Waiting on standby: The relevance of disaster preparedness

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abstract

This paper examines a disaster preparedness organisation for which waiting is, and has long been, an intensive yet frustrating state. Its focus is on the organisation most centrally concerned with disaster response in Switzerland: Zivilschutz, or 'Civil Protection'. Drawing on ethnographic and historical research, it explores how a particular modality of waiting – waiting on standby – is rendered fragile by the absence of disasters severe enough to authorise its activities. For many, participating in this organisational enterprise appears to incur the risk of becoming trapped in an endless present, in which training and exercises become the primary focus of organisational activity over and above responding directly to disasters. The paper suggests that a core challenge that has occupied the recent and more distant pasts of Swiss disaster preparedness is how to continue to claim its 'relevance', in the context of pasts and anticipated futures that threaten to undermine this very claim. The paper draws on work that has looked to the philosophy of Alfred North Whitehead to account for how, precisely, the world and conditions of possibility are continually made and remade. This includes in relation to practices of 'relevance-making', as well as the capturing of 'feeling'. By doing so, the paper examines how particular times and spaces, both past and future, become joined, sometimes unavoidably, to the practices, affects and devices of disaster preparedness. It adds to work on the temporal dimensions of organisational life, in particular that which has focused on the role of affect and the everyday.

keywords: disaster, preparedness, waiting, standby, relevance, exercises, training

Introduction

We practice constantly for the event that hopefully will never happen. We wait.

(Interview with Swiss Regional Civil Protection Commander, 2012)¹

As this Civil Protection Commander who I interviewed in 2012 makes clear, part of the task of disaster response forces is to wait for (and with) the events that will call them into action, that will make their training, their preparation *worth the wait*. But how are we to understand the character of this waiting? How does it intersect with other forces and potentialities that too lie in wait, perhaps – or perhaps not – on the verge of becoming present? How might we account for how these intersections and potentialities come to be relevant – come to matter – to one another?

In addressing these questions, the paper argues that the particular forms of waiting that disaster preparedness can give rise to need to be understood in relation to questions of *relevance*. This is relevance understood not as an absolute quality, but as a form of mutual connectivity through which different entities and forces become entangled with – become relevant to – one another. Conversely, where this fails, certain entities and forces tend towards mutual irrelevance, even as alternate relations of relevance are established elsewhere. In examining the sometimes contested struggles for relevance surrounding disaster preparedness, I focus on a single organisation's activities of attempted 'relevance-making', including analysing how these activities play out across three interrelated dimensions. As part of this, I examine how struggles for interrelatedness touch on entities including disaster preparedness personnel, organisational activities, the state, the population, disaster, and non-human forces including the slow-moving rhythms of the earth itself.

¹ All quotes from Civil Protection personnel and documents are my own translations from the original German.

The organisation in question is *Zivilschutz*, or Civil Protection (to avoid confusion, the term 'Civil Protection' will be used to refer to the organisation; the more general activity will be referred to as 'disaster preparedness'), Switzerland's dedicated disaster preparedness force. It is a standing force of around 70,000 individuals², the vast majority of whom are men, subdivided – in keeping with Switzerland's federal system – into regionally-managed forces across 26 cantons. Most of these men are conscripts (women can volunteer to join the organisation), choosing Civil Protection as an alternative to service in the army or 'civilian service' (this third option involves various forms of community service).

Waiting is, and has long been, an intensive yet simultaneously frustrating state for Civil Protection, stretching back to the Cold War, when the organisation prepared particularly comprehensively for a possible nuclear attack that (happily) never came and extending into the present, where similarly anticipated disasters have largely failed to materialise. On the one hand, the paper therefore concerns one organisation's specific relationship to both disaster and the wider population. On the other, the difficulties and tensions that have been experienced by Civil Protection highlight in an exaggerated form issues that are central not just to most if not all of disaster preparedness work, but to a range of organisational activities for which waiting is a routine mode. These issues concern the relationship between pasts, presents, futures and the practices, logics and events that connect them together. To explore these relationships, I draw on ethnographic fieldwork and twenty-three in depth interviews with Swiss Civil Protection personnel conducted in various parts of the country between 2012 and 2013, as well as historical research. This includes 25 interviewees in different parts of the

² Since 2013, the aim has been to maintain a force size of around 72,000, although this target has not always been fully reached (Das Schweizer Parlament, 2018).

organisation, both at federal and regional levels, and at varying levels in the organisational hierarchy, from new recruits, established cadets, mid-level commanders, to highest rank commanders.

Waiting is a category of activity that can be experienced and performed in many different ways. I argue that Civil Protection's struggles to achieve relevance result in a fragmentation of its activities of waiting into at least two related but analytically distinct forms: waiting as standby and 'just waiting'. In waiting as standby, what is being waited for by disaster preparedness organisations and personnel is for the moment to arrive, the event to take place, which calls them into a form of organisationally coordinated action that has been prepared for. Waiting, in this mode, is premised on the imminent deployment of targeted practices oriented towards the effects of an unfolding disaster. It is this anticipated future activity that renders relevant practices in the present. In 'just waiting', by contrast, the relevance of a future event to practices in the present becomes far more fragile. In its stead, a different set of practices become more experientially and performatively intensive: the passing of time, dealing with a less goal-directed present.

In focusing on relevance in the way I have begun to describe, I draw on Martin Savransky's (2016) reclaiming of the category of relevance for social science, for which he has looked to the philosophy of Alfred North Whitehead to account for how, precisely, the world is continually made and remade. Relevance, from this perspective, is not simply a quality that is attached to entities via forms of subjective judgement, but a way of describing diverse relations of mutual capture. With this in mind, I also bring into my discussion another Whiteheadian concept: *feeling*, including examining how emergent 'lures for feeling' are 'captured'. I find the terms helpful as a way of describing the forms of intersecting relationality that surround attempts to achieve mutual relevance. In part, this is because at its most simple, bringing a notion of feeling into descriptions of organisational behaviour

implies that the latter is inseparable from flows of emotion and affect. However, as I've argued in different terms elsewhere (Deville, 2015), a Whiteheadian notion of feeling can be thought of as extending far beyond the affective, in that it describes 'a constant activity that touches all aspects of the experience of a subject' (Debaise, 2017: 46; original emphasis), in which neither 'experience' nor subjectivity should be understood as necessarily human.

Feeling, from this perspective, is a process of continual capture in which 'a subject is not a substance; it is a taking' (*ibid*.: 48). This 'taking' is an activity constantly happening through interacting forms of emergence, or 'prehension', or 'lures'. It occurs in the present, in which what is being taken and continually integrated and re-integrated is the past, both recent and distant (*ibid*.). Crucially, however, this includes not just events that happened but unrealised possibilities:

What might have been, the choices made, and the selections that have taken place, are constitutive of feeling. Feeling carries with it all that 'could have been', the eventualities that it had to avoid in its effective existence, all the alternatives that were presented to it. (*ibid*: 52)

As this begins to imply, what may be at stake in disaster preparedness practices is the very relevance of simultaneously specific yet ever-changing pasts, presents and futures.

Ultimately, therefore, this paper examines the ways in which particular times and spaces, both past and future, become joined, sometimes unavoidably, to disaster preparedness.

