



# Unruly waters: exploring the embodied dimension of an urban flood in Bangkok through materiality, affect and emotions

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**Abstract.** Urban political ecology (UPE) has recently turned its attention to the embodied dimension of human–nature relations. In particular, within urban hydrological systems across the globe, the need to consider the emotional and bodily ways in which we connect to the ecologies of the city has been acknowledged. This paper joins such efforts and explores the flood experiences of a diverse group of Bangkokians during the 2011 inundation by drawing on three interconnected concepts: materiality, affect and emotion. Together they help us explore the intense experiences of Bangkokians during the flood and serve as theoretical tools to unpack the uncanny encounters between Bangkokians and the materiality of the flood. Thus, the paper attends to the socio-material forces that shaped the flooding event and contributes nuanced insights about the embodied experiences of floods within the delta city.

## 1 Introduction

**In urban areas, climate change is projected to increase risks for people, assets, economies and ecosystems, including risks from heat stress, storms and extreme precipitation, inland and coastal flooding, landslides, air pollution, drought, water scarcity, sea-level rise and storm surges (very high confidence). These risks will be amplified for those lacking essential infrastructure and services or living in exposed areas.** (IPCC, 2014:69; emphasis in original)

The Intergovernmental Panel on Climate Change (IPCC) synthesis report of 2014 could not be clearer on the dire predictions of urban centres in a climate-change-affected future. Bangkok, the capital city of the Kingdom of Thailand, is a prime example where climate change in combination with lacking infrastructures and exposure already lead to flooding that is said to become even more exacerbated in the future (Marks, 2011). In 2011, unseasonal tropical storms and immense monsoon downpours led to a devastating flood in the Kingdom of Thailand that killed more than 800 people and

caused billions of US dollars (USD) in economic damage as the capital city and surrounding manufacturing sites were inundated for several weeks (World Bank, 2012). Championing an urban political ecology (UPE) approach to understand this flooding event, Marks (2015) insisted that climate change – although intensifying flood risk in Bangkok – was not the only culprit of the 2011 disaster. Rather, it was an assemblage of political disputes and institutional failure, extreme downpours, malfunctioning urban flood defences, and inadequate urban planning and development that led to the massive losses (see also the author, 2018; Marks, 2019).

Drawing on qualitative fieldwork (conducted between October 2015 and February 2016), I use the interconnected concepts of materiality, affect and emotion to make sense of the 2011 flood and to extend the proposed UPE perspective on the 2011 flood offered by Marks (2015) and the author (2018).<sup>1</sup> More precisely, what I aim to contribute is close attention to the lived and embodied experience of the flood and

<sup>1</sup>The paper draws on the empirical material conducted for the author's PhD dissertation. Parts of this paper draw on the theoretical framework and analysis of this material already published within the dissertation and elsewhere.

hydrological risks in Bangkok more generally. This paper hence makes a contribution to recent calls for a more embodied UPE (Doshi, 2017). That is, a UPE that takes seriously the ways in which people encounter and experience urban natures and how such encounters with urban nature *feel and are felt* in both an emotional and an affective or visceral way. Importantly, an embodied UPE can further an understanding of politics, as it serves to re-think the relation between private–public, and furthermore “emotions foster and hinder the politicisation of subjectivities and actions in environmental conflicts” (González-Hidalgo and Zografos, 2020:249).

## 2 Materiality, affect, emotion: towards an embodied UPE

UPE has a long history of attending to water-related stresses in the city, exploring for example floods, water pollution, water depletion or sea-level rise (Wisner et al., 2005; Roy et al., 2013; Jabeen et al., 2010; Braun and Aßheuer, 2011). Repeatedly, it has been pointed out that it is the urban poor, in particular in the sprawling cities of the so-called Global South, who are most vulnerable to water-related stresses such as floods or water shortages (Wisner et al., 2005). Hydrological vulnerability and risks are hence linked to socio-economic and socio-cultural variables in many UPE analyses. Vulnerability, here, predominantly arises due to a lack of resources. Writing about the 2011 flood in Bangkok, Marks (2015) confirms that the urban poor were most severely affected and had endured the highest absolute losses during the disaster. The *politics* in these UPE approaches to flood risk have thus mostly been charted through aspects of (economic) power relations, state–citizen interactions, and processes of socio-economic and socio-cultural marginalisation.

