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Framing the values of teaching urban design in planning education

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This article explores the pedagogical value of urban design within planning education, framing it as a distinct mode of inquiry that strengthens spatial, analytical, ethical, and collaborative competencies. Drawing on a review of the literature and insights from teaching practice, it identifies six core contributions: (i) experiencing space through studio-based learning, (ii) enhancing spatial reasoning, (iii) fostering critical reflection, (iv) learning through co-production, (v) engaging with public needs and institutional structures, and (vi) developing sensitivity to both local contexts and global challenges. These values demonstrate how urban design supports students in analysing, interpreting, and (re)shaping the built environment. Rather than occupying a peripheral or elective role, urban design serves as a foundational element in planning education, one that reintegrates design as a form of knowledge production.

Keywords: urban design, planning education, spatial thinking, design studio

Introduction

Ten years after co-founding *plaNext – Next Generation Planning*, I return to a question that has come up repeatedly in my engagement with planning education: what does it mean to teach urban design to next generation planning students, and what kind of educational value does it offer? Rather than approaching urban design as a competing discipline to planning or seeking to compare the two in terms of superiority, this piece considers its pedagogical role within planning curricula. Drawing on both the literature and my own experience in teaching design, it explores how the integrative nature of urban design, rooted in its capacity to bring together diverse domains of knowledge, can contribute meaningfully to planning education.

Urban design has been described by Carmona (2014, p. 2) as a 'mongrel' discipline, not in a pejorative sense, but to underline how it brings together different bodies of knowledge from planning, architecture, landscape, engineering, and the social sciences. While some see the lack of clear disciplinary boundaries as a source of ambiguity or even a weakness (Madanipour, 1997; Inam, 2002), others, including Carmona, argue that urban design's ability to overlap and synthesise knowledge domains is precisely what enables it to remain responsive to both academic inquiry and professional practice. In this article, I build on this view by suggesting that what makes urban design's mongrel character pedagogically valuable is not just its interdisciplinary range, but its ability to create a space where different modes of knowing (i.e. analytical, spatial, material and institutional) are brought into dialogue. This convergence invites planning students to think across boundaries, to test ideas through making, and to reflect critically on how knowledge is produced and applied in shaping urban environments.

From this perspective, the article outlines six pedagogical values that help explain why and how urban design enriches planning education. These include: learning through experiencing space in the studio; enhancing spatial thinking and formal reasoning; fostering critical reflection; learning through co-production; engaging with public needs and institutional realities; and exploring contextual specificities and global outlook. Together, these values offer a framework for understanding urban design not simply as a specialised skillset or an elective, but as a structuring element of a more integrated and spatially literate education. Urban design brings together ways of seeing, reasoning, and acting in urban space that are increasingly crucial for preparing next generation planners to navigate the challenges of today's cities.

Values of teaching urban design in planning education

Drawing on a content analysis of existing contributions, I propose that the educational gains associated with urban design teaching can be meaningfully explored under six main themes. These themes are shaped by recurring pedagogical aims identified in the literature and by the way such aims tend to cluster in actual teaching settings. Table 1 summarises these themes alongside the enabling skills they support and provides a framework for the discussion that follows.

The values presented in the table are not meant to stand alone, but to be read as overlapping and mutually reinforcing. In different ways, each one reflects how urban design helps students work with space, not only as a physical setting, but also as a site of knowledge and engagement. The discussion now turns to each of these six values in more detail.

