

Why is the philosophy of space important for the vision of sustainable urban development?

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Abstract

This article examines the philosophy of space in the epistemological and normative context of its relationship to sustainable urban development. This is crucial amidst the strong influence of the technocratic paradigm in the urban planning process, which tends to reduce space to a physical-economic entity and ignores the social, cultural, and political dimensions. This study uses a qualitative approach based on critical literature studies on relevant topics and theoretical analysis as conceptual legitimacy, with the unit of analysis being the conception of space as a social construction produced through power relations, representational practices, and lived space experiences. The findings of this study indicate that the use of the philosophy of space in urban development offers the opportunity to reorient spatial policies with an inclusive, participatory, and equitable vision. In this context, a reconstruction of the urban development paradigm is needed that places humans, spatial justice, and ecological sustainability as the essence of planning.

Abstrak

Artikel ini mengkaji filsafat ruang dalam konteks epistemologis dan normatif hubungannya dengan pembangunan perkotaan berkelanjutan. Hal ini sangat penting di tengah pengaruh kuat paradigma teknokratis dalam proses perencanaan kota, yang cenderung mereduksi ruang menjadi entitas fisik-ekonomi dan mengabaikan dimensi sosial, budaya, dan politik. Studi ini menggunakan pendekatan kualitatif berdasarkan studi literatur kritis tentang topik-topik yang relevan dan analisis teoretis sebagai legitimasi konseptual, dengan unit analisis berupa konsepsi ruang sebagai konstruksi sosial yang dihasilkan melalui relasi kekuasaan, praktik representasional, dan pengalaman ruang yang dialami. Temuan studi ini menunjukkan bahwa penggunaan filsafat ruang dalam pembangunan perkotaan menawarkan peluang untuk mengorientasikan kembali kebijakan spasial dengan visi inklusif, partisipatif, dan adil. Dalam konteks ini, diperlukan rekonstruksi paradigma pembangunan perkotaan yang menempatkan manusia, keadilan spasial, dan keberlanjutan ekologis sebagai esensi perencanaan.

Keywords

philosophy of space; urban development; sustainability; spatial justice

1. Introduction

The development of modern cities today is characterized by the strong currents of urbanization, rapid infrastructure growth, and economic growth (Seliverstov et al., 2020). This encouraging progress, on the other hand, has given rise to social inequality, environmental crises, and the marginalization of social groups, particularly in urban areas (Kammerbauer & Wamsler, 2017). These social phenomena indicate that urban development is not merely a technical matter but also involves the philosophical dimension of how space is understood and managed (Haj-Bolouri et al., 2024). Several facts indicate that the current urban development paradigm tends to be oriented toward economic efficiency and the optimal use of physical space (Capello, 2013). As a result, space, a social product rich in meaning, power relations, and identity, appears to be neglected by urban development planners (Neill, 2003). To this end, an alternative approach is needed that can view space more holistically. This is where the philosophy of space is needed as a conceptual framework for a more elaborate understanding of space as a social construct (Kühne, 2018).

This aligns with the trend in urban space studies over the past two decades, which has seen a paradigm shift from a positivistic approach to a critical and humanistic one (Davoudi, 2012). This trend is evident in the current trend, where the shift toward space has successfully bridged the gap between the humanities and social sciences by making space a category of analysis. Urban space is then imagined as an entity that is not passive, but dynamic in its relationship to economics, politics, and culture (Soja, 1999). Recent research appears to use the conceptual framework of *Urban Political Ecology* (UPE) to analyze socio-ecological inequalities in urban areas, such as the phenomenon of spatial struggles seen as a context of class struggles and elite interests (Keil, 2020). Furthermore, Lefebvre's concept of spatial production (A. Ahmadin et al., 2025) has been widely adapted and used as an instrument to analyze how a space is conceived by the state and urban development planners in conflict with the living space of the community, as seen in many cases of reclamation in various cities.