Recently, however, authors have argued to embrace a more embodied perspective of urban human–nature relations and foregrounded aspects of materiality, affect and emotions to unpack the ways in which people *experience* the interaction of humans and environments in the city (González-Hidalgo and Zografos, 2020; Strüver, 2020; Doshi, 2017; Münster and Poerting, 2016; Becker and Otto, 2016). My analysis links to these calls and takes materiality, affect and emotion as key concepts to unpack the flood experiences of various Bangkokians. To do this, I draw on three distinct sets of literature. First, I engage with writings from the new materialism literature concerned with the agentic power of non-humans and affects. Second, I show such concerns link to ethnographic work conducted by social and cultural anthropologists (see also González-Hidalgo and Zografos, 2020). Finally, I draw on literature from emotional geographies research to flesh out how affect and emotion both overlap and form a messy co-existence within our everyday life.

My starting point to approach materiality, affect and emotion is, first, the new materialism literature following authors such as Braun (2006) and Braun and Whatmore (2010),

Braidotti (2011), and Bennett (2005, 2010a, b). In particular, Bennett champions a vitalist ontology for her understanding of materiality. From this perspective, materiality is both self-organising and animated (Braidotti, 2011). Bennett’s analysis of a power blackout in North America (2005) examines the flows and ruptures of electric power, concluding that to understand the blackout, one needs to appreciate the force of electricity itself alongside the political actors and economic motivations of companies and individual households. She insists that to understand the complexity of the politics of modern infrastructures and their failures is to grant materiality its own agentic force. Materiality is thus bearing the potential of change and dynamism: “the term [materiality] connotes forces and processes that exceed any one state (solid, liquid, gas), and are defined ultimately in terms of movement and processes rather than stasis” (Anderson and Wylie, 2009:326). As such, a vitalist ontology weaves together materiality, force, processes and agency within the appreciation of materiality as animated and emergent. Materiality is therefore caught up in a constant process of change and coming into being.

Second, I propose following a perspective that highlights the role of mediating affects in the ways we perceive of the agentic power of materiality. Affects are then a set of forces and flows of energy that particular bodies may detect. Affects can serve to either enhance or diminish the bodies’ capacities. Gregg and Seigworth offered a useful definition of the term:

the name we give to those forces – visceral forces beneath, alongside, or generally other than conscious knowing, vital forces insisting beyond emotion – that can serve to drive us toward movement, toward thought and extension, that can likewise suspend us (as if in neutral) across a barely registering accretion of force-relations, or that can even leave us overwhelmed by the world’s apparent intractability. (Gregg and Seigworth, 2010:1)

Importantly, affect thus names the properties that exceed conscious knowing and engages more directly with bodily experiences and the senses. Olfaction (Press and Stevens, 2000; Caleb and Hayden, 2014; Montsion and Tan, 2016), for example, has been explored in (urban) geography to better understand how the body engages with its surroundings and is affected by them. Moreover, the appreciation of affect as a mediating force between our material surroundings and humans can be found in ethnographic research. This confirms what Bennett (2005, 2010a) and others (Münster and Poerting, 2016) have repeatedly highlighted, namely that a new materialism perspective shares a similar ontology with different non-Western philosophies (see for example Zhang, 2016, for an exploration of links to Asian philosophy). Ethnographic research then demonstrates how the dynamic unfolding of material change in the local environment becomes intelligible for local communities by being affected by the al-

tering touch, sound and smell of the surrounding landscapes (e.g. Cruikshank, 2005; Brace and Geohegan, 2010; Bravo, 2009). Here, the changing forces that flow alongside or beneath us can cause a sensation of being overwhelmed, disoriented or enchanted. For example, through embodied experiences of altering ice sheets, it is the icy environment that shapes the movements and hunting routes of people and animals populating the Arctic (Bravo, 2009). Within these environments, agency is distributed and networked across various actants, be they human, vegetal, non-human animals, inorganic or spiritual. Experiences of risk and vulnerability are embedded within these affective relations. Roelvink and Zolkos (2011), moreover, attend to the fluctuating affects that circulate in the rapidly declining landscapes of Australian farmland. The affective forces of dust storms and droughts, the heat, and the scrubbing dusty wind have pushed the interviewed farmers to rethink their relationship to their local environment. Crucially, these sensations caused by the heat, dust or wind led to profound emotional responses of sorrow and anxiousness, which in turn became a source for action. This last example leads us to consider the relationship between affect and emotions.

