Mapping and Politics in the Digital Age; edited by Pol Bargués-Pedreny, David Chandler and Elena Simon
Format: Royal (156 × 234 mm); Style: Supp; Font: Bembo;
Dir: W:/2-Pagination/MPDA_RAPS/ApplicationFiles/9780815357407_text.3d;
Created: 23/08/2018 @ 20:44:08

8

MAPPING WITHOUT THE WORLD AND THE POVERTY OF DIGITAL HUMANITARIANS

Pol Bargués-Pedreny

Introduction

Maps divide nations and peoples artificially. They convert hybrid identities into homogeneous nation states. They reduce complex social institutions to uncanny symbols. They alter coastlines, aggrandize lands and distort buildings. They are the product of a long and contingent process of (mis)calculating and (mis)managing data. They are ideologically driven and disavow provinces, peoples and conflicts. 'Maps are authoritarian images', wrote J. B. Harley (1989, 13), and he linked maps to colonizers, monarchs, rulers, bureaucrats and the maintenance of the status quo. At least since the 1970s in geography and since the 1990s in international relations (IR), critical scholars have exposed the inextricable relation between maps and power and undermined the assumption that maps represent territories (Wood, 2010). They have noted the impossibility of representing an outside reality without generating remainders; they have depicted maps as power assets that generate political and social consequences. And yet, despite the fact that critical scholars have annulled the authority of all maps, by deconstructing them and revealing their necessary affinities with power, digital maps have mushroomed.

Today, maps have gained popularity. We zoom in and print routes from Google Maps, travel with GPS or carry smartphones that guide us along a real-time route from one location to the next. In the field of humanitarian action, digital maps have been introduced – alongside other digital technologies and intelligent processes like Big Data analysis, robotic devices, autonomic computing, or crowdsourcing – to guide international agencies for relief efforts. For the common man, the question is: if maps are false representations of the world and deceitful, as theorists have suggested, how could explorers have navigated oceans and travelled to distant hinterlands? Or more recently: how could Laura Decker, a thirteen-year-old sailor, complete a solo circumnavigation of the globe? Comparably, for the

academic, the puzzle is expressed like this: how can maps be reconstructed and appreciated after their deconstruction?

This chapter explores this question. It suggests that the recent enthusiasm for maps is linked to a shift in the interpretation of maps: from understanding maps mimetically as tools that reflect (or cannot reflect) reality to theorizing maps pragmatically, as useful tools that do not represent any territory outside the map but do enable us to move or to travel. This argument is important to read against a dominant critique in geography and IR that accuses maps of being false or limited representations of space, an extension of 'the same modernist process of the production of statistical truth' (Read et al., 2016, 1326). Instead, digital maps are gradually overcoming questions of representation and seem increasingly untethered from a reality 'out there'. Thus, this chapter suggests that critiques should aim rather at unravelling these new rationalities – of 'mapping without the world', as it will be conceptualised here. The consequences for the field of humanitarian action flow from this analysis. As will be sketched, digital humanitarians deliberately see through digital maps to obtain real time, immediate and objective information to the detriment of their capacities for creativity, judgement and action. Their maps provide them with concrete and flexible data, but they are stripped of their value as cultural resources and expressions of a common humanity.

Deconstructing maps to rescue 'the remainders'

The 1990s witnessed a growing hostility towards maps and mapping in IR. During the Cold War, the state-centric map of the globe had given a sense of coherence and confidence to the discipline and reinforced 'friend–enemy' perceptions among foreign policy and security strategists. Nation states were seen as sovereign units interacting rationally in a system without an ultimate arbiter (Waltz, 1979). The internal affairs of states, unrepresented in the map, were not relevant and were left to other sub-disciplines of political science. Yet IR scholars changed focus, as geopolitics evolved and the borders of states blurred. Critical perspectives – in particular, those of post-structuralist scholars – posed questions of power and knowledge and challenged the representations and world maps projected by positivist theories. The work of David Campbell (1998, 1999) and Michael Shapiro (1996, 1997) is illustrative of the post-structuralist critique of cartography in IR. They destabilized the mimetic understanding of maps as tools that reflect or mirror reality and instead theorized maps as power assets that are necessarily selective and have social and political effects. This critique is examined in turn.

