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# The ‘infrastructural inversions’ of Covid-19: Rethinking geographies of crisis

## ABSTRACT

Covid-19 is a multi-spectral crisis that has added an acute layer over a panoply of complex emergencies across the world. In the process, it has not only *exposed* actually-existing emergencies, but also *exacerbated* them as the global gaze has turned inward. As a crisis, Covid-19 straddles and challenges the boundaries between humanitarianism, development and global health – the frames and categories through which emergencies are so often understood and intervened upon. Reflection on these fundamental categories is, we argue, an important geographical endeavour. Drawing on Geoffrey Bowker’s (1994) analytical lens of the ‘infrastructural inversion’, we explore how humanitarianism has been upended by Covid-19 along two axes that are of core concern to geographers: (1) the spatial; and (2) the temporal. We first contextualise current debates on the humanitarian endeavour and its future within recent geographical research. We then set out the complex structure by which Covid-19 has been both imagined and intervened upon as a humanitarian emergency. In so doing, we then pave the way for a deeper empirical analysis of the spatial and temporal inversions that have been brought forth by Covid-19. The paper concludes by examining the conceptual value of the ‘inversion’ in developing geographical research agendas better attuned to the increasing porosity of humanitarianism, development and global health.

## 1. INTRODUCTION

As we write, a massive underwater volcanic explosion has blanketed Tonga in ash, severed communications and caused widespread damage to homes, infrastructure and farmland. There have been a number of deaths and casualties, and the water supply is contaminated. Basic supplies are also lacking. In almost any other context, an ‘unprecedented’ natural disaster such as this would see an immediate dispatch of humanitarian aid workers from across the region (if not the world) to get to work on the ground. But this time the message has been one of caution and conditionality because, until now, Tonga had had only one case of the novel coronavirus, SARS-CoV-2. Red Cross Australia assured that ‘the internationals’ would ‘back up local responses’ (Kurmelovs 2022). But as Australian naval crew tested positive for Covid-19, Tongan authorities authorised only completely ‘contactless’ aid drops. Despite precautions, the

extreme transmissibility of the Omicron variant quickly led to cases among port workers and then community outbreaks. Tonga was placed under temporary lockdown, with schools closing and residents forced to scabble for supplies and cash amid already-emergency conditions. Tonga's experience echoes the culpability of UN peacekeepers in igniting a huge cholera outbreak in the wake of the 2010 Haiti earthquake (Farmer et al. 2011, Leach et al. 2021a). In the case of Haiti, the earthquake killed an estimated 200,000 and displaced over one million people, but the cholera outbreak led to the unnecessary deaths of an additional 9,000 people. While the risks of a model of 'emergency response predicated on 'direct interaction' (UN Foundation and UN OCHA 2020, 4) through the 'international surge' of personnel and resources into disaster zones (Van Brabant and Patel 2017) have long been evident, 'contactless humanitarianism' seems a contradiction in terms - or at the very least an inversion of the expected norm (UN Foundation and UN OCHA 2020, 4). Yet this model of relief 'at a remove' represents not only a pragmatic response to the risk of Covid-19, but also a logical next step in the kinds of institutional and organisational reforms that have been slowly occurring within the humanitarian domain (ALNAP 2021a). These shifts are clearly of marked geographical significance in their spatial and temporal contours. But, more than this, by interrogating the humanitarian response to Covid-19 through the conceptual lens of the 'infrastructural inversion' (Bowker, 1994), we aim to bring new theoretical perspectives to the disciplinary conceptualisation of 'crisis'.

We lead with this example to illustrate how crises are always complex and involve overlapping layers of 'compound risk' (Kruczkiewicz et al. 2021). Covid-19 was originally understood as a geographically-contained public health threat, but quickly morphed into a spatially diffuse, 'global health crisis' as it spread to 110 countries and the WHO declared it a 'Public Health Emergency of International Concern' on January 30, 2020 and then upgraded it to a 'pandemic' on March 11, 2020 (Cucinotta and Vanelli 2020). The United Nations Organization for the

Coordination of Humanitarian Affairs (UN OCHA) has described Covid-19 as triggering ‘the most severe global crisis since WWII’ (2020, 3). Others have gone further, describing Covid-19 as a ‘truly planetary disaster’ (Sparke and Williams 2021, 16) whose ‘secondary shocks’ have led to multiple ‘shadow pandemics’ of, for example, violence, unemployment, poverty, hunger, gender inequality, missed education, and untreated chronic disease (Pelling et al. 2021, Hinchliffe, Manderson and Moore 2021). What UN OCHA has described as a ‘global mega-crisis of historic proportions’ (2020, 5) has emerged largely because ‘Covid-19 has *exposed* underlying neoliberal transformations and exploited and *exacerbated* all the associated political, economic and social vulnerabilities in co-pathogenic ways’ (Sparke and Williams 2021, 16, emphasis added). It is in this vein that we examine how Covid-19 challenges long-held distinctions between three domains through which we have long imagined and responded to crises: humanitarianism, development and global health. This theme of exacerbation and exposure echoes recent writing by Melissa Leach and colleagues who argue that ‘the Covid-19 humanitarian, health and development crisis, and the inequalities and precarities that this has exposed, has been felt as much in New York as it has in Nairobi’ (2021b, 9). Such ‘North-South universality’ (*Ibid*) means that ‘the massive global health and development crisis enwrapped with the Covid-19 pandemic has exposed the limits of conventional framings of development both North and South’, as well as how we think about ‘its geographies and power relations’ (2021b, 1). Indeed, across the three sectors, critical reflection on the infrastructure and ecology of financing, resource flows, staffing, power and the ethics of ‘interventions in the lives of other peoples’ (Packard 2016) was ongoing long before Covid-19 struck, but has found new urgency (Jumbert and Pascucci 2021).

Covid-19 has arguably proved to be the most profound of the humanitarian community’s numerous moments of reckoning. A UN Blogs entry reveals that speakers at the 2020 UN OCHA Global Humanitarian Policy Forum described the past year as a ““dumpster fire” and

“hellish year” for countries in crisis that were then hit with the economic and health-related meltdowns of Covid-19’ (2020, n.p.). For those countries with UN Humanitarian Response Plans<sup>1</sup> (HRPs), Covid-19 has added an additional, pernicious layer of risk and vulnerability exacerbating existing crises. The pandemic has thus forced reflection on the fitness of the paradigms and modalities of humanitarianism, development and global health to adequately prevent and respond to the kinds of threat triggered by a state of increasing ‘planetary dysbiosis’ (Hinchliffe et al. 2021, e232, see also Wallace et al. 2020). To interrogate what is at stake at this critical juncture, we draw upon Geoffrey Bowker’s (1994) notion of the ‘infrastructural inversion’. An ‘inversion’ occurs in a situation of rupture or breakdown in existing infrastructures (or systems) which renders its inner workings visible. This heuristic, we argue, provides a productive conceptual starting point to interrogate how Covid-19 has become an ‘exacerbating’ and ‘exposing’ force revealing power, politics, and differential vulnerabilities. As Bowker writes, ‘we all too rarely think about the ways in which our social, cultural and political values are braided into the wires, coded into the applications and built into the databases which are so much a part of our daily lives’ (Bowker 2014, xii). The infrastructural relations and relationality that animated Bowker’s early work and then later writings with Susan Leigh Star are also inherently geographical as they emerge along two axes: (i) the spatial and (ii) the temporal. To explore these, we first examine the complex boundaries between humanitarianism, development and global health and the significance of these for geographical research. We then turn to the global humanitarian response to Covid-19, which provides the empirical basis for examining the two axes of inversion. We then reflect on the durability of

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<sup>1</sup> HRPs are prepared by Humanitarian Country Teams as part of the annual humanitarian programme cycle or under situations of acute need. The cycle starts with a ‘Situational Analysis’ undertaken within 72 hours of an emergency that analyses the available data to understand how the crisis is evolving, the needs of affected populations and how best to address these. These may lead to ‘flash appeals’. This information feeds into a Humanitarian Needs Overview (HNO) which differentiates between ‘immediate’ and ‘longer-term needs associated with structural factors or resilience. This forms the basis of the HRP and its financial ask. In 2021, 63 countries had HRPs.

these inversions and whether they have the capacity to re-order the ways in which we view, interrogate and act on crisis.