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Table 1. Values of teaching urban design in planning education. Source: author

Value	What it enables	Key gaining	References
Learning through experiencing space: Studio culture	Engaging directly with urban space through observation, movement, and fieldwork	A deeper connection to context and an embodied understanding of spatial conditions	Forsyth et al. (1999); Radović (2004); Senbel (2012); Wu (2016); Mancini and Glusac (2020); Breed and Mehrtens (2021)
Enhancing spatial thinking and formal reasoning	Thinking critically through scale, morphology, and the structure of urban form	The capacity to interpret, model, and intervene in the built environment	van den Toorn and Have (2010); Elshater (2014); Kropf (2018); Momirski (2019); Gu (2020); Blazy and Łysień (2021)
Fostering critical reflection	Questioning norms, roles, and design assumptions	Intellectual independence and ethical sensitivity in spatial thinking	Cuthbert (2001); Sargın and Savaş (2012); Elshater (2014); Chiaradia et al. (2017)
Learning through co-production	Co-production of knowledge across disciplines and with peers	Communication, teamwork, and the ability to work with diverse viewpoints	Brandão and Remesar (2010); Senbel (2012); Wu (2016); Mahmud and Arifin (2021)
Engaging with public needs and institutional realities	Navigating stakeholder dynamics, governance structures, and power relations	A more grounded and political understanding of design processes	Forsyth et al. (1999); Mancini and Glusac (2020); Wu (2016); Breed and Mehrtens (2021)
Exploring contextual specifies and global outlook	Responding to diverse urban conditions, cultures, and planning traditions	Adaptability and the ability to think beyond dominant paradigms	Radović (2004); Butina Watson (2016); Gu (2020); Sepe (2020)

Learning through experiencing space: Studio culture

Urban design pedagogy prioritises experience-based, hands-on working that most often focuses on real urban complexities (Savage, 2005). It values situated, bodily, and sensory engagement in knowledge production. At the core of this approach is the studio, which functions not simply as a classroom but as a laboratory for production and reflection. The studio culture fosters iterative thinking through cycles of design, critique, and revision, encouraging students to learn by doing.

Various scholars have emphasised the pedagogical value of studio-based teaching, particularly its capacity to foster experiential and practice-oriented learning (Gu, 2018; Lak and Aghamolaei, 2022). Different studio models have been developed to support this approach, including service-learning (Forsyth et al., 1999), integrated (Mancini and Glusac, 2020), hybrid

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(Senbel, 2012), and online formats (Cihanger Ribeiro, 2022). Most of these expose students in real-world urban challenges and enables iterative learning through cycles of design and revision. These approaches situate learning within both social and spatial realities, encouraging students to engage with the human, political, and sometimes institutional dimensions of urban space. That also includes understanding everyday life dynamics such as patterns of use, formal or informal practices that shape how space is inhabited and contested by people. Field-based observation also sharpens students' spatial perception (Wu, 2016) and allows them to negotiate ecological and administrative constraints in live public-sector projects (Breed and Mehrtens, 2021).

In some planning schools, studio-based teaching is already well established and has become part of an institutional culture. Yet in programmes not pedagogically anchored in studio formats, the inclusion of urban design becomes particularly significant. It introduces a space of direct spatial engagement, where students can work iteratively and contextually with the built environment, a mode of learning that is essential for developing spatial perception (Radović, 2004). The studio also enables students to synthesise insights through reflective experimentation, making it a site for value-testing (Chiaradia et al., 2017). This aligns with broader critiques of planning education's shift away from physical design. As Yavuz Özgür and Çalışkan (2025) argue, planning education initially distanced itself from spatial design, but later reintroduced it as a response to critiques that planning had become overly procedural and detached from the physical and material aspects of urban space. This shift was not simply a return to intuition-based design, but a move towards a more structured, reflective, and evidence-based approach to engaging with urban form, aiming to reintegrate design as a form of knowledge production within planning education.

A closer look at the evolution of planning education standards, particularly through a comparison of the 1995 and 2024 AESOP Core Curriculum[1], reveals a gradual de-emphasis on studio-based learning as a central pedagogical format. While the 1995 version explicitly emphasised design integration, laboratory exercises, and project-based engagement with real-world spatial problems, the 2024 update disperses these elements within a broader skills framework, where digital tools, leadership, and governance competencies are more prominently featured. This shift signals a declining emphasis on direct, embodied encounters with space. It is precisely in this context that the teaching of urban design becomes increasingly important, not to revive traditional studio formats, but to reassert the spatial dimension of planning through alternative pedagogical means. I argue that, especially in programmes where studio culture is absent or has been scaled back, urban design serves as a necessary channel through which students can critically and creatively engage with the physicality and lived experience of urban environments. Without this grounding, planning risks turning into an abstract exercise (probably detached from place, context, and reality) ultimately undermining its claim to shape meaningful urban futures.

