

# SUM MAR IES!

## IN SEARCH OF SYSTEMIC AND COLLABORATIVE CITY PLANNING:

CO-LEARNING AND CAPACITY-BUILDING FOR UR-  
BAN SUSTAINABILITY TRANSFORMATIONS AND RE-  
SILIENCE

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## Urbaria Summary 2024/3

### In search of systemic and collaborative city planning: Co-learning and capacity-building for urban sustainability transformations and resilience

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- Urban resilience requires equipping cities with social, cognitive, organisational and action-based capabilities to recover from sudden disturbances and shocks. Furthermore, resilience requires facilitating adaptation, transformation and co-evolution of urban systems.
- Three key areas are identified for future research at the intersection of urban resilience and sustainability transformations: systems (developing a whole-systems perspective on urban design and planning), agents (fostering cross-sectoral collaboration in urban decision-making and place-shaping), and institutions (aiming at learning and capacity building in participatory and collaborative planning practices).
- Participatory city planning can target building true collaborative partnerships between cities and residents, where bilateral interactions nurture learning. Hence, in their participatory and collaborative urban planning efforts, cities should aim beyond building evidence basis for future decisions, and strive towards long-term multi-stakeholder engagement and co-learning.

Our societies' ways of living are pushing the limits of our world. Natural resources are rapidly depleting; the ecological, social and political equilibriums are getting dislocated. With these changes, the wellbeing of Earth systems, humans and non-humans are excessively threatened (IPBES, 2019). Cities and urban lifestyles are addressed as the hot spots to implement sustainability strategies and actions. More than half of the world population lives in cities. Most cities comprise of carbon-dependent infrastructures and systems, and they promote excessive consumption of material, energy and natural resources. As much as cities are held responsible for the growth of climate crises, they are also acknowledged as the sites from which sustainability changes can be leveraged (Bulkeley et al., 2019). Eventually, cities have become the sites for tackling the systemic complexities, challenges and tensions of sustainability transformations, and for experimenting with system innovations, novel governance mechanisms, etc.

Urban resilience is a relatively young concept; studies from different disciplines refer to resilience with their differing foci in various ways. Meerow et al. (2016) proposed a consolidating definition of the term emerging from previous research. Accordingly, "urban resilience refers to the ability of an urban system - and all its constituent socio-ecological and socio-technical networks across temporal and spatial scales - to maintain or rapidly return to desired functions in the face of a disturbance, to adapt to change, and to quickly transform systems that limit current or future adaptive capacity" (Meerow et al., 2016, p. 45). Urban resilience requires equipping cities with social, cognitive, organisational and action-based capabilities to recover from sudden disturbances and shocks. Besides, resilience requires facilitating the adaptation, transformation, and co-evolution of urban systems in order to mitigate the large-scale and long-term sustainability risks including, but not limited to, energy crises, devastating climate phenomena, pandemics, and depletion of clean water reserves.

Tyler and Moench (2012) conceptualize three key elements to urban resilience: systems (infrastructure and ecosystems), agents (communities and organisations), and institutions (governing bodies) which altogether operate within evolving patterns of exposure to sustainability crises. These elements align with the key constituents of sustainability transitions and transformations. (Systems) Sustainability transitions and transformations research suggest structural changes in societal systems and system constituents, such as markets and user preferences, business, policy, science, culture, and technology (Geels and Schot, 2007). (Agents) These structural changes are shaped from within the power dynamics that are formed across multiple different societal actors, namely states and public agencies, communities, market actors, and non-profit organizations (Avelino and Wittmayer, 2016). (Institutions) Institutional mechanisms need to be altered towards decentralized and collaborative decision-making, and reflexive processes in order to design and act for sustainability transitions from all strategic, tactic and operational levels (Loorbach, 2007).

At the intersections of urban resilience and sustainability transitions frameworks, and in relation to their common emphasis on systems, agents, and institutions, three key areas can be identified for future research:

- *developing a whole-systems perspective on urban design and planning,*
- *fostering cross-sectoral collaboration in urban decision-making and place-shaping, and*
- *aiming at learning and capacity building in participatory and collaborative planning practices.*

Such future research shall fundamentally acknowledge cities as complex systems and target the transformation of urban planning practices along with sustainability transformations and societal change. This research aims to contribute to the above-listed key research areas by undertaking an explorative case study at neighborhood scale in the city of Helsinki.

