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# Deciding whether it's too late: How climate activists coordinate alternative futures in a postapocalyptic present

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#### Abstract

Climate activists are confronted with an increasing tension between the need for urgent climate action and a sense that it could already be too late to prevent 'dangerous' or 'runaway' climate change. In this context, scholars observe the spread of a postapocalyptic environmentalism that understands climate change as already being locked in beyond 'safe' limits. This narrative challenges apocalyptic environmentalism, which presents climate disasters as a future threat to be avoided. We aim to improve our understanding of the profound yet contradictory impact of this shift on climate activism. Specifically, we explain why in some cases, the postapocalyptic narrative is adopted without clearly impacting climate activists' goals and strategies, which remain informed by an apocalyptic vision based on notions of solution, control and progress. Drawing on an ethnographic case study of a British climate movement organization, we explain why apocalyptic strategies can be reproduced despite postapocalyptic visions, and how this can result in a juxtaposition of strategies perceived as most realistic and strategies actually being pursued. We argue that Tavory and Eliasoph's (2013) theory about the disjuncture and coordination of imagined futures can help us make sense of this situation. We expand this theory by showing the importance of spatialization as a strategy to overcome temporal contradictions.

Key words: Climate change, climate change movements, postapocalyptic, apocalyptic, temporality, imagined futures

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#### 1. Introduction

Temporality, or the social production of time, is central to climate politics as actors imagine various possible futures and timescales for action (Edensor, Head, and Kothari 2020). Responding to research on 'tipping points' (Lenton et al. 2019), recent debates address whether there is still time to avert 'dangerous' or 'runaway' climate change (Hulme 2020). Climate change movements (CCMs) inevitably participate in such debates when they build actions on temporal assumptions. Yet while important, the implications of contested temporalities for CCMs' goals and strategies are insufficiently understood (de Moor 2021). CCMs have long been assumed to act on an 'apocalyptic' temporality that imagines runaway climate change as a future threat that can and must be avoided (Garrelts and Dietz 2014; Cassegård and Thörn 2018). However, given the closing window for climate mitigation, some authors describe an emerging temporality of 'postapocalyptic environmentalism' that assumes the apocalypse is already here or unavoidable (Hall 2016; Friberg 2021; Cassegård and Thörn 2018). We aim to clarify the profound yet often contradictory implications of this shift in temporality.

Empirical work has so far focused on groups incorporating a postapocalyptic narrative in relatively consistent ways by preparing for, rather than preventing the apocalypse (Cassegård and Thörn 2022; Cassegård and Thörn 2018). Jem Bendell's Deep Adaptation network, for instance, claims that climate activists should start preparing for 'near term societal collapse' because such a scenario can no longer be avoided. Yet elsewhere, we have pointed out that postapocalyptic narratives, while spreading, often do not change activists' strategies directly (de Moor 2021). Major recent climate campaigns, including Extinction Rebellion (XR) and Fridays For Future (FFF), have adopted postapocalyptic elements in their framing but remain apocalyptic in their aim to avert dangerous climate change (Stuart 2020; de Moor et al. 2021; Friberg 2021). Hence, we see the emergence of a disjuncture between (postapocalyptic) imagination and (apocalyptic) action. We, therefore, ask: How is climate activism organized in the context of these growing tensions and contradictions between activism and imagined futures? Why do activists reproduce modernistic imaginaries of control, solution and progress if they no longer consider these realistic? And why do postapocalyptic narratives remain marginal to strategizing?

We make sense of the temporal contradictions behind climate activism by connecting research on climate activism with the sociology of imagined futures. By treating the future as a social fact (Beckert and Suckert 2021), this approach can illuminate how futures embody contestations over societies' possible and desirable directions and can ultimately explain social outcomes. We particularly draw on

Tavory and Eliasoph's (2013) work to make sense of disjunctures in imagined futures and actions. The authors argue that collective action requires the coordination of distinct modes of future-making, including more or less predictable 'trajectories' (including strategizing) and overarching 'temporal landscapes' (broad, often implicit notions of how time unfolds). We apply Tavory and Eliasoph's theory to an ethnographic case study of a British CCM organization (pseudonym 'Carbon Free'). During the period of data collection, Carbon Free went through an internal process of reconciling competing future imaginaries into a workable strategy, thereby presenting an opportunity to directly observe and discuss future imagination and its relation to strategizing.

We found that a limited strategic impact of postapocalyptic narratives can result from the difficulty of coordinating modes of future-making within and between actors. Activists addressed this challenge, firstly, by shifting focus from temporal landscapes to trajectories – i.e., from the bigger picture of avoiding runaway climate change (which can invoke images of unavoidable catastrophe) to action here and now (which renders climate change 'actionable'). This process disconnects strategizing from long-term imagined futures and can thereby momentarily help overcome postapocalyptic fears and rehabilitate the apocalyptic temporal landscape. This explains why the latter survives even when increasingly considered unrealistic. The second approach we observed concerns the spatialization of strategies and narratives. When activists struggled to coordinate their activism at a temporal level, they responded by framing campaigns in spatial terms. While serving the important purpose of enabling climate action despite dire forecasts, these approaches can produce an unsustainable basis for action and restrict discursive space for exploring just and effective responses to expected climatic disruptions. In the conclusion, we discuss the potential relevance of these insights for understanding the temporalities of contradictory climate action in other domains.

#### 2. Postapocalyptic narratives in climate activism

Scholars increasingly recognize temporality and imagined futures as key drivers of social action (Beckert and Suckert 2021), particularly in the domain of climate action (Mische 2014; Edensor, Head, and Kothari 2020; Hall 2016). Aspects of temporality and imagined futures have a long tradition in social movement studies (Melucci 1998). According to Gillan and Edwards, the future is central to activists who "are defined by the very quality of being able to (...) imagine alternative ways of living where others cannot" (2020, 503). Literature on prefiguration shows how movements attempt to practice now the change they want to see in a future world (Yates 2015). More recently, scholars have

engaged with climate activists' imagined climate futures and alternatives to the current social, economic and political system (e.g., Buzogány and Scherhaufer 2022).

Climate activists seem acutely aware that future imaginaries can be powerful and are worth contesting (Ergen and Suckert 2021), but they often struggle to imagine desirable futures (Stuart 2020) and reimagine the status quo (Marquardt and Nasiritousi 2022). For example, FFF activists demand sciencedriven policies, thereby reforming existing institutions but avoiding debates about a future social and political order (Marquardt 2020). As imagined futures underlying climate activism are becoming increasingly uncertain, greater scholarly attention is merited (Friberg 2021; de Moor 2021). A major discussion is unfolding as to whether climate activism should be imagined in terms of dangerous yet still avoidable climate change or in terms of catastrophic scenarios as being unavoidable or already here (Hulme 2020; Friberg 2021).

