Megaron, Vol. 21, No. 2, pp. 212–227, June 2026

Megaron
https://megaron.yildiz.edu.tr - https://megaronjournal.com
DOI: https://doi.org/10.14744/megaron.2026.02185

Article

From philosophical plateaus to analytical toolboxes: A systematic review of the methodological evolution of assemblage theory in urban research

Öznur Sayi, Senem Kaymaz

Department of Architecture, Yildiz Technical University, Istanbul, Türkiye

ARTICLE INFO

Article history
Received: 8 April 2026
Revised: 31 May 2026
Accepted: 4 June 2026

Key words:
Assemblage theory; Deleuze and Guattari; urban research; urban spatial politics; systematic literature analysis.

ABSTRACT

This study examines the theoretical trajectory, methodological openings, and conceptual patterns of assemblage theory in 21st-century urban research. Moving beyond structuralist limitations in explaining urban complexity, the research evaluates assemblage's capacity to conceptualize the city as a relational process of becoming rather than a static object. A Systematic Literature Review (SLR) was conducted in Web of Science and Scopus databases in accordance with PRISMA 2020 standards; following a rigorous screening, 33 core articles were included. The research employs bibliometric mapping via VOSviewer, synthesized with a qualitative thematic synthesis to decode the field's intellectual structure.

Results indicate that the literature is organized through a horizontal and relational distribution of multiple theoretical intensities rather than a single center. The thematic synthesis reveals four primary clusters: Relational urbanism and the ontology of becoming, urban spatial politics and power struggles, ethical and methodological transformation in planning, and affective micro-practices. These clusters function as interconnected multiplicities with fluid boundaries, indicating that assemblage has evolved from philosophical abstraction into a functional methodological toolbox equipped with techniques such as tracing, mapping, and case-study analysis. The study concludes that assemblage is a relational reading practice offering a new research opening where structuralist readings falter. However, a strategic gap is identified regarding the concept of "desire," which remains overshadowed by "affect" in empirical studies. This highlights that the field maintains a theoretically open structure conducive to further ethical, political, and methodological deepening.

Cite this article as: Sayi, O., & Kaymaz, S. (2026). From philosophical plateaus to analytical toolboxes: A systematic review of the methodological evolution of assemblage theory in urban research. Megaron, 21(2):212–227.

***Corresponding author**
*E-mail address: osayi@ticaret.edu.tr

Published by Yıldız Technical University, İstanbul, Türkiye
This is an open access article under the CC BY-NC license (http://creativecommons.org/licenses/by-nc/4.0/).

INTRODUCTION

The limitations of traditional structuralist approaches in explaining the increasing complexity of the city have brought new theoretical and methodological questions to the fore in urban research (Farías, 2011; McFarlane, 2011). In this context, assemblage theory opens a relational conceptual frame for approaching the urban beyond the image of the city as a fixed, bounded, and totalized formation, foregrounding processes, heterogeneous multiplicities, and continuous becoming (Deleuze & Guattari, 1987; Nail, 2017). This study examines how assemblage theory has evolved in twenty-first-century urban research from a philosophical idea into a conceptual, analytical, and methodological toolkit. This transformation is evaluated through a reading that retains a close connection to Deleuze and Guattari's discussions of relationality, becoming, desire, and machinic arrangements (Deleuze & Guattari, 1987; Buchanan, 2015). Structured according to PRISMA 2020 standards, this systematic literature review draws on articles indexed in Web of Science and Scopus and builds on an analytical corpus of 33 articles (Page et al., 2021). Bibliometric analysis and VOSviewer-based science mapping reveal the literature's intellectual genealogies and conceptual intensities (van Eck & Waltman, 2023). Qualitative thematic synthesis extends this mapping by interpreting these intensities not as fixed categories, but as multiplicities that form rhizomatic relations with one another (Deleuze & Guattari, 1987). This dual-layered analysis moves the study beyond a descriptive review by clarifying assemblage theory's thematic axes, conceptual patterns, theoretical divergences, methodological openings, remaining gaps, and future research directions in urban studies.