## **2. GEOGRAPHIES OF CRISIS: HUMANITARIANISM, DEVELOPMENT, GLOBAL HEALTH**

It should go without saying that the humanitarian imagination and endeavour ‘has never been free of geography’ (Reid-Henry 2014, 418). Yet, engagement with humanitarianism within geography has tended to be far more limited in its conceptual and empirical reach than, for example, anthropology – where medical humanitarianism has garnered particular attention - (Redfield and Bornstein 2010, Ticktin 2014, Beshar and Stellmach 2017), sociology (Wilkinson 2014a, Wilkinson 2014b, Roth 2015) or international relations (Barnett 2011). Indeed, a recent piece ‘contextualising Covid-19 geographically’ (Sparke and Anguelov 2020) shows that of the seven sub-themes of enquiry and analysis that might serve to situate Covid-19 within the discipline, a humanitarian frame should arguably have been an eighth. And yet, within the discipline, the humanitarian endeavour has been powerfully explored, particularly within the contexts of migration, refugees and asylum seekers (Pallister-Wilkins 2018a, Pascucci 2017), the camp (Brankamp 2019, Ramadan 2013) and in engagements with international volunteering (Schech 2017, Schech, Skelton and Mundkur 2016, Laurie and Baillie Smith 2017, Herrick and Brooks 2020). Within – and allied to - this work, questions of borders and the changing spaces of humanitarian intervention emerge as particularly pertinent (Pallister-Wilkins 2017, 2018b). The 2016 European migrant crisis invigorated (political) geographical engagement with humanitarianism, not least because agencies more often associated with far-flung crises were suddenly providing ‘crisis management infrastructure’ (Spathopoulou and Carastathis 2020, 1069) in ‘semi-carceral’ humanitarian hotspots across Europe’s borderlands (Pallister-Wilkins 2018a, 994, see also Dadusc and Mudu 2020). This

forced new critical confrontations with the means and ends of humanitarianism as well as its spaces of intervention.

Even before Covid-19 struck, the humanitarian enterprise was facing its own existential crisis (Alexander 2020). Numerous failures from the 1984 Ethiopian famine, the 1994 Rwandan genocide, the resultant refugee crisis in Goma, the 2004 South East Asian Tsunami and the 2010 Haitian Earthquake led to a raft of academic critiques (Barnett 2014, Pandolfi 2011, Fassin 2011a) as well as the rise of more popular texts ‘exposing’ the antics of an ecosystem that had long been cast as ‘morally untouchable’ (Fassin 2011b). Within the sector itself, there has been significant introspection, efforts at professionalisation and a swathe of guidelines, frameworks, principles and standards (Stevens et al. 2018). The most recent phase of humanitarian reform occurred at the 2016 World Humanitarian Summit as part of an agreement – called the Grand Bargain – that aimed to improve the ‘effectiveness’ and ‘efficiency’ of humanitarian action. Reform centred on: greater global use of cash programming; increased funding and support for local and national responders; harmonised reporting; a shift to longer-term more flexible funding; greater participation by end-users, a commitment to ‘localisation’ and enhanced engagement between humanitarian and development actors. A parallel movement to decentre authority and democratise the production of knowledge is playing out in calls for the ‘decolonisation’ of humanitarianism and aid (Aloudat and Khan 2021, Khan 2021, James 2022) and a more demonstrative commitment to diversity and inclusion within the sector (ALNAP 2021a). These echo equally vocal calls for the decolonisation of global health (Pai 2021b, Hirsch 2021, Abimbola and Pai 2020) and attention by geographers to the colonial legacies and structures of development (Craggs 2019, Radcliffe 2017, Patel 2020). The increasing seepage between the ways and means of humanitarian, development and global health may be in sharp contrast to the ethical, spatial and temporal markers of exceptionalism

that humanitarianism has tended to draw around itself (Redfield 2013), but it offers up fascinating points of synergy with current geographical research agendas.

As the Active Learning Network for Accountability and Performance (ALNAP)<sup>2</sup> – itself formed in the push to professionalise the sector after the Rwandan genocide - notes,

There has never been consensus on the boundaries of humanitarian action. Disagreements spring from differing views on the ‘what’, ‘who’ and ‘how’ of humanitarian action. The ‘what’ includes where to draw the line between humanitarian and longer-term development assistance. The ‘who’ includes live discussion about which entities are considered humanitarian and the power dynamics behind inclusions and exclusions. The ‘how’ includes debates about the importance of the humanitarian principles and the funding sources that drive action’ (2021, 6)

In the past decade, these discussions have generated what Hilhorst (2018) describes as a normative realignment from the ‘classic humanitarianism’ of intervention upon states of exception and an ethic of neutrality and sovereignty (Redfield 2012a, Wilkinson 2014b) to ‘resilience humanitarianism’. This is a direct challenge to the ‘suffering stranger’ paradigm and its associated connotations of ‘victimhood’ that have long drawn anthropologists to the field (Beshar and Stellmach 2017, Redfield 2006, Fassin 2007). A discourse of resilience instead draws in the domain of disaster risk reduction, itself an important area of geographical research (Gaillard and Mercer 2013, Pelling et al. 2021), to argue that people have the capacity to adapt and respond to crisis and, in turn, that crisis itself is no longer an exceptional state but rather, as Kirchhoff (2016) notes in the case of Ebola, ‘a new normality’ marked by complex processes of continuity and upheaval (Roitman 2017). This links to the recent humanitarian concern with ‘participation’ – a mainstay of development practice – and, in theory at least, should enable a broader humanitarian ‘ecosystem’ that is ‘less international humanitarian agency-centred and recognizes a large range of service providers, including the private sector and a host of national and local responders’ (Hilhorst 2018, 6). But, as Didier Fassin notes, this re-ordering is far

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<sup>2</sup> ALNAP describes itself a ‘global network of NGOs, UN agencies, members of the Red Cross/ Red Crescent movement, donors, academics, networks and consultants dedicated to learning how to improve responses to humanitarian crises’. It was formed as a result of recommendations made by the Joint Evaluation of Emergency Assistance to Rwanda and serves to gather evidence, improve mutual learning, share research and provide a platform for debate and action. It is housed in the Overseas Development Institute in London.



from new with, ‘multiple lines of division between NGOs and UN bodies, between supporters and opponents of “humanitarian right to intervene”, between prescribers of emergency intervention and proponents of development, between “aidists” and “human rightists” and even between” humanitarian medicine” and “public health”” (2010, 286). This fracturing is echoed in the siloing of humanitarianism, development and global health as domains of research, even though in reality, crises never fit the categories we have created to justify a response. These types of border-crossings are remarkably under explored – empirally and conceptually - within geography and beyond. However and as we will examine, the multiple crises created, compounded and obscured by Covid-19 forces a profound reconsideration of the nexus that conjoins these fields (Leach et al. 2021b). Before turning to the ways in which Covid-19 has brought forth a profound set of inversions to the humanitarian ecosystem and the ways in which it interfaces with development and global health, we will first situate the humanitarian response in the context of the broader landscape of changing needs and demands for assistance.

### **3. COVID-19 AND THE CHANGING FACE OF HUMANITARIANISM**

The 2021 *Global Humanitarian Assistance Report*, published annually by Development Initiatives<sup>3</sup>, reported that an estimated 243.8 million people living in 75 countries needed humanitarian assistance in 2020. A year later, that number rose to an estimated 274 million people (Office for the Coordination of Humanitarian Affairs 2021, 9). Between 2019 and 2022, the number of UN humanitarian appeals rose from 36 to 63 and the number of countries in a situation of ‘protracted crisis’ reached 34. The Covid-19 pandemic hit hard against a backdrop of increased vulnerability, with humanitarian assistance requirements increasing by 27% from

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<sup>3</sup> Development Initiatives is a think tank and research organisation dedicated to data collection, analysis and dissemination across a broad array of development areas. With offices in the US, UK and Nairobi, Development Initiatives is one few sources of data on humanitarian assistance and financing. The Bill and Melinda Gates Foundation, United Nations Office for Project Services and Deutsche Gesellschaft für Internationale Zusammenarbeit are its three largest funders.

2019-2020 to reach a record \$38.8 billion. In 2022, the overall humanitarian ‘ask’ will climb even further to reach \$41 billion (Office for the Coordination of Humanitarian Affairs 2021). However, despite rising global need, levels of humanitarian assistance have fallen from a high of \$31.5 billion in 2018 to \$30.9 billion in 2020. This means that the proportion of humanitarian appeals that were funded also fell: The Global Humanitarian Response Plan (GHRP) for Covid-19 had met only 40% of its target according to OCHA’s most recent Financial Tracking Service (FTS) data in mid-2021. Figure 1 clearly shows rising global need, but a fall in the proportion of response plan or appeal funding that is met by donors. Multilateral Development Banks have increasingly stepped into this funding vacuum, with total Overseas Development Assistance (ODA) to countries facing crisis doubling from 2014-2019 to \$10.7 billion with a growing proportion now in the form of loans rather than grants (Development Initiatives 2021). This is set to have potentially catastrophic long-term financial consequences for many countries (Oxfam 2021), arguably compounding those same vulnerabilities that Covid-19 has exposed and exacerbated.

