8 Futureless futures

Reflections on life in doomed places in Nordic countries

Mo Hamza, Reidar Staupe-Delgado and Kerstin Eriksson

Introduction

Social commentators increasingly note that people's stance towards the future is characterised by dread or a sense of futurelessness.¹ According to one such commentary, a sense of dread and futurelessness 'has emerged as the driving social sensibility in our times'.² It is perhaps unsurprising that such conclusions are being reached as people alive today live with a number of intersecting crises, ranging from climate change, biodiversity collapse, the prospect of a post-antibiotic future, a protracted pandemic and financial and geopolitical turmoil. Senses of future and what has been labelled 'the lived experience of anticipation'³ also brings such futures into existence as part of concrete actions,⁴ for example by sparking processes like relocation or migration. As we posit in this chapter, however, a place-based approach to senses of futurelessness can shine light on the nature of anticipatory experience more generally.

We all know that communities throughout the ages have disappeared. Communities like Pompeii and the Minoans are well-known examples but there are also many others.⁵ A major difference between then and now is perhaps that modern technology provides tools for detecting catastrophic risks pre-emptively, enabling a sense of anticipatory dread directed at future potentialities and scenarios before they rupture into view and direct experience. To understand this wider phenomenon of futurelessness better, we posit, it is necessary to probe how people living in communities deal with existential risks in their immediate environment and contest notions of doom, whether attributable to impending sea-level rise, imminent landslide risk or other extreme hazards.

The future is necessarily uncertain and scenarios are not deterministic. Many people in the world inhabit places with uncertain futures, places overshadowed by expected future disaster. People inhabiting exposed or 'disaster prone' sites are often portrayed as vulnerable and at risk, although existing research questions such portrayals as this could potentially discount people's own agency.⁶ Advances in monitoring and early warning systems have enabled us to detect and prognose the continued development of an ever-growing number of disasters 'waiting to happen'. Monitoring systems enable life at the mercy of otherwise fatal hazards by producing warning signals,⁷ but will rarely be able to prevent the destruction of a

place. Some of these disastrous prognoses effectively doom places by casting into doubt their continued future existence, potentially destroying investment in that place and in other cases inspiring a sense of awe directed at ideas of what might come to pass there at some future point in time. This chapter concerns the insights that potentially futureless places can teach us about capacities to endure, and forms of existential insecurity in the face of doom.

In this chapter, we take as our point of departure that capacities and vulnerabilities exist alongside one another in populations. The degree to which people are vulnerable or capable of managing stressors is largely a matter of circumstance. It is also important to point out that capacities are not necessarily evenly distributed in a population.

In this chapter, we engage three case studies to shine light on this topic. First, we have the case of Lyngen in the Norwegian Arctic, whose inhabitants live with the prospect of complete future destruction due to an expected rock avalanche and fjord tsunami. At the time of writing, the rock avalanche is slowly moving into the fjord, with models suggesting that it can fail catastrophically someday, giving rise to a tidal wave of enormous proportions. It is one of the most closely monitored slow-onset mass movements in the world with '70 instruments' taking more than '300,000 measurements a day'.8 Frequent updates about the continued onset and trajectory of the mass movement serve to render the resulting sense of potential doom socially real. Second, we have the case of Falsterbo peninsula, southern Sweden, which is significantly exposed to sea level rise and authorities are taking measures in an attempt to buy time and guard against a sense of encroaching futurelessness. The municipality has just received permission to build a levee that is designed to protect the land against the threat from the sea until 2065. Lastly, people in Kiruna city, northern Sweden, are being relocated due to the Kirunavaara mine which rendered parts of the old town uninhabitable. But Kiruna is a case that challenges the sense of doom due to circumstances and conditions unrelated to the physical impact of a hazard, and in the case of Kiruna, the hazard is anything but natural.

In combination, these cases allowed us to probe the complexities of decisions on planned relocation or staying in place, as well as to explore ideas on how living with the knowledge of a threatened future impacts ontological security and everyday life in the present. It connects to emerging literatures on doom, slow calamity and futurelessness.⁹ This chapter challenges what we take to be unrealistic and overly neat distinctions between forced and voluntary mobility in the face of natural hazards and notions of futurelessness. In the context of risk communication and community work, for example, this flags a need for grasping how warnings and catastrophic prognoses unsettle local lifeworlds. Initial observations suggest that complex and oftentimes strained forms of trust emerge between safety regimes and local populations living in such environments. After all, trust at one and the same time enables life in the face of existential hazards but is also fragile. Issues of centralisation and decentralisation often emerge as the stakes are high for setting accurate thresholds that can be lived with. At the same time, a place that is widely seen as doomed or futureless is prone to be forgotten and subject to underinvestment in its future, which can potentially signify a premature end to a place before disaster has even materialised. In this chapter, we grapple with a number of themes that the notion of overshadowing disasters opens up, including questions of place survival, relocation, resistance and local defiance of doom.

The chapter is structured as follows. In the next section, we outline our conceptual approach on living with catastrophic prognoses and the notion of doomed places. In the third section, we then briefly elaborate on our cases, which are mainly intended to illustrate how places can come to be seen as futureless in very diverse ways and with different kinds of responses. In the fourth section, we reflect on the wider relevance of these cases for emerging views on threatened futures, potential futurelessness and local resistance to notions of doom. Finally, in the last and concluding section, we restate the salient points of the chapter and reflect further on their wider implications for research and practice.

On futures, futuring and futurelessness

Disaster is often articulated through reference to sudden rupture, although root causes can often be traced back centuries.¹⁰ Contestation amongst structuralist approaches, on the one hand, and functionalist and operational research on the other, has produced a long-standing controversy surrounding whether disasters are best approached as events or processes (calamity as prefigured in the form of accumulated disaster potential).¹¹ While critical work drawing on structuralism traces many of the largest calamities in history back to centuries-long processes of disaster risk creation,¹² it is not uncommon to emphasise the disaster itself in terms of rapid destruction with a subsequent need for swift recovery. However, some disasters do not rupture but loom, lingering over communities as ever-present menaces that live in anticipation of their future rupture. When catastrophic risk is uncovered in a place, for example, life in the present will be shaped in performative ways by a disaster that has not yet happened but that still encroaches on everyday life in the present.