Waiting on standby

The editors of this special issue define standby as a mode of 'active inactivity', often dependent on the varied organisation of socio-technical infrastructures, in which actors 'must be ready to be re-activated at any time' (Kemmer et al., this issue). This definition very much captures how disaster preparedness organisations understand their work. While their primary

purpose is activity in direct response to the unfolding of a particular disaster, this purpose gives life to a second and arguably more internally meaningful organisational activity: filling the present, in advance of the anticipated disaster. It is these two purposes working in combination that leads to organisational and material infrastructures being put into place, troops being recruited, trained, and drilled, exercises being designed and carried out. The assumption is that *at any moment*, this secondary activity could be replaced by the more intense work of dealing with the unfolding chaos of a disaster. It remains the case, however, that the activity of a typical disaster preparedness organisation is far more routinely concerned with how to continue its existence in the *absence* of the object – disaster – that gives it its identity (more, then, of an absent present (Hetherington, 2004)) than responding to this object itself. If the fully realised activity of a disaster preparedness organisation is understood as only possible in the presence of a disaster, the organisation is destined for much of its existence to remain substantially 'inactive' even in the face of its ongoing activities of preparation.

To understand standby, we need to understand that it has a sometimes troubled relationship to an analytically distinct, less specific mode of active inactivity: waiting. In this respect, I echo Annika Kühn's analysis of standby, who argues that standby is a modality of waiting concerned with the 'pause' (Kühn, forthcoming). That disaster preparedness is concerned not just with standby but also waiting is hinted at in the quote at the top of this article. Recent years have seen a revival of interest in waiting in the social sciences. Particularly relevant in light of the themes of this article is a strand that has analysed what Craig Jeffrey identifies as 'chronic waiting' – in which waiting stretches over long periods of time: years, lifetimes (Jeffrey, 2008). The often damaging effects of chronic waiting have been explored across a variety of empirical settings: in the West Bank, as an inflicted strategy of colonial governance (Joronen, 2017), amongst lower middle class men in India, as connected to a particular form

of classed dispossession (Jeffrey, 2010), for asylum seekers in the UK, as an endlessly precarious frustrating condition, punctuated by the hope of resolution (Rotter, 2016). In such studies, waiting is revealed as not simply a passive, empty mode of existence, but socially productive – of new social networks and forms of communality (Rotter, 2016; Foster, 2019), of activism and resistance (Jeffrey, 2010; Joronen, 2017). Yet we should not take this to mean that passivity and inertia play no role in waiting. As David Bissell (2007: 291) argues, waiting should more properly be considered as 'a variegated affective complex', characterised by 'a mixture of activity and agitation of the world and conversely a deadness-to-the-world'. Waiting is also not a generic condition. Rather, Bissell suggests, there are different 'styles' or 'modalities' of waiting, 'from active waiting of an intense pressing and being-in-the-world, to a more stilled sense of waiting that falls outside of the impulse to view subjectivity as auto-affective activity' (2007: 278).

This paper suggests that waiting on standby is one such modality and, further, that to understand standby, we need to understand how it exists in relation to, potentially morphs into, and is sometimes disrupted by, other waiting modalities. It also argues that in tracking different temporal modalities, it may be helpful to use a focus on activities of 'relevance-making' that include the deliberate acts of humans and organisation, but also include potentialities that stem from a much wider canvas of actors. It shows that precisely how relevance is established to disaster preparedness is crucial to its ongoing processes of recomposition. This in turn adds to the emerging work on the temporal dimensions of organisational life, in particular that work that has focused on the role played by affect and the everyday (Orlikowski and Yates, 2002; Reinecke and Ansari, 2017; Johnsen et al., 2018). These arguments will be introduced via a detour into the more sedate world of modernist theatre.

Waiting for disaster

In his most famous play Waiting for Godot, Samuel Beckett appears to make waiting a standin for the human condition. The play, premiered in 1953, has often been read as an analysis of the dissolution of meaning under conditions of modernity. It concerns a changing group of figures – most centrally Vladimir and Estragon – whose lives seem to be simultaneously wholly directed towards, but never given transformative resolution by, the mysterious Godot: they wait for him, but he never appears. I am not the first social scientist interested in waiting to reference the play. Craig Jeffrey, for instance, compares the experience of his research participants – young men facing long-term unemployment in north India – to that of Vladimir and Estragon: like the latter, his participants 'struggle to manage and escape the feeling of being trapped in an endless present' (2008: 956). Drawing on the work of Harold Schweizer (2008), Rebecca Rotter uses the play to illustrate the condition of existential waiting, where 'the object is not known, is hidden or is unknowable, but is regularly given a symbolic object, expressed in abstract terms' (2016: 85). Vladimir and Estragon's form of waiting, she writes, 'is not waiting which will end in fulfilment or validation, but is rather the kind of waiting that we most fear: just waiting' (ibid.). As we will see, 'just waiting' is a modality of waiting that haunts standby.

It is probably unwise to try interpret *Waiting for Godot* in conventionally representationalist terms. As Schweizer makes clear, [t]he play is not about anything, not strictly speaking about waiting, certainly not about Godot. Rather the play enacts, performs, requires waiting' (2008: 9). The form(s) of waiting it enacts and requires nonetheless bears comparison to the forms of waiting that are enacted in disaster preparedness. The absent presences of both Godot and disaster are replete with uncertainty, although there is an assumption in disaster preparedness that the latter is at least partially knowable: even if how exactly a particular disaster will play out is not, disaster preparedness draws on experiences of previous disasters to inform its understanding of possible futures. What I want to focus on, is how waiting is conceived in

relation to this uncertainty. Both disaster preparedness and Vladimir and Estragon want to believe that what they are concerned with is not 'just waiting', but rather waiting that will at any moment be shown to be justified by a sudden situational transformation. In this respect, Waiting for Godot – with all its active inactivity – can be seen to be simultaneously enacting a version of standby, even while showing how standby is threatened with being transformed into a far less meaningful, far more frustrating form of waiting. 'Just waiting' threatens the ontological coherence of standby. In the next section, I will explore in more detail how this can happen in the case of disaster preparedness.

However, before doing so it is important to pull out some of the distinctions in the comparison I am sketching between disaster preparedness and *Waiting for Godot*, while introducing how attempts at 'relevance-making' are vital to activities of disaster preparedness. Beckett once claimed to be unconcerned with how his productions were judged by others — 'I produce an object. What people make of it is not my concern' (Duckworth, 1966: xxiv–xxv). The ambitions of disaster preparedness tend to be quite different. This is perhaps most evident in the preparedness exercises that constitute a significant component of disaster preparedness activity in advance of a potential disaster. Exercises are, as Adey and Anderson argue, 'a way in which the promise of contingency planning can be demonstrated' (2011: 1093). Disaster preparedness is indeed concerned with the judgements of others. As I will show, this is how relevance is often understood within Swiss disaster preparedness: as pertaining solely to matters of subjective judgement which, in the case of exercises, are potentially modifiable by public demonstrations of organisational effectiveness. What I want to show, however, is that the relations of relevance surrounding disaster preparedness extend beyond human perception alone.

A particular challenge for disaster preparedness in Switzerland in this regard, has been the tendency for an apparent absence to become relevant to its work: the absence of major

disaster. While disastrous events have occurred in Switzerland, few have led to the major loss of life, although that is not to downplay the potential harm, both social and economic, they may have nonetheless engendered.