The UN Covid-19 response has been coordinated through three pillars: (1) Health (WHO and its Strategic Preparedness and Response Plan [SPRP]); (2) Humanitarian (OCHA and its GHRP) and (3) Socio-economic (UNDP and its multi-donor trust fund with an initial fundraising target of \$1 billion). The WHO Plan focusses on a number of key areas of intervention including country coordination, planning and monitoring, risk communication and community engagement, surveillance, international travel, national laboratory infrastructure, infection prevention and control, case management and operational support and logistics (World Health Organization 2021). This, in effect, is the headline ‘global health’ response. By contrast, UNDP’s Socio-Economic Response Plan (SERP) focusses on protecting people, economic recovery, macroeconomic response and social cohesion. WHO and UNDP’s work

overlaps in the maintenance of essential health services and systems. Within the UN structural imagination, health sits at the intersection of the humanitarian and development responses, with the WHO's overarching SPRP guiding the development of government-led country preparedness and response plans that cover all health interventions including those undertaken by development and humanitarian actors. The GHRP overlaps with all of the priorities of the SPRP, but sits very much outside that of the UNDP's SERP, with the only overlap being a common mandate to ensure the maintenance of essential health services and systems. In this sense, the humanitarian response is far more aligned with that of global health than it is of development actors, despite the current concern with 'aid's new metapolicy' (Redvers and Parker 2019) - the intersectoral 'humanitarian-development-peace nexus' that emerged from the Grand Bargain reforms (Lie 2017, Rieder 2016).

The Covid-19 GHRP was launched in March 2020 to comprise 44 country appeals, seven regional response appeals and three global funding appeals with an initial target of \$2.1 billion that, by the end of the year had climbed to \$9.5 billion (OCHA Financial Tracking Service, 2021). By the end of 2020, however, only \$3.8 billion of this target had been funded. In total, 71 countries have received humanitarian aid for their Covid-19 response. However, the Covid-19 response has markedly changed donor-recipient geographies as the state, local actors and NGOs, volunteers, mutual aid groups and religious charities have stepped in to provide assistance often in the complete absence of international agencies and NGOs (see for example Fujita and Sabogal 2021, Kunhiak Muorwel and Vincent 2020). But, despite the turn to 'localisation' necessitated and precipitated by Covid-19 (UN OCHA 2020), humanitarian assistance funds for Covid-19 funding remain overwhelmingly concentrated in multilateral organisations. Data from Development Initiatives shows that UN agencies took 73% of multilateral funds, compared to just 5% for NGOs and Civil Society Organisations

(Development Initiatives 2021). This far exceeds the 61% that has, on average, gone to UN Agencies for crises over the past five years. Of GHRP funds, 92% went to just four agencies: WHO; Unicef; the World Food Programme, and the UN High Commissioner for Refugees (Development Initiatives 2020). Indeed, only 1% of humanitarian funding for the Covid-19 response is estimated to have gone to local actors by the end of 2020 (UN OCHA Financial Tracking Service 2020) – nowhere near the Grand Bargain’s goal of providing at least 25% of humanitarian funding directly to national responders by 2020 (Spiegel 2021, 365).

It should be noted that this high-level overview of the Covid-19 humanitarian response belies the complexities of trying to make any definitive statement on what that “humanitarian response” might be and, especially how it might transition across the fine lines marking humanitarianism from development and global health. This challenge is perhaps best summed up by Médecins sans Frontières’ (MSF) statement that, even as of mid-2021, ‘it is still difficult to provide a global narrative on our operations, as the pandemic is affecting every country in the world, with different consequences, in different places. Therefore, our approach can also be very different from country to country or even from project to project’ (MSF 2021). The geographies of humanitarian need are thus fluid, dynamic and emergent and, as we will discuss, challenge the very infrastructures that have emerged to act on crises.

#### **4. THE INFRASTRUCTURAL INVERSIONS OF COVID-19**

Within the humanitarian field, Covid-19 has both amplified and obscured ongoing, protracted crises, as well as creating new, acute emergencies. It has, in other words, blown apart any assumption of a ‘smooth space of universal human medical relief’ that ‘knows no boundaries’ and acts on a ‘limitless geographical horizon’ (Debrix 1998, 831). In all cases, it has foregrounded human needs in all their complexity and depth, while making responding to them

within the existing architecture of humanitarian response all the harder (ALNAP 2021b). It is therefore a moment of profound rupture as well as forcing an acceleration of reforms already underway in the field (Mitchell 2021). Understanding these ruptures in terms of an ‘inversion’ illuminates the dynamic conceptual reversals and transpositions in how humanitarianism is imagined, rather than simply a radical break with the organizing assumptions that preceded them. An inversion also points to the flimsy and contingent nature of its organizing spatial logics, where to understand something as ‘humanitarian’ depends on ‘circumstance and varies from one context to another’ (Brada 2016, 755, see also MacGregor et al. 2022). This is an idea that has been explored in relation to global health which is a category of action, intervention and analysis that is predicated on profound inequities between Global North and South (see Crane 2011, Herrick 2016). Johanna Crane offers the example of a Mexican delegate at the Consortium of Universities for Global Health who, as a practitioner in Mexico, could not be doing ‘global health’, but rather *public* health. An American doing the same work in Mexico would, by contrast, be doing *global* health. Here, meanings and significance change as different people move through space. Importantly, the infrastructure of global health that sustains these relational hierarchies (Brooks and Herrick 2019), saturated as it is with ‘geographical imaginaries’ (Herrick and Reubi 2017), tends to ‘disappear’ and ‘fade into the woodwork’, except at moments when it ‘breaks down’ (Bowker and Star 1999, 34). The growing literature on decolonising global health (Pai 2021a, Hirsch 2020) suggests that humanitarian emergencies such as Ebola and now Covid-19 have enabled engagement with and anger over the infrastructures that feed off and sustain inequality. Such crises are clearly also moments of infrastructural breakdown.

Conceptual reference to ‘inversion’ within the social sciences is rare, with the exception being Geoffrey Bowker (1994) and his later work with Susan Leigh Star (Bowker and Star 1999) on

‘infrastructural inversions’. As they have argued, during moments of change or breakdown, this analytical strategy renders the workings of infrastructure visible to the observer, revealing their (often invisible) role in constituting the “normal” order of things (Arnaut and Boulton 2020). In this sense, the inversion serves to ‘foreground the truly backstage elements’ (Star 1999, 380). This kind of *gestalt switch* is implicit in UN OCHA’s observation that, ‘as with previous crises, the pandemic is proving to be less of a ‘big reset’ than a ‘big exposé’: uncovering structural vulnerabilities and systemic dysfunctions in institutions and governance; accelerating trends and initiatives; and driving home the true extent and meaning of interconnectedness and global cooperation (2020, 3). Grove et al (2022, 15) make a similar point that, ‘the named emergency [Covid-19] reveals or exposes and renders perceptible an ongoing slow emergency that would otherwise remain hidden (or perhaps is trivialised or responded to as spectacle)’. In this sense, ‘inversion’ is an empirical as much as an analytical transposition: the world out there has changed as much as our way of understanding it thanks to the ‘tiny invader’ of SARS-CoV-2 (Arnaut and Boulton 2020). And, as Bowker himself argues, exploring the infrastructural inversion is important to ensure that understandings or ‘mythologies’ about how infrastructures function do not become self-fulfilling prophecies that serve only to reinforce power asymmetries (Jensen 2008). Star (1999) further outlines how infrastructure has ‘reach or scope’ that may be temporal or spatial, going beyond ‘a single event’ or ‘on-site practice’. These axes of inversion mirror the chief conceptual concerns of geographers and guide our axes of analysis of the humanitarian response to Covid-19.

#### **4.1 Inversion #1: Spatial**

The business model of humanitarian intervention has generally been predicted on two spatial paradigms. The first concerns the moral imperative to intervene on *distant* suffering (Boltanski 1999, Roth 2015, 7). Such ‘exceptional states of misfortune’ (Bornstein and Redfield 2010, 6) do not emerge from a vacuum (Calhoun 2010), but humanitarian intervention has tended to

sidestep these upstream determinants in favour of tending to immediate human needs (see Farmer 2020 for a powerful critique of this). The second concerns the *modus operandi* of humanitarian assistance which has long been predicted on the freedom and mobility of a cadre of international workers - an ‘unbearable lightness’ according to Peter Redfield (2012b). The spatial divide between the geographic freedoms, possibilities and power of different categories of staff – often reduced to ‘national’ (or ‘local’) versus ‘international’ staff – have long been stark and also, deeply racialised (Benton 2016, Majumdar and Mukerjee 2022). Indeed, critical accounts of humanitarian intervention have often noted the ways in which modes of living in ‘Aidland’ (Mosse 2011, Apthorpe 2011, Apthorpe 2005) often involve strong social capital, but few social ties, as well as weak understandings of the places, people and emergency constituting the next assignment (Malkki 2015, Alexander 2013). The two spatial paradigms – of distant suffering and global mobility - are deeply entangled: one of the ‘fables’ of the enterprise is that “effective” intervention on the former cannot occur without the promise of the latter (James 2022).