Enhancing spatial thinking and formal reasoning

A core pedagogical value that urban design brings to planning education is the development of spatial thinking and formal reasoning. These competencies allow students not only to

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[1] https://aesop-planning.eu/activities/core-curriculum

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analyse and interpret the built environment, but also to (re)shape it with purpose, whether at the scale of the street, neighbourhood or entire city. While planning curricula often prioritise abstract policy frameworks, strategies and regulatory notes, urban design encourages direct engagement with the physical form and spatial organisation of cities. In doing so, it helps translate abstract knowledge into concrete spatial understanding, moving from strategy to intervention. It equips students to see how morphology influences both the lived experience and functional performance of urban environments.

A growing body of literature has reinforced the importance of embedding this kind of spatial reasoning into teaching practice. This includes historically grounded and analytically rigorous methods such as typological studies and layered mapping, as essential tools for helping students read, interpret, and intervene in urban form (Kropf, 2018; Gu, 2020) and visual thinking, precedent analysis, and diagrammatic reasoning in cultivating design fluency and spatial awareness (van den Toorn and Have, 2010). These tools enable students to explore form not as static composition, but as an evolving spatial order tied to use and meaning.

The literature expands this foundation by emphasising visual thinking and spatial concept development as key elements of active learning. This includes design methods such as sketching, mapping, and modelling, which enhance students' ability to reason spatially and think in form-based terms (Blazy & Łysień, 2021), as well as hands-on workshops using visual communication and rapid prototyping, which offer opportunities to convert abstract planning objectives into tangible urban solutions (Momirski, 2019). Additionally, digital tools like virtual reality are shown to deepen students' spatial cognition by immersing them in scaled environments where proportion, movement, and spatial relationships become more intelligible (Nisha, 2019).

These diverse methods, ranging from typological analysis to immersive technologies, support spatial literacy through iterative engagement with form. However, spatial thinking in urban design education is not reducible to technique. It involves understanding how spatial arrangements emerge from and respond to circulation, human activity, environmental conditions, and institutional frameworks. From this perspective, form-making becomes a critically reflective and socially embedded process (Elshater, 2014). Students are encouraged to interpret spatial configurations within their wider political, ecological, and cultural contexts. Through this approach, urban form is understood not only as a physical outcome of design, but also as a situated expression of how urban life is organised and experienced. Spatial reasoning thus becomes a means of understanding the complexity of cities and preparing planners to engage with it thoughtfully and responsibly.

Fostering critical reflection

Planning education has long supported critical thinking by encouraging students to engage with the socio-political dynamics that shape cities. Urban design education builds on this tradition by adding a reflective dimension that emerges through spatial inquiry and thinking. Rather than confining analysis to written or verbal formats, urban design encourages students to think critically through drawing, modelling, and visualisation. This design-based form of reflection is typically embedded in the studio, where students encounter the complexities of urban form through situated and often speculative design work. A particular method for this

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type of reflection is dialectical urbanism approach that emphasises critical engagement with the contradictions of urban space (Sargın and Savaş, 2012). Here, students are trained to see urban form not as a neutral backdrop, but as the result of conflict, negotiation, and layered meaning. Through critical mapping, narrative work, and tactical strategies, students are encouraged to interrogate how urban spaces are negotiated and shaped, while also developing a clearer understanding of their own role within the design process.