In the 1990s, post-structuralist scholars in IR joined critical geography in writing against the understanding of maps as scientific and objective representations of any terrain. Since the Enlightenment, or so the critics asserted, European traditional cartographers supposed that they could access reality by the means of cartographic rules, measurements, scales and instrumentation. They believed that scientific developments could help to progressively draw a more exact, correct or synchronous picture of reality. They ranked maps in terms of objectivity, accuracy and

truthfulness and thus assumed that European maps were more truthful than maps in the past or the ones from non-European map-makers (Harley, 1989; Hart, 1986; Huggan, 2008). But this mimetic understanding of maps, which has been ubiquitous in IR through much of the twentieth century, came to be considered untenable. Maps are instead, Campbell argued, 'performative practices of representation' that fulfil 'a double function': 'imagining homogeneity by making heterogeneity unimaginable' (1999, 401). That is, maps organize, represent and structure spatial reality in a particular way, but in so doing they necessarily silence and make other entities, relations and alternative forms of mapping unimaginable. For example, state-centric maps have enabled the theorization of nation-states interacting in an anarchic international realm, but have also excluded nations without states, cultures, religious movements, indigenous peoples, refugees, disputed borders – you name it.

This reading of maps draws on Michel Foucault's notion of discourse or Jacques Derrida's text. Maps, like discourses or texts, are understood to fix and reveal one possible truth among many; and in presenting themselves as true expressions of the world, they become assets to distribute power and authority (Campbell, 1999, 401–2; Shapiro, 1996, xvii–xviii). The argument is that maps have power effects *not only* when they are manipulated or falsified by monarchs, institutions or foreign offices. Regardless of intentions, power is omnipresent in all maps and forms of knowledge. J. B. Harley made this clear:

> All maps state an argument about the world and they are propositional in nature. All maps employ the common devices of rhetoric such as invocations of authority (especially in 'scientific' maps) and appeal to a potential readership through the use of colors, decoration, typography, dedications, or written justifications of their method. Rhetoric may be concealed but it is always present, for there is no description without performance.
>
> *(1989, 10)*

Far from being value-free productions, maps and mapping are seen to operate on a specific socio-cultural milieu that gives them utility and value. Maps cannot be separated from the rules, tastes or technical abilities of societies that produce them, nor from the political effects they carry when they are used by these societies.

The purpose of critical analyses is thus considered to be twofold: first the invalidation of the resemblance between map and reality, showing it to be only one interpretation among many, and second the unveiling of the ideological underpinnings, and denouncing of the socio-political effects, of maps. Genealogical and deconstructive strategies therefore seemed best suited for the task. As Graham Huggan wrote in the late 1980s:

> The relevance of this disruptive process [engendered by deconstruction] to the practice of cartography is considerable; for not only is the metaphorical resemblance between the map and the reality it purports to represent

Mapping and Politics in the Digital Age; edited by Pol Bargués-Pedreny, David Chandler and Elena Simon
Format: Royal (156 × 234 mm); Style: Supp; Font: Bembo;
Dir: W:/2-Pagination/MPDA_RAPS/ApplicationFiles/9780815357407_text.3d;
Created: 23/08/2018 @ 20:44:08

> invalidated, or at least called into question, by the displacement of the ontologically stable relation between the 'original' and its 'copy', but this proposed resemblance is discovered to be the product of an ideological imposition which traces back to an identifiable rhetorical bias.
>
> *(2008, 26)*

These strategies permeated the critiques of international interventions in countries affected by conflict or natural disasters. The aim was to critically trace the social and political consequences of cartographic practices and ultimately highlight how heterogeneity had been overlooked.

For example, in the context of the dissolution of the former Yugoslavia, Campbell (1998) showed how maps and population censuses contributed to the problematization of a place affected by ethnic conflict requiring particular policy solutions – such as the separation of ethnic groups in different territories. Yet this problematization of Bosnia ignored the contingency and complexity of Bosnian life and its plural identity formations: 'Purporting to show the spatial distribution of identity groups, ethnographic maps have often served colonial practices of government through their reduction of dynamic social situations to conceptions of homogenous territory' (Campbell, 1999, 401). The problem, Campbell explained, is not only that these maps have reduced heterogeneity in pursuit of intelligibility. It is that, in aligning identity and territory, maps in the Bosnian peace process have reproduced the nationalist imaginary that fuelled the war in the first place. 'If the map enacts immanent national units, and the census populates those entities with fractured subjects, then the writing of a historical horizon that locates these features in a linear narrative secures the teleology of conflict' (Campbell, 1998, 80). Campbell compared the logic of mapping used by external diplomats to the practices of ethnic cleansing perpetrated during the war, undermining international interventions.

