PART 3

Architectural practices to address the climate emergency

Justice, interdisciplinarity, co-design and decolonisation

Part 3 of the book focuses on architectural thinking in practice. As in the previous two parts of the book, value changes, rethinking the status quo (of how things are versus what they could be) and different ways of working are highlighted.

Interdisciplinary working has been elevated in Chapter 11 by Cara Mulholland, Jenny Hughes and Flora Samuel. They set out the need for a framework for mapping of social value to be co-created with communities, also referred to as 'active' mapping datasets.

The chapter opens by highlighting – as in other chapters – that climate change cannot be addressed 'without revealing and tackling the inequalities within society and where they are happening' (p. 194) and why therefore any research, actions and discussions around climate change must take place at the local level. The chapter focuses on social value mapping and how social value can feed into formal planning processes. To do so, the authors argue that any 'active datasets' must be combined with 'passive datasets' (i.e., the combination of the 'active' citizen-co-created data with passive national socio-economic, environmental data etc.).

Key to this happening is new ways of working and collaborating: not only to collect local active data with citizens and communities, overlaying with other data and interpreting together with other expert stakeholders. The authors highlight that an obstacle to effective climate adaptation planning is the compartmentalisation at an even larger scale than that described in Chapter 4, where in England, for example, agriculture and urban planning are separate policy jurisdictions, yet agricultural land management affects flood events in urban areas (e.g., where flood waters run own the fields and overwhelm urban infrastructures lower down the hill). Data is often also collected according to local administrative boundaries, but climate risks do not change or stop at these boundaries, and this creates a lack of coordinated action; this will be returned to in Chapter 14 where Maria Vidali discusses a community of local farmers working together to make best use of the resources in the given climate and with the land's constraints.

Key questions of inclusivity and democratic process are also raised in this chapter, similarly to other chapters elsewhere: how can more voices be heard and underrepresented groups be included in the planning process, which needs to be democratised to

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capture and target local and small-scale climate interventions. This also includes issues such as how data is collected, its affordability and ease of access and understanding the data. Without this, action for climate change will disproportionately affect left-behind communities if it is not known where to best allocate scarce resources for climate adaptation planning and other actions.

This requires different professionals working together, and becoming guardians of both hyperlocal 'active' data and 'passive' data but also built environment professionals getting involved in active data collection with communities and with other large-scale passive data sets to ensure they can be mapped back to spatial aspects and that they can be used for evidence-based decision making in climate mitigation action.

The use of social value maps, which build on community knowledge and experience can include information about deprivation, health, security, location of services, general wellbeing, etc., and together with scenario mapping can highlight and illustrate the impact of different transformation and adaptation actions. In Chapter 15, Renata Tyszczuk illustrates the value of scenarios beyond forecasting in more detail.

In Chapter 12, McAleer-Harding, Abbott, Kiddle and Pedersen Zari extend the argument for hyper-locality to Aotearoa (New Zealand), emphasising the uneven distribution of disasters and the vulnerability of social and physical systems that support societal functioning. As highlighted in previous chapters in this book, marginalised communities are particularly vulnerable to the impacts of climate change and disasters, including pandemics, earthquakes, floods, cyclones, storms etc.

Due to the unpredictability of disasters, some disaster response management strategies have shifted from focusing on controlling disasters to managing their impacts by developing community resilience. This approach prioritises improving pre-disaster resilience to reduce recovery time after disasters. It aligns with the concept of adaptive capacity, emphasising a society's or community's ability to adapt to change rather than relying solely on post-disaster responses. However, the authors highlight that definitions of resilience and corresponding responses are often top-down and centred on individual persons or buildings. This neglects the social and cultural values that form the social fabric of communities, which are crucial for post-disaster resilience. As a result, resilience strategies often miss opportunities to truly benefit the communities they aim to serve. To address this, the authors call for greater inclusion of communities to understand their knowledge, identities, needs and ideas.

Specifically, this chapter tackles the issue of colonisation and how this has affected the resilience of some communities, especially Māori (Indigenous peoples of Aotearoa). This poses challenges for architecture to ensure that physical resilience structures are designed and created *with* and *for* the benefit of the communities they are intended to serve, rather than perpetuating colonial paradigms. As in Chapter 11, the co-design of resiliency strategies with local communities is emphasised, alongside embedding appropriate cultural practices. This approach ensures Māori communities and their knowledges are authentically represented rather than reinforcing dominant *Pākehā* (New Zealand people of European descent) worldviews. When working with such an approach it is crucial that 'causes, consequences, and ways to address disasters must be informed by an analysis of power and intersectional identities, and understandings of who benefits from, pays for, and must live with impacts' (p. 214).

