounters between people, trees, soils, and terraces unveils multiple “throughscapes” shaped by unique more-than-human relations. This nuanced understanding of the Anthropocene acknowledges the coexistence of different ontologies and

infrastructures, inspiring projects of landscape restoration with speculative and deeply political imagined futures.

In essence, embracing the Anthropocene perspective in landscape research (landscape in transition included) offers a middle-ground scale where global impacts intersect with everyday occurrences, providing a crucial lens to explore the structural synchronicities between ecology, capital, and the diverse histories shaping irregular landscapes. They call for a nuanced anthropology rooted in landscapes and attentive to more-than-human relations that reflects the urgency to comprehend the multidimensional crises of our era within the rich tapestry of interconnectedness.

July 2024

References

- Afriyie, Kwadwo – Abass, Kabila – Adomako, Janet Afua Abrafi. 2014. Urbanisation of the Rural Landscape: Assessing the Effects in Peri-Urban Kumasi. *International Journal of Urban Sustainable Development* 6, 1: 1–19. <https://doi.org/10.1080/19463138.2013.799068>
- Albrecht, Glenn – Sartore, Gina-Maree – Connor, Linda – Higginbotham, Nick – Freeman, Sonia – Kelly, Brian – Stain, Helen – Tonna, Anne – Pollard, Georgia. 2007. Solastalgia: The Distress Caused by Environmental Change. *Australasian Psychiatry: Bulletin of Royal Australian and New Zealand College of Psychiatrists* 15 Suppl 1: 95–98. <https://doi.org/10.1080/10398560701701288>
- Alderman, Derek H. – Inwood, Joshua F. J. 2013. Landscapes of Memory and Socially Just Futures. In: *The Wiley-Blackwell Companion to Cultural Geography*. Chichester: John Wiley & Sons: 186–197.
- Antrop, Marc. 2004. Landscape Change and the Urbanization Process in Europe. *Landscape and Urban Planning, Special Issue Development of European Landscapes* 67, 1: 9–26. [https://doi.org/10.1016/S0169-2046\(03\)00026-4](https://doi.org/10.1016/S0169-2046(03)00026-4)
- Atha, Mick. 2018. Ephemeral Landscapes. In: Howard, Peter – Thompson, Ian – Waterton, Emma – Atha, Mick (eds.): *The Routledge Companion to Landscape Studies*. Routledge: 113–126.
- Baird, Melissa F. 2022. *Critical Theory and the Anthropology of Heritage Landscapes*. Gainesville: University Press of Florida.
- Baldacci, Cristina – Bassi, Shaul – De Capitano, Lucio – Omodeo, Pietro Daniel (eds.). 2022. *Venice and the Anthropocene: An Ecocritical Guide*. Venice: Wetlands.