Despite the rapid growth of critical studies on urban space, problems remain, particularly with the trend toward case studies focused on the sociology and politics of space (Jabareen & Eizenberg, 2021). Critical thinking remains technocratic, thus failing to accommodate citizens' rights to the city and their diverse needs (Friedman, 2019). Similarly, the study orientation has not fully adapted the philosophy of space as an approach and analytical tool for sustainable urban design. This means that there is still a dichotomous separation between the discourse of the philosophy of space and its implementation on the ground, so that solutions are generally trapped in the logic of conceived space.

A philosophical foundation is particularly urgent in addressing the failure of the technocratic paradigm to provide solutions to the various crises plaguing contemporary cities. For example, reclamation projects and the development of new residential areas (Huang et al., 2025), which were considered solutions to urban residents' spatial problems, have in fact given rise to new spatial problems, such as flooding and the threat of rising water levels, which have led to social dislocation and ecological damage (McGrath et al., 2022). The development of housing complexes in locations previously considered slums in urban areas cannot be viewed solely as a community-based social project but also as a social problem, particularly for those economically disadvantaged. This is where understanding the philosophical dimension of space becomes crucial in guiding the process of creating just and sustainable cities.

This article offers a conceptual framework that connects the philosophy of space (specifically the theory of spatial production) (Schmid, 2008) with various technical indicators of sustainable development. For example, it articulates the concept of lived space (Norlyk et al., 2013) as a parameter for measuring quality of life using economic indicators in urban

development projects (Khalil, 2012). Furthermore, this study also seeks to formulate principles of spatial justice (Fainstein, 2016) that can be used in the planning process and as a basis for urban development policy-making, and provides case studies in different geographic contexts for comparison. In short, the philosophy of space serves as a conceptual framework for understanding the existence of space as a product of social construction and its contribution to sustainable urban development (A. Ahmadin, 2024).

2. Method

This research employs a qualitative approach with a critical and reflective literature review (M. Ahmadin, 2022). This approach is considered relevant to the study's orientation because it discusses the philosophy of space in depth from an epistemological perspective and connects it to the vision of sustainable urban development.

2.1 Type and Approach

This research is a theoretical qualitative study, employing critical hermeneutics and conceptual analysis. The use of hermeneutics is intended as a tool for interpreting texts on the philosophy of space and city government policies contextually. Conceptual analysis is used to examine the meaning of space, which has so far been reduced to a conventional and rigid technocratic paradigm.

2.2 Data Sources

The research data used in this study were obtained from various primary and secondary sources. Primary sources include a number of works on the philosophy of space written by pioneers of the study, such as Henri Lefebvre with his concept of the production of space, David Harvey who introduced the concept of Social Justice and the City, Edward Soja who popularized the concept of Thirdspace, and others. Another primary source was obtained from a number of development documents from the city government regarding the concept of sustainable development and the achievement elements of the global Sustainable Development Goals (SDGs), especially goal 11, namely sustainable cities and settlements. Secondary sources were obtained from various articles published in national scientific journals (including those indexed by Sinta and reputable international journals indexed by Scopus and Web of Science (WoS)), books on the sociology of space, urban sociology, urban geography, architecture and urban planning, and others, as well as various development reports published in various research projects.

2.3 Unit of Analysis

The unit of analysis for this research is space as a social construct viewed from a philosophical perspective. The focus is on the production of urban space as a result of power relations, representational practices, and the space experienced by urban communities in everyday life.

2.4 Data Collection

Data collection was conducted through documentation techniques and a critical study of relevant literature. During the search phase, a selection and organization of several texts relevant to the study topic were carried out using the following keywords: philosophy of space, ontological dimensions of space, epistemological dimensions of space, axiological dimensions of space, spatial justice, sustainable urban development, technocratic paradigm, and production of space.

2.5 Data Analysis

The research data were analyzed using critical theoretical methods. Conceptual legitimacy. The steps include: (1)

theoretical reduction, which involves identifying and sorting key concepts in philosophy and development planning; (2) categorization, which involves grouping concepts into three: physical-economic space, socio-political space, and normative-ecological space.