Sarah Ahmed pointed out in an interview that the separation between terms like emotion and affect is only helpful on a conceptual or analytical level, as in real life, experiences of affect and emotions are messy, intertwined and closely connected (Ahmed and Schmitz, 2014). For the sake of clarity and to tease out “what we can do” with the two concepts of affect and emotion, I propose holding them apart for now. Geographers then have taken different routes to reach an interest in emotions. Some have argued that emotions arise in the interplay between people and spaces, emphasising the importance of including emotional responses to better understand human–nature interactions (Richter, 2015). Others have championed a feminist approach to emotional geographies to reclaim the emotional as an important aspect of everyday life and thus as a primary way in which we come to terms with encounters with nature (Sultana, 2011). Similarly to affect, emotions are not fully intrinsic to a person, but rather they emerge in relation to one’s surroundings. Sultana carefully describes the complexity of emotional responses to water stresses and charts how people are suffering for and from water. Counter-intuitive water practices, she argues, only become intelligible through close attention to the emotional burdens caused by water shortages and contaminated water. Richter (2015) has similarly argued that attending to emotions is useful “as an analytical lens to further our understanding of questions of difference” (Richter, 2015:141). In other words, emotional responses that arise from human–nature interactions differentiate people and help us shed light on the diverse ways in which people make sense of their situatedness within the world. In this particular case, it is emotions that help chart the diversity of responses to urban flooding in Bangkok. Within the empirical analysis, this somewhat schematic approach to affect, emotion and materiality is rec-

tified, following Ahmed and Schmitz (2014), who remind us that the interplay between affect, emotion and materiality is more dynamic and entwined than the short theoretical sketch so far would allow for.

### 3 Method

Recent research demonstrates the value of “thick descriptions” to attend to materiality and affects circulating within human–nature interactions in urban life (McFarlane, 2011). Ethnographic observations seem to account particularly well for sensory experiences and the power of affects (see for example Pink, 2009). Work on urban smellscape (e.g. Caleb and Hayden, 2014; Montsion and Tan, 2016), for example, focuses on the senses to illustrate what we can learn (socially, culturally and politically) by broadening our appreciation of embodied knowledge productions. Yet, as the research for this project was conducted several years after the 2011 flood, between 2015 and 2016, the paper mostly relies on semi-structured interviews. As the topic of urban flood risk and vulnerability lies at the boundary of several institutions (e.g. human rights groups, urban planning, environmental non-governmental organisations (NGOs)), a range of different experts were interviewed. Here, I draw on interviews conducted with intergovernmental organisation workers, as well as bureaucrats from the Bangkok Metropolitan Administration (BMA). I draw on a small subset out of 34 interviews here to illustrate how materiality, affect and emotion help us understand the 2011 flooding experiences in Bangkok. The paper is supplemented by research (ethnographic observations as well as interviews) conducted in an informal settlement situated along a canal (in Thai, *khlong*) in northern Bangkok. Here, the 2011 flood was particularly devastating, as many of the houses were flooded for weeks. The watermarks of the flood were still visible on the self-built houses, and through the ethnographic work here, the author was able to better understand the extent of vulnerability to flood risk due to the proximity to the canals as well as the extent of socio-economic marginalisation of the community. Moreover, I am presenting short excerpts from my field diary entries that I kept during the entire research period conducted in Bangkok between 2015 and 2016.

### 4 The 2011 flood

Bangkok is situated in the central plains of Thailand and in close proximity to the Gulf of Thailand. The Chao Phraya River bisects the city, and the region is no stranger to flooding. In fact, Thai scholars and historians have repeatedly pointed out how well adapted the people of the central plains once were to seasonal flooding during the monsoon (Terwiel, 2011). Bangkok itself used to be a city of water, crisscrossed by myriads of *khlongs* (human-made canals) and therefore dubbed the Venice of the East (O’Neil, 2008) by Europeans.

The urban architecture comprised stilted houses along the *khlongs* and floating homes and houseboats, perfectly suited for the amphibian terrain of the delta region (McGrath, 2007; Morita, 2016).