An obvious exception is outbreak of COVID-19, which I will return to at the end of the article. At the time of writing this has led to at least 1,700 fatalities in Switzerland and the active deployment of Civil Protection as an organisation, with the government making a total of 850,000 service days available to Swiss regions (Bundesamt für Bevölkerungsschutz, 2020a), primarily to support health services, with troops being deployed to hospitals and care homes to perform various duties such as managing the higher number of visitors to hospitals, disinfection, catering support, and transportation. Another is the Mattmark disaster in 1965, in which 88 workers were caused by a single avalanche. Other particularly significant events include the 1986 Schweizerhalle environmental disaster, in which huge volumes of poisonous chemicals were discharged into the Rhine after a fire at a storage depot, 'Storm Lothar', which killed 15 people and caused widespread structural and environmental damage (Zeller, 2014), major flooding in 2005 (alongside a number of other more recent but smaller flooding incidents), in which six people died and may have caused up to three billion dollars' worth of damage (Aschwanden, 2015). Likely still the most significant disaster in the entirety of Swiss history is the Basel earthquake of 1356 (Figure 1). This historical event played a particularly central role in one of the exercises I observed, as I will explore. The disaster caused catastrophic damage to the city, likely considerable loss of life (although the precise extent is hard to ascertain), and has been described as 'one of the most damaging events in intra-plate Europe within historical times' (Fäh et al., 2009: 351). The initial earthquake combined with the fires that followed are held to have almost wholly destroyed the then city of Basel, with further damage spanning an area within a thirty-kilometre radius: 'no church, tower, or house

of stone in this town or in the suburb endured, most of them were destroyed', wrote the author of an entry in the town's new record book in 1357 (Hoffmann, 2014: 307).

[Fig 1 about here]

Figure 1: The 1356 Basel Earthquake, as imagined after the fact by Christian Wurstisen in his Basel Chronik (1580).

Switzerland has, then, experienced some apparently disastrous events over its history. However, as I will go on to explore, among many Swiss, there is a perception that, as well as being relatively infrequent, some of these events may not fully qualify as a 'disaster'. Often this turns on questions of scale – however potentially damaging and distressing many of these events have been, when placed alongside major disasters around the world, they can seem comparatively small. Sometimes these questions turn on what 'counts' when determining a disaster. Is the loss of a dozen or so lives more a local tragedy than a national disaster? Is financial or structural damage equivalent to lives lost? The challenge of reinforcing the relations of relevance that connect disaster preparedness to disaster and not its absence is, therefore, felt keenly in Switzerland.

That said, this is a challenge that faces all forms of disaster preparedness, even if the degree to which it does so varies. With that in mind, I will begin by examining some of the more generic ways in which a preparedness organisation might themselves attempt to make disaster relevant to its daily work, before later examining the particular consequences of the absence of disaster in Switzerland. In respect of the former, based on my observations, there are at least three dimensions of attempted 'relevance-making', as you might call them, that were targeted in the exercises I observed in Switzerland. These respectively incorporate: (1) exercise participants, (2) disaster, and (3) a witnessing audience. Not all are necessarily targeted simultaneously or necessarily in equal measure. In each case, these efforts can also

fail, which generally means that relations of relevance are established to entities beyond those intended by the exercise designers. This builds on previous work on the centrality of creating 'equivalences' in disaster response exercises (Anderson and Adey, 2011; Adey and Anderson, 2012) and on how comparison is used by disaster preparedness organisations as a justificatory tool (Deville et al., 2015), while focusing down on particular sets of distinct practices.

Relevance-making in disaster preparedness exercises

Exercise participants

The first potential dimension of attempted 'relevance-making' incorporates exercise participants themselves. Unlike a play, for which the primary object is usually a witnessing audience – even if Beckett may not have been interested in how they interpret a production, he is interested in assembling them to witness it – what participants 'make of' an exercise is, at least in terms of the stated objectives of exercises, crucial for the success of preparedness. Relevance-making, in this respect, is about fitting into their embodied lives in a way that makes sense. There must, in the terms introduced above, be a mutual capture of feeling between participant and exercise. This can involve the cultivation of particular affects and atmospheres (Anderson and Adey, 2011; O'Grady, 2016). In practical terms, a successful mutual capture will involve an exercise that keeps participants engaged, attentive, and focused on the task in hand.

The failure of attempts to enact relations of relevance to participants often lurks at the margins of exercises, in the threat of boredom or other forms of disengagement (see also Anderson, 2004; Adey and Anderson, 2012; Anderson 2015). I would observe this fragility myself many times over the course of my fieldwork in Switzerland, including in the dozens of exercises that form part of either the basic or the 'refresher' training for Civil Protection

troops³. It was commonplace to observe affects of various sorts irrupting and, if not fully disrupting the exercise, then at least at times turning it from training alone into something else: a bonding activity, or an opportunity for comedy, or sometimes, more furtively, or in asides to me, a chance to marvel at the apparent farcicalness of the enterprise they were implicated in (more on which later). In such instances, relations of relevance beyond those intended by the exercise designers emerge. Different sets of feelings, in other words, are captured.

Disaster

The second potential dimension of attempted relevance-making is between the exercise and disaster. This equivalent in a play would perhaps be themes to which a play speaks. In a few preparedness exercises, disaster presents itself as fairly immediately relevant via the active presence of the actual threat which participants have to learn to manage – learning to extinguish a fire would be an obvious example (Figure 2). The feeling of a future potential disaster extends into the present and is captured via a controlled reproduction of the danger posed by a specific aspect of a disaster: in this case, the heat and its potential to burn, the smoke and its potential to stifle.

[Figure 2 about here]

Figure 2: Training to extinguish a fire (photo by author)

However, often the feeling of disaster is less tangible, less immediately capturable, and has to be brought into the exercise by deploying what I would call 'relevance-making devices'.

³ The exact combination of exercises troops partake depends on which Civil Protection 'function' they are allocated to. The three main functions are Communications Assistant (*Stabsassistent*), Carer (*Betreuer*), and Pioneer (*Pionier*). The last of these is roughly equivalent to infantry in the army. It is a more physical role, involving extensive training in using heavy machinery. There are other functions, but these are more niche (Material Warden, responsible for equipment maintenance, Shelter Warden, responsible for the bunkers, and Cook).

⁴ The parallel I have in mind is the 'market device', as studied within certain quarters of economic sociology (e.g. Muniesa et al., 2007; Law and Ruppert, 2013; McFall, 2014), although the concept of device has been used with reference to various other domains (Marres and Lezaun, 2011; Verran, 2012; e.g. Amoore and Piotukh, 2016).

