**Cite this article**
Cooper I (2024)
Editorial: Using urban design to make people's lives better: confronting the difficulties.
*Proceedings of the Institution of Civil Engineers – Urban Design and Planning* **177(4)**: 157–159,
https://doi.org/10.1680/jurdp.2024.177.4.157





**Urban Design and Planning**

# Editorial: Using urban design to make people's lives better: confronting the difficulties

**Ian Cooper** BSc, BArch, PhD
Eclipse Research, Cambridge, UK

There is increasing interest, globally, in how we can use urban design skills and expertise to (re)configure neighbourhoods to allow people to 'live well locally' - by providing them with access to the facilities, services and amenities they require within walkable distances of where they live and work (AlWaer and Cooper, 2023, 2024). Amongst policymakers, practitioners and community groups, this interest has been growing because of the need to confront the climate emergence, not least by reducing carbon emissions. More recently, it been turbo-charged by the experience of lockdowns introduced because of COVID-19. These vividly illustrated quite how poorly many people are served by their homes and immediate neighbourhoods (Grey and Kellas, 2020; Maguire, 2021).

In response to these challenges, urban design researchers (e.g. Boujari *et al*., 2023; Martins *et al*., 2021) have been busy investigating the building blocks needed for neighbourhoods to fulfil two spatially distinct goals:

1. to enable people to live well locally, and
2. to contribute globally to delivery of the UN's Sustainable Development Goals (SDGs).

Between them, the four papers in this issue of the journal continue this task, further illustrating:

- the kinds of premises (working assumptions/theories) underpinning how researchers define the problems they seek to address
- how they frame the types of questions that they are asking
- the sort of tools and techniques they are employing to answer them, and
- the nature of the results that they are generating.

In the first paper, Ibrahim Rotimi Aliu (Aliu, 2024) seeks to provide evidence about how the design of residential neighbourhoods in Lahore affects their 'walkability' - defined as the degree to which elements in their built environment support and encourage walking by:

> "... providing for pedestrians comfort and safety, connecting people with varied destinations, within a reasonable amount of time and effort, and offering visual interest in journey throughout the network".

His paper is based on the premise that urban design impacts significantly on people's wellbeing, but he accepts that little is known about how urban design elements, at street and community levels, shape neighbourhood walkability, particularly in the global south.

Despite this lack of knowledge, Aliu reports that:

> "... there is an increasing realisation by urban planners in recent times that urban design and physical planning can promote efficient intra-urban walkability, urban livability, urban vitality and sustainable urban environment".

Indeed, he cites a case study in his literature review that claim to show that the design of the built environment is by far the most important factor that promotes residents' physical activity and general mobility.

These are very large claims. Aliu examined them by using Walk Score, a free, publicly available e-based tool, to rate urban locations against an "objectively derived scale of proximity to several types of local destinations and street connectivity". His results indicate that higher density areas are more walkable. Aliu states that the urban design elements which need to be manipulated, at street level, to influence walkability can be reduced:

> "... to just seven urban design variables, namely connectivity, safety, sidewalks, aesthetics, paths, accessibility and barriers".

And he recommends that encouraging walking behaviour through urban design can, not only promote urban sustainability, but can also help deliver SDGs' overarching environmental, social and economic goals.

Snehal Ritesh Chauhan and Ravin Maheshbhai Tailor's paper (Chauhan and Tailor, 2024) is focused on the challenge presented by rapid urbanisation in India. This is resulting in both urban sprawl and unplanned development. They argue that, instead, development should be designed to follow the notion of the 'compact city'. This is to be preferred as being more efficient and cost-effective, with less resource use and environmental impact, because it optimizes land use and maximizes population capacity. The authors set out to critically evaluate Surat city's urbanization

through the lens of the compact city model by using satellite images, GIS techniques, and census data. They sought to analyse changes in population density for city wards over three decades (1991 to 2020).