2.6 Interpretation and Synthesis

Interpretation is conducted critically by examining the process of spatial reduction within the technocratic paradigm that influences the vision of sustainable development and urban spatial justice. Synthesis is conducted conceptually by formulating a reduced paradigm for inclusive, participatory, and equitable urban development based on its philosophical foundation.

2.7 Data Validity

To ensure data validity, theoretical credibility is tested using various theoretical sources from multiple perspectives and repeated literature reviews to ensure the absence of errors.

3. Result and Discussion

4.1 Criticizing the Conventional Development Paradigm

Referring to the vision of urban development, it shows that the conventional development paradigm is still dominated by a technocratic and economic approach (Ormerod, 2019). This paradigm envisions space as merely a commodity and an object of exploitation. This paradigm has been criticized, at least in part, by Lefebvre, who refers to capitalist society as a means of capital accumulation (Kipfer, 2002), rather than as a meaningful arena for social life. This condition results in spatial inequality (Lessmann, 2014), where access to quality space is very limited and unequally distributed according to class, gender, and ethnicity (Lessmann, 2014). For example, various megaprojects in urban areas, including reclamation projects with a revitalization concept, tend to pay little attention to the use value of a space for the local community. Instead, they focus on exchange values such as land prices, investment, and financial gain as their primary objectives. This is precisely what Harvey critiques: the practice of accumulation through the appropriation of public wealth (Das, 2017) is carried out through the act of converting private assets through market mechanisms.

Public spaces such as city parks, sidewalks, and squares (A. Ahmadin, 2023) are designed through hostile architecture that excludes social groups such as street vendors, the homeless, and people with disabilities. This is where the existence of space is never neutral, but always dynamic, filled with class and power struggles wrapped in artistic design (M. Ahmadin, 2025). That is why observers of urban space studies reject the conventional paradigm, arguing that its development vision exclusively favors certain parties. Conversely, it ignores the voices and social rights of city residents (Rolnik, 2014) and fails to consider ecological sustainability (Northrop & Connor, 2013). In short, the core criticism of the conventional development paradigm lies in its vision, which often ignores human values and favors the interests of certain parties.

4.2 Space as a Social Construct

Space, in the context of spatial sociology (A. Ahmadin, 2025), is not merely perceived as an objective and measurable physical entity, but as a social construct shaped by practices, meanings, and power relations within society. In relation to philosophy, Lefebvre has emphasized in his writings that space is a social product (Lefebvre, 2012). For example, let's observe and interpret the diverse and different spatial experiences of street vendors, slum dwellers, office workers, beggars, and people with disabilities. How they imagine the city to be for its citizens will differ from one another based on their perspectives.

Specifically, in the symbolic aspect of a city park, designed as artistically as possible with its modern appearance (Usman, 2024), on the one hand can be interpreted as an indicator of a city's progress, especially by its designers. However, on the other hand, it can be perceived differently and perceived as a sign of inclusion by city residents who feel unwelcome in that public space. Similarly, reclaimed public spaces, such as the Center of Point Indonesia (CPI) area in Makassar, can be interpreted as symbols of prestige, particularly for the middle class, and even perceived as representative spaces (Kempf & Ness, 2006) for walking activities. However, on the other hand, these luxuriously designed public spaces (de las Rivas Sanz, 2017) are often seen as symbols of spatial injustice (Pedersen, 2022), particularly for residents who were evicted in preparation for the development of this elite area. This phenomenon is interestingly linked to the concept of spatial hermeneutics, popularized by Ricoeur (Bilimoria, 2004) and Gadamer which envisions space as a text containing ideological messages and requiring critical interpretation (Gadamer, 2006).

