



Geographies of the future

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1 Introduction

The thematic field of “geographies of the future” encompasses a wide range of thematic references, conceptual frameworks and methodological considerations. This paper highlights some interdependencies between geography and the future, as well as methodological approaches to the visualization of these connections. Our discussion of this multifaceted field addresses a number of questions: how can we approach the future from a geographical perspective? What can geography contribute to futures studies? How are future geographies made, by whom and for whom? How can we visualize future geographies? In the following, we outline some key points of the theme, highlight its relevance and research perspectives, and finally provide a brief overview of the contributions to this theme issue.

The pertinence of the topic is evident in the current global constellation, which seems to be overshadowed by the rather gloomy prospects of imminent conflict and war, climate change, and the expected deterioration of human well-being. Looking at the dominant public discourse of our time, one gets the impression that the future is now primarily framed as a crisis. The dilemma with such crisis scenarios is that they have a realistic background insofar as they are based on scientific modelling, long-term trends and probability assessments. However, they tend to present the future as a fact, as if it had already arrived. This position is problematic in that it reduces the future to trends and probabilities and thus risks us falling into the trap of deterministic thinking (Hulme, 2011). Furthermore, crisis discourses build on alarmist arguments that serve to justify securitization strategies or legitimize political decision-making in general (Neisser and Runkel, 2017). Alternatively, we propose to understand crises as decision-making situations that allow

for new beginnings and radical change. From this perspective, geographies of the future always involve the political and poetic practices of imagining geographies of hope and survival. With regard to the current global crises, Castree et al. (2010) offer a simple slogan for dealing with them: “the point is to change it”.

This is where geography needs to engage with the future. How to contribute to futures studies, and how to answer the questions posed above, depends largely on how the future is understood and conceptualized. The topic is widely discussed in the social sciences, as a few examples may illustrate. In his book *What is the Future?* Urry (2016) describes the future as a “mystery” because it is “unpredictable, uncertain and often unknowable, the outcome of many known and especially ‘unknown unknowns’” (Urry, 2016:1). The future may even come as a “surprise”, as Simandan (2020) argued. Ulrich Beck (1999) conceives of the future in terms of risk, arguing that the “world risk society” is built on the anticipation (and fear) of catastrophic events with potentially global consequences. Marc Augé (2014), on the other hand, takes a micro-perspective, stating that “the future, even when it concerns the individual, always has a social dimension: it depends on others” (Augé, 2014:2). Jens Beckert (2016) sees economic futures as collective imaginations that lead to “fictional expectations”. This also relates to feminist understandings of futurity as a collective, relational and care-centred process challenging linear, deterministic and androcentric narratives of progress while emphasizing justice, responsibility and inclusivity across generations and regional differences (Ormerod, 2023). Arjun Appadurai (2013) distinguishes between a future of probabilities, which can be predicted using scientific techniques of modelling, forecasting and scenario building, and a future of possibilities, understood as a more open and unpredictable projection of com-

peting visions and expectations. All these approaches – and there are many more – share an interest in how the future becomes actionable and what is needed to govern it.

While probabilistic outlooks and deterministic thinking portray the future in terms of fate and destiny, the more open research approaches we advocate here emphasize the agency, possibilities and alternatives involved in shaping the future. Appadurai (2013) distinguishes three practices of future-making, namely aspiration (hope) aimed at desirable futures, imagination to navigate possible futures and anticipation focused on probable (but not necessarily desirable) futures. Concepts of future-making are thus much broader than probabilistic approaches and crisis scenarios. They also go beyond the teleological notions of development associated with Western ideas of modernity and progress (Hauer, 2021:166). Most importantly, the focus on “making” highlights the agency involved in human practices that aim at the future. Agency implies that shaping the future becomes a matter of active choice. From a geographical perspective, therefore, we need to ask how forward-looking choices and human agency affect spatial phenomena such as infrastructure, mobility or urban development and, vice versa, how space affects unfolding futures.