Cassegård and Thörn (2018) conceptualize this debate by distinguishing between apocalyptic and postapocalyptic environmentalism (cf. Hall 2016). They argue that climate activism has long been informed by apocalyptic narratives of environmental catastrophe as a future threat that is still avoidable. This can by extension reproduce the (eco)modernistic notion that humans are in control over nature, and that by addressing environmental problems, continued societal stability (if not progress) can be warranted. By contrast, the spread of a postapocalyptic narrative challenges these notions of solution, control, and progress as it informs "environmental activism based on a catastrophic loss experienced as already having occurred, as ongoing or as impossible to prevent, rather than as a future risk or threat" (Cassegård and Thörn 2018, 563). Apocalyptic scenarios are not a distant future but become part of the here and now (Friberg 2021), inspiring not apathy but a focus on "mental or cultural adaptation to loss rather than [on preventing] it" (Cassegård and Thörn 2018, p. 562-563).

While distinct in theory, these apocalyptic and postapocalyptic narratives often overlap in practice. Activists sometimes oscillate between them or take ambivalent positions where some catastrophes are seen as already present or unavoidable while others are still considered preventable (de Moor 2021). Stuart (2020) shows that climate activists respond by campaigning based on 'radical hope' to 'save what can still be saved', and shifting from consequentialism to virtue ethics (doing the right thing, regardless of the likelihood of success). Likewise, de Moor (2021) discusses how elements of the postapocalyptic narrative are embraced in various European CCM groups while keeping their strategies informed by apocalyptic narratives that legitimize a continued focus on climate mitigation.

Postapocalyptic environmentalism thus emerges as an alternative to the historically dominant apocalyptic narrative, yet typically without challenging the latter regarding informing strategies and tactics. We should therefore ask how climate activists can continue campaigning for mitigation despite postapocalyptic beliefs, and why postapocalyptic goals and strategies remain marginal. According to Friberg (2021), the postapocalyptic narrative functions as a warning, enabling radical action that may ultimately avoid the unfolding of imagined scenarios. However, this puts activists back on the terrain of apocalyptic environmentalism that mobilizes images of unavoidable catastrophic futures *unless* appropriate action is undertaken. Friberg's analysis, therefore, does not solve the observed temporal contradiction: Postapocalyptic narratives, adequately understood, abandon the belief that the apocalypse is still contingent upon our actions today (Cassegård and Thörn 2018), yet activists embracing them sometimes continue acting "as if this crucial window for effective action had not closed" (Foster 2015, 5)

#### 2.1 Coordinating imagined futures

To make sense of this apparent contradiction, we draw on Tavory and Eliasoph's (2013) theory of future coordination. Following their model, activists need to coordinate three 'modes' of future imagination when organizing collective action: a) anticipations of the immediate future called 'protentions'; b) 'trajectories' that place protentions on an intended course of action, and c) 'landscapes' that offer the temporal backdrop and structure of our actions. We focus on the latter two, underlining that trajectories can vary significantly in temporal reach from preparing next week's meeting to drafting multi-year strategies. Trajectories present the mode of future that people (can) imagine having control over through strategic action. Landscapes typically offer a 'naturalized' temporal structure upon which trajectories are projected, including institutions like a calendar's grid, a millennialist's prediction of the end of time, or a modernist's belief in perpetual progress. While temporal landscapes do not "feel as intentional as (...) trajectories" and can appear as a "path already laid", they are nonetheless social products that need to be enacted (Tavory and Eliasoph 2013). Yet in modern societies built on notions of control, and in the context of the 'risk society' marked by looming ecological collapse (Beck 1992), temporal landscapes "seem to lose their aura of inevitability" (Tavory and Eliasoph 2013, 928). Considering human capacity to alter planetary configurations and how planetary boundaries subsequently come to restrict human agency, trajectories and landscapes become increasingly intertwined.

As illustrated in Figure 1, climate activism, as informed by imagined futures, can be projected on Tavory and Eliasoph's theory of future coordination. Apocalyptic and postapocalyptic narratives are primarily located on the dimension of temporal landscapes: should we imagine our actions against a backdrop of possibility and agency, or one marked by an already unavoidable scenario of runaway climate change? Groups informed by a postapocalyptic imaginary are presumed to envisage a temporal landscape of unavoidable or unfolding catastrophe and therefore embrace adaptation-oriented trajectories to deal with their impact (Cassegård and Thörn 2018). By contrast, groups informed by an apocalyptic narrative are assumed to envisage a temporal landscape marked by future threats that can still be avoided through mitigation-oriented trajectories that even leave space to imagine progress towards more prosperous, sustainable societies. In the case of apocalyptic narratives, the landscape is thus conditional upon pursuing ambitious mitigation trajectories.

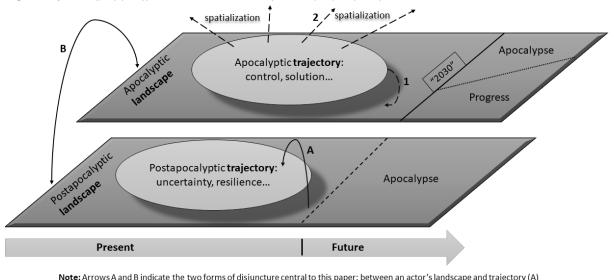


Figure 1: Projection of (post)apocalyptic environmentalism onto Tavory and Eliasoph's (2013) theory of future coordination

and between multiple actors' landscapes (B). While in the apocalyptic landscape the future still holds multiple possibilities that are still contingent upon human action until the symbolic deadline of 2030, in the postapocalyptic landscape, the future only holds apocalypse and its boundaries with the present have become blurred. The dashed arrows indicate strategies to deal with disjunctures: Disconnecting trajectories from landscapes, in part through spatialization (arrow 1) and in turn, as indicated by arrow 2, momentarily rehabilitating apocalyptic landscapes through apocalyptic trajectories.