Their analyses indicate that in some of the city's wards density has increased, driving up the city's average population density four-fold, from 5,006 to 20,329 persons per sq. km. Denser, more compact cities are, they note, often touted as being more sustainable. But Chauhan and Tailor suggest that their analyses of Surat's urbanization present a more nuanced picture. While increased density can lead to more efficient cities, it also raises significant challenges in the context of developing nations, where infrastructure may not keep pace with rapid densification. So, they suggest, policymakers must carefully balance the benefits of density with potential drawbacks. Despite their qualified endorsement, the authors conclude by arguing that Surat's governing authorities:

> "... must incorporate the compact city concept into the planning policy for sustainable urban development. By this, policymakers can understand housing needs to promote affordable housing, invest in infrastructure development and public services, and identify areas where sustainable transportation options, such as public transit, walking, or cycling, need improvement".

As well as reducing resource consumption and environmental impact, sustainable urban development is also meant to improve people's quality of life (QoL). The third paper, by Amal Hamdy (Hamdy, 2024), spells out in detail 'objective and subjective factors' to be addressed when investigating QoL, along with indicators required to measure them. He sought to evaluate how well two neighbourhood design initiatives – New Urbanism (NU) and Leadership in Energy and Environmental Design for Neighborhood Development (LEED-ND) – perform against these factors. His starting point is that the degree to which employing these two design initiatives effectively enhance QoL remains, in practice, questionable.

His paper reports his attempt to evaluate the efficacy of these two initiatives' key design practices by examining residents' levels of satisfaction, in three Midwest neighbourhoods in the US, against five key attributes held to enhancing QoL: safety, comfort, connectivity, sense of place, and aesthetic appeal. He collected responses from residents of his selected neighbourhoods via. a questionnaire, used to gather information about their perceptions of these attributes in their own neighbourhoods. He then submitted their responses to quantitative analysis to identify what he presents as the key determinants of QoL.

Hamd's study revealed, for instance, that, although New Urbanism encourages walkability, residents in both of the NU neighbourhoods he examined relied heavily on vehicles for their daily needs. This finding contains an important message for policymakers, planners and designers. Simply manipulating the design of a built environment to achieve a desired outcome does not mean that those who occupy and use it will behave as intend. The relationships between environment and behaviour are much more complex than this.

Overall, Hamd's study detected a positive association between safety and comfort and overall QoL. But he expresses a much broader aspiration here:

> "Since QoL reflects social sustainability, satisfying preferences for better spatial QoL dimensions also improves social sustainability".

Here the causality inferred is clear: the spatial determines the social. As a result, Hamd concludes that enhancing design parameters used in both NU and LEED-ND certification would not only improve QoL but could also bridge the gap between professionals' perspectives and residents' preferences.

The fourth paper, by Dingran Chen (Chen, 2024), looks at urban design from a related but quite different perspective. He explores whether urban designers can utilise modern geographic information technology, spatial analysis, data support, community engagement, and transdisciplinary knowledge to regenerate historic districts effectively. Like Aliu above, Chen also identifies a lack of systematic, in-depth empirical grounded research in his field – historically-focused urban design. This, he suggests, is dominated by descriptive case studies. His paper contains a comparative analysis, based on a literature review, through which he seeks to offering new perspectives and theoretical support for the sustainable development of historic districts. Such areas he categorises as being repositories of cultural heritage and social memory, embodying the historical and architectural essence of urban development.

Chen characterises contemporary urban design strategies for the conservation and revitalisation of such districts as lacking integration with urban data analysis, bottom-up management approaches, and transdisciplinary research. This limits its convergence with other disciplines and debates on artificial intelligence, big data analysis, and sustainability and has given rise to a scarcity of critical insights in research on historic districts. As a result, he suggests, there remains a fundamental research gap due to the lack of systematic and in-depth empirical analysis into the conservation of historic districts globally. However, he argues, the conservation and revitalisation of such districts can and should be align with the principles of the United Nations Sustainable Development Goals, particularly SDG 11, which aims to make cities and communities inclusive, safe, resilient, and sustainable.

As the descriptions above show, each of the authors in this issue of the journal accepts the premise that design of the built environment can make people's lives better. But demonstrating the cause and effect implied here has proved elusive. This was made profusely clear by Lees and Warwick (2022) in their highly detailed

analysis of the implementation and impact of a previous planning nostrum – defensible space and its descendant, design against crime. This approach to urban design received both government backing and widespread professional uptake both in the UK and the US. The mixed history of what was achieved using this approach to structuring urban form led Lees and Warwick (p. 230) to suggest (following Marshall, 2012) that:

> "... while urban designers do recognise and use evidence, the sector's inability to ensure that the 'scientific empirical evidential bases for its theories' underpinning assumptions are correct, consistent and up to date' undermines the extent to which evidence is valued".