The focus on geographies of the future addresses the question of the role of concern for the future in geography. In regard to physical geography, the answer is clear, since forecasts and model-based predictions are central to the geosciences. However, recent calls for a more-than-human physical geography outline possibilities for different understandings of geo-ethical futurity that can be addressed in research endeavours within physical geography (Sharp et al., 2022). In human geography, the future has always been implicit in issues such as spatial planning, social change, economic transformation or global development. However, it has only recently been explicitly addressed in empirical research and conceptual approaches, perhaps partly in an attempt to re-think “the future of geography” (Thrift, 2002) and to demonstrate the relevance of the discipline itself (Hauer, 2021:165; Anderson, 2010). Geography of the future is therefore not a new field of research but an initiative to cross-fertilize geographical research and epistemologies of the future. We see futures studies not simply as any kind of study of social change and transformation but as approaches that explicitly address the practices and imaginaries of “folding futures and pasts into a present where, in turn, futures are constantly being produced” (Anderson and Adey, 2012). In this context, space is central as a reference for imagined futures, similar to the “geographical imaginations” described by Gregory (1994).

Geographical research on the imaginaries involved in the making and remaking of different geographies addresses the inequalities of the “capacity to aspire” (Appadurai, 2013), the differences of power resources that become visible through the inscription of future-making practices in space, and more generally the “entanglement of temporal and spatial logics”

(Chakkalakal and Ren, 2022:845). A recent empirical example for future-oriented geographical imaginations can be found in the spatial planning designs of the numerous development corridors currently being constructed across the African continent (Müller-Mahn, 2020). These corridors can be interpreted as projections of imagined futures into space or, in the sense of Jasanoff and Kim (2015), as “dreamscapes of modernity”. Development corridors and other large infrastructure projects always aim at imagined futures, raising high expectations and mobilizing visions of a better life. However, many of these megaprojects end up as mega failures (Müller-Mahn et al., 2021).

2 Reading the future in space

Future geographies relate to the question of how geographies are made and remade as the future is brought into the present and takes on some form of presence (Anderson and Adey, 2012). In order to make these approaches tangible, an in-depth examination of the interdependencies between the future and visibility is helpful. This theme issue therefore focuses on visual geographies of the future. In order to be able to pursue a “comparative futurology” in the sense of Hans Jonas (2003:63), it seems useful to us to take a look at some practices of “making-futures-present” (Anderson, 2010:783ff.). Accordingly, in the following we provide a brief overview of selected positions in the social science and human geography literature on geographies of the future. In doing so, we introduce different concepts of imaginative futures and give examples of related practices of making futures visible.

Geographies of the future are essentially based on conceptual considerations of the relationship between space and time in human geography and its various approaches. In the tradition of neo-Marxist social theory, Harvey (1990a:38) emphasized that “each social formation ... [constructs] objective conceptions of space and time according to its respective needs and purposes in relation to its material and social reproduction and ... [organizes] its material practices in accordance with these concepts”. Based on this fundamental idea, Harvey (1990a) prominently introduced the concept of “space-time compression” in order to capture the changes of modernity and thus also to encourage us to adapt our concepts of space and time. He followed this up with reflections on postmodernism, for which he also diagnosed fundamental changes in space-time dimensionality. With reference to social theory and aesthetic theory, he discussed the “spatialization of time”. He cited the example of architecture, which attempts to communicate values “through the construction of spatial form” (Harvey, 1990b:429) and functions as a “language of timeless reality” (Harvey, 1990b:429).

The relationship between space and time was also discussed in the tradition of an action-oriented spatial theory by Benno Werlen (1999, 2017). The key inspiration for Werlen’s

conception of “everyday geography-making” (Werlen, 2017) was Anthony Giddens and his structuration theory. With reference to Hägerstrand’s (1970) “Zeitgeographie”, Giddens focused on the intimate connection between the spatial and temporal dimensions of action (Werlen, 2008:72). Central to this is the intentionality of action, i.e. a direction that points to the future.