According to a Weberian viewpoint, a sense of futurelessness implies a sense of 'being ill at ease, unsettled, in the face of desanctification and disenchantment'.¹³ In the context of local communities facing existential risks uncovered in their immediate environment, the connection to Weberian ideas on how science disenchants the world is clear; it is precisely the technical ability to uncover looming potential catastrophe that brings the future of a place into question. Without such knowledge, life would simply continue until disaster happens 'unexpectedly', without any sense of waiting for catastrophe in the present. Thus, climate science, geology and other fields producing knowledge on the hazardousness of a place also bring the future of a place into question in cases where extreme risk is uncovered by risk surveys. A commonly cited problem is that of experience, where lack of prior experience with hazards raises distrust or scepticism in the population towards such scenarios.¹⁴ After all, a sense of home and living in a place where one feels at home and where prior experience suggests that life is safe and predictable can make it difficult to accept catastrophic risk scenarios,¹⁵ a major barrier to mitigating action. When mitigative actions introduce questions of migration or planned relocation, questions of hazardousness become all the more complex.

In this chapter, we refer to a doomed place as a place whose existence is cast into jeopardy by a known looming calamity that local people know may someday destroy their community, or at least the physical site of that community. Catastrophic prognoses that are sustained by round-the-clock monitoring and warning regimes become palpable in the lifeworld through their anticipation, triggering various imaginings and practices, including discussions of how to mitigate, whether to relocate, and the responsibilities of the state and of individuals.

The chapter explores the three cases from two contrasting vantage points and asks a number of questions into which disaster studies rarely delve. The first is the future as foreclosed, in absolute terms or as a scenario in some cases. The cases will attempt to show the different ways that futurelessness manifests, questioning whether some places are actually doomed and according to whom the future maybe foreclosed. And if this is the case, then why do some locations continue to attract people and population due to various reasons (e.g. tourism and job opportunities, especially when there are resources to continue to bolster and protect the place from doom). This begs the question: foreclosed for whom?

In contrast and in some cases co-existent with a sense of doom in the same location, the future can be seen as open and contested through people's agency. In the cases below and later in the discussion, we will question perceptions and experience of people to any sense of doom. Is there an element of choice and agency in ignoring an impending catastrophe? How do people normalise doom and get used to it and why? Is doom open to interpretation even when there is a glaring risk and an impending event? And is time a factor in normalising doom in some cases? The three cases—Lyngen, Falsterbo and Kiruna—have little in common except for the applicability and relevance of the questions above. Geographically, demographically and what constitutes reasons for futurelessness are quite different between the three. What connects them is the interpretation and normalisation of futurelessness and the ways both the population and the formal governmental structures perceive and deal with it. In that sense, we do not distinguish between 'futurelessness' and 'doomed places' where both terms encompass a 'sense of dread' tangible or perceived as will be elaborated in the case studies.

The following discussion of the three case studies will put these two critical notions to the test (future as foreclosed or open). It examines how risk is formulated, who formulates it, how it is presented to the public and consequently how the public responds with their own time stories, and the extent to which futurelessness is a foregone conclusion or a performative imagined future.

Lyngen - wait and see

Nordnes is a 900-metre high unstable mountain area on the banks of the Lyngen fjord in Northern Norway. More than ten million cubic metres of mass is in movement and considered unstable in Nordnesfjellet (the Nordnes mountain), moving several centimetres each year and thus threatening the future of the small

community of Lyngseidet (one of the most exposed towns in the fjord of landscape of Lyngen) and other nearby settlements.¹⁶ According to the worst-case scenario, a release of these ten million cubic metres of mass could trigger a tidal wave that would be between 35 and 45 metres in height.¹⁷ Nordnesfjellet is continuously monitored using satellite technology and local monitoring equipment.¹⁸ Accelerations in the mass movement has been attributed to rising average temperatures and melting permafrost, as the permafrost is believed to play an important role in stabilising the mountain. As the area is continuously monitored, responsible authorities are confident that they can provide early warnings at least several days before a potential landslide and associated tidal wave. In other words, the future of Lyngen is cast into jeopardy by this slow-onset natural hazard. Authorities do not expect lives to be lost, as people would be evacuated if the hazard accelerates in speed. Nevertheless, a sense of potential futurelessness looms large as people live with these scenarios and the idea of potentially losing one's home, assets, livelihoods, or damage to critical infrastructure on which a community depends, is a distressing thought for the inhabitants to be living with.

In the everyday lives of locals in Lyngen, a sense of futurelessness is both proximate and distant at the same time. Risk perception research reveals that the presence of the hazard is not a major part of the lived experience of locals, existing more as a backdrop to everyday life.¹⁹ The continuous availability of monitoring data and the physical presence of monitoring and warning infrastructure around the fjord serve as daily reminders of the catastrophe that one day may come to pass, and where people would have to evacuate their homes. At night, it is possible to observe a faint light emitted from the monitoring instruments atop the Nordnes mountain from the settlement at Lyngseidet, which some locals have referred to as the 'death eye', 20 although perhaps with a sense of dark humour. At the same time, inhabitants have known about this catastrophic risk for a long time and, in the near term, there is no imminent risk of the mountainside collapsing into the fjord. In this way, a sense of doom lingers but is also not sufficiently strong to disrupt everyday life routines in any way. Conversations that one of the authors has had with locals reveal that this feeling of potential futurelessness is instead something that exists as an idea, as a potentiality, but not as something that produces a direct experience of fear or dread in the present.

Trust in public authority is what essentially makes life in Lyngseidet possible. The authorities guarantee in their risk assessments that they can provide at least 72 hours prior warning in the case of a major landslide, although likely much longer. Trust is in this way essential for residents to continue living in the region as this trust in the ability of authorities to warn and evacuate in the event of elevated risk is what keeps this sense of doom at bay. It is likely that trust in the authorities is a precondition for leading normal lives in the shadow of such a catastrophic risk scenario, where authorities communicate a confidence in being able to provide considerable forewarning if a landslide-induced tsunami should become immediately imminent. However, since the authorities are confident that no lives will be lost and that surprises will not occur, everyday life in the communities surrounding the fjord can continue despite these disastrous anticipations.