Between them, the authors in this issue of the journal demonstrate the extreme complexity of attempting to manipulate the form and (infra)structure of neighbourhoods – in the service of delivering a sustainable urban environment capable of improving people's quality of life by preserving their cultural heritage and by encouraging them to live well locally. This complexity is signalled by the large number of physical variables they identify as being involved in attempting to achieve this. In practice, even this level of this complexity (Romice *et al.*, 2022) is compounded because a host of social, economic, cultural and political factors can intervene. Not least of these is whether any chosen urban design runs with, or against the grain of, how people choose (or are forced by other circumstances) to live their lives. Working against the grain, the power of urban design, labouring alone, to bring about the changes – that the authors, and the policymakers, planners and designers they are seeking to influence, desire – can become curtailed or simply derailed.

## REFERENCES

Aliu IR (2024) How do urban designs shape residential neighbourhood walkability? Evidence from metropolitan Lagos. *Proceedings of the Institution of Civil Engineers – Urban Design and Planning* **177(4)**: 160–180, https://doi.org/10.1680/jurdp.23.00057.

AlWaer H and Cooper I (2023) Unpacking the concept of 20-minute neighbourhoods: disentangling "desired outcomes" from the "means" available for achieving them. *Open House International*, DOI https://doi.org/10.1108/OHI-11-2022-0285.

AlWaer H and Cooper I (2024) *Understanding the 20-Minute Neighbourhood: Making opportunities for people to live well locally*. University of Dundee, https://doi.org/10.20933/100001289.

Boujari P, Vahabi S, Mahdi F, Rezaeisalim M and Shahmiri M (2023) The COVID-19 pandemic and urban density: a systematic literature review. *Proceedings of the Institution of Civil Engineers – Urban Design and Planning* **176(2)**: 77–91.

Chauhan SR and Tailor RM (2024) Surat's sustainable future: analyzing compact urban development and population density trends. *Proceedings of the Institution of Civil Engineers – Urban Design and Planning* **177(4)**: 181–194, https://doi.org/10.1680/jurdp.24.00005.

Chen D (2024) Examining urban design strategies in historic districts: a systematic literature review. *Proceedings of the Institution of Civil Engineers – Urban Design and Planning* **177(4)**: 232–239, https://doi.org/10.1680/jurdp.24.00046.

Gray S and Kellas A (2020) Covid-19 has highlighted the inadequate, and unequal, access to high quality green spaces, The BMJ Opinon, See https://blogs.bmj.com/bmj/2020/07/03/covid-19-has-highlighted-the-inadequate-and-unequal-access-to-high-quality-green-spaces/.

Hamdy A (2024) Quality of life: quantitative analysis in New Urbanism and LEED-ND certified neighbourhoods. *Proceedings of the Institution of Civil Engineers – Urban Design and Planning* **177(4)**: 195–231, https://doi.org/10.1680/jurdp.24.00008.

Lees L and Warwick E (2022) *Defensible space on the move: mobilisation in English housing policy and practice*, The Royal Geographical Society and John Wiley & Sons Ltd, Chichester, UK.

Maguire R (2021) Covid-19 and wellbeing inequalities: housing: a briefing from the What Works Centre of Wellbeing, Centre for Thriving Places, See https://whatworkswellbeing.org/wp-content/uploads/2021/07/www-b15-WIRED-housing-FINAL.pdf.

Marshall S (2012) Science, pseudo-science and urban design, *Urban Design International* **17(4)**: 257–271.

Martins M, Kalil R and Rosa F (2021) Sustainable neighbourhoods: applicable indicators through principal component analysis. *Proceedings of the Institution of Civil Engineers – Urban Design and Planning* **174(1)**: 25–36.

Romice O, Rudlin D, AlWaer H *et al.* (2022) Setting urban design as a specialised, evidence-led, coordinated education and profession. *Proceedings of the Institution of Civil Engineers – Urban Design and Planning* **175(4)**: 179–198, https://doi.org/10.1680/jurdp.22.00023.