



## Emergency Mobilities

Peter Adey

To cite this article: Peter Adey (2016) Emergency Mobilities, *Mobilities*, 11:1, 32-48, DOI: [10.1080/17450101.2015.1103533](https://doi.org/10.1080/17450101.2015.1103533)

To link to this article: <http://dx.doi.org/10.1080/17450101.2015.1103533>



Published online: 25 Jan 2016.



Submit your article to this journal [↗](#)



Article views: 282



View related articles [↗](#)



View Crossmark data [↗](#)

# Emergency Mobilities

PETER ADEY

*Department of Geography, Royal Holloway University of London, Surrey, UK*

*(Received 30 September 2014; accepted 25 September 2015)*

**ABSTRACT** *This paper explores the relationship between mobilities and emergencies, two concepts that have shared little of the same space in research and critical debate. Emergency is a relatively taken-for-granted part of the political administration of events, life and the production and governance of mobility. Equally, mobilities and immobilities occur in, because of, or through emergency. Some mobilities could certainly be understood as emergency because whether in flight or response, emergencies demand highly intensive forms of movement that radically transform one's life chances and quality of life. The paper suggests that particular sets of mobilities occur and are compelled under certain kinds of conditions and forms of governance wielded under emergency politics, its legislation and practices. The paper works to identify several related characteristics of emergency mobility that have begun to be explored within existing literatures, burgeoning areas of enquiry and more conceptual writings, before concluding with a discussion of the implications of these themes for a more modest and provisional understanding of mobilities, emergencies and their governance.*

**KEY WORDS:** Emergencies, Governance, Politics, Non-human, Contingency

## Introduction

This paper traces out a relationship between mobilities and emergencies, two concepts that have shared little of the same space in research and critical debate. Yet they are not strangers to one another. Even if there is not the space here to pursue a genealogy of emergency and mobility, they are inescapable pairs. Emergency is a relatively taken-for-granted part of the political administration of events, life and the production and governance of mobility. Equally, mobilities and immobilities occur in, because of, or through emergency. Consider, for example, the mobilities erupting from environmental catastrophe, technological failure, disease or civil war. Some mobilities could certainly be understood *as* emergency because whether in flight or response, emergencies demand highly intensive forms of movement that radically transform one's life chances and quality of life. Sometimes they occur across fluid and moving landscapes, landslips, mudslides, earthquakes, tsunamis or just as

---

*Correspondence Address:* Peter Adey, Department of Geography, Royal Holloway University of London, Surrey TW20 0EX, UK. Email: [Peter.adey@rhul.ac.uk](mailto:Peter.adey@rhul.ac.uk)

unstable political-economic, social and domestic circumstances – inhuman natures where the ground is pulled from under one's feet.

Compare, in current times, the legal-judicial declaration of emergency and 'states of emergency' in the context of the Ebola outbreak in Nigeria, Sierra Leone, Liberia and other countries in West Africa. The emergency has produced several circuits of aid, border-points and patient and population transfers, highly inequitable international medivacs of foreign nationals, as well as enforced immobilities through restrictions on international traffic, population curfews and quarantine orders, as seen in Liberia's capital Monrovia, the security lockdown of the West Point slum (BBC News Online 2014) and the 90-day time-delimited state of emergency (LA Times 2014). Similarly, the immigration crisis currently facing European states has seen countries such as Hungary institute a state of emergency in several of its counties as an attempt to govern the movements of migrants through enhanced police powers and new laws.

Either way, emergency, as an exceptional legal-judicial paradigm of government (Agamben 1998), or a far more normal governmental-institutional form, is entirely bound up in mobilities. And yet the relation between mobilities and more nuanced conceptions of emergency and governance are rarely the focus of mobilities research (although see Sheller 2013 on post-disaster humanitarian aid; and for an exception in this journal see Birtchnell and Büscher 2010; Budd et al. 2010; O'Regan 2010). What connects mobilities and emergencies are practices of governance: forms of governance that seek to manage emergency mobilities in various ways. It is this glue between mobilities and emergencies, and the conceptual and empirical divide that currently lies between the ways they are conceived in contemporary scholarship, that this paper seeks to overcome.

This paper suggests that particular sets of mobilities occur and are compelled under particular kinds of conditions and forms of governance wielded under emergency politics (Honig 2013), its legislation and practices. While a variety of perspectives may attend to the consequences of displacement and resettlement and processes of return, mobilities can help us explore how emergencies are governed, freighted with meaning and significance, and lived and experienced. The social science response to Hurricane Katrina has reflected this kind of approach (Bartling 2006; Cresswell 2008; Graham 2005), marking a change not simply in how we understand the social and political construction of a disaster, but that a kind of mobility like emergency evacuation could be seen as much more than a symptom of events, but *productive of the emergency itself*. This paper seeks to move beyond the singular development of these concepts from existing case studies and disciplinary divides, in order to focus more intently on the processes of emergency mobility governance.

First, we begin a survey of the wider mobilities literature, its attention to emergencies and the wider absence of critical conceptual literatures on emergency and governance within this work. In so doing, the paper offers to begin a more developed conceptual discussion concerning mobilities, emergencies and governance by drawing together so far separate bodies of literature.

Led by this discussion, the paper then begins to demarcate several related characteristics of emergency mobility that have begun to be explored within burgeoning areas of enquiry, as a means to develop a theory of emergency mobility. These are in order: anticipation; coordination; the inhuman; mobile machines; absence; difference; and finally, times. The paper concludes with a discussion of the implications of these

facets for a more modest and provisional theorisation of mobilities, emergencies and their governance.

### **Mobilities, Emergencies, Governing**

In their agenda-setting editorial from the first issue of this journal, Kevin Hannam, Mimi Sheller and John Urry wrote:

From SARS and avian influenza to train crashes, from airport expansion controversies to controlling global warming, from urban congestion charging to networked global terrorism, from emergency management in the onslaught of tsunamis and hurricanes to oil wars in the Middle East, issues of ‘mobility’ are centre-stage. (Hannam, Sheller, and Urry 2006, 1)

It is interesting that the events of global disasters, and the emergency techniques determined to respond to tsunamis or hurricanes, are given as examples of how mobility issues are ‘centre stage’. Emergency mobilities appear as exceptional events that we should take notice of, and yet are normal to the precariousness of modern existence that they demand sustained attention.