Recently, temporal and spatial patterns of activity have again been pointed out in the human geographical reception of theories of social practice (Stephan and Wiemann, 2019). Schatzki’s (2009) work on social theory in particular makes it clear that the three temporal dimensions of past, present and future are not necessarily chronologically consecutive but parallel to each other in practices and are thus an essential component of them:

As dimensions of human activity . . . , past, present and future do not order events or anything else. Rather, they are features of activity. As features of activity, moreover, they are as long as a person acts: the three dimensions of temporality occur simultaneously. (Schatzki, 2009:37)

Practices can be understood as open, spatio-temporal entities: their execution extends both spatially and temporally. Practices thus fix space and time, but they are also changeable in relation to these two dimensions. In the course of the repetition of practices, they change, among other things, in their temporal and spatial characteristics, and at the same time other practices change with them (Blue, 2017). For example, social change can be examined from a practice-theoretical perspective by focusing the complex change in various temporally and spatially interconnected practices that are carried out in parallel or in succession.

3 Imaginative futures and practices of visualization

Although the future is beyond our immediate grasp, the endeavour to look into the future and thus make it controllable runs through the entire history of humankind. The following heuristics of different concepts of the future represent an attempt to differentiate practices of visualizing specific futures and the respective ways of dealing with them within the framework of (visual) geographies of the future (Gidley, 2017:63ff.).

Visual geographies have already been at the centre of an earlier special issue of the journal *Social Geography* edited by Antje Schlottmann and Judith Miggelbrink (2009). The authors point out that maps and other forms of visualization have always played a role in geography but have only recently become more prominent in conceptual debates. In the past, the focus had been primarily on visualization as a form of documentation of socio-spatial phenomena and as a research tool. The “visual turn” (Thornes, 2004) then shifted the focus to geography’s role in the constitution of

space through material and mental images. In an edited volume, Schlottmann and Miggelbrink (2015) present a collection of articles on the production, appropriation and translation of spatial images, covering a wide range of images from pictures to graphic figures to verbal metaphors. These reflections on the power of visual geographies are important for our understanding of imagined futures, as images not only represent spatial phenomena, but also continuously influence and shape them (see Gregory, 1994; Schlottmann and Miggelbrink, 2009; Larkin, 2013).

The specific geographical interest in the practices of visualizing future geographies focuses on the significance of space and spatiality, which comes into play in various ways. Spatial references are constructed very directly in the visualization of futures through metaphorical spatialization. Spatial metaphors serve to imagine and visualize the future in language and images. They create pictorial evidence and plausibility that suggest a consensual meaning (Blumenberg, 2013). There are numerous examples of this in political rhetoric, such as Martin Luther King’s “I Have A Dream”, Helmut Kohl’s “blooming landscapes” or Amanda Gorman’s poem “The Hill We Climb” for the inauguration of the 46th president of the United States. Through such practices of spatial visualization, powerful drafts of geographies of the future are created. These spatial metaphors often combine imagined futures with a place to make it look more concrete.

Spatial references can also be found in everyday concepts of the future and practices of future-making. In everyday life, people usually unquestioningly assume a plausible future for their actions. In the stream of everyday life experience, the immediate future appears, for example, as a plausible result of simple causality in ongoing time, as a planned intention in personal development or as everyday hope (Anderson, 2010:778). In studies informed by action theory and social phenomenology, the question arises as to how intentional decisions to act come about against the background of an uncertain future (Johnson-Hanks, 2005). A certain result of one’s own actions appears to be plausible on the basis of experience and does not require constant in-depth reflection. However, recent work on the geographies of everyday life (Reda and Runkel, 2019) shows that the unquestioned everyday plausibility of the near future is characterized by affective atmospheres (Anderson, 2009), chance encounters (Massey, 2005:179), spontaneity and creativity. Against the backdrop of a call for a (re)enchantment of geography (Woodyer and Geoghegan, 2013; Runkel, 2025), an everyday openness to the future can be identified in moments of curiosity (Phillips, 2014) and surprise (Simandan, 2020) that counters the boredom (Anderson, 2004) of overly plausible futures.