The intellectual ground of assemblage thinking can be traced back to Deleuze and Guattari's Anti-Oedipus (1972), particularly through the concept of "desiring-machines," which frames desire as a productive force of connection rather than a logic of lack (Deleuze & Guattari, 1983; Müller, 2015). This framework was further developed in A Thousand Plateaus (1980) through the concept of agencement, understood as a relational multiplicity that changes as new connections are formed (Deleuze & Guattari, 1987). Unlike a happenstance collection or arbitrary compilation of entities, agencement describes a specific composition defined by co-functioning, emergent capacities, and the virtual potentials opened through becoming (Buchanan, 2015; Shafique, 2022). Therefore, while the term is frequently translated as "assemblage" in Anglophone literature, this study remains attentive to the Deleuzo-Guattarian conceptual force of agencement in order to capture the relations, capacities, and intensities immanent to urban processes (Phillips, 2006).

According to Deleuze and Guattari, the assemblage is formed through a dynamic tension between the system of strata and the plane of consistency, with one face turned toward stratification and the other toward consistency (Deleuze & Guattari, 1987) (Figure 1). The face turned toward the system of strata explains how assemblages become coded, stabilized, and stratified. This stratifying movement operates through a tetravalent, two-axis structure: The vertical axis marks the movements of territorialization and deterritorialization, while the horizontal axis performs double articulation, organizing matter as content, or the machinic assemblage of bodies, and expression, or the collective assemblage of enunciation (Deleuze & Guattari, 1987) (Figure 2). This horizontal articulation is not a simple classification of elements. It is an arrangement of content and expression through which desire gives the assemblage its consistency and capacities, distinguishing it from a happenstance collection (Buchanan, 2015). Spatially, strata code desiring-production into forms and substances, producing striated space in which movement is ordered, hierarchized, and controlled (Deleuze & Guattari, 1987; DeLanda, 2006; Dovey, 2010).

The face turned toward the plane of consistency refers to a field of speeds and intensities in which socio-material flows pass beyond imposed boundaries and codes through lines of flight (Deleuze & Guattari, 1987; Müller, 2015) (Figure 3). While strata code these flows into forms, substances, and controlled movements, lines of flight open new possibilities of connection and movement that leak through the coded order. On this plane, desire, affect, and material flows intensify beyond fixed organization and produce new spatial capacities. In this movement, nomadic abstract machines smooth the spaces they traverse and open mobility within and against striated space (Deleuze & Parnet, 2002;

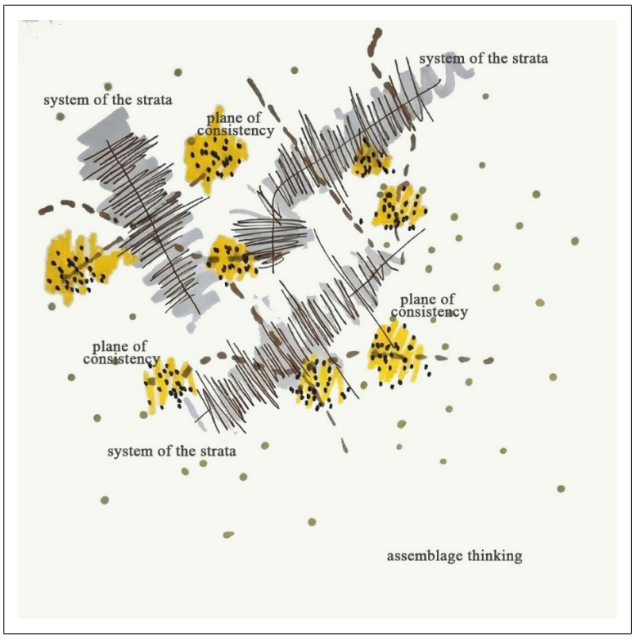

Figure 1. Assemblage thinking (Design by Authors).

