



# Infrastructures and environments in late industrialism: An introduction

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## Introduction

Over the past decades, processes of (de-)industrialization have produced zones of structural change as well as pockets of technological devolution. Modernist paradigms presumed a teleological understanding of progress whose limitations are becoming all the more evident through the ruptures and toxic effects that shape people's experiences of the contemporary. In what Kim Fortun (2012) has labeled "late industrialism," exhausted infrastructures, industrial ruins, scarred landscapes, and depleted resources are all symptoms of failed attempts to create smooth circulations of resources, commodities, and capital. Arguably, as the means "whereby capitalism reflects, revises, and restarts without challenging underlying structures" (Ojani 2023a: 228), such failures are, in fact, integral to our current politico-economic system.

In this context, it is becoming increasingly apparent to more and more actors that our infrastructures of global transportation and consumption have had severe effects on the environments by which such infrastructures are sustained (Hetherington 2019a). In consequence, experts and citizens around the world are looking for alternatives to progress, and ask about the possibilities for life in the ruins of a damaged planet (Tsing et al. 2017). Responses have taken the form of political green deal programmes, technoscientific innovations, public policies, and environmental movements advocating for sustainable futures, to mention but a few examples. In some cases, the toxic effects of late industrialism have also motivated infrastructural experimentations, small and large, with a view to bringing about new relations between infrastructural systems and rapidly degenerating environments. Anthropological scholarship is replete with examples of such undertakings: bio-infrastructures that may or may not move beyond paradigms of mastery and control (Acosta and Ley 2023; Zee 2020); experimentation with alternative energy infrastructures (Boyer 2019; Howe 2019; Knox 2020; Watts 2018); or sociotechnical engagements with environmental realms previously seen as standing outside the domain of infrastructural possibility (Olson 2018; Valentine 2012). Significantly, from the perspective of the social sciences and humanities, it is becoming increasingly difficult to conduct research without adopting a planetary approach (Chakrabarty 2021; Clark and Szerszynski 2021; Danowski and Viveiros de Castro 2017; Latour 2017, 2018). The question is no longer *if* anthropology

should address these concerns, but *how*, with recourse to ethnographic methods.

Against the background of these developments, in this collection of four research articles we explore our current condition of late industrialism, and especially how it manifests at the intersection between infrastructures and environments. We prefer the concept of late industrialism in contrast to the more widely used notion of the Anthropocene (Crutzen and Stoermer 2000), or any of its related but more differentiated and critical variations (e.g. Capitalocene, Plantationocene, or Chthulucene, among others<sup>1</sup>), because it allows us to attend to both an abstract logic, as well as grounded socio-material consequences. In contrast to other social sciences that explore similar problems, anthropology pays careful ethnographic attention to everyday lives at the infrastructure-environment nexus, thereby revealing the multiple local repercussions of the processes that late industrialism sets into motion. How does the study of these developments demand that we revisit and re-describe classic anthropological problems and categories? We propose in this special issue an anthropology that attends to late industrialism's material conditions of possibility, ideological underpinnings, and toxic effects at a variety of scales, asking how these shape life-worlds on the ground, such as the railway system in Mumbai that was built by multinational conglomerates for different climate conditions and the efforts of engineers and workers in colonial-era car sheds to secure trains from the harmful impacts of water, dust, and crowds (article by Chakraborty); the urban political relations generated and foreclosed in the Stockholm metro transport system through the everyday encounters of the passengers with the entrance gates' material and semiotic properties (article by Lindblad); the relocation of parts of the Swedish mining town of Kiruna due to the expanding, state-induced underground mining activities, putting the town at risk of collapse (article by López); and the role of more-than-human relations involving underwater forests, black locusts, red cattle, and bee-eaters, among others, in shaping the scarred post-mining landscape through the restoration work in the former Central German Mining District (article by Pampus).

### **On late industrialism**

Drawing on Kim Fortun's (2012, 2014) work, we understand late industrialism as a historical period and a specific environmental, political, and economic condition. This condition is toxic in both literal and figurative terms. Fortun takes the 1984 Bhopal catastrophe as its symbolic starting point, yet other larger or smaller scale environmental disasters could equally be seen as material instantiations of this condition, be it the Chernobyl catastrophe of 1986 or the so-called "Bitterfeld syndrome" – anthropogenically induced extreme degradation of soil and total loss of an ecosystem – which was discovered in the small town of Bitterfeld, a major site of Eastern Germany's (DDR's) chemical industry in the 1990s. It is important to highlight the diversity of such disastrous outcomes, including lesser known or visible events, in order to highlight late industrialism's geographic omnipresence, as well as its intended and unintended socio-material and environmental ramifications.