Especially the semi-colonial experience of Thailand from the 19th century led to an introduction of increasingly terrestrial and often inappropriate infrastructures within the city (Askew, 2002; Winichakul, 1994, 2000). Seeking affirmation from the *farang* (Thai for foreigners) community, Bangkok's royal elite gradually embraced Western city planning schemes and implemented the building of boulevards and grand avenues along the palace for royal display of power and parades during the 19th century (O'Neil, 2008). A young officer working at the Department of City Planning in the Bangkok Metropolitan Administration said the following in an interview to me: "a hundred years ago when the industrialisation from Europe or the US came to our country, our people changed. They didn't use boats anymore but used cars and roads instead of boats. So they changed" (Officer at Department of City Planning (BMA), personal communication, February 2016, Bangkok). The impulse to alter the way of life had consequences for the urban spatial organisation, primary modes of transport and housing in the city. The interviewee locates the impulse to change firmly within external, Western influences. Since the 1950s city planning further has exacerbated the "terrestrial turn" with increased road work and expanding the city's settlement zones. As a consequence, risks and vulnerabilities of flooding within the city which are spatially differentiated and connected to the uneven development of the city have intensified (Marks, 2015). One example for how urban planning has contributed to such socio-spatially differentiated risks is the so-called "King's Dyke" which was constructed in the 1980s. This dyke consists of elevated highways that were designed to protect the inner city from flooding yet increased the flood risk of urban communities living beyond the dyke (Blake, 2015). Bangkok's vulnerability to flooding is further enhanced by changing monsoon cycles and a higher magnitude and intensity of tropical storms in the region (Marks, 2011).

During 2011, severe tropical storms and unusual amounts of rainfall in the mountainous north of Thailand caused a long and devastating flooding event in the country (Gale and Saunders, 2013). During the second half of the year, the floods started to reach the central plains and the provinces just north of Bangkok. In late October 2011, the water breached the protective dykes and walls around the city and inundated many suburbs on the northern fringes of the sprawling capital. Many of these northern districts of the city were under water for several weeks. In fact, the devastating flood in 2011 was one of the costliest disasters to date and had widespread consequences as production chains in the automobile and computer manufacturing sector were disrupted (World Bank, 2012).

For a former student activist, who led the flood relief effort of Chulalongkorn University, the causes of the 2011

flood were diverse; contested; and entangled in wider webs of socio-political, cultural and material relations and meaning making, as the excerpt from my field diary shows.

Today I met a Chulalongkorn University graduate who had supported his universities' flood relief efforts in 2011. We discussed the reasons for the unusually heavy flood that year. He said: "Well . . . I think infrastructure had to do with it. Our flood gates are old. You know, Bangkok used to have so many *khlongs* (canals) but they are mostly gone now. So there is more flooding. And also politics caused the flood. Everyone was fighting with each other before the flood. The government had some trouble giving orders. And also . . . well many people say that it was the Goddess's doing. We angered her. So, many went to the temples during the flood to pray and make merit". (Bangkok, November 2015, research diary entry)

In the conversation, the divine anger of the goddess sits right next to the profane and ill-maintained infrastructure of the city. The successive urban transformation which turned most *khlongs* into roads furthermore speaks to both the historical and the geomorphic roots of contemporary flooding problems in the Thai capital. The waterscape of the city – where water and concrete, cultural practices, tourist attractions, economic activities, financial speculations, transportation systems, and the urban poor meet – is thus a site of contested urban–nature relations. Here, a new relationship between the urban waterscape and the inhabitants of the city emerged during the 2011 inundation.

In the following subsections, I explore how visceral experiences such as vision and olfaction that either emerged or were obscured through the urban materiality of the city triggered emotional and affective responses to the flood. Moreover, I tease out what we can learn about the politics of urban flood risk by attending to these responses and affective experiences.

## 5 Of (not) seeing the flood

As the flood approached Bangkok in October 2011, news agencies, social media and television reports focused on images of concrete dams and river embankments, posing the question whether or not these structures could hold (Cohen, 2012). As the capital prepared for the worst, sandbags were in high demand to build improvised dykes around one's home and to support official efforts to block off the water at strategic public intersections (Marks and Lebel, 2016). Throughout the flood a tense atmosphere prevailed. People attached their hopes to these improvised infrastructures, and the sandbag became a key material artefact that came to symbolise the collective as well as individual efforts of people to secure their properties.