While not uncommon, such a well-coordinated arrangement between different modes of futuremaking cannot be taken for granted: "People need to coordinate their futures just enough to keep going, and in this process, disjunctures are the rule as much as the exception" (Tavory and Eliasoph 2013, 936). A disjuncture thus indicates a discontinuity between different modes of future imagination but does not necessarily mean the end of collective action. Two disjunctures are central to our analysis. Firstly, actors increasingly adopt postapocalyptic views at the level of temporal landscapes but without adapting their trajectories (arrow 'A' in Figure 1). Secondly, activists with conflicting apocalyptic and postapocalyptic views often operate alongside each other (arrow 'B' in Figure 1). Both may ultimately need to adapt to the wider society where less radical, ecomodernist narratives of green growth remain the norm (Hall 2016; Dryzek 2013). As we will see, strategies are available to manage such disjunctures and enable collective action, albeit in a precarious fashion. In uncertain contexts, activist groups may deemphasize landscapes and "start to construct trajectories as if they are only contingent, short-term, willed projects" (Tavory and Eliasoph 2013, 928). As we will show through our case study, downplaying landscapes and shifting focus to trajectories resolves both abovementioned disjunctures and can momentarily rehabilitate apocalyptic landscapes (arrow '1' in Figure 1).

#### 2.2 The spatialization of collective action

To be successful, social movements must perform core strategic framing tasks, such as convincing oneself and others that a strategy is likely to be successful (prognostic framing) or worth joining (motivational framing) (Benford and Snow 2000). Activists may, therefore, still need to demonstrate the plausibility of their trajectories. If doing so cannot be achieved by showing the fit of trajectories within a wider temporal landscape, then demonstrating spatial fit may present an alternative strategy to motivate collective action (arrows '2' in Figure 1). Activism is always related to space and time, yet actors can shift emphasis from one to another, and the importance of time and space to inform collective action varies historically (Paul 2018). Time has been considered dominant over space in modernity because modernists "believe that we can continuously make history, and we make it 'forward' into the future' (Friedland and Boden 1994, 10). Yet, the current confrontation between 'progress' and planetary boundaries has reversed this. According to Friberg (2021, 9), the "focus shift of dimensions, from time to space, marks the onset of postmodernism (...). We have left the modern world's fixation on progress''. As the future casts its shadow of inevitable collapse over the here and now, Friberg argues that the boundary between present and future evaporates, creating an "omnipresent present."

By contrast, we will argue that the future becomes obscured in climate activism as activists shift focus to action here and now and away from contemplating how this action may fit into apocalyptic or postapocalyptic landscapes. This is precisely what can be accomplished by demonstrating the likelihood of preferred trajectories in terms of spatial fit – i.e., showing that a proposed solution (such as, in our case, developing enough renewable energy sources for a region to become carbon-neutral) meets spatial requirements, without necessarily assessing whether doing so can be achieved 'in time'. Such spatialization may contribute to the momentary rehabilitation of an apocalyptic landscape.

However, as we will see, postapocalyptic fears must be continuously managed to maintain apocalyptic trajectories, creating a precarious basis for activism.

#### 3. Case selection and methods

In this study, we focus on an organization with the pseudonym 'Carbon Free' based in a medium-sized British city. Carbon Free presented a useful case for studying the processes by which climate futures are imagined when organizing climate activism, because of the group's internal diversity, ongoing discussions regarding views on the organization's goals, and debates about the strategies to reach those goals. The ongoing discussions allowed us to observe directly how goals and strategies were formed and motivated (cf. Blee 2013). Carbon Free thus presented what Mische (2014, 447) calls a "site of hyperprojectivity" where "the future is self-consciously introduced into the present, becoming the object of conversation, scenario-building, analysis, and argument", and which allowed us to study "projected futures [that] are often hard to see amidst the routine practice of day-to-day life".

The broader research project in which we encountered Carbon Free was focused on cities with relatively high exposure to climate-related risks, strong local green politics, and a well-developed environmental movement scene that could be expected to politicize climate-related issues and impacts. In such cities, we anticipated that confrontations between apocalyptic and postapocalyptic narratives would be particularly salient. At the national level, the British context represented a typical case of a Western European country that has put climate change high on its political agenda but where dissatisfaction with actual climate ambition has led to ongoing contentious episodes and an emerging postapocalyptic narrative among leading groups like XR (Stuart 2020; Friberg 2021).

We followed Carbon Free with particular intensity from October 2019 to January 2020. Throughout October 2019, one of the authors acted as a volunteer, which enabled him to observe all board meetings and public meetings of the organization. The same was done during one week of January 2020, when Carbon Free organized its largest public event to that date before it was shut down due to the pandemic. Four board meetings and two public events lasting between two and six hours each were observed. In addition to several informal conversations with both directors and participants, the four directors (three of whom were highly experienced climate campaigners) were interviewed in January 2020, with interviews lasting between 70 and 90 minutes. We interviewed one director already for a first time the year before, which helped inform the case selection. We used a semi-structured funneling interview approach (Brinkmann and Kvale 2015), loosely following a topic list that first addressed how the directors made sense of the climate crisis and the kind of action that it required. In

most cases, this revealed serious doubts that dangerous climate change could still be prevented. We then discussed if and how their strategies responded to this diagnosis, including whether they or their group perceived a need to go beyond their focus on mitigation. Interviews finally addressed, in vernacular terms, the perceived tension between trajectories and landscapes. Since we conducted interviews after most ethnographic observations had already taken place, we could refer to concrete observed situations, rendering our exploration of temporality more concrete.

We transcribed interviews and, to enable interpretations of manageable subsections of the data, coded transcripts through a combination of concept-driven and data-driven meaning coding (Brinkmann and Kvale 2015) in NVivo. We derived most themes, such as (post)apocalyptic perceptions of climate change, from theory and applied them to the data through concept-driven coding. Other themes, such as the importance of space, emerged inductively from the material, which we then systematically applied through inductive coding.

#### 4. Findings

Carbon Free's official aim was to achieve zero carbon within its region by 2030. While their visionstatement also mentions values like climate justice and inclusivity, our analysis would show that these often ended up being secondary to the aim of rapid decarbonization. One might thus infer that Carbon Free was an organization made up of people confident about a temporal landscape that includes a successful zero carbon transition towards solving climate change, and that getting there was a matter of walking faster down an already identified mitigation-oriented trajectory. However, Carbon Free was made up of a diverse group of individuals, many of whom were deeply skeptical about the achievability of that goal. While the organization and its directors did not express very developed temporal landscapes (indeed, as we will discuss, landscapes remained marginalized), notions of apocalyptic and, particularly, postapocalyptic scenarios were often implied. For instance, while ascribing to the necessity to reach zero carbon by 2030, Robin explained that "I do, hands down, feel like 10 years is hopelessly unrealistic. (...) There's an absolute shitstorm coming." Taylor described their view of climate change in similar postapocalyptic terms:

"I have quite a lot of moments of just feeling like, wow, it's just happening already. We can't just do all the mitigation and then everything is gonna be fine. And we probably can't even achieve doing all the mitigation that we're planning to do." This pessimism was informed by a combination of stark warnings from climate scientists about the need for rapid sociotechnical transformations given the closing window to prevent dangerous climate change and the long-term experience of society's inability to achieve such change. Nevertheless, the directors managed to derive some optimism from recent social developments, such as major climate protests by FFF and XR, and the rise of climate change on the public and political agenda. Billie, who indicated that "my theory of change at the moment is basically disaster-related", also argued that "the possibility is there to have the optimistic scenario that's reasonably robust." Alex, the director typically most optimistic about climate action, would only go as far as saying that "I don't think it's a fully done deal yet."

