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Published in:
ServDes 2023

DOI (link to publication from Publisher):
10.3384/ecp203059

Publication date:
2023

Document Version
Publisher's PDF, also known as Version of record

Expanding long-term thinking through life-centred design

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Abstract

In this exploratory paper, we draw from a series of participatory design experiments to reflect on the impact of life-centred design approaches on long-term thinking. We conceptualise long-term thinking according to three components: 1) Thinking through diverse perspectives, 2) enhancing futures imagination, and 3) challenging anticipatory assumptions. Long-term thinking is increasingly recognised as invaluable in urban regeneration projects, however, to date, knowledge on how to nurture long-term thinking remains sparse.

Keywords: long-term thinking, life-centred design, futures, urban regeneration

The lack of long-term thinking in urban regeneration projects

Urban regeneration projects are renewal projects that generally span across long periods of time (e.g. 5 to 30 years) and aim at transforming specific areas or entire cities by addressing issues such as growth, health, or the impact of climate change (Lehmann, 2019). Within these processes, change tends to unfold through the interplay of multiple stakeholders and the varying city contexts in which they operate. In these complex ecosystems, the future is always ‘in the making’, which creates the opportunity to discuss how things *could* be (Dunne and Raby 2013). However, common limitations that prevent leveraging the full potential of urban regeneration include 1) a tendency to strive for short-term payoffs (Bishop & Williams, 2012) rather than positive long-term change, and 2) a primarily human-centred focus that undermines multi-species justice and the insight that human existence is entangled with the lives of other entities (Haraway, 2007).

Our research aims at exploring this issue through the lens of a number of design experiments carried out in Denmark in the past 19 months. In particular, we run a number of co-creation workshops, in which we examined how a life-centred approach to design would stretch participants' minds beyond the human, counteract their default tendency towards short-termism and anchor their imaginative processes to longer time horizons. This paper zooms in into one of these workshops and proposes some preliminary considerations.

Background

Long-term thinking

Though long-term thinking is seen as valuable in urban regeneration projects (Lehmann, 2019), it remains underexplored how it can be nurtured. Examining how literature conceptualises long-term thinking, we can identify three distinct, but interrelated, components: 1) Thinking through diverse perspectives, 2) enhancing futures imagination, and 3) challenging anticipatory assumptions. In the following, we will briefly summarise the qualities of these three components.

1) Thinking through diverse perspectives: For decades, engagements with futures have mostly been performed by 'experts' – futurists, professionals from academia or from large businesses – in so-called 'foresight' processes (van der Duin, 2016). Methods, such as Delphi, were developed to involve experts and their perspectives within diverse problem areas to support prediction and decision-making (ibid). Whilst experts are invaluable, they are not the only actors who are relevant to be represented in speculations and decisions concerning the long-term. Today, there is widespread agreement that more collective intelligence and cognitive diversity are needed to address the many complex challenges we face, to ensure that the decisions taken are just, and to challenge assumptions about the future (Nikolova, 2014). While it is still mostly humans who are allowed to participate, recent discourses concerning the shaping of the long-term emphasise the importance of multi-species justice and thus the need to give voice to other species such as animals, trees, or future generations (Tomitsch et al., 2021).

2) Enhancing futures imagination: The ambition to transform existing situations into preferred ones (Simon, 1969) is at the core of urban regeneration projects. To

maximise the transformative potential, there is a need to envision futures that are radically different from the present and that can inspire and motivate us to change (Dunne & Raby, 2013). Expanding the spectrum of ideas about potential futures requires rich imagination (Ache, 2019). Imagination is performative in the sense that it can shape present decisions and support self-fulfilling prophecies (Dunn & Cureton, 2020). Despite its crucial role, various scholars stress that we are facing a 'crisis of the imagination', caused by e.g. our unchallenged default, routinary modes of thinking (Mulgan, 2020).

3) Challenging anticipatory assumptions: Anticipatory assumptions are beliefs about how the world is and how it could be. They are closely linked to our ingrained ways of seeing the world – our worldviews – and enable or prevent people to invent imaginary futures (Miller & Sandford, 2018). Holding a limited set of unquestioned assumptions risks being vulnerable to blind spots, seeing only a narrow scope of possibilities, and reducing one's ability to imagine alternatives (Ramos et al., 2019). Therefore, challenging our anticipatory assumptions is crucial to reveal previously unseen options that can broaden our perspectives, enrich what we perceive as possible and preferable, and lead towards an active and positive 'worldmaking' (Schön, 1987) or rather, a city making.