In an interview with a German officer working for the German International Cooperation (GIZ) in Bangkok, the officer recalled how private institutions in particular such as stores or banks purchased sandbags to create “giant sandsack walls everywhere” (Interview no. 1: GIZ Officer, personal communication, November 2015, Bangkok; interview conducted in German, own translation) to protect their offices. From this interview, I also gathered how tense the weeks of the inundation were and how close the inner city came to being flooded as well: “If the water had only been up 10 cm higher, the entire MRT [Bangkok’s Metro system] would have had been submerged. The water would have run through the entire city. People got really scared then” (Interview no. 1: GIZ Officer, personal communication, November 2015, Bangkok; interview conducted in German, own translation).

Interviewees repeatedly discussed how social media was used to track the advances of the floodwater and equally shared their stories about frequent trips to the nearest *khlong* to check the intensity of the flood. In an unrecorded conversation with a Thai employee at the German Heinrich Böll Foundation, I learned how the flood made the employee go on many urban forays into her neighbourhood to explore the water level in the nearest *khlongs*. Through repeated trips, she tried to estimate when the water would eventually reach her home as well. In a similar manner, sociologist Eric Cohen noted the following in his auto-ethnography of the flood: “Ironically, afraid that we would not have a chance to see the flood, we in fact went to look at the first gushing of the floodwater into the neighbouring urban district of Bang Khen” (Cohen, 2012:323). A few days later, their home was flooded, too. Observing the water with their own eyes appeared to have been important for the interviewed people, as it gave them a sense of somehow being on top of the uncontrollable situation.

One of the particular characteristics of the 2011 flood, however, was its uncanny advance through the urban canalisation. The city’s sewage network is highly fragmented and assembled from pipes, open as well as covered *khlongs*, tunnels and ditches that led to larger *khlongs*, the Chao Phraya River, or to 1 of the 7 bigger or 12 smaller wastewater treatment plants (JICA, 2011; Marks, 2015). While politicians and news agencies warned against the possibility of breaching dams and overflowing dykes, the flood also entered houses directly through the drains of sinks and through toilets:

Even if we protect the outside of our house by blocking it, the water will still come into the washrooms and it comes through the drainage. (Interview no. 2: Officer at Department of City Planning (BMA), personal communication, February 2016, Bangkok)

In the interview, the officer continued to articulate the horror she felt when the water intruded into her home like this. She recalled how shocked and powerless she felt, as the near-

est *khlong* was far away from her home and she thought that she would be safe. For her the intrusion of the water was an emotional experience in which she felt unprotected against the flood. After she realised that the house would inevitably be flooded, she temporarily relocated and stayed with friends in the city centre, which remained dry throughout the flood. Similarly, Cohen reflects on his own surprise when the flood advanced like this: “I knew that floods can be caused by rains and overflowing rivers or canals, but not that they could come from underground – from the drains” (Cohen, 2012:321). Repeated trips to the *khlongs* to monitor and observe the progress of the flood, thus proved futile as the flood advanced below the surface and hence was impossible to be observed properly.

Whilst Bangkokians on the ground were unable to see and thus anticipate the advance of the flood, vision still mattered to those who could get off the ground during the inundation:

Back then [during the 2011 flood] I took an airplane a couple of times. And that was a really imposing view. Bangkok really appeared to be an island back then. A tiny island in an endless sea of water. You couldn’t even make out the coastline anymore. There was nothing to see anymore – just an endless field of water. (Interview no. 1: GIZ Officer, personal communication, November 2015, Bangkok; interview conducted in German, own translation)

The visceral experience of seeing the flood was thus crucial to fully appreciating the devastation of the flood and its massive extent. It is through this visual experience that a feeling of being confronted with the sheer force of the volume of the flood emerged. Scholars have long pointed out that vision can be a form of power within military operations as well as within disaster contexts (Sheller, 2012). Areal power, the power to observe from above, was a key asset that foreign aid workers possessed during the Haiti earthquake, for example (Sheller, 2012). This areal power greatly differentiated between foreign and local experiences of the disaster, affording some with a distant overview and forcing others to live through the reality of destruction and disaster on the ground. In the context of the 2011 flood in Bangkok, however, vision was an unreliable source of information, as the water advanced in unruly ways. Nevertheless, the somehow awe-inspiring vision of the flood and the sense of being able to grasp the full extent and gravity of it were reserved for people who could afford to get onto a flight during the inundation. For those who could not distance themselves from the water in such a manner and access an aerial view of it, the flood remained close and uncanny and developed a visceral presence through, for example, its intensifying bad odours. Being attentive to visceral experiences such as sight can thus further our understanding of the politics of privilege within an urban political ecology approach.