Falsterbo peninsula - incremental adaptation vs. managed retreat

"We enjoy it here and will not move from Falsterbo peninsula!".²¹ Futurelessness is not seen as an option by the Municipality of Vellinge, which is convinced that it will save the Falsterbo peninsula from flooding by gradually increasing protection against the sea. In a first step, the municipality will build a levee to protect against flood risk in the shorter term (an inner protection). Later, as sea level rise increases, they plan to add more layers of protection (an outer protection). The outer protection is planned to be placed closer to the waterline, probably also some type of levee.²²

Falsterbo peninsula is located in the southernmost part of Sweden and consists of five villages; Skanör, Falsterbo, Ljunghusen, Höllviken and Kämpinge. Around 21,000 inhabitants live in the area, with 7,500 in the outermost part (Skanör and Falsterbo).²³ There are around 10,000 buildings and 7,500 households.²⁴ It is an attractive region of Sweden, and the house prices are high, despite its exposure to sea level rise.

The peninsula is very low-lying, with periodically high groundwater and short-term coastal flooding during winter storms. In the outermost parts of the peninsula, Skanör and Falsterbo, approximately 95% of the residential buildings are less than three metres above sea level, and 60% less than two metres above sea level.²⁵ Furthermore, the outermost part of the peninsula is vulnerable as it only has one road that can be cut off during a flooding. With climate change and associated sea level rise, the area will become increasingly prone to flooding.²⁶ This is one of 25 areas in Sweden where the Swedish Civil Contingencies Agency (MSB) has identified that a significant flood risk exists or can be expected to occur.²⁷ If nothing is done to protect the area from a continued risk of flooding, there is an exposure of 10,781 buildings of which 3,024 are residential.²⁸

Prior to the municipality's application for a permit for the construction of flood defences, the levee, a consultation was held inviting different actors. The consultation report summarises public views, both written opinions and oral viewpoints, from the open consultation meetings.²⁹ It concluded that the public has different and sometimes conflicting views about where and how the levee should best be designed. Most of the views that were given orally at the open consultation meetings were basically positive. The levee was perceived by many as necessary and urgent. Others were positive that levee should be built, but were critical of the trade-offs. They argued that the trade-offs were disproportionate or do not sufficiently consider the site-specific conditions of their own property. There were also some people who considered it unnecessary to build protection at all.³⁰

The most severe storm surge in the area occurred in 1872. Backafloden caused flooding in the southern Baltic Sea and great devastation in the Falsterbo region. At its peak, the storm surge was estimated to have been 2.4 metres above normal. The road connection to the outermost part of the peninsula was cut off, the lighthouse was flooded and several boats were lost. In analyses of Backafloden, it is argued that it was an extreme but not unique situation. In historical data, similar water levels have been recorded in 1320, 1625 and 1694.³¹ If the same event were

to occur today, almost all of Skanör-Falsterbo, as well as the coastal areas along Ljunghusen, Höllviken and Kämpinge, would be flooded. In many areas, the water depth would be more than one metre above existing ground level.³² In 2017, the area was affected by a flood, the highest since the regular measurements began in the 1960s. The sea level rose by 1.5 metres above normal and houses were flooded.³³ One family had to be evacuated, streets were closed and there was a power outage during the evening.³⁴

Planned relocation is not seen as an option by the municipality. Instead, the plan is to build an inner protection, a levee. This levee is designed to protect the area from future floods up to three metres above sea level, until 2065. After a legal process that started in 2018, in 2022, the municipality received permission to build the levee. From a longer-term perspective, and in addition to the inner protection, the municipality discusses the possibility of supplementing that with an outer protection (i.e. sea wall) closer to the waterfront dimensioned from a 100-year perspective. This protection is intended to protect the area until year 2100.³⁵

Permission to build the inner protection has been delayed because levees have a negative environmental impact and large parts of Falsterbo peninsula are subject to environmental protection. In addition, the County Administrative Board argues that also building an outer protection closer to the waterfront would entail an even larger negative environmental impact. Because of this, the County Administrative Board has raised planned relocation as a possible option for the future.³⁶ It is argued that today, planned relocation is not economically justifiable as the values of the houses in Falsterbo are so high. In Sweden, planned relocation has not been used as a response to sea level rise, but rather in relation to large infrastructure projects associated with the establishment of a mine or a hydroelectric dam. When planned relocation has been used, there has been financial compensation (e.g. a company paying) for the move.³⁷ When it comes to Falsterbo peninsula, the municipality argues that alternative methods such as planned relocation are not justifiable economically, ecologically or socially.³⁸ The County Administrative Board in Skåne argues that today it is much more cost-effective to build protection,³⁹ while relocation may not be currently considered and seen only as an option in a distant future. The damage cost if an extreme weather event would occur today (two metres) is estimated to amount to SEK 633.2 million. By the year 2100 (three metres), the damage costs is expected to have increased to SEK 2,189 million.⁴⁰ This is much more than the estimated cost of SEK 160 million to build the levee.⁴¹ Still, in a report from the County Administrative Board in Skåne, the question is posed: at what point will it be reasonable to move residents due to possible flooding?⁴²

Kiruna - planned relocation

As others have argued, Kiruna's futurelessness or doom is not an inevitability.⁴³ The perception of futurelessness has more to do with the economic drivers of the mine expansion and with the narrative the city and the mining company LKAB (Luossavaara-Kiirunavaara Aktiebolag) have created of the town being a primarily mining community and consequently how they continue to manage the process of

planned relocation. Kiruna is also an interesting case that questions the notions of voluntary and forced mobility and immobility both for its inhabitants and for the Sámi population in its vicinity.