- Barad, Karen. 2003. Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter. *Signs* 28, 3: 801–31. <https://doi.org/10.1086/345321>
- Barau, Aliyu Salisu – Ludin, A.N.M. 2012. Intersection of Landscape, Anthropocene and Fourth Paradigm. *Living Reviews in Landscape Research* 6. <https://doi.org/10.12942/lrlr-2012-1>
- Bateson, Gregory. 1979. *Mind and Nature: A Necessary Unity*. New York: Dutton.
- Baumann, Zygmunt. 2000. *Liquid modernity*. Malden: Polity Press.
- Bender, Barbara (ed.). 1993. *Landscape: Politics and Perspectives*. Oxford: Berg.
- Bevk, Tadej – Golobič, Mojca. 2020. Contentious Eye-Catchers: Perceptions of Landscapes Changed by Solar Power Plants in Slovenia. *Renewable Energy* 152 (June): 999–1010. <https://doi.org/10.1016/j.renene.2020.01.108>
- Böhme, Gernot. 2013. Atmosphere as Mindful Physical Presence in Space. *OASE Journal for Architecture* 91, 21: 21–32.
- Bonneuil, Christophe – Fressoz, Jean-Baptiste. 2016. *The Shock of the Anthropocene: The Earth, History and Us*. London, New York: Verso.
- Brumann, Christoph. 2015. Cultural Heritage. In: Wright, J. D. (ed.): *International Encyclopedia of the Social & Behavioural Sciences* (2nd ed., Vol. 5). Amsterdam: Elsevier: 414–419.
- Bubandt, Nils – Andersen Oberborbeck, Astrid – Cypher, Rachel (eds.). 2022. *Rubber Boots Methods for the Anthropocene: Doing Fieldwork in Multispecies Worlds*. University of Minnesota Press.
- Burgin, Shelley – Franklin, Michael J. M. – Hull, Loren. 2016. Wetland Loss in the Transition to Urbanisation: A Case Study from Western Sydney, Australia. *Wetlands* 36, 6: 985–994. <https://doi.org/10.1007/s13157-016-0813-0>
- Butler, David R. 2021. The Anthropocene: A Special Issue. *Annals of the American Association of Geographers* 111, 3: 633–637. <https://doi.org/10.1080/24694452.2020.1859312>
- Chakraborty, Abhik – Chakraborty, Shamik. 2013. Satoyama: A Landscape Conservation Discourse of Romantic Nostalgia and Reflexive Modernity in “Post Growth” Japan. *Japan Studies Association Journal* 11 (January): 46–64.
- Coates, Peter. 2014. Borderland, No-Man’s Land, Nature’s Wonderland: Troubled Humanity and Untroubled Earth. *Environment and History* 20, 4: 499–516.
- Cosgrove, Denis. 1998. *Social Formation and Symbolic Landscape*. Madison: Wisconsin University Press.

- Crutzen, Paul J. 2002. Geology of Mankind. *Nature* 415 (6867): 23–23.
<https://doi.org/10.1038/415023a>
- Crutzen, Paul J. – Stoermer, Eugene F. 2000. The “Anthropocene”.
Global Change Newsletter 41: 17–18.
- Davidovic, Antonia. 2018. On Melting Grounds: Theories of the Landscape. In: Haug, Annette – Käppel, Lutz – Müller, Johannes (eds.): *Past Landscapes. The Dynamics of Interaction between Society, Landscape, and Culture*. Leiden: Sidestone Press: 53–71.
- Deary, Holly – Warren, Charles R. 2019. Trajectories of Rewilding: A Taxonomy of Wildland Management. *Journal of Environmental Planning and Management* 62, 3: 466–91. <https://doi.org/10.1080/09640568.2018.1425134>
- Di Figlia, Luca. 2016. Turnaround: Abandoned Villages, from Discarded Elements of Modern Italian Society to Possible Resources. *International Planning Studies* 21, 3: 278–297. <https://doi.org/10.1080/13563475.2016.1186530>
- Dooren, Thom van – Kirksey, Eben – Münster, Ursula. 2016. Multispecies Studies: Cultivating Arts of Attentiveness. *Environmental Humanities* 8, 1: 1–23. <https://doi.org/10.1215/22011919-3527695>
- Eckert, Astrid M. 2011. No Man’s Landscapes. *The Berlin Journal* 20: 32–35.
- Fulínová, Eliška – Kvíčalová, Anna et al. 2024. *Antropocennosti: Malý průvodce antropocénem*. Praha: Academia.
- Fulínová, Eliška. 2023. Vítejte v antropocénu! *DINGIR* 2: 60–63.
- Fulínová, Eliška. in preparation. Experiencing and Understanding Nature in the Anthropocene. In: Prášek, P. – Novotný, K. – Bannon, B. (eds.): *Faces of Nature*.
- Gan, Elaine – Tsing, Anna. 2018. How Things Hold: A Diagram of Coordination in a Satoyama Forest. *Social Analysis* 62, 4: 102–145. <https://doi.org/10.3167/sa.2018.620406>
- García-Martín, María – Quintas-Soriano, Cristina – Torralba, Mario – Wolpert, Franziska – Plieninger, Tobias. 2021. Landscape Change in Europe. In: Weith, Thomas – Barkmann, Tim – Gaasch, Nadin – Rogga, Sebastian – Strauß, Cristian – Zscheischler, Jana (eds.): *Sustainable Land Management in a European Context: A Co-Design Approach*. Cham: Springer International Publishing: 17–37. https://doi.org/10.1007/978-3-030-50841-8_2
- Gibas, Petr – Pauknerová, Karolína. 2009. Mezi pravekem a industriálem: několik poznámek k antropologii krajiny. *Český lid* 96, 1: 131–146.
- Giddens, Anthony. 1990. *The consequences of modernity*. Cambridge: Polity Press.