The authors emphasise that technology-driven solutions may make it more difficult to create community-focused approaches. This is a particularly important issue for Indigenous communities as they are typically more vulnerable to the impact of disasters and are often exposed to (or forced into) situations of increased risk, further perpetuating and exacerbating inequalities and impacts of colonisation. Colonisation is an ongoing process where societal and political structures deny Indigenous peoples' rights and erase their perspectives, identities and knowledges in favour of the majority's worldview and structures and systems that uphold this. The authors highlight that this challenge is further exacerbated by the architecture profession, which predominantly represents the majority worldview and is largely non-Māori.

The authors acknowledge their own positionality, recognising that the work we do as researchers in the built environment affects and is driven by our and others' worldview, and can perpetuate or reduce climate and social injustices. The chapter highlights our interconnectedness, asserting that diminishing the rights of any group of people in society, undermines the well-being and resiliency of the entire community. The authors argue that resilient architecture is 'more than just the design of a strong physical structure' (p. 223), and go on to powerfully argue that decolonised pathways can foster greater social resilience and inclusivity for all Indigenous peoples and vulnerable communities, ultimately enhancing the resilience of the built environment.

The authors propose a framework, *The Ethics of Restoration*, to be adopted within built environment discourse. This framework aims to create space for Māori people to '"Indigenise" the built environment on their own terms and from own worldview' (p. 219). It calls for non-Māori architects to step back, actively remove barriers for Māori to enter the profession, and work to eradicate power imbalances and colonial practices. The coming together of two knowledge bases that are valued equally, involves 'decolonisation co-design' processes where the design team and community build relationships, from the very beginning before any design propositions are made. To facilitate this, the authors propose a *Decolonisation Toolbox* for architects. The first is the creation of a 'third space', a shared platform where Indigenous and non-Indigenous stakeholders can engage in respectful conversations and reimagine architectural practices in ways that align more closely with Indigenous worldviews.

Faith Ng'eno Chelang'at's chapter 'Situating the concept of sustainable design in Africa' (Chapter 13) further delves into issues of colonial and ongoing international influences in the imposition of knowledge and standardisation imposed of sustainable design in the Global south. Particularly the author highlights the enduring legacy of colonial practices in Africa (Kenya in this case), where regulations, standards and theories are applied (and imposed) from Western countries or are influenced by them, instead of concepts of sustainability coming from local cultural practices and being constructed locally. The author asks, 'sustainable for whom?' and explores why and how this international influence continues to repress local knowledge and concepts of sustainability in Africa. Chelang'a also raises that the continent of Africa has hardly contributed to global CO_2 emissions compared to the global north, yet Africa can significantly shape the climate crises given that it is engaged in new building activity and how sustainably it does so will affect the future course of global emissions and ecological impacts. As the author puts it: 'In the case of sustainability, knowledge is largely constructed in terms of CO_2 emissions,

global warming, and climate change, which is grounded in Western science and thus proposed solutions, prioritise adapting wealthy, culturally rich Western lifestyles, without endangering that wealth. In doing so, other contexts, especially African contexts, are deemed irrelevant and often excluded.' (see p. 229).

But, as the author argues, these international approaches and solutions do not respond to the local challenges and priorities, and a tension exists between local understanding and approaches versus pursuing legitimacy from the west which has set the standards and makes claim as global gatekeeper of knowledge and solutions and educational systems.

As Chelang'a writes, this reliance and monopolisation of the west's foreign knowledge and solutions that are considered aspirational cripples local innovation, colonises Indigenous imagination, creating barriers to meaningful local contributions when entrapped in foreign, universalist knowledge presented as the only form of valid knowledge.

This also links to capitalism and the exploitation of people and planet for profit as discussed in other chapters; but here the author raises the issue of the commodification of sustainability knowledge, embedded in Western technological solutions and rating systems and certifications that come at a premium price point.

