Contesting Resilience
Negotiating Shared Urban Futures

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In the early 21st century, resilience has become the preferred policy constellation to address futures that are extremely uncertain but that are likely to be extreme. The Bloomberg and Rockefeller Foundations have resilient cities programming, as do the World Bank, Asia Development Bank, and dozens of other mega-organizations. Resilience plays an important role in the UN Sustainable Development Goals, which have set global development targets for more than one hundred nations through 2030, and have on-the-ground impacts that will shape lives in all corners of the planet for a generation (Sharma 2015: 592).[1] As Aditya Bahadur and others have argued, "The vision set out in the SDGs – for people, planet, prosperity and peace – will inevitably fail if shocks and stresses are not addressed [...] A focus on strengthening resilience can protect development gains and ensure people have the resources and capacities to better reduce, prevent, anticipate, absorb and adapt to a range of shocks, stresses, risks and uncertainties" (Bahadur et al. 2015: 2).[2] Some argue that resilience is simply a trendy term, one that has gained currency in a variety of sectors because it is easy to use and extremely flexible. This may be true. But resilience as a development discourse and an urban practice directly impacts the lives of hundreds of millions of the world's most vulnerable people: It is at the core of funding, development, and aid initiatives worth tens of billions of dollars. This alone – the fact that resilience does and will continue to shape lived realities across the planet – is a reason to think seriously about the concept, discourse, and practice.

1 More than 1.3 million stakeholders participated in the development of the 17 'universal principles' that make up the SDGs.

2 Resilience is acknowledged both explicitly and implicitly in a range of the proposed SDG targets. Target 1.5 represents the core resilience target, as follows: "By 2030 build the resilience of the poor and those in vulnerable situations, and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters."

Critical Claims about Resilience Practices

Resilience has been applied to a range of issues and at a variety of scales – from global financial and ecological systems to human development – but cities have become a particular object for resilience approaches (Chandler/Coaffee 2016). There are a host of reasons why this is the case. As population, commercial, religious, and political centers, cities have always served as amplifiers, and when disruptions do occur, they are felt with particular intensity in urban centers. When, for example, a natural disaster impacts a city, the sheer density of the population and built environment regularly contributes to higher mortality rates; when financial crises occur, urban centers are impacted more visibly than other areas because they concentrate financial and other capital institutions (Amin 2014: 308–9). At least since the Second World War, the vulnerability of urban systems has been noted by armed forces – military strategists, militias, terrorist groups – who have recognized that attacking cities can achieve a maximal return on investment (Coaffee et al. 2009: 4; 9-27).

Cities are extremely vulnerable to a range of disruptions, but they are also (allegedly) extremely resilient. In their seminal 2005 publication, urbanists Vale and Campanella note that between the years 1100 and 1800, only 42 cities damaged by natural disasters, military conflicts, or other causes were abandoned, and the rate of rebuilding has, again according to Vale and Campanella, risen since 1800 (Vale/Campanella 2005).[3] There are a variety of reasons why, historically, cities have not been abandoned: urban development is accompanied by property rights and enormous sunk costs, and rebuilding is typically a common agenda for diverse stakeholders and interest groups, even those who are in other instances bitterly opposed. Cities are also repositories of shared memory and civic pride, and making sure that cities are rebuilt after a disaster – or recover from different kinds of disruption – is a matter of great symbolic significance. Research by Vale and Campanella; Jon Coaffee and others suggests that 'resilience' is in the very DNA of the urban.

In recent years cities across the world are developing resilience strategies, often with assistance from well-financed foundations and other civil society actors. In 2013, for example, the Rockefeller Foundation launched the 100 Resilient Cities initiative, which would assist and guide selected cities in their efforts to develop a 'robust resilience strategy.' There are dozens of other foundations, corporations,

3 This may now be changing. In a small but growing number of cases, city and state actors are deploying a strategy known as 'managed retreat' rather than rebuilding. If this continues – and given the likely impacts of climate change, one expects that it will – this will represent a fundamental reorientation in the areas of planning, insurance, ecological and environmental preservation, as well as property ownership.

consultancies, NGOs, IGOs, and governmental agencies working at all scales to advance resilience thinking. And the urban occupies a crucial space in planning for more 'resilient futures.' Advocates of more resilient cities believe that planning can enhance the capacity of subnational actors to respond to crisis scenarios. From disaster management to community advocates, financial institutions to the builders of urban infrastructures, it appears that everyone wants to build more resilient cities.

As resilience discourses have gained in popularity, though, they have also generated opposition. Some critics argue that resilience is part of a larger neoliberal project that leverages real or perceived crises to justify policy agenda that would otherwise be unpalatable to the public and the international community (Cretney 2014; Diprose 2014; Slater 2014; Kaika 2017). Most obviously, critics are concerned about the way that resilience is used to push non-governmental solutions to challenges that have typically been the responsibility of the state. In the aftermath of Hurricane Katrina, for example, it was widely noted that politicians and media outlets praised the resilience of city residents only *after* state actors failed to contain a slow-moving catastrophe (Kaika 2017). Community activists and critics around the world argue that resilience is part of a larger neoliberal project that pushes responsibility for extreme situations onto small scale actors. Resilience is, in this view, the mask that hides the face of the shrinking state (Derrickson/MacKinnon 2013; Slater 2014).