Such effects cut through horizontal as well as vertical spatial scales ranging from the local to the planetary, and from air pollution to contaminated groundwaters. The world thus produced is characterised by a specific temporal simultaneity "still gripped in an industrial

<sup>1</sup> The list is too long to mention all relevant publications here, but the following works provide useful anthropological overviews of this multidisciplinary subject: Chua and Fair (2019); Mathews (2020); Taddei et al. (2022).

order yet also beyond it” (Fortun 2014: 309), in which multiple timescales co-exist and overlap (cf. Strava 2023; Ullberg 2023). In contrast with “post-industrialism”, which suggests an end to industrial order, the notion of “late industrialism” acknowledges coevalness and relativity of life-worlds and temporalities (Fabian 1983). Attending anthropologically to such coevalness, requires that we treat the contemporary as a fragile moment of simultaneity and in-betweenness. Dace Dzenovska and Daniel Knight’s (2020) analysis of “emptiness” is illustrative. Emptiness, they write, is an “emerging spatial-temporal coordinate in the global landscape of capitalism and state power” (Dzenovska and Knight 2020: np). It is a condition that is characterised by being simultaneously in a world that is ending, and in an emergent world whose contours are not yet visible (ibid.). Likewise, by framing this special issue within the framework of late industrialism, we abstain from any clear divide between industrial and post-industrial orders or, by the same token, between infrastructures and environments. This framework also informs our understanding of late industrialism’s toxic effects as intrinsic to industrial production, economic prosperity and profit, rather than accidental by-products (Ahmann and Kenner 2020). As we shall see in this special edition, this toxicity is epitomised most clearly in López’s contribution on mining in northern Sweden, as well as Pampus’s article on post-mining restoration in Germany.

Taking temporal coevalness seriously requires an understanding of time as relation, both with regards to individual temporalities and their material formations, and with respect to the ‘same time’ within which different temporalities and materialities coexist. Simultaneity is not simply there in and of itself. Rather, it emerges as relation, and each of its constitutive temporalities is “what it is through the lens of others” (Ssorin-Chaikov 2017: 15). Ssorin-Chaikov (2017) highlights two forms of temporal relatedness. One is change, which is a relation of rupture or a “temporal dynamics when one temporal framework changes to another and renders it completely untrue” (Ssorin-Chaikov 2017: 15). The other is exchange, which marks a temporal relation where each temporality folds into the other without transforming it, or itself, completely.

Late industrialism is informed by teleological understandings of progress and innovation, a functionalist logic of continuous productivity and high-risk industrial activity, in which the time of non-productive ‘others’ is deemed meaningless. Hence it constitutes a world that calls for continuous change, meanwhile ignoring the embeddedness of things, especially with respect to the entanglements between built and natural environments. At the same time, this is also an order that is fragile and uncertain, unable to deal with our current socio-ecological challenges and its own exhausted regulatory paradigms and technologies that co-constitute “nested systems” (Fortun 2012: 452), further fuelling already overstressed infrastructures. This situation is peaking in a general feeling that “things are falling apart” (Fortun 2012: 449).

In addition to temporal simultaneities, the analytic of late industrialism also allows for a treatment of this condition not just as an abstract order, but as “capitalism in practice” (Fortun 2014: 313). Accordingly, late industrialism manifests in specific human and non-human modes of life, relations, emotions and materialities, and these can be grasped ethnographically by paying attention to late industrialism’s concrete socio-environmental ramifications; for example, the production of subaltern groups or damaged landscapes. Tracing the materialities of late industrialism – exemplified in this special issue by our focus on infrastructures and environments – enables a differentiated understanding of the

sedimentations, overlappings, and continuities inherent to this condition. It encourages us to investigate the myriad of things and life-worlds that are present in seemingly emptied or damaged landscapes. From such a perspective, emptiness is not simply the opposite of fullness, but rather something that is filled with the wrong things. As Dzenovska and Knight (2020: np) have put it, “[i]n such conditions there is rubble rather than ruins” (cf. Gordillo 2014).