### **Developing a whole-systems perspective on urban design and planning**

Urban environments and lifestyles are highly complex. Formed at the nexus of technical, social, ecological, and institutional systems, cities encapsulate in their localities the multi-faceted systemic complexities and challenges of sustainability transformations and urban resilience. Urban design and planning deals with these systemic complexities and challenges (Rittel and Webber, 1973).

For their high levels of complexity, urban issues are often divided into parts and handled by planning departments that have their expertise in particular disciplines, perspectives or problem domains. However, urban resilience and urban sustainability transformations cannot be established from within such fragmented efforts. Such approaches will inevitably generate partial and thus insufficient understandings of urban issues and their systemic complexities and would lead to ineffective interventions. For building urban resilience and sustainability transformations, a whole-systems approach needs to be implemented in urban design and planning processes (Erdoğan Öztekin, 2022). In this way, more complete pictures of urban issues and complexities can be drawn, and more impactful future strategies and actions can be outlined. A whole-systems approach can, for instance, build well-networked urban systems that operate within planetary boundaries and/or outline planning strategies that foresee regenerative and bio-diversity sensitive cities. Such a holistic and systemic approach to cities have the potential to feature the inextricable links between the well-being of human societies, multispecies, and Earth systems. In short, adopting a whole-systems approach in urban planning can profoundly expand and deepen our knowledge of urban issues and change the ways we plan and act towards urban resilience and sustainability transformations.

Cities are dynamic entanglements of socio-technical, socio-institutional, and socio-ecological systems (Loorbach et al., 2017). Multiple studies on sustainability transitions examined the socio-technical and socio-institutional dimensions of cities and unpacked what their system elements, dynamics and interdependencies are. However, while these studies acknowledged socio-ecological system perspectives as equally relevant and necessary for

sustainability transitions, they remained rather distant to fully accommodate the socio-ecological dimensions of cities in their system depictions. This was perhaps because sustainability transitions field stemmed from Science and Technology Studies (STS), and thus linking socio-ecological systems frameworks became challenging. Nevertheless, integrating socio-ecological system perspectives to this body of work is highly important for leading urban sustainability transformations and building resilience.

Research highlights the need for building integrated socio-ecological-technical system perspectives in the theories and practices of urban sustainability transformations and resilience (Wolfram and Frantzeskaki, 2016). Developing a whole-systems perspective on urban issues necessitates cultivating transdisciplinary and collaborative efforts and enabling cross-boundary learning between different sectors and actors representing different domains of knowledge and action.

### **Fostering cross-sectoral collaboration in urban decision-making and place-shaping**

The design of cities (such as of neighborhoods, public spaces, green infrastructure, mobility systems, health services, etc.) is a shared topic of interest for multiple parties of our society. Local communities, industry and business sectors, policymakers and researchers each have their own perspectives on how cities should be organized, planned and managed.

Local communities are crucial agents of urban resilience and drivers of sustainability transformations; and, by means of collaborative planning practices, cities can set the conditions for local communities to participate in knowledge co-production, decision-making and place-shaping. Urban planning, especially when practiced through collaborative and participatory efforts, becomes a boundary practice (Wenger, 2000) that converges policy makers, urban planners and designers, scientists and experts with local communities and urban residents.

Research argues for weaving top-down steering processes with bottom-up dynamics together (Waddell et al., 2015; Shove and Walker, 2007). Participatory and collaborative practices are crucial to facilitate this as they fundamentally aim to distribute power and responsibility for urban sustainability transformations and resilience to multiple stakeholders and furthermore society at large (de Koning et al., 2018). Besides, participatory and collaborative practices accommodate cross-sectoral interactions; hence, they have the potential to foster the reflexive since-policy-society interface in the urban realm. Collaborative planning practices, then, entail institutional change by suggesting a shift in the roles of municipalities: from being the planning bodies towards being the transformation leaders that infrastructure multi-stakeholder collaboration and participatory planning. While doing so, participatory and collaborative practices inevitably challenge established cultures of policymaking and decision-making which mostly depend on centralized democracy, market economy and hierarchical structures. In short, participatory and collaborative practices form an alternative to incumbent institutional mechanisms, by facilitating rather distributed and community-led processes of governance.