In the empiricist–positivist sciences, on the other hand, the focus is usually on avoiding surprises. A future in the form of probability is usually determined by means of visualization practices. Berardi (2011) emphasizes that trust in science and rationality is an essential characteristic of this image of the future, which became established in the last century: “The

20th century trusted in the future because it trusted in scientists who foretold it, and in policy makers able to make rational decisions” (Berardi, 2011:39). Due to the “imaginary effect” (Genosko and Thoburn, 2011:3) of the capitalist mode of production, the future presents itself as an imaginative space for the most diverse projects, ideas and goals.

Beckert (2016) refers to the concern of capitalist societies to make the present controllable through so-called “fictional expectations”. He shows that decision-makers in the economic sector in particular coordinate their expectations of the future and the activities geared towards them, which leads to kinds of “self-fulfilling prophecies” (Beckert, 2016:237). Anderson (2010) identifies calculation as a central practice for visualizing probable futures and thus making them governable. Social science and geographic scholarly work critically examines how dominant institutions and actors use this construction of futures to make the present controllable through “anticipatory action” (Anderson, 2010) such as pre-empting, preventing or preparing. Critical authors have examined the legitimizing and securitizing aspects of anticipatory politics in liberal democracies (Anderson, 2010; Aradau and van Munster, 2012; Dodds, 2013; Neisser and Runkel, 2017; O’Grady, 2015).

A related practice of visualizing futures, which is particularly central from a geographical perspective, is planning (Dünckmann et al., 2019). The future relatedness of planning has been contextualized and connoted differently in the course of modernity up to the present day (Blotevogel, 2018). In the integrative practices of rationalist and positivist (spatial) planning, the future was and is often visualized as a linear sequence of a teleological progression (Davoudi, 2012). Such planning serves as an instrument of domination, and the future is subjected to the technocratic–rationalist logic of controllability (Alexander, 2000). Nevertheless, there are numerous paradigms of planning that conceptualize the future in different ways.

Hermeneutic and constructivist approaches emphasize the contingency and openness of the future. Doreen Massey (2005:11ff.) in particular has pointed out the radical openness of the future. It is hardly possible to describe the exact paths to a certain future. The future cannot be imagined as a deterministic target point or corridor but appears as a spectrum of various possible target points or bifurcations (Kurniawan and Kundurpi, 2019). Since such a plurality of possible futures indicates that there are always alternatives and that these are the results of sometimes contested processes of production, from a praxeological perspective, diverse practices of imagining, narrating and visualizing come into view. While speculative geographies (Leszczynski, 2016; Woodward, 2016; Salazar, 2020) have received particular attention, not least due to Donna Haraway’s (2016) reflections on “speculative fabulation”, practices of visualizing the future as (initial) sketches and drafts, in brainstorming, gesticulation and suggestive allusion are less frequently addressed. Nevertheless, they are of fundamental importance for impro-

visation and prefiguration in political activism (Jeffrey and Dyson, 2020; von Redecker, 2018) and for dealing with possible futures.

Appadurai (2013) explains that the production of future designs requires the use of suitable imaginations and their performative application. A key factor here is the so-called “capacity to aspire”, which, according to Appadurai, is not evenly distributed in societies. Poorer, marginalized population groups in particular lack the cultural means and resources to imagine possible futures. Berardi argues along similar lines, emphasizing the available scope of imaginations: “The repertoire of images at our disposal limits, exalts, amplifies or circumscribes the forms of life and events that, through our imagination, we can project onto the world, put into being, build and inhabit” (Berardi, 2011:103).