Life-centred design

Nowadays, there is a strong focus on 'human centred' design (Giacomin, 2014), i.e., approaches that emphasise human needs in the present and near future. In recent years, following the 'realisation that the environmental crisis is a design crisis' (Escobar, 2018, p. 44), the design community has begun to question this narrow focus on humans to strive towards more sustainable futures. Criticisms gave rise to a post-anthropocentric design paradigm termed 'life-centred design' that advocates for pluralistic and relational approaches, i.e. approaches that design for all life not just human life, that recognize all species as entangled, and that foster just and diverse ways of being (Borthwick et al., 2022).

While previous work has explored, albeit to varying degrees, the role that design can play in supporting long-term thinking, more specifically in 1) considering multiple perspectives (McKercher, 2020), 2) enhancing futures imagination (Dunne & Raby, 2013), and 3) challenging anticipatory assumptions (Miller, 2018), the impact of a life-centred design approach, particularly in the context of urban regeneration, remains understudied. This paper addresses this gap and asks: *How can a life-centred design approach support long term thinking?*

Research methods

This paper is informed by a series of participatory design experiments (Bang & Eriksen, 2014) that took the form of participatory workshops that the authors facilitated, documented, and reflected upon within the course of 19 months. Experiments play a central role in conducting research-through-design, in theory building, and in knowledge generation. Within design experiments, design is used, both, to frame and address problems, and to reflect upon specific aspects of design (e.g., tools and methods) (ibid.). For us, the experiments were an occasion to explore the specific aspects of a life-centred design approach on long-term thinking in the context of urban regeneration. While relying on the broader empirical material generated in these 19 months, this paper primarily reflects on one of the workshops that happened in September 2022. The event took place as part of a community festival in a middle-class neighbourhood in the North of Copenhagen, Denmark. The one-day workshop engaged participants in the age of 6–60 and was mostly geared towards families with children that participated spontaneously.

On their arrival, the participants (n = 20) encountered a broad selection of materials, including materials that can be associated with a life-centred approach e.g., leaves, tree branches, soil, sand, stones, and flowers (Figure 1). A large paper sheet marked the ‘canvas’ on which ‘The City of our Dreams’ was to be built (Figure 2). The workshop was geared towards co-imagining a *desirable* future for all kinds of species in 50 years time. To direct participants towards this mindset, they were asked to pick an ‘actor card’ (Figure 3) that invited them to imagine a desirable future from that actor’s perspective (e.g., birds, bees, trees, artificial intelligence, a blind person, a person using a wheelchair, a sailor, one's grandchild). Thereupon, participants were asked to individually build an artefact from that future. This artefact was supposed to give insights into what exactly makes the future so desirable. Thereafter, they placed their artefact on the canvas wherever it made sense for them. Little by little, the ‘city' emerged.

The facilitators observed the participants, conducted semi-structured interviews, and invited them to fill-out a questionnaire (Trochim et al., 2016) to get insights into their thinking and crafting process. The questionnaires were also geared towards understanding whether and how the participants believed that the design methods used in the workshop helped them to think long-term. To reduce single-observation biases, the empirical material was iteratively analysed through the three components that constitute long-term thinking: (1) Thinking through diverse perspectives, (2) enhancing future imagination and (3) challenging anticipatory assumptions.

Figure 1. The crafting materials

Figure 2. The workshop setup

Figure 3. The actor cards

Findings

Thinking through diverse perspectives

To make the participants move-out from their default and routinary human-centred perspective, we provided actor cards that invited the participants to think through the perspectives of diverse, often marginalised, actors. The effectiveness of the method in challenging human-centred viewpoints was demonstrated, for example, when a participant placed his future artefact and shared: “I locate [this tree] as far as possible from the city centre, at the very edge” (Figure 4). This decision was based on what a tree might desire (clean air, being close to nature and wildlife), even though that meant reducing the quality of life for humans in cities. Various other moments showed that if people were asked to represent the interest of another actor, their

judgements and priorities tend to change. They were enabled to overcome human-centred perspectives and make decisions that positively cater to the interests and needs of other actors. The approach also led participants to recognise some inequalities that they did not consider before, giving rise to new urban service ideas: “We noticed that ‘normal’ playgrounds aren’t created for those who can’t walk, climb or run with their legs. Therefore, we created a playground aimed at all children with wheelchairs and that can be borrowed by kids not in wheelchairs” (Figure 5). A participant concluded: “First it was very difficult for me to imagine the future from the eyes of someone else but once you got into it, it was very eye-opening”.