Like global health and development, humanitarianism has too often been unproblematically constructed as an act that occurs ‘somewhere else’ (King and Koski 2020): a ‘structure of intervention’ (Lakoff 2010, 66) on places where ‘space, stuff, staff and systems’ (Farmer 2014) are deemed to be lacking, but with little consideration of the complicity of this edifice in creating, maintaining and subsisting off these ‘lacks’ (Crane 2011). What Barnett and Walker (2015, 131) stingingly refer to as the ‘Humanitarian Club’ is one whose geographical centre of gravity remains in Geneva, New York, Paris and London and centres on the UN system, despite the fact that over 90% of the personnel involved in humanitarian crisis response are not from the Global North (Donini 2021). The humanitarian edifice, again like global health and development, is built on and sustains geographic and racial difference (de Waal 2008,

Chouliaraki 2006). Covid-19, however, has thoroughly inverted the imagined and presumed geographies of suffering, crisis and their constitution (MacGregor et al. 2022). As the virus spread from China to Italy, Spain and then quickly to almost every country in the world, the spectre of crisis was no longer ‘somewhere else’, but ‘re-territorialised’ in the Global North (Hanrieder and Galesne 2021). As donor countries found themselves confronted with previously unimaginable states of exception at home, media images of overwhelmed healthcare workers in Europe and the US with little or no access to Personal Protective Equipment (PPE), healthcare facilities on the verge of collapse and, as a potent example, MSF volunteers helping in nursing homes in Geneva, reinforced the need for urgent help “at home”.

In many respects this “domestication” of need in the backyards of donor countries (Hanrieder and Galesne 2021) was more of a continuity than a rupture. Didier Fassin, for example, argued a decade ago that ‘the purview of the humanitarian should not be restricted to extreme or remote situations – war zones, refugee camps, famines, epidemics, and disasters. It also relates to the reality closer to home of the treatment of the poor, immigrants, abused women, children affected by poverty – in short, all those categories constituted in terms of “vulnerability”’ (Fassin 2010, 269). Harrison has also forcefully argued that ‘we need to reconsider the firm boundary that is often presented between aid and development “over there” and issues of poverty and social justice in the global north’ (2013, 274). This also echoes Rose Hunt and Myers’ concern for the ‘other global south’ (2014) that has long been present in the massive structural and health inequalities across the global north, if widely neglected by global health itself. In trying to control and securitise Covid-19 ‘somewhere else’ in order to save lives ‘at home’, 130 countries closed borders to reduce the pathogenic threat posed by large-scale human movement (Devi 2020). These closures, as well as widespread export bans, was a massive challenge for the global logistics industry that was tasked with delivering vital



equipment, supplies and expertise across the world. The effects of this have been global in scale, but in no way equally felt. In a sense therefore, the public health measures brought in to contain the virus have also revealed the spatial limits to the infrastructures on which humanitarian logistics depends.

Such ‘containment of humanitarian space’ (Office for the Coordination of Humanitarian Affairs 2021, 34) raised an existential question: ‘What would the international aid community, long used to parachuting into a disaster, even be able to do now that the world had essentially shut down?’ (Alexander 2020). As people across the world grappled with new forms of spatialised risk management – working from home, lockdowns – the humanitarian sector was no longer an exception, but subject to the rule as much as anyone else. This meant that ‘the coronavirus pandemic has flipped aid’s business model – deploying hundreds of outside experts to move in and assist – on its head’ (Alexander 2020). This is not to say that the hypermobility of the ‘international surge’ model (Barbelet, Bryant and Willitts-King 2020, 3) was uncritically accepted. Rather, the Grand Bargain reforms made it clear that a shift to ‘localisation’ (and away from an over-reliance on international expatriate staff) and a linked focus on resilience, national capacity-building and sustainability were key to responding to the increasing number of protracted crises across the world (Hilhorst 2018). The overtly colonial nature of the global humanitarian architecture with Western “expertise” parachuted in to respond to crisis, profound inequities in pay and power, and a persistent lack of diversity in senior management of NGOs and senior posts at the UN has also been cause for criticism (Mitchell 2021, Aloudat and Khan 2021, Pailey 2020). Covid-19 has thus accelerated a transition that was already ongoing within the humanitarian arena. For example, the pandemic forced greater reliance on direct cash transfers and new forms of social protection most often from national governments (Gerard, Imbert and Orkin 2020), greater reliance on local staff

(Barbelet et al. 2020), and novel remote management technologies (Mitchell 2021). It has also witnessed an outpouring of direct assistance from ‘neighbours; local communities, mosques, and churches; local governments; diaspora remittances; volunteers; and all sorts of others’ that dwarfed that provided by the international sector, but is ‘rarely acknowledged as formal aid’ (Alexander 2020). The slowness of funds to reach the frontline has also accelerated efforts to look at novel financing mechanisms, with many local actors turning to crowdfunding, private donors and the private sector (Development Initiatives 2021).

As Nott (2020) points out, Covid-19 has compounded existing humanitarian crises and it has also magnified pre-existing acute and chronic need across the world. As a consequence, the virus has brought new humanitarian ‘hotspots’ to light - particularly across Latin America and the Caribbean – that are generally outside the spatial ambit of ‘Aidland’ (Apthorpe 2005). Here, the steady erosion of social safety nets has left huge swathes of people catastrophically vulnerable to the socio-economic impact of Covid-19, poverty rates have soared to their highest levels in almost two decades, inequality has widened, and rates of precarious employment have climbed (The Lancet 2020). As international mobility has become so ‘unbearably light’ as to literally evaporate, the response to (no longer distant) suffering has been carried by an array of regional, national and local actors, often outside the infrastructures of development, humanitarianism or global health. As a result, and as Leach et al have argued, this also means that the often-held distinctions between ‘global’ and ‘local’ settings ‘are in practice collapsed and the hierarchy of institutional responsibilities, so important to maintaining the illusion of risk-based control, is constantly subverted’ (2021a, 12). In South Sudan, for example, an estimated 75% of international staff left the country in early 2020, leaving national staff to fill the gaps. In Yemen, the UN and INGOs evacuated half their staff in May 2020 on specially chartered planes to ‘protect them from Covid-19’ (Parker 2020). Placing another question mark

over the humanitarian ethic of ‘solidarity’, the same occurred early on in the Ebola outbreak in West Africa as INGOs and others evacuated their international staff, leaving behind their national colleagues to face the substantial risks alone (Walsh and Johnson 2018). These actions not only magnify the ‘relationship of hierarchy and inequality’, but also complicates the ‘unstable blend of compassion and domination’ that underpins the ‘White Saviour’ paternalism of humanitarianism (Barnett 2014, 14, see also Pallister-Wilkins 2021). As international staff departed from countries already in states of protracted crisis, the degree to which ‘the software of humanitarianism still runs on colonial hardware’ came into sharp focus (Donini, 2021, n.p.) and with it, the ultimate precarity of that arrangement.

#### **4.2 Inversion #2: Temporal: acute, chronic, protracted, complex emergencies**

While humanitarian intervention is primarily defined by its spaces of action, it can also be understood as a ‘temporal condition’ (Fassin 2011a, 190). Its temporality has long been considered that of the acute where the ‘violence of the event, either disaster or conflict, calls for immediate action’, in contrast ‘to other modalities such as development that are inscribed in the long term’ (*Ibid*, 189). Global health arguably straddles the inherently ‘presentist’ orientation of humanitarian assistance (Bornstein and Redfield 2010, 6) and the ‘longer-term resolutions of inequality’ (Ticktin 2014, 281) that are more commonly found in the development sector. A crisis, Covid-19 has multiple temporal dimensions. First, its unfolding traces *historic* structures of inequality and vulnerability – the failure to invest in public health infrastructure, health worker shortages, lack of social protection safety nets and the legacies of uneven development (Hickel et al. 2022). Second, the *present* moment of crisis, the affective dimensions of which ebb and wane as pandemic waves rise and fall across the world. In other words, the ‘theatricality’ that often dominates efforts to encourage humanitarian pity is geographically partial and temporally fleeting (Chouliaraki 2012). And third, grossly uncertain

*futures* in which the trajectory of the pandemic can only be partially predicted through epidemiological models and alleviated through ‘anticipatory action’ (Burki 2021, Hassan et al. 2021). Here we want to explore how Covid-19 has instigated a dynamic narratological process (Larkin 2016) in which the past is often invoked to explain the present and a pathologically uncertain future sustains and sanctions policy decisions about how to manage the present. In so doing, it necessarily brings humanitarian, global health and development into new and closer conversations, further calling into question the infrastructural divisions between the fields.