### **Anthropology at the nexus of infrastructures and environments**

In the past years, infrastructures have emerged as key ethnographic objects of inquiry (Anand et al. 2018; Harvey et al. 2017; Hetherington 2019b; Ojani 2021). The reasons for this burgeoning attention to infrastructures are manifold, and the ways in which infrastructures have been approached ethnographically vary quite significantly. There is, therefore, no one single way to explain what it is about infrastructures that has made them such central topics of ethnographic study. Even so, a number of points stand out rather clearly, and they are all to do with the various connotations and qualities of infrastructures. Here, we limit our account to three such features, each of which is epitomised in different ways and to varying measures in the four research articles included in this special issue: relationality, depth, and temporality.

#### *Relationality*

In his widely cited article on the politics and poetics of infrastructures, Brian Larkin (2013) noted that infrastructures are both “things and also the relation between things” (Larkin 2013: 329). Based on a similar understanding of infrastructures as “distributed things that are also and simultaneously relations between things,” Penny Harvey (2018) has further suggested that infrastructures are in fact nothing but “classic anthropological entities” (Harvey, in Venkatesan et al. 2018: 6). Indeed, whether it is kinship relations or a commuter train network that happens to be under examination, ethnographers not only follow relations, but also rely on, and reflexively draw upon their own relations to their interlocutors, as a means to gain new insights about a given topic or field. Relations are part and parcel of ethnographic inquiry. No wonder then, that infrastructures have emerged as ethnographic objects par excellence. Consider a road. It is in itself relational in the sense that its various distributed parts relate to one another in specific ways. At the same time, it also produces new relations of connection and disconnection and hence proximities *and* distances (Bunkenborg et al. 2022). While enabling the circulation of people and goods between places, roads sometimes also give way to new social settings. At times, they prevent places from coming about and even occasion their disappearance (Harvey and Knox 2015: 110).

As metaphor and object alike, infrastructure invokes a plurality of parts hanging together to form a larger relational assemblage. Infrastructures draw together disparate processes, places, and entities in ways that might not be immediately obvious, and they harbour the capacity to generate new configurations of the world, shaping culture, society and politics (Jensen and Morita 2017). This further means that infrastructures are multi-scalar and, in so being, often become sites of emergence and friction; for example, in the encounters they create between citizens and states, or between the scale of global capital and the scale of local realities (Anand 2017; Harvey and Knox 2015; Ullberg et al. 2023). Hence

infrastructures are good to think with and to use methodologically for revealing connections that reach beyond any specific, bounded field site. Unsurprisingly, certain strands of the contemporary study of infrastructure can be traced back to earlier anthropological turns to world system theory (Marcus 1995). Akin to such studies, infrastructures, too, require multi-sited methods. Places are shaped and come into being *as* places through their relations to things that are supposedly external to them. Those relations are often (but certainly not always) infrastructural, meaning that anthropology's long-standing interest in the local, also becomes a matter of following relations between settings that might be separated by, say, oceans, but nonetheless brought into close proximity by infrastructures of maritime cargo circulation (Leivestad and Markkula 2021).

### *Depth*

The understanding of infrastructures as relations between relations also means that the notion of infrastructure carries a sense of depth, alluded to by the prefix 'infra'. Infrastructures are the structural conditions of possibility for second-order processes. As the grounds for emergent figures, they are comparable with the Marxian 'base' upon which the 'superstructure' is imagined to hover (see Carse 2017). However, this second connotation, and the holographic imaginary underpinning it, is challenged by ethnographic findings that question the separation between the infrastructural and the environmental or, put differently, between infrastructure and "the infrastructure of infrastructure" (Hetherington 2019a: 6). Yet, as Kregg Hetherington has noted, "such a distinction no longer works when it is our infrastructures of global transportation and consumption that produce the anthropogenic environment on which infrastructures are built" (Hetherington 2019a: 6), meaning that contemporary environmental change complicates understandings of infrastructures as separate from their surroundings (see Rippa 2023). Moreover, infrastructure's connotation of depth is also at stake in recent scholarship on environmental infrastructures (Jensen 2015), for how do we distinguish between the infrastructural, the environmental, and infrastructurally generated epiphenomena when infrastructures enfold, and become subject to modification by diverse environmental elements such as rice (Morita 2017), forests (Carse 2012), fog (Ojani 2023b), and weather (Vonderau 2019)? If infrastructures draw together entities and domains into novel configurations, then this also means that they create encounters that might, in turn, transform not only those entities or domains but potentially also the very infrastructural systems themselves. Whether we are inclined to see them as bounded or relational, infrastructures are never simply things, but *processes* (Gupta 2018). "To understand the environment as a process of making – to environ – through infrastructure," can thus "help place current human politics in a broader more-than-human perspective, while foregrounding the role of the built environment in our relationship with and understanding of the natural world" (Rippa 2023: 8).