Instead, the author argues for situated knowledge that is context specific rather than being a universalist construction of (Western) knowledge. Self-determination is crucial in this, as also argued in the previous and subsequent chapters, where local people hold the power to define solutions, what knowledge is, how to assess and certify it, and also to define what problems need solving in the first place. This will require deconstructing and reconstructing knowledge, recognition of colonial history and power structures and interests, and how knowledge was shaped (imposed) through the dialogue between local stakeholders. This should lead to a reconstruction of concepts of sustainable design, highlighting the need for a plurality of contextual responses based on physical and socio-political differences. Without this local, situated framing and solving of problems, a sustainable world is simply out of reach.

Maria Vidali also highlights that this holds true in the West itself and in Chapter 14 discusses 'Boundaries and bonds in a boundless world: the relationship of place and community to landscape' and illustrates the power of local narratives to understand local issues and highlights the social and ethical role architecture plays within this.

Maria Vidali describes the case study of Kampos, a village on Tinos, a Cycladic island in the Aegean Sea that was occupied by the Venetians (1390–1715 AC) to defend against the Ottoman Empire. The island's rocky terrain was terraced for farmland and it also defined boundaries set out in contracts. The way farmland was measured had to change when Greece joined the European Union (from the time it took two oxen to plough and the crops and trees that had been planted to measuring land in meters).

The author uses fictional narratives based on villager's metaphors of their stories, spaces, life with each other and animals, and illustrates how this way of working 'reveals the complexity of life with nature and its changes' (p. 244) and questions how we as architects often do not allow room for people's stories and local cultures before we shape space. Instead, indigenous people usually have a close understanding and awareness of their landscape, its environment, the seasonal and climatic changes happening to it, the needs for it, the sharing and exchanging of resources with others (water, machinery, land, knowledge, farming products), and giving it meaning. The use of new technologies and imposed solutions by others may take this away, disconnecting from environmental

and human reality. Instead, the author argues that the use of local narratives can aid architects to connect to the everyday reality, rather than architects – as is typically the case – creating abstract and stylistic interventions that are removed from their context. As Vidali concludes: 'This can lead to interpretations in architecture and design that are more intimate and connected to human living, closer to the actual complexity of life and the environment, to an awareness of seasonal changes, and to an understanding of the climate emergency as something that we all face and care to respond to' (see p. 257).

This leads to the final chapter of this book, in which Renata Tyszczuk uses scenarios as part of 'An architecture of paying attention: scenarios for rehearsing climate futures otherwise'. Tyszczuk uses scenarios as a mode of rehearsal – 'for improvising climate futures that are uncertain and unknowable' (p. 263) in the here and now. The chapter starts by reiterating the urgent issues at stake framed through the Anthropocene and the injustices associated with the uneven distribution of impacts, including that for future generations. The chapter also cautions that any international agreements to contain climate change, environmental pollution and ecosystem degradation have been based on best-case scenarios. Instead an 'architecture of paying attention' is about 'rehearsing the future by attending to the present' and asks six questions, along which the chapter is also structured: what if, what now, what works, what matters, what for, what next?

In architecture, the author argues that scenarios, instead of being tools to forecast and predict, can be used by architects as a potential way to enable collective improvisation based on paying attention by all those taking part at times of uncertainty to improve the future (i.e. rehearsing climate futures) rather than aiming to 'capture the climatic future in advance, or "stop the future happening"' (p. 263). As other chapters also highlighted, architecture is a social activity, i.e., working (rehearsing, improvising) together in democratic conversations to work out what to do next, collectively and with curiosity, allowing space for unexpected and contradictory perspectives and configurations. The rehearsal of future climate scenarios also is a rehearsal of the skills needed and working out connections and roles of and between people, systems, species infrastructures, etc. As the author writes, it is 'about testing how a more improvised and speculative undertaking might challenge preconceptions, accommodate differences, and at the same time respond to widely diverging experiences of climate change' (see p. 264).

An architecture of paying attention ultimately also means an architecture of care, i.e., all that is undertaken to maintain, continue, and repair where all are concerned with caring for others and the world. This is a messy process – as also iterate in other chapters – as it is a moving away from 'the way things are' to 'how they could be otherwise'. To conclude with the author's own words: it 'attends to climate futures, as a collective endeavour, as a matter of urgency, in trial and error, by taking the time it takes, and not giving up. It is a provisional practice agile enough to cope with the unruly temporalities of climatic disruptions, and does so with care and humility' and 'It is a matter of paying attention to the future in the present' (p. 268).