## 6 Smelling the flood

As alluded to above, the infrastructure of the city developed its own particular significance during the flood, assuming a form of agency that affected people and caused despair, surprise or anger. Through a new materialism perspective, the agentic capacity of this fragmented drainage infrastructure can hence be understood as distributed and networked between component parts (Coole, 2005).

While the sheer volume of water and the increasing pressure in the pipes caused this reversed flow, it led to a breakdown of water circulation with fatal consequences for the hygienic conditions of some inhabitants of the city: “The severe floods led to diarrheal epidemics before the water levels receded. A total of 1 157 861 cases were recorded, with 50 of them leading to diarrhoea-related deaths” (Chaturongkasumrit et al., 2013:960). Especially, (lower) middle-class town houses as well as informal settlements along the *khlongs* were hit by the reversed flows, while modern condominiums tend to have separate septic tanks that are serviced through waste collections rather than connected to the urban sewage system, as a study by the Japan International Cooperation Agency found (JICA, 2011). The agentive power of the reversed water flows during the flood was hence embedded in socio-political and socio-spatial organisation within the city.

While the Thai officer (Interview no. 2) felt powerless against the intrusion of the water through the canalisation, other people recalled how they experienced the inundation of their home and how visceral and affective forces helped them prepare for it. Eric Cohen and his Thai wife, for example, shared their sensory experience of anticipating the approaching water with me in an interview. Later, I documented their story in my research diary:

Today, I met retired sociology professor Eric Cohen and his wife in a café next to the Siam Society. We first chatted about living in Thailand as foreigners, the political situation and the challenges of postgraduate fieldwork before talking about the big flood during which the couple had decided to go on an extended holiday just before the waters reached their house in a northwestern Bangkok suburb.

While we were talking about the tense atmosphere in their neighbourhood during that time and the preparation measures they took to protect their house, I was wondering what had finally triggered their decision to leave their home. How had they known when it was time to leave? Eric’s wife could clearly recall that for her the situation reached some kind of tipping point when the stench from the gutters in their neighbourhood extended to the inside of their own home and the smell of the canalisation began to seep through the sinks, drains and toilet into their house. The odours were so bad that they finally decided to go.

The key for anticipating the advancing water, this conversation suggested, lay in being familiar with particular smells and odours in the neighbourhood and detecting their difference rather than relying on visual observations, government announcements, news articles or social media posts. Relying on olfaction within this particular situation seems to confirm that affect and emotion indeed can be regarded as a particular type of knowledge (Anderson and Smith, 2001).

The reported incident connects well with a call for a more embodied urban political ecology that draws on a new materialism paradigm to understand the visceral and affective dimensions of urban–nature relations. From this perspective, life is understood as unfolding within shared socio-material worlds. Human and non-human actants are thus embedded in and interconnected with multiple other forces (Bennett, 2010a). It reveals, moreover, that we only know a body when we know what it can do, to paraphrase Deleuze and Guattari’s (2013) take on the philosophy of Spinoza. Furthermore, anthropologist Tim Ingold has foregrounded how these bodily capacities emerge within the interface between the human body and its surroundings, “folding the outside in” (Ingold, 2007:243). Here it was the capacity of a nose to fold the “outside in” when olfaction became a key bodily capacity for anticipating the flood. The sensation of unpleasant smell in the above example was detected through a kind of permanent scanning exercise, via which the olfaction detected modulations of the surroundings. Thus, through olfaction a “brain–body–world” (Ingold, 2007:244) connection emerges, contributing to what Ingold calls the “movement of the world’s coming into being” (Ingold, 2007:244). It is only through our body being immersed in our surroundings that we develop a sense of how we and the world exist. It is to recognise our interconnection with our surroundings.