A growing community of scholars has argued that resilience is itself a product of the crisis-driven cycle of (neoliberal) capitalism (Pelling 2003; Eraydin 2013: 19–20). As deregulation expands on a global scale, the hedges against dangerous land use practices, the protections against financial melt-down, the robustness of disaster relief agencies, the funding of international aid initiatives have all been degraded. We as a species are, ourselves, expanding the threats to which we are subject. Humans are more at risk to extreme weather events because we have changed the climate through our everyday practices; societies are more exposed to military conflict, terrorism, and ordinary violence because military grade weaponry is easily available on the market; we are more likely to see catastrophic damage due to natural disasters because population growth and, more importantly, real estate speculation has seen the continual expansion of human settlement on geologically and ecologically unsuitable lands. We are living in a world that is riskier, and it is riskier because we made it that way (ibid: 19–25). In this view, resilience is a band-aid to self-inflicted wounds (Castree 2010; Cretney 2014; Diprose 2014). The porousness of the term, its vagueness, the variety of ways that it is used – and as we shall see, it is used in more than two dozen ways (Meerow/Newell 2016: 41) – is perfectly suited to provide humanitarian and ecological window-dressing to otherwise loathsome projects. Resilience may be an increasingly ubiquitous policy framework, but it is hardly uncontested.

The disagreements cited above are, to a very large degree, ideological in nature. There are also, though, disciplinary and professional tensions that explain why resilience is a contested concept, and much of this is structured into the very nature of professional practice. Hurricane Katrina is probably the most discussed example of these kinds of structural differences, though it is hardly unique. When, for example, massive rainfalls caused flash flooding and mudslides in Vargas state, Venezuela in 1999, the damage was extraordinary.[4] Tens of thousands were killed, more than 75.000 lost their homes, food, water, and electricity supply were profoundly disrupted, the capacities of local, state, federal and non-governmental actors were stretched to the breaking point (Schieder 1957: 65; Takahashi et al. 2001: 65; Genatios/Lafuente 2003). The most vulnerable citizens – those with limited transportation, financial, physical, mental, or emotional resources – were the most dramatically impacted. Actors across the political and demographic spectrum called for immediate assistance. Newly elected president Hugo Chavez simultaneously declared martial law (mobilizing the state apparatus) and urged residents to "adopt a family" impacted by the disaster during the approaching Christmas holiday season (Long 1999). Unlike Hurricane Katrina, which occurred in a strongly neoliberal context, *La Tragedia* played out in a state-socialist one. It too, though, was defined by high levels of engagement by civil society actors. Volunteer police and fire, relief agencies like the Red Cross, and individuals travelled to the impact zone or sent financial or other aid.

Architects, designers, planners, engineers, logistics and development professionals also donated time and resources to relief and rehabilitation. These were people who, whatever their social, political, or other commitments, saw a problem, recognized its profound impact on human lives, and wanted to act. The act of intervening is, to a great extent, a personal choice, but it is also informed by a professional ethos. Practice-oriented disciplines teach that identifying a clear causal chain – of impact, effect, and solution – is the way to achieve meaningful transformations in the lives of those impacted. Simply stated, torrential rainfall was the cause of disruption, the destruction of housing and infrastructure was the effect, and rebuilding shelter and infrastructure was the needed solution. This is not to say that practice-oriented professionals were unaware of the larger socio-political, global economic or ecological factors that shaped the Vargas floods. It is simply to emphasize that their pressing professional imperative was to help people with their immediate problems, and to assist in short and medium-term rebuilding. For architects, designers, engineers, planners, logistics and development professionals,

4 Cities, peri-urban, and rural areas across Vargas were impacted, creating, sadly, many opportunities to explore differential responses to different kinds of human settlements.

the nature of the crisis, its impact, and the way forward to relief, rebuilding, and rehabilitation was more or less clear.[5]

Critical geographers, historians, and urbanists typically respond to crises like the Vargas floods rather differently. Many point out that the most affected populations are the poorest ones; that there are race, gender, and class dynamics that shape the way disasters effect individuals; that the financial and material sourcing of aid differs depending on whether the impacted city is in the global north or the global south. In cases like Vargas, they point out that, while the proximate cause of the crisis may have been rainfall, the deregulation of land-use practices, speculative development, under-resourced infrastructure, poor strategic planning, and extreme inequality were all reasons for the way that *La Tragedia* played out (Hartman/Squires 2006; Castree 2010; Fainstein 2015; Squires 2015). Hundreds of thousands of people, they rightly argue, were affected in different ways by the same event because of socio-political and political-economic unevenness that was historically and sociologically rooted. Highly urbanized and mostly poor districts built on alluvial fans formed by earlier flood events were the hardest-hit areas. In some cases, whole villages and shantytowns were swept into the sea.

In the view of critical scholars, solving the problem is not about restoring the Vargas and other regions impacted by disaster (natural or otherwise) to the way they were before. Indeed, 'the way things were before' is a central part of the problem. In this view, a resilience approach reproduces the unevenness of existing social realities and, in doing so, both justifies and further entrenches those inequalities. This example, which could be easily multiplied, shows that even when researchers and practitioners agree on broad goals – for example, rebuilding homes after a natural disaster; limiting reliance on agricultural or financial monocultures – they often disagree on the causal logics of disruption and, by extension, the necessary responses.