Kiruna is located about 90 miles north of the Arctic Circle and was established at the turn of the twentieth century for the opening of the iron ore mine in the area. The iron ore mine is the largest in the world with 250 miles of roads, an ore body that is 2.5 miles long and 0.05 miles wide, reaching a depth of 1.25 miles. The current expansion of the mine, and the fact that the ore-body slopes 60 degrees towards the city, causes deformations in the land and cracks underneath the city buildings.⁴⁴ If mining continues, the town will collapse.⁴⁵ That is, the town's location is becoming a hindrance to the mine's expansion and further development. Accordingly, further expansion of the mine will demand new housing and infrastructure as people are moved out of harm's way. A shortage of available land due to restrictions, user rights and preservation impedes such construction, notwithstanding that Kiruna municipality is the largest municipality in Sweden in terms of total land area.⁴⁶ The mine expansion and the town relocation is controversial, in part due to the historical narrative the mining company had created that Kiruna is only a mining town and nothing much else, and therefore the town itself lives and dies with the mine. Nilsson argues that 'the relocation plans are part of an ideological fantasy rooted in the social structure, of which the mining company has historically been a creator'.⁴⁷

Procedurally, Kiruna municipality has already acquired permission from the Swedish Government to use state-owned land to establish a new city centre.⁴⁸ But the problem in Kiruna is that a mix of assets, activities and values to different groups (e.g. deposits of minerals, energy generation, mountainous areas, water supply, and particularly reindeer husbandry, fishing, nature and culture that are central to the Sámi peoples way of life), and which are all considered interests of national value, compete and overlap in the area surrounding Kiruna to which the relocation of its residents is planned.⁴⁹

The narrative in the media, partly created by the municipality and the mining company, does not match the scale of the actual relocation. As the expansion of the mine is going ahead, approximately 1,800 persons (around 10% of the population) must be relocated in the next 30 years, and 960 apartments rebuilt on other sites along with the relocation of parts of the city centre⁵⁰ because the current site and location are already unstable. This has been somewhat misreported in the media creating a perception that the whole town is to be moved, as well as supporting the view that the move is inevitable. 'A Mining Town on the Move' reads some head-lines.⁵¹ Nilsson analyses that narrative with different stories and different representations of truths about the town's planned relocation and its inevitability, where the scale of the planned relocation being produced and reproduced favouring certain stakeholders (i.e. the mining company) and the effects of that on the views of the inhabitants and beyond.⁵²

LKAB is the main employer in Kiruna and most inhabitants are connected to the mining industry with dependent livelihoods one way or the other making the company the dominant voice in the ideology and identity of the town as a 'mining town' and residents as 'miners'. Ideology is a system of beliefs within a society or community, which are widely recognised, not always conscious, and contain aspects of power and dominance.⁵³ Ideology also has concrete political effects. Ideological fantasy, on the other hand, as Nilsson, argues, obscures other identities, identifications and alternatives to plans as in the case of the inevitability of the expansion of the mine and the town relocation.⁵⁴

A consultation process for a planned relocation assumes that everyone can equally take part in such a process with equal voices and balance of power. However, this was not necessarily the case in Kiruna as will be seen below, nor that the consultation process addressed the important question of whether the relocation, or the expansion of the mine, should happen or was inevitable, in the first place. In Nilsson's extended research in the town, residents reacted with either indifference to the whole process or expressed mistrust, helplessness, disempowerment, and fatalistic attitudes in the face of the perceived hegemony of LKAB and the municipality, and that it ultimately did not matter what they thought about it.55 At the same time, it is the hard risks (material or technical) that were always at the centre of the relocation consultation process focusing on collapsing houses, damage to the railway, or further infrastructure collapse. Soft risks such as emigration, dissatisfaction or segregation commanded far less attention.⁵⁶ This results in a Catch 22 situation borne out of dependence on the mining industry and subordination to LKAB. 'If the mine cannot expand and develop, the future of the town is at risk',⁵⁷ and by consequence if the relocation of residents does not happen, then the town is 'doomed' and 'futureless'.

Kiruna's relocation plans have had a ripple effect that extends beyond the town's boundaries, affecting the mobility and entire livelihoods of the indigenous Sámi people. Out of Kiruna's nearly 24,000 population in 2022, the Sámi number around 10% by 2019 count (2,500 people). This makes them the largest concentration of Sámi in Sweden.⁵⁸ The new site assigned for the relocation of Kiruna sits 3 km to the east of Kiruna, and right in the Sámi reindeer herding land. The relocated railway will slice across Sámi's reindeer pastureland, limiting potential movement, migration routes and grazing in the area. On the other hand, some Sámi work in the mine and therefore its expansion and development could benefit them.⁵⁹

Sámi populations' rights, even in developed and wealthy states, are not always respected and their inclusion in processes that radically affect their way of life and livelihoods is not always compliant with standards of indigenous rights set by international law. Even in states, such as Norway, Sweden and Finland, economic development, green energy projects and environmental protection initiatives have violated Sámi rights in contravention of human rights obligations, including those within the *Indigenous and Tribal Peoples' Convention 1989* (ILO Convention 169) and principles enshrined in the *UN Declaration on the Rights of Indigenous Peoples.*⁶⁰

It is unclear whether the Sámi community in Kiruna has been consulted, or compensated for their participation in consultation, on the aspects of relocation that would affect their reindeer herding land. The Gabna and Laevas Sámi communities in Kiruna state that they have not been adequately consulted and that the option of objecting to the scheme was not even on the table, nor have they been compensated by LKAB.⁶¹ The Swedish Government maintains that it has fulfilled its obligations under Swedish Law and international law by following due process that covered the cumulative effects on reindeer herding.⁶²

However, the obligation to consult is the burden and responsibility of the state and cannot be avoided, handed over or delegated to a private entity such as a mining company.⁶³ While it is common practice that a private or a commercial company would carry out hazard mapping, risk assessment or environmental impact assessment along with consultation processes with affected communities, what matters is the outcome of such assessments and consultations and who stands to benefit from any given outcome. In the Kiruna case, there is a clear conflict of interest when that very same company (LKAB) has a clear and big stake in what is being consulted on and the outcome of the consultation process. Khazaleh notes that the Swedish Government had minimal input in the management of the relocation and consultation process.⁶⁴

At the time of writing, LKAB had announced the discovery of at least one million tonnes of rare earth oxides which is a vital material for electric cars production.⁶⁵ If this deposit is exploited, which is likely given its high commercial viability, it will further confirm and reinforce the contradictory and paradoxical trends in Swedish, or Nordic rhetoric. The contradiction lies, on the one hand, in support for upholding Sámi and their indigenous rights to land and preservation of culture, and, on the other hand, on projects and developments that significantly disrupt their ways of life and livelihoods. This dynamic reflects a paradox, in that climate change is at once a major disruptor of the Sámi way of life, changing pasture resources and grazing land, and at the same time, green energy projects to combat it have also become a threat to the natural resources and ecosystems the Sámi depend on for their survival.⁶⁶

