

Calamitous events? Exploring perceptions of disaster

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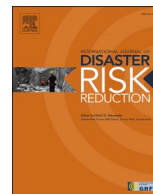
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ABSTRACT

In this introductory paper we discuss the emergence of the ‘event’ as a critical point of interrogation of contemporary understandings of disaster. While the practicalities of DRR are underpinned by an applied vision of disaster studies largely built around hazards scholarship, developments within a number of theoretical perspectives increasingly doubt the ability of this objectivist and ‘experiential’ approach to reduce risk in the longer term. Here, we categorise these various challenges as revealed through the SI’s cases and theoretical interventions, and in selected wider scholarship, and assess what they mean for disaster interpretation, prediction and politicisation. We frame the eight articles making up the SI within an overarching view of the event based around social interpretations of space, place, time, and nature. (Re)assessing calamitous events, we argue, is prescient in a contemporary global predicament focussed on present and future ‘climatic threats’.

1. Introduction

‘The [1999 Istanbul] earthquake *was* an event. You felt it; people died, there was trauma; people remember it and need to recover.’ So said a DRR professional at a symposium that provided the initial motivation for the IJDRR special issue that this paper introduces.¹ The practitioner was responding to a theoretical presentation arguing that the event *idea* is a social construction, a manipulation by the powerful and wealthy for political and economic gain. Instead, the professional asserted animatedly: the event was material and experiential *fact*.

The calamitous event is the enduring object of disaster studies. Without an event—identified, experienced, perceived or otherwise—there can be no disaster. Yet that rather obvious statement is where commonality or agreement ends.

In Istanbul, did people feel and react to the earthquake in the same way, and if not, why not? For whom was it *more* of an event: who was well prepared or protected and who wasn’t, and for what reasons? What motivated or determined the dangerous location of peoples’ lives, homes and workplaces? The event’s significance was appreciated, ultimately, according to the physical and mental resources at the disposal of each affected person or social institution, a varied set of perceptions that informed how the earthquake disaster was handled. ‘Saving lives’ in the face of an objective hazard is a normative ‘good’, but it also delimits the calamitous event within an urgent, immediate, time and space, drawing attention away from other times and spaces that could be better loci for intervention.

Temporality lies at the heart of the idea of disaster. Temporality is about the perception and social organisation of time, in contrast to linear clock time: without humans, there’s no time to be perceived. The impact of hazards like storms, tsunamis or even chemical leaks is most clearly located in a particular time and space, yet none of these automatically results in a disaster or in a shared traumatic memory. Safeguards are frequently put in place to prevent hazards turning into disasters, while distinct cultural developments have sometimes equipped people with the means to familiarise hazards (or even traumas) to the point of avoiding them embedding in memory [1].

Longstanding work has posited the underpinning of disaster in a shared experience of trauma or abnormality that could be marked

¹ The symposium ‘Urbanization: Events, Resources, Risks and Movements’ took place 18–19 June 2018 at Wageningen University, Netherlands. Contributors to this SI presented in a double session on ‘Calamitous Events?’ at the RGS-IBG Conference in London, 27–30 August 2019.

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out as having a (more or less) clear start and finish [2,3]. This is reinforced by an ‘objectivist’ approach to disaster that sees nature as the source and propellant of calamitous events, so that controlling nature (and, in a behaviouralist approach, society) with better knowledge, better engineering works, better disaster planning, is the object [4]. Disasters however are always interpreted through social experience in specific social time [5] and, recognising this, notions of disasters as unexpected, negative, traumatic events are being eroded from multiple sides within the social sciences. Disasters have been discussed variously as (‘beautiful’) focusing events, as forcing breakthroughs in ‘disaster diplomacy’, as potentially changing the social contract, or as punctuating an equilibrium ([6–9] respectively). What constitutes a disaster event remains deeply problematic, with allegations the event has even been ‘dissolved’ in analysis [10].