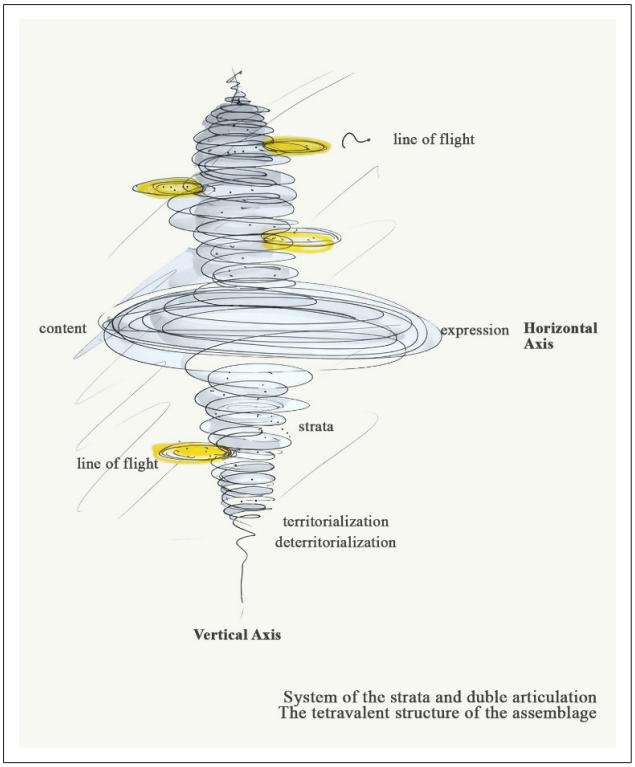

Figure 2. The tetravalent structure of the assemblage (Design by Authors).

Nail, 2017). Assemblage is therefore a process of becoming formed through the tension between strata and consistency; a heterogeneous multiplicity driven by flows of desire, affect, and intensity rather than a closed structure reducible to a single center (Deleuze & Guattari, 1987; Zourabichvili, 2012) (Figure 1).

In his translator's foreword to A Thousand Plateaus, Brian Massumi states that a philosophical concept is not a "brick" for reinforcing established structures, but a "tool" or "crowbar" for prying them open and putting them into question (Massumi, 1987). This pragmatic approach, concerned less with what concepts originally mean than with what they do, has supported the use of assemblage thinking as a "toolbox" in fields such as urban studies and politics (Deleuze & Guattari, 1987; Dovey, 2010). In parallel with the materialist and relational turns in the social sciences, assemblage thinking has gained a central position in studies of complex social processes and urban phenomena, recasting the city as a dynamic process of becoming (Müller, 2015; Farías, 2011).

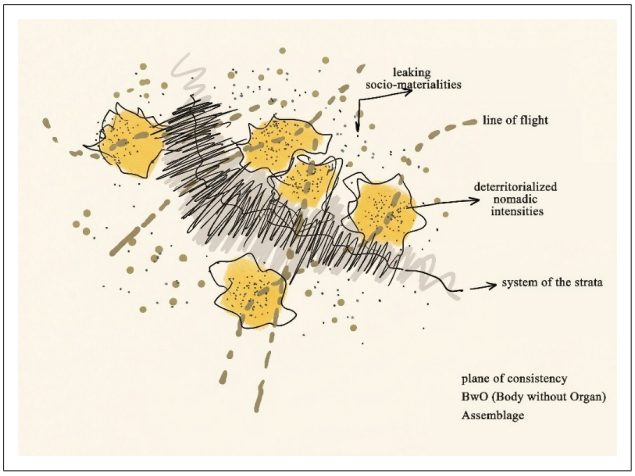

Figure 3. The assemblage between the system of the strata and the plane of consistency (Design by Authors).

The rise of assemblage thinking in urban studies coincided with a period in which traditional structuralist perspectives became increasingly insufficient for explaining the growing complexity of the city (Farías, 2009; McFarlane, 2011). By treating urban reality as a static, bounded, and finalized product, these approaches kept research within limited parameters, led it toward predictable outcomes, and overlooked the dimensions of urban processes that operate through micro-movements, affective relations, and non-human components (Farías, 2009; Kärrholm, 2007; Müller, 2015). Farías (2009), drawing on Thrift (1993), describes this stagnation in urban research as the urban impasse. Within the relational turn of the 2000s, assemblage thinking made these overlooked processes visible and contributed to recasting the city as a dynamic process of becoming, continuously composed through heterogeneous socio-material relations (Farías, 2009; Anderson & McFarlane, 2011). This perspective has rendered visible the active role and agency of affects and atmospheres formed between human and non-human entities, alongside physical factors such as buildings and infrastructure networks, in shaping the urban (Böhme, 2017; Farías, 2009; Müller, 2015).