Figure 4. A tree located on the edge of the city

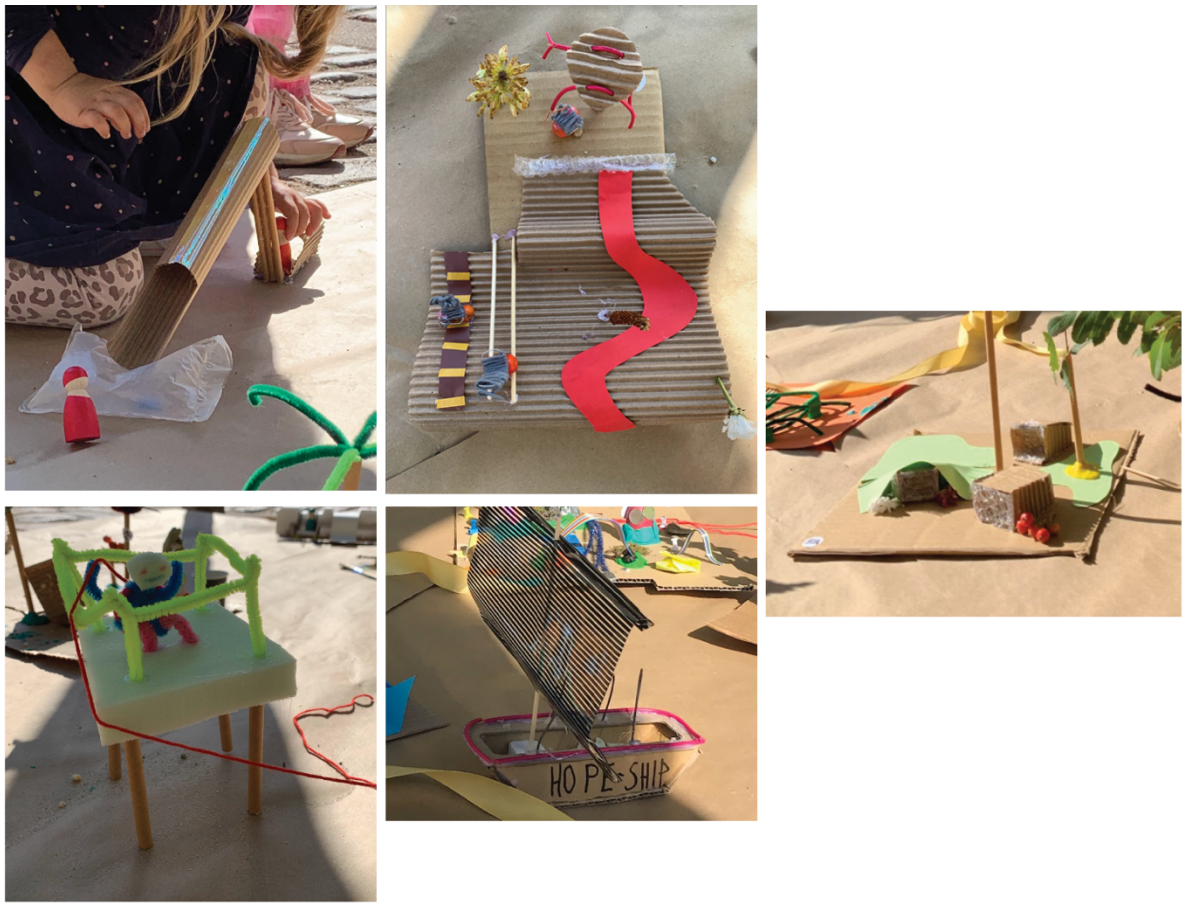

Figure 5. Addressing various needs. From left to right clockwise: A slide for kids, a playground for people using a wheelchair, cabins for homeless people, a ship for housing homeless people, a watchtower for tourists