This is not a particularly controversial claim, and we the editors have often encountered this tension between planning, practice, and critique in academic settings that bring together researchers and practitioners. In their edited volume on resilient planning, Eraydin and Taşan-Kok argue that this tension between practice-oriented disciplines and critical urbanists is itself a product of neoliberalism. Planning, they argue, has since the 1970s "become increasingly market-oriented and entrepreneurial […]. All around the world, urban development has become

5 This can be seen in the excellent article by civil engineering experts Nakagawa Takahashi *et al.*, who discuss the uneven economic geographies of rural and urban regions in Vargas, before turning to a plan to increase "conveyance capacity" of the San Julian River. While they clearly recognize the significance of economic and spatial inequality in shaping the impacts of *La Tragedia*, the solutions – drawing in substantial part on Japanese experience with natural disaster – is essentially technocratic. (Takahashi et al. 2001: 71; 80).

increasingly fragmented […] with opportunity-led planning practices taking root everywhere in reaction to rapid and complex change" (Eraydın/Taşan-Kok 2013: 4). In their own calls for a shift towards a "resilient planning" paradigm, Eraydin and Taşan-Kok argue that architects and planners have increasingly been forced to design and plan for the short and medium term, to package and sell plans to stakeholders who are committed to market principles, and this is an important point. The question, then, is whether we can find ways to balance the short-term perspectives based on pressing needs with a longer-term view that focuses on structural and intersectional causes. In our view, disruptions to everyday life – from earthquakes to uneven access to water – must be addressed both in terms of their immediate causes and effects, as well as their longer terms drivers and desired outcomes.

This volume is motivated by a number of different but related assumptions. First, and most obviously, is that crises of various kinds do regularly happen around the world, and that the people affected by those crises should be helped. What that help should look like is, in our view, a contextual question that deserves attention that is both means and ends oriented. Second, we think that there are good reasons to disagree about what resilience means, and how it can and should be implemented. Should the focus of resilience be on long-term planning, the creation of redundancies and silent systems, as some critical scholarship suggests? Or should it aim at the most rapidly possible return to the status quo ante, as was the case with the 19th century Japanese cities detailed by Carola Hein (Hein 2005)? Essays in this volume, particularly Florian Liedtke's and Andreas Wesener's respective contributions on the 1995 Kobe and 2011 Christchurch earthquakes, delineate how both things are possible and, indeed, relatively easily so. Resilience policy and practitioners are, indeed, vulnerable to cooptation by neoliberal agendas, and this rightly concerns critics. This does not, however, change the fact that crises occur, people are affected, and those people deserve aid and attention. Christian Parenti has argued, in a slightly different context, that the work of achieving the best possible solution should not be a reason to take the difficult steps of implementing approaches that are better than the ones that are currently in place (Parenti 2013). We believe that eradicating poverty, race and gender discrimination, finding a robust role for the state, enhancing protections for the environment are all desirable long *and* short-term goals that should make up a common agenda.

There are, of course, alternatives to resilience, including those compellingly made by eco-socialists like Ian Angus, John Bellamy Foster, Ramchandra Guha, Joel Kovel and others (Guha/Martinez-Alier 1997; Kovel 2002; Dawson 2016; Foster/Angus 2016) who propose a systematic transformation of the planetary systems that undergird inequality and exploitation of humans, plants, animals, and the planet itself. These alternatives are very powerful, but they are also focused on a distant horizon. The needs of actually existing people, animals, ecosystems, and the environment also demand that we act with immediacy, and this sometimes means

implementing incremental solutions as we pursue transformational ones. In short, ideological, disciplinary, or professional disagreement should not preclude spaces of potentially life-saving action. Finally, it is also worth remembering that resilience is both a well-funded and politically compelling umbrella terminology that brings together stakeholders – vulnerable and powerful – across the world. This should not be ignored, because generating consensus among international actors at different scales is extremely challenging.

Conceptual Foundations of the Book

When we began working on this volume, we thought that we would resolve troubling ideological tensions within resilience discourse, and help to generate a framework that would make resilience both more concrete and more conceptually robust. In this sense, our initial goals fit quite comfortably within the universe of already existing work. Our goals though, have evolved as we struggled to understand the strengths and weaknesses of resilience as discourse, policy, and practice. And working with the authors in this volume, it has become clear to us that we could contribute to a conversation between researchers and practitioners not by doing more definitional or even genealogical work. There is already excellent work that lays out highly differentiated definitions, develops indicators, and proposes concrete strategies for resilience (Müller 2011; Taşan-Kok et al. 2013; Meerow/Newell 2016; Zhang/Li 2018). We think that we can add a new perspective by moving in a very different direction. Resilience is applied to different kinds of disruptions that take place in dramatically different circumstances; it is theorized and practiced in global cities, small towns, and remote villages; it is, in the best cases, changing and evolving to respond to on the ground needs and long-term goals. So why not take seriously the dynamic nature of resilience, instead of trying to constrain an unruly concept with definitions that never quite seem to fit?

The present volume brings together historical and contemporary research on cities from Kobe to Medellín, the Arctic Circle to New Zealand. Contributors include planners, architects, engineers, sociologists, historians, and development experts. The authors write about post-earthquake scenarios, post-conflict recovery, urban policy, social solidarity and informal economies, and in part because of the different objects of inquiry, the different temporal scales, and the different agenda, they use resilience in different ways. None of these individual case studies is supposed to offer a totalizing perspective. Each is supposed to highlight the fractured and context-specific nature of resilience thinking, policy, and practice. Indeed, in our view, resilience should continuously be defined and redefined in negotiations between different actors working at different scales with often diverging agendas working in anticipation of or response to different phenomena and processes. In-

ternational aid agencies, environmentalists, community rights activists, citizens rich and poor – the different actors who act in actual situations – should negotiate what they mean and want from resilience. By treating the concept's varied usages as an essential characteristic; opening its definition to different interpretations, case specificity, and everyday usages we see a way to build on the strengths of resilience as a set of practices, while also recognizing ideological risks, political failings, and policy pitfalls.