This process of reflection also requires confronting the ethical and normative choices embedded in design decisions. Urban design, as Chiaradia et al. (2017) remind us, is never value-neutral. By making these values explicit in the studio context, students are able to see the socio-political implications of their spatial interventions. A closer integration between theoretical critique and design application has been called for, with the argument that students must test their ideas within the constraints of institutional and spatial systems (Elshater, 2014). Such pedagogical approaches help to cultivate a form of reflexivity that goes beyond problem-solving. Reflexive thinking is essential, requiring students not only to question their proposals but also to interrogate the dominant assumptions that shape planning education itself (Cuthbert, 2001). When embedded in design-based learning, this reflexive stance enables future planners to navigate the tensions and ethical complexities involved in shaping urban space.

Learning through co-production

Urban design education also offers students the opportunity to engage in co-production by working collectively to develop spatial design proposals. This is a shared design process that unfolds through drawing and modelling, where decisions are shaped by dialogue, discussion, feedback, and revision. In this setting, students must respond to one another's ideas and learn how to build a proposal collectively. This kind of co-production fosters team-based thinking and collaboration skills essential to planning (Senbel, 2012). These methods help students articulate and test ideas collectively, allowing them to form a language that is intelligible across different disciplines such as planning, architecture or geography.

Co-production also fosters a deeper awareness of urban complexity. When students engage with interrelated ecological, infrastructural, and social themes in a design studio setting, they begin to recognise patterns of interdependence that influence both the content and form of urban design (Mahmud and Arifin, 2021). This approach, often grounded in systems thinking, teaches students to locate their individual contributions within a broader web of relationships. Wu (2016) notes that this mode of working encourages planners to move beyond disciplinary silos, particularly when the curriculum incorporates insights from regulation, landscape ecology, and environmental systems.

Such integrative pedagogies resonate with broader theoretical perspectives on interdisciplinarity in urban design. Rather than merely coordinating technical inputs from distinct fields, interdisciplinary collaboration invites students to engage with the challenging realities of urban life. Brandão and Remesar (2010) emphasise that this mode of learning seeks holistic synthesis, restructuring knowledge to reflect the evolving urban condition. Here, co-production becomes not just a method of collaboration, but a means of critically examining and reimagining the foundations of knowledge through collective inquiry.

Engaging with public needs and institutional realities

Urban design studios offer a setting where students can explore how spatial ideas take shape within institutional and societal frameworks. While planning education introduces students to governance systems, policy instruments, and modes of public engagement, urban design deepens this learning by asking students to translate these considerations into spatial form. Often, this occurs through site-specific design work that requires attention to the spatial qualities of a place as well as the expectations of communities, the demands of planning systems, and the limitations of available resources (Mancini and Glusac, 2020; Wu, 2016).

This embedded approach allows students to experience how design evolves through iteration and negotiation. In live public-sector projects, students are often required to adjust their proposals in response to ecological constraints, bureaucratic procedures, and stakeholder input (Breed and Mehrtens, 2021). Similarly, service-learning studios situate students within real communities and civic processes, prompting them to grapple with issues such as equity, access, and public need (Forsyth et al., 1999). These experiences highlight that design is shaped not solely by intention, but also by the systems within which it operates. Studio work, in this sense, becomes a means through which learners navigate the institutional contexts that influence spatial decisions. This mode of learning has also been linked to a deeper understanding of public interest and democratic process, supporting the integration of spatial thinking with social responsibility (Brandão and Remesar, 2010).

Exploring contextual specificities and global outlook

Finally, urban design education catalyses students' development of a deeper understanding of localities while also encouraging them to engage with broader urban trends and global concerns. This ability to connect site-specific conditions with wider processes is particularly important for planners working in increasingly complex and interconnected urban contexts. An important part of this learning involves developing the skills to read and interpret urban form. Here, Gu (2020) highlights the value of morphological analysis in helping students understand how cities evolve over time. By working with the spatial organization and historical layering of the built environment, students learn how to develop design strategies that respond to the character of a place while offering change. While doing that, engaging with the sensory and cultural aspects of place is also important (Radović, 2004). Without attention to these details, spatial design proposals risk becoming detached from the people and communities they are meant to serve.