- Hall, Stuart. 2005. Whose heritage? Un-settling 'the heritage', re-imagining the post-nation. In: Littler, Jo – Naidoo, Roshi (eds.): *The politics of heritage. The legacies of 'race'*. London – New York: Routledge: 23–35.
- Hamilton, Clive. 2016. The Anthropocene as Rupture. *The Anthropocene Review* 3, 2: 93–106. <https://doi.org/10.1177/2053019616634741>
- Haraway, Donna. 2003. *The companion species manifesto: Dogs, People, and Significant Otherness*. Chicago: Prickly Paradigm Press.
- Haraway, Donna J. 2004. *The Haraway Reader*. New York – London: Routledge.
- Haraway, Donna. 2015. Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin. *Environmental Humanities* 6, 1: 159–165. <https://doi.org/10.1215/22011919-3615934>
- Haraway, Donna J. 2016. *Staying with the Trouble: Making Kin in the Chthulucene*. Durham – London: Duke University Press.
- Haraway, Donna – Ishikawa, Noboru – Gilbert, Scott F. – Olwig, Kenneth – Tsing, Anna L. – Bubandt, Nils. 2016. Anthropologists Are Talking – About the Anthropocene. *Ethnos* 81, 3: 535–564. <https://doi.org/10.1080/00141844.2015.1105838>
- Harrison, Rodney. 2013. *Heritage: Critical approaches*. New York: Routledge.
- Hey, Anthony J. G. – Tansley, Stewart – Tolle, Kristin Michele. 2009. *The Fourth Paradigm: Data-Intensive Scientific Discovery*. Microsoft Research.
- Ichikawa, Kaoru – Okubo, Nozomi – Okubo, Satoru – Takeuchi, Kazuhiko. 2006. Transition of the Satoyama Landscape in the Urban Fringe of the Tokyo Metropolitan Area from 1880 to 2001. *Landscape and Urban Planning* 78, 4: 398–410. <https://doi.org/10.1016/j.landurbplan.2005.12.001>
- Ingold, Tim. 2010a. Footprints through the Weather-World: Walking, Breathing, Knowing. *Journal of the Royal Anthropological Institute* 16, 1: 121–139. <https://doi.org/10.1111/j.1467-9655.2010.01613.x>
- Ingold, Tim. 2010b. Temporality of Landscape. In: Preucel, Robert W. – Mrozowski, Stephen A. (eds.): *Contemporary Archaeology in Theory: The New Pragmatism*. Chichester: John Wiley & Sons: 59–76.
- Ingold, Tim. 2012. Toward an Ecology of Materials. *Annual Review of Anthropology* 41, 1: 427–442. <https://doi.org/10.1146/annurev-anthro-081309-145920>
- Jaramillo, George Steve. 2017. Fragmentary Landscapes: Explorations through the Detritus of the Peak District. *Landscape Research* 42, 6: 663–676. <https://doi.org/10.1080/01426397.2017.1317724>