This approach draws on insights generated nearly a century ago. Linguists like Ferdinand de Saussure argued that words and their meaning are essentially contextual, and they evolve in a negotiation between the people who use those words.[6] This is precisely how we think resilience should be used in part because this kind of usage would make it possible for researchers and practitioners who work on different cases with more or less different assumptions to contribute to a common project of making resilience better at achieving desired goals like enhancing solidarity and inclusiveness, reducing environmental and ecological impacts and risks and so on. And, in our view, these negotiations must account for the other actors who are impacted by resilience policy and practice, even if they do not speak. This includes the flora and fauna, the atmosphere and biosphere as well as physical infrastructures and technological systems.

Using resilience in its contextual, vernacular, everyday sense creates space for negotiation between different sets of actors, and opens up the possibility for new common understandings to emerge. And this is essential, because 'resilient responses' and 'resilience building' should be different in different contexts. Most obviously, resilient responses can and should vary in terms of the systems being addressed: building a resilient ecosystem is, for example, different than (and potentially at odds with) creating resilient financial institutions. But the nature of the disruption is perhaps less important than the sociological, political, cultural, and ecological differences between places and across scales. It matters, for example, whether one is attempting to create resilience in small agricultural communities or in a mega-city; in coastal areas or the mountains; in rich countries or poor ones; in Nordic style social democracies or command economies; in places where the communitarian ethos is strong or society is enclaved. The chapters in this collection illustrate, among other things, how important historical logics, geographical, institutional, and contextual differences can be.

Sönke Kunkel's chapter on the socio-technology of disaster prevention and mitigation during the cold war, for example, shows how troubling and potentially authoritarian assumptions continue to freight present-day resilience strategies. He alerts us to the way that language, technology, and policy all contribute to path

6 This is not to say that de Saussure argued that individuals determine meaning, but rather to point out that meaning is negotiated in practice.

dependencies which can, nevertheless, be avoided. Another chapter by Ann Maudsley explores architecture and planning in extreme environments, and reminds us that public-private partnerships carry both risks and opportunities. This is not in itself a revelation, but looking at the way that actually built communities in the arctic circle have survived and failed tells us something far more specific than a general rejection of the P-P-P model can. Ann's case shows that partnerships with particular kinds of private partners might be particularly problematic. And unfortunately, these are precisely the partners that are so active today. Marcela Lopez writes about the formalization of car washes in present-day Medellìn, and her essay offers a different perspective on P-P-Ps, in this case showing how mutual interests can indeed generate spaces of resilience and protection. She argues that the characteristics of the private partners are extremely important for explaining how and when these can reasonably be expected to yield benefits to the community and the environment, and when these benefits are unlikely to materialize. The anthropologically and historically centered research in this volume shows that one size fits all approaches to resilience lend themselves to co-optation by powerful actors with questionable motives.

Acknowledging the usefulness of a contextual, vernacular, everyday usage of resilience would also generate a methodological flexibility that builds on some of the more desirable logics of the term itself. There is broad agreement in planning and development communities that co-creative approaches are the key to crafting effective resilience strategies – a top-down approach to disruptions of diverse kinds is demonstrably less effective than approaches that engage local actors. Critical urbanists agree with planners that local communities and a range of vulnerable stakeholders should be given a voice in the ways that their communities respond to disaster. Given this space of agreement between advocates and critics, then, it makes sense to build methodological flexibility that privileges co-creativity into the very structure of resilience approaches. The principle of co-creativity would entail a kind of ad hoc methodology which combines the merits of the global best practices approach (advocated by, for example, the RC100) with an extreme sensitivity to specific contexts, local needs and conditions, and community input.

These two perspectives appear to lead in very different directions, and indeed, in practice, they do. The first approach is anchored in globally centralized, top-down, and technocratic strategies which are (despite substantial critique) extremely important. The latter is based on local, bottom-up, and often idiosyncratic tactics that are very much in vogue in some circles. But there is no real reason that planning for, and responding to, crisis should preclude a collaborative approach which brings together these distinct bodies of strategy and tactic. Indeed, the merits of wedding a best-practices approach to one that takes local knowledge, needs, and aspirations seriously is that it overcomes the twin problems of power and parochialism that are so often a part of preparing for and responding to crisis. And

despite the widespread tendency to define, classify, codify, and measure, an ad hoc approach that uses available tools and resources – whether they come from the United Nations, a corporate or family foundation, The Red Crescent, the village council, the alderman's office, the local hardware shop, the central bank or the labor union – is what actually happens in practice anyways.

There are obvious problems with this approach. First, resilience as a global development project that is the target of massive investment needs indicators in order to assess whether certain strategies are achieving their desired goals. Second, an everyday, vernacular approach to resilience is also open to agenda capture by corporate actors. If resilience is not defined in very specific ways that apply to very particular sets of circumstances, then any kind of initiative, policy, or funding stream can be described as resilience enhancing. Third, if resilience is used by different stakeholders in different ways, resilience strategies can collide or even cancel one another out. As already mentioned, the goal of building more resilient ecosystems may be coincident with that of creating more resilient food production, but may well be at odds with the project of building more resilient financial institutions. Fourth, and in very much the same vein, an ad hoc, vernacular, everyday usage of resilience can lead to what is called mal-adaptation. Such a mal-adapted usage might seemingly promote resilience on one level, while actually serving to multiply vulnerabilities on another, which is particularly problematic if it further perpetuates already existing social and environmental inequalities (Dawson 2017).

