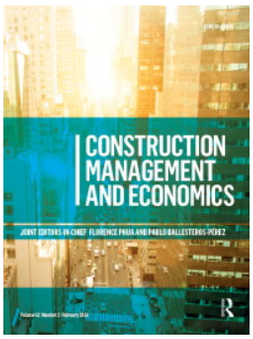

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EDITORIAL

Expanding the field: combining construction management and urban studies to address grand societal challenges

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Introduction

Globally we are facing a complex web of grand challenges that are impacting the lived environment, our development pathways, and wider quality of life. Urban environments serve as a key context around which these grand challenges are not only experienced while also providing multiple opportunities to reduce environmental impacts and resource consumption; improve health outcomes; eradicate poverty; and promote social justice and well-being. Cities are a manifestation of complex systems (and a range of influencing systems) and are shaped by the tensions between the planned form and the underlying dynamics of market demand and its mode of production (Næss 2016). This results in a constant negotiation between those seeking to plan and design our cities and towns, and those involved in shaping and responding to market demand and managing delivery. This creates barriers for related professions to collaborate and reinforces the boundaries in educational programmes and professional bodies, and entrenching modes of silo thinking.

There have long been calls to establish an integrated development approach involving academics, policy makers, urban planners, and designers. Such a transdisciplinary perspective can be used to facilitate a greater level of collaboration with property developers and construction professionals (Pollalis 2016) to respond to the grand challenges by enabling transformational urban change. Transdisciplinary approaches are key to transforming urban environments and require a multi-scalar systems perspective that connects the individual components of buildings with broader urban and regional dynamics (Rees 2009, Cole 2012). COVID-19 has provided a stimulus to further develop the interconnections between the building and urban scales as forced changes during lockdown periods saw society question our relationship between the home and workplace. This will have lasting implications for the development of our city centres. The emergence of sustainable, circular, regenerative, smart, resilient, and 15-min city models can only be achieved through a multi-scalar systems perspective that employs holistic collaborative thinking to devise context-specific solutions to a multitude of challenges (Bulkeley and Betsill 2005, Pearson *et al.* 2014, Robinson and Cole 2015, Hirt 2016, Karvonen *et al.* 2021).

Whilst practitioners and urban stakeholders aspire to find ways to work together more effectively, there is also an important role for researchers to inform critical conversations and fostering a shared understanding. Through collaboration, scholars can break down disciplinary barriers and overcome the perception that urban and construction disciplines are competing, lack integration in process and decision making, and to help establish a shared vision or common goal by educating and challenging one another (Wong 2015). Urban disciplines related to planning and design have long understood the importance of engaging with geographers, historians, economists, and political scientists, and this is increasingly extending to include engineers and those engaged in data science (Karvonen and Hargreaves 2023). The last decade has reflected a move within urban disciplines to

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increasingly reflect the role of the development process surrounding the built environment, largely through a focus on city development and urban regeneration. This requires deepened conversations within the Construction Management (CM) research community (Green 2019, Glass *et al*. 2022, Oti-Sarpong *et al*. 2022, Leiringer and Dainty 2023a, 2023b). Connecting CM to the urban disciplines (planning, architecture, geography, policy studies, etc.) can support engagement with the United Nation's Sustainable Development Goals (Goubran and Cucuzzella 2019) and the social values of construction projects (Raiden *et al*. 2019, Almahmoud and Doloi 2020). Stakeholder engagement is a long-standing theme in CM research but this perspective is often restricted to a project's boundaries rather than engaging with the wider urban context (Thomson and El-Haram 2019).

Towards a more critical, collaborative, and outward looking agenda for CM research

CM research has traditionally focused on the development process from project and organizational perspectives. Common themes include efficiency, productivity, quality control, and risk reduction as well as the general interests of the construction sector and its professions. Green (2011, 2019) and Leiringer and Dainty (2023a) criticize this traditional lens and thematic focus and argue that it restricts the ability of the CM community to pursue bolder and broader research questions that can go beyond passing fads to challenge policies and the hegemony of large construction companies and developers. Leiringer and Dainty (2023b) call for a critical turn in CM research which has the potential to help engage wider societal debates and grand challenges.

The need to broaden the gaze of CM research is not new, with Dixon and Eames (2013) noting the danger of focusing on individual buildings while overlooking the wider systems that shape them. Buildings and district infrastructure projects are situated in wider urban contexts and are strongly influenced by multiple policies and programmes. This is evident in the circular economy approach to construction that requires a supportive urban system to achieve individual construction project goals. This example illustrates the opportunity to engage with aligned disciplines and to develop a multi-scalar systems approach to transform the built environment.