Consider, for example, contemporary efforts to address climate change through satellites for Earth observation, or concomitantly, the reliance of critical ground-based infrastructures on orbital infrastructures. As the infrastructural connections between Earth and space thicken, geomagnetic storms and orbital debris have suddenly emerged as matters of concern around which space professionals need to gather. Orbital infrastructures render vulnerable global systems of trade and consumption to processes unfolding far beyond Earth's surface, thus calling for new kinds of infrastructural systems for the detection, monitoring,

and management of space debris and space weather (see Clormann and Klimburg-Witjes 2021; Taylor 2020, 2022). Similarly, Hetherington's remark above is an excellent example of how the processes set into motion by infrastructures might feed back into and reshape the given infrastructural system itself. The current climate crisis is a direct result of large-scale resource extraction, circulation, and everyday use of fossil fuels. The resulting environmental calamities have prompted novel understandings of what infrastructures are, where they begin and end, and what they can do, as well as emergent reconsiderations of what they *should* be and do. Actors are increasingly engaging in experimental activities with alternative energy systems in ways that might, if not challenge dominant infrastructural paradigms, then at least serve as a pool of available options once other alternatives are out of the question (Pinker 2018; Watts 2018).

### *Temporality*

Infrastructures' connotation of depth leads us directly to their temporal dimensions. Evolutionary anthropologists and historians often treated infrastructure and technology as indices of a given society's presupposed level of cultural sophistication (e.g. White 1943). Culture and social organisation were evaluated with reference to a teleological understanding of technological progress, and on the basis of which technological sophistication spoke of degrees of complexity in other domains, such as state formation or the development of centralised power (e.g. Wittfogel 1957). Surely, such analyses relied on a narrow understanding of technology. They treated a certain technological paradigm as a universal standard against which other such paradigms could be measured. As the material base for socio-cultural sophistication, for evolutionary anthropologists and others, infrastructure and technology carried messages about things that stretched far beyond them. By the same token, infrastructures were imagined to hold the capacity to bring societies from presupposed conditions of stasis or underdevelopment to that of modernity. In fact, as the structural conditions of possibility for socio-cultural and environmental transformation, infrastructures have often served as the symbols of modernity par excellence.

While such presuppositions no longer inform anthropological inquiry, it is also worth bearing in mind that the very same connotation of depth and time is still very much present in contemporary social scientific research on infrastructure, even if in somewhat different ways. Still today, infrastructures come with certain promises (Anand et al. 2018; Ullberg 2023). As Harvey (2018) explains, an infrastructure is "that which affords a ground of expectation of something to come" (Harvey 2018: 80) or, as Hetherington has noted, "that which comes before something else, that which lays the conditions for the emergence of another order" (Hetherington 2017: 40). Therefore, the "tense of infrastructure" is "the future perfect, an anticipatory state around which different subjects gather their promises and aspirations" (ibid.). Indeed, while infrastructures have been studied as exclusionary, and in terms of violent technologies of governance and control (e.g., Easterling 2014; Scott 1998), anthropologists have also shown that people often actively assert rights to infrastructural connectivity (Ojani 2023a). For instance, in his work on water infrastructure in Mumbai, Nikhil Anand describes how settlers in precarious neighbourhoods make "strong demands for a particular kind of modern water" (Anand 2018: 168). By constituting themselves as publics worthy of state intervention and care, citizens make great efforts to draw the state in (Ojani 2024), even if this entails their own subjectification (Appel et al. 2018: 23). While

the exclusionary aspects of infrastructures are undeniable, it is equally important to attend to their promissory qualities and subliminal allure (see Ullberg et al. 2023). Arguably, these stem directly from infrastructure's connotation of depth and concomitant scalar imaginaries.