Within the critical global health literature, the *historic* roots of current health inequities can be traced back to ‘historically deep and geographically broad’ forms of ‘structural violence’ (Farmer 2004, 309). Covid-19 has forced two temporal reckonings. First, with the ways in which past epidemics have been managed across the world and how these have or have not informed present-day pandemic preparedness and response (Lakoff 2017, 2021). Second, with how structural inequities and their historic origins have produced and shaped the uneven experiences of present-day crisis. As Farmer argues in relation to Ebola in Sierra Leone, this was not ‘a history of inevitable mortality that resulted from ancient evolutionary forces ... It was the contingent history of a population made vulnerable’ (2020). And yet vast inequities in the impact and effects of Covid-19 suggest that Farmer’s assertion could just as easily be applied to countries of the Global North. For scholars of health inequalities or the social determinants of health, the fact of a pandemic revealing the deep histories of inequity and structural violence that have long been ‘embodied’ as illness and vulnerability was inevitable (Marmot 2020). But, across the Global North, vast inequities in risk, exposure, vaccine uptake, morbidity and mortality served as a powerful infrastructural inversion forcing political acknowledgement of (at least some of the forces of) ‘co-pathogenesis’ (Sparke and Williams 2021). Whether this reading of the past will change the direction of future social policy remains

unclear, but current signs suggest any attempt to ‘build back fairer’ (Institute of Health Equity 2021), in the UK at least, will be drowned out by the economic externalities of the pandemic and Brexit.

In the *present*, human suffering has been framed in quite different ways. For example, as Covid-19 circulated with force in North America, Europe and Latin America in 2020, African countries were hailed as a ‘paradox’ (Ghosh, Bernstein and Mersha 2020, MacGregor et al. 2022). Initial epidemiological predictions that Covid-19 would cause large-scale mortality and devastation throughout the continent was met with disbelief when this did not initially happen (Harper-Shipman and Bako 2021). Explanations for this were multiple, including Africa’s young demographic and lower rates of cardiovascular disease, but lower down on the list were the lessons of the past: the continent’s long experience in managing infectious disease and the legacy of West Africa’s Ebola infrastructure in its Covid-19 response (Mayhew et al. 2021). But, as Adia Benton contends, the question of why Covid-19 mortality has been much lower in Africa (both than the international community expected and relative to other regions) ‘implies that African survival is not simply an anomaly, but a perverse deviation from the natural order of things’ (2021, 169). Echoing Roitman (2017), she continues, ‘without being able to look to Africa’s failures for solace in the midst of our own misery and suffering, how do we define ourselves?’ (*Ibid*). But, in stark contrast to the massive flows of international humanitarian assistance and the ‘crisis caravan’ (Polman 2010) that engulfed the region during the Ebola outbreak, the humanitarian gaze has been far more limited with respect to Covid-19 in Africa. Within global health too, while North American and European anthropologists flocked to West Africa to study the Ebola outbreak and work alongside international organisations in ensuring a ‘culturally appropriate’ response (Lees et al. 2020); travel bans, institutional risk assessments and emergency “at home” means that this has not been the case

for Covid-19 (Benton 2021). Such disparity in global health engagement is not reflective of the extent of crisis or the degree of need, but rather academia's own 'international surge' model predicated on analysing the present and future path of those countries in the 'humanitarian limelight' (Richards 2020, 504).

Understanding of pandemics is both anchored in the past (Greene and Vargha 2020, Fissell et al. 2021) and inherently *future*-orientated (Anderson 2021). These are almost always in tension. As Ben Anderson asserts, moments of crisis or emergency 'fold the future into the present' (2017, 466) by calling for intervention to mitigate the consequences of unfolding events. But, Covid-19 'strains conventional temporal imaginaries through which emergencies are typically understood and governed' (Grove et al. 2022, 1). The emergency imaginary typically assumes that intervention is undertaken in 'an effort to ensure the continuity of the future' (*Ibid*, 8) principally because outcomes remain uncertain and emergent and can be stabilised through action. This jagged temporality is also highlighted by Leach et al in their recent analysis of disease preparedness where they argue that their 'cases reveal interlocking, collapsed and folded temporalities, in which ongoing biological, social and political dynamics interplay with each other over different time-scales. Future uncertainties are not necessarily apprehended as linear and ordered, but collapsed and layered' (2021a, 11). This not only takes the form of congruence between 'slow' and 'fast' (or chronic and acute) emergencies, but also the 'collapse and layering' of the infrastructures and logics that have long guided and sanctioned humanitarian intervention as a form of temporal ordering.

Within global health, the 'sentinel' logic of pandemic preparedness (Lakoff 2010) has been predicted on the same hope of 'linear temporality of pandemic emergency management' (Grover et al, 2022, 15) that has been so upended by surge and retreat of Covid-19. Yet the pandemic has also mainstreamed epidemiological reason as a means to place present crisis in

context and predict future emergencies (Anderson 2021). While the ‘metricisation’ of human life has been a forceful critique in global health (Adams 2016, Reubi 2018), the same concerns now need to be taken seriously by humanitarians beset with an increasingly ‘templated’ logic of needs assessment. The faith in metrics comes out in full force in ‘Anticipatory Action’, ‘the humanitarian *idée du jour*’ (Lentz et al, 2020, 11). This ‘forecast-based’ way of anticipating crisis is reliant on ‘humanitarian diagnostics’ (Lentz et al. 2020) that offer the possibility of bringing global health’s concern with surveillance and epidemiology into conversation with Development and Disaster Risk Reduction. Proponents of anticipatory action argue that the majority of crises are ‘predictable’ based on a series of ‘triggers’ and thresholds (Office for the Coordination of Humanitarian Affairs 2021). This shift to predicting and acting in advance of crises reflects the structural constraints on the humanitarian ability to ensure ‘future continuity’ (Anderson, 2017): rigid funding cycles, strict guidelines on what UN Central Emergency Response Funds can be used for and limits on its use during early stages of disease outbreaks. There remain few examples of anticipatory action in the context of epidemics, with the Start Fund (supported by the UK, Ireland, Netherlands, Germany, Jersey and the Ikea Foundation) one of the few exceptions filling a gap for rapid-release funding to address ‘local crises’ among countries at greatest risk. As a temporal inversion, the call for more ‘early action’ shows just how lacking durable infrastructures of humanitarian response are under conditions of global emergency. This is even more so when Covid-19 is figured as a disaster (Hilhorst and Mena 2021) that requires cross-working between the ‘public health, education, economic, humanitarian and development sectors’, as well as ‘urgent and long-term solutions’ (UN OCHA, 2020, 24). The problem, as Grove et al (2022) remind us, is that without any clear linearity to its temporal path, even the distinction between the ‘urgent’ and ‘long-term’ (and the infrastructures called up for these) gets frayed.

## 5. CONCLUSION

Covid-19 is a spatially dispersed, temporally open-ended, and dynamic crisis that sits amid the humanitarian, development and global health domains. It is both a problem *of* these domains and an issue that forces a reckoning with the domains themselves. But, as Brada has argued, the ‘processes of classification and the resulting distinctions between “humanitarianism” and other categories are no less powerful for being frequently assumed rather than explicitly stated’ (2016, 757). She argues that claims to humanitarianism are always contingent - on who makes them, where and how – and the categories against which they are defined. Recognising such contingency is vital as Covid-19 continues to shift the conceptual and practical parameters through which crises are understood and acted upon. Or in other words, continues to incite more infrastructural inversions. And yet, as Mitchell notes, while ‘locally-led initiatives are happening in the gaps created by external shocks, [the] essential humanitarian architecture is inherently locked with few incentives to modify or adapt. Although the system continues to save many lives, it can be characterised by a kind of “functioning inertia” which is resistant to transformative improvements’(2021, n.p.). In this sense, Covid-19 represents more continuity than rupture as the humanitarian endeavour has, for at least the past five years, been subject to intense reflection and critique, culminating in the agreements brokered as part of the ‘Grand Bargain’. The shifts brought forth by Covid-19 are, arguably, part of a longer lineage of ‘infrastructural inversions’ left in the wake of major humanitarian emergencies. For example, while Ebola revealed the profound shortcomings in the international community’s ability to respond to a global health crisis at speed, it also rendered visible both the root causes of the unfolding humanitarian crisis and the international community’s complicity in these (Farmer 2020, Hickel, Sullivan and Zoomkawala 2021). Thus, Covid-19 has not only revealed ‘new pathologies’ in the humanitarianism system, but it has also brought ‘old ones into stark relief’



(Donini, 2021, n.p.). The infrastructural inversions that we have discussed in this paper are not necessarily novel, but they endure.