The Kiruna case is one rich with contradictions and insights into mobility processes challenging the notions of voluntariness versus forced mobility in the case of the inhabitants of the town when consultation never included alternatives to the expansion of the mine and relocation of its residents. As far as Sámi are concerned, there is a contradiction between the Swedish Government's increasing recognition of indigenous rights, land, preservation of tradition and culture and survival of reindeer herding, and its concurrent support of development projects. Mining, and, green energy whether hydropower or the wind farm in Markbygden for example, cut across, fragment and totally disrupt indigenous ways of life and livelihoods.⁶⁷

Reflections on place, doom and futurelessness

Interest in the future or futurelessness is not new or novel. What is new is the emergence of ways of imagining futures and linking them to pasts and presents (e.g. modelling, planning, etc.) and in ways that rework the relationships between states, corporations and the public.⁶⁸ And it is not only climate change or the impending environmental collapse associated with it from sea-level rise, ocean acidification, ecosystems degradation, biodiversity loss, water scarcity or societal conflict over resources that introduced the notion of futurelessness or doom. Feelings of the future being foreclosed and an unavoidable catastrophe that cannot be stopped goes back to the start of the century⁶⁹ when the looming threat of a nuclear holocaust was, and may still be for some, the ultimate doom. A lot of this now has been transposed to, and manifest in, the threat of young people not having a future and the emergence of movements such as Extinction Rebellion or Youth without a Future.⁷⁰ In other words, a sense of doom or futurelessness might be situational or place based for those living with an impending cataclysmic hazard or a general feeling and 'worry' among the public observing and perceiving 'either the futility of planning for the future (e.g. it's silly and useless), or the foreclosure of future opportunities (e.g. not getting to do things, not wanting to have a family, and the like)'.⁷¹

As our three case examples vividly demonstrate, places can be exposed to different kinds of futurelessness. These can stem from differences in the hazardous phenomena that cast the futures of these places into question, or because the people who live there react differently to catastrophic predictions. It may feel natural to question 'are these places actually doomed?', and if one had conducted a survey including all the people inhabiting these communities one would get very different answers, even from people living in the same place. The crux of the matter is that futurelessness manifests in a diversity of ways and that disastrous futures are also related to in different ways by different people.

The threat that Lyngen faces could qualify it as a 'doomed' place because it risks total destruction in a tsunami. For Falsterbo and Kiruna, on the other hand, there is less certainty about the hazard or threat compared to Lyngen, and more capabilities to adapt. In Lyngen, it is a question of evacuate if and when a hazard strikes. In Falsterbo, building a levee and a sea wall buys time and delays that sense of doom. In Kiruna, the threat is not generated from outside the community. If the mine does not expand, livelihoods will be affected or disappear altogether according to the city and the mining company's narrative. In that sense, the notion of doom is present in both scenarios, expand the mine and parts of the city has to relocate (doomed); or do not expand the mine and risk economic collapse (another kind of doom). What makes a place 'doomed' or the qualifying ideas about doom and futurelessness are different in the three cases. What is clear is how authorities used different narratives in each case to frame the futurelessness of the place, when is a place doomed and when it is not, and the state's obligations, and consequent actions and plans.

Part of this is due to social circumstance. We saw that the wealthy community of Falsterbo peninsula is determined to stay in place, relying on costly mitigative measures to be able to do so. The mining community of Kiruna is in a planned relocation, a process that is paid for by the local mining industrial complex (owned by the Swedish state). In Lyngen, trust in the authority's ability to provide sufficient forewarning for an organised and orderly evacuation process enables life there, as it produces a sense of safety. One commonality between all cases, however, is that everyday life will in different ways be shaped by a sense of the future being foreclosed, of a sense that future generations may not be able to experience the places in question in the same way that past generations have experienced them. Despite major differences in the nature of the hazards in question and the timescales at

which they manifest, all of these places are to different extents exposed to a sense of life in that place being threatened. Among our cases here, Kiruna is an outlier in that it is in the process of moving to an alternative site. Kiruna's residents have already been through at least some of the emotionally charged place loss and begun a process of connecting to a different site, including ideas and plans for how a new site can be made theirs by, for example, moving significant buildings such as the church. In Falsterbo peninsula, the levee creates debate because, among other things, the area will look different when it is built. For some, the sea view will disappear, while for others, there will be greater obstacles (a levee to climb) to get to the beach or to the golf course. Even if it is not an entirely new place, the changes will still affect the sense of it.

There are different views on the continued existence of the town or settlement, and in all cases, time seems important. In the Kiruna case, the relocation process is already a part of daily life, but since it will continue for the next 30 years, it is also a part of the future. In Falsterbo peninsula, the future is clearly viewed as hopeful, the municipality declares 'We enjoy it here and will not move from Falsterbo peninsula!'. But even if building a levee is universally regarded as the most suitable solution today, the County Administrative Board (unlike the municipality) still accepts the possibility of a future relocation. In Lyngen, the communities surrounding the fjord will need to move at some point in the future, but today everyday life remains largely the same.

There are also differences in how the future is perceived. One important question is whether the doom of the specific physical place also results in a futurelessness for the community. For example, the planned relocation process in Kiruna is argued to be the solution for Kiruna's survival where the identity of the town is framed as a 'mining town' and residents as 'miners'. Thus, the best solution for the mine is also framed as the best solution for the community. While this is the dominant narrative, the further development of the mine and the relocation of the town is probably a scenario of some doom for the Sámi population in the area. The Kiruna case illustrates that even where futurelessness is already there, a new future might exist, but not for everyone.