Yet, taking the depth, and as a corollary, the future-orientedness, of infrastructures at face value, also renders them vulnerable to *broken* promises. As noted above, climate change and environmental calamities reveal that infrastructures cannot be decoupled from their surroundings, neither the environments they are built on, nor the second-order processes and relations that they unintentionally bring about. This takes us back full circle to late industrialism. In the past decades, social scientists have become increasingly interested in the various forms of (more-than-)human relations and labour on which infrastructures rely (Barua 2021). When infrastructures malfunction or break down, these otherwise backgrounded relations are suddenly thrown into relief (Bowker et al. 2010). They become visible to ethnographers and users of infrastructure alike (Morita 2017). This again highlights the temporal dimension of infrastructures. Star and Ruhleder (1996) have argued that the *what* of an infrastructure is very much about its *when*, meaning that infrastructures come into being when operationalized for specific purposes by different actors (Harvey 2018: 81). When – and when not – is a given set of socio-material relations assigned with infrastructural properties, and for whom, are therefore key ethnographic questions, and they are brought to our attention by the processes of infrastructural breakdown, ruination, and environmental devastation that mark our current condition of late industrialism.

### **Understanding late industrialism through the ethnography of infrastructures and environments**

The refusal of clear divides and attention to temporal simultaneities renders conceivable the connection between the often separately regarded processes of industrial production and their (toxic) effects on the environment. Ahmann and Kenner (2020) have further noted that late industrialism points not only to exhaustion, but also potential, by way of its specific simultaneity of two different worlds: one that is marked by degraded old systems and another that is alive with its residues (Boudia et al. 2018) forging what Murphy (2017) calls “alterlives”; that is, “lives irreversibly altered by petrochemical world orders, but lives that are not over” (Ahmann and Kenner 2020: 418). While making visible life-worlds that are polluted and fragile, late industrialism also suggests that such worlds are far from finished. In other words, late industrial conditions are not just damaging but can likewise generate novel modes of life (Shapiro 2015). Recall Dzenovska and Knight's (2020) aforementioned deliberations on emptiness: while epitomising a collective feeling of inability to imagine life beyond the temporal horizon of crisis, emptiness also carries the potential to become a “heuristic device for political struggles” (Dzenovska and Knight's 2020: np).

As Rippa (2023) has observed, studies of late industrialism tend to prioritise the built environment and, in doing so, disregard their embeddedness in non-built surroundings. Yet infrastructures are “historically specific multi-species formation[s]” (Rippa 2023: 4) that refuse the infrastructure-environment divide. Conversely, environment can be understood as “a historically situated process of enclosure through infrastructure” (Rippa 2023: 4). This empirical and analytical perspective does not equate nature with infrastructure. Still, it shows that infrastructure and environment co-create one another and are involved in

complex and often conflictual relationships, forming an interface for more-than-human cohabitation with important consequences for how we should think about socio-political processes. Attending ethnographically to these relations is crucial for getting at the (political) potentials mentioned earlier. Accordingly, by putting an explicit focus on infrastructures and environments, this special issue seeks to move beyond human-centric notions of the political, and in doing so, folds into a broader anthropological agenda that seeks to demonstrate how late industrialism, and the Anthropocene more broadly considered, demand that we rethink classic, all-too-human analytical categories (Boyer 2019; Howe 2019). The four research articles presented in this special issue gesture in this direction by dealing with the socio-material effects of late industrialism from distinct ethnographic vantage points.

The first contribution by Proshant Chakraborty takes us to the “beating heart” of Mumbai: the city’s suburban railway network, one of the world’s oldest and most densely-packed urban public transport infrastructures. Specifically, the author introduces us to the spaces where engineers and workers ensure that this infrastructure runs smoothly by securing the trains from the harmful effects of water, dust, and crowds. Through detailed ethnographic descriptions of this work in one of the city’s oldest car sheds, Chakraborty demonstrates that workers are not so much trying to eliminate the matters and materials that saturate the city’s coastal environmental milieu. Rather, their efforts to sustain Mumbai’s machinic lifeline are described by the author in terms of “infrastructural care”, consisting of everyday interventions, upgrading, and retrofitting that remain attuned to material decay and ruination, the vulnerabilities of sociotechnical systems, and the various human and nonhuman agencies at stake. Shifting scales, the article then situates these activities within Mumbai’s changing socio-political landscape. Portrayed by the author as lively ruination, the car sheds are in fact a product of former paradigms of infrastructural modernity – paradigms that are increasingly challenged by the Indian state’s transport policies and the transformation of public infrastructure into an asset class rather than a public good. This has resulted in social and economic inequalities that threaten the very efforts of infrastructural care that ensure urban connectivity. By skilfully moving between scales, the author offers a thought-provoking example of the socio-material and political dynamics emblematic of late industrialism more broadly considered.