Billie and Alex's cautious optimism, rather than the doubts expressed by Robin and Taylor, were reflected most clearly in Carbon Free's official goals and strategy. The organization's website explains that the climate is rapidly changing, and that society is not responding fast enough to avert disaster. In response, its vision statement imagines a region that by 2030 will be zero carbon, fair and prosperous. We were thus presented with an organization whose public framing and campaigning centered around an apocalyptic narrative containing elements of looming disaster combined with promises of solution and prosperity but whose directors seemed to privately imagine a temporal landscape informed predominantly by postapocalyptic beliefs. This paradoxical situation presented several questions: How could we explain that Carbon Free would mobilize around a goal its directors often considered unrealistic? How was this disjuncture, as well as the disjuncture of diverging landscapes between directors, managed to enable collective action? Why did postapocalyptic landscapes remain marginal in strategic discussions?

Disjunctures were partly resolved by rarely dwelling on temporal landscapes at all, instead focusing on the trajectory of a localized action for zero carbon. As we will see below, doing so was enabled by spatializing and thereby de-temporalizing climate action, allowing the kind of optimism many considered necessary to avoid fatalism and consequently, to allow the kind of action that could render a way out imaginable.

#### 4.1 Modeling and spatialization

Much of the group's activities during field research evolved around developing a data model that assessed if and how it would be possible to get the region to zero carbon. This allowed us to observe in detail how Carbon Free constructed a trajectory for acting on climate change. In it, the group developed a localized answer to whether it was too late to prevent dangerous climate change, which was central to informing its activism. Several key decisions had to be made in developing the model that offered a window onto how disjunctures were managed. Notably, these discussions focused on spatial dimensions like scale and space to demonstrate the plausibility of the imagined trajectory. In contrast, time was applied as a post hoc accessory, indicating the need to decenter temporal landscapes in an attempt to coordinate futures by developing 'timeless,' spatial trajectories.

#### 4.1.1 Scale: the regional level

The first reason for Carbon Free to work at the regional level was because directors perceived it as the sweet spot in terms of scale for action, giving the maximum amount of agency:

"I think it's more about relating the scale of our analysis and our story to a scale where people can imagine themselves having agency. So, I think the boundary is more like expanding our agency concept from [the city] to [its surrounding region] (...). We don't feel any sense of agency at the national scale." (Taylor)

While the national level was thus seen as too large for a small organization like Carbon Free to have an impact, the local level was rejected for a different reason. An essential part of Carbon Free's strategy was the idea of the 'energy island', which presented a thought experiment to consider energy as a local common. This would sensitize people to the limits of that resource and their responsibility towards it. By fixing energy use and production within the region, it became possible to assess how much space would be needed to achieve zero carbon, while considering other land use needs. The energy island idea built on the Zero Carbon Britain analysis (Allen and James 2019), which showed that the UK could, in theory, achieve zero carbon. Carbon Free explored what this would look like more concretely at a local level. From the outset, it was clear that at the city level, zero carbon would not be possible. The urban area simply did not provide enough space to cover the high energy demands associated with its economic and population density. Therefore, the city's hinterland was included to imagine a selfsufficient energy island:

"It demonstrates that if you want to be net zero (...) you can't really do it in the city. But this being possibly a slightly peculiar region in that it's basically farmland with a medium sized city in the middle (...) in principle, it's doable. And that's kind of interesting." (Billie)

Billie's quote illustrates a second motivation for focusing on the regional level: it provided a positive answer to whether zero carbon was possible, thus confirming desirable apocalyptic trajectories. The 'region's peculiarity' was seen as positive in this light, whereas its presumably negative implications for whether the experiment could be scaled up to the rest of the UK or beyond, were hardly considered. This suggests the modeling exercise prioritized confirming a positive regional trajectory that would enable local action over assessing its fit within, and thus the plausibility of, a broader mitigation imaginary.

#### 4.1.2 Space: can zero carbon fit?

The next step in developing the model was to validate the assumption that a self-sufficient energy island could indeed fit within the region. For the analysis, the organization used a model developed by the regional utility consisting of a spreadsheet in which data on expected energy use and sources of energy production would be used to identify gaps between (renewable) energy consumption and production at particular moments.

Robin and Taylor, who led the analysis, concluded that zero carbon could fit in the region but only given several controversial assumptions. As presented during the model's first public presentation, zero carbon would require a reduction in energy demand by 33%, an 'ambitious' increase in renewable energy, and the realization of so-far unavailable technological solutions to the need for storage and the smoothing out of available energy. These assumptions left the meaning of the results to be debated. On the one hand, Billie and Alex – as well as most of their audience – celebrated the outcome, interpreting it as proving that the mitigation-oriented trajectory of achieving zero carbon in the region was plausible, validating the apocalyptic narrative of preventable catastrophes and reproducing a sense of control and progress. In response to whether the model was not too optimistic, Alex proclaimed that "many people don't know it is looking this good", and explained their optimism in our interview:

"I think there will be some level of scientific innovation that will potentially reverse things quicker than we think we can at the moment. Just (...) the pace of change and the number of sharp minds that are beginning to put their attention on this."

Robin and Taylor objected to such optimistic interpretations of the model. They stressed that developing the model was an "exercise in uncertainty", and primarily about mapping what would be required based on a "back of the envelope" calculation, stressing in a public presentation to "not quote us on this," that the model assumed the most optimistic scenario, and that "some are just nice numbers", especially regarding energy storage. Not only did they question whether a zero-carbon economy could be achieved by 2030; they even wondered whether it would *ever* fit within the region. For them, the data modeling was about enabling a more concrete and honest conversation about the difficulty of getting to zero carbon. And the model was seen to have a politicizing potential, as Taylor

argued, by setting "the terms of what the tradeoffs are and what the options and the choices are within a context that gets to zero carbon and to put that as the normal rather than the status quo as the normal."