For geographers, these inversions clearly mark out fruitful points of intervention and interrogation. The research landscape on Covid-19 is as complex as it is saturated. It is complex because, like humanitarianism, the pandemic exists in a perpetual present. It references the failures of the past, but when and what the future will bring remains uncertain across the world. Researching Covid-19 is thus a Sisyphean task in which analysis and interpretation are constantly being upended and inverted by events (Will 2020), as well as the ‘bug’ itself (Del Casino Jr 2018). Yet, at the same time, Covid-19 should, as Sparke and Anguelov rightfully argue, be ‘contextualised geographically’, especially given how the pandemic has unearthed an array of ‘uneven geographies’ (2020, 498). In this sense, Covid-19 makes *even more* visible (in new and more painfully visceral ways), many of the issues of inequality and socio-spatial (in)justice that geographers have long explored (see Andrews et al. 2021). This inversion of foreground and background, of proximate and distal is something that critical global health scholars have long argued for (Biehl 2016) and that development scholars and practitioners have also highlighted (see for example Ferguson 1990). This is one aspect of inversion, but another that should animate geographical research agendas is how the imagined boundaries between the humanitarian, development and global health spheres have not only shaped our disciplinary and sub-disciplinary cultures, but also led to a collective failure of our ‘emergency imaginary’ (Calhoun 2010). Emergencies are moments when the past rams into the future, where the relationality of events are made clear, and research across disciplinary and organisational registers is essential. The final trick of the inversion is that while greater attention than ever before is now trained on the structural conditions driving crises, whether this heightened visibility will persist remains to be seen. As Donini has argued, ‘Sometimes crises provide opportunities for re-ordering the world, including the humanitarian world.

Mostly, however, they do not' (2021, n.p.). Our hope is that these opportunities prove to be durable. Our fear is that the *status quo* proves to be spatially and temporally fixed.

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### **Data availability statement**

Data sharing not applicable to this article as no datasets were generated or analysed during the current study.

## REFERENCES

- Abimbola, S. & M. Pai (2020) Will global health survive its decolonisation? *Lancet*, 396, 1627-1628.
- Adams, V. 2016. *Metrics: what counts in Global Health*. Durham: Duke University Press.
- Alexander, J. 2013. *Chasing Chaos: My Decade In and Out of Humanitarian Aid*. New York: Broadway Books.
- . 2020. COVID-19 changed the world. Can it change aid, too? *The New Humanitarian*.
- ALNAP. 2021a. Learning from disruption: evolution, revolution or status quo? 2021 ALNAP Meeting 19-21 October, background paper. London: ALNAP.
- . 2021b. *The State of the Humanitarian System - Fifth Edition 2018-2021*. London: ALNAP.
- Author. 2021. Decolonising Humanitarianism or Humanitarian Aid? *PLOS Blogs* July 13 2021.
- Anderson, B. (2017) Emergency futures: Exception, urgency, interval, hope. *The Sociological Review*, 65, 463-477.
- Anderson, W. (2021) The model crisis, or how to have critical promiscuity in the time of Covid-19. *Social Studies of Science*, 51, 167-188.
- Andrews, G. J., V. A. Crooks, J. Pearce & J. P. Messina. 2021. *COVID-19 and Similar Futures: Pandemic Geographies*. London: Springer.
- Apthorpe, R. 2005. Postcards from Aidland, Or: Love from Bubbleland. In *a graduate seminar at IDS, University of Sussex*.
- (2011) With Alice in aidland: a seriously satirical allegory'. *Adventures in aidland: the anthropology of professionals in international development*. Oxford: Berghahn, 199-219.
- Arnaut, K. & J. Boulton (2020) This Tiny Invader: Inversions and Connections across Multiple Worlds. *J African Diaspora*, 12, v-xii.
- Barbelet, V., J. Bryant & B. Willitts-King (2020) 'All eyes are on local actors': Covid-19 and local humanitarian action. *HPG Briefing Note*. London: ODI ([www.odi.org/publications/17173-all-eyes-are-local-actors-covid-19-and-local-humanitarian-action-opportunities-systemicchange](http://www.odi.org/publications/17173-all-eyes-are-local-actors-covid-19-and-local-humanitarian-action-opportunities-systemicchange)).
- Barnett, M. 2011. *Empire of humanity*. Cornell University Press.
- (2014) The humanitarian act: how humanitarian? *International Social Science Journal*, 65, 13-24.
- Barnett, M. & P. Walker (2015) Regime change for humanitarian aid. *Foreign Affairs*, 94, 130.
- Benton, A. (2016) African expatriates and race in the anthropology of humanitarianism. *Critical African Studies*, 8, 266-277.
- (2021) COVID-19 in Ebola's Wake: Safe Haven in Sierra Leone? *Current History*, 120, 167-171.
- Beshar, I. & D. Stellmach (2017) Anthropological approaches to medical humanitarianism.
- Biehl, J. (2016) Theorizing global health *Medicine Anthropology Theory*, 3, 127-142.
- Boltanski, L. 1999. *Distant Suffering: Morality, Media and Politics*. Cambridge: Cambridge University Press.
- Bornstein, E. & P. Redfield. 2010. *Forces of Compassion: Humanitarianism between Ethics and Politics*. Santa Fe: SAR Press
- Bowker, G. 1994. Information mythology: The world of/ as information. In *Information Acumen: The Understanding and Use of Knowledge in Modern Business*, eds. K. Arnaut, M. Karrebaek & M. Spotti, 231-247. London: Routledge.

- Bowker, G. C. 2014. Foreword: The infrastructural imagination In *Information Infrastructure(s) : Boundaries, Ecologies, Multiplicity*, eds. A. Mongili & G. Pelligrino, xii-xiii. Cambridge: Cambridge Scholars Publishing.
- Bowker, G. C. & S. L. Star. 1999. *Sorting things out: Classification and its consequences*. Boston: MIT press.
- Brada, B. B. (2016) The Contingency of Humanitarianism: Moral Authority in an African HIV Clinic. *American Anthropologist*.
- Brankamp, H. (2019) 'Occupied Enclave': Policing and the underbelly of humanitarian governance in Kakuma refugee camp, Kenya. *Political Geography*, 71, 67-77.
- Brooks, A. & C. Herrick (2019) Bringing relational comparison into development studies: Global health volunteers' experiences of Sierra Leone. *Progress in Development Studies*, 19, 97-111.
- Burki, T. (2021) Global COVID-19 vaccine inequity. *The Lancet Infectious Diseases*, 21, 922-923.
- Calhoun, C. 2010. The Idea of Emergency: Humanitarian Action and Global Disorder. In *Contemporary States of Emergency*, eds. D. Fassin & M. Pandolfi, 29-58. Cambridge MA: Zone Books.
- Chouliaraki, L. 2006. *The Spectatorship of Suffering*. London: Sage.
- (2012) The theatricality of humanitarianism: A critique of celebrity advocacy. *Communication and Critical/Cultural Studies*, 9, 1-21.
- Craggs, R. (2019) Decolonising The Geographical Tradition. *Transactions of the Institute of British Geographers*, 44, 444-446.
- Crane, J. (2011) Scrambling for Africa? Universities and global health. *The Lancet*, 377, 1388-1390.
- Cucinotta, D. & M. Vanelli (2020) WHO Declares COVID-19 a Pandemic. *Acta Biomed*, 91, 157-160.
- Dadusc, D. & P. Mudu (2020) Care without Control: The Humanitarian Industrial Complex and the Criminalisation of Solidarity. *Geopolitics*, 1-26.
- de Waal, A. (2008) The humanitarian carnival: A celebrity vogue. *World Affairs*, 171, 43-55.
- Debrix, F. (1998) Deterritorialised Territories, Borderless Borders: The New Geography of International Medical Assistance. *Third World Quarterly*, 19, 827-846.
- Del Casino Jr, V. J. (2018) Social geography (ies) III: Bugs. *Progress in Human Geography*, 42, 286-296.
- Development Initiatives. 2020. Global Humanitarian Assistance Report 2020.
- . 2021. Global Humanitarian Assistance Report 2021.
- Devi, S. (2020) Travel restrictions hampering COVID-19 response. *The Lancet*, 395, 1331-1332.
- Donini, A. 2021. Humanitarian action in "interesting times". In *Speech delivered at the Seminario Internaccional: La action humanitarian Mexico. 18 March 2020*. . Mexico City/ New York: Instituto Mora/ UN OCHA.
- Farmer, P. (2004) An Anthropology of Structural Violence. *Current Anthropology*, 45, 305-325.
- (2014) Diary: Ebola. *London Review of Books*, 36, 38-39.
- . 2020. *Fevers, Feuds, and Diamonds: Ebola and the Ravages of History*. New York: Farrar, Straus and Giroux.
- Farmer, P., C. P. Almazor, E. T. Bahnsen, D. Barry, J. Bazile, B. R. Bloom, N. Bose, T. Brewer, S. B. Calderwood & J. D. Clemens (2011) Meeting cholera's challenge to Haiti and the world: a joint statement on cholera prevention and care. *PLoS neglected tropical diseases*, 5, e1145.
- Fassin, D. (2007) Humanitarianism as a Politics of Life. *Public culture*, 19, 499-520.