From the perspective of Deleuze and Guattari, the city is a topological phenomenon based on relationality, in constant contact with other centers through horizontal networks (Deleuze & Guattari, 1987; Müller, 2015) (Figure 1). As an assemblage, the city exhibits the character of striated space, controlled by the state's hierarchical system of the strata through laws; simultaneously, it produces areas of smooth space that escape control through informal actions and lines of flight (Dovey, 2010; Müller, 2015). To maintain the urban order conceived as an organism, the system seeks to re-code and reintegrate—through apparatuses of capture—the socio-materials that emerge along these deviant lines of flight, which deterritorialize the city by smoothing the space (Deleuze & Guattari, 1987). Therefore, the city should be conceived as a multiplicity that simultaneously embodies both the processes of territorialization and deterritorialization (Deleuze & Guattari, 1987; McFarlane, 2011; Müller, 2015) (Figure 4).

The methodological trajectory of assemblage thinking in urban studies has developed through researchers working with Deleuze and Guattari's conceptual legacy. DeLanda (2006) re-

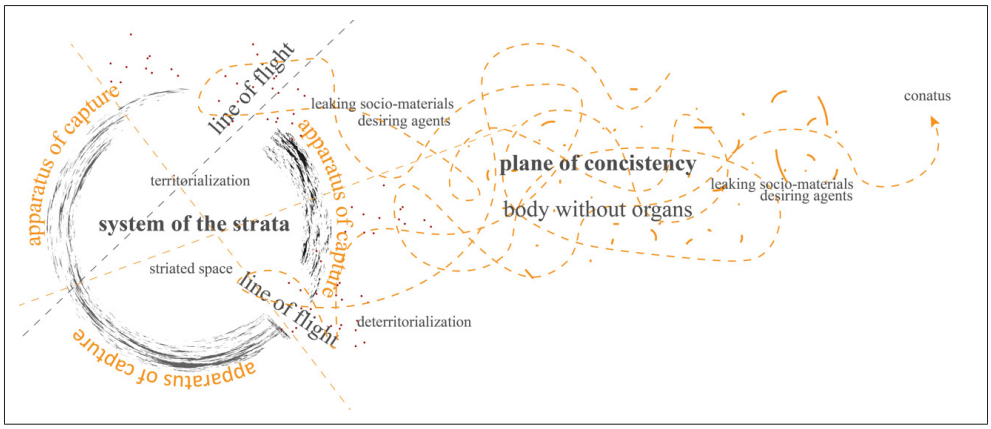

Figure 4. Urban assemblage in Deleuze ve Guattari's perspective (Design by Authors).

constructs dispersed Deleuzian concepts into a realist social ontology of assemblages, open to being read as "neo-assemblage theory" or "assemblage theory 2.0." Rather than forming a single lineage, this systematization stands alongside other methodological and political readings of assemblage. Dovey (2010; 2011) and McFarlane (2011) mobilize assemblage as a methodological "toolbox" for reading urban complexity, while Kärrholm (2007), Anderson et al. (2012), and Müller (2015) extend its spatial-political vocabulary through territorialization, deterritorialization, urban becoming, and lines of flight. Within this expansion, Buchanan (2015) warns that reliance on secondary readings, relations of exteriority, and neo-materialist interpretations may blur the concept's Deleuzo-Guattarian force by sidelining desire and machinic arrangements. Methodologically, earlier holistic readings traced the city as an already organized, coded, and stratified whole, whereas assemblage theory turns to mapping as a cartographic method for following urban becoming. In this view, tracing is not discarded; it records the strata, fixed relations, and organized conditions of the stratified system, while mapping works on this record to make visible the movements, lines of flight, and virtual potentials that open onto the plane of consistency (Deleuze & Guattari, 1987).

Consequently, assemblage thinking does not approach the city as a fixed and completed object, but shifts attention to the urban as a heterogeneous assemblage that emerges, changes, and transforms through relations among human and non-human components. In this view, the urban unfolds through the tension between the system of strata and the plane of consistency: One side codes and stabilizes urban formations, while the other opens them to flows, intensities, and lines of flight. This approach therefore frames the urban as a dynamic process of becoming rather than a completed spatial form.

Building upon this theoretical foundation, the following section conducts a Systematic Literature Review (SLR) in accordance with PRISMA 2020 standards to trace the methodological evolution of assemblage in urban research and identify the conceptual clusters around which the literature has crystallized (Page et al., 2021; Tranfield et al., 2003).