Despite this illustrative use, emergencies have been somewhat underexamined and subject to theorisation within mobilities research (although see Cook and Butz 2015 on disaster). I do not mean that scholarship has not given significant attention to particular emergencies. As the inaugural editorial of this journal drew on the faltering networks of emergency response during 9/11, to the ‘dysfunctional’ evacuation of New Orleans during Hurricane Katrina (see e.g. Graham 2005), the ‘complex and tightly interlocking systems of mobility, transportation and communication to sustain contemporary urban life’ have been revealed by a wide range of authors. These display the ways in which mobility systems might fail in emergency (Graham 2009), and that their failure may well *be* the emergency. The inequalities emergencies produce in mobility experiences, whether in evacuation or resettlement, are common examples, as such studies have tended to become exemplary ciphers of the fragility of mobility as an accomplishment.

More generally, mobility studies has tended to consider life lived on the move in the midst of emergency or crisis; in the ways social inequalities might be reinforced or recalibrated by emergency (Cresswell 2008); in the improvisation and adaption that puts strains on existing mobility practices; and at the level of embodied experience (Samuels 2012). These tend to see mobility more broadly as an outcome of emergency or governance, intended or otherwise, and have a habit of disconnecting the experience of mobility from the ways in which the emergency is governed and managed (for an exception see Sheller 2013).

Other research areas have worked in more depth to conceive of emergency as the political motif of our times. Here the legal-exceptional suspension of the normal rule of law, a ‘state of emergency’ (Agamben 1998), is an important but not necessarily singular articulation of emergency we could consider which has helped supply analysis of events from extrajudicial killing, heightened security practices, to the manner in which everyday border practices stop, enable and filter out mobile subjects from leaving and entering sovereign states (Amoore 2006). These are routine forms of the exception. Whilst contemporary border practices have been no doubt framed within an emergency politics especially following 9/11, Salter (2008) has argued that other

modalities of exception are performed which do not see the simple abeyance of law, but a different normalisation of the ability to decide who falls under, or not, sovereign protections over territory and population. Emergency shapes our ability to allow, deny or expel mobilities across and within borders.

Wider work, however, is beginning to explore how emergencies are assembled not simply through the exception, but at the level of ‘mechanisms, techniques and technologies of power’ (Foucault 2003: 241). More than a legal-judicial suspension of the normal running of law, or a certain capability of sovereign power, an emergency is a more general and open space-time or interval (Aradau and van Munster 2012) in which threats to life generate a moment when certain sets of action are prescribed, or possible. Contemporary forms of governance, domestic and international, routinely deploy techniques to govern emergency, which do not rely upon the suspension of constitutional powers, and their separations, but statutory powers and responsibilities which are delegated to a roster of organisations who prepare and plan for what to do should emergency threaten (Anderson and Adey 2012; Collier and Lakoff 2008; Grove 2013; O’Grady 2014).

On the other hand, the attention of this research to mobilities is also relatively partial. At one level, as various critics have argued, emergency has had a tendency to be discussed at a high degree of conceptual abstraction, with a preponderance for emergency as exception (see Neocleous 2006 for this critique). At another, it has been predominantly concerned with specific spatio-political formations, such as the border or the camp (Diken and Laustsen 2005; Edkins 2000; Ek 2006), and the subjects caught up within those formations, interned, imprisoned or abandoned, etc.

What seems lacking, I would argue, is sustained theoretical development in order that we might begin to arrive at more sympathetic understanding of emergency mobility in order to take seriously the range of experiences common to emergency mobility; to think far more critically about the ethics and politics of mobility in emergency; to understand the ways in which specific techniques, modalities and practices of governance are deployed; and to ask what is common across a wide array of contexts and situations.

One solution would be to begin to develop an approach that works through both mobility studies, and other areas of academic work more attuned to the politics of emergency we saw above. In the following section, the paper explores several intertwined facets of mobility, emergency and governance in order to develop a theorisation of emergency mobilities.

### **Governing Emergency Mobilities**

We might first make several important assumptions in a theory of emergency mobility. First, the nature of emergency: emergencies can be applied to numerous contexts and situations, or events, such as in response to environmental disasters, chemical explosions, nuclear meltdowns, fires, flooding, war, terrorism, rioting, enemy-alien threat. These kinds of emergencies – named or designated by a range of designating actors who are usually state officials, local government, emergency services – are notoriously mobile, and difficult to predict, spreading like wildfire, cascading across different societal systems (Little 2006) or lurking unseen as ‘rising tide’ type emergencies. Emergencies may involve uncontrolled populations trying to flee as first, second or different order effects, as well as widespread disruption. Equally, emergencies constitute blocked mobilities. Some are trapped or stranded, or disorientated as

to where to go, and are struggling to be set free (Sheller 2013). Emergency may therefore involve qualifiable interruption or disruption to mobility, or prompt and even force other unplanned and desperate ones. In short, emergencies are named or designated, and produce multiple forms of (im)mobility.

Second, mobility comes to constitute the ways that governance responds to emergency, just as the designation of emergency itself may *designate* a series of potential legislative and procedural practices of response. The emergency governance of mobility seeks to organise a series of activities, practices, technologies and representations that work in concert to respond and plan so as to get things moving again, across various scales, some intensely local, others as Sheller (2013) showed in the context of Haiti, are transnational. This may mean the development of multiple techniques, like the creation of emergency plans, usually sequences of action that guide how responders and populations should act, where they should move to and what decisions they should make while bringing people to safety (Adey and Anderson 2011). Almost by definition, the mobilisation of aid and humanitarian organisations means complex distributions of mobilities of people and things to distant places (Calhoun 2010). In other contexts, ambulance, accident, and fire workers move rapidly to the scene. From the complex logistics of the mobilities of aid and medical response (Fassin and Pandolfi 2010), to the movements of emergency services and the evacuation of the vulnerable; in other words, mobilities are often performed as efforts to govern emergency (Ikeya 2003).

Finally, while a notion of emergency mobility may take research beyond exceptional emergency legislation to the techniques and practices used to govern normalised emergency mobilities, it does not mean we should remain closed to the possibility of exception. The governance and organisation of emergency mobilities through the normal deployment of the mechanisms, techniques and technologies of power, may allow, in some circumstances, for the temporary return to the imposition of a more Agambenian ‘state of exception’ in some moments.