A plurality of futures ultimately enables a normative orientation towards preferred futures. The socio-scientific examination of preferred futures is the realm of social criticism of the present and the formulation of utopias (Bloch, 1980; Levitas, 2011, 2014; Pinder, 2005). Utopian research has a long historical and historico-philosophical tradition (Saage, 1991, 2008a, b, 2010) and is linked to various practices of visualizing utopian futures (Levitas, 2014). On the one hand, this includes implicit practices of visualization in the affective attitude of hope (Anderson, 2006a, b; Miyazaki, 2004) and, on the other hand, very explicit practices of visualization in religious–ideological prophecies (Holloway, 2015; Sturm, 2006).

Sometimes there is only a thin line between utopian thinking, sentiments of hope and the politics of aspiration. The distinction may even become blurred, as can be seen in the debates about African futures, the potential of future-making and the role of spatial development concepts (Müller-Mahn, 2020). On the one hand, there is Felwine Sarr’s idea of “Afrotopia”, which envisages a radical decolonization of the continent and an alternative model of society based on solidarity and harmonious human–nature relations. On the other hand, there are very concrete empirical studies on the relevance of anticipation and aspiration in the context of spatial development (Matejcek and Verne, 2021; Mausch et al., 2021; Müller-Mahn et al., 2020, 2021). These empirical studies provide evidence on how spatial visualization influences the politics of aspiration.

Practices of visualizing preferred futures in the context of social critique are of paramount importance for a (critical) human geography. These integrative practices operate on various levels. Numerous works deal with the politics of desire (Seitz and Farhadi, 2019; Pohl and Swyngedouw, 2023) and the associated aspirations for preferred futures (Bunnell et al., 2018). At the same time, the focus on preferred futures inevitably makes it clear that there are also oppressed, vanished and lost futures (Abebe, 2020; Brigstocke, 2016; Römhild, 2018:68ff.). Accordingly, practices of visualization are always linked to practices of concealment, prevention and distraction of futures. A critical geography of the future there-

fore implies the task of taking into account the prevented futures of the past.

Capacities to cope with adverse conditions and to produce possible futures are unequally distributed, as the Covid-19 pandemic demonstrated (Grove et al., 2021). This includes practices of disappearance and repression or, more generally speaking, the violent dispossession of futures. The struggle for desirable futures, as well as resistance against the dispossession of possible futures, is a central motif of current climate protest movements from Fridays for Future to Extinction Rebellion.

Ultimately, it is precisely such grassroots and civil resistance movements that invite us to expand the scope of interest to the imagination of desirable futures and related future-making practices (participatory/prospective futures) (Kurniawan et al., 2018; Marvin et al., 2018). This includes practices that design alternative counter-futures (Jeffrey and Dyson, 2020; Shaw and Sharp, 2013) or practices that are aimed at opening up different spaces of possibility for future-making (Vandevoordt and Fleischmann, 2021). Specifically, this also includes dealing with prefigurative futures (Gordon, 2018; Jeffrey and Dyson, 2020; Swain, 2019; Yates, 2015). In these approaches, desired futures are anticipated, either in the prefigurative context of political and collective practices or as narrative practices that place a future endpoint at the beginning of a narrative and make anticipated futures (proleptic futures) visible (Brescó de Luna, 2017).

4 Contributions to this issue

The contributions to this theme issue illustrate the wide range of ways in which the field of geographies of the future can be interpreted in terms of empirical focus and conceptual framework.

Katharina Mohring and Nina Brendel (2021, this issue) describe the use of virtual reality technology to create a learning experience that allows users to immerse themselves in a situation “as if they are present in a different world and they react similarly to in everyday life” (p. 369). This “feeling of presence” is a physical experience that can be used in geographic education, as discussed in this paper, but in a more general way, it does of course also apply to imaginations and the virtual reality of the future. Moreover, we should not forget that children’s imaginations of the future, shaped in everyday (social media) practice, may guide future actions of ordinary and expert grown-ups. A thought-through and critical-reflective visual education is hence important future work.