RESEARCH METHODOLOGY: A SYSTEMATIC LITERATURE REVIEW (SLR)

To investigate the methodological evolution of assemblage theory in urban research, this study adopts a systematic and transparent research framework (Tranfield et al., 2003). In this context, the Systematic Literature Review (SLR) method was employed to map the field's knowledge structure, visualize network relationships, evaluate existing literature, and generate analytical answers to the research questions (Tranfield et al., 2003; Rethlefsen et al., 2021). SLR facilitates the management of complex and diverse information while establishing a reliable evidence base to guide future studies (Tranfield et al., 2003). All stages of the study were conducted in accordance with PRISMA 2020 standards to enhance reporting quality and reproducibility (Page et al., 2021) (Table 1).

During the implementation phase of the research, relevant articles were compiled from databases using keyword-based structured queries; the platforms used, search strategies, and eligibility criteria were transparently defined (Rethlefsen et al., 2021). In accordance with the PRISMA flow, records were subjected to a two-stage screening process: First at the title and abstract level, followed by a full-text review (Page et al., 2021). Exclusion reasons at each stage were reported based on standardized criteria. In the final stage, findings were synthesized through an interpretive strategy to generate conceptual insights that transcend individual studies (Tranfield et al., 2003; Page et al., 2021).

Defining the Aim and Research Questions

This study aims to present the methodological possibilities and the conceptual framework of assemblage theory in response to the limitations of traditional structuralist urban

Table 1. PRISMA flow diagram of the study selection process

1. Defining the Aim and Research Questions	o RQ 1
	o RQ 2
2. Defining the research strategy and criteria	o Database
	o Search strategy
	o Eligibility criteria
3. Defining data selection process	o Identification
	o Screening
	o Eligibility
	o Included
4. Defining data analysis	o Quantitative (Bibliometric Analysis)
	o Qualitative (Thematic Synthesis)

analyses in explaining increasing urban complexity. By systematically reviewing the existing literature, this inquiry focuses on the following two questions to identify patterns, divergences, and key themes:

RQ1. How has assemblage theory methodologically framed the ways of understanding the city from its initial emergence in urban research to the present?

RQ2. Around which concepts have common patterns and theoretical divergences formed in studies interpreting the city through the lens of assemblage theory?

Defining the Research Strategy and Criteria

SLR is a rigorous scientific process conducted to map a research field, manage knowledge diversity, identify thematic patterns, and highlight research gaps (Tranfield et al., 2003; Page et al., 2021). In this context, a search and reporting strategy in accordance with PRISMA standards was adopted to examine the depth of assemblage theory in urban research (Page et al., 2021). During the data collection process, Web of Science and Scopus databases, which offer a broad interdisciplinary scope, were utilized as the primary information sources; all publications from the earliest records to the present day were included in the search (Rethlefsen et al., 2021; Page et al., 2021). For the sake of methodological transparency, the search was limited to peer-reviewed articles in English, and all constraints have been explicitly reported (Rethlefsen et al., 2021; Page et al., 2021) (Table 2).

Defining the Data Selection Process

To systematically identify publications relevant to the research questions, multi-field searches—encompassing titles, abstracts, and keywords—were conducted across the Web of Science and Scopus databases (Rethlefsen et al., 2021; Tranfield et al., 2003). The search strategy was constructed using verbatim expressions covering diverse applications of the theory ("assemblage theory" OR "assemblage thinking" OR assemblage) alongside urban-oriented concepts ("urban assemblage" OR city OR urban OR "urban space" OR "urban studies" OR urbanism OR architecture). To trace the intellectual origins of the theory, the names "Deleuze" and "Guattari" were also integrated into the keyword set. To manage interdisciplinary diversity and exclude irrelevant studies, the process was confined to the subject areas of "Social Sciences," "Arts and Humanities," "Psychology," and "Environmental Science" (Page et al., 2021; Rethlefsen et al., 2021).

