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Editorial

Planning, Manufacturing, and Sustainability: Three Research Themes

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Abstract
This thematic issue explores the role that revived emplacements of manufacturing and "blue-collar" work play in the search for more effective models of urban sustainability, drawing on intriguing developments in different cities of different sizes in different Western societies—the UK, Germany, Switzerland, the USA, and Australia. Rather than see industry as a "problem" for green city strategies, our point of departure considers what role manufacturing and "blue-collar" work can (and do) play in the search for more effective models of urban sustainability. The articles included here deploy a range of research methodologies, albeit with a predominant emphasis on qualitative case studies, to raise key challenges for urban and regional industrial planning. This editorial provides some overarching context and commentary on the topic and specifically discusses three synoptic themes that emerged most prominently from the collection of articles: the difficulty (and importance) of identifying and illustrating the practical sustainability benefits of local manufacturing; the complexity of advancing "conspicuous production" in the urban context; and the need to broaden industrial politics and planning in order to better utilize existing industrial spaces and enhance the role of production in the city. These themes help to capture emerging trends and challenges in the field while providing foundations for future research.

Keywords
blue-collar work; innovation; manufacturing; planning for industry; sustainability

Issue
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After decades of deindustrialization and "post-industrial" urbanism, many cities and metropolitan regions around the world are actively rethinking how to plan for a renewed manufacturing economy even as they must also face the immediacy of climate change and the mandatory transition to a more sustainable future.

This thematic issue explores these two challenges in explicit relation to one another. Rather than see industry as a "problem" for green city strategies, our point of departure is the exact opposite. We ask instead: what role can (and do) revived emplacements of manufacturing and "blue-collar" work play in the search for more effective models of urban sustainability? Relatedly, what particular challenges does this generate for the field of urban and regional planning? The select articles that follow here discuss intriguing developments in different cities of different sizes in different Western societies—the UK (Clossick & Brearley; Ferm), Germany (Meyer; Schwappach et al.), Switzerland (Cima & Wasilewska), the USA (Pendras et al.), and Australia (Grodach et al; Hearn et al.). They furthermore deploy a range of research methodologies, albeit with a predominant emphasis on qualitative case studies. In this brief essay we wish to highlight three synoptic themes that emerged most prominently for us as we engaged with this emerging body of research.

The first of these themes is the challenge of capturing and advancing the practical sustainability benefits of local manufacturing. Given the amount of work on green manufacturing, this might strike some readers of this

journal as odd. But the issue, in our view, is that we know far more about how to "green up" blue-collar activities, especially in relationship to energy transitions and pollution mitigation strategies, than we do about how to "blue up" green city strategies. Industrial activity is still treated (mainly) as an environmental problem to fix, not (or not yet) an economic resiliency or social equity opportunity to embrace. Simply put: the challenge has too often been presented in terms of seeking to make blue-collar work *greener*, rather than to make green-city strategies *bluer*.

This is crucial to appreciate. Invocations of an Anthropocene-driven crisis are built on the 200 year-long industrialization of carbonized capitalism and the empirical excesses of modern industrialized society, especially with the advent of neoliberal globalization in the 1990s. Yet green cities, both big and small, are under assault by scholars and citizens alike for their elitist effects, unequal economies, and contradictory territorializations. The explosion of left academic work on "green gentrification" since 2016 is one indication of this anxiety; right-wing populist hostility to urban and national climate action, still another. Unpacking and better supporting the sustainability benefits of re-localized urban manufacturing activities—of interwoven production *in situ* rather than extruded Fordism *ex loco*—is one way to foreground the long-neglected contributions of working-class residents who may not readily identify with rain gardens and bike lanes. Sustainability is less a design issue, at bottom, than a political struggle. Green coalitions that embrace working-class culture are more likely to matter. Urban planning for meaningful industrial inclusion is arguably a key element of that multi-scalar project.