Writing in the 1990s, the critiques of mapping-as-representation called for constantly unsettling and unmapping the boundaries that had been appropriated by discourses of power. The way forward for Campbell was 'remapping Bosnia' beyond enclaves, with their partitionist and statist logics (1999, 428–9). For Shapiro, after examining the processes of state formation as diverse as those of Israel-Palestine, Australia and the United States, the alternative was 'unreading, unmapping and rewriting': 'it is time to unread the old map and begin the process of writing another one, a process without limit' (1997, 196–7). According to both authors, remapping involved a process without end, as new maps would render some identity experiences unimaginable and thus further remapping would be required. 'While new and different forms of mapping would be better, they would not in themselves be the answer', stated Campbell (1999, 430). New maps are necessary to give a feeling of intelligibility and location, but they are fated to perpetually confront Derrida's aporia. In Shapiro's words:

> Inasmuch as any system of thought will always produce its remainder, any final recovery of what is remaindered is impossible. Yet an ethics, embodied in

> Derrida's deconstructive practice, recognizes the necessity of pursuing that remainder nevertheless.
>
> *(1997, 199)*

Maps seemed to lose their value at the end of the twentieth century, as they were considered incapable of representing the totality of everyday life. Remapping was deemed important to pursue the 'remainder' produced by previous maps. Yet new maps would also generate exclusions. Again, they would be questioned, taken with a pinch of salt or even set aside. Maps were in danger of extinction, but the arrival of the digital was to change the future of the map and mapping.

Traveling with non-representative maps

How are we to explain the recent enthusiasm for maps, if maps were critiqued and devalued at the end of the twentieth century? The argument is that post-structuralist critiques challenged the idea that maps are representational systems, and, in consequence, they opened the door to thinking of maps differently: as useful navigational tools, which are not representative of a world but enable people to reach destinations and relate phenomena. In the context of earthquakes, maps can validate roads or identify the location of people trapped under rubble; or, in the case of viral diseases outbreaks, maps help to track disease spread and orientate teams amidst communities in need of vaccination. This understanding of maps, advanced by critical geographers and other scholars like Bruno Latour, no longer considers maps as representations of a given territory. Instead, they tend to argue, maps are inscriptions that are useful (or not) in the world. This insight will be used in this section to illustrate the current reinterpretation of mapping and can be usefully grasped by making a short detour through American pragmatist philosophy of the late nineteenth century.

One of the central contributions of philosophers like William James or John Dewey was to call true ideas the ones that are meaningful in practice, thereby critiquing the assumption that our beliefs correspond to a mind-independent and observable reality (McDermid, 2006, 5–45). According to James, a true idea was not true because it was in agreement with reality. Truth or falsity were not characteristics or properties of ideas or concepts. A true idea was one that worked: 'an idea is useful because it is true' and 'it is true because it is useful' (James, 2012, 98). He continued: 'true is the name for whatever idea starts the verification-process, useful is the name for its completed function in experience' (ibid.). Similarly, John Dewey affirmed: 'the result of one operation will be as good and true an object of knowledge as is any other, provided it is good at all: provided, that is, it satisfies the conditions which induced the inquiry' (Dewey, 1984, 157).

For James and Dewey, knowledge and truth were closely connected to usefulness and must be verified through experience, rather than deduced or assumed a priori. Thus, there is no separate truth in the things themselves; knowledge is rather acquired in relation, through a process of interaction with things. Therefore, we

acquire knowledge whenever we reach conclusions that satisfy the initial problem of inquiry. James introduces this everyday example to clarify what he means by truth:

> The possession of truth, so far from being here an end in itself, is only a preliminary means towards other vital satisfactions. If I am lost in the woods and starved, and find what looks like a cow path, it is of the utmost importance that I should think of a human habitation at the end of it, for if I do so and follow it, I save myself. The true thought is useful here because the house which is its object is useful.
>
> *(2012, 98)*

A pragmatist lens helps to think maps anew. A map of the woods where James was lost would only become true if it led him to the cottage where he could eat and rest. For James, maps were considered true objects only *after* they helped captains reach new harbours.

What difference do maps make for our lives? Maps become a set of practices that can solve spatial problems. They are not universal solutions to problems – as if finding something on the map would be equal to finding the route through the forest or across the sea. Maps 'become' useful or truthful in their enabling of practices of mapping and solving relational, context-sensitive and historically dependent problems (Kitchin and Dodge, 2007, 337–42). The sceptical commentator would nevertheless baulk at such proposition. She would wonder: why are maps useful? How can maps be useful to people, from expert sailors to amateur users, if they do not represent reality? 'Give me a map', she would show off, 'and I will travel across the world.' Sure, she could, but certainly not because maps mirror the territory or have a mimetic dimension. They do work and are useful because they have been historically and culturally coded, coloured and drawn; and people have learnt to read and interpret them through practices (Pickles, 2004). Rob Kitchin and Martin Dodge write:

> [A map] is brought into the world and made to do work through practices such as recognizing, interpreting, translating, communicating, and so on. It does not re-present the world or make the world (by shaping how we think about the world); it is a co-constitutive production between inscription, individual and world; a production that is constantly in motion, always seeking to appear ontologically secure.
>
> *(2007, 335)*

Maps, cartographers, compasses, algorithms, institutions, sailors and explorers are 'co-constituted'. Hence, maps are used by the ship's captain that they help to qualify. The map makes the mapmaker and the mapmaker maps the countries that do not, as yet, exist.

Mapping and Politics in the Digital Age; edited by Pol Bargués-Pedreny, David Chandler and Elena Simon
Format: Royal (156 × 234 mm); Style: Supp; Font: Bembo;
Dir: W:/2-Pagination/MPDA_RAPS/ApplicationFiles/9780815357407_text.3d;
Created: 23/08/2018 @ 20:44:09

In their critiques of mapping as representation, post-structuralist thinkers in IR were well aware of the co-constitutive nature and navigational understanding of maps. Campbell, for instance, in his *Writing Security* did not give space to a reality outside of constitutive performative practices:

> with no ontological status apart from the many and varied practices that constitute their reality, states are (and have to be) always in a process of becoming. For a state to end its practices of representation would be to expose its lack of prediscursive foundations; stasis would be death.
>
> *(1992, 11)*

But Campbell and others did not want to save the navigational purposes of maps. Their critical dagger was aimed at destroying maps, as maps had contributed to enslave 'the rich ambiguity of existence' (Campbell, 1996, 7). As Laura Lo Presti argues in this volume, they did not appreciate the living spaces and creativity engendered by maps, but appeared as 'exhausted cartographers' who merely beheld the destructive and deadly power of mapping.

Post-structuralist critics reduced maps to failed representational tools and maps could not easily live with this failure. The critics assumed (perhaps unwittingly) that maps were separated from the world and unjust to its pluralism. Life had been impoverished by maps and thus new maps had to be drawn to praise the remainders generated and forgotten by previous maps. They were trapped in what Jeremy Crampton (2010, 177) calls the 'cartographic anxiety': mapping and yet unmapping, so as to avoid being complicit with imperial and colonial power. Post-structuralist thinkers discovered and condemned the traces of power in maps, but they travelled nowhere.

Instead, Latour and other contemporary critical geographers are more confident with the non-representative nature of maps. They seem less preoccupied by the exclusions and deviations of maps than the post-structuralist thinkers examined above. The distinction between the two is heuristic – admittedly, a bit caricatured too – but it is necessary to appreciate the two dominant conceptualisations of mapping. The former (the earlier, post-structuralist) critique urged the disclosure of the subjective perspective implicit in any map and constantly pointed to the exclusions generated by it and thus permanently sought to revise, undo and discard maps. The latter (more recent, pragmatist) critique, while admitting that no cartographer can draw a map detached from power, is much less blunt when discussing the possibility of forsaking the map. In its place, the pragmatist-informed understanding of mapping seeks to forsake questions of representation, thus saving cartography

> *once* we stop asking the mimetic question that there is no longer any doubt as to how connected we are to the real 'outside' world. The 'correspondence theory of truth' – to use a cliché dear to epistemologists – is much more sturdy once many real correspondences have been established between two successive

Mapping and Politics in the Digital Age; edited by Pol Bargués-Pedreny, David Chandler and Elena Simon
Format: Royal (156 × 234 mm); Style: Supp; Font: Bembo;
Dir: W:/2-Pagination/MPDA_RAPS/ApplicationFiles/9780815357407_text.3d;
Created: 23/08/2018 @ 20:44:09

> elements along the way. It is much safer to fumble from one signpost to the next than attempt to jump daringly from words to world or from maps to territory.
>
> *(November et al., 2010, 589; emphasis in original)*

November, Camacho-Hübner and Latour welcome the crisis of representation. They have assumed that there is no world set asunder, beyond or underneath maps. That maps are 'real' and that everything can be mapped: from reefs to risks like unemployment, pollution or fire, so that maps can be useful to the population (ibid., 592).

The key to the argument is to understand that maps never had the abstract and representational value adjudicated to them by 'the Moderns' – to use Latour's phraseology. The Moderns perhaps believed so and fantasised about the possibility of mapping the cosmos so that it could be explained, travelled and won. But their practices were no different than ours. They experimented with maps during difficult voyages, and it was only after they arrived at the destination that they knew. As powerful as they were, maps have never been independent from the object they map or separated from their use and the consequences they have brought about.