Furthermore, space as a product of social construction (HARVE, 1994), can be interpreted as a dynamic and changeable entity. Therefore, the existence of space is also understood as a product of social relations, which, in their processes, result in spatial change. An interesting example is the case of two traditional markets in Makassar: Karuwisi Market and Terong Market, which the city government has attempted to regulate through repairs or the construction of roads that divide the market areas. In government projects deemed unfair, especially for groups deemed displaced, a movement to seize urban space, facilitated by their agencies, emerged. Street vendors, claiming the market space along the main road as their own, used it as a trading area along the road. The market returned to congestion and chaos, and even the main road could not function properly. This practice of seizing urban space is interestingly linked to the concept of tactics introduced by de Certeau (Tonkiss, 2004) and the concept of the right to the city popularized by Lefebvre (Merrifield, 2011).

3.3 Philosophical Dimensions of Space

3.3.1 The ontological dimension of space (Perry et al., 2006), which questions whether space truly exists. In the history of philosophy, there are two main opposing views: Newton, who envisioned space as an absolute substance (Belkind, 2007), and Leibniz, who perceived space as merely a system of relations between objects, where without objects, space would have no meaning (Slowik, 2016). Modern thought, based on Lefebvre's view, considers space not a passive stage, but a social product (Lefebvre, 2014). Its ontological existence is inseparable from human spatial practices and experiences, including action, work, and conflict. For example, the ontological existence of a city park is not merely a geometric coordinate, but a space created by government decisions, the needs of city residents for walking, street vendors, and collective memory.

3.3.2 The epistemological dimension of space (Khan et al., 2013), which examines how knowledge about space is acquired and how that knowledge is constructed. For example, distinguishing space according to the following categories: physical, mental, and social. In Lefebvre's view, space consists of three types: (a) spatial practices, namely how humans use and experience space in everyday life; (b) spatial representations, namely space conceptualized by scientists, technocrats, and urban planners; and (c) represented space, namely space experienced and interpreted by residents through symbols and imagination (Watkins, 2005).

3.3.3 The axiological dimension of space (Bredikhin et al., n.d.), namely discussing the values associated with certain spaces, such as spaces considered beautiful, sacred, good, comfortable, or otherwise. For example, spatial justice, the axiological question is how should space be created? Edward Soja and David Harvey answer this question by arguing that spatial justice is related to the distribution of access to spatial resources that is not unequal.

4.3 Integration of Spatial Philosophy in Urban Planning

Referring to several fundamental assumptions of the conventional urban development paradigm, which are considered flawed and based on the paradigm of space as a social construct, this study recommends the importance of using a spatial philosophy integration model in the urban planning process. This model is not a rigid doctrinal necessity, but rather a principle-oriented proposal that accommodates the diverse needs of local residents.

First, a participatory approach involves full citizen involvement, from the initial spatial planning stage to the maintenance stage (Baker et al., 2010). This form of participation is not merely a formality, involving deliberations on a previously finalized plan or simply legitimizing a well-developed policy. Ideally, a participatory approach involves elements from marginalized groups whose voices are rarely heard, such as minorities, children, women, the elderly, and others. In another article, I once recommended the importance of involving or listening to children's voices (aspirations) in the planning and development of urban public spaces. This means that the participatory involvement of all relevant elements in urban planning ensures equitable and sustainable development.

Second, an inclusive approach to spatial design, namely the design of sustainable urban space development that is accessible and usable by everyone without exception and does not create fear, shame, threat, or intimidation. Inclusive public spaces (Chuangchai & Pothisiri, 2025) are also characterized by easy social, economic, and psychological access and the availability of supporting facilities that can meet the needs of visitors without discriminating against one another. If the public space is a traditional market that is being developed, it does not displace small traders but can relocate their sales locations without harming them. Public spaces in the form of city parks, ideally designed to include a number of facilities that can be enjoyed by children through play activities, available breastfeeding rooms for mothers, there are guiding blocks for the visually impaired, wheelchairs for the disabled, a number of other supporting facilities.