While most articles here acknowledge this first challenge, two take it up directly. Noting that commercial and industrial areas can become "sustainable role models" for urban planning, Schwappach et al. (2023, p. 181) explore the mutual interrelation between commercial and industrial redevelopment requirements and climate adaptation in the Berlin-Brandenberg region. Using a "backcasting" technique on three cases, they offer in detail what they call "hands-on" guidance for regional planners seeking to climate-proof vulnerable areas (Schwappach et al., 2023, p. 166). The practical sustainability benefits of local manufacturing are also evident in metropolitan Australia. Grodach et al. (2023) document how planning regulates and shapes "the sustainability potential" of manufacturing enterprises in Melbourne, particularly in the food and beverage sector. They find "ripe potential" for encouraging sustainable production, including local supplier networks in dense environments, but also highlight "extant challenges," such as retrofitting buildings and local use conflicts (Grodach et al., 2023, p. 194). These are important insights into better connecting sustainability with industrial planning. But more work is needed. We see the mostly tangential linkages made to this theme in the other articles here as both a reflection of the importance of bringing new attention to this theme and an indication of the relative difficulty of weaving together sustainability and urban industrial revival.

The second synoptic theme we consider central to this thematic issue is the importance and complexity of the "conspicuous production" argument. Most contributors acknowledge the extent to which the displacement of manufacturing from urban areas and the celebration of alternative economic sectors since the late 20th century have rendered industrial activity increasingly invisible. As Baker (2017) argued, invisibility can breed a lack of interest, understanding, and support for manufacturing in the city. In this context, making production more conspicuous—more visible, more central, more connected—in urban environments is a promising industrial revival strategy. While most contributors here accept the logic of this argument, they also caution, however, against easy solutions for the complex challenges of urban industrial planning. Not all industrial activities are equally suited to the spotlight. Whether due to safety concerns, the difficulties of managing commonly perceived "nuisances" (sounds, smells, vibrations), or simply production processes that are "complex, intangible, and embedded in highly specialised production chains" (Cima & Wasilewska, 2023, p. 205), becoming more conspicuous does not inherently lead to greater appreciation. In fact, the opposite might occur: increased visibility of some firms and activities could undermine public support.

The question of suitability for increased attention links with questions about when or even whether seeking increased industrial "conspicuousness" is desirable. Such an emphasis can bring an unwelcome element of performance to the sector, advancing a kind of "Santa's workshop" fantasy of happy workers inoffensively tinkering away for an appreciative audience. More substantively, privileging manufacturing processes that are suited to conspicuous production—tech-oriented advanced manufacturing, luxury crafts, food services—can also add to the already growing trend towards industrial gentrification. Concerns that advanced manufacturing "brings to the industrial sector the same patterns of exclusion and inaccessibility that have plagued professional services" (Pendras et al., 2023, p. 228) complicates the role that conspicuous production can play in industrial revival strategies. That said, Clossick and Brearley (2023) demonstrate the importance of "revealing" existing industrial activity in order to facilitate understanding and build support, while Cima and Wasilewska (2023, p. 199) push for new ways to think about "conspicuousness" through "other senses beyond the visible." They introduce the idea of "sensible production" that aims for "a more open consideration of how manufacturing shapes urban sensescapes" and pushes beyond spatial design to cultivate support for urban industry through broader dimensions of politics, planning, and social learning (Cima & Wasilewska, 2023, p. 201).

Broadening industrial politics and planning to enhance the role of production in the city is our third

synoptic research theme from this thematic issue. As noted previously, a newfound appreciation for manufacturing has taken root in a wide variety of urban and national contexts. On the heels of decades of disinvestment and other structural adjustments and cultural shifts, much of the foundational scholarship on urban industrial revival understandably focused on how (and why) to stop the bleeding: defining and defending industrial zone boundaries, policing land uses, limiting variances and conversions. That work remains important, but scholarship also demonstrates that industrial planning needs to move beyond preservation and the defense of historic boundaries. The challenge is to find ways to better *use* the spaces that already exist, to better integrate those spaces into the city, and to consider whether and how new industrial spaces might be created.