Mark Lawrence (2021, this issue) takes a Chinese-built railway megaproject in Kenya as an example of a futuristic “dreamscape of modernity” in the sense of Jasanoff and Kim (2015), and he confronts it with more localized imaginaries of alternative futures. The case study illustrates how the “sociotechnical imaginaries” of the modern railway collide with vernacular culture. Against this backdrop the au-

thor asks “who gets to imagine the future, and how much latitude do others have to participate in particular designed futures as they see fit?” (p. 222). In line with Bhabha (1994), he argues for “avoiding assumptions there is anything like an equally generic ‘African’ alternative to future-making.” (p. 222). Nevertheless, the case study shows how the impact of the new railway line led to local resentment and resistance and different “intensities of interactions between variable imaginaries” (p. 229).

Janine Hauer (2021, this issue) presents an ethnographic study of a large-scale agricultural development project in Burkina Faso to show how the “imperative of the future serves to silence contestations and conflicts from which possibly alternative futures could be derived” (p. 164). As the rice programme falls short of its original plans and promises, project managers use the reference to the future to justify continued development interventions, and farmers attempt to negotiate their share of the promised benefits. The case study explores the interdependencies between futures and infrastructure, arguing that “futures are not only built on infrastructures, but also built into infrastructures” (p. 171). This observation highlights the relevance of the spatial dimension to futures practices and processes. The paper concludes with a call to “establish spaces where different future visions can be raised, debated and upheld, rather than being closed down or prioritized all too easily” (p. 173).

In their contribution, Rémi Willemin and Norman Backhaus (2021, this issue) introduce a participatory research technique that uses images to get people thinking and talking about probable and desirable future waterscapes in the Swiss Jura. This technique of “speculative photo-response fabulation” helps to identify the images and imaginations (“futura-ry”) of changing environmental conditions and the related fears and hopes of the research participants. Ultimately, the aim of this empirical approach can be understood as an attempt to create “new possibilities for politics” (p. 156) in order to make the future actionable.

The paper by Aalders et al. (2020, this issue) presents a methodological tool of collaborative comic creation to visualize imagined futures and future-making practices. It applies the tool with people who have been marginalized in an ongoing large-scale project to build a development corridor through northern Kenya. The comic book documents the “visual narratives” of “future imaginations of infrastructural (im)mobilities” (p. 420). This interactive research technique of “drawing together” allows participants to visualize their imagined futures, including their hopes and fears. It also brings marginalized futures to the fore and, like a mapping exercise, can help to identify alternative futures. In their conceptual outline, the authors highlight the relationship between space and time in making futures, which is materialized in infrastructures and infrastructural temporalities.

5 Conclusion

As outlined in this paper, the thematic field of “geographies of the future” can have a double meaning, one referring to the making and unmaking of geographies in relation to the future and the other referring to the future of the discipline itself. Both positions are important because they ultimately concern the relevance of what geographers do. The paper began with the proposition that futures studies should not be reduced to deterministic thinking, even in times of crisis, but rather should address the question how futures are made. This implies a focus on decision-making and agency and thus an understanding of futures – in the plural – as possibilities that emerge from human needs, capacities and power. As we have shown, possible futures are embedded in spatial structures and at the same time projected into space. This is where geography, with its focus on the production, appropriation and translation of spatial images and imaginaries, can contribute to futures studies.

In conclusion, future-making and geography-making are interdependent practices, which are articulated through material images and imagination. Visual geographies ascertain the relevance of image production and can thus also be applied to the study of imagined futures. The specific contribution geographical research can make to futures studies comes from the disciplines’ special attention to space. This focus is important as futures are inscribed in space in multiple ways, with spatial structures acting as both opportunities and constraints. The aim of research on geographies of the future is therefore to disentangle these interdependencies, to visualize the practices and policies of the production of space, and to decipher the influence of spatial imagination on future-making. This multi-faceted research field is indeed also highly relevant to the future of geography as a discipline.

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