These are some of the 'orchestration of relations' (Kühn, forthcoming) required for the maintenance of standby. Examples from my fieldwork, include:

- in training, using presentations and videos featuring recent major disasters that *have* happened in other countries (one prominent example was Fukushima, used on a number of occasions the highlight the continued risk posed by nuclear power stations, of which Switzerland has four);
- in training, using presentations and videos featuring past events in Switzerland (Figures 3a-d);
- in training, using audio-visual dramatisations of past events, in which actors roleplay a sequence of events on screen, intercut with footage from actual events;
- in training, taking troops to the location of a past event (e.g. a flood) and showing them photos of the immediate aftermath of the event (see Figures 4a, 4b);
- in exercises, simulating the physical landscape of post-disaster events (in Switzerland often earthquakes, partly as this enables the repurposing of Cold War era Civil Protection training fields, designed to simulate the landscape following nuclear attack; see Figures 5a, 5b);
- in exercises, having actors play the role of victims, sometimes primed to respond in certain ways, sometimes made up to appear injured (see Figures 5a, 5b) here there are some direct parallels to theatrical techniques, as analysed in other contexts by Tracy Davis (2007);
- in exercises, simulating some of the psychological pressures that would be
 experienced in a disaster event by overwhelming staff with messages from different
 quarters, by introducing surprises, by starting exercises in the early hours, by making
 troops work long hours (examples of which were to be variously found in two major,

national exercises I observed: SEISMO 12 and GNU 13; the former will be explored in more depth shortly⁵).

Figures 3a, 3b, 3c, 3d: Past Swiss events; stills from video used in training

(Schadenereignisse in der Schweiz), showing two rail accidents, forest fire, aftermath of storm

Figures 4a, 4b: Contrasting the present and the past: image on left shows a bridge destroyed in 2005 floods. This was shown to trainees in situ on a site visit; image on right author's own, showing the reconstructed bridge, seen from the perspective of the trainees

Figures 5a, 5b: Simulating post-earthquake landscapes (photos by author)

Figures 6a, 6b: Actors simulating effects of (a) chemical exposure, (b) concussion (photos by author)

Yet it is quite feasible to organise a disaster preparedness exercise that is engaging and interesting for participants, but in which the spectre of disaster becomes rather more absent

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⁵ Short for *Gesamtnotfallübung 2013* or 'Complete Emergency Exercise 2013', which tested the organisational readiness of various agencies in response to a simulated emission of radiation from one of Switzerland's nuclear power plants.

than intended – where 'relevance-making' fails to establish a connection to its intended object – disaster – with the absence of disaster the object that threatens to take its place. For example, a classroom exercise in which participants had to roleplay situations of confrontation with members of the public, which my fieldnotes record as 'perhaps the most fun bit of the day' but 'really quite a few steps removed from disaster situations'. Or a traffic direction exercise, in which the simple silliness of cadets being asked to pretend to be cars, crossing a metaphorical junction indicated by sticks on the ground, flashing their 'indicators' with white gloved hands, while one cadet practiced the relevant traffic directions, led to much mirth among participants and had a similarly tenuous relationship to the dangers of disaster. Or an exercise in which cadets had to build a path across a field (Figure 7), ostensibly in order to practice using manual working tools (pickets, shovels etc) and relevant materials (hardcore, concrete, etc.), however in fact primarily aimed at improving a public right of way (more on which shortly). As I recorded in my fieldnotes, the setting did not help:

I reflect, as stand in the sun in a beautiful meadow, cow bells clinking gently behind me, a valley and mountain vista ahead of me, on the fact that this really is too pleasant a fieldsite. [It's] particularly peculiar as I am meant to be researching disaster. I don't think I could feel further from [it].

In these examples, it is not that disaster is wholly absent, but rather that its presence has to be constructed predominantly through discourse – usually by an instructor explaining to participants how the exercise is related to disaster preparedness. This is a form of attempted relevance-making that is often more fragile than when discourse is bolstered by material and affective lures for feeling (Aradau, 2010; Anderson and Adey, 2011).

Figure 7: Preparing to build a public footpath (photos by author)

Witnessing audience

There are occasions, however, when efforts at constructing the relevance of disaster preparedness have a wider scope, beyond exercise participants themselves. This is the third potential dimension of attempted relevance-making for disaster preparedness exercises that I want to focus on in particular, in which a witnessing audience is incorporated into the exercise. This mode of attempted relevance-making has a particularly contentious history in Switzerland. In such efforts, there are far more parallels with the structural dynamics of theatre: there is an effort to actively assemble an audience (see above, Figure 6a, for instance), and the objectives of the exercise at least some degree have reference points external the participants' embodied activities. It is not that the exercise is longer be concerned with learning or practicing skillsets, but that this objective sits in relation to, and at times can become secondary to, 'putting on a show'. The exercise's success as a lure for feeling hinges on the relationship between those witnessing it and the integrity of its performance. Is the exercise narratively coherent? Spectacular? Exciting? Impressive?

There are many reasons for wanting to construct exercises with such questions in mind. Scholars have focused in particular on how public exercises are often aimed at the reinforcement of particular modalities of governance: those that operate according to a 'state of exception' (Adey and Anderson, 2012), logics of security (Anderson, 2010; Samimian-Darash, 2016), or particular visions and narratives of nationhood (Davis, 2007), or logics of pre-emption (De Goede, 2008), or via forms of biopolitical ordering (Zebrowski, 2009). In the case of many of the more public exercises I observed in Switzerland, the objective was often akin to public relations aimed at improving the image of Civil Protection as an organisation – which is not to say that they were not also sometimes interested in bolstering certain logics of governance.

To understand the degree to which this dimension of relevance-making can come to feature in disaster preparedness in Switzerland, it may help to outline key elements of Civil Protection's organisational history. Civil Protection (or Civil Defence, as it might once have been translated – the term 'Zivilschutz' is polysemic in this respect) as an organisation was formed during the Cold War, with the original purpose of being responsible for ensuring the continuity of the Swiss nation in the event of a nuclear strike, whether on Switzerland directly or on one of its geopolitically more high profile neighbours (M. Meier, 2007; Y. Meier, 2007; see Berger Ziauddin, 2014, 2017). In this period, however, Civil Protection was faced with an existential challenge: the continued absence of its key object – nuclear war. This was a particular issue given the sheer organisational scale of Swiss Cold War preparedness as compared to many of its neighbours. Civil Protection was a major national endeavour, involving the creation of a conscript-based reserve force that numbered in the hundreds of thousands⁶. Today, the scale of Civil Protection's Cold War ambition is most visible in the remaining network of nuclear bunkers (Deville et al., 2014; see Berger Ziauddin, 2017; Deville and Guggenheim, 2018), originally designed to house the entire population of Switzerland in the event of a nuclear strike: recent figures suggest a standing total of around 360,000 smaller private shelters and 1700 public shelters (Bundesamt für Bevölkerungsschutz, 2017); many of the latter double as command centres. The tension between the scale of the preparedness effort in Switzerland and the seeming absence of a

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⁶ In 1963 around half a million were called up (Y. Meier, 2007: 93), although the target was never fully met. This number decreased over time, however even after the Cold War, the size of the force was substantial. In 1994, for example, a report expressed the ambition to reduce the size of the force from around 280,000 to 120,000 (M. Meier, 2007: 7).