These are all reasonable objections, but it is worth pointing out that there is a rather substantial literature that is focused on definitions, indicators, metrics, evaluation and so on. This literature is, in our view, important in hedging against those objections catalogued above. We believe that the perspectives presented here add to the richness of this existing literature, and add useful insights about a collaborative approach to resilience that is process-based and respectful of difference. The cases in this book suggest that by learning about resilience in diverse historical and contemporary cases, we can also learn how to better enact resilience as a process negotiated by a huge number of actors who are simultaneously embedded in multiple temporalities that are parts of many and sometimes competing narratives. Instead of defining resilience, we want to open it up to on-the-ground contestation that includes different actors and temporalities representing different narratives of the same phenomenon.

Concepts as Strategies: Actors, Narratives, and Temporalities

Resilience thinking has been applied to everything from human development to systems engineering, and this is one of the reasons that critics believe the terminology has become hopelessly vague. But is this actually true? Are engineers,

psychologists, international aid agencies, and ecologists really talking about such different things? We have already discussed some of the definitions of resilience, some of the differences between them, and the array of topics they address. As stated above, we are not convinced that it is necessary to seek a clear-cut definition of resilience, but in terms of clarification we would like to highlight three distinct aspects – actors, narratives, and temporalities.

Firstly, in order to identify the framing of resilience discourses, we need to have a clear understanding of the actors involved and their specific position in a constellation of actors and practices. Resilience can be focused on community building or disaster relief, it can happen at a local, regional, national or international level; the disruptions can come from a variety of more or less complicated and/or socially embedded causes. It is obvious, for example, that actors are differently affected by a military conflict, an earthquake, or an extended drought, and that responses will vary based on scale, scope, and location. Why, though, does this mean that the goal of fostering social (and ecological) formations capable of effectively responding to those shocks would be different? We believe that the first step in building a resilience that is responsive to particular cases across geographies and scales is to identify the actors who are impacted and can be impactful. When attempting to build resilience in a variety of different contexts, the first goal should be to understand who the key actors are. Who is impacted by the disruption and in what way? Is it an individual, a community, an infrastructure, an institution, a way of thinking, an ecological habitat or environmental system? When it comes to resilience, actors are incredibly diverse, but this is also true of other areas of sociological, historical, scientific, or planning inquiry. Actors are not always obvious, and are obviously not always human. Earthquakes, for example, often especially affect infrastructures and buildings. Environmental disasters often have the most devastating impact on animals.

When it comes to actors, it is also critical to identify those who intervene in resilience building. Are these community or environmental activists, international agencies, corporations, state actors? Identifying such actors and the specific configurations in which they perform makes it better possible to evaluate their shared agendas, recognizing conflicts of interest, but also to uncover power inequalities among different groups of actors as well as, the often tenuous, circumstances that can lead from good intentions to deficient outcomes and unintended consequences. The goal of identifying key actors, then, is not about defining resilience. It is about recognizing who gets to negotiate such definitions. Identifying actors is a vital element in crafting a resilience policy and practice that achieves widely agreed upon goals. So, too, are narratives because actors legitimize their intentions through the stories they tell.

On the most straightforward level, narratives are about stories – what do people say, who speaks, and why. Not surprisingly, community activists often have a

very different perspective on resilience measures than planners or governmental agents. Those directly affected by crisis obviously have a different view from those who decide about measures from a desk or computer screen. So, the first question in relation to resilience narratives should be – whose voice is heard, and how does it get articulated? Several essays in this volume, most notably those by López, Sharma, and Wesener, take up the perspective of those most immediately affected to trace how their experiences translated into concrete actions (such as car washing, food hamstring, or community gardening); and how, in turn, they were embedded in particular policy measures (like water bills, rationing cards, and gardening rules). For historians, anthropologists, and scholars of culture more generally, narrative usually plays a central role in any kind of analysis because they know that sources never speak for themselves, but that they gain meaning only through the contexts in which they are placed. As the essays in this volume indicate, the broad array of sources available (interviews, policies, maps, official and personal records, media coverage, photographs, economic surveys, laws and ordinances to name just a few) lends itself to varied interpretations of resilience discourses and their implementation in different geographical and temporal contexts, which brings us to a second crucial dimension of narrativity.

The concept of resilience is itself embedded in a narrative construction. From its etymological origins in the 1620s to its present-day use, the term resilience has been framed in numerous ways and across disciplinary contexts from philosophy to engineering, planning, and psychology all the way to ecology and the social sciences (Alexander 2013; Rogers 2016). Taken together these discourses provide a genealogical narrative about resilience and its intrinsic norms and values. As some of the essays in this book (especially Danneels et al., Kunkel, and Maudsley) document, a careful reading of sources will uncover the norms and values that undergirded many debates about resilience in the past and how they might have laid the foundation for current attitudes towards resilience, particularly in planning, engineering, and policy discourses.