- . 2010. The heart of humaneness: the moral economy of humanitarian intervention. In *Contemporary States of Emergency: The Politics of Military and Humanitarian Interventions*, eds. D. Fassin & M. Pandolfi, 269-294. New York: Zone Books.
- . 2011a. *Humanitarian reason: a moral history of the present*. Univ of California Press.
- (2011b) Noli me tangere: The moral untouchability of humanitarianism. *Forces of compassion: Humanitarianism between ethics and politics*, 35-52.
- Ferguson, J. 1990. *The Anti-Politics Machine: 'Development', Depoliticization and Bureaucratic Power in Lesotho*. Cambridge: Cambridge University Press.
- Fissell, M. E., J. A. Greene, R. M. Packard & J. A. Schafer Jr (2021) Introduction: Reimagining Epidemics. *Bulletin of the History of Medicine*.
- Fujita, Y. & A. Sabogal (2021) Perspective of localization of aid during COVID-19 Reflecting on the tensions between the top-down and bottom-up responses to the health emergency in Haiti. *ISS Working Paper No. 673*.
- Gaillard, J.-C. & J. Mercer (2013) From knowledge to action: Bridging gaps in disaster risk reduction. *Progress in human geography*, 37, 93-114.
- Gerard, F., C. Imbert & K. Orkin (2020) Social protection response to the COVID-19 crisis: options for developing countries. *Oxford Review of Economic Policy*, 36, S281-S296.
- Ghosh, D., J. A. Bernstein & T. B. Mersha (2020) COVID-19 pandemic: The African paradox. *Journal of Global Health*, 10.
- Greene, J. & D. Vargha (2020) How epidemics end. *Boston Review*, June 30 2020.
- Grove, K., L. Rickards, B. Anderson & M. Kearnes (2022) The uneven distribution of futurity: Slow emergencies and the event of COVID-19. *Geographical Research*, 60, 6-17.
- Hanrieder, T. & C. Galesne (2021) Domestic humanitarianism: the Mission France of Médecins Sans Frontières and Médecins du Monde. *Third World Quarterly*, 1-18.
- Harper-Shipman, T. D. & K. Bako (2021) The business of black death *Africa is a Country* <https://africasacountry.com/2021/02/the-business-of-black-death>.
- Harrison, E. (2013) Beyond the looking glass? 'Aidland' reconsidered. *Critique of Anthropology*, 33, 263-279.
- Hassan, I., M. Mukaigawara, L. King, G. Fernandes & D. Sridhar (2021) Hindsight is 2020? Lessons in global health governance one year into the pandemic. *Nature Medicine*, 27, 396-400.
- Herrick, C. (2016) Global Health, Geographical Contingency, and Contingent Geographies. *Annals of the American Association of Geographers*, 106, 672-687.
- Herrick, C. & A. Brooks (2020) Global health volunteering, the Ebola outbreak, and instrumental humanitarianisms in Sierra Leone. *Transactions of the Institute of British Geographers*, 45, 362-376.
- Herrick, C. & D. Reubi. 2017. *Global Health and Geographical Imaginaries*. London: Routledge.
- Hickel, J., C. Dorninger, H. Wieland & I. Suwandi (2022) Imperialist appropriation in the world economy: Drain from the global South through unequal exchange, 1990–2015. *Global Environmental Change*, 73, 102467.
- Hickel, J., D. Sullivan & H. Zoomkawala (2021) Plunder in the Post-Colonial Era: Quantifying Drain from the Global South Through Unequal Exchange, 1960–2018. *New Political Economy*, 1-18.
- Hilhorst, D. (2018) Classical humanitarianism and resilience humanitarianism: making sense of two brands of humanitarian action. *Journal of International Humanitarian Action*, 3, 1-12.
- Hilhorst, D. & R. Mena (2021) When Covid-19 meets conflict: politics of the pandemic response in fragile and conflict-affected states. *Disasters*, 45, S174-S194.

- Hinchliffe, S., L. Manderson & M. Moore (2021) Planetary healthy publics after COVID-19. *The Lancet Planetary Health*, 5, e230-e236.
- Hirsch, L. A. (2020) In the wake: interpreting care and global health through black geographies. *Area*, 52, 314-321.
- (2021) Is it possible to decolonise global health institutions? *The Lancet*, 397, 189-190.
- Institute of Health Equity. 2021. Build Back Fairer: The Covid-19 marmot Review. London: Institute of Health Equity and the Health Foundation.
- James, M. (2022) Humanitarian fables: morals, meanings and consequences for humanitarian practice. *Third World Quarterly*, 1-19.
- Jensen, C. B. (2008) Power, Technology and Social Studies of Health Care: An Infrastructural Inversion. *Health Care Analysis*, 16, 355-374.
- Jumbert, M. G. & E. Pascucci. 2021. *Citizen Humanitarianism at European Borders*. Routledge.
- Author. 2021. Decolonisation is a comfortable buzzword for the aid sector. *Open Democracy* January 15 2021.
- King, N. B. & A. Koski (2020) Defining global health as public health somewhere else. *BMJ Global Health*, 5.
- Kruczkiewicz, A., J. Klopp, J. Fisher, S. Mason, S. McClain, N. M. Sheekh, R. Moss, R. M. Parks & C. Braneon (2021) Opinion: Compound risks and complex emergencies require new approaches to preparedness. *Proceedings of the National Academy of Sciences*, 118, e2106795118.
- Kunhiak Muorwel, J. & L. Vincent (2020) COVID-19 in Zimbabwe Exposing government flaws and testing people's resilience. *ISS Working Paper No. 669*.
- Author. 2022. First aid shipments leave for Tonga, amid fears aid workers could bring 'tsunami of Covid'. *The Guardian* 19 January 2022.
- Lakoff, A. (2010) Two regimes of Global Health. *Humanity: An International Journal of Human Rights*, 1, 59-79.
- Lakoff, A. 2017. *Unprepared: Global health in a time of emergency*. Univ of California Press.
- Lakoff, A. (2021) Preparedness Indicators: Measuring the Condition of Global Health Security. *Sociologica* 15, 25-43.
- Larkin, B. 2016. The form of crisis and the affect of modernization. In *African Futures: Essays on Crisis, Emergence, and Possibility* eds. B. Goldstone & J. Obarrio, 39-50. Chicago: University of Chicago.
- Laurie, N. & M. Baillie Smith (2017) Unsettling geographies of volunteering and development. *Transactions of the Institute of British Geographers*.
- Leach, M., H. MacGregor, S. Ripoll, I. Scoones & A. Wilkinson (2021a) Rethinking disease preparedness: incertitude and the politics of knowledge. *Critical Public Health*, 1-15.
- Leach, M., H. MacGregor, I. Scoones & A. Wilkinson (2021b) Post-pandemic transformations: How and why COVID-19 requires us to rethink development. *World Development*, 138, 105233.
- Lees, S., J. Palmer, F. Procureur & K. Blanchet (2020) Contested legitimacy for anthropologists involved in medical humanitarian action: experiences from the 2014-2016 West Africa Ebola epidemic. *Anthropology & Medicine*, 27, 125-143.
- Lentz, E., G. Gottlieb, C. Simmons & D. Maxwell. 2020. 2020 Hindsight? The Ecosystem of Humanitarian Diagnostics and Its Application to Anticipatory Action. Boston, MA: Feinstein International Center, Tufts University.
- Lie, J. (2017) From humanitarian action to development aid in northern Uganda and the formation of a humanitarian-development nexus. *Development in Practice*, 27, 196-207.