Thus, a conceptualisation of emergency mobility will already attend to the quality of both emergency and governance as mobile and composed of complex combinations of quite fluid actors. It means attending to emergency governance at the level of plans, mechanisms and mobile practices at various scales. And even if it seeks to decentre a notion of emergency away from an Agambenian notion of ‘exception’, it should not exclude its possibility. The rest of this section builds on this conceptualisation. It outlines seven key characteristics that future mobilities research could pursue by building on existing and developing concepts and promising areas of enquiry. Through these different facets of emergency mobility, it helps add more flesh to a theory of emergency mobility.

### *Anticipation*

It is clear that various forms of anticipation come to constitute the way mobilities are governed, during and in advance of emergency: as a way to imagine emergency, to render it knowable or graspable before it occurs through risk matrices, scenarios and other imaginative-performative techniques like role-play and exercises that simulate and play out complex mobilities of actors and processes (Lakoff 2007). As O’Grady (2014) shows, anticipations of risk within the UK fire service make calculations over fire risk and the response time of the fire service to travel there, negotiating local road networks in order to arrive promptly at the scene. These journeys may be

subjected to increased forms of scrutiny through registration and tracking, and there are just as many occasions when these administrative practices fail.

Within the field of Geography, we don't have to look very far to realise the post-war complicity of academic geographers in the anticipatory practices of cold-war evacuation planning, as Barnes and Farish (2006) have outlined the role of the discipline in the deployment of operational research methods to pursue the evacuation planning of Bremerton, Washington in the mid-1950s. Their models and simulations – a 'refined unreality of abstraction' – helped to refine actual emergency plans following a nuclear attack (Barnes and Farish 2006, 820).

Examinations of emergency mobility are beginning to attend to more complex entanglements of these anticipations and how they render mobility governable in the future, right now. Such perspectives may shed helpful insight into contemporary legislation, such as the Civil Contingencies Act (2004) in the UK, which has helped initiate the wide-scale institutionalisation of emergency and scenario planning for numerous mobility emergencies, from crashes and infrastructural failure, to city evacuation plans and widespread flooding (Medd and Marvin 2005).

Forms of anticipation may shape our apprehension of emergencies. For example, O'Grady (2014) explores specific anticipatory technologies devised to govern fire risk and potential emergencies by anticipating the spread of fires with the complex circulations and mobilities of fire personnel through a system called Fire Service Emergency Cover Toolkit. Displayed in risk maps and matrices, the toolkit is a calculation of probabilities determined by speculation over the type of fire, and the speed of the mobility of fire personnel travelling distances to the site of the fire. For Grady, underneath these models rest fundamental assumptions about the ability to govern an emergency like a fire, such as 'limits to the capacity of emergency responders to become mobile' that ultimately ties together 'the immobility of such security agents' with the 'lives and populations they seek to secure' (O'Grady 2014, 524).

The recognition of models, simulations and scenarios would mark an important move in how we understand the anticipation of emergency mobilities through mediating technologies, with all their attendant politics of expert knowledges, accessibility and representation. There is, moreover, an imperative to dampen any potential claims that these approaches could serve to determine future mobile events. Some authors have described the practice of imaginative scenario planning to be 'less a process of authoritative writing or inscribing predictable outcomes upon a blank page, and more a tentative testing and feeling' (Adey and Anderson 2012, 109). It may not be quite known how the mobile and contingent entities of what appeared to be a simple flood event and the necessity to evacuate local residents will unfold, even within a scenario exercise written to prepare the training of leaders for local emergency response.

Mobilities researchers may be well poised to explore the possibilities of experimental intervention into these forms of anticipatory practice. For instance, Whatmore and Boucher (1993) have detailed the ways in which the formal anticipatory models of a flooding emergency produced by government agencies could be subjected to collaborative reasoning and deliberation by a community interest group, enabling different 'political opportunities and associations' to open up in the anticipation and planning for future emergency.



### *Coordination*

Alongside anticipation, we should include the means by which the distribution of resources, people and technologies – in order to bring an emergency under control – are coordinated. Monahan's (2007) examination of Intelligent Transportation Systems and their control rooms in the United States, for example, illustrates the convergence or creep of multiple functions and purposes in monitoring traffic and passengers for a combination of emergency, security and efficiency purposes, as well as the technological apparatus of the control room in enabling coordination practices. Emergency mobilities require intense forms of coordination and communication between multitudes of actors. These processes work in tandem with efforts to *know* the emergency. For example, digital informatics are being developed to confront emergencies through crowd sourced data, which, several authors (Büscher 2013) have argued, is raising significant concerns for privacy through information sharing.

Other contemporary research is exploring the emergency coordination of mobility through concentrations of networks and infrastructures by mediated, augmented and situated action (Büscher 2007). Gordon (2012), for example, illustrates how attention to control rooms and the management of emergency mobilities takes us much closer to the notion of mobility as a 'practical accomplishment', requiring labouring people, things, protocols and technologies to work together. The spaces where emergency mobilities are intensely monitored and governed deserve our attention, these are spaces of remarkable concentration of coordination and decision-making such as control rooms and information hubs for organisations like MSF.

Situated research can tell us more about how the governance of mobilities in emergency are highly provisional and involve substantial uncertainties over whether an incident or an emergency has occurred, involving other searching, missing and finding practices, as we will see below. Moreover, as Gordon shows, activities that coordinate mobilities 'are precarious and practical accomplishments whereby agency is delegated and dispersed through the associations it keeps' (2012, 122).

Managing emergency mobilities involves control room processes of sense-making, classifications through formal codings and collaboration with distant actors. In other words, it may involve a whole series of volatile and sometimes partial and uncertain relations and practices to perform them. This demands that we temper our understandings of emergency mobility governance as necessarily successful, and instead focus more on the mobile practices, organisational structures and cultures, through which governance is performed.

### *Mobile Machines*

Fredriksen (2014) has recently conceptualised the movement and construction of emergency humanitarian spaces, which she suggests are made up of complex and mobile assemblies of equipment and other objects and related practices (see also Duffield 2010). It is in this sense that the study of emergency mobilities could attend to the construction of spaces of humanitarian emergency not only through the predominance and stasis of the camp, but through mobile machines, objects and the making of temporary places (Smirl 2008). For example, *Médecins Sans Frontières'* emergency 'kit' is noted to have been based on a mobile medical apparatus developed by the Red Cross in relation to calls for aid to a blitzed city during the Second World War. The result was what Peter Redfield has called 'a mobile template



for crisis response around a principle of flexible standardisation' (2008, 157), to the extent that the provision of humanitarian aid in emergencies is made up of the assembly of standardised mobile equipment. Taking the shelter kits and tents supplied by the IFRC to produce an emergency shelter and relief for those made homeless, Fredriksen argues that 'they actively participate in stabilising and (re)ordering spaces as, at least provisionally, *humanitarian spaces*' (Fredriksen 2014, 150).