Finally, there is the narrative of resilience itself that needs to be critically evaluated. As we have seen, resilience does not just serve as critical planning tool, it also functions as a powerful policy agenda. In urban contexts in particular, the notion of resilience has become highly politicized. Resilience strategies, as advocated by the 100 RC Initiative of the Rockefeller Foundation, the UN's New Urban Agenda and others, have become another driver in urban governance expansion and P-P-Ps across the globe. Resilience has become another buzzword for urban development – justifiably so in many cases – but this also entails the risk that the notion becomes part of a political greenwashing rhetoric, and hence, ineffective in debates about urban development. We know quite well what happened to the idea of sustainability, a concept that originated in 18th-century forestry and whose meaning and

political implications have shifted from ecological empowerment to a more or less empty rhetoric employed to advance political, marketing, and business interests.

Recently, there has been a notable discursive reframing of urban development efforts away from notions of sustainability towards practices of resilience. This narrative shift can be clearly traced in the literature starting in the early 2000s (Zhang/Li 2018). But this move is not just a matter of scholarly debate, it is also taking over in governmental and policy circles signifying a demonstrative shift towards an increasingly pervasive expectation of crisis. It almost appears as if a more or less permanent state of crisis has become a widely accepted norm. The question no longer appears to be *if* but rather *when* the next disaster hits. In consequence, long-range sustainability efforts are frequently giving way to more immediate, techno-fix-centered, approaches meant to enhance a city's ability to better withstand acute shocks or chronic stress. Thus, a 'narrative of resilience' rather than urban sustainability appears to be the new urban paradigm and this narrative shift needs to be critically evaluated (Sudmeier-Rieux 2014).

In general, paying more attention to narrative on all its discursive levels will broaden the chorus of voices and sharpen our critical understanding of the various practical and ideological uses of the concept. In an essay on governing urban resilience, Bruce Goldstein et al. called for a 'plurivocal narrative' to give voice to the subjective and symbolic meanings of resilience (Goldstein et al. 2015). Such a plurivocal narrative combines the descriptive and normative dimensions of resilience discourses and sheds light on the ways these discourses operate across scales - from the concrete to the abstract, from the individual to the collective, from the very local to the planetary. Moreover, the closer focus on narratives should also include a critical assessment of the various temporal levels involved.

The editors of this volume, and at least some of the contributors, are historians by training and profession, and temporality is something we think about in our work on a daily basis. But we also think temporality is something that needs to be more seriously considered in allied disciplines as they consider a range of dynamic and still evolving concepts. Resilience is a perfect example of this, and happily, our non-historian collaborators agree that temporality matters. For present purposes, temporality matters in at least three ways.

First is temporality in terms of the relationship between past, present, and future. The usefulness of history for the understanding of the present and future is generally agreed, and it is quite common for non-specialists to argue that those who do not learn from history are doomed to repeat it. As historians, we the editors think this well-known saying does not quite capture the way that history can be useful for thinking about contemporary topics like resilience. Indeed, in many of the historical chapters in this collection, we find that the past is best understood not as a tool for forecasting the future, but something that is profoundly embedded in the present. Sönke Kunkel's essay, for example, suggests that current resilience

discourses continue to be structured by the same assumptions that already riddled disaster prevention and mitigation policy during the cold war. In a different vein, Avi Sharma's chapter asks readers to think about how historical cases of survival in catastrophic circumstances shape the assumptions we make about being resilient in the wake of a crisis. We hope the present volume is able to show the persistence of the past in ways that make clear how history can actually be a resource for thinking about and understanding the present and, indeed, the future.

Second is the issue of temporal scales. The resilience literature very often deals with post-crisis scenarios, and this is as true of chapters in the present volume as it is with the literature more generally. Because of this focus on crisis and post-crisis cases, though, thinking about the practices of resilience tend to center quite strongly on short-term scenarios. There are good reasons to focus on short term temporal frames, not the least because the kinds of disruptions that elicit calls for resilience often require immediate assistance. One of the key findings of the present work is, however, that resilience building as well as post-crisis recovery happen best when systems are already in place that enhance social solidarity, educate local populations to risk, and multiply the number of stakeholders. Ash Amin calls these silent systems, and as he points out, such silent systems are typically not particularly sexy with regard to political showmanship. They also often do not align with the narrow horizons dictated by legislative periods or the 'return of investment' logic of so much contemporary urban design.[7] The chapters in the present work suggest that, if resilience is to avoid capture by some of the neoliberalizing tendencies of contemporary political practice (deregulation, privatization, branding, green-washing etc.), the concept needs to become a planning and preparedness instrument for everyday life, and not just post-crisis recovery.

A third aspect directly related to the notion of temporal scales concerns the timeframes in which we think about urban resilience. As Florian Liedtke points out in his chapter on the 1995 Kobe earthquake, different recovery phases following an acute crisis are marked by different notions of temporariness. He focusses particularly on ways that the immediate need for emergency shelters was soon replaced by a need for more durable, yet still temporary, housing during the restoration phase, which itself took many years. The example of postwar Berlin discussed by Avi Sharma also underscores the different kinds of temporary housing arrangements that were intended for short-term shelter but frequently became semi-permanent living arrangements for people who had lost their homes. Resilience measures that are insensitive to questions of temporality has the potential to create a 'permanent temporariness' that leaves particularly vulnerable populations in a prolonged state

7 It should be noted, of course, that this focus on the short-term time scales, what Eraydin et al. describe as neoliberal planning, is often an imperative despite the aspirations and professional better judgement of planners, architects, policy makers, and designers.

of uncertainty and exposure. In a similar vein, resilience discourses that remain indifferent to questions of temporal duration might misjudge the impact of recovery measures on affected urban populations and environments.