The next article, by Jenny Lindblad, is also concerned with the relationality of public transport infrastructures, but in the context of the Stockholm metro and with a focus on the technopolitics of gates and fare collection. In Stockholm, the transition from tripod turnstiles to electronic gates was motivated by the regional authority’s desire to counter fare evasion and increase revenue amid reduced subsidies emblematic of late industrialist urbanity. However, while the regional authorities underscore the centrality of public transport in social and environmental sustainability, the simultaneous deterioration of existing infrastructure, and substantial investment in new metro lines, reveals a disconnection between current challenges and future aspirations. By paying attention to the material and semiotic properties of the gates, Lindblad explores both their generative effects and the relations they foreclose. Specifically, the gates introduce an element of uncertainty or a “margin of indeterminacy” in which passengers are allowed to influence the passage of others, either by blocking them or allowing them to pass through. Hence the gates mediate relations in ways that go far beyond their initial purposes. Rather than mere transit points, they emerge as dynamic environments teeming with socio-political interactions, that not only regulate circulation,



but also shape lived experiences and imaginaries. As the author demonstrates, the gates pull passengers into the work of collecting fares, and in this way, strengthen perceptions of fare collection as a question of morality. Moreover, the gates' material features, the milieus they create, and the moral framing of fare payment, underscore the individualised responsibility of passengers for metro upkeep, thus presenting a challenge to the creation of just and sustainable urban mobility as well as to the environmental transition that our condition of late industrialism calls for.

The third article by Elisa Maria López takes us to the old mining town of Kiruna in northern Sweden, where a radical urban transformation has been taking place since the early 2000s. Severe deformations of the ground in the area due to the underground mining activities put the town at the risk of collapsing, and large parts of the built city and thousands of its residents have had to be relocated. This transformation epitomises specifically the depth and temporality of mining environments, with its scarred landscapes, exhausted infrastructures and industrial ruins – a community that operates in line with the functionalist industrial logic that supports continuous productivity and high-risk industrial activity. Instead of depleted resources, the urban transformation in Kiruna is the result of politics motivated by the abundance of mineral ore resources (still) available for extraction to satisfy the demand of, not least, the so-called Green Transition of the Swedish State. The author problematizes state and corporate representations of this urban transformation as a mere technical or economic project by analysing the material, affective, and political relations between the state-owned mining company LKAB, the city's residents, and the urban environment from an anthropological perspective. By showing that the urban material infrastructure of Kiruna constitutes an assemblage through which affects, emotions, and embodied relations between LKAB and the residents have unfolded since the turn of the 19th Century into the present, López highlights the centrality of affect and emotions for sustaining relations of extractivism and for understanding the toxic effects of late industrialism.

The fourth and final article by Mareike Pampus focuses on environmental more-than-human relationality. The context of her ethnographic case study is the Geiseltal region in former East Germany, a region known as the Central German Mining District. Here, 150 years of extensive open pit lignite (brown coal) mining has forged the landscape and its social life up until the 1990s when this extraction was put to an end and restoration efforts of the area began. Pampus conceptualises these industrial ruins, not merely as material remnants, but active agents that shape the present more-than-human landscape, at times through feral proliferation. Drawing on a series of ethnographic vignettes focusing on more-than-human relations including underwater forests, black locusts, white wine, red cattle and bee-eaters, Pampus analyses the impact of extractive activities through the efforts to transform their ruins. Arguing that this provides a critical lens to understand post-mining landscapes and applying a multispecies ethnography framework, the author emphasises the feral, living, and evolving character of landscapes marked by late industrialism.

A central task for anthropology in/of late industrialism, we argue, is to explore the relations between a diversity of environmental-infrastructure temporalities and materialities and, moreover, to ask how these relations might form a basis for future, common worlds. Indeed, the four articles presented here, throw into relief the environmental-infrastructure temporalities and dynamics that mark the contemporary as well as the material conditions of living simultaneously in, through, and beyond an industrial order. We gather that future

research in this field should strive to understand the “same time” mentioned earlier as a relation between the condition of an industrial order and the possibility to dwell beyond that order. We hope that this special issue can serve as a point of departure for addressing the (political) effects of this simultaneity, asking how we can cultivate possibilities for cohabitation and exchange without presupposing sameness, or phrased differently, how do we keep political spaces open for diverse subjects, and perhaps, non-anthropocentric modes of world-making?

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