Social constructivist approaches recognise that disasters are subjective, claiming that even the definition of what a disaster is results from political and socio-cultural factors and/or social (in)action: without people, there is no disaster [4]. Such constructivism, based on the creation of (social or environmental) vulnerability through social structures, has led the most sustained attack on ‘the event’. Originating in political ecology and critical geography and anthropology, these approaches ardently stress the unequal experience of hazard impacts, and the kinds of social and spatial conditions that actually produce a disaster. Chronic and ongoing vulnerability can be a disaster in the making, long before the earth shakes – in this sense all disasters are ‘slow-onset’ [11]. From this perspective the focus on discrete shocks or events, rooted in mysterious ‘external’ forces, side-track us from the development issues that count. From Oliver-Smith’s analysis of earthquakes 500-years in the making in Haiti and Peru [12,13], to Wisner et al.’s build-up of systemic ‘pressure’ [14], such that even a minor hazard can tip it over the edge, and onwards to the creation of increasingly hazardous planetary space under capitalist urbanization [15,16], the idea of what constitutes the event itself is dissipating under the weight of socio-spatial production. This concept, after the influential geographer and sociologist Henri Lefebvre [17], denotes how space is a set of social relations - not just a location, but represented and experienced by those interacting with it.

In this paper we review work that has inspired us on calamitous events, and in turn, through this discussion, we frame the eight articles that make up the special issue. Refraining exploration of the event in disaster studies, we argue, is prescient in our ‘climate-changed’ work. Disasters scholars have often sought to counteract a tendency in political and media discourse to ‘blame climate’ for disaster, arguing that this (re)naturalises events that decades of critical work has shown are produced (primarily) through social, spatial, and political organisation.

Public discourse now often speaks of climate change as a breakdown, a crisis, an emergency—politicised terms that add fire to the events furnace, stretching the times and spaces in which disaster should be perceived, and willing forward an alternative politics—for better or worse. Disaster governance based around anticipation of and preparedness for speculative and extraordinary futures has become critical to interventions, which may do as much bad as they do good [18], and consequently reorganise space in the present [19–21]. The calamitous event is rarely if ever problematised at the centre of a collection of articles: this special issue brings together diverse interpretations through convincing case examination, offering productive theoretical dialogue around the basis of disaster studies at a critical time in global socio-environmental change.

We begin in the next section by interrogating the common understanding of an event as a rupture, a break with the past with a ‘before’ and ‘after’.

2. Event perception and the experience of hazard – or why the experiential matters

We might start at the outset by pointing to longstanding sociological work that posits the event (not necessarily disaster events) as a form of rupture – one in *experience* [22,23]. Different to the positivistic notion that disasters can be neatly delineated in space and time (see Ref. [24] for discussion)—a shocking event proven to take place in a specific area during a specific period—the focus on experience suggests that events are given shape by the discursive and semiotic (meaning-making) structures in which people locate themselves. People affected by disaster phenomena must process and contextualise their lived realities and surroundings according to what is known, and indeed what is *not* known about them. Following Ricoeur, Moore [25] extends the idea by noting that defining the moment of the event in time actually requires *producing* and *normalising* it according to an existing ‘storyline’; that is, locating it within a specific (self-)understanding of the history and pathway of the community, neighbourhood, social or national group concerned. If there are different or competing storylines, then there would in consequence be different and competing understandings of each event’s significance or even existence.

These rather abstract ideas indicate a number of problems for disaster studies, not least the identifiable role of geophysical, hydrometeorological and chemical pollution hazards in producing disaster (we return to this later), but also in how we might deal with slow, creeping ‘events’ or vulnerability accumulation. This issue, Jackson’s [26] comparison of lived experience and perception of disaster temporality in Papua New Guinea and Vanuatu vividly illustrates the point. For a specific tribe in the former case, he shows how cyclone hazards, despite their potentially challenging impacts, are often internalised as normal and as representing cyclical relationships with the spirit world. Even if in some way physically damaging, we could question how eventful the cyclone really was, given the contextualisation of trauma within the group’s specific interpretation of their place within and in relation to nature. In the Vanuatu case, moreover, tribal perceptions were much more influenced by western philosophies on nature and development, and perception of hazards as unwelcome, external events, had become increasingly mediated by the ‘storylines’ on existing development set by or through culture and social institutions. The grounds in which DRR practitioners operate are much more than a physical space affected by an objective hazard.