That more nuanced approach to urban industrial planning, focused on gathering specific data to confront challenges that are unique to specific places, is reflected in most of the contributions included here. In the German context, Meyer (2023) uses two written surveys to examine the location requirements of different kinds of small urban manufacturers (SUM)—comparing construction site crafts, workshop crafts, and store crafts for their nuanced differences. While mixed-use structures and sharing spaces that actively include SUM are increasingly crucial to building a wider circular economy, Meyer explores the willingness of future apprentices to work in mixed-use areas of the Ruhr. Before new industrial landscapes are constructed, in other words, we need to know more about worker preferences. In their analysis of the Northgate industrial precinct in Brisbane, Hearn et al. (2023, pp. 258–259) connect with this need for greater local specificity by asking: "What are the elements of a locale that actually contribute to the social capital required to sustain urban manufacturing?" Focusing on "the mix of different kinds of capabilities and capital"—tangible and intangible—their case study highlights new kinds of blue-collar work associated with the co-location of "bespoke public art" and "advanced robotics" in the context of green neighborhood revitalization and transit accessibility (Hearn et al., 2023, p. 252). This is about finding the combinations of assets and support mechanisms that can bring meaningful change and progress to the manufacturing spaces of the city.

Ferm's (2023) contribution reinforces this push beyond general efforts to protect "manufacturing" by calling additional attention to competition *within* the industrial sector and planning measures that favor some firms and activities over others. Highlighting a theme echoed by others in this thematic issue (see particularly Clossick & Brearley; Grodach et al.; Pendras et al.), Ferm clarifies that in recent years industrial planning has become more complex, raising questions not just about whether manufacturing can compete favorably against other land uses (residential, commercial), but rather *which types* of manufacturing can and should be supported, through which policies, in which locations, and serving which populations. As she puts it:

> The literature on the urban manufacturing renaissance has not, to date, engaged fully with the issue of *how* to practically accommodate this renaissance within the urban built environment, specifically what the role of planning is in either supporting or stifling these ambitions. (Ferm, 2023, p. 266)

That on-the-ground engagement with the complexities of industrial planning is best reflected in Clossick and Brearley's (2023, p. 214) "Audit, Reveal, and Promote" methodology that identifies and publicizes existing industrial activities and ultimately helps local and national political leaders develop the kind of "fine-grained and nuanced understanding" needed to effectively plan for industrial retention and revival. An important component of this work, echoed across all the contributions to this thematic issue, is incorporating the voices and participation of local community members so that they can educate planners and development officials about sectoral needs and help shape future investments. This emphasis on identifying, cultivating, and empowering the "constituencies" for urban industrial planning is central to shifting from the generalities of boundary policing and land use preservation to the production of new knowledge about how to better utilize, activate, and incorporate existing industrial spaces and activities into contemporary urban life.

Industry, in sum, need not be a "problem" for green city strategies. But the revived emplacement of new kinds of manufacturing and the new kinds of "blue-collar'' work they might nurture in (and for) our currently unsustainable cities and metropolitan regions pose major challenges for the urban planning community. We thus hope that the three overall research themes gleaned directly from this excellent collection of articles—(1) better capturing and advancing the practical sustainability benefits of local manufacturing; (2) refining our strategies for how to make production more "conspicuous," valued, and visible; and (3) broadening and intensifying industrial politics and planning—form useful entry points for innovations in planning practice and future research on planning, manufacturing, and sustainability, including new doctoral dissertations, more thematic issue articles, and, not least, scholarly monographs.

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Conflict of Interests

The authors declare no conflict of interests.

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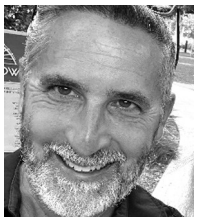
About the Authors



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