Futurelessness is also a matter of resources, especially who has the resources. Comparing Kiruna with Falsterbo peninsula, what is considered important to protect differs between the cases. In Kiruna, the mine and minerals that the mine will provide are central, while in Falsterbo peninsula, what is important is that the people who live there will be able to stay. Thus, the perspective from which any of this is viewed is relevant to the outcome, and so too is the point in time at which those views are assessed. Resource-rich inhabitants in Falsterbo could elect to and support staying while the municipality invests in further protection. The question is would these views change if and when relocation becomes an inevitability and futurelessness becomes more prominent in people's minds. In Kiruna, that futurelessness has been associated with the mine not expanding thus rendering relocation inevitable.

What is common between the three cases is that the 'future may be anticipated, forecast, predicted, projected, prognosticated, divined, speculated, imagined,

narrated, promised, revealed, augured, foreseen, or fantasised about'.⁷² But who does that and how is it done?

Oomen et al. question how some imagined futures become performative and who renders them so,73 while Latour contends that the future depends on how and who composes it.⁷⁴ In Oomen et al.'s work, the authors view the future as imaginative work and practices that create and negotiate meanings, legitimacy and relations of trust. But when the future can be narrated as a story or is speculated on, Tutton (citing Jasanoff) argues that not all actors are positioned to either anticipate the future or benefit from it, and so some depend on others in having a future and must put an enormous amount of trust in them.75 Several authors confirm that those who lack the social standing and power are unable to 'render their visions performative'.⁷⁶ It is not just the materially wealthy or those with cultural resources who have more capacity to explore the future and share their knowledge among themselves but also those who have more political influence and clout as in the cases of Kiruna and Falsterbo. These future predictions or narratives move between unstable and messy institutions and the public,77 especially when the actors shaping and disseminating vision of the future are powerful and the public is either passive and disinterested or ignorant.⁷⁸ Hence, catastrophic scenarios may produce a diverse set of responses in exposed populations.

This in turn highlights the issue of trust in the future, or the lack of, and the dynamics between the public and the experts or those who are in a position of power and authority. In a study on risk communication and worried publics because of rockslide and tsunamis in Norway, Kjetil Rød et al. found that those who trusted the experts and maintained a dialogue with them worried more; those who were concerned about other issues than the impending disaster worried less, and those who lived in areas or communities with significant assets worried the most. The same study adds that facts and figures were not the only, or the most important, factor in determining people's responses. Risk communication and the ways in which it addressed people's worries was important.⁷⁹ It is therefore important to take into account the different ways that people react to information about catastrophic risks.

How people deal with future worries especially in extreme cases of doom has a lot to do with how they perceive and understand risk. Whether it is the analytical system of calculating probability or the experiential system of intuition,⁸⁰ coping with worry takes one of five forms according to Macgregor – 'do nothing; continue to worry; accept discomfort; escape from the source of the worry and/or take direct action to reduce the consequences'.⁸¹ How people respond to an impending doom depends on which system they lean more towards and whether their emotions are aroused by images (connection to a place, familial ties and history etc.) or facts and figures and scientific information. Bass argues that people are more affected by images than facts and maths or formal logic of risk assessment and that images strike more powerfully and deeply than numbers. Whether this applies to people's sense of doom and futurelessness remains to be seen in the exploration in future research of the case studies in this chapter.⁸²

Imagined futures, or futurelessness in some cases, emerge from people linking futures with present and pasts in unique ways and in what Fincher et al call 'time

stories' in their study exploring people's lived experiences of time, and environmental changes that occurred in their lifetime and that of their families in a small low-lying coastal community in south-eastern Australia.⁸³ The kind of futureless or doomed places this chapter explores sits in the grey area between the uncertain and the indeterminate – the former is the probability of an event whose nature is known and the latter is an event whose nature is unknown.⁸⁴ A major caveat is that exposed populations may not be as well informed about the risk as the experts who produce the models about the uncertainties and parameters considered. This opens up the potential for contestation about how catastrophic prognoses should be dealt with locally. What is clear is that notions of doom and futurelessness can impact places and people in diverse ways that research is only beginning to unravel.

Notes

- Richard Tutton, 'The Sociology of Futurelessness' (2022) 57(2) Sociology 2 438–453. https://doi.org/10.1177/00380385221122420; Geoff Mann, 'Doom' in Tariq Jazeel and others (eds) Keywords in Radical Geography: Antipode at 50 (Wiley Blackwell 2019) 90–94.
- 2 David Theo Goldberg, Dread: Facing Futureless Futures (Polity Press 2021).
- 3 Christopher Stephan and Devin Flaherty, 'Introduction: Experiencing Anticipation. Anthropological Perspectives' (2019) 37(1) The Cambridge Journal of Anthropology 1–16.
- 4 Jeroen Oomen and others, 'Techniques of Futuring: On How Imagined Futures Become Socially Performative' (2021) 25(2) *European Journal of Social Theory* 252. https://doi. org/10.1177/1368431020988826.
- 5 See, e.g., Travis Elborough, Atlas of Vanishing Places: The Lost Worlds as They Were and as They Are Today (White Lion Publishing 2019).
- 6 Helen Adams, 'Why Populations Persist: Mobility, Place Attachment and Climate Change' (2016) 37 Population and Environment 429–448; Elisabeth Gruber, 'Staying and Immobility: New Concepts in Population Geography? A Literature Review' (2021) 76(2) Geographica Helvetica 275–284.
- 7 Amy Donovan and Clive Oppenheimer, 'At the Mercy of the Mountain? Field Stations and the Culture of Volcanology' (2015) 47(1) *Environment and Planning A* 156–171.
- 8 Lydie Goeldner-Gianella and others, 'Perception of the Risk of Tsunami in a Context of High-Level Risk Assessment and Management: The Case of the Fjord Lyngen in Norway' (2017) 4(1) *Geoenvironmental Disasters* 1–15.
- 9 Tutton (n 1); Goldberg (n 2); Mann (n 1).
- 10 Eric L. Hsu, 'Must Disasters Be Rapidly Occurring? The Case for an Expanded Temporal Typology of Disasters' (2019) 28(3) Time and Society 904–921; Brett Story, 'Reflections on Dread and Futurity' (2021) 11(2) Dialogues in Human Geography 329.
- 11 Kenneth Hewitt, 'The Idea of Calamity in a Technocratic Age' in Kenneth Hewitt (ed.), Interpretations of Calamity: From the Viewpoint of Human Ecology (Allen and Unwin 1983) 3–32.
- 12 See, e.g., Ben Wisner and others, *At Risk: Natural Hazards, People's Vulnerability and Disasters* (2nd ed., Routledge 2004); and Anthony Oliver-Smith, 'Peru's Five-Hundred-Year Earthquake: Vulnerability in Historical Context' in Anthony Oliver-Smith and Susanna Hoffman (eds.), *The Angry Earth: Disaster in Anthropological Perspective* (Routledge 2020) 83–97.