⁶ The exercise was a specific kind of Civil Protection activity: a 'Deployment for the Good of the Community' (Einsatz des Zivilschutzes zugunsten der Gemeinschaft). This is a legally circumscribed form of activity, in which certain organisations can apply to have work partially or wholly undertaken by Civil Protection. From the perspective of the upper echelons of Civil Protection, these are seen as something of a win-win: a chance to make the work of Civil Protection more visible and relevant to the population and a chance for recruits to practice their skills. The blurring between exercise and public works is thus governmentally institutionalised (Bundesamt für Bevölkerungsschutz, 2020b).

viable threat led many Swiss inhabitants to explicitly question the relevance of the organisation, questions which were lent additional force by the campaigns against nuclear proliferation that saw the Swiss civil protection/defence architecture as a reflection of Swiss militarism (Albrecht et al., 1988; M. Meier, 2007). Exercises such as the so-called 'nail seminars' (see Figure 8) – an exercise in which troops learned, and practised, setting up the bunkbeds that would be necessary to accommodate evacuated citizens in the larger shelters – came to be seen as the consummate example of the pointlessness of some of the activities which were used to fill troops' time during their yearly periods of training. Some older members of contemporary Civil Protection, who had lived through these times either as officers or cadets, talked about the charade of making troops repeatedly practice erecting and then breaking down the bunkbeds, to the extent that in some cases the screw holes in the wooden frames had been used so often that screws could be pushed in by hand (these would therefore have been a different and earlier incarnation of the metal versions shown in Figure 9, the image being from the late 1980s). The tendency for the press to repeatedly reference this exercise remains something of a sore point for some – in the interview with the aforementioned Regional Civil Protection Commander complained, for example (see also Fischer, 2007) – although at the same time Civil Protection itself still can be found referencing nail seminars in its public communications, usually as a way of contrasting modern, purportedly state-of-the-art practices to older, archaic predecessors (Bischof, 2014; e.g. Anon, 2016).

Figure 8: 'Did someone say "nail seminar"?'

Given this historical context, contemporary exercises conducted in the view of the general public were often seen by the Civil Protection hierarchy as a way of creating relevance, as more or less conventionally understood: as a process dependent on the subjective judgements of others. Take the pathway building exercise I mentioned above: as well as being a chance

for cadets to test / refresh certain skills, it was also, as the commander leading the exercise told me, part of Civil Protection's ongoing efforts to improve community relations. In fact, the local town was partially funding the construction of the path, blurring the line between exercise and public works.

However, the audiences that disaster preparedness exercises assemble frequently extend beyond a notional 'general public'. A number of the exercises I witnessed were organised with inter-organisational politics in mind. In such cases, the audience might, for example, be local or national politicians with the power to fund or defund Civil Protection's work, or members of disaster preparedness forces from other countries, who often visit Switzerland to share expertise and to compare approaches, sometimes becoming involved as both participants and audience (Figures 9a, 9b).

Figures 9a, 9b: Jordanian and German disaster preparedness delegations visiting a Swissorganised exercise (photos by author)

Whatever the target of the relevance-making efforts in this third dimension, they of course do not always succeed in the ways that organisers wish. For example, in the path-building exercise, the commander and I were confronted by a local resident who started complaining to us about the pointlessness of Civil Protection work, echoing some long-standing concerns (I will return to this issue shortly). The public presence of Civil Protection thus had the potential to act as a lure to the very kinds of feelings that the organisational hierarchy is keen to challenge.

In what follows, I will explore the ambivalent potential of attempted acts of public relevance making in more detail, with a focus on one of the larger Swiss disaster preparedness exercises

I attended as an observer – SEISMO 12 – while also attending to the construction of relevance operating beyond human perception. Focusing on human perception alone, I argue, misses the diversity of relations with which disaster preparedness can be – sometimes unintentionally – associated.

Just waiting? The endless present of Swiss disaster preparedness

SEISMO 12 was a 2012 exercise designed to simulate the response to the aftermath of a major earthquake, centring on the city of Basel, taking as its starting point the situation fiftyfour hours after the earthquake hit. It was a command post exercise (Stabsrahmenübung; sometimes also referred to in English as a 'functional exercise'). This meant that what was being primarily tested were organisational and inter-organisational capabilities in dealing with disaster rather than the associated practical and physical tasks such an event might demand of disaster preparedness troops and emergency responses services operating in the field; there were, in other words, no 'boots on the ground'. Included in this process was the testing of the ability of different organisational components to respond to both the unexpected twists and turns of the still unfolding disaster and to flows of information arriving from various sources. The exercise spanned three uninterrupted days and involved Federal Swiss agencies – including the Federal Civil Protection Agency (Bundesamt für Bevölkerungsschutz), the army, a Federal media team, and the National Alarm Centre (Nationale Alarmzentrale) – Civil Protection personnel from four Swiss cantons, alongside disaster preparedness representatives from neighbouring Germany, on whose border Basel sits, and representatives from various commercial and non-commercial agencies (e.g. Red Cross, SwissCom, Orange, Swissgas).

The exercise targeted each of the dimensions of relevance-making outlined above. It constructed its relevance to participants (dimension 1) in numerous ways. The uninterrupted

span of the exercise, the ceaseless sets of tasks that participants had to perform, the sheer scale and complexity of the exercise: these and many other elements besides tested their stamina and their ability to put into practice a variety of processes and procedures in a high intensity environment. The relevance of disaster (dimension 2) was constructed most centrally via the challenge of participants having to manage complex inflows and outflows of information, while also – where necessary – deciding on appropriate courses of action. This information included regular casualty number updates and the continued intrusion of dozens of so-called 'injects' into the exercises, targeted at particular teams, arriving via different communicative channels, to which participants had to respond, with particular local stakeholders in mind – the media, central government, etc. By way of just a handful of examples:

- Frightened tourists try to leave the disaster zone by any means possible. They don't
 hesitate to offer large sums of money to gain access to cars and drivers!
- Drinking water pollution in the drinking water network in the [...] region, the
 population must be informed immediately. [Stakeholder] asks for a coordination
 report for the information of all water users. Emergency care must also be established
 as quickly as possible.
- In the [local] hospital, dozens of further admissions have been recorded in the last 24 hours. Because of the reduced number of hospital staff due to the earthquake, it is unable to treat the many patients it is receiving. At present it is caring for 113 seriously injured patients, 268 slightly to moderately seriously injured patients, and 45 patients who had been hospitalized before the earthquake.

It is, however, the third dimension of relevance-making that I want to focus on: the assembly of a witnessing audience. SEISMO 12 assembled quite distinct audiences around its work.

The first was the Federal government – as noted, their support is vital for the continued

existence of Civil Protection as an organisation. A key moment in the exercise was the arrival of a group of high-ranking figures from the Swiss government and various other Federal agencies (Figure 10). The second audience was the press: another important moment was the arrival of journalists from local and national media organisations (Figures 10 and 11), who were also invited to ask questions about the exercise at a press conference. They in turn invoked a third and more remote audience: the wider Swiss population who could in due course learn about the exercise via TV and newspaper reports (Hermann, 2012; Mahro, 2012; e.g. Ballmer, 2013).

Figure 10: Delegates from Federal agencies touring SEISMO 12 (photos by author)⁷

Figure 11: National media interviewing SEISMO 12 personnel (photos by author)

Alongside its practical utility for the agencies involved, those behind SEISMO 12 clearly hoped that the exercise would demonstrate the effectiveness of Swiss disaster preparedness procedures to each of these three groups. The message being projected externally is that the particular form of standby that disaster preparedness in Switzerland institutionalises should be judged as relevant – relevant to the work of government, relevant to the production of mediatised narratives, and relevant to the lives of the Swiss population⁸.

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adopted here.