Thus, interactions between humans and the built environment exceed purely cognitive ways of knowing: “We know the world by implication, as we perceive it with our bodies. Our knowledge of our surroundings is tacit, our bodies the registering equivalent of the blind person’s stick. The world is to us as our bodies sense it” (Parr, 2001:730). Parr’s remark shows how the built environment harbours myriad vital forces surrounding our human existences that bear the power to affect us and thus can potentially move us into action. Non-cognitive, localised knowledge may thus prove substantial for anticipating and reacting to climate change, as various authors have already demonstrated for rural and indigenous communities (e.g. Brace and Geohegan, 2010).

Working on smellscape, Press and Stevenc asked the following: “What might we know about the world if we gave more importance to olfaction . . . ?” (2000:182). The above vignette implies the answer that we could learn about new ways in which bodies may be capable of perceiving, even anticipating, environmental changes, as “anticipation is dependent on capacities of bodies and of socio-technical apparatuses, distributed throughout the environments of social action” (Groves, 2017:1). While vision failed in many cases,

due to the waters' advances from below, olfaction was an important way in which bodies were affected by the flood before the inundation reached the people I talked to. As the water stagnated and lingered for weeks in some of the inundated areas, the quality of the floodwater further deteriorated with time: "We found the water in the house gradually receding but also becoming increasingly darker and dirtier, making it ever more unpleasant to walk through" (Cohen, 2012:325). The smell and deteriorating quality of the water thus combined to make the flood an emotionally distressing experience. Within the tradition of a critical urban political ecology, we can learn from such insights to appreciate the local knowledge of urban residents that know how to "read" the smells of their city and can grant visceral experiences important powers to move people.

Yet, it is important to keep in mind that the situation described above also reveals a particular position of privilege as the couple was able to *react* to their experience and move away from the intruding water to relocate to dry parts of the country. Hence, the potential to react to visceral experiences is a particular capacity that is dependent on not only local knowledge but also (financial) resources in this case. The final example complements these interviews with the embodied experiences of leaders from an informal settlement in Bangkok who lived through the flood without options of temporary relocation and with little government assistance.

## 7 Living through the flood

As a response to the 2011 flood, the Bangkok Municipality Administration (BMA) pushed for enhancing the flood resilience of the inner city by clearing informal settlements from the waterfront of the Khlong Bang Sue and Khlong Lat Prao to widen the waterways. During my research I was introduced to these communities and their struggles against the government's trespassing on their community. I have reflected on their struggles elsewhere (see Tuitjer 2018, 2020). Here, I am focusing on interview material with the community leaders Auntie Lek and community leader Jumras with whom I discussed their experiences of the 2011 flood, using the help of interpreters. Furthermore, I draw on the observations I conducted during my repeated visits to the Khlong Bang Sue community.

During the 2011 flood much of the Khlong Lat Prao and Khlong Bang Sue community was inundated for several weeks and the flood wracked havoc in this community. For several weeks the homes were inundated by about a metre. Afterwards there was a fire in the community because of the damaged electronic cables, as Auntie Lek recalled in a conversation. While the government agreed to compensate the community for some of the fire damage, the community did not get any compensation for the damage caused by the flood. Conversations with the community leader Auntie Lek revealed how distressing the flooding was. While she ex-

plained how she had always lived close to the canal and experienced floods before, the 2011 inundation was exceptionally bad. The water rose slowly and then stagnated, intruding her home for an extended period of time. Yet, she was determined to wait out the flood in the upper floor of her house rather than relocate to the governmental emergency shelters. Given the great political unrest in the year before the inundation, Auntie Lek did not feel safe to leave her house and belongings behind. What is more, she also had little trust in the government agencies who organised the shelters. During the flood, the people in the community built improvised rafts to go from one house to the next and supported each other as best as possible. While the smell was bad, people were extremely cautious not to touch the water to avoid infections. Yet, people suffered from rashes and diarrhoea during the flood. Within repeated interviews, Auntie Lek's overall scepticism and wariness of the governments' capability or willingness to support her community during the flood became clear. When I asked her whether she was disappointed with the government's support, she just shrugged her shoulders, however. My interpreter Stamp translated her reply for me as "No. Not really disappointed. Just tired of it. They [the government] never help us anyways" (Auntie Lek, January 2016, Bangkok). The flooding event thus did not trigger a strong emotional reaction in Auntie Lek; rather the minimal support from the government in the context of the flood formed a coherent picture with the routine administrative neglect experienced by the community members.