If we are to account for the movement of mobile technologies in emergency, we should also account for their access which is often highly differentiated. The late Smirl (2015) has identified several issues in what we could term an automobility of emergency humanitarianism. Just as the SUV and its Land Rover predecessor has been understood by various authors to offer a cocoon-like capsular interior of neoliberal citizenship for today's kinetic elites (Campbell 2005; Graham 2011; Mitchell 2005), in emergency humanitarianism, it offers aid workers an enclosure between one secure location to the next. This is exactly what Smirl sees articulated among international aid workers as an 'impenetrability within the vehicle, and of being above the land through which they travel' (Smirl 2015, 43).

The propensity of emergency humanitarian mobilities that are mediated in this way is for insulation from the perceived security threats going on around them. This separation means that they are shuttled between networked enclaves, what Duffield (2010) has described as the bunkers of an 'archipelago' of international space. Aeromobility offers similar distancing qualities. This time Smirl details the aeromobility arrangements for NGOs following the 2004 Indian Ocean Tsunami in Aceh, Indonesia.

The UN set up a parallel transport system including almost daily flights to and from certain coastal cities (Calang, Meulaboh). Other organizations such as Oxfam, invested in their own helicopters). Still other organizations such as CHF International used, Mission Aviation Fellowship (MAF) a Christian NGO specialising in flying light aircraft in remote locations. The effect was that international staff, many of them visiting experts, consultants and staff from headquarters experienced the post-tsunami space in an extremely fluid, mobile manner [...] reinforc[ing] the divide between international aid workers, arriving to help, and their intended beneficiaries. (Smirl 2014, 123)

To put it more clearly, the spaces of emergency intervention are mobile in such a way that they can be easily distanced geographically, socially and politically from those who need it. And yet, as assemblies of objects, they are not necessarily immutable, even if they are internationally standardised. As Redfield explores, while MSF's mobile apparatus embodied 'the technical principle of modular mobility [...] the kit is ultimately an open container', in other words, 'it remains available for appropriation into a wide range of projects' (Redfield 2008, 165). It may well be desirable to enable a mutability to mobile equipment, so it can be easily adapted with materials and components supplied from local sources. As Fredriksen shows, the IFRC's emergency kit is made 'standardised to be interchangeable' (156).

A theory of emergency mobility should therefore attend to more mobile conceptions of the spaces of humanitarian aid. These mobile spaces of standardised as well as adaptable machines appear to produce distancing effects, and even the 'islanding' of emergency governance and aid, from the communities they are seeking to protect.

*Absence*

Emergencies produce absences that are generative of mobilities. Necromobilities and geographies of death and the dead are common both after, but also during, emergency. As Jassal (2014, 3) argues, we should be ‘questioning the mundane, political and everyday ways in which the state, mourners and industry professionals transport, dispose and handle the materiality of the dead’. The mobile dead, as much as the living, may also exist on systems of records and administrative systems used by emergency services to govern and coordinate according to different thresholds of life.

However, Edkins (2011) has explicated the vast and inadequate bureaucratic systems through which some people slip; these are the absences of the missing, lost from natural disaster, civil war, state terrorism or maybe sheer incompetence. While mobilities researchers should engage more fully with these instruments in the recording and tracking of the alive, dead or the missing of emergency, and the important valuations of those lives in decision-making, the missing also implies important and mobile practices of looking and finding, addressed at the partial or traces of the living and the dead.

During emergency, huge resources can be drawn on to search, find and recover the lost, the dead or the barely living. Yarwood (2012) has shown that emergency recovery entails a whole set of mobilities and accompanying practices of sensing and seeing in order to retrieve and find what has been lost, whether those on an exposed remote landscape, or we could think of the recent Malaysian Airlines flight MH370.

Mobilities of searching are not only technological but can be highly honed, involving learnt skills of detection conducted in partnership with others moving through a landscape. As Yarwood describes his involvement in a Search and Rescue exercise conducted by a mountain rescue team:

I could see the torch beams of other teams sweeping the moor. Elsewhere, a flashing strobe zoomed across the moor at inhuman speeds, marking the progress of a search dog as it bounded over the moor seeking air-scents of potential casualties to follow. The radio crackled periodically, broadcasting messages from teams and controllers also engaged in the search. (Yarwood 2012, 25)

Finding the missing then may require performed mobilities of trawling over land or sea, perhaps in the case of MH370, which has required enormous efforts to track back through satellite telemetry of distant oceans, photographed at a lower resolution than the imagery of Mars (McNutt 2014). The adaptation and improvisation of known techniques and technologies has been common. The response has meant sifting through highly contested waters and fraught geopolitical boundaries where to move and search is not an unproblematic offer of goodwill, but potentially an active performance of sovereignty (Steinberg 2014).

As with the contingencies of control rooms, the emergency mobilities of finding and searching for those who have gone missing reveals an indeterminacy of mobilities, that could keep on going for an unknown period of time to places not yet thought. It indicates how emergency mobilities may not be certain, they may not leave the heavy footprint, or concrete traces we expect, the trails to be tracked, watched, picked up, stored, counted, and sorted, and yet gone without much of a trace. In this sense, argue Parr and Fyfe (2013), searching is both a ‘messy practice,

characterised by confusions’, whilst the absence produced by what is lost in emergency and must be found acts as an ‘active category’ in directing resources and practices. The mobilities of emergency governance may be more about the lost, and how the lost is recovered into the known, or never known at all.