According to the PRISMA data selection procedure, database searches yielded 223 records, with 159 originating from Web of Science and 64 from Scopus. Following the removal of 46 duplicate records, 177 unique articles were identified. During the title and abstract screening, 101 studies that did not focus on assemblage theory were excluded, leaving 76 articles for full-text review. At the eligibility stage, an additional 37

Table 2. Research strategy and eligibility criteria framework

Category	Details / Inclusion Criteria	Exclusion Criteria
Search Strategy (Keywords)	("assemblage theory" OR "assemblage thinking" OR assemblage) AND ("urban assemblage" OR city OR urban OR "urban space" OR "urban studies" OR urbanism OR architecture) AND (Deleuze OR Guattari)	
Information Sources	Web of Science, Scopus	Sources outside the specified databases
Document Type	Peer-reviewed journal articles	Book chapters, book reviews, conference proceedings, editorials, or commentaries
Thematic Focus	Studies explicitly engaging with assemblage theory within the field of urban studies	Studies in unrelated disciplines; records that only mention assemblage theory superficially without a conceptual framework
Language	English	Languages other than English
Timeframe	2002 – 2025	Publications before 2002
Accessibility	Available in full-text	Records where the full text is not accessible

studies that addressed the concept of assemblage through unrelated disciplines were disqualified. From the remaining 39 full texts, 6 studies that referenced the concept only superficially and failed to develop a methodological or analytical framework were excluded. Consequently, the analyses were conducted on 33 core articles; of these, 6 are indexed exclusively in Scopus, 12 exclusively in Web of Science, and 15 are featured in both databases (Figure 5).

Defining the Data Analysis

The identified 33 core publications were evaluated using bibliometric analysis to examine the structural characteristics and evolution of the literature (Donthu et al., 2021; Sharma & Kumar, 2025). This method enables the visualization of relationships between articles through nodes and networks (Çetinkaya et al., 2025; Zhang et al., 2016; Pritchard, 1969). To decode the complex interactions within the urban assemblage literature, a science mapping approach was employed (Aria & Cuccurullo, 2017; Jamshidi, 2025). The analysis process was conducted using VOSviewer software, utilizing network, overlay, and density maps to illustrate the relationships between concepts, authors, and institutions (van Eck & Waltman, 2023; Jamshidi, 2025; Sharma & Kumar, 2025). Through these visualizations, the reflections of assemblage theory in urban research were mapped, and structural gaps in the literature were identified (Tranfield et al., 2003; Sharma & Kumar, 2025).

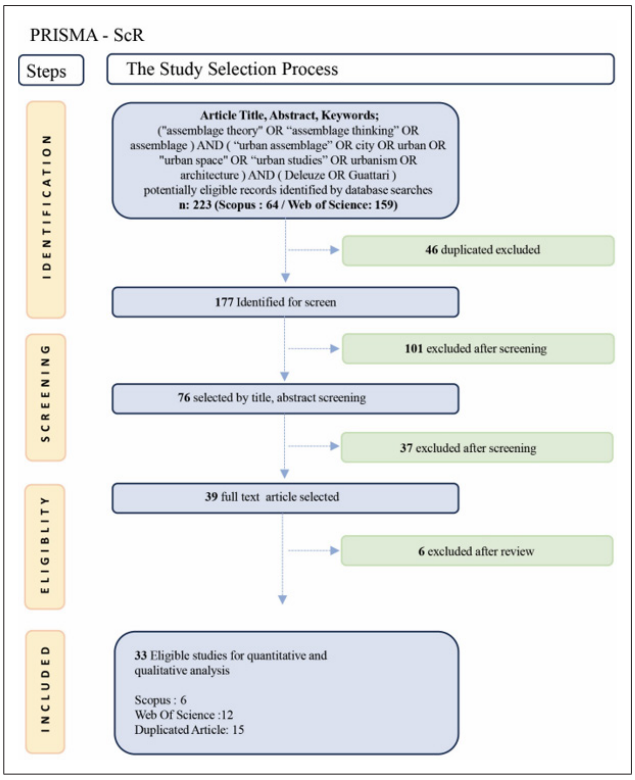

Figure 5. PRISMA flow diagram of the study selection process.

RESEARCH FINDINGS

In this section, a two-stage evaluation is conducted by integrating quantitative bibliometric findings with qualitative thematic synthesis.