As is suggested by these images, the constituency of disaster preparedness and disaster preparedness events is heavily gender-skewed. One significant reason for this is that the disaster preparedness system in Switzerland is heavily dependent on Civil Protection and the Swiss Army. Both of these organisations draw their members predominantly from young male conscripts, although women are permitted to volunteer for either.
 Such processes have long been the focus of institutional theory in the analysis of how organizational legitimacy is achieved and the role within this of particular social and cultural contexts (e.g. Powell and DiMaggio, 1991). The focus of this work on large scale structuration dynamics is, however, somewhat distant from the approach being

However, relevance-making should be understood as extending beyond practices of subjective judgement. Surrounding disaster preparedness a range of lures for feeling, some of which are deliberately drawn into its work by preparedness organisations, some of which act as lures that generate unintended outcomes. As I have already shown, relevance-making in disaster preparedness frequently involved drawing relations between actual events and the exercise in question. In SEISMO 12, particularly important was securing a relation to the 1356 earthquake described earlier. Both the exercise's location – Basel – and its precise magnitude – between 6.5 and 7 on the Richter scale – mirrored this historical antecedent. The relationship between this historical earthquake and SEISMO 12 featured prominently in government press releases (Eidgenössisches Departement für Verteidigung, Bevölkerungsschutz und Sport, 2012a, 2012b). In exercise documents – one of which featured the woodcut shown towards the start of this paper (Figure 1)⁹ – the organisers imagined that a similar earthquake occurring in the present would be perhaps even more catastrophic, killing between 1,000 and 6,000 individuals, seriously injuring 60,000, and causing damage to property worth between USD \$54billion and \$107billion¹⁰.

The 1356 Basel earthquake occurred in a period in which the Swiss nation as it is today was still emerging. If standby, as a particular modality of waiting, involves being ready to respond 'at any moment', this degree of temporal elongation poses a huge organisational challenge. The rhythms of earthquakes and the folding and buckling of the earth's crust operate at a vastly different temporal scale to human and organisational life. Efforts were, of course, made to manage this problem. For instance, the exercise 'Factsheet' describes how 'Switzerland should expect to experience an earthquake of magnitude 6 [on the Richter scale]

⁹ The 'concept' document (Nationale Alarmzentrale et al., 2004: vii) used as a reference point by organisers of the exercise.

¹⁰ CHF 50 billion to CHF 100 billion. Conversion based on an exchange rate dated 9th May 2012.

every 100 years, and an earthquake with a magnitude between 6 and 7 every 1000 years' (Bundesamt für Bevölkerungsschutz, 2012: 2). It continues: 'Especially in the Basel area, in which the biggest earthquake Europe has ever seen took place in 1356, the possibility of damage from earthquakes, and thus earthquake risk, is very high' (*ibid.*). The language of risk calculation and predictions about the human and financial costs such an event would inflict, as well as the reference again to the 1356 event, are attempts to capture the lures for feeling that the past offers up to the present. However, they inevitably struggle in the face of the span of geological time. The unacknowledged problem for disaster preparedness in Switzerland, however, is that it has become unavoidably tied to – that is, relations of relevance have become established with – such mind-boggling temporalities. These act to destabilise attempts to establish relations of relevance with human life, given the latter's vastly more rapid temporality.

Many interviewees identified the perceptible absence of disaster – earthquake or otherwise – as a specific organisational problem for Swiss Civil Protection. I chatted to a cadet during lunch at SEISMO 12 about the issue:

I think that the threat [of disaster] has long not been that present', he told me. For many in wider population, he suggested, disaster was seen as something approaching a 'phantom' or a 'fantasy' of Civil Protection. But sometimes, he continued, 'when things aren't real [...] they grow stronger, they can become real. [...] Sometimes, the less the threat, the more important it becomes, because it is [people's] job, their profession.

From his perspective, Civil Protection appears caught in a cycle in which the longer disaster remains absent, the harder those within the organisation have to work to bolster disaster's relevance to both their own and Civil Protection's identity.

In an interview conducted some months after the SEISMO 12 exercise, a senior colleague – an Operations Manager at a regional Civil Protection training centre – reflected on the impact that the continued absence of disaster was having on the motivation of troops like the above cadet, in a discussion we were having about a training course he had just delivered to some new recruits:

It is frustrating. It is certainly a motivation problem. Maybe you heard, at the end of the course, for the last three years, I have said to the participants in the officer course, I wish you all the best. And I also wish you, hopefully, an emergency deployment sometime so that you really experience serving in a disaster. Even if [a disaster] has many negatives – people injured, perhaps killed, a lot of damage, financial damage – for anyone who taking a course it's also good at some point to experience a disaster. Simply to be in action and stand one to one [with each other]. I personally don't have this problem – I have been in action a lot in the fire brigade. I don't just train for the sake of training. (Civil Protection Centre Operations Manager, 2012)

I witnessed the event he describes: telling his charges he wished them a disaster so they could experience the cut and thrust of a real event. In this extract he goes further, explicitly distancing himself from Civil Protection's apparent organisational problem. He was also a volunteer in the local fire brigade. There, he suggested, he doesn't just 'train for the sake of training'. *There* training has an object, other than its own repetition. The danger that lurks behind his observation is that disaster's relevance to the daily practice of Civil Protection becomes so tenuous to its troops as to be undetectable. This is what standby dissolving into just waiting would feel like: an endless present, with the anticipated future continually deferred.

Conclusion

If the ways things and people become relevant to one another – or, to put it another way, if the way feelings are taken and become takeable – are, as Savransky argues, specific and situated achievements (Savransky, 2016: 154), then this paper has shown how waiting on

standby for a disaster actually involves a constant refreshing and revitalisation of past events and future possibilities in relation to each new problem that disaster preparedness both poses and is posed. These problems include those posed both by its exercises and by the past, present and future disasters to which exercises attempt to secure a relation.

The paper has also opened up standby as a particular modality of waiting characterised by forms of active inactivity oriented towards a different and more active set of practices that it is expected, or at least imagined, will be unfolded at some future moment. As part of this, I have examined how, in the case of disaster preparedness in Switzerland, standby at times threatens to transform into a different waiting modality: 'just waiting', which features presents that are less goal-directed. Standby is a waiting modality that is a challenge for all organisations whose claims to existence depend on infrequently actualising possibilities coming to pass. What makes Swiss Civil Protection distinctive is how standby has become related to both the absence of promised events and to its own historical inability to convincingly deal with such absences. In this waiting for future disasters that seem, almost frustratingly, never to come to pass, the pasts, the presents, and the possible futures of Swiss disaster preparedness and its unique version of standby, are constantly being remade. In tracking this across some of the diverse history of disaster preparedness in Switzerland, I have shown how diverse lures for feeling, including unfolding pasts and presents, come to be relevant to Civil Protection's work and to its ongoing processes of recomposition. From an organisational perspective, this can be an uncomfortable experience, as strategic attempts at relevance-making aimed at influencing the judgements that are made by diverse audiences become entangled with, and at times destabilised by, wider dimension of relevance-making. Relevance-making is a necessarily incomplete process. I write this in August 2020, as the world lies in the grip of the Covid-19 pandemic. A feature of disaster – which I would argue the pandemic qualifies as, although such designations are inevitably challenging to achieve

agreement upon – is its rapid transformation of the status quo. However, it is important not to assume that the sudden presence of a disaster instantly solves the challenges of relevance for disaster preparedness organisations. As part of their response to the COVID-19 pandemic, Civil Protection Aargau, one of the largest regional Civil Protection forces in Switzerland, created a slick promotional video which featured as a news story on their home page (Aargauischer Zivilschutzverband, 2020), as well as prominently on the national Civil Protection website in a section about the response to the pandemic (Bundesamt für Bevölkerungsschutz, 2020a). The video shows Civil Protection forces – often in slow motion and over a stirring classical score – 'in deployment' (im Einsatz) in hospitals and care homes, alongside hospital and care home managers testifying to the value of the support provided and Civil Protection commanders and other senior Civil Protection officials variously making a case for the readiness and effectiveness of their troops. The target audience of this video is unclear. Is it 'the public'? Government officials? Other regional Civil Protection forces? Civil Protection troops themselves? It is likely a mixture of some or all of these. As for many organisations, the pandemic is an opportunity for Civil Protection in Switzerland to capture Covid-19, even as Civil Protection is captured by it. This is not, however, the simple substitution of irrelevance for relevance, but a redistribution of relations of relevance.