Similarly to the interviews previously presented in this paper, Auntie Lek equally recalled the increasing stench of the floodwater. However, she also readily admitted that the canal water always smells unpleasant. During my repeated visits to the community the stench of the water was frequently made a topic by her and apparently caused her much embarrassment. When she was a child, Auntie Lek explained, the canal water was used for bathing, cooking and watering plants. Furthermore, the community used the waterways for transport before the Western ideal of roads and terrestrial transport by car or motorbike caught up with this part of the city as well. Today, the canal once used for multiple purposes resembles an open sewage conduit, and fresh water must be purchased by the community. The people at the Khlong Lat Prao and Khlong Bang Sue settlement are thus constantly living with the burden of foul-smelling water running underneath their stilted homes, adding to what community leader Jumras described as a "slummy feeling" of the place. The olfactory burden of the place thus seems to enhance the day-to-day struggles of a marginalised community along Bangkok's waterways. While the more prosperous and privileged interviewees introduced in this paper clearly recalled the smell of the flood as an exceptional visceral experience, the inhabitants of the informal settlement have to live with this sensation on a day-to-day basis. Being attentive to visceral experiences can thus further enrich a political ecology approach that is interested in interrogating socio-economic differences through



**Figure 1.** Khlong Lat Prao, Huai Khwang District, Bangkok. Own image. Informal canal settlement in close proximity to middle-class residential building.

the research of lived experiences that crucially include affect, emotions and the senses.

## 8 Conclusions

The paper has attended to the socio-material forces that shaped the flooding event in Bangkok in 2011 and contributed nuanced insights about the embodied experiences of an urban flood within the delta city. Reflecting on vision and olfaction as two important ways in which the body is affected by its surroundings is hence an important way of charting the experiences of an urban flood. The body and what it can do, moreover, comprise an important object of study to gain insights into local coping strategies during times of environmental stress within rural as well as urban settings and hence deserve a place within UPE approaches. Moreover, it is through the connection between affective encounters with the materiality of the urban flood that emotions form and experiences are evaluated and eventually judged. For the GIZ officer who was primarily affected by the flood through anticipating its advance and then seeing it from high above, the inundation remained a spectacle to be remembered, potentially feared. Crucially, the detachment can be understood as a sign of privilege as the flood remained at a distance. For the Cohen couple or the Thai planning officer, who lived through the reality of having to deal with a flooded house, the smell of their pipes and drains developed an important affective force, making them relocate from their homes and triggering emotions of surprise, horror and dread. Crucially, their visceral experiences emerged from being directly affected and enveloped by the rising and then stagnating water. The multiple bodily impressions (in particular smell) speak of a greater

affectedness by the flood. Finally, as the interviews and visits at the informal settlement show, people in this community always have to live with the reality of foul-smelling water in close proximity without much of a possibility of withdrawing from this source of discomfort. Crucially, affect, visceral experiences and emotions are not only diverse and personal interactions, but also embedded within a certain urban politics, as this study has shown. Privilege during the flooding situation was not only experienced as having fewer unpleasant visceral experiences with the water, but also associated with the very potential to react to and withdraw from such experiences (e.g. by relocating to safe spaces). Yet, the community leader Auntie Lek, who continuously experiences visceral discomfort caused by the *khlongs*, expressed a sense of frustration about the flood that relates to a lifelong experience of political and social neglect of her community.

Studying visceral experiences can hence enable us to chart difference and to detect unequal social positions, which links to one of the key concerns of a UPE approach and enhances our understanding of how we make sense of, conceptualise and make visible the politics of urban–nature relations in the city. Further studies can usefully extend this work in multiple ways. For example, this paper only focused on presenting material on vision and smell, without addressing, for example, sound, taste or touch. As work on the affective politics of sound (Tuitjer, 2019) in Bangkok has attended to its power, further work could engage with altered soundscapes of cities in times of disasters.

**Data availability.** No publicly available data sets were used. The full interviews cannot be disclosed for confidentiality reasons. For more details on the research project, you can consult the PhD disser-



tation that this paper is based on at <http://etheses.dur.ac.uk/12546/> (Tuitjer, 2018).

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