Droughts and heat can lead to a prolonged form of disaster, but, also, *any* hazard can be more or less hazardous—and so more or less ‘eventful’—according to the specific population’s level of preparedness or vulnerability, accumulated over time. For Hoffman and Oliver-Smith [5], disaster risk must be *perceived* in order to exist, and as such varies according to the perspectives of different social

groups, based largely in their respective histories and the structural opportunities afforded them. Creeping hazards and vulnerabilities have a way of fading into the ordinary, expected path of reality. ‘Chronic vulnerability’, as Pelling [27] identified, was experienced by people whose lack of access to (water) rights, citizenship and justice concretely constrained opportunities and abilities to deal with hazard impacts. Yet even under the weight of structurally-induced poverty and vulnerability, apparently extreme, immediate, natural hazards like storms, hurricanes, and earthquakes may still be located as ‘extraordinary’ events, absorbing the attention of exposed populations as much as the governmental and media apparatus around them, presenting a clear rupture in experiential time. Even if the disaster event dissipates under the analytical weight of accumulated vulnerability, the experiential event is somehow sustained. Vulnerability is not to be equated with passivity, as Hoffman and Oliver-Smith point out: people *always* act to better their situation and cope and deal with trauma. People do not always welcome the ‘vulnerable’ label affixed to them, and likewise want to have opportunities to exercise their capabilities and knowledge without being seen as helpless [28].

How particular social or neighbourhood groups frame hazards, and their risk in relation to them, is then highly subjective, based in particular understandings of intersecting *time*, *space*, and *place* (the meaning people give to the spaces around them, such as ‘this is my neighbourhood’). As Auyero and Swistun [29] and Hernandez [30] discuss, on the subjectivities of marginalised residents close to petrochemical refineries in Argentina and Ecuador respectively, the *normalcy* of everyday toxic exposure leads to a perception of risk rooted outside of this in *extraordinary* events like storms and floods. Because people feel attached to *place*—to their home and neighbourhood—they view life in that location with the permanence they reason it deserves. And yet, clearly, different *spaces* yield different risks, with socio-economic or political marginalisation closely linked to who ends up living in the most dangerous, least desirable locations, such as along river margins, next to a chemical plant, or on steep slopes. The serious health risks associated with ongoing life exposure to chemicals pollution, from asthma to cancer, consequently fade into ‘ordinary’, and uneventful, space.

For Nixon [31], this is ‘slow violence’: calamities brought forth through ongoing structural, socio-spatial relations,² yet that are unable to achieve the *status* of an event. Unclearly delimited in *time*, even if concretely delimited in space, neighbourhood perception of such slow, creeping, incremental, disasters is not based around an experiential rupture between life ‘before’ and ‘after’ and is thus unable to mark social time. The longitudinal risk of living in peril within a toxic environment is hidden from comprehension as *significant* by lying inside the routines of place and space already identified. A flood or earthquake is more accessible, urgent, and thus eventful, regardless of the respective risks each hazard brings forth.

Away from toxic pollution, a related concern on the ‘slow disasters’ and apparent ‘uneventfulness’ of marginalisation and vulnerability is the role and failures of past [urban] infrastructures as they are overwhelmed by new inclement weather or climate patterns [24,32]. Coates [33], this issue, probes how visible these failures of past modernist river canalisations are, in the case of a Brazilian city in the present. Despite removing riverine meanders in the search for a habitable space for industrialisation, such interventions created the grounds for floods along the river margin, as the canals fill with sediment and the surrounding hillsides rapidly densify, increasing runoff. Again, the ordinariness of residents’ storylines concerning their sense of place and space is prevalent, as most were quick to agree with a focus on ‘natural hazard’ as the basis of the *experiential* event, even if a few older residents tried to ‘reveal’ the disaster as an *infrastructural*, rather than climatic, event.