On the other hand, this focus on context does not stand in opposition to global awareness. In this regard, Sepe (2020) calls for teaching methods that prepare students to address shared urban challenges such as climate change, social inequality, and public health. These themes may be global in scope, but they call for locally grounded strategies, as their implications are experienced differently in different localities. For example, to protect communities from the negative effects of heatwaves, urban design details will vary across different geographies. Therefore, while responding to global challenges, it also becomes crucial to respond to local-specific cultural and institutional settings.

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In this regard, contextually sensitive urban design enables students to move beyond generic proposals and instead develop responses that are informed by and attuned to place. A contextually responsive approach to design "seeks to create places of, for, and with local people" (Black et al., 2024, p. 19). As planning education increasingly incorporates digital tools (e.g. AI) and global references, the challenge is to ensure that students remain grounded in local realities, developing the capacity to interpret and respond to the distinctive social, spatial, and environmental dynamics of a given context. Thus, as Butina Watson (2016) reminds us, design education should help students become more reflective and adaptable, particularly in international or cross-cultural learning environments. Students need to recognise that planning systems, governance structures, and societal expectations vary widely—and that meaningful design must be responsive to these differences. By learning to connect local knowledge with broader spatial thinking, students become more capable of proposing designs that are both grounded and forward-looking.

Final reflections

The six pedagogical values discussed in this article highlight the significant contributions of teaching urban design to planning students. Urban design serves as an important mode of inquiry, advancing students' ability to read, analyse, and intervene in the urban built environment. By focusing on spatial reasoning, urban design enables students to understand how urban form operates across interconnected scales, from street and neighbourhood to district and city. This multiscalar awareness enhances their capacity to trace the spatial logic of planning decisions and critically evaluate their implications with precision.

Urban design also cultivates three-dimensional thinking by foregrounding the experiential and spatial dimensions of urban space. Methods such as modelling, section drawing, and site-based analysis help students translate abstract instruments (i.e. building regulations, density standards, and open space ratios) into spatial form. In doing so, they begin to assess whether planning decisions are responsive to context, and how design can mediate between policy aims and generated urban conditions. In addition, urban morphology can address the challenges derived from the piecemeal approach to urban development, which has resulted in disjointed urban fabric (Gu, 2018), a common issue, particularly in developing countries. Thus, it is essential for future planners to be trained to see the urban built environment as a whole, uphold ethical values, and avoid fragmented approaches.

This kind of spatial understanding is developed not through simulation alone, but through hands-on, iterative work where students learn by doing. For example, while AI tools have growing relevance in planning and design workflows, it is not the use of AI that poses a risk, but how it is integrated into educational programmes. When that integration is absent or unclear, students may resort to unauthorised or ethically questionable sources of production—bypassing the reflective, situated learning processes that spatial thinking requires. At the same time, the integration of AI into urban design education opens up a new arena for research, particularly around how these tools reshape spatial reasoning, authorship, and the pedagogical foundations of design learning. Exploring these dynamics is crucial not only for adapting curricula, but also for ensuring that technological adoption strengthens rather than erodes the core values of planning education.

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Finally, what makes urban design significant for planning education is not only its interdisciplinary reach, but its ability to create a setting where different modes of knowledge are brought into sustained dialogue. Analytical knowledge, often developed through policy analysis and socio-spatial research, is combined with spatial reasoning, which emerges through drawing and modelling. Spatial knowledge arises from engaging with physical form, construction methods, and environmental performance, while institutional knowledge stems from working within governance systems, regulations, and political constraints. In the design studio, these modes are not treated separately; they are tested, questioned, and reassembled through iterative processes of production and reflection. For example, when students test how a proposed layout interacts with land-use regulations or explore how a streetscape design can balance ecological concerns with accessibility, they learn how knowledge is produced, challenged, and applied in shaping urban outcomes. Urban design, in this sense, becomes a critical pedagogical ground where students learn to integrate insight with imagination, and where design reclaims its role as a form of inquiry within planning education. This integration enables future planners to approach urban complexity not with prescriptive answers, but with the capacity to navigate uncertainty, reconcile competing demands, and propose grounded yet visionary alternatives.

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