The advent of digital mapping and digital technologies has made this evident, accelerating the shift in the reinterpretation of cartography. Digital maps have pushed the masses to see heterogeneous sets of data and multiple layers of information in a map (November et al., 2010, 582–3). The sceptical commentator will see no big difference between a paper road atlas and Google maps. Digital maps, she will infer, are like a road atlas but with more actualized data and layers of information. November et al. disagree:

> Even though the experience of digital navigation may at first sound like a mere *extension* of the older experience of looking at geographical data and combining it with some other types of information, after a while the number of new traits is so large that one is forced to confess that this is indeed a new experience.
>
> *(2010, 583 emphasis in original)*

One can experience maps as 'navigational platforms', but only because the chain of production is permanently visible. When reading old paper maps, the process of map-making and thereby the process separating the map from the territory was left behind: it was not part of the experience. Digital maps offer users a very different experience of updates, zooming, software, alerts, advertisements and real-time information, as they actively make choices during the process of navigation (ibid., 584). These choices hold no allure, as they seem free, easily accessed or dismissed with a mouse-click. Moreover, users reinterpret maps as navigational tools as they become familiar with making changes or adding information to their maps. As maps are used and modified by the masses, questions of representation, power and knowledge lose appeal. Regardless of whether they agree with the state of the

world, users create and update maps to enable their activity in the world. As explored in the next section, these activities can include embarking on humanitarian projects to save the world (Meier, 2015).

In short, since the Enlightenment, if not since geographers, like Mercator, first mapped the world, the chasm in cartography has been between those who presumed that maps corresponded to reality and expressed eternal verities and those who argued that maps could not neutrally represent a world outside. Now digital technologies and theorists like Latour are making another distinction, unfolding two radically different ontologies of mapping. On one side of the distinction, quarrels over representation continue. Some argue that maps are right or truthful if they seemingly represent the territory, the ocean or the globe; whereas others imply that all maps are necessarily wrong, limited, biased and distorted because they cannot represent the totality of the territory or the globe they intend to represent. On the other side of the distinction, maps are not right or wrong in relation to a territory or a space or a globe 'out there'. Drawing on pragmatism, maps are truthful if they enable users to travel somewhere, monitor risks or save lives. There is no space beyond or ontological level that maps are pointing at. Maps are not mere pictures or prejudices of an underworld, but real navigational tools; and thus, they enable humanitarians to respond to crises as they emerge.

Mapping 'without the world' in humanitarian crises

In crisis mapping initiatives, humanitarian organisations use the information details introduced by community volunteers on previously created satellite imagery to track and respond to crises and assist the most vulnerable places in the world. Unlike historical war maps that were static and planned 'from above', these maps are updated, shared in real time and launched by ordinary people or volunteers who cooperate to reveal food shortages, lost pets, violent assaults, military tanks, and all sorts of unpredictable risks (Meier, 2012). For example, hundreds of volunteers of the Red Cross travelled to border communities in West Africa to introduce data sources in OpenStreetMap so that this information could be used by humanitarian agencies if another epidemic like Ebola occurs in the future. In Zambia, a risk map was created to locate malaria cases and thus predict the areas at risk in the event of future outbreaks (Bernson, 2016). In 2011 in Libya, in the context of the Arab Spring protests and subsequent conflict, the network Standby Volunteers Task Force for Live Mapping scanned and tagged specific features to locate human rights abuses. Other digital platforms, like the Verificado19s project, used the information reported by people to map and facilitate responses to the earthquake that affected the centre of Mexico in September 2017. The UNDP (2017, 19) launched Matcheli, a map of the centre of Yerevan, Armenia, useful for physically challenged people, which was created by citizens themselves. Other initiatives, like the Missing Maps idea, are helping to put on the map poorly charted places like disaster-affected regions and inner-city slums.