Quantitative Findings: Bibliometric Analysis

Articles Publishing Trends: Figure 6 illustrates the publication trends within urban assemblage literature between 2009 and 2025. The findings reveal periodic but sustained theoretical and empirical expansion, with the highest publication intensity observed in 2019 and 2025, each represented by four articles. Secondary increases are visible in 2012, 2018, and 2021, each with three articles. Although no articles appear in 2010 and 2013, the field maintains continuing visibility across urban design, planning, geography, housing studies, ethnography, and environmental research. This trend underscores the enduring relevance of assemblage theory in interpreting complex urban processes.

Source Information: The review encompasses a total of 33 articles across 23 different publications. Due to the interdisciplinary nature of urban assemblage, the studies are distributed across various fields such as urban design, geography, urban planning, sustainability, housing research,

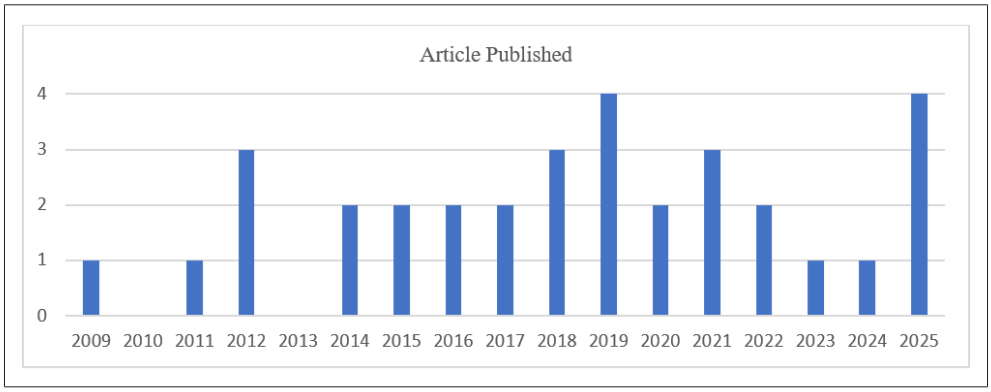

Figure 6. Number of filtered articles on Urban Assemblage per year.

ethnography, and environmental sciences. Journal of Urbanism: International Research on Placemaking and Urban Sustainability and Planning Theory stand out as the leading journals, each hosting three articles. Furthermore, Q1 journals such as Transactions of the Institute of British Geographers, City, Geoforum, and Housing Studies constitute the theoretical gravity centers of the sample. The fact that 32 out of the 33 examined articles were published in Q1 and Q2 ranked journals demonstrates the methodological maturity and academic prestige of the field (Table 3).

Co-Occurrence Analysis and Clustering: In the keyword co-occurrence analysis, a holistic dataset was constructed by merging data from Web of Science and Scopus. Following the VOSviewer analysis, 16 core concepts with the highest link strength were identified and grouped into four main thematic clusters (Table 4). Figures 7, 8, and 9 present the interaction network, the chronological evolution, and the positioning of concepts within the dataset, respectively.

Co-Citation Analysis: VOSviewer co-citation analysis illustrates the theoretical relationships between authors who are referenced together by the same publications. The analysis categorized the cited authors into three main thematic clusters (Table 5). Figures 10 and 11 visualize the intellectual roots, interaction networks, and centers of gravity within the literature. The frequency with which authors appear together in reference lists indicates that they are situated within similar theoretical frameworks.

Qualitative Findings: A Thematic Synthesis of Conceptual Clusters

In the qualitative analysis section, the 33 articles were synthesized through a systematic approach, integrating the findings from both bibliometric co-occurrence and co-citation analyses. First, the intellectual genealogy of the sample was detailed through a theoretical mapping of foundational authors (Table 6), illustrating which foundational figures underpin the analyzed studies. Subsequently, to provide a structured foundation for the qualitative evaluation, the thematic distribution and methodological tendencies—whether theoretical or case-oriented—of each article were organized into a comprehensive methodological and thematic matrix (Table 7). This synthesis aims to explain how assemblage theory methodologically frames the conception of the city (RQ1) and which conceptual patterns and divergences emerge within the literature (RQ2).