The point here then goes beyond the experience of disaster *as* an event by those affected, and moreover the visibility and experience of respective aspects of disaster causation by those in more powerful positions: engineers, politicians, meteorologists, and risk management and reduction analysts. At a purely applied level, we might also point to the importance of environmental and disaster education for (especially) young people, which aims to build greater public knowledge of the spaces and environments in which they live, including on flows of water, earlier human interventions, and the ways in which risk can be mitigated today [34]. Such local knowledge is of course not just for consumption, but moreover helps people to ‘take control’ of their lives and neighbourhoods, to experience environment and disaster *differently*, and to build ‘linking’ social capital to lobby, vote, or otherwise engage with power-holding groups and individuals for positive social change [35].

3. Anchoring memory for the future

People’s perception of events is constrained, then, through a combination of factors tying together place, space, and time, and including the structural vulnerabilities and capabilities that inform the *creation* of disaster risk [36]. Yet the ‘storylines’ social groups construct and maintain about their histories in particular places and spaces must be reproduced based on collective understandings of the past, including of the relative eventfulness of disaster or hazard phenomena that they were exposed to. Memory and memorialisation occupy a critical space in both analytical disaster studies *and* applied risk reduction, for which interventions around memory can be a productive terrain.

Memory is crucial in the formation of perceptual experience, and thus in ‘constructing’ the event. Something happens, but it must be mentally processed according to the storylines individuals and groups share between them to be meaningful. In this issue De Guttery and Ratter [37] explore this through a focus on ‘memory anchoring’, to examine how memory can be drawn on, reproduced and, potentially, manipulated in order to serve the needs of spatial planning and risk reduction strategies in the present. In Hamburg, Germany, the act of ‘forg [ing] expectations and visions on how to manage disasters in the future’ (Ibid.: 2) was strategically ‘anchored’ in promoted memories of the significant 1962 flood. This is not to deny the significance of the 1962 event for those that experienced it, but rather to say its eventfulness was *actively* reproduced within the collective social imagination as presenting both impact and

² This refers to the social aspect of space; an approach to studying social life that integrates sociological and political economy dimensions into the analysis of urban space and social life, see Ref. [65].

rupture. Sculptures, plaques, and an annual anniversary provide a certain permanence to past events, while the creation of a dedicated website and social media promotion ensured that young people retained or built event knowledge. All of this of course increases buy-in to flood protection policies today, to legitimise risk reduction for the present and future as cities ‘defend’ themselves from the threat of future climate change to the urban environment (we return to this in the next section). For the authors, a more participatory style of commemoration or remembrance would be desirable, to avoid the dangers of ‘an institutional monologue’ (Ibid.).

A similar example can be drawn from the Netherlands, a country small enough to be able to rely on hard flood infrastructure in almost all its flood zones. A major infrastructural programme built after the destructive 1953 flood has caused most people not to be used to anticipating floods. Seeking to alter ingrained sense of security, the Dutch government used dramatic images of the 1953 flood in its nationally televised press presentation of the State Advisory Delta Commission report in 2008 [38] to help communicate the futurity of accelerating climate change with maximum impact.

The latter examples hint at both critical-theoretical *and* functional-behaviouralist approaches to the ‘governance’ of disaster memory: in a sense, *any* action of remembrance and memorialisation—or indeed lack thereof—by governmental authorities can be held up as ideological or manipulative, to pull spatial planning in a particular direction. Applied professionals tend to be more concerned with the here and now of disaster risk, to think through incentivisation schemes or other forms of pragmatic behavioural ‘nudging’ for disaster prevention. Hartmann’s polyrational flood management scheme [39] (see also Fig. 1) is helpful here in understanding the seemingly irrational planning pattern in flood-prone areas, that change over time according to risk expectation, and immediate or more distant memory. For Hartmann, actor groups in public and private sectors take centre stage with a particular rationality in different disaster phases: before, during, and immediately after a flood event. Over time, flood plains appear as sequentially profitable, dangerous, controllable and inconspicuous, translating into predictable ups and downs of investments and risk-taking vs risk-averse and controlling behaviour. Employment provision, housing, and road or rail infrastructure could be factors feeding into floodplain development—or straightforward industrial competitiveness and growth—and clearly these factors can override a focus on risk depending on the flood-related moment in time.