Despite this critical interpretation, Taylor considered that an apocalyptic narrative was vital to enable activism: "I mean, is it really possible? I don't know. (...) Saying it's possible feels almost necessary to be able to have a conversation that leads to some action." During the model's public presentation, we also observed this oscillation between challenging the apocalyptic narrative's accuracy and reproducing it to enable action. For instance, critical questions were raised regarding allocating large amounts of land to energy production, without considering other land use needs, including for climate adaptation, hinting at a conflict between trajectories oriented towards preventing and coping with climate change. Other discussions concerned the timing implied in the model. One attendant to the model's presentation claimed that considering current trends, it would take 20 years to realize this plan rather than the remaining ten years until 2030, implying a temporal landscape in which the apocalypse is already unavoidable. This critical discussion brought in voices from representatives of several local environmental organizations and suggested a disjuncture. The discussion was closed, however, by another attendant who insisted that solar energy was getting so cheap and effective that the market would automatically ensure its total roll-out. Robin - despite their critical notes earlier - further restricted the discussion by acknowledging the enormity of the task ahead but concluding that "we just need to make all positive things happen". Hence, challenges to the apocalyptic imaginary were neutralized by reiterating the power of technological solutions and arguing that doing anything is better than nothing.

The group's internal discussions portrayed similar disjunctures. When preparing the group's core message for a TV interview, Robin criticized the planned emphasis on the possibility of getting the region to zero carbon by stating that "We need to stop kidding ourselves that we are anywhere close", adding that "my worry is that a lot of the discussions around climate change are too optimistic. (...) We need more saying it like it is: we are in a mass extinction" (Observational notes, paraphrasing). While discussions like these challenged apocalyptic trajectories by invoking postapocalyptic landscapes, they retained the status of digressions from the practical, feasible, and more urgent task of making upcoming, mitigation-oriented events happen by insisting that a zero carbon region was part of the group's official mission.

#### 4.1.3 Time: when should it fit?

The data model was mobilized to support the narrative that getting the region to zero carbon was possible, but it did not address *when* the produced scenario should be achieved or whether it would be possible to achieve this in time. The discussions above show that, implicitly, this question was answered in the affirmative. Yet our analysis showed that the question of time was not addressed in more explicit or precise terms.

Questions of timing were reduced to setting 2030 as the official deadline to achieve zero carbon. Interviews confirm that this was done based on the timeline painted in the 2018 IPCC report on 1.5 degrees that stressed the importance of global GHG emissions reductions of 45% by 2030 to maintain some chance of staying within the 'safe' boundaries of 1.5 degrees of global warming. Underlining the greater responsibility of the Global North, Carbon Free claimed the UK should get to zero carbon by 2030. Several directors and members of Carbon Free we active in XR, but the latter's strong insistence on a deadline of 2025 was, surprisingly, not mentioned.

Time was not an element in the data model itself. It rather calculated an energy scenario given certain inputs and developments but did not say when these could or should be achieved. It thus gave an a-temporal picture of a zero-carbon configuration for the region, and it was up to those interpreting the model to determine when the changes required could or should be achieved. Yet without engaging in this exercise, and despite clear doubts, Carbon Free's narrative came to assume that zero carbon could indeed be achieved by 2030, making this set deadline a strictly symbolic orientation point on the temporal horizon. Hence, there was a mismatch between the postapocalyptic temporal landscape that directors often considered more realistic and the "2030" apocalyptic landscape that was adopted to inform and enable action.

#### 4.2 From disjuncture to collective action

Despite the uncertainty, disagreement, and strong private beliefs in a postapocalyptic temporal landscape by most directors, the mitigation-oriented, apocalyptic narrative including modernistic notions of control, solution and progress, took precedence in informing Carbon Free's official strategy and communication. For instance, its goals included the promotion of ambitious mitigation targets and demonstrating how those could be achieved to amplify a sense of possibility for the region. Despite being challenged on the grounds of a disjuncture with the postapocalyptic temporal landscape, this trajectory never seemed at risk of being abandoned. Although those directors with the most substantial

doubts about mitigation-oriented strategies imagined alternative trajectories, these trajectories remained marginal.

Both Robin and Taylor challenged the apocalyptic notion that realizing technological projects could 'solve' climate change. In addition to questioning the optimistic interpretation of the data model, Robin argued that identifying solutions and strategies based on such "top-down thinking assumes too much agency" in terms of being able to actually realize such a plan, thereby overlooking the sociopolitical complexities blocking those changes: "If it was just a bit of number crunching that stood between us and having a solution to climate change, (...) we'd solve it." They continued to explain that climate action should look deeper than technological solutions, mentioning at various moments the need to develop alternative trajectories that would expose and challenge capitalism as a driver of climate change, as well as explore more profound elements of the human condition responsible for the current predicament. The postapocalyptic narrative informed trajectories most clearly when both Robin and Taylor suggested that considering the unlikeliness or even impossibility of 'solving' climate change, a focus on resilience and adaptation should be promoted to deal with climate disruptions that were already present or underway. This perspective led Robin to feel especially sympathetic to Jem Bendell's (2018) work on Deep Adaptation, which perceives near-term societal collapse as inevitable and calls for a shift in focus to dealing with the consequences:

"Something that frustrates me about Carbon Free, about other organizations that I work with, about the environmental movement, is that it's too positive. I don't think that there's enough of saying it like it is. So, Jem Bendell's paper was really like a kind of breath of fresh air."

Taylor made similar arguments that led them to criticize Carbon Free's strategizing on apocalyptic trajectories that aimed to 'solve' the situation instead of embracing resilience and uncertainty as core principles for an alternative trajectory based on a postapocalyptic temporal landscape: "To feel motivated in that work I need to make sense of it in a way that is viable and meaningful in the context of climate change actually happening."

By contrast, Alex and Billie argued that questioning Carbon Free's 'positive storyline' undermined the self-fulfilling prophecy of mitigation-oriented trajectories: being optimistic about them would motivate people to get on board, thus increasing the odds of realizing them. Billie explained that their and others' personal doubts should not inform Carbon Free's framing because "in line with you know, what some of the academically and sociologically informed coms-advice says, we should have a positive storyline."

Discussing resilience, adaptation, or uncertainty in the face of failure would have the opposite effect and was therefore seen as incompatible.