Enhancing futures imagination

We observed that the imagination of the future was greatly stimulated by the bodily-sensory experiences that were triggered through interacting with the materials, in particular with the 'life-centred' materials. The engagement in the creative process enabled the participants to have an empathetic experience, illuminating how the future ought to *feel* for diverse actors both physically and emotionally. The soil and the leaves, a participant shared, made her "imagine a city with more softness, where one can find stillness and space for reflection as a natural part of living." Guided by the material and their physical properties, this participant included a picture of a famous painting that she found in a magazine to represent a future city that "invites for more visual delights" (Figure 6). We also observed that the participants did not have a fully-fledged idea of the future when they started crafting their artefacts but that the visions grew gradually and in parallel to the materially-anchored design

moves that constituted the crafting process. For example, one participant liked the flowers she found on the material table. Motivated by the desire to beautify her artefact, she attached the flowers to the rear of the van she was making (Figure 7). This gave rise to the idea that cars in the future could be powered by flowers, which, in turn, posed stimulating "what if …?" questions. Another participant reflected that the process 'thickened-out' ideas about the future: "Usually we have these broad ideas about the future, very blurry, like the concept of the smart city. But here we developed all these very concrete, detailed ideas".

Figure 6. A future city that "invites for more visual delights"

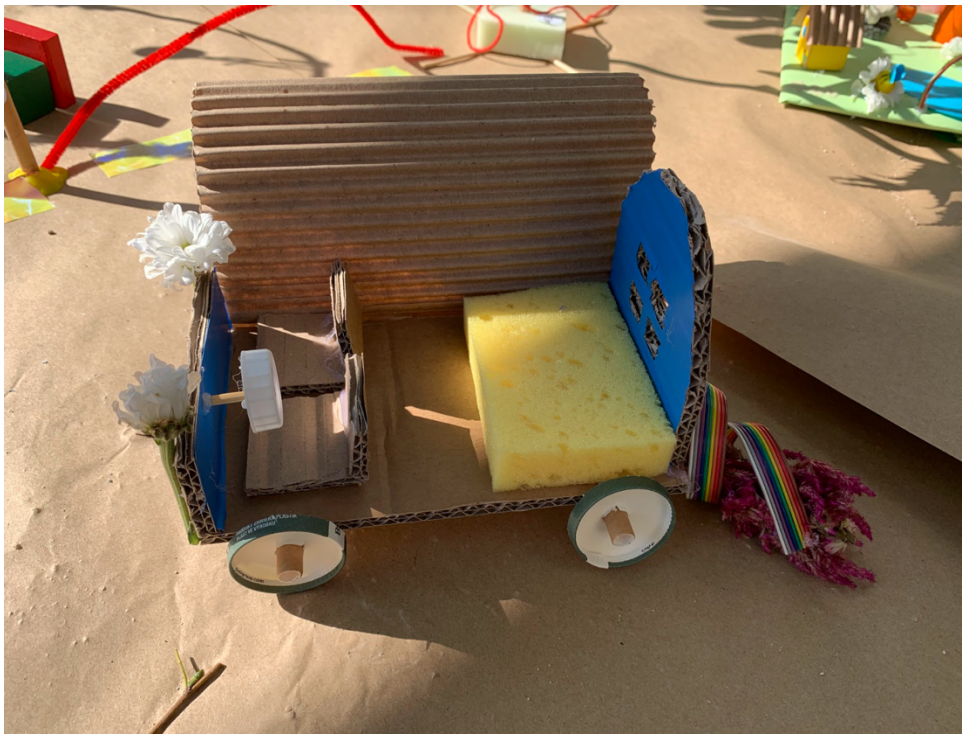

Figure 7. Working with flowers

Challenging anticipatory assumptions

The framing of the workshop, i.e. to envision a desirable future for all beings, made participants materialise, or pre-configure, alternatives to the ingrained anticipatory assumption that the future will be worse than the present and that we will continue to favour human beings and their needs more than others. Observations showed that the participation of children, who wildly imagined new futures, was a key contributor to the emergence of alternative visions that challenged these routinatory views (e.g. energy produced by flowers or candy-eating children). Older participants asked if they could collaborate with the younger ones and we observed how they 'moved in' with the children's imagination, 'moved with' it, and were 'moved by' it (Büscher, 2020).

The future that emerged from the assemblage-like configuration of dream artefacts was affirmative, and posed a creative friction if juxtaposed to some mainstream future views of tech-dominated and innovation-driven cities, where nature is still seen as at the service of the human inhabitants. In this future, the human emerged only as a being amongst other beings (not above them), entangled in caring relationships with them ("the human is here to give water to the tree" as voiced by one of the participants when presenting her city vision). The developed 'city of our dreams' proposed how things could be different, made possible what appeared to be

impossible, gave a sense of wonder, joy, excitement, and hope (Figure 8) and, ultimately, prompted us to speculate: “What if …”?