Memory, again, is crucial to this effort: as Huber [40] notes, the memory of floods fades surprisingly fast, and there is considerable short-term economic opportunity in disaster amnesia. The river floods of 1993 and 1995 in the South Netherlands province of Limburg incited a 10-year national ban on building in the floodplain. Authorities however have little incentive to enforce such legislation, to curb new developments on the river and inform new residents and tourists of the flood risk. A former mining area, Limburg has struggled with unemployment and outmigration and thus tends to welcome any investment. In Roermond, a hospital was built in the floodplain of the river Roer (a lesser tributary to the Maas) even *after* the floods of 1993 and 1995 – planning permission had been granted before the 1993 flood, and authorities were not about to rescind that after the flood, preferring a deal with the national government instead. Those areas that are diked tend to attract extra investment (‘control paradox’). The VieCuri hospital in the Limburg city of Venlo, opened *after* the 1995 floods, is right behind the dike and needed to be evacuated in the very serious flood of July 2021.

Authorities have often encouraged erasure of memory of previous disaster events by removing debris and claiming disaster spaces for urban renewal or employment and residential growth. Reviewing the Enschede fireworks case, Warner [41], this issue, shows how the disaster deviated from this, as the municipal authority responded sensibly to public pressure, supporting the conservation of artefacts of cultural memory and display of objects salvaged from the disaster, helping people restore their sense of continuity. Aspects of industrial heritage and wreckage were preserved in the redevelopment of the disaster stricken Roombeek district to help people regain their “ontological security” - a sense of trust in the continuity of their material, social and political environment. In this context, home is “an important locus point of ontological security” [42], and several disaster-stricken people defied the perimeter fences to visit the ruins of their homes, looking for possessions but also clues of culpability, despite the risk of collapsing structures. Applied approaches to risk reduction by avoiding floodplain development—and not just those focussed on gaining public buy-in to capital-intensive flood infrastructures—would do well to mobilise memorialisation as impetus to public decision-making; a balance to the irrationality of

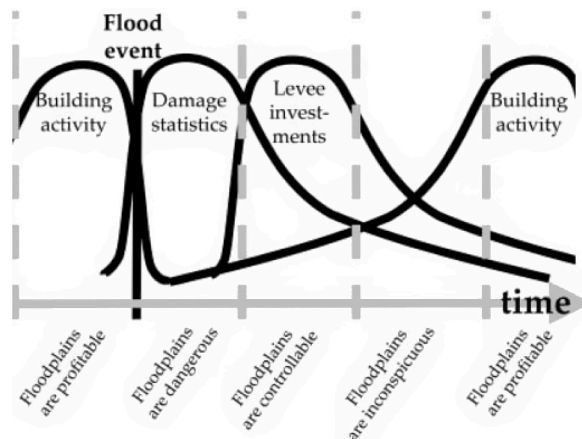


Fig. 1. From Hartmann (2010) [39]. □[39]□.

decisions on future land use.

Fuentealba [43], this issue, to a large extent agrees. Analysing memorial practices of a 1993 landslide event at the urban fringe of Santiago, Chile, he describes how disaster memories are multiple and deeply political, in effect a terrain of public dialogue—albeit between actors highly unequal in their ability to wield power—over future land use and development. Memorialisation, for Fuentealba, can thus contain divergent symbols and practices that prescribe *either* dominant forms of growth-oriented urban densification via real estate markets, that expand exposure and vulnerability, *or* that represent counter practices and discourses. Community centre commemorations in this case actively chose iconic objects for display, alongside focussed masses and other events, that would educate newer and younger residents in the area who in many cases knew nothing of the 1993 disaster and only now learnt to treat it as an event. This contrasted strongly with governmental co-optation of local place names to demonstrate the apparent ‘triumph’ of urban rebuilding and expansion in the face of ‘destructive nature’.