Given the urgency implied by the apocalyptic narrative, even if alternative goals *were* compatible, they still tended to be interpreted as being of secondary importance or evenas unwelcome distractions. Billie argued, for instance, that "climate justice (...) would be nice. I support all those things, but you know, I'm not sure we've got time." Doubts about the apocalyptic trajectories that Alex and Billie had themselves were neutralized by pointing to beneficial side effects that could be won even if the overall goal of averting dangerous climate change was missed. According to Alex, benefits like cleaner air or healthier people "are themselves good reasons to be doing it even if it won't deal with the worst effects of what is coming down the line."

Despite Alex and Billie's resistance, and even though the group struggled to find time to discuss these issues, postapocalyptic narratives did inform the group's goals and actions in some ways. For instance, Carbon Free's vision statement mentions the importance of justice, democracy, and inclusivity, which for Robin and Taylor related to resilience in the face of climate disruptions. These values shaped the group's work through efforts to attract more diverse constituencies, such as when seeking collaboration with a local organization aiming to build bridges between the environmental movement and Black, Asian, and minority ethnic communities. The idea was not just that sustainability transitions should be shaped democratically and, therefore, inclusively, but also that inclusive and diverse communities with strong solidarity ties were likely to be more just and resilient in the face of climate disruptions. Robin argued that community work is "about bringing people together and creating resilience". Taylor agreed and expressed frustration that Alex saw community mobilization as simply about getting more people to adopt Carbon Free's mitigation measures or mobilizing them to build pressure on politicians to act.

Vulnerable communities were harder to mobilize because they did not share the typical sociodemographic of environmental activists (i.e., white and highly educated). Focusing on them to increase resilience, therefore, conflicted with promoting the fastest possible mitigation strategy, targeting individuals who were seen as relatively easy to mobilize. According to Taylor, the choice was between "going fast alone or far together", adding that "we do get a bit stuck sometimes over [whether] (...) the public engagement group should maybe be getting everyone to switch their energy supplier or should be doing more in-depth kind of community organizing." This disagreement was the closest example of a disjuncture leading to contradictory priorities that could have threatened collaboration.

Taylor explained that "different world views are there, and we haven't really found good ways of resolving that". Tensions were (provisionally) resolved by allowing different working groups the freedom to deal with the issue as they preferred.

The fact that questions of uncertainty, resilience, or adaptation were rarely addressed directly was not only due to objections from Billie and Alex. They also resulted from the difficulty Robin and Taylor experienced themselves in imagining what exchanging notions of control and progress for principles of uncertainty and resilience could mean more concretely. According to Taylor, such principles did not inspire confidence about what exactly needed to happen, which they furthermore linked to a paralyzing sense of despair:

"At times when I feel more the pessimistic side of it, I think we should all do something like the work that reconnects and feel the reality of what's happening and act from that place. But it's very difficult to understand what the action would be. And I think myself, I have a desire to avoid feeling the despair of what I think is really going to happen and to avoid that by doing action that feels like it's an action. And I see that in other people as well."

Although Robin's and Taylor's temporal landscape more closely resembled a postapocalyptic than an apocalyptic narrative, they found it hard to identify motivating postapocalyptic trajectories. They consequently held on to modernistic criteria of actionable trajectories, characterized by a clear definition of its parameters and contribution to an overarching narrative of progress. 'Avoiding despair' and staying optimistic was considered a precondition for action, and vice versa.

#### 5. Discussion: Present action vs. imagined futures?

The case of Carbon Free exemplifies the less than straightforward process of coordinating imagined futures and collective action in today's climate crisis. Activists tried to determine whether there was still time to avert dangerous climate change and whether trajectories should therefore focus on preventing what could still be prevented and/or preparing for what no longer could be. The group operationalized these questions through a data model which showed that a zero-carbon region was – in theory – achievable, thereby legitimizing their focus on action towards this goal. Yet we also saw that this interpretation of the model, and the techno-optimistic assumptions and modernistic principles underpinning it, were internally and externally contested. We identified several instances suggesting that the modeling and its interpretation were oriented to demonstrating that it was possible to get the region to zero carbon, rather than to critically assess its likelihood or its fit within a broader trajectory

that could prevent runaway climate change. This suggests that breaking down an often daunting task of global decarbonization into manageable local chunks is a feasible strategy to enable climate action. Yet, doubts about the model's positive conclusions needed to be marginalized to remain focused on avoiding dangerous climate change through advancing technological solutions. Meanwhile, a strong postapocalyptic undercurrent remained, which motivated more skeptical directors to formulate alternative (resilience-oriented) strategies that responded to postapocalyptic scenarios. These discussions were rejected for being counterproductive by more optimistic directors, whereas more pessimistic directors themselves struggled to imagine what trajectories informed by postapocalyptic landscapes could look like more concretely.

Building on Tavory and Eliasoph's work (2013), we can understand this situation as the (partially) successful coordination of futures despite disjunctures. Carbon Free managed to coordinate diverging futures within and between actors by shifting focus from trajectories to landscapes; 'within actors' when individual directors needed to reconcile their postapocalyptic beliefs and preference for apocalyptic actions (arrow 'A' in Figure 1) and 'between actors' when directors disagreed on whether it was 'too late' for mitigation (arrow 'B' in Figure 1). In both cases, tensions stemming from imagined landscapes were appeased by an emphasis on 'just doing what we can' trajectories. This shift was enabled by keeping references to deadlines like 2030 vague and symbolic while emphasizing whether a zero-carbon scenario would fit within the spatial confines of the region (arrow '2' in Figure 1). Questions about *when* this should and could be achieved, and thus whether temporal landscapes should be imagined in apocalyptic or postapocalyptic terms, were successfully sidelined. While daunting futures certainly cast a shadow over a postapocalyptic present, we found no dissolving of the boundary between present and futures, as Friberg suggested (2021). Instead, strategic discussions became disconnected from imagined futures – if anything, increasing the boundary between now and then.

Adopting trajectories aimed at solving problems sometimes rehabilitated temporal landscapes in which activists could momentarily imagine it was not too late to avoid runaway climate change (arrow '1' in Figure 1). However, Carbon Free's coordination of futures appeared to be precarious as we found various signs of unresolved disjunctures, including Robin's and Taylor's frustration with the organization's lack of honesty; their oscillation between hope and despair; their contestation of modernistic principles like control, solution and progress; their advocacy of uncertainty, disruption and resilience; and the conflicting interpretations this yielded regarding who the organization should seek to involve and how. While these disjunctures were resolved at the organizational level, personal

frustrations suggest a risk that individuals' motivation for collective action was being undermined by an inability to address temporal contradictions.