14 Päivi Lujala, Haakon Lein and Jan Ketil Rød, 'Climate Change, Natural Hazards, and Risk Perception: The Role of Proximity and Personal Experience' (2015) 20(4) *Local Environment* 489.

¹³ Goldberg (n 2).

- 15 Tim Harries, 'Ontological Security and Natural Hazards' (2017) Oxford Research Encyclopaedia of Natural Hazard Science. https://doi.org/10.1093/acrefore/9780199389407. 013.279.
- 16 Lydie Goeldner-Gianella and others, 'Perception of the Risk of Tsunami in a Context of High-Level Risk Assessment and Management: The Case of the Fjord Lyngen in Norway' (2017) 4(1) Geoenvironmental Disasters 1.
- 17 Norwegian Geotechnical Institute, *Flodbølger etter mulig fjellskred, Nordnes, Lyngen kommune Beregning av mulige fjellskred og flodbølger* (NGI 2008) https://www.ngu.no/upload/aktuelt/Rapport%2020071677-1.pdf> accessed 1 October 2023.
- 18 Goeldner-Gianella and others (n 16).
- 19 Ibid.
- 20 Torill Ustad Stav, 'Vi kaller det «dødsøyet» på spøk', NRK (Norway, 13 October 2013) <https://www.nrk.no/tromsogfinnmark/lever-i-skyggen-av-nordnesfjellet-1.11259965> accessed 5 December 2023.
- 21 Municipality of Vellinge, Vellinge Översiktsplan 2010 med utblick mot 2050 (2013).
- 22 Ibid.; The County Administrative Board of Skåne, Riskhanteringsplan för Falsterboområdet 2022–2027 (2021).
- 23 Municipality of Vellinge, 'Befolkning i kommundelar och tätorter' (2023) https://vellinge.se/kommun-och-politik/kommunfakta/statistik/befolkning-i-kommundelar-och-tatorter/> accessed 23 January 2023.
- 24 Dom gällande översvämningsskydd på Falsterbonäset (M 6552-20 Dom 2022-06-17).
- 25 Ibid.
- 26 The County Administrative Board of Skåne, *Riskhanteringsplan för Falsterboområdet* 2022–2027.
- 27 MSB, Översyn av områden med betydande översvämningsrisk. Enligt förordning (2009:956)omöversvämningsrisker,2018<https://www.msb.se/sv/publikationer/oversynav-omraden-med-betydande-oversvamningsrisk--enligt-forordning-2009956-omoversvamningsrisker2/#:~:text=Arbetet%20g%C3%B6rs%20enligt%20%C3%B6vers v%C3%A4mningsdirektivet%2C%20genom,milj%C3%B6n%2C%20kulturarvet%20 och%20ekonomisk%20verksamhe> accessed 23 January 2023.
- 28 The County Administrative Board of Skåne, *Riskhanteringsplan för Falsterboområdet* 2022–2027 (2022).
- 29 Municipality of Vellinge, Samrådsredogörelse, länsstyrelsens ärendenummer 531-28870-2015 (2018).
- 30 Ibid.
- 31 Caroline Fredriksson and others, 'Statistical Analysis of Extreme Sea Water Levels at the Falsterbo Peninsula, South Sweden' (2016) 72 VATTEN – Journal of Water Management and Research 129; Caroline Hallin and others, 'Using Historical Storms for Flood Risk Management: The 1872 Storm in South Sweden' (2018) 3 RCC Perspectives 11.
- 32 M 6552-20 Dom 2022-06-17 (n 24).
- 33 The County Administrative Board of Skåne, *Riskhanteringsplan för Falsterboområdet* 2022–2027.
- 34 Federico Moreno, 'Här dränks den skånska orten kan försvinna från kartan' *Expressen* (Skanör, 10 December 2018) https://www.expressen.se/tv/nyheter/kvp/har-dranks-den-skanska-orten-kan-forsvinna-fran-kartan-/> accessed 29 May 2023.
- 35 The County Administrative Board of Skåne, *Riskhanteringsplan för Falsterboområdet* 2022–2027; Dom gällande översvämningsskydd på Falsterbonäset.
- 36 The County Administrative Board of Skåne, *Riskhanteringsplan för Falsterboområdet* 2022–2027.
- 37 Ibid.
- 38 Municipality of Vellinge, Kustprogram (2020).
- 39 The County Administrative Board of Skåne, *Riskhanteringsplan för Falsterboområdet* 2022–2027.