### *Inhuman*

As various authors have argued, there has been much political and ethical work to see emergency and other categories of calamity like disaster as socially embedded and constructed, dependent upon inadequate and unequal societies, or structural failings in economies and politics. While these notions have lent critical import to analysis of the inadequacies of mobility policies during emergencies, others suggest that there might be a ceiling limit to our ‘ability to order or regulate our transactions’ with the world (Clarke 2010, 29). Emergency mobilities seem to be stirred by the irregular interruptions of the earth, weather patterns, fire, cyclones and tsunamis, an exorbitant nature, and just as contingent relations with other very mobile ‘life forms and elemental processes’ (Clarke 2010, 29), or what Sarah Whatmore has described as when the ‘unexamined parts of the material fabric’; when the stuff that constitutes our ‘everyday lives becomes molten’ (Whatmore 2013, 37). Of course, Law (2006) has shown how the inadequacies of governance met with the exorbitant materialities of foot and mouth disease to effectively produce the 2001 outbreak in the UK.<sup>1</sup>

There is a point here about whether an exorbitant planet of molten and mobile materialities simply exceeds our abilities to plan, prepare or respond to them in emergencies. Clarke also indicates elsewhere that we might value the experimental and improvisory ways that societies have learnt to live and move under threat of emergency and disaster, what Whatmore (2013) calls the ‘forcing thought’ of the world, without necessary submission to an emergency governance apparatus which seeks to overdetermine the response:

they are equally occasions which oblige human populations to respond with experiments of their own. Many of those peoples who still live in relatively close proximity to the rhythms and upheavals of the Earth have learned how best to shelter from extreme events, when to move to safer ground, how to channel excess energies, what to cache or stockpile, and when to fight fire with fire. (Clarke 2014, 32)

Perhaps, then, it should not be an afterthought for us to consider how emergency mobilities may exceed attempts at governing them in a manner which is not always about the allocation of fault or guilt, but a realisation of the ‘force of all manner of earthly powers – bodies, codes, devices, models, documents and proteins among them’ (Whatmore 1993, 36).

Let us take the outbreak of cholera in Haiti following the 2010 earthquake; that three years after the earthquake, half a million people remained without potable water, adequate shelter or modern sanitation. The conditions helped exacerbate the spread of a cholera epidemic. The outbreak itself, however, was found to have been introduced by UN peace keepers carrying the cholera bacteria from Nepal (Montalo et al. 2013). For Sheller, this reminds us that ‘diseases too make use of vectors of mobility with no respect for the borders of states or islands, bodies or cells’ (Sheller 2013, 199).

From many perspectives, an example such as this reminds us to juxtapose the power geometries of mobilities of those caught up in emergency and those attempting to solve it. Current legal action contests the UN's biosecurity screening of the Nepalese forces and the negligence of a private contractor to install proper sewage infrastructure within the UN camp at Mirebelais, enabling the spread of the disease (The Guardian 2014). Indeed, the mobilities of what has been called a geopolitics of celebrity of senior politicians and elites – a political vulturism – anxious to witness the scene, further opens up the unevenness of this geometry of access or capability to move. The scene Sheller (2013) urges us to consider in Haiti was the curious hypermobility of those who performed global humanitarian aid, in the face of the radical immobility of the Haitian population forced to endure stark living conditions for the ease of 'ensuring smooth logistical operations'. On the other hand, the case reveals the movements of in-human mobilities of disease and bacteria piggybacking on human and animal bodies, that escaped the notice of governance or were deliberately ignored by it for a contractor's profit.

If a theory of emergency mobility seeks to level critical insight into the practices of those responsible for it, could these complications of inhuman life obscure attempts at identifying negligence? Almost certainly, although the UN is relying upon other factors for its immunity. It also reminds us, even if the Haiti disaster may not fit this mould, that some emergencies may be of such magnitude and complexity, constituted by so many mobilities and contingencies, that their prevention and response may always be inadequate to the task.

### *Difference*

We should be minded that emergency mobilities can reinforce existing geographies of gender and exacerbate them. As mentioned above, the social science response to Hurricane Katrina revealed, through the failed evacuation of the city, and the eventual rehousing of the populace, that emergency mobilities are highly unequal and inequitable (Klein and Smith 2008; Smith 2006). Along racial, ethnic, class and gender lines, research has shown how emergency mobilities reinforce, intensify and produce new and uneven stratifications. However, gender also cuts across other categories of social difference. Recent research illustrates that greater proportions of women are more likely to be living in poverty, make up a higher proportion of the elderly, and share greater responsibility for dependents or relations, all factors limiting their mobility capabilities during emergency. Even more alarmingly, the mobilities of emergency displacement has exposed the increase of gender-based violence from domestic abuse to sexual assault, as research in Haiti and New Orleans has recently demonstrated (Anastario, Shehab, and Lawry 2009; Enarson 1998; Henrici 2010). Mortality rates among women are also greatly increased during emergency than in men (Neumayer and Plümper 2007).

These discussions need situating within the socio-economic context and a politics of place, which force us to remap emergencies mobilities and their governance across the entangled meanings of place, home and domesticity. For example, Morrice (2014) has shown in the context of the 2011 Christchurch earthquake in New Zealand and the Queensland floods in Australia, movements of return can be as traumatic as the process of leaving. Samuels' (2012) fascinating exploration of gendered mobilities following the emergency of an Indonesian neighbourhood, forced to relocate to a purpose-built accommodation block in a secluded village

following the 2004 tsunami, illustrates such issues. As Samuels shows, the mobility capabilities of women and their access to jobs and services were disproportionately effected by their rehousing, as compared to men. This can be understood with regard to their new reliance upon expensive public transport and limited private transport to access opportunities in the nearby city. Further investigations may focus on the perception of vulnerability to or in emergency. As Keenan (2014) has recently argued in a study of gendered perceptions of vulnerability to terrorism on transportation infrastructures, ‘a person’s body – and the societal and individual’s expectations about that body – influence the experience of both the place and the experience of vulnerability’ (369).

Emergency mobilities tend to be highly plural, journeys that are undergone with others. This witness can flummox efforts to govern them. More often than not, the apparatus and techniques intended to manage mobilities fail to recognise this essential character, separating communities and family groups, or provisioning for only particular kinds of mobile subject. This was seen perhaps most clearly during Katrina when the access of individuals and families to personal mobility technologies, such as cars, was wildly overestimated and optimistic.

What these distributional differences add up to, for several authors, is a politics of mobility that should be more carefully attuned to mobility justice, to the identification and achievement of far more equal mobility capabilities for all, ‘to meet their own basic needs’ (Sheller 2013, 195).

### *Times*

Emergency mobilities could be characterised by speed – in advance of or during – emergency politics seems to produce the conditions for governing mobilities with the least amount of deliberation possible. As Anderson (2012) has argued, an extra-legislative ‘state of emergency’ is not the usual governmental mode of response to contemporary emergency, instead, what is exceptional is not necessarily the speed at which constitutional rights are overridden, but ‘the speed of response to a situation where life and death were at stake’, a situation where timely action is needed.