In the latter case, most clearly, the eventfulness of disaster did not seem to be in dispute, but moreover its meaning within different versions or storylines of the trajectory of development. For the residents, memorialisation served to unify residents in a collective process of remembrance aimed at contesting dominant political economic power. In a somewhat similar process, also concerning a case in Chile, Camacho and Matus [44] in this issue demonstrate how Indigenous spatial counter-mapping has served to disrupt colonialist narratives of flood and tsunami events by provoking dialogue and memory among indigenous people over destructive changes to local land use for extractive agriculture. Located on lands vulnerable to floods in the South of the country, such counter-mapping drawing on and stimulating memories of the past enabled local participation and ultimately greater recognition within dominant government plans.

An analytic focus on memory indeed reveals the event as rupture, but moreover as a contested rupture that must be absorbed into different narratives on the appropriate trajectories of social and economic development. The way people view events – whether in the past, present or future – is bound up with their history. In any locality, there are “many times operating in the local practice and interpretation of the everyday”, with strong interplay between past, present and future. “The past conditions residents’ imagined futures”, and these imagined futures may be “incongruent with scientific, popular, and policy accounts of the future” [45].

4. Climatic events?

How do the insights gained above help us understand the current preoccupation with “climate events”?

In August 2022, Pakistan’s climate minister labelled the flood disaster sweeping the country a

‘climate catastrophe ... [Pakistan is] the ground zero of the front line of extreme weather events, in an unrelenting cascade of heatwaves, forest fires, [...] glacial lake outbursts, flood events and now the monster monsoon of the decade is wreaking non-stop havoc’ [46].

While we might detect a *realpolitik* use of the discourse of climate causation for (in this case) Pakistani governmental ends such as investment, aid, the continuing naturalisation of disaster is notable. For some time now, all sorts of negative events are habitually attributed to climate: climate wars, climate migration, climate disaster. The effect is to focus on the very long term time frame – weather extremes as the indirect effect of 500 years of industrial CO₂ emissions [47], at the expense of settlement decisions spanning much shorter time frames.

While meteorologists predict these extreme weather events may happen more frequently in future, rainfall alone does not explain why these events are so disastrous. If a disaster is where hazards meet vulnerability such that coping capacity is overloaded, we need to understand the components of on-site vulnerability.

On the Pakistan tragedy (as with others) Kelman [48] fervently points to the active creation of catastrophe via social and economic development processes, including urbanization and vulnerabilisation—the longitudinal, ‘creeping’ event:

‘Pakistan’s flood disaster was caused by decades of poor governance, inequity, marginalisation, inadequate warning, resource misallocation, and land use choices. [...] Disaster potential remains high by settling people in (now urbanised) floodplains without adequate [support]. [..] This includes poorly designed infrastructure along with social marginalisation, which restricts access to education and other key services.

The sub-text of such work is that externalising tragedies to climate or nature precisely avoids tackling—and by extension enables—the kind of unsustainable developments that created disaster in the first place. The most serious disasters in the 21st century to date followed geophysical hazards rather than climatic ones (the 2004 Indian Ocean earthquake and tsunami, earthquakes in Sichuan, China in 2008, Haiti in 2010, Kashmir in 2005), with heavy intersections with social vulnerability in all of these cases leading to disproportionately high death tolls, when compared with lesser damages from stronger earthquakes elsewhere (Chile, Japan), even in densified urban areas.

But even considering climate-related hazards on a case-by-case basis—the current wave of floods and wildfires, for example—there is little indication that weather events are the primary cause. As Goldammer [49] indicates, the recent incidence of Mediterranean wildfires is less about climate change than about rural flight, urban expansion into green spaces, and planting fast-growing trees for monocultural wood production. When the river Euzes flooded the Turkish town of Bozkurt in the Black Sea region in August 2022, and the Ahr flooded in the state of Nordrhein Westfalen, Germany and the Meuse and tributaries in the Netherlands and Belgium in July 2021, many commentators were quick to see this as ‘the revenge of nature’ or a climate warning. But without human occupation of riverbanks and floodplains—much of it recent—there would not have been a disaster.