Co-Occurrence Analysis: Keyword-Based Thematic Mapping

Network Visualization: Conceptual Clusters:

Cluster 1 (Red): Assemblage Thinking

This cluster focuses on the ontological and theoretical function of assemblage in the production of spatial knowledge. This line of literature defines the city not as a static object, but as a process of becoming where human and non-human entities are in constant interaction. Abrahams (2025) emphasizes that assemblages are not random structures but dynamic processes organized through 'expressive qualities'. Ye (2021), in the case of Macau, analyzes the processes of territorialization and deterritorialization of place identity by mapping architectural structures as 'content' and heritage narratives as 'expression'. Within this cluster, Abrahams (2025), Coffin (2020), and Jacobs (2012) primarily lean toward pure theory, while Kamalipour (2025), Ye (2021), Dovey & Ristic (2017), Dovey & Wood (2015), and Dovey et al. (2009) apply assemblage thinking to concrete case studies (Table 7). Ultimately, this cluster documents the evolution of the assemblage from a philosophical abstraction into an analytical reading practice.

Cluster 2 (Green): Urban Spatial Politics

This cluster interprets Deleuze and Guattari's political philosophy through the lens of power struggles, state apparatuses, and forms of resistance within urban space. Watt (2016) discusses how the campaigns developed against the housing crisis in London function as a 'nomadic war machine,' analyzing how these movements smooth striated spaces. While Tafti (2025) examines resistance to planning decisions in Tehran through the 'spatiality of encounters', Harris (2019) utilizes the concept of the 'state apparatus' to explain the role of extra-economic forces, such as ethics and aesthetics, in Seattle's urban transformation. Furthermore, Lysgård (2019) evaluates the formation of cultural policies as an interaction between policy mobility and local traditions. Within this cluster, while the works of Atun (2016), Coward (2012), and Rodgers, Barnett, and Cochrane (2014) are primarily theoretical studies; Tafti (2020, 2025), Lea et al. (2022), Harris (2019), Lysgård (2019), King (2018), and Watt (2016) operationalize the theory through specific case studies (Table 7).

Cluster 3 (Blue): Planning Ethics

C3 mobilizes assemblage theory through planning practice, ethics, urban design, and spatial justice. In this cluster, assemblage is positioned as an ontological frame and methodological tool that challenges hierarchical planning approaches. Briassoulis (2023) develops an "Assemblage-based Phronetic Planning Approach" by synthesizing assemblage thinking with Aristotelian phronesis. Araabi and McDonald (2019) reformulate urban design as a rhizomatic process shaped by the interaction between physical objects and narratives. Banville and Torres (2017) defend an immanent ethics that, through the BwO, unsettles the normative structure of the city and opens it to lines of flight. Ansaloni and Tedeschi (2015) discuss spatial justice through a case study, while Hillier (2011) examines urban events through "tracing" and Dovey & Ristic (2017) frame "mapping" as a method for producing spatial knowledge

Table 3. Relevant information on the journals included in the dataset

No	Database	Author	Journal Name	SCR / SJR
1	S / W	Tafti (2025)	Transactions of the Institute of British Geographers	Q1
2	S / W	Croft (2025)	Ethnography	Q1
3	W	Abrahams (2025)	Deleuze and Guattari Studies	Q1/Q2
4	W	Kamalipour (2025)	Visual Studies	Q2
5	S / W	Mansfield, et al. (2024)	Visual Studies	Q2
6	W	Briassoulis (2023)	Planning Theory	Q1
7	S / W	Lea, et al. (2022).	Journal of Environmental Policy & Planning	Q1
8	W	Shafique (2022)	Housing Studies	Q1
9	S / W	Cruickshank (2021)	Journal of Rural Studies	Q1
10	S / W	Mitsuhashi & Gyobu (2021)	Sustainability	Q2
11	W	Ye (2021)	Open House International	Q2
12	W	Coffin (2020)	Journal of Place Management and Development	Q2
13	W	Tafti (2020)	Urban Studies	Q1
14	S	Harris (2019)	City	Q1
15	S	Araabi & McDonald (2019)	Journal of Urbanism: International Research on Placemaking and Urban Sustainability	Q1/Q2
16	S	Lara-Hernandez, et al. (2019)	Future Cities and Environment	Q3
17	W	Lysgård (2019)	Geoforum	Q1
18	S / W	Buser (2018)	International Journal of Urban and Regional Research	Q1
19	S / W	King (2018)	Journal of Urban Design	Q1
20	S / W	Sarmiento (2