- Kennedy, Christina M. – Oakleaf, James R. – Theobald, David M. – Baruch-Mordo, Sharon – Kiesecker, Joseph. 2019. Managing the Middle: A Shift in Conservation Priorities Based on the Global Human Modification Gradient. *Global Change Biology* 25, 3: 811–826. <https://doi.org/10.1111/gcb.14549>
- Kirksey, S. Eben – Helmreich, Stefan. 2010. The Emergence of Multispecies Ethnography. *Cultural Anthropology* 25, 4: 545–576. <https://doi.org/10.1111/j.1548-1360.2010.01069.x>
- Krebs, Angelika. 2014. Why Landscape Beauty Matters. *Land* 3, 4: 1251–1269. <https://doi.org/10.3390/land3041251>
- Kupková, Lucie – Bičík, Ivan. 2016. Landscape Transition after the Collapse of Communism in Czechia. *Journal of Maps* 12 (sup1): 526–531. <https://doi.org/10.1080/17445647.2016.1195301>
- Macdonald, Sharon. 2013. *Memorylands. Heritage and identity in Europe today*. New York: Routledge.
- Mathews, Andrew S. 2018. Landscapes and Throughscapes in Italian Forest Worlds: Thinking Dramatically about the Anthropocene. *Cultural Anthropology* 33, 3: 386–414. <https://doi.org/10.14506/ca33.3.05>
- Mitchell, William J.T. (ed.). 1994. *Landscape and Power*. Vol. 6. Chicago: Chicago University Press, Chicago.
- Morton, Timothy. 2013. *Hyperobjects: Philosophy and Ecology after the End of the World*. University of Minnesota Press.
- Paradiso, Cecilia. 2022. A Vineyard Landscape, a UNESCO Inscription and a National Park: A Historical-Anthropological Analysis of Heritagization and Tourism Development in the Cinque Terre (Italy). In: Pettenati, Giacomo (ed.): *Landscape as Heritage: International Critical Perspective*. Abingdon, New York: Routledge: chapter 5.
- Pauknerová, Karolína – Gibas, Petr. 2015. Krajina jako téma, terén i problém současné společenské vědy: antropologické čtení krajiny – Landscape as a topic, terrain and problem of contemporary social sciences: Anthropological reading of landscape. In: Blažková, Tereza – Červinková, Petra. (eds.): *Krajina jako antropologická čítanka*. Praha: TOGGA: 7–18 and 299–307.
- Pauknerová, Karolína. 2019. *Krajina mezi pamětí a zapomínáním: Studie z Čech*. Praha: Karolinum.
- Pinto-Correia, Teresa – Primdahl, Jørgen – Pedroli, Bas. 2018. *European Landscapes in Transition*. Cambridge University Press.
- Plieninger, Tobias – Draux, Hélène – Fagerholm, Nora – Bieling, Claudia – Bürgi, Matthias – Kizos, Thanasis – Kuemmerle, Tobias – Primdahl, Jørgen – Verburg, Peter H. 2016. The Driving Forces of Landscape Change in Europe: A Systematic Review of the Evidence.