Just as contemporary emergencies are marked by an onus on fast mobility and fast decisions – ‘rapid response’ can be found across a range of emergency forms. As Anderson claims:

in social work teams primed for early intervention in the ordinary crises of daily life; in rapid response Urban Search and Rescue Teams set up to enter disasters zones; or in the Rapid Response Facilities set up to provide ‘rapid mobilisation funding’ to humanitarian organisations in response to a ‘rapid onset disaster’. At a time when welfare is becoming a matter of emergency relief, we also find ‘rapid response’ in relation to the provision of food or finance or shelter to those in times of personnel crisis. Scaling up, the imperative to respond rapidly is behind the range of emergency measures (Emergency Stabilisations Funds and so on) designed to inject liquidity into the global financial system in the midst of the current Financial crisis. (Anderson 2012)

The speed of emergency is still problematic though. Speed might close out dissenting voices and other forms of response because decisions move too fast. The

distribution of aid to the locations where it is determined it is needed may deny the ability to debate or contest the nature, dimensions or response to emergency. The urgent politics of emergency may mean fast deliberations are made when decisions over life, death and the value of life are to be made. Simply put, in the velocities of emergency mobilities, things may have moved on already. Resources, people, aid, may need to move before proper deliberation can take place.

In other contexts, the speed of decisions under emergency mobility may bring a halt to the ordinary running of things. Within New Orleans once more, the absence of legal professionals to ensure due process became a key issue because of the evacuation of most legal officials from the city (Crouch 2013), which was combined with a suspension to the time limit of the writ of *habeas corpus* under the governor's executive powers, keeping prisoners under remand without trial on what was deemed 'Katrina time'. In this sense, the governance of emergency mobilities should alert us to the complex times and temporalities within and outside of the law (Cooper 2014; Opitz and Tellmann 2014). Following Katrina, the legal redress is still ongoing. Because of the complications of federal, state, county and even international law, the homeless who were turned back attempting to cross over a bridge into another county (the town of Gretna) by an armed police blockade have been unable to seek justice even now (Crouch 2013). Despite the apparent right to movement enshrined in the United States Constitution (Cresswell 2001), the constitution actually protects 'inter-state' rather than 'intra-state' travel.

Even if a theory of emergency mobility governance needs to take better account of the enmeshing of law within other contradictory scales that have protected the pejorative and knee-jerk reactions of some officials during exceptional times (protecting a bridge from city residents made homeless), some examples provide more hope for the 'slowing down' of deliberation. As Whatmore and Boucher (1993), following Latour and Stengers, advance, it may be possible to generate spaces of emergency deliberation where political reasoning over the governance of emergencies can be slowed to a point where decisions are done differently. A theory of emergency mobility should be open to these possibilities.

## Conclusion

Mobilities, we have seen, are embroiled in the nature and governance of emergency. The modest impetus of this paper has been to attempt to trigger more sustained attention within the field to emergency mobilities, their governance and how we might theorise them. Greater analytical purchase may be possible to interrogate these processes not as an afterthought of other more critical issues within emergency and disaster, to see mobility as simply an outcome of greater forces, nor to simply embrace more nuanced conceptualisations of emergency and governance, often focused upon the spatial thresholds that characterise this work, such as the camp or the prison. In bridging these approaches, the paper has argued that mobilities may in fact be the emergency and come to constitute enhanced and important procedures of governance, with real implications for people's life chances.

Adding flesh to this concept, we then discussed seven particular characteristics common to emergency mobilities. These involve sets of anticipatory practices; processes and protocols of coordination between disparate networks of actors; mobile machines that enable mobile governance to take place; a recognition of the absences



that drive many emergency mobility practices of searching, looking and sensing, even for the most faint signatures of life; the identification of inhuman and contingent relations; the production of difference through emergency and emergency governance and, finally, an emphasis on the times, or lack of it, for politics. This is not to say that these qualities are not recognisable in other ways that mobility and governance are organised during normal times. The examples we have seen are often adaptations or improvisations of existing doings, infrastructures or they are intensifications of them. Moreover, the threshold between emergency and normality may be really quite blurred, so that these qualities are recognisable in practices seeking to prepare, prevent or act in advance of emergency.

This is a concept of emergency mobility, however, that has and should emphasise its fragility. Existing attention to the governance of mobilities in emergency has certainly contained a critical edge, able to apportion blame and critique to structural forces, as much as to the key individuals, institutions or choices we have encountered. This has, crucially, been a story of governance, modes of power brought to bear on, and indeed, as emergency and mobility. Moreover, we are used to contemplating the mobilities of emergency as failures, and subject to the demand of just how they could have been done differently or better, especially in view of the identification and achievement of ‘mobilities justice’. At the same time, however, far more tentative and contingent relations have been emphasised in the accomplishment of mobility and governance.

We have seen research beginning to account for a less than human take on relations by emphasising the violent or subtle earthly powers of emergency, as much as the complex and uncertain relations between unpredictable mobile life, lives and things. This implies that a concept of emergency mobility should be tempered with notions of mobility and indeed governance as tentative, differently reasoned and highly provisional accomplishments, involving unpredictable and even microscopic mobile actors. This may mean the apportionment of cause, blame or the establishment of equality of mobility capability is frustrated. As we have seen, the governance of emergency mobilities is not at all straightforward, involving messy, fragile, searching, sensing practices, presences and absences, in nearby or remote locations, with non and inhuman life and mediators.

Given these contingencies, it shows us that even as we depart notions of emergency as exception and towards the normalisation of the term within other routine forms of governing emergency and mobility, the kind of exclusions, inequalities and political foreclosures we have been discussing may not be so automatic either. Perhaps, following Clarke (2014) and Honig (2013), these notions invite us to reimagine emergency mobility towards not ever-increasing closures, but providing the potential openings of ‘rights, law, hope and politics’ (2013, xv).

### **Acknowledgment**

Thanks are owed to the guidance of the editors of the special issue and two anonymous referees. The author also acknowledges the support of a Philip Leverhulme Prize.

### **Disclosure statement**

No potential conflict of interest was reported by the author.



## Note

1. Combined with other events near the time, this emergency or, for Law, 'disaster', would lead to the biggest shake-up of UK emergency legislation since the Second World War.