Figure 8. Participants entangling their multi-perspective dream artefacts, thereby materialising a life-centred urban future

Discussion

Traditionally, design has been concerned with the present and near future (Figure 9a), while the discipline of foresight explores the long-term (Figure 9b). However, both fields mostly focus on human needs and perspectives. One could therefore argue that the popular depiction of long-term thinking according to a ‘futures cone’ (Voros, 2003) is inadequate as it does not account for the diversity of lived experiences. By solely considering human perspectives, both approaches result in a rather limited perception of potential futures where anticipatory assumptions remain largely unchallenged. Therefore, applying them in the context of urban regeneration projects, may not leverage the full potential underlying multi-species, long-term considerations.

When reflecting on the role of life-centred design in long-term thinking, we found inspiration in the analogy of 'midwifing futures' (Ache, 2019). Whilst midwives are usually not decisive in whether a child is born, they play a significant role in helping the mother to give birth. They blend the medical with the social, thereby making the birthplace and the process that leads to it physically and emotionally safe. Like a baby may arrive without a midwife, the future will arrive without design. But a midwife helps to stretch and expand what is there, and so does design. Design, and life-centred design in particular, blends the material with the social, thereby bending our minds, stretching our imagination and broadening our assumptions, and consequently "making reality a little bit bigger to provide more room for different kinds of dreams and hopes" (Dunne & Raby, n.d.). Thereby, it increases the chances for a better delivery of the future. 'Better' both in the sense that the future – the output – will be more sustainable and its benefits spread more broadly and just, favouring not only humans but diverse species, but also in the sense that the delivery process (which is ongoing as there will always be a future ahead of us) is emotionally safe and pleasant.

To conclude, we would like to return to the question of how life-centred design can support long-term thinking. As illustrated in Figure 9c, we see the potential of life-centred design in its ability to make us adopt and think through diverse perspectives, unleash our imagination into unknown spheres, and travel beyond our deeply ingrained anticipatory assumption. Taken together these features enable us to broaden and play with ideas about how things *could* be in a better and more just future for all beings. We acknowledge the limited scope of this paper and that the full potential of life-centred design is yet to be explored. Therefore, we hope this preliminary research will inspire further explorations.

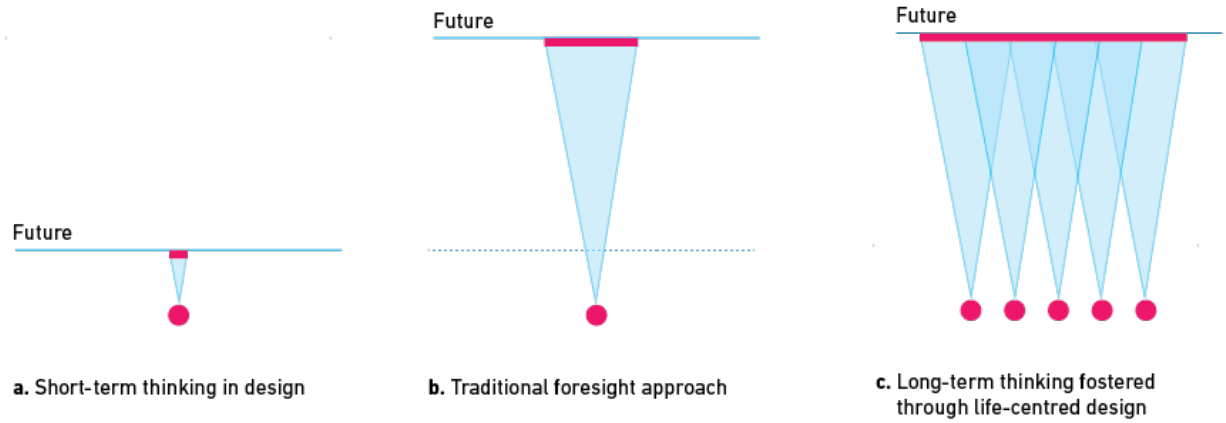

Figure 9. From short-term thinking in design to traditional foresight to long-term thinking fostered through life-centred design

References

Ache, P. (2019). Vision Making in Large Urban Settings: Unleashing Anticipation? In R. Poli (Ed.), *Handbook of Anticipation* (pp. 1327–1347). Springer International Publishing. https://doi.org/10.1007/978-3-319-91554-8_43

Bang, A. L., & Eriksen, M. A. (2014). Experiments all the way—Diagrams of dialectics between a design research program and experiments. *Artifact*, *3*(2), 4. https://doi.org/10.14434/artifact.v3i2.3976

Bishop, P., & Williams, L. (2012). *The temporary city*. Routledge.