Aim of the special issue

The special issue aims to contribute to existing calls within the CM research community to create stronger links with the urban disciplines. By opening the conversation through joint research and scholarship, a mutual appreciation can be developed to direct their insights towards the shared urban context. By expanding the gaze beyond individual projects and organizations, CM research can better contribute towards a wider understanding of the change required within our cities to address the Grand Challenges.

The special issue serves as a bridge between CM and the urban disciplines to share research questions, theoretical and methodological approaches, and to identify opportunities to collaborate on the grand challenges facing cities. The parameters of this special issue were broad as we sought to encourage conversation about new and existing alignments and tensions among the various disciplines. Five papers were accepted with the contributing authors providing multiple pathways to reframe CM research towards the grand challenges of cities. As a whole, the papers provide multiple approaches for CM researchers to address the grand challenges facing society.

Overview of papers

Hedborg and Rosander (2023) use the notion of "project ecologies" to examine the interactions that occur within two large development sites in greater Stockholm involving multiple construction projects. Their findings on a transport hub at Barkarby City and a shared parking garage at the Stockholm Royal Seaport illustrate the various ways that public and private stakeholders coordinate their activities through processes of informal self-organization. These activities connect the individual projects to broader processes of urban development by aligning goals, sharing labour, developing a sequential workflow, and aggregating the collective work into a coherent whole. Meanwhile, the continuous work of stakeholders produces emergent characteristics that can be beneficial to all stakeholders. This points towards new modes of governance that have the potential to achieve desirable outcomes for all stakeholders but are also susceptible to pre-existing power dynamics and do not automatically result in the achievement of overarching sustainability goals.

Rogerson *et al*. (2023) summarize the outcomes of an analysis of city centre redevelopment processes in four locales—Newcastle upon Tyne (UK), Newcastle NSW (Australia), João Pessoa (Brazil), and Tshwane-Pretoria (South Africa). The comparison focuses on the challenges of delivering shared visions in the face of the diminished capacity of local public authorities to

govern urban development processes. The authors analyze the local processes of urban governance that involve multiple stakeholders and their attempts to develop and deliver upon a common vision. The findings reveal the multiple gaps between the development and delivery of city centre regeneration visions. The authors call for more collaborative approaches to engage construction stakeholders in visioning processes while also providing more detailed guidance in visioning documents to inform construction activities. The blurring of boundaries between visioning and implementing involves the stretching of timeframes and geographies. The authors conclude that effective governance processes are needed to ensure that construction management stakeholders take ownership of the collective vision to situate individual building projects within the broader context of urban development.

Gustavsson *et al.* (2023) examine the involvement of stakeholders in the Stockholm Royal Seaport, a large-scale sustainable urban development site where multiple construction projects are being planned, designed, and implemented simultaneously. The study shifts the emphasis away from individual projects to focus on the shared geography of stakeholder activities. To study these activities, the researchers developed a novel digital footprint method to characterize the discursive and real-world actions of stakeholders over a 10-year period (2011–2020). Their findings summarize ten types of performative activities and ten categories of stakeholders. The authors argue that stakeholder activities are emergent and distributed, and combine and conflict to co-produce particular urban outcomes. Such a geographical perspective on stakeholder performance provides new insights into how multiple construction projects influence broader processes of urban development.

Vigren (2023) employs the notion of "ecosystems" to bridge the disciplines of construction management and urban studies. Ecosystems emphasize the multiple relations among construction and urban development stakeholders while also providing a conceptual arena for deliberation and collaboration. Through a structured literature review of built environment publications, Vigren identifies several achievements of ecosystem conceptualizations. These include an emphasis on a specific geography, evolving connections between individual buildings, a central role for technologies, such as BIM and project management platforms, an emphasis on change management, and the emergence of new values and logics that are shared and implemented by ecosystem stakeholders. Based on these findings, Vigren proposes a sociotechnical research agenda to engage the CM and urban studies disciplines. He argues that an ecosystem approach is useful to reveal the interdependencies of the technical and social aspects of urban development and to support system-level value creation that can benefit all stakeholders.

Kuitert *et al.* (2023) focus on blue-green infrastructure (BGI) projects and how governance innovation can be used to achieve "value integration". This value-oriented perspective calls for construction management stakeholders to expand their purview beyond technical issues to embody the multiple dimensions of sustainable urban development. The authors summarize the findings of their analysis of four BGI projects in the Netherlands, Belgium, and Sweden. Their findings focus on stakeholder involvement, types of support, the embedding of BGI into organizations, and temporal issues. They conclude that it is necessary to combine top-down bureaucratic innovation and bottom-up social innovation in multiple ways to achieve value integration. Such actions do not serve as best practices of CM but rather as a unique approach to foster new synergies between the practices of CM and urban planning to support the realization of sustainable development goals.