The Covid-19 pandemic offers a further reminder: that in these ongoing redistributions of relevance Civil Protection depends on latent non-human potentialities – in this case, on a particular human-non-human encounter causing a virus to leap species before quickly spreading globally with the help of our modern mobility systems, offering a range of unpleasant surprises (see Pierides and Woodman, 2012) to the organisations seeking to manage it. Most of the exercises I witnessed had much larger scale non-human potentialities in mind – floods or droughts or chemical explosions or – as in the SEISMO 12 exercise – earthquakes. What was being waited for in Swiss disaster preparedness is the unfolding of

geological forces, as the planet continues its ceaseless yet often unnoticed processes of realignment. The pasts, presents, and futures of Swiss Civil Protection include within them a particular organisational legacy, a particular relationship to apparatuses of prediction (see Deville and Guggenheim, 2018), a particular history of disastrous events, a diversity of possibilities never grasped – and they also include within them, as SEISMO 12 sought to demonstrate, the material uncertainties of the dependence of our species upon an inherently unstable planet. Perhaps COVID-19 will be the disaster that was, perhaps guiltily, hoped for by some in Civil Protection. It contains within it the potential – even amidst all the destruction the virus is wreaking – that it might be enough to cement Civil Protection's relevance in the eyes of their different observers. However, to see how exactly this disaster and other future and past disasters become relevant to Civil Protection, we must just wait.

Acknowledgements

I am grateful to Laura Kemmer, Annika Kühn, and Vanessa Weber, as well as to David Knights, colleagues in the Department of Organisation Work and Technology, Lancaster University, and the three anonymous reviewers, for their extremely helpful comments on previous drafts of this paper, and similarly to the participants and audiences at the 'Standby infrastructures' panel at the American Association of Geographers 2017 Annual Meeting in Boston and at the 'Repeat! The logics of exercises, trainings, tests and rehearsals' at Goldsmiths, University of London in 2014. Many thanks also to those working Swiss civil protection for their generosity in supporting my fieldwork, and to Michael Guggenheim and Zuzana Hrdličková for their insights as part of the 'Organising disaster' project on which this article draws. Finally, thanks to the team at ephemera for their commitment to open access and to all the donated labour this involves.

Funding statement

This article draws on research funded by the European Research Council, as part of the

'Organising disaster: Civil protection and the population' project (number: 263731).

references

Aargauischer Zivilschutzverband (2020) Der Zivilschutz im COVID-19 Einsatz. [https://youtu.be/m4vaUDji3Yc]

Adey, P. and B. Anderson (2012) 'Anticipating emergencies: Technologies of preparedness and the matter of security', *Security Dialogue*, 43(2): 99-117.

Albrecht, P., A. Gross, A.E. Hohler, P. Hug, W. Lauterburg, T. Schnyder, M. Stocker-Meier, J. Stöcklin, J. Suchomski and J. Tanner (1988) *Schutzraum Schweiz: mit dem Zivilschutz zur Notstandsgesellschaft.* Gümligen: Bonn: Zytglogge.

Amoore, L. and V. Piotukh (eds.) (2016) *Calculative devices in a digital age.* Abingdon & New York: Routledge.

Anderson, B. (2004) 'Time-stilled space-slowed: How boredom matters', *Geoforum*, 35(6): 739-754.

Anderson, B. (2010) 'Security and the future: Anticipating the event of terror', *Geoforum*, 41(2): 227-235.

Anderson, B. (2015) Encountering affect: Capacities, apparatuses, conditions. Farnham: Ashgate.

Anderson, B. and P. Adey (2011) 'Affect and security: Exercising emergency in UK civil contingencies', *Environment and Planning A*, 29(6): 1092-1109.

Anon (2016) 'Der Zivilschutz von heute', Gemeinde Gossau: 45.

Aradau, C. (2010) 'Security that matters: Critical infrastructure and objects of protection', *Security Dialogue*, 41(5): 491-514.

Aschwanden, E. (2015) 'Schweizer Hochwasser 2005: Erst kam das Wasser, dann der Berg', *Neue Zürcher Zeitung*, 17 August. [https://www.nzz.ch/schweiz/erst-kam-das-wasser-dann-der-berg-1.18596963]

Ballmer, D. (2013) 'Krise bewältigt, Verletzte vergessen', *Basler Zeitung*, 9 November. [https://www.bazonline.ch/basel/land/krise-bewaeltigt-verletzte-vergessen/story/27891374]

Berger Ziauddin, S. (2014) 'Überlebensinsel und Bordell. Zur Ambivalenz des Bunkers im atomaren Zeitalter', in D. Eugster and S. Marti (eds.) *Kultur des Kalten Krieges in Europa*. Essen: Klartext.

Berger Ziauddin, S. (2017) 'Superpower underground: Switzerland's rise to global bunker expertise in the atomic age', *Technology and Culture*, 58(4): 921-954.

Bischof, J. (2014) Zivilschutz kämpft für besseres Image [http://www.infowilplus.ch/_iu_write/artikel/2014/KW_12/Uzwil/Artikel_20461].

Bissell, D. (2007) 'Animating suspension: Waiting for mobilities', Mobilities, 2(2): 277-298.

Bundesamt für Bevölkerungsschutz (2012) Factsheet zur Lageverbund- und Stabsrahmenübung vom 8. - 10. Mai 2012. Bern: Bundesamt für Bevölkerungsschutz: 2.

Bundesamt für Bevölkerungsschutz (2017) *Schutzbauten*. [http://www.babs.admin.ch/de/aufgabenbabs/schutzbauten.html]

Bundesamt für Bevölkerungsschutz (2020a) *Coronavirus: der Zivilschutz im Einsatz.* [https://www.babs.admin.ch/de/zs/einsatz/coronavirus.html]

Bundesamt für Bevölkerungsschutz (2020b) Einsätze zugunsten der Gemeinschaft. [https://www.babs.admin.ch/de/zs/einsatz/ezg.html]

Das Schweizer Parlament (2018) *Personalbestand beim Zivilschutz sichern*. [https://www.parlament.ch/de/ratsbetrieb/suche-curia-vista/geschaeft?AffairId=20183142]

Davis, T.C. (2007) Stages of emergency. Cold War nuclear civil defence. Durham, NC: Duke University Press.

De Goede, M. (2008) 'Beyond risk: Premediation and the post-9/11 security imagination', Security Dialogue, 39(2-3): 155.