- 40 Stephanie The and Marianne Skov, Kostnadsanalys av översvämningsskydd 7 områden längs Skånes kust (2021).
- 41 M 6552-20 Dom 2022-06-17 (n 24).
- 42 The County Administrative Board of Skåne, *Riskhanteringsplan för Falsterboområdet* 2022–2027.
- 43 Bo Nilsson, 'Ideology, Environment and Forced Relocation: Kiruna A Town on the Move' (2010) 17(4) European Urban and Regional Studies 433. https://doi. org/10.1177/0969776410369045; Agnieszka Szpak, 'Relocation of Kiruna and Construction of the Markbygden Wind Farm and the Saami Rights' (2019) 22 Polar Science 100479. https://doi.org/10.1016/j.polar.2019.09.001.
- 44 Municipality of Kiruna Miljökonsekvensbeskrivning för fördjupad översiktsplan för Kiruna centralort N, November 2013, Kiruna kommun; Municipality of Kiruna Fördjupad översiktsplan för Kiruna centralort, March 2014, Kiruna kommun, cited in Johnson, E. and others 'Classification and Co-ordination of Conflicting Rights for Sustainable Land Use' (2014) 10 Nordic Journal of Surveying and Real Estate Research 61–81.
- 45 Nilsson (n 43).
- 46 Göran Cars, Thomas Kalbro and Hans Lind, 'Nya regler för ökat bostadsbyggande och bättre infrastruktur. SNS Förlag, Stockholm', cited in Eva Liedholm Johnson, Jenny Paulsson and Jesper M Paasch, 'Classification and Co-ordination of Conflicting Rights for Sustainable Land Use' (2014) 10(2) *Nordic Journal of Surveying and Real Estate Research* 61.
- 47 Nilsson (n 43) 433.
- 48 Municipality of Kiruna *Fördjupad översiktsplan för Kiruna centralort*. March 2014, Kiruna kommune, cited in Johnson, Paulsoon and Paasch (n 46).
- 49 Ibid.
- 50 Nilsson (n 43).
- 51 David Nikel, 'Kiruna: A Mining Town on the Move in Northern Sweden', Forbes (2021) https://www.forbes.com/sites/davidnikel/2021/03/23/kiruna-a-mining-townon-the-move-in-northern-sweden/ accessed 5 December 2023.
- 52 Nilsson (n 43).
- 53 Terry Eagleton, Ideology. An Introduction (Verson 1991).
- 54 Nilsson (n 43).
- 55 Ibid.
- 56 Ibid.
- 57 Ibid.
- 58 Szpak (n 43).
- 59 Ibid.
- 60 Ibid.
- 61 Ibid.; David Landes, *Saamis Sour over Time Lost to Kiruna Move (*2008) <https://www.thelocal.se/20080324/10672> accessed 17 January 2023.
- 62 Szpak (n 43); Ibid.
- 63 Inter-American Court of Human Rights, Kichwa Indigenous People of Sarayaku v. Ecuador cited in Szpak, Ibid.
- 64 Lorenz Khazaleh, 'Forced Displacement in Sweden: When a Mine Company Demolishes and Rebuilds an Entire City', University of Oslo, Department of Sociology (Blog Post, 12 September 2015) https://www.sv.uio.no/sai/english/research/projects/overheating/ news/2016/lopez.html> accessed 18 January 2023.
- 65 'Huge deposits of rare earth elements "crucial to enable the green transition" discovered in Sweden', *CBS News* (12 January 2023) accessed12 January 2023.">https://www.cbsnews.com/news/ rare-earth-elements-sweden-eu-green-transition-electric-vehicle-batteries/>accessed12 January 2023.
- 66 Szpak (n 43).

- 67 Anna Naykanchina, Indigenous Reindeer Husbandry. The Impacts of Land Use Change and Climate Change on Indigenous Reindeer Herders' Livelihoods and Land Management, and Culturally Adjusted Criteria for Indigenous Land Uses (2012), A study submitted for the 11th Session of the Permanent Forum on Indigenous Issues New York, 7–18 May 2012 https://reindeerherding.org/images/projects/Nomadic_Herders/ publications/UNPFII-2012-Reindeer-Husbandry_Final23Nov.pdf> accessed 5 December 2023.
- 68 Andrew S. Mathews and Jessica Barnes, 'Prognosis: Visions of Environmental Futures' (2016) 22 Journal of the Royal Anthropological Institute 9. https://doi. org/10.1111/1467-9655.12391.
- 69 See: Scott MacDonald, 'The Landscape of Futurelessness: An Interview with Brett Story' (2018) 72(1) *Film Quarterly* 50. https://doi.org/10.1525/fq.2018.72.1.50; and Franco Berardi, *After the Future* (AK Press 2011), both cited in Tutton (n 1).
- 70 Tutton (n 1).
- 71 Patricia C. Hanley and Daniel J. Christie, 'An Inventory Designed to Measure the Impact of the Threat of Nuclear War on Adolescents: Dimensions of Fear, Futurelessness, and Powerlessness' (1988) Washington, DC: Institute of Educational Sciences cited in Tutton (n 1).
- 72 Mathews and Barnes (n 68).
- 73 Oomen and others (n 4) cited in Tutton (n 1).
- 74 Bruno Latour, 'Why Has Critique Run Out of Steam? From Matters of Fact to Matters of Concern' (2004) 30 Critical Enquiry 225. https://doi.org/10.1086/421123.
- 75 Sheila Jasanoff 'The Ethics of Invention: Technology and the Human Future' (WN Norton 2016) cited in Tutton (n 1) 5.
- 76 Oomen and others (n 4) cited in Tutton (n 1); Brown, N. and others, 'Introducing Contested Futures: From Looking into the Future to Looking at the Future' in Brown, N. and others (eds) *Contested Futures: A Sociology of Prospective Technoscience* (2000) London: Ashgate, pp. 1–18, cited in Tutton (n 1).
- 77 Mathews and Barnes (n 68).
- 78 Brian Wynne, 'Misunderstood Misunderstanding: Social Identities and Public Uptake of Science' (1992) 1 Public Understanding of Science 281–304. https://doi. org/10.1088/0963-6625/1/3/004 cited in Mathews and Barnes (n 68).
- 79 Sverre Ketil Rød, Carl Botan and Are Holen, 'Risk Communication and Worried Publics in an Imminent Rockslide and Tsunami Situation' (2012) 15(6) *Journal of Risk Research* 645.
- 80 Paul Slovic and others, 'Risk as Analysis and Risk as Feelings: Some Thoughts about Affect, Reason, Risk, and Rationality' (2004) 24 Risk Analysis: An Official Publication of the Society for Risk Analysis 311–322. https://doi.org/10.1111/j.0272-4332.2004.00433.x.
- 81 Donald MacGregor, 'Worry Over Technological Activities and Life Concerns' (2006) 11 *Risk Analysis* 315. https://doi.org/10.1111/j.1539-6924.1991.tb00607.x cited in Rød, Botan and Holen (n 79).
- 82 Rick Bass, *The book of Yaak* (Houghton Mifflin 1996) cited in Rød, Botan and Holen (n 79).
- 83 Ruth Fincher and others, 'Time Stories: Making Sense of Futures in Anticipation of Sea-Level Rise' (2014) 56 *Geoforum* 201. https://doi.org/10.1016/j.geoforum. 2014.07.010.
- 84 Mathews and Barnes (n 68).