- MacGregor, H., M. Leach, G. Akello, L. Sao Babawo, M. Baluku, A. Desclaux, C. Grant, F. Kamara, F. Martineau, E. Yei Mokuwa, M. Parker, P. Richards, K. Sams, K. Sow & A. Wilkinson (2022) Negotiating Intersecting Precarities: COVID-19, Pandemic Preparedness and Response in Africa. *Medical Anthropology*, 1-15.
- Majumdar, A. & M. Mukerjee (2022) Research as agitation: Generative activism in the age of resistance. *PLOS Global Public Health*, 2, e0000142.
- Malkki, L. H. 2015. *The need to help: the domestic arts of international humanitarianism*. Duke University Press.
- Marmot, M. (2020) Society and the slow burn of inequality. *The Lancet*, 395, 1413-1414.
- Mayhew, S. H., D. Balabanova, A. Vandi, G. A. Mokuwa, T. Hanson, M. Parker & P. Richards (2021) (Re)arranging “systems of care” in the early Ebola response in Sierra Leone: An interdisciplinary analysis. *Social Science & Medicine*, 114209.
- Meyers, T. & N. R. Hunt (2014) The other global South. *The Lancet*, 384, 1921-1922.
- Mitchell, J. 2021. Decolonisation and localisation: new dawn or old history? ALNAP.
- Mosse, D. 2011. *Adventures in Aidland: The anthropology of professionals in international development*. Berghahn Books.
- MSF. 2021. Covid-19 pandemic.
- Nott, D. (2020) The COVID-19 response for vulnerable people in places affected by conflict and humanitarian crises. *The Lancet*, 395, 1532-1533.
- Office for the Coordination of Humanitarian Affairs. 2021. Global Humanitarian Overview 2022. ed. U. OCHA. New York.
- Oxfam. 2021. Adding fuel to fire: How IMF demands for austerity will drive up inequality worldwide. London: Oxfam.
- Packard, R. M. 2016. *A history of global health: interventions into the lives of other peoples*. JHU Press.
- Pai, M. (2021a) Decolonizing global health: A moment to reflect on a movement. *Forbes*, July 22 2021, <https://www.forbes.com/sites/madhukarpai/2021/07/22/decolonizing-global-health-a-moment-to-reflect-on-a-movement/?sh=3f8004b15386>.
- Author. 2021b. Decolonizing Global Health: A Moment To Reflect On A Movement. July 22 2021.
- Pailey, R. N. (2020) De-centring the ‘White Gaze’ of Development. *Development and Change*, 51, 729-745.
- Pallister-Wilkins, P. 2017. Humanitarian borderwork. In *Border Politics*, 85-103. Springer.
- (2018a) Hotspots and the geographies of humanitarianism. *Environment and Planning D: Society and Space*, 0263775818754884.
- (2018b) Médecins Avec Frontières and the making of a humanitarian borderscape. *Environment and Planning D: Society, Space and Culture*, 36, 114-138.
- (2021) Saving the souls of white folk: Humanitarianism as white supremacy. *Security Dialogue*, 52, 98-106.
- Pandolfi, M. 2011. Humanitarianism and its discontents In *Forces of compassion: humanitarianism between ethics and politics*, eds. E. Bornstein & P. Redfield, 227-248. Santa Fe, NM: School for Advanced Research Press.
- Parker, B. 2020. UN pulls half its foreign aid staff out of Yemeni capital as COVID-19 spreads. *The New Humanitarian*.
- Pascucci, E. (2017) The humanitarian infrastructure and the question of over-research: Reflections on fieldwork in the refugee crises in the Middle East and North Africa. *Area*, 49, 249-255.
- Patel, K. (2020) Race and a decolonial turn in development studies. *Third World Quarterly*, 41, 1463-1475.

- Pelling, M., H. Adams, G. Adamson, A. Barcena, S. Blackburn, M. Borie, A. Donovan, A. Ogra, F. Taylor & L. Yi (2021) Building back better from COVID-19: Knowledge, emergence and social contracts. *Progress in Human Geography*, 03091325211059569.
- Polman, L. 2010. *The crisis caravan: what's wrong with humanitarian aid?* New York: Metropolitan Books.
- Radcliffe, S. A. (2017) Decolonising geographical knowledges. *Transactions of the Institute of British Geographers*, 42, 329-333.
- Ramadan, A. (2013) Spatialising the refugee camp. *Transactions of the Institute of British Geographers*, 38, 65-77.
- Redfield, P. (2006) A less modest witness. *American Ethnologist*, 33, 3-26.
- (2012a) Humanitarianism. *A companion to moral anthropology*, 449-467.
- (2012b) The Unbearable Lightness of Ex-Pats: Double Binds of Humanitarian Mobility. *Cultural Anthropology*, 27, 358-382.
- . 2013. *Life in crisis: the ethical journey of doctors without borders*. Univ of California Press.
- Redfield, P. & E. Bornstein. 2010. An introduction to the anthropology of humanitarianism. In *Forces of Compassion: Humanitarianism between Ethics and Politics*, eds. E. Bornstein & P. Redfield, 3-30. Santa Fe, NM: School for Advances Research Press.
- Redvers, L. & B. Parker. 2019. Searching for the nexus: It's all about the money. *The New Humanitarian*.
- Reid-Henry, S. M. (2014) Humanitarianism as liberal diagnostic: humanitarian reason and the political rationalities of the liberal will-to-care. *Transactions of the Institute of British Geographers*, 39, 418-431.
- Reubi, D. (2018) Epidemiological accountability: philanthropists, global health and the audit of saving lives. *Economy and society*, 47, 83-110.
- Richards, P. (2020) Ebola and COVID-19 in Sierra Leone: comparative lessons of epidemics for society. *Journal of Global History*, 15, 493-507.
- Rieder, S. (2016) Interrogating the global health and development nexus: Critical viewpoints of neoliberalization and health in transnational spaces. *World Development Perspectives*, 2, 55-61.
- Roitman, J. 2017. Africa Otherwise. In *African Futures: Essays on Crisis, Emergence and Possibility*, eds. B. Goldstone & J. Obario, 23-38. Chicago: University of Chicago Press.
- Roth, S. 2015. *The Paradoxes of Aid Work: Passionate Professionals*. London: Routledge.
- Schech, S. (2017) International volunteering in a changing aidland. *Geography Compass*, 11.
- Schech, S., T. Skelton & A. Mundkur (2016) Building relationships and negotiating difference in international development volunteerism. *The Geographical Journal*.
- Sparke, M. & D. Angelov (2020) Contextualising coronavirus geographically. *Transactions of the Institute of British Geographers*, 45, 498-508.
- Sparke, M. & O. D. Williams (2021) Neoliberal disease: COVID-19, co-pathogenesis and global health insecurities. *Environment and Planning A: Economy and Space*, 54, 15-32.
- Spathopoulou, A. & A. Carastathis (2020) Hotspots of resistance in a bordered reality. *Environment and Planning D: Society and Space*, 38, 1067-1083.
- Spiegel, P. B. (2021) Will this pandemic be the catalyst to finally reform humanitarian responses? *Nature Medicine*, 27, 365-365.
- Star, S. L. (1999) The Ethnography of Infrastructure. *American Behavioral Scientist*, 43, 377-391.



- Stevens, G., N. Wali, N. Georgeou & Z. Tadjoeeddin (2018) Understanding the Relationship between Humanitarian and Development Interventions: A Mixed-Methods Systematic Review Protocol. *Social Science Protocols*, 1, 1-12.
- The Lancet (2020) COVID-19 in Latin America: a humanitarian crisis. *The Lancet*, 396, 1463.
- Ticktin, M. (2014) Transnational Humanitarianism. *Annual Review of Anthropology*, 43, 273-289.
- UN Blogs. 2020. Six humanitarian lessons from the COVID-19 crisis.
- UN Foundation and UN OCHA. 2020. A case for transformation? The longer-term implications of the Covid-19 pandemic. . Washington DC/ New York: Un Foundation/ UN OCHA.
- UN OCHA. 2020. Global Humanitarian Overview 2021. New York: OCHA.
- UN OCHA Financial Tracking Service. 2020. Coronavirus disease Outbreak - COVID -19 2020. New York: UN OCHA.
- Van Brabant, K. & S. Patel (2017) Understanding the localisation debate. *London: ALNAP* ([www.alnap.org/help-library/understanding-the-localisation-debate](http://www.alnap.org/help-library/understanding-the-localisation-debate)).
- Wallace, R., A. Liebman, L. Fernando Chaves & R. Wallace (2020) COVID-19 and Circuits of Capital. *Monthly Review*, 72.
- Walsh, S. & O. Johnson. 2018. *Getting to Zero: A Doctor and a Diplomat on the Ebola Frontline*. London: Zed Books.
- Wilkinson, I. (2014a) Editorial introduction: Understanding modern humanitarianism. *International Social Science Journal*, 65, 7-11.
- (2014b) The problem of understanding modern humanitarianism and its sociological value. *International Social Science Journal*, 65, 65-78.
- Will, C. M. (2020) 'And breathe...'? The sociology of health and illness in COVID-19 time. *Sociology of Health & Illness*, 42, 967-971.
- World Health Organization. 2021. COVID-19 Strategic Preparedness and Response Plan (SPRP 2021). Geneva: WHO.