Mapping and Politics in the Digital Age; edited by Pol Bargués-Pedreny, David Chandler and Elena Simon
Format: Royal (156 × 234 mm); Style: Supp; Font: Bembo;
Dir: W:/2-Pagination/MPDA_RAPS/ApplicationFiles/9780815357407_text.3d;
Created: 23/08/2018 @ 20:44:09

These digital maps show massive amounts of real-time and heterogeneous data, from road networks to damaged infrastructures to ramps for the physically challenged to random incidents to virus trajectories. Instead of experience-distant cartographers, information is collected, updated and verified regularly by volunteers or local people in contact with the field. Of course, gathering so much data can generate information that is unhelpful or sometimes wrong. Yet not missing any potential important information is better than making small errors or creating a few false alarms. As Antoinette Rouvroy and Thomas Berns (2013, 173) remark: 'the aim is to not miss any true positives, irrespective of the rate of false positives'. Patrick Meier's *Digital Humanitarianism* narrates the process in which a group of students launched a digital crisis map for the 2010 Haiti Earthquake. They collected data about the disaster from diverse social media – mainly tweets – and added them to a map, expecting that this information could be put to use by agencies working in the field. When explaining the microtasking efforts, Meier accepts that information could be misleading but insists on the utility of not missing any information that could meet humanitarian demands: 'Even though social media may be biased, unverified, and at times false – like 911 calls and humanitarian surveys – some relevant and meaningful signals can still be gleaned from crowdsourced information' (Meier, 2015, 43). The more data that is introduced the better, so that more information can be verified and exclusions can be minimized.

However, a common critique is that new digital maps cannot avoid exclusions (Burns, 2014; Read et al., 2016; Feigenbaum and Specht, this volume). Rather than being truly 'bottom-up' maps that are made by the people and for the people, these maps are seen as tools that rely on platforms and filters designed non-locally, sometimes by humanitarian agencies and their networks of funders, which establish what may appear and what may be written out. For example, Ryan Burns observes how the existing platforms, metrics and schemes used by digital humanitarians leave out certain types of knowledge, like forms of 'collective memory', 'a community's non-visible knowledge of an area in particular danger', 'affective geographies' or indigenous representations of nature that do not conform to 'Cartesian space' (2014, 54–7). Along these lines, in the concluding words of their chapter in this volume, Anna Feigenbaum and Doug Specht explain:

> All representations have their failings. In pointing out these limitations, our intention is not to suggest that these new modes of working should be abandoned. Instead it serves as a call to question at every turn, every representation. It is well known that this is required, yet terms like participatory and contestatory, or mashup and counter-maps, all too easily lure the creator and reader towards forgetting the in-built biases of the platform, the coding, the symbology the creator and the reader that are tied up in the inescapable, yet very much challengeable, cartographic gaze.

No matter how detailed, adaptive and complete maps become, or how experience-near the volunteers adding information are, for critics like Feigenbaum and Specht, digital maps cannot map the whole universe of relations emerging in a crisis zone.

Mapping and Politics in the Digital Age; edited by Pol Bargués-Pedreny, David Chandler and Elena Simon
Format: Royal (156 × 234 mm); Style: Supp; Font: Bembo;
Dir: W:/2-Pagination/MPDA_RAPS/ApplicationFiles/9780815357407_text.3d;
Created: 23/08/2018 @ 20:44:09

In so doing, maps, at best, fail to represent the plurality and fluidity of emergent crises; at worst, they are used to further some malign interests of humanitarian agencies that halt progress.

This critique cannot be neglected, and it appears accurate when, for example, Médecins Sans Frontières (MSF) claims that via the Missing Maps project 'we can help build a detailed and useful map of the world that is so much more than the sum of its parts'. When MSF attempts to create a complete picture of the world to help responders to make decisions regarding relief efforts, no matter how many parts are assembled or how much concrete information is introduced, critics are astute to assert that the world is always wanting. This argument is correct to the extent that it is always able to identify a 'lack' in the process of mapping (something was absent, someone was omitted); yet in so doing, in pointing to an unreachable world, this critique is the source of contemporary nihilism (Baker, 2018).

The difficulty is that such a critique may well be actually missing the target, as the target has moved: digital humanitarians no longer want to grasp the world as an object that can be mapped and held in place, claimed or governed. Instead, they are mapping specific aspects and relations rather than fixed territorial regions or parts of the world. They may be tracking the infinitesimal details of a specific street, surveying its complexity, its life, and adding as much data about entities and relations as possible, but this is not to make a modernist claim to knowledge and control. The whole is becoming irrelevant: the map does not disclose how many damaged buildings or hospitals are in the city, but that *this* building has collapsed or *this* road no longer leads to the hospital. There is no aggregated structure, no world, as information is gathered on the basis of specific and emerging information, as different volunteers add, subtract or validate data haphazardly. As Latour et al. explain in relation to digital databases, 'there is more complexity in the elements than in the aggregate' or, as he adds counter-intuitively, 'the whole is always smaller than its parts' (Latour et al., 2012, 591, emphasis removed). The data seems to be related in 'a non-total, ragged way', forming 'a weird implosive whole', as Timothy Morton (2017, 1) might put it. It is in this sense that critiques of digital maps cannot point at the remainders that have been neglected. The map is never final, it is not a representation of the city, the region or the entire humanitarian disaster; there is no totality, no world, and thus no remainders.