The inability to move beyond apocalyptic approaches and modernistic principles was not only based on individual experiences or group dynamics. As Hall (2016) notes, actors like social movements need to adjust their temporal registers to those of the actors they seek to engage with. The directors made (likely well-informed) assumptions about what would resonate with their various audiences like funders, participants, politicians, or companies. On numerous occasions, it was argued that developing concrete and positive solutions would demonstrate the legitimacy of Carbon Free, attract more significant resources, and contribute to a positive and confident attitude that would motivate all parties involved to work with and support Carbon Free. Projecting a modernistic narrative on society, it was assumed that a focus on concrete solutions towards zero carbon, and eventually solving climate change, would be received positively, whereas postapocalyptic imaginaries of a 'doom and gloom merchant' (Head 2016, 2) would be rejected.

These and other climate activists should not be misread as irrational or irrelevant based on our findings. Considering the existential threat of the climate crisis, there are good reasons to remain focused on mitigation as long as any window of opportunity remains open–even if only to achieve less catastrophic scenarios. However, doing so based on a narrative that the activists involved consider dishonest may not be the most sustainable way to do this. A more open discussion exploring the grey area between progress and collapse and finding ways to do so without directly compromising mitigation-oriented trajectories may thus be a necessary starting point.

#### 6. Conclusion

Focusing on the contested temporality of climate activism, and presenting an ethnographic study of a British climate movement organization, we have sought to make sense of a seemingly contradictory situation: While leaning towards a postapocalyptic landscape of the future wherein humanity has already failed to avert dangerous or runaway climate change, climate activists can remain focused on developing strategies that build on an apocalyptic temporal landscape that presents the apocalypse as looming but, conditional on appropriate action, still avoidable, thereby often perpetuating (eco)modernistic notions of control, solution, and progress. Hence, they reproduce apocalyptic trajectories at odds with the postapocalyptic temporal landscape they imagine. We have demonstrated how the sociology of imagined futures (Beckert & Suckert 2021) and, in particular, Tavory and Eliasoph's (2013) theory of coordinated futures illuminates how this apparent contradiction is managed

to ensure continued collective action. Yet, we have also identified the situation's precariousness, as it produces a sense that action is not based on a sufficiently honest analysis.

Although Cassegård and Thörn (2018, 563) find that postapocalyptic environmentalism can be a "wellspring of a postapocalyptic politics in which activism arises as a response to loss", they focus on forms of 'cultural' rather than instrumental activism. Our conclusions resonate broader findings about the difficulty climate activists appear to have with turning postapocalyptic narratives into strategic action. Most studies into postapocalyptic environmentalism depict groups who acknowledge that it might be too late to avert the apocalypse but try to keep that awareness out of strategizing because it is considered demotivating, thereby enabling continued efforts to save what can be saved (Stuart 2020; de Moor 2021; Friberg 2021). We have discussed that this way of managing disjunctures can enable climate action in the short run but could undermine activism in the long run. There is thus a need to find ways to coordinate futures that do not suppress postapocalyptic imaginaries but that neither give in to fatalism.

Doing so may also be relevant in other fields of climate action where actors experience despair while seeking to remain proactive. We conclude by discussing two examples where the relevance of our findings could be explored. Firstly, while postapocalyptic sentiments seem to be increasingly widespread in Western democracies, governments continue to proffer environmental discourses like sustainable development and ecological modernization that imply continued progress and green growth while failing to deliver measures needed to avert apocalyptic scenarios (Dryzek 2013). It appears that the strategy of disconnecting temporal landscapes from trajectories (through spatialization or otherwise) enables the reproduction of ecomodernist narratives in state-driven climate action as well. For instance, deadlines for (net) zero carbon like '2030' are often empty signifiers that are disconnected from concrete mitigation measures (e.g., Telleria and Garcia-Arias 2021). Here too, reproducing optimistic temporalities of green growth may motivate climate action in the short run but could damage credibility and motivation in the long run.

Secondly, our findings speak to debates on just and transformational climate adaptation. Both approaches call for the democratization and politicization of adaptation to move the discussion away from a conservative project that seeks to protect the status quo to one that seeks to fundamentally transform society in the process of redressing the structural drivers behind climate vulnerabilities and injustices (e.g., Mikulewicz 2018). Particularly in Europe, this has remained a notion without a clear actor (Zografos et al. 2020; de Rosa, de Moor, and Dabaieh 2022). Given the idea's radical implications,

it has been suggested that social movements, including climate movements, could play a crucial role in promoting it (de Moor 2021; de Rosa, de Moor, and Dabaieh 2022), which is confirmed by US case studies (Méndez 2020). Our findings suggest that addressing adaptation more fully would require that groups like Carbon Free find ways to overcome the disjunctures between postapocalyptic landscapes and trajectories, or put simply, that they find ways to let the notion that it might be too late to avert considerable climate disruptions inform their strategies. While narratives like Deep Adaptation are precisely intended to enable this, the current case study suggests that it is not always considered sufficiently 'actionable', leaving activists unsure about what a postapocalyptic trajectory could look like and leaving them to choose between apocalyptic trajectories and inaction. If questions of adaptation are increasingly urgent and need to be democratized and politicized to become just and transformative, and if climate movements should play a role in that, we need to explore further how disjunctures between postapocalyptic landscapes and trajectories can be overcome.

In sum, models focused on temporal contradictions do not only help to make sense of the often contradictory nature of climate activism but could also help make sense of (limitations) to climate action in other domains, including state-driven climate action and discussions of just and transformational adaptation. We need further research to assess the forms of these contradictions and their effects in these and other fields, as temporality should become more central in research on climate action.