Finally, if resilience discourses are tied to debates about sustainability and climate change, questions of duration need to be posed with a long-term view to the future. In other words, if as the New Urban Agenda's SDG 11 claims, resilient cities are to be sustainable, then resilience thinking needs to span decades maybe even centuries. This might entail very difficult but fundamental questions regarding urban settlements, e.g., if simple 'bounce-back' policies of rebuilding housing in low lying areas is advisable or if resettlement might generate a more 'bounce forward' approach in an age of rising sea levels (Parenti 2017). Such thinking would require vision and it might prove quite unpopular in terms of voting cycle politics, but it appears to be necessary with a view towards a more temporality-resilient future.

We hope that focusing on these multiple frames – actors, narratives, and temporalities – brings into focus precisely this question of process, negotiation, and contestation that is too often hidden away in resilience discourses. It needs to be clear that what qualifies as a resilience-building agenda for one set of actors is often rejected by others; that short, medium, and long-term perspectives can illuminate different logics of disruption and recovery, and that these must all be negotiated in politically open, context specific ways. Many scholars, including the authors who contributed to the present volume, employ the concept of resilience not because they all agree that it is the best possible way to address disaster relief, achieve social mobility and integration, create more inclusive and less environmentally harmful cities. The contributors to this volume realize that resilience discourse will, for better or worse, shape the lives of millions of vulnerable people for years to come. Taken together, the goal of the chapters in this volume is to offer other, and potentially more dynamic ways, of thinking about a challenging concept.

The Chapters

The volume is separated into two sections. The first explores the ecologies of resilience. We use the term ecologies to signal our focus both on an environmentally-sensitive approach to questions of resilience as well as a more socially-oriented understanding of resilience as a constellation of lifeworld circumstances that include food provision and housing. The papers in this section demonstrate how architects and planners engaged ecological knowledge to understand, design, and rebuild cities in light of extreme physical circumstances. Each in its own way also illustrates how green (or "white") spaces played a crucial role in the (re)configuration of cities following severe crises.

The first chapter, co-written by Koenraad Danneels, Greet De Block, and Bruno Notteboom, examines the influence of Belgian natural scientists and urban designers in creating a socio-environmental perspective on urban resilience. The first part of the chapter looks at the idea of the 'sociobiological city,' which was developed by landscape architect Louis Van der Swaelmen as a response to the destructions of the First World War. The second part of the essay explores the concept of the city as an ecosystem, which ecologist Paul Duvigneaud developed in response to the environmental crisis of the 1970s. This historical analysis draws attention to the use of crisis, the idea of equilibrium and the (contested) sociopolitical motives and forces in resilient urbanism as it developed in 20th-century Belgium. These two scientific approaches also offer critical insights into the new concept of resilience, highlighting ways that power and inequality are embedded in socio-biological metaphors, and asking how these metaphors continue to be used in current debates about resilience.

Ann Maudsley's chapter then looks at Ralph Erskine, a British-Swedish architect who designed "ideal towns" for the Arctic in the 1950s and 60s. As Maudsley documents, Erskine set out to create a new regionalism conditioned by northern culture and climate. He aimed to create more climatically-suited, inclusive, well-serviced resilient communities rich with amenities and varied activities. Erksine became internationally known as an 'Arctic architect' and was employed to design several new communities north of the Arctic Circle in the succeeding decades. This chapter focuses on two Erskine projects in Sweden, one in Kiruna and the other in the nearby town Svappavaara. By examining design and architecture, planning, development and outcomes in each location, this chapter is an effort to better understand what resilience and survival mean in extreme geoclimatic and socio-cultural contexts. Finally, it asks whether urban design and planning in the Arctic circle can offer insights into the work of building more resilient cities in other ecological and environmental conditions.

In his contribution, architecture and urban design scholar Andreas Wesener examines the role of urban gardens for strengthening urban resilience in times of crisis. His chapter begins with a discussion of systems-based approaches to resilience, before turning to the specific example of urban community gardening as a special crisis response following the Canterbury and Christchurch earthquakes of 2010/11. Through a close interpretation of a range of interviews with urban gardeners, Wesener shows how gardens have helped communities recover from social, emotional, and other effects of this natural disaster. His chapter highlights the direct impact of urban ecologies on recovery practices and hence underscores the necessity of including community gardens in urban resilience strategies.

Avi Sharma's chapter turns to postwar Berlin to examine how the governmentalities and everyday experiences of survival might offer us insights into the logics of our contemporary discourses about resilience. From the destruction of physical

infrastructures to the large-scale arrival of refugees and DPs, postwar Berlin was a site of extreme social dislocation. Focusing on shelter and food in Berlin between 1945 and 1950, this essay explores what it means to survive in the context of intersectional crises that cascaded across numerous scales. Sharma documents how the close interconnections between individual fates and collective circumstances, between private inhabitants and governmental/occupational agencies made survival possible. Through this specific case study, Sharma demonstrates, among other things, how historical examples might be productively used to elucidate current-day challenges.

The second section shifts our attention towards infrastructures of resilience. Bringing together scholars working in a wide range of fields, including history, architecture, planning and science and technology studies, this section questions the impact of institutional and material infrastructures in the supply and maintenance of urban resilience networks. The individual chapters examine how different actors including international agencies, local governments, commercial enterprises, and urban inhabitants have collectively contributed – in some cases, inadvertently - to the creation of structured networks aimed to enhance the resilience of their respective communities or cities. For all their disciplinary differences, the contributions in this section maintain that resilience can generate tools and resources to deal with crisis scenarios, but they also warn that the concept can easily be coopted by powerful financial and institutional interests.