Rather than looking at digital maps as failed representational tools, therefore, the suggestion is to examine them through a pragmatist lens. Only in so doing will critics perhaps save ammunition and hit the target. Only in so doing are we able to foresee the trajectory taken by governance rationalities. Rather than pretending to map correctly or objectively, according to universal laws of accuracy and objectivity, the real tipping point in the processes of mapping is obtaining information that can be generated from below and is untainted by pre-existing assumptions. People are encouraged to join humanitarian mapping projects and map or report anything that is happening around them. And whereas traditional maps were accused of imposing ideological biases that would then serve the interests of powerful rulers, digital humanitarian maps increasingly reveal information without a

normative background. There is only the hunch that maps may be used by humanitarian agencies in the future, but there is no idea of *how* the information will be used and *what* purpose it will meet. The priority is to map and introduce new details so that correlations may be inferred and used by disaster field agencies before long. In mapping without an apparent purpose, mapping presents itself as if it could circumvent the problem of imposing the normative baggage of the cartographer onto the process of drawing the map.

The map is thus considered to provide a real picture of the world, rather than an 'objective' or simplified abstraction of it. It is not constructed by liberal humanitarians and their norms assumed to be rational and global nor by local actors for the setting of specific agendas but reveals the world as complex or 'raw' material and thereby as 'pure', crowdsourced by anonymous volunteers that have gathered or verified the data. Rouvroy (2013, 147) writes:

> Such 'knowledge' thus does not appear as a 'production of the mind', with all the artificiality and cognitive and emotional biases unavoidably connoting mental productions, but as always already 'given', immanent to the (digitally recorded) world, in which it is merely automatically 'discovered' or from which it literally flourishes thanks to algorithmic operations rendering invisible correlations operational.

The ideal of 'pure' or 'raw', rather than 'objective' or 'abstract' knowledge, free from politics and reflexive subjectivity, seems to come true with digital mapping as used in the context of humanitarian crises (Rouvroy and Berns, 2013, 169–70). The knowledge produced by digital maps is not 'about the world', constructed through an abstract representation; it is instead a knowledge 'from the digital world', obtained in real situations (Rouvroy, 2013, 147). The artificial separation between maps and world is finally becoming undone, and now mapping operates without the world.

Conclusion: the power to flatten the world

Does it mean that politics (or power) are absent in digital mapping? Certainly not, alas, but maps no longer have the power to build, exclude or contest worlds. They instead provide the means to depoliticise and flatten them. Digital mapping brings 'correlations' into existence, but deters reasoning and judgement: 'this represents a move away from always trying to understand the deeper reasons behind how the world works to simply learning about an association among phenomena and using that to get the things done' (Cukier and Mayer-Schoenberger, 2013). Instead of revealing the causes of why phenomena occur and thus planning an intervention to solve or transform the problem, digital maps show correlations of what is occurring or may occur, enabling the governance of 'effects' (Chandler, 2018; Chandler, this volume). Digital humanitarians do not explore how conflicts befell, why rebels demur, why buildings collapse. They do not seek to understand, evaluate or make

suggestions regarding what should be done. They track tweets and satellite imagery so that agencies on the ground may follow.

Although humanitarian agencies can now claim to be less constrained by ideological biases and to have minimized the problem of marginalising important data, digital maps offer an impoverished version of humanitarianism. Focusing on correlations is a much less forward-looking endeavour than attempting to represent reality or to understand and address the causes of events. As humanitarian agencies react to or adapt to crises instead of solving problems, they have degraded their role and drain humanitarianism of its founding ideals. Digital humanitarians lack a broader or more meaningful project of transformation, and this makes it less likely that they will leave their mark on future disaster recovery. Moreover, their tools – digital maps – are frail and transitory too, regardless of how accurate or useful they may appear. Digital maps disclose remote streets, lost temples, debris, broken roofs and violent incidents, but mitigate against the possibility of reflecting upon the whole city and the common world, displacing the historical value of maps as cultural resources and expressions of a shared humanity.

References

Baker, G. (2018). *Nihilism and Philosophy: Nothingness, Truth and World*. London: Bloomsbury.

Bernson, J. (2016). 'How data maps are transforming the fight against malaria in Zambia', *The Guardian*, 15 December. www.theguardian.com/global-development-professionals-network/2016/dec/15/powerful-data-visualisation-is-transforming-the-fight-against-malaria.