#### References

- Allen, Paul, and Philip James. 2019. Zero Carbon Britain: Rising to the Climate Emergency. Machynlleth: Centre for Alternative Technology. https://www.cat.org.uk.
- Beck, Ulrich. 1992. Risk Society. Towards a New Modernity. London: Sage.
- Beckert, Jens, and Lisa Suckert. 2021. "The Future as a Social Fact. The Analysis of Perceptions of the Future in Sociology." *Poetics* 84 (September 2020): 101499. https://doi.org/10.1016/j.poetic.2020.101499.
- Bendell, Jem. 2018. "Deep Adaptation: A Map for Navigating Climate Tragedy." IFLAS Occasional Paper 2.
- Benford, Robert D, and David A Snow. 2000. "Framing Processes and Social Movements: An Overview and Assessment." *Annual Review of Sociology* 26 (1974): 11–39.
- Blee, Kathleen. 2013. "How Options Disappear: Causality and Emergence in Grassroots Activist Groups." *American Journal of Sociology* 119 (3): 655–81.
- Brinkmann, Svend, and Steinar Kvale. 2015. InterViews. Thousand Oaks: Sage.
- Buzogány, Aron, and Patrick Scherhaufer. 2022. "Framing Different Energy Futures? Comparing Fridays For Future and Extinction Rebellion in Germany." *Futures*, January. https://doi.org/10.1016/j.futures.2022.102904.
- Cassegård, Carl, and Håkan Thörn. 2018. "Toward a Postapocalyptic Environmentalism? Responses to Loss and Visions of the Future in Climate Activism." *Environment and Planning E: Nature and Space* 1 (4): 561–78.
  - ——. 2022. Post-Apocalyptic Environmentalism The Green Movement in Times of Catastrophe. New York: Palgrave.
- Dryzek, John S. 2013. Politics of the Earth. Environmental Discourses. Oxford: Oxford University Press.
- Edensor, Tim, Lesley Head, and Uma Kothari. 2020. "Time, Temporality and Environmental Change." *Geoforum* 108: 255–58. https://doi.org/10.1016/j.geoforum.2019.11.003.
- Ergen, Timur, and Lisa Suckert. 2021. "Crises' as Catalysts for More Sustainable Futures? The Case of the First Oil Crisis and the Role of Multilayered Interpretative Struggles." *Economic Sociology* 22 (2): 12–23.
- Foster, John. 2015. After Sustainability: Denial, Hope, Retrieval. London: Earthscan.
- Friberg, Anna. 2021. "On the Need for (Con)Temporary Utopias: Temporal Reflections on the Climate Rhetoric of Environmental Youth Movements." *Time & Society* 31 (1): 0961463X2199884. https://doi.org/10.1177/0961463x21998845.
- Friedland, Roger, and Deirdre Boden. 1994. NowHere: Space, Time, and Modernity. Berkeley: University of California Press.

- Garrelts, Heiko, and Matthias Dietz. 2014. "Introduction: Contours of the Transnational Climate Movement - Conception and Contents of the Handbook." In *Routledge Handbook of the Climate Change Movement*, edited by Matthias Dietz and Heiko Garrelts, 1–16. New York: Routledge.
- Gillan, Kevin, and Gemma Edwards. 2020. "Time for Change." *Social Movement Studies* 19 (5–6): 501–15. https://doi.org/10.1080/14742837.2020.1806813.
- Hall, John R. 2016. "Social Futures of Global Climate Change: A Structural Phenomenology." *American Journal of Cultural Sociology* 4 (1): 1–45. https://doi.org/10.1057/ajcs.2015.12.
- Head, Lesley. 2016. Hope and Grief in the Anthropocene: Re-Conceptualizing Human-Nature Relations. New York: Routledge.
- Hulme, Mike. 2020. "Is It Too Late (to Stop Dangerous Climate Change)? An Editorial." Wiley Interdisciplinary Reviews: Climate Change 11 (1): 1–7. https://doi.org/10.1002/wcc.619.
- Lenton, Timothy M., Johan Rockström, Owen Gaffney, Stefan Rahmstorf, Katherine Richardson, Will Steffen, and Hans Joachim Schellnhuber. 2019. "Climate Tipping Points — Too Risky to Bet Against." Nature 575: 592–96.
- Marquardt, Jens. 2020. "Fridays for Future's Disruptive Potential: An Inconvenient Youth between Moderate and Radical Ideas." *Frontiers in Communication*.
- Marquardt, Jent. 2022. "Imaginary lock-ins in climate change politics: the challenge to envision a fossil-free future." *Environmental Politics* 31(4): 621–642.
- Melucci, Alberto. 1998. "Inner Time and Social Time in a World of Uncertainty." *Time & Society* 7 (2): 179–91.
- Méndez, Michael. 2020. Climate Change from the Streets: How Conflict and Collaboration Strengthen the Environmental Justice Movement. New Haven: Yale University Press.
- Mikulewicz, Michael. 2018. "Politicizing Vulnerability and Adaptation: On the Need to Democratize Local Responses to Climate Impacts in Developing Countries." *Climate and Development*. Taylor and Francis Ltd. https://doi.org/10.1080/17565529.2017.1304887.
- Mische, Ann. 2014. "Measuring Futures in Action: Projective Grammars in the Rio +20 Debates." *Theory and Society* 43 (3–4): 437–64.
- Moor, Joost de. 2021. "Postapocalyptic Narratives in Climate Activism: Their Place and Impact in Five European Cities." *Environmental Politics*, 1–22. https://doi.org/10.1080/09644016.2021.1959123.
- Moor, Joost de, Michiel de Vydt, Katrin Uba, and Mattias Wahlström. 2021. "New Kids on the Block: Taking Stock of the Recent Cycle of Climate Activism." *Social Movement Studies* 20 (5): 619–25. https://doi.org/10.1080/14742837.2020.1836617.
- Paul, Franziska Christina. 2018. "Deep Entanglements: History, Space and (Energy) Struggle in the German Energiewende." *Geoforum* 91 (May): 1–9. https://doi.org/10.1016/j.geoforum.2018.02.017.

- Rosa, Salvatore Paolo De, Joost de Moor, and Marwa Dabaieh. 2022. "Vulnerability and Activism in Urban Climate Politics: An Actor-Centered Approach to Transformational Adaptation in Malmö (Sweden)." *Cities* 130 (103848).
- Stuart, Diana. 2020. "Radical Hope: Truth, Virtue, and Hope for What Is Left in Extinction Rebellion." *Journal of Agricultural and Environmental Ethics* 33 (3–6): 487–504. https://doi.org/10.1007/s10806-020-09835-y.
- Tavory, Iddo, and Nina Eliasoph. 2013. "Coordinating Futures: Toward a Theory of Anticipation." *American Journal of Sociology* 118 (4): 908–42. https://doi.org/10.1086/668646.
- Telleria, Juan, and Jorge Garcia-Arias. 2021. "The Fantasmatic Narrative of 'Sustainable Development'. A Political Analysis of the 2030 Global Development Agenda." *Environment and Planning C: Politics and Space*. https://doi.org/10.1177/23996544211018214.
- Yates, Luke. 2015. "Rethinking Prefiguration: Alternatives, Micropolitics and Goals in Social Movements." *Social Movement Studies* 14 (1): 1–21.
- Zografos, Christos, Kai A. Klause, James J.T. Connolly, and Isabelle Anguelovski. 2020. "The Everyday Politics of Urban Transformational Adaptation: Struggles for Authority and the Barcelona Superblock Project." *Cities* 99 (January): 102613. https://doi.org/10.1016/j.cities.2020.102613.