- Land Use Policy* 57 (November): 204–214. <https://doi.org/10.1016/j.landusepol.2016.04.040>
- Pokorný, Petr – Storch, David (eds.) et al. 2020. *Antropocén*. Praha: Academia.
- Prokopová, Marcela – Cudlín, Ondřej – Včeláková, Renata – Lengyel, Szabolcs – Salvati, Luca – Cudlín, Pavel. 2018. Latent Drivers of Landscape Transformation in Eastern Europe: Past, Present and Future. *Sustainability* 10, 8: 2918. <https://doi.org/10.3390/su10082918>
- Randall, Ian. 2022. Epoch or Event? Defining the Anthropocene. *Physics World* [on-line]. [2024-08-26]. Available at: <https://physicsworld.com/a/epoch-or-event-defining-the-anthropocene/>
- Rippa, Alessandro. 2023. Hunting, Rewilding, and Multispecies Entanglements in the Alps. *Ethnos* 88, 5: 949–71. <https://doi.org/10.1080/00141844.2021.1939398>
- Ruddiman, William F. 2003. The Anthropogenic Greenhouse Era Began Thousands of Years Ago. *Climatic Change* 61, 3: 261–293. <https://doi.org/10.1023/B:CLIM.0000004577.17928.f8>
- Salerno, Giacomo-Maria. 2022. Touristification and Displacement. The Long-Standing Production of Venice as a Tourist Attraction. *City* 26, 2–3: 519–541. <https://doi.org/10.1080/13604813.2022.2055359>
- Sauer, Carl O. 1963. The Morphology of Landscape. In: Leighly, John. (ed.): *Land and Life: A Selection from the Writings of Carl Ortwin Sauer*. Berkeley: University of California Press: 315–350.
- Schroer, Sara Asu. 2021. The Arts of Coexistence: A View From Anthropology. *Frontiers in Conservation Science* 2. <https://doi.org/10.3389/fcosc.2021.711019>
- Schwell, Alexandra. 2021. (Un-)Sicherheit und Grenzen. In: Gerst, Dominik – Klessmann, Maria – Krämer, Hannes (eds.): *Grenzforschung. Handbuch für Wissenschaft und Studium* (Vol. 3). Baden-Baden: Nomos: 267–282
- Simmel, Georg. 2007. The Philosophy of Landscape. *Theory, Culture & Society* 24, 7–8: 20–29. <https://doi.org/10.1177/0263276407084465>
- Stewart, Kathleen. 2011. Atmospheric Attunements. *Environment and Planning D: Society and Space* 29, 3: 445–453. <https://doi.org/10.1068/d9109>
- Strathern, Marilyn. 2020. *Relations: An Anthropological Account*. Durham: Duke University Press.
- Stubblefield, Charles. 2018. Managing the Planet: The Anthropocene, Good Stewardship, and the Empty Promise of a Solution to Ecological Crisis. *Societies* 8, 2: 38. <https://doi.org/10.3390/soc8020038>

- Terkenli, Theano S. 2004. Tourism and Landscape. In: Lew, Alan A. – Hall, C. Michael – Williams, Allan M. (eds.): *A Companion to Tourism*. Wiley-Blackwell: 339–348. <https://doi.org/10.1002/9780470752272.ch27>
- Tilley, Christopher. 1994. *A Phenomenology of Landscape*. Oxford, Providence: Berg.
- Tolia-Kelly, Divya Praful. 2010. *Landscape, Race and Memory: Material Ecologies of Citizenship*. Farnham, Burlington: Ashgate.
- Tsing, Anna. 2015. *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins*. Princeton, N.J.: Princeton University Press.
- Tsing, Anna – Bubandt, Nils – Gan, Elaine – Swanson, Heather Anne (eds.). 2017. *Arts of Living on a Damaged Planet: Ghosts and Monsters of the Anthropocene*. Minnesota: University of Minnesota Press.
- Tsing, Anna – Mathews, Andrew S. – Bubandt, Nils. 2019. Patchy Anthropocene: Landscape Structure Multispecies History, and the Retooling of Anthropology. *Current Anthropology* 60, S20. <https://doi.org/10.1086/703391>
- Voosen, Paul. 2024 March 5. The Anthropocene Is Dead. Long Live the Anthropocene. *Science* [on-line]. [2024-08-26]. Available at: <https://www.science.org/content/article/anthropocene-dead-long-live-anthropocene>
- Waters, Colin N. – Turner, Simon D. – Zalasiewicz, Jan – Head, Martin J. 2023. Candidate Sites and Other Reference Sections for the Global Boundary Stratotype Section and Point of the Anthropocene Series. *The Anthropocene Review* 10, 1: 3–24. <https://doi.org/10.1177/20530196221136422>
- Weber, Andreas. 2019. *Enlivenment: Toward a Poetics for the Anthropocene*. MIT Press.
- Wylie, John. 2006. Depths and Folds: On Landscape and the Gazing Subject. *Environment and Planning d: Society and Space* 24, 4: 519–535.
- Zalasiewicz, Jan – Williams, Mark – Steffen, Will – Crutzen, Paul. 2010. The New World of the Anthropocene. *Environmental Science & Technology* 44, 7: 2228–2231. <https://doi.org/10.1021/es903118j>
- Zottola, Angela – de Majo, Claudia. 2022. The Anthropocene: Genesis of a Term and Popularization in the Press. *Text & Talk* 42, 4: 453–473. <https://doi.org/10.1515/text-2020-0080>