Participatory and collaborative practices, cultures, methods and tools can still be regarded as recent to our societies. There is immense space for theoretical improvement, critical assessment, experimentation and reflection on practice.

### **Aiming at learning and capacity building in participatory and collaborative planning practices**

Participatory processes are offered as a means for enabling residents to influence (and further co-create) the decisions that affect their settlements and ways of living (Arnstein, 1969). After decades of research and practice, current participatory practices keep falling short in meeting the theoretical propositions. In urban planning realm, participatory practices remain delimited to consultation and informing; they do not sufficiently encourage collaboration and co-learning. Residents' contributions mostly get utilized for building data and evidence for future decisions. Furthermore, current participatory urban planning practices often take up small-scale and 'easy' problems, and barely relate to complex, long-term and large-scale urban challenges. As a result, outcomes of current participatory urban planning practices do not feed into, or even relate to, the strategic levels of urban transformations. This research suggests that participatory urban planning can target building true partnerships between cities and residents, where bilateral interactions nurture collaboration, interactive dialogue, and learning. Thus, in their participatory planning efforts, cities should aim beyond building evidence basis for future decisions. Cities should aim at establishing long-term multi-stakeholder engagements and facilitating co-learning across sectors.

Different perspectives are highly valuable for building holistic and systemic understandings of the city and for developing impactful interventions addressing urban issues. Different sectors and actors represent different needs, wishes, viewpoints and values, all of which are highly useful in framing the systemic complexities and interdependencies of urban issues. Hence, participatory and collaborative urban planning practices, when targeted towards co-learning and capacity-building, can firmly contribute to the co-production of knowledge on urban systems change.

Participatory and collaborative practices, since they generate interactions and discussions between different stakeholders, have the tendency to reveal the latent conflicts and tensions of our societies. These conflicts and tensions, for instance those that emerge between local communities and governing institutions, can be difficult. However, conflicts and tensions make good opportunities for revisiting the framings of urban issues, building novel interpretations and reconfiguring the ways forward. Therefore, rather than avoiding or dismissing conflicts and tensions, participatory and collaborative planning can take them as a basis for building meaningful collaboration, dialogue and learning.

### **A neighborhood scale transdisciplinary action research**

In literature, cities and neighborhoods are referred to as impactful entry points from where large-scale societal transformations can be leveraged (Nevens et al., 2013). Cities and neighborhoods are furthermore considered strategically important to initiating action and

lead to in-depth understandings of urban whole-systems, and consequently can lead to desirable, locally tailored and effective interventions. Furthermore, a neighborhood-scale lens on urban resilience and sustainability transformations can enable engaging with a variety of local stakeholders within a given spatial and temporal boundary, doing experimentation on learning-centered participatory processes, and closely observing and evaluating the emerging outcomes. For these reasons, neighborhoods correspond to the scales on which this research will be placed.

Neighborhoods are medium-scale spatial entities which relate to large-scale urban issues and challenges on the one hand, and to local and highly contextual ones on the other hand. In neighborhoods, multiple power struggles and dynamics of change co-exist such as (1) the vertical power relationships and hierarchical dynamics of change, (2) the horizontal power relationships and diffuse dynamics of change and (3) the local dynamics of change (Erdoğan Öztekin and Gaziulusoy, 2020). For this reason, they are valuable sites to explore the multi-domain, multi-scalar and multi-level complexities of urban resilience and sustainability transformations as well as to experiment with novel planning practices that aim at facilitating cross-sectoral collaboration and co-learning.

By utilizing a transdisciplinary approach and action methodology, this research will conduct a neighborhood scale experimentation that will explore whole-systems approaches to planning and learning-centered participatory processes. Through such real-world experimentation, research aims to develop a critical look into the theory–practice divide and contribute to their bridging.

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