Burns, R. (2014). 'Moments of closure in the knowledge politics of digital humanitarianism', *Geoforum* 53: 51–62.

Campbell, D. (1992). *Writing Security: United States Foreign Policy and the Politics of Identity*. Minneapolis, MI: University of Minnesota Press.

Campbell, D. (1996). 'Political prosaics, transversal politics, and the anarchical world', in *Challenging Boundaries*, edited by Michael J. Shapiro and Hayward R. Alker. Minneapolis, MI: University of Minnesota Press.

Campbell, D. (1998). *National Deconstruction: Violence, Identity, and Justice in Bosnia*. Minneapolis, MI: University of Minneapolis Press.

Campbell, D. (1999). 'Apartheid cartography: The political anthropology and spatial effects of international diplomacy in Bosnia', *Political Geography* 18(4): 395–435.

Chandler, D. (2018). *Ontopolitics in the Anthropocene: An Introduction to Mapping, Sensing and Hacking*. London and New York: Routledge.

Crampton, J. W. (2010). *Mapping: A Critical Introduction to Cartography and GIS*. Chichester, UK: Wiley-Blackwell.

Cukier, K. N. and Mayer-Schoenberger, V. (2013). 'The rise of big data', *Foreign Affairs*, May/June, 28–41.

Dewey, J. (1984). *John Dewey: The Later Works, 1925–1953*, edited by Jo Ann Boydston. Vol. 4: [1929] *The Quest for Certainty*. Carbondale, IL: Southern Illinois University Press.

Harley, J. B. (1989). 'Deconstructing the map', *Cartographica: The International Journal for Geographic Information and Geovisualization* 26(2): 1–20.

Hart, K. (1986). 'Maps of deconstruction', *Meanjin* 45(1): 107–117.

Huggan, G. (2008). *Interdisciplinary Measures: Literature and the Future of Postcolonial Studies*. Liverpool: Liverpool University Press.

James, W. (2012). *Pragmatism*. Lexington, KY: Renaissance Classics.

Kitchin, R. and Dodge, M. (2007). 'Rethinking maps', *Progress in Human Geography* 31(3): 331–344.

Latour, B., Jensen, P., Venturini, T., Grauwin, S. and Boullier, D. (2012). '"The whole is always smaller than its parts": A digital test of Gabriel Tardes' monads', *British Journal of Sociology* 63(4): 590–615.

McDermid, D. (2006). *The Varieties of Pragmatism: Truth, Realism, and Knowledge from James to Rorty*. London: Continuum.

Meier, P. (2012). 'Crisis mapping in action: How open source software and global volunteer networks are changing the world, one map at a time', *Journal of Map & Geography Libraries* 8(2): 89–100.

Meier, P. (2015). *Digital Humanitarians. How Big Data Is Changing the Face of Humanitarian Response*. Boca Raton, FL: CRC Press.

Morton, T. (2017). *Humankind: Solidarity with Nonhuman People*. London and New York: Verso.

November, V., Camacho-Hübner, E. and Latour, B. (2010). 'Entering a risky territory: Space in the age of digital navigation', *Environment and Planning D: Society and Space* 28(4): 581–599.

Pickles, J. (2004). *Cartographic Reason, Mapping and the Geo-Coded World*. London and New York: Routledge.

Read, R., Taithe, B. and MacGinty, R. (2016). 'Data hubris? Humanitarian information systems and the mirage of technology', *Third World Quarterly* 37(8): 1314–1331.

Rouvroy, A. (2013). 'The end(s) of critique: Data behaviourism versus due process', in *Privacy, Due Process and the Computational Turn: The Philosophy of Law Meets the Philosophy of Technology*, 143–167. London and New York: Routledge.

Rouvroy, A. and Berns, T. (2013). 'Algorythmic governmentality and prospects of emancipation: Disparateness as a precondition for individuation through relationships?', *La Découverte* 1(177): 163–196.

Shapiro, M. J. (1996). 'Introduction', in *Challenging Boundaries*, edited by Michael J. Shapiro and Hayward R. Alker, xv–xxiii. Minneapolis, MI: University of Minnesota Press.

Shapiro, M. J. (1997). *Violent Cartographies: Mapping Cultures of War*. Minneapolis and London: University of Minnesota Press.

UNDP (2017). 'Spark, scale, sustain: Innovation for the sustainable development goals', United Nations Development Programme, New York.

Waltz, K. N. (1979). *Theory of International Politics*. Reading, MA: Addison-Wesley Publishing.

Wood, D. (2010). *Rethinking the Power of Maps*. New York: The Guilford Press.