Sönke Kunkel's chapter scrutinizes the way that changing ideas about environmental risk in the 1960s caused the international development community to develop new policies that focused on disaster mitigation and prevention projects. Those policies included, among other things, funding transnational scientific research projects on urban earthquake hazard reduction, the establishment of various earthquake centers, and the creation of building codes and seismic risk mapping. As he demonstrates, while those approaches promoted a new transnational discourse on urban disaster mitigation, they also quickly ran into problems on the ground, not least since they paid little attention to the social dynamics of rapid urbanization, instead treating environmental dangers in purely techno-scientific challenges. Using the examples of major earthquakes in Morocco and Chile in the 1960s, this paper argues that a more critical understanding of historical discourses about resilience policies can enhance our awareness of the potential pitfalls and blinders in global urban development debates centered on techno-fixes and standardized international policies. He also sharpens our understanding of how institutional infrastructures like the UN have contributed to a a universalizing approach towards resilience strategies.

Discourses of resilience often focus on the everyday capacities of the urban poor to overcome threats posed by extreme socio-natural events. In 2013, the Colombian city of Medellín was labeled as one of the most resilient cities in the world due to

its residents' capacity to withstand violence and criminality as well as floods and landslides. The chapter by Marcela López provides a critical lens on what a resilient city entails by looking at the question of water supply in Medellín. She describes how the city's water utility company made efforts to protect the urban poor from adversity in order to secure revenues. Facing enormous challenges to control illegal water connections, the company has deployed different strategies in which ideas about water scarcity, human rights, and civil society converge to facilitate, among other things, the formalization of the illegal carwash sector. This chapter shows that the resilience of the informal carwash – ubiquitous in Colombian cities like Medellín – should not just be understood in relation to claims about power on the state and other institutional levels, rather than just on everyday survival strategies within an informal economy. Hence, this chapter sheds light on the multi-directional power relations and resilience strategies built around urban infrastructures like water supply.

Florian Liedtke's chapter discusses the aftermath of the 1995 Kobe earthquake that caused massive destruction throughout the city. As Liedtke documents, parks and open spaces became central recovery areas. Not only did people move to open spaces to escape their destroyed homes, they also sought shelter in parks during the first days of emergency recovery. As emergency recovery shifted to restoration, parks and open spaces served as temporary housing areas where people could live until their own houses were rebuilt. For many, however, these temporary shelters turned into semi-permanent homes because in some instances rebuilding efforts took longer than anticipated. In addition to housing, parks and open spaces were also used for the storage of debris. Liedtke argues that both spaces provided vital areas for urban recovery measures, and that they should be an integral part of urban resilience strategies. Moreover, he makes a plea for a more multi-functional planning that incorporates urban green and open spaces as infrastructures of recreation as well as central sites of emergency and recovery planning. In that sense he insists that resilient cities require multifunctional planning for the very different living situations and needs that might arise, especially in earthquake prone areas.

Diego Silva Ardila's contribution brings us back to Latin America, exploring transportation infrastructures in four different cities. Mexico City, Bogotá, Medellín, and Buenos Aires. He is particularly interested in the different mobility solutions that evolved "organically" to fill gaps in public and private transportation services. His examples range from Buenos Aires' *Remis* system, to Mexico City's Bus Rapid Transit, the *Transmillenio* in Bogotá and aerial cable cars in Medellín. Silva Ardila is not interested in judging these various interventions from an ideological perspective, but simply demonstrating how different solutions – bottom-up; top-down; private sector driven; public sector financed – differently stabilized dysfunctional transportation infrastructures. He argues that this should be understood not

in terms of the formal/informal dichotomy that is now widely used in urban resiliency literature, not least in essays in the present volume. Instead, he insists that in many Latin American cities, the symbiotic relationship between formal and informal, elite and precarious actors is so deeply embedded in the urban fabric that it does not make sense to disentangle. Consequently, he proposes a new framework – urban dualism – to understand these entanglements. It is worth exploring whether this analytic applies equally to other global cases or, as he suggests, is particular to the Latin American city.

Timothy Moss' epilogue brings us back to the immediate concerns of our present time and the multiple crises we are facing right now. He uses this to ponder where the concept of resilience has taken us; how it has lent renewed purpose to planning, architecture, and civil engineering; and where it has left gaps in our understanding of the world, particularly when it comes to cities. Taking up the arguments of some of the book chapters, he recaps the need to study resilience in light of geographical and historical specificities as well as with a critical perspective on the politics inherent in urban resilience discourses. In closing he offers four programmatic points to advance resilience research beyond presentism, eventism, essentialism, and disciplining. With that he reminds us that much remains to be done in the field of resilience scholarship.

At the outset we stated that one important reason to study resilience is that it is – whether or not one likes it – a development approach that directly impacts millions of lives in our own world, and in our mid-term future. But there is another reason. When Vale and Campanella wrote in 2005, they made a major point about the fact that, throughout history, destroyed cities are – in the vast majority of cases – rebuilt. Vale and Campanella signaled the assumption that, at least when it comes to the urban, resilience is about recovering and rebuilding. Something has changed in the last 15 years, and this makes it a good time to think resilience anew. A recent study in *Science* suggested that the best response to disaster might be to move rather than rebuild, no longer to fight against but to work with nature (Siders/Hino/Mach 2019). Now may not be the time to redefine resilience, but it certainly is time to rethink it.

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