Third, an approach that prioritizes social justice and, in its operation, recognizes that spatial inequality is also a manifestation of social inequality (Israel & Frenkel, 2018). Therefore, a policy is considered successful if it can reduce cases of spatial inequality and instead favor the vulnerable. For example, the wealthy can cover waste collection fees and exempt the vulnerable from certain residential areas. Furthermore, there is a government commitment to eliminate the practice of evictions without proper relocation.

Fourth, a dialogical approach to urban planning involves not only technocrats and economists but also experts from various disciplines (Fox & Margalit, 2026). Urban spatial design also requires the contributions of philosophers, sociologists, anthropologists, and community activists concerned with the environment and residential spaces (Cihanger Medeiros Ribeiro, 2018), resulting in strategic decisions that serve the common good. The role of spatial philosophy in urban development and expansion is as a critical counterpoint to the hidden visions of technocrats who often ignore value aspects due to their focus on economic profit.

1.4 Implications for Sustainable Urban Development

The integration of spatial philosophy into the planning and design process for urban development (Khan et al., 2014) can be operationally seen from three dimensions: the urban environment, social conditions, and economic activity (Farinmade et al., 2018). *First*, the environmental dimension utilizes a philosophical approach (Brenner, 2018) that envisions space not merely as an object of exploitation, but rather as a place with meaning, function, and value. To this end, open community involvement in urban spatial planning will undoubtedly make a significant contribution, as they will voice their aspirations, oriented toward solutions to the problems they experience in their neighborhoods. This is rational because they have emotional and cultural ties to their homes, so their best hopes for the advancement of urban spaces undoubtedly become their dreams.

Second, the social dimension ideally orients toward urban planning based on spatial awareness with a strong vision of social cohesion (Cook & Swyngedouw, 2012). For example, a public space, such as a child- and disability-friendly city park designed inclusively and participatively, will become a popular destination for many visitors. Over the long term, such a public space will gain the trust of the community, thereby strengthening social capital. Thus, this will form the basis for the development of sustainable urban spaces characterized by peace and democracy (Bollens, 2006).

Third, the economic dimension, which upholds the concept of spatial justice (Hafeznia & Ghaderi Hajat, 2015), is guaranteed to bring positive consequences, particularly in improving the quality of life and the environment. For example, developing residential areas in strategic locations, providing affordable transportation, and inclusive public spaces are long-term investments aligned with the concept of sustainable urban development. Several facts indicate that young professionals, investors, and creative workers are currently tending to prefer cities that balance economic efficiency and quality of life. This demonstrates that within the vision of sustainable urban development, the dimensions of social and economic needs are interconnected and inseparable.

Ultimately, it is understandable that the ideals of sustainable urban development cannot be achieved without a paradigm shift in understanding space. As long as urban spaces are still considered as exploitable commodities, development will continue to experience inequality, exclusion, and environmental damage. Conversely, if urban spaces are perceived as products of social construction, rich in meaning, a field of power struggles, and a shared identity, urban planning and development will be oriented towards spatial justice, participation, and sustainability (Campbell, 2013). The role of philosophy in spatial studies can be used as an analytical tool as well as a normative foundation for policy reconstruction and to discuss various contemporary urban issues, such as: the housing crisis, gentrification, spatial segregation, evictions, the privatization of public space, and other spatial issues.

4. Conclusion

Based on the discussion of the research results, it can be concluded that the philosophy of space can make a valuable contribution to the formulation of a vision for sustainable urban development. At the very least, it can raise awareness of the technocratic paradigm that reduces space to merely a physical and economic commodity. Through arguments built from a critical reading of several studies and conceptualizations on relevant topics on the philosophy of space, space is explained as a social construction involving power relations, representational practices, and spatial experiences in everyday life. Thus, the formulation of sustainable urban development requires an inclusive, participatory, and spatially just paradigm. The development vision is envisioned as a future social agenda that places humans and ecology as crucial elements in urban spatial design and urban economic growth.

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