## References

- Adey, P., and B. Anderson. 2011. "Event and Anticipation: UK Civil Contingencies and the Space-times of Decision." *Environment and Planning A* 43: 2878–2899.
- Adey, P., and B. Anderson. 2012. "Anticipating Emergencies: Technologies of Preparedness and the Matter of Security." *Security Dialogue* 43: 99–117.
- Agamben, G. 1998. *State of Exception*. Chicago, IL: University of Chicago Press.
- Amoore, L. 2006. "Biometric Borders: Governing Mobilities in the War on Terror." *Political Geography* 25 (3): 336–351.
- Anastario, M., N. Shehab, and L. Lawry. 2009. "Increased Gender-based Violence among Women Internally Displaced in Mississippi 2 Years Post-Hurricane Katrina." *Disaster Medicine and Public Health Preparedness* 3 (1): 18–26.
- Anderson, B. 2012. Rapid Response. *Berfrois*. <http://www.berfrois.com/2012/08/ben-anderson-emergency-quick/>.
- Anderson, B., and P. Adey. 2012. "Governing Events and Life: 'Emergency' in UK Civil Contingencies." *Political Geography* 31: 24–33.
- Aradau, C., and R. van Munster. 2012. "The Time/Space of Preparedness: Anticipating the 'Next Terrorist Attack'." *Space and Culture* 15: 98–109.
- Barnes, T. J., and M. Farish. 2006. "Between Regions: Science, Militarism, and American Geography from World War to Cold War." *Annals of the Association of American Geographers* 96 (4): 807–826.
- Bartling, H. 2006. "Suburbia, Mobility, and Urban Calamities." *Space and Culture* 9 (1): 60–62.
- BBC News Online. 2014. "Liberia Declares State of Emergency over Ebola Virus." <http://www.bbc.com/news/world-28684561>.
- Birchneil, T., and M. Büscher. 2010. "Stranded: An Eruption of Disruption." *Mobilities* 6 (1): 1–9.
- Budd, L., S. Griggs, D. Howarth, and S. Ison. 2010. "A Fiasco of Volcanic Proportions? Eyjafjallajökull and the Closure of European Airspace." *Mobilities* 6 (1): 31–40.
- Büscher, M. 2007. Interaction in Motion: Embodied Conduct and Movement in Emergency Teamwork. In *Proceedings of the 2nd Congress of the International Society for Gesture Studies: Interacting Bodies*, edited by L. Mondada, 15–18. Lyon: ISGS.
- Büscher, M. 2013. "A New Manhattan Project?: Interoperability and Ethics in Emergency Response Systems of Systems." *ISCRAM 2013*, Baden-Baden.
- Calhoun, C. 2010. The Idea of Emergency: Humanitarian Action and Global (Dis)Order. In *Contemporary States of Emergency: The Politics of Military and Humanitarian Interventions*, edited by D. Fassin and M. Pandolfi 29–58. Cambridge, MA: Zone Books.
- Campbell, D. 2005. "The Biopolitics of Security: Oil, Empire, and the Sports Utility Vehicle." *American Quarterly* 57 (3): 943–972.
- Clarke, N. 2010. *Inhuman Nature: Sociable Life on a Dynamic Planet*. London: Sage.
- Clarke, N. 2014. "Geo-politics and the Disaster of the Anthropocene." In *Disaster Politics: Materials, Experiments, Preparedness*, edited by M. Tironi, I. Rodriguez-Giralt, and M. Guggenheim, 19–37. London: Wiley-Blackwell.
- Collier, S. J., and A. Lakoff. 2008. Distributed Preparedness: The Spatial Logic of Domestic Security in the United States. *Environment and Planning, D, Society and Space* 26 (1): 7–28.
- Cook, N., and D. Butz. 2015. "Mobility Justice in the Context of Disaster." *Mobilities* 1–20. doi:10.1080/17450101.2015.1047613
- Cooper, M. 2014. "The Theology of Emergency: Welfare Reform, US Foreign Aid and the Faith-based Initiative." *Theory, Culture & Society*, 32(2): 53–77.
- Cresswell, T. 2001. "The Production of Mobilities." *New Formations* 43: 11–25.
- Cresswell, T. 2008. "Understanding Mobility Holistically." In *The Ethics of Mobilities: Rethinking Place, Exclusion, Freedom and Environment*, edited by S. Bergmann and T. Sager, 129–140. Aldershot: Ashgate.
- Crouch, M. P. 2013. "In the Aftermath: Responsibility and Professionalism in the Wake of Disaster." *South Carolina Law Review* 65: 465–503.