In this context, then, ‘blaming climate’ might be viewed as *productive* of other political rationalities, and not only an apparent repeat

of the longstanding trope casting nature as an external security threat to an (otherwise) functional, modernist, social system [50]. Massumi [21] has cast contemporary governance as based around the specifically temporal technique of *pre-emption*—the idea that future threats must be acted upon to avoid apocalyptic outcomes. Such events are thus ‘affective facts’ that lack material existence yet nonetheless hold sway as an objective rationality in the subconscious. In this issue, Warner and Meissner [51] show how such a rationale unfolded in Cape Town, South Africa. In 2018, ‘Day Zero’ indicated the point at which public water supply would reach a critically-low level, producing disaster. In fact, as the authors identify, it was ‘an event carefully constructed to be a self-denying prophecy’. Rather than objectively existing, a mediated event was shaped around the idea of (climate) disaster, designed to drive the middle class into lower consumption. This ‘disaster foretold’ rose and mysteriously fell in the manipulated public imagination; a promised apocalypse that disappeared without climatic conditions altering in the slightest.

More disturbingly still, the rationale of *avoiding* ‘climate breakdown’ is increasingly put in place *after* disaster events occur, with those (most) vulnerable and affected suffering the ignominy and trauma of forced eviction and resettlement at the hands of (often authoritarian) state apparatus. Examining the case of Rio de Janeiro, Barbosa and Coates [52], this issue, show how the focus on *future* risk actually resulted in the ‘speeding up’ of a much more longstanding policy of forced removal of the poor, from more affluent to peripheral city areas. The authors certainly view disaster as experiential rupture, which separates a before and after moment in the public imagination; an opening for the possibility of different kinds of futures according to who is able to divulge a discursive frame of causation in the public, political imagination. Drawing on Zebrowski’s [53] idea of ‘event suppression’ alongside Edkins [54] invocation of ‘trauma time’, they demonstrate how ‘bouncing back’ to assumed resilient normality suppresses, yet never eradicates, attempts at reframing by those facing trauma. Memorialisation, again—in this case through a favela museum—is shown to be critical in producing less violent futures in the face of climate change *discourse*.

While the threat of hazardous events can be, and often is, used or abused by powerful actors or institutions seeking to gain political or economic advantage, many hazards and disasters scholars are reluctant to part ways with a focus on *what nature can do*, even when perceived or manipulated through social structures and existential experience. Returning to the 2021 floods around the border area of the Netherlands, Belgium, and Germany, a disaster was triggered by extreme rainfall across river basins, when low pressure lingered for days. Due to the previous hot rainy period, there was extra humid air convection, and as the low-pressure area stayed in place, there was up to 150mm of rainfall in some locations, almost a fifth of the annual 800mm the Netherlands receives on average. By extension, if climate change threatens more varied, extreme, and unpredictable weather patterns, locating disaster events as (at least partly) climatic could be part and parcel of displacing the constructed social-natural divide at the heart of Western modernity, that has viewed humans as somehow superior to or in control of (romanticised) non-human nature [55]. From this perspective, the immediate experience of meteorological or geophysical hazards can be deafening, and future changes in climatic extremes should then be taken seriously.

Still, the danger of undercutting subjective meaning and memory of disaster events among individuals and communities in favour of a causal weighting toward hazard and climate is to (re)affirm disaster as part of cyclical or ecologically functional processes involving the disruption and restoration of normative stability—with humans’ role *vis-à-vis* disaster limited to forcing adjustments in cultural behaviour or ecological engineering [56]. With notable exceptions, those focussed on the resilient (non)equilibrium of social-ecological ‘panarchy’ [57], tend to demote questions of social and political power and justice to the (quasi-)evolutionary interactions of innumerable earthly components. Attempts to reconcile the interaction of societal institutions with biophysics are, undoubtedly, numerous, with some more recent work invoking the idea of multiple ‘cascading’ or ‘tightly coupled’ inputs leading to a disaster event *if* configured in a particular way [58,59]. This work is distinct in actively *not* invoking the experiential event, but rather highlighting surprise and unpredictability across a multiplicity of factors. For Balch et al. [58] ‘extreme events’ result more from coincidental ‘interacting drivers’, where, for example, wildfires are caused by land abandonment and increased vegetative fuel, alongside climate extremes and the overwhelming of human response capacity by multiple fire events. Similarly, hurricanes’ interaction with local weather fronts can worsen or lessen their impacts, while disaster occurrence is also dependent on power grids or road infrastructure capacities to enable or disable effective responses.