Debaise, D. (2017) *Nature as event: The lure of the possible.* Durham, NC & London: Duke University Press.

Deville, J. (2015) Lived economies of default: Consumer credit, debt collection and the capture of affect. London & New York: Routledge.

Deville, J. and M. Guggenheim (2018) 'From preparedness to risk: From the singular risk of nuclear war to the plurality of all hazards', *British Journal of Sociology*, 69(3): 799-824.

Deville, J., M. Guggenheim and Z. Hrdličková (2014) 'Concrete governmentality: Shelters and the transformations of preparedness', *Sociological Review*, 62(S1): 183-210.

Deville, J., Guggenheim, M. and Z. Hrdličková (2015) 'Same, same but different: Provoking relations, assembling the comparator', in J. Deville, M. Guggenheim and Z. Hrdličková (eds.) *Practising comparison. Logics, collaborations, relations.* Manchester: Mattering Press.

Duckworth, C. (1966) 'Introduction to Samuel Beckett', in C. Duckworth (ed.) Samuel Beckett: En attendant Godot. London: Harrap.

Eidgenössisches Departement für Verteidigung, Bevölkerungsschutz und Sport (2012a) Erdbebenübung SEISMO 12: Erfolgreiche Durchführung und wichtige Erkenntnisse. [https://www.admin.ch/gov/de/start/dokumentation/medienmitteilungen.msg-id-44535.html]

Eidgenössisches Departement für Verteidigung, Bevölkerungsschutz und Sport (2012b) Internationale Erdbebenübung SEISMO 12: Harte Arbeit für Führungsstäbe. [https://www.admin.ch/gov/de/start/dokumentation/medienmitteilungen.msg-id-44499.html] Fäh, D., M. Gisler, B. Jaggi, P. Kästli, T. Lutz, V. Mascidri, C. Matt, D. Meyer-Rosa, D. Rippmann, G. Schwarz-Zanetti, J. Tauber, T. Wenk (2009) 'The 1356 Basel earthquake: An interdisciplinary revision', *Geophysical Journal International*, 178(1): 351-374.

Fischer, W. (2007) *Stellungnahme des Kommandanten*, ZSO *Pilatus*. [http://www.zsopilatus.ch/news/detail/?nid=118]

Foster, R. (2019) "Doing the wait": An exploration into the waiting experiences of prisoners' families', *Time & Society*, 28(2): 459-477.

Hermann, R.M. (2012) 'Vorsorge für den Fall einer Erdbebenkatastrophe', *swissinfo.ch*, 22 May. [https://www.swissinfo.ch/ger/gesellschaft/erdbeben_vorsorge-fuer-den-fall-einer-erdbebenkatastrophe/32720876]

Hetherington, K. (2004) 'Secondhandedness: Consumption, disposal, and absent presence', *Environment and Planning D*, 22(1): 157-173.

Hoffmann, R. (2014) An environmental history of Medieval Europe. Cambridge: Cambridge University Press.

Jeffrey, C. (2008) 'Waiting', Environment and Planning D, 26(6): 954-958.

Jeffrey, C. (2010) Timepass: Youth, class, and the politics of waiting in India. Stanford, CA: Stanford University Press.

Johnsen, R., C.B. Johansen and S. Toyoki (2018) 'Serving time: Organization and the affective dimension of time', *Organization*, 26(1): 3-19.

Joronen, M. (2017) 'Spaces of waiting: Politics of precarious recognition in the occupied West Bank', *Environment and Planning D*, 35(6): 994-1011.

Kemmer, L., A. Kühn, V. Weber and B. Otto (this issue) 'Standby as a mode of organization', *ephemera*.

Kühn, A. (forthcoming), 'Infrastructural standby', ephemera.

Law, J. and E. Ruppert (2013) 'The social life of methods: Devices', *Journal of Cultural Economy*, 6(3): 229-240.

Mahro, A. (2012) 'Wie das Dreiland für ein neues Jahrtausendbeben probt', *Badische Zeitung*, 9 May. [http://www.badische-zeitung.de/wie-das-dreiland-fuer-ein-neues-jahrtausendbeben-probt]

Marres, N. and J. Lezaun (2011) 'Materials and devices of the public: An introduction', *Economy and Society*, 40(4): 489-509.

McFall, L. (2014) Devising consumption: Cultural economies of insurance, credit and spending. London & New York: Routledge.

Meier, M. (2007) Von der Konzeption 71 zum Zivilschutz 95. Der Schweizer Zivilschutz zwischen Sein und Schein, PhD thesis, Universität Freiburg.

Meier, Y. (2007) Die gesellschaftliche und institutionelle Verankerung des schweizerischen Zivilschutzes in den 1950er und 1960er Jahren. Der Zivilschutz als Ausdruck des ambivalenten schweizerischen Selbstverständnisses im Kalten Krieg, PhD thesis, Universität Freiburg.

Muniesa, F., Y. Millo and M. Callon (2007) 'An introduction to market devices', *Sociological Review*, 55(s2): 1-12.

Nationale Alarmzentrale, Bundesamt für Bevölkerungsschutz, Bundesamt für Wasser und Geologie, Schweizerischer Erdbebendienst (2004) Einsatzkonzept für den Fall eines Erdbebens in der Schweiz. Bern: Nationale Alarmzentrale.

O'Grady, N. (2016) 'Protocol and the post-human performativity of security techniques', *Cultural Geographies*, 23(3): 495-510.

Orlikowski, W.J. and J. Yates (2002) 'It's about time: Temporal structuring in organizations', *Organization Science*, 13(6): 684-700.

Pierides, D. and D. Woodman (2012) 'Object-oriented sociology and organizing in the face of emergency: Bruno Latour, Graham Harman and the material turn', *The British Journal of Sociology*, 63(4): 662-679.

Powell, W.W. and P.J. DiMaggio (eds.) (1991) The new institutionalism in organizational analysis. Chicago: University of Chicago Press.

Reinecke, J. and S. Ansari (2017) 'Time, temporality and process studies', in A. Langley and H. Tsoukas (eds.) *The SAGE Handbook of Process Organization Studies*. London: Sage.

Rotter, R. (2016) 'Waiting in the asylum determination process: Just an empty interlude?', *Time & Society*, 25(1): 80-101.

Samimian-Darash, L. (2016) 'Practicing uncertainty: Scenario-based preparedness exercises in Israel', *Cultural Anthropology*, 31(3): 359-386.

Savransky, M. (2016) Adventure of relevance: An ethics of social inquiry. London: Palgrave MacMillan.

Schweizer, H. (2008) On waiting. Abingdon & New York: Routledge.

Verran, H. (2012) 'Number as generative device: Ordering and valuing our relations with nature', in C. Lury and N. Wakeford (eds.) *Inventive methods: The happening of the social.* London: Routledge.

Wurstisen, C. (1580) Bassler Chronick. Basel: Sebastian Henricpetri.

Zebrowski, C. (2009) 'Governing the network society: A biopolitical critique of resilience', *Political Perspectives*, 3(1), 1-38.

Zeller, R. (2014) 'Blick zurück: Der wütende Lothar', Neue Zürcher Zeitung, 29 December. [https://www.nzz.ch/schweiz/schweizer-geschichte/der-wuetende-lothar-1.18451978]

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