- Diken, B., and C. B. Laustsen. 2005. *The Culture of Exception: Sociology Facing the Camp*. London: Routledge.
- Duffield, M. 2010. Risk-management and the Fortified Aid Compound: Everyday Life in Post-interventionary Society. *Journal of Intervention and Statebuilding* 4 (December): 1–19.
- Edkins, J. 2000. "Sovereign Power, Zones of Indistinction, and the Camp." *Alternatives* 25 (1): 3–25.
- Edkins, J. 2011. *Missing: Persons and Politics*. New York: Cornell University Press.
- Ek, R. 2006. "Giorgio Agamben and the Spatialities of the Camp: An Introduction." *Geografiska Annaler: Series B, Human Geography* 88 (4): 363–386.
- Enarson, E. 1998. "Through Women's Eyes: A Gendered Research Agenda for Disaster Social Science." *Disasters* 22 (2): 157–173.
- Fassin, D., and M. Pandolfi. 2010. *Contemporary States of Emergency: The Politics of Military and Humanitarian Interventions*. New York: Zone Books.
- Fredriksen, A. 2014. "Emergency Shelter Topologies: Locating Humanitarian Space in Mobile and Material Practice." *Environment and Planning D: Society and Space* 32 (1): 147–162.
- Foucault, M. 2003. *Society Must Be Defended: Lectures at the Collège de France, 1975–76*. Translated by D. Macey. London: Penguin Books.
- Gordon, R. 2012. *Ordering Networks: Motorways and the Work of Managing Disruption*. Durham: Durham University.
- Graham, S. 2005. "Cities Under Siege: Katrina and the Politics of Metropolitan America." *Social Science Research Council: Understanding Katrina: Perspectives from the Social Sciences*. <http://forums.ssrc.org/understandingkatrina/author/sgraham/>.
- Graham, S. 2009. *Disrupted Cities: When Infrastructure Fails*. New York: Taylor & Francis.
- Graham, S. 2011. *Cities under Siege: The New Military Urbanism*. London: Verso Books.
- Grove, K. J. 2013. "From Emergency Management to Managing Emergence: A Genealogy of Disaster Management in Jamaica." *Annals of the Association of American Geographers* 103 (3): 570–588.
- Hannam, K., M. Sheller, and J. Urry. 2006. "Editorial: Mobilities, Immobilities and Moorings." *Mobilities* 1 (1): 1–22.
- Henrici, J. 2010. "A Gendered Response to Disaster: In the Aftermath of Haiti's Earthquake." *Anthropology News* 51 (7): 5.
- Honig, B. 2013. *Emergency Politics; Paradox, Law, Democracy*. Princeton, NJ: Princeton University Press.
- Ikeya, N. 2003. "Practical Management of Mobility: The Case of the Emergency Medical System." *Environment and Planning A* 35 (9): 1547–1564.
- Jassal, L. K. 2014. "Necromobilities: The Multi-sited Geographies of Death and Disposal in a Mobile World." *Mobilities* 10 (3): 1–24.
- Keenan, K. 2014. "Place Ontologies and a New Mobilities Paradigm for Understanding Awareness of Vulnerability to Terrorism in American Cities." *Urban Geography* 35 (3): 357–377.
- Klein, N., and N. Smith. 2008. The Shock Doctrine: A Discussion. *Environment and Planning, D, Society and Space* 26 (4): 582.
- LA Times. 2014. "Liberia Imposes Ebola Quarantine and Curfew in a Monrovia Slum." <http://www.latimes.com/world/africa/la-fg-africa-ebola-liberia-curfew-20140819-story.html>.
- Lakoff, A. 2007. "Preparing for the Next Emergency." *Public Culture* 19 (2): 247–271.
- Law, J. 2006. "Disaster in Agriculture: Or Foot and Mouth Mobilities." *Environment and Planning A* 38 (2): 227–239.
- Little, S. 2006. "Twin Towers and Amoy Gardens: Mobilities, Risks and Choices." In *Mobile Technologies of the City*, edited by M. Sheller and J. Urry, 121–133. London: Routledge.
- McNutt, M. 2014. "The Hunt for MH370." *Science* 344 (6187): 947.
- Medd, W., and S. Marvin. 2005. "From the Politics of Urgency to the Governance of Preparedness: A Research Agenda on Urban Vulnerability." *Journal of Contingencies and Crisis Management* 13 (2): 44–49.
- Mitchell, D. 2005. "The SUV Model of Citizenship: Floating Bubbles, Buffer Zones, and the Rise of the 'Purely Atomic' Individual." *Political Geography* 24 (1): 77–100.
- Monahan, T. 2007. "'War Rooms' of the Street: Surveillance Practices in Transportation Control Centers." *The Communication Review* 10 (4): 367–389.
- Montalo, F., P. Gurian, M. Piasecki, and M. Sheller. 2013. *Post-earthquake Haitian Infrastructure Reconstruction: A Focus on Water & Sanitation in the Town of Leoganette*. Philadelphia, PA, 1–77. <https://mcenterdrexel.files.wordpress.com/2013/04/final-haiti-report.pdf>.

- Morrice, S. 2014. *Returning "Home"? Emotional Geographies of the Disaster-displaced in Brisbane and Christchurch*. Egham: Royal Holloway University of London.
- Neocleous, M. 2006. "The Problem with Normality: Taking Exception to 'Permanent Emergency.'" *Alternatives: Global, Local, Political* 31 (2): 191–213.
- Neumayer, E., and T. Plümper. 2007. "The Gendered Nature of Natural Disasters: The Impact of Catastrophic Events on the Gender Gap in Life Expectancy, 1981–2002." *Annals of the Association of American Geographers* 97: 551–566.
- O'Grady, N. 2014. "Securing Circulation through Mobility: Milieu and Emergency Response in the British Fire and Rescue Service." *Mobilities* 9 (4): 512–527.
- O'Regan, M. 2010. "On the Edge of Chaos: European Aviation and Disrupted Mobilities." *Mobilities* 6 (1): 21–30.
- Opitz, S., and U. Tellmann. 2014. "Future Emergencies: Temporal Politics in Law and Economy." *Theory, Culture & Society* 32 (2): 107–129 .
- Parr, H., and N. Fyfe. 2013. "Missing Geographies." *Progress in Human Geography* 37 (5): 615–638.
- Redfield, P. 2008. "Vital Mobility and the Humanitarian Kit." In *Biosecurity Interventions: Global Health and Security in Question*, edited by A. Lakoff and S. J. Collier, 147–171. New York: Columbia University Press.
- Salter, M. B. 2008. "When the Exception Becomes the Rule: Borders, Sovereignty, and Citizenship." *Citizenship Studies* 12 (4): 365–380.
- Samuels, A. 2012. "Moving from Great Love: Gendered Mobilities in a Post-Tsunami Relocation Neighborhood in Aceh, Indonesia." *International Journal of Urban and Regional Research* 36: 742–756.
- Sheller, M. 2013. "The Islanding Effect: Post-disaster Mobility Systems and Humanitarian Logistics in Haiti." *Cultural Geographies* 20 (2): 185–204.
- Smirl, L. 2008. "Building the Other, Constructing Ourselves: Spatial Dimensions of International Humanitarian Response." *International Political Sociology* 2: 236–253.
- Smirl, L. 2015. *Spaces of Aid: How Cars, Compounds and Hotels Shape Humanitarianism*. London: Zed Books.
- Smith, N. 2006. "There's No Such Thing as a Natural Disaster." *Understanding Katrina: Perspectives from the Social Sciences 11*. <http://forums.ssrc.org/understandingkatrina/theres-no-such-thing-as-a-natural-disaster/>.
- Steinberg, P. 2014. "The Malaysian Airlines Tragedy and South China Sea Geopolitics." *Rhulgeopolitics*. <https://rhulgeopolitics.wordpress.com/2014/03/12/the-malaysian-airlines-tragedy-and-south-china-sea-geopolitics/>.
- The Guardian. 2014. "Haitians Launch New Lawsuit against UN over Thousands of Cholera Deaths." <http://www.theguardian.com/world/2014/mar/11/haiti-cholera>.
- Whatmore, S. 2013. "Earthly Powers and Affective Environments: An Ontological Politics of Flood Risk." *Theory, Culture and Society* 30 (7–8): 33–50.
- Whatmore, S., and S. Boucher. 1993. "Bargaining with Nature: The Discourse and Practice of 'Environmental Planning Gain'." *Transactions of the Institute of British Geographers* 18 (2): 166–178.
- Yarwood, R. 2012. "One Moor Night: Emergencies, Training and Rural Space." *Area* 44: 22–28.