Discussion and conclusions

How we plan, design, construct, operate, and regenerate our urban environments shapes our way of life. As researchers, it is important to consider which perspectives we apply, which methods we use, and which questions we pose to generate new knowledge. Leiringer and Dainty's (2023b) call for a "Critical Turn" in CM and we argue this is required to engage more effectively with the grand challenges facing our cities. The contributing authors in this special issue provide multiple opportunities to connect CM research to its broader urban context through a multi-scalar systems approach.

The five papers reflect a dominant focus around large scale urban development projects from a range of global cities. The scale of the projects provides an ideal opportunity to explore CM research themes in a multi-scalar perspective that engages with the wider urban context. These projects combine buildings and infrastructure to improve the built environment through urban planning and design. Four of the five papers use a case study methodology to address theoretical concepts and research questions. The empirical findings illustrate how the projects are situated in broader urban development processes, and vice-versa how urban planning and design decisions influence

construction projects. The focus on large urban development projects enables the application of multi-scalar systems approach that is more difficult to apply to smaller projects. For example, Kuitert *et al.* (2023) use green-blue infrastructure urban development projects to explore the benefits and challenges of value integration across the urban system while Rogerson *et al.* (2023) compare and contrast urban governance logics and their influence on the transition potential of large development projects. Both papers provide a better understanding of the rationale behind urban planning and design decisions and their influence on construction projects.

Establishing a shared vision across the urban scales is a key theme across all the papers. Rogerson *et al.* (2023) highlight the benefits of exploring themes more akin to being studied in urban geography within a development project focus, and this is mirrored in Gustavsson *et al.* (2023) and Hedborg and Rosander (2023). Broadening the gaze and increasing the level of criticality around how construction projects are considered helps explore their interconnectedness with the wider urban systems and aligns with the sentiment that we need to go beyond the project boundaries. This will become even more relevant as researchers address emerging agendas, such as circularity in construction where its success depends on wider systems and functioning supply chains and markets. Kuitert *et al.* (2023) reflect the wider implications of projects through green-blue infrastructure projects providing city-wide environmental and sustainability benefits to emphasize the broader value of the project. This demonstrates multiple approaches to integrate the engineering perspective of temporary projects with the urban perspective on long-term governance processes and reinforce the well-known maxim "no project is an island" (Engwall 2003).

The level of collaboration both within projects and between projects is emphasized in the papers by Hedborg and Rosander (2023) and Vigren (2023) around the concepts of project ecologies and project ecosystems. Hedborg and Rosander (2023) explored how projects collaborate with each other when positioned within the same district or neighbourhood or urban programme through a shared project ecology. Vigren (2023) emphasizes the collaboration between urban and construction systems as opposed to between projects but shares a common theme of establishing a collective vision and goals across scales. Stakeholder engagement has long been a focus of CM research and the papers provide new insights on the benefits of co-production. For example, Gustavsson *et al.* (2023) illustrate the benefits of establishing common visions for projects using techniques more often found in urban planning. Considering stakeholders from a more holistic perspective rather than just that of the project provides opportunities to ask more critical questions and encourage multi-scalar and multi-actor enquiry related to economic development, public management, housing, community, and real estate. This is important in the context of urban regeneration, as it provides a key opportunity to reshape our cities and better align with the grand challenges (Gustavsson *et al.* 2023, Rogerson *et al.* 2023).

Reconceptualizing urban transition research through shared conversations between urban disciplines and CM researchers helps to account for construction markets and process management (Kuitert *et al.* 2023). This direction of research will help us to tease out the tensions that exist between concepts, such as place-making in an urban planning context, and the commercial realities faced by construction projects to deliver on this. Co-creation, co-design, and co-production are all reflections on collaboration which has the potential to be multi-scale and multi-actor between urban professionals, construction professionals, and society. Gustavsson *et al.* (2023) remind us that stakeholders are not static and their positions and roles can change over time, moving across the disciplinary boundaries between CM and urban studies. Such a fluid ecosystem provides a means to visualize and deliver a multi-scalar systems approach.

The insights of the contributors serve as a starting point to develop a shared perspective and way of working that champions a diversity of ideas and actions to realize transformative changes in the built environment. The special issue showcases the potential of broadening our lens beyond traditional disciplinary boundaries and developing a shared perspective. Whilst we can learn from each other, it is when we start working together that we will begin to explore a multi-scalar systems approach around how urban systems work and how construction projects and their supply chains align with this.

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