While apparently observable, the understanding that biophysical extremes only turn into disasters based on probability of feedbacks between biophysical and social phenomena in fact suggests a more random or arbitrary distribution of events across society than a multitude of empirical research actually identifies. Complexity theorising that ignores the experience and interpretation of space, place, and time, and their concrete links to political power, behaviour, and inequality—as revealed in the above sections—is distinctly problematic. For political ecologists as for analysts of ‘slow violence’ or ‘creeping catastrophe’, the idea of indiscriminate events is untenable given disasters’ social-systemic foundation in the unequal effects of hazard on the poorest and most vulnerable members of society.

Those engaging with social-ecological resilience from more socially aware standpoints have held out that a ‘turn’ uniting DRR with climate change adaptation can provide the political impetus for real action on vulnerability and inequality [60], in effect an opportunity to push forward social transformation [61]. Translated into actual DRR praxis, efforts to adapt to the unpredictable perturbations of future climate extremes typically revolve around Nature-Based Solutions (green roofs/walls, biodiversity accounting, tree planting, wetland restoration), specifically designed to ensure the *persistence* of social organisation as it stands, even if that was precisely what generated disaster vulnerability at the outset [62]. The hope that such initiatives can provide human-nature reconnection in an age of unsustainable urbanism is accompanied by the fear that efforts to make ‘urban environments’ resilient come precisely at the expense of the urbanization of the environment, a process actually diminishing natural buffers to hazards—from the loss of New Orleans’ wetlands to industrial development, to removal of mangrove storm-surge breakers to all-inclusive tourism in Jamaica, and onwards through forest removal for the low-wage labour demands of industry on Rio de Janeiro’s steep slopes. Even if examined in customary benefit-cost analysis, environmental and health/wellbeing benefits and damage foregone are hard to quantify,

resulting in multifunctional solutions that are (supposedly) both safe *and* profitable. As a consequence, NBS frequently seek to attract well-to-do residents occupying upmarket developments on the river, alongside speculative investment in tourist amenities. When a flood eventually happens, the damage will be higher in economic terms than before.

Recast through a more academically rigorous lens we might argue that such climate change adaptation initiatives assert a very narrow conception of the event, *still* rooted in the ruptures natural extremes can force upon human society and the economic growth assumed to be its unifying focus. Efforts to reframe climate change as *a whole* as a slow disaster event or rupture in order to increase the pace of mitigation and adaptation (see e.g. Ref. [63]) are likely to fall flat given the more immediate spaces, places and timeframes in which ‘spectacular’ hazards tend to be perceived or manipulated. Complexity theories that attempt to account for society-climate interaction have largely failed to grasp this perceptual-experiential dimension, even if more sophisticated or temporally-aware theorising of events is beginning to emerge, accounting for concepts like ‘slow violence’ alongside punctuated changes that ‘intensify and ripple through space and time’ [64].

5. Conclusion

Taking a ‘big picture’ view of disasters, we can recognise how the makings of a disaster may go back centuries, and how the handling of one disaster event may lay the foundations for the next.

This realisation gives cause for questioning ‘natural’ and ‘climate’ disaster. Weather-related hazards must of course be taken seriously, but not appealed to at the expense of real-world reflection over social development and land use change processes, that more often than not represent the key loci of disaster risk creation. Indeed, focusing on climate alone risks repeating or even intensifying costly efforts from the past aimed at controlling both natural risk and social behaviour.

However necessary, adopting such a widescreen lens is also to neglect how disasters tend to be experienced or interpreted as an event, when hitting an unsuspecting community. As revealed through the course of the special issue, summarised in sections 2-4 above, the event can ultimately *only* be an experiential and perceptual phenomenon, built around dominant policies, knowledges and approaches to development and well-being, as well as the efforts social movements devise to reframe, memorialise, and challenge them. The eternal conundrum “what is a disaster” ultimately invites a subjective, political lens to do justice to how it is experienced.

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