Borthwick, M., Tomitsch, M., & Gaughwin, M. (2022). From human-centred to life-centred design: Considering environmental and ethical concerns in the design of interactive products. *Journal of Responsible Technology*, *10*, 100032. https://doi.org/10.1016/j.jrt.2022.100032

Büscher, M. (2020). Interlude 1: Immaterial immobilities and the infrastructuring of mobile utopia. Interview with Monika Büscher. In O. B. Jensen, C. Lassen, & I. S. G. Lange (Eds.), *Material Mobilities* (pp. 49–58). Routledge.

Dunn, N., & Cureton, P. (2020). *Future cities: A visual guide*. Bloomsbury Visual Arts.

Dunne, A., & Raby, F. (n.d.). *The School of Constructed Realities*. Maharam. Retrieved October 12, 2022, from https://www.maharam.com/stories/raby_the-school-of-constructed-realities

Dunne, A., & Raby, F. (2013). *Speculative everything: Design, fiction, and social dreaming*. The MIT Press.

Escobar, A. (2018). *Designs for the pluriverse: Radical interdependence, autonomy, and the making of worlds*. Duke University Press.

Gall, T., Vallet, F., & Yannou, B. (2022). How to visualise futures studies concepts: Revision of the futures cone. *Futures*, *143*, 103024. https://doi.org/10.1016/j.futures.2022.103024

Giacomin, J. (2014). What Is Human Centred Design? *The Design Journal*, *17*(4), 606–623. https://doi.org/10.2752/175630614X14056185480186

Haraway, D. J. (2007). *When Species Meet* (Illustrated Edition). University Of Minnesota Press.

Haraway, D. J. (2016). *Staying with the trouble: Making kin in the Chthulucene*. Duke University Press.

Lehmann, S. (2019). *Urban Regeneration: A Manifesto for transforming UK Cities in the Age of Climate Change*. Springer International Publishing. https://doi.org/10.1007/978-3-030-04711-5

McKercher, K. A. (2020). *Beyond Sticky Notes: Doing Co-design for Real: Mindsets, methods and movements* (1st ed.). Beyond Sticky Notes.

Miller, R. (2018). Transforming the future (open access): Anticipation in the 21st century. In *Transform. The Future (Open Access): Anticip. In the 21st Century* (p. 276). Taylor and Francis; Scopus. https://doi.org/10.4324/9781351048002

Mulgan, G. (2020). *The Imaginary Crisis (and how we might quicken social and public imagination)* (p. 37). UCL, Demos Helsinki and Untitled.

Nikolova, B. (2014). The rise and promise of participatory foresight. *European Journal of Futures Research*, *2*(1), Article 1. https://doi.org/10.1007/s40309-013-0033-2

Pelzer, P., & Versteeg, W. (2019). Imagination for change: The Post-Fossil City Contest. *FUTURES*, *108*, 12–26.

Ramos, J., Sweeney, J. A., Sweeney, K. A., & Smith, L. (2019). *Nesta, Our futures: By the people, for the people*. Nesta. https://media.nesta.org.uk/documents/Our_futures_by_the_people_for_the_people_WEB_v5.pdf

Schön, D. A. (1987). *Educating the reflective practitioner*. Jossey-Bass.

Simon, H. A. (1969). *The Sciences of the Artificial* (1st ed.). MIT Press.

Tomitsch, M., Fredericks, J., Vo, D., Frawley, J., & Foth, M. (2021). Non-human Personas. Including Nature in the Participatory Design of Smart Cities. *Interaction Design and Architecture(s)*, *50*, 102–130. https://doi.org/10.55612/s-5002-050-006

Trochim, W. M., Donnelly, J. P., & Arora, K. (2016). *Research Methods: The Essential Knowledge Base* (2nd ed.). Cengage Learning.

Voros, J. (2003). A generic foresight process framework. *Foresight*, *5*, 10–21. https://doi.org/10.1108/14636680310698379

Wang, H., Zhao, Y., Gao, X., & Gao, B. (2021). Collaborative decision-making for urban regeneration: A literature review and bibliometric analysis. *Land Use Policy*, *107*, 105479. https://doi.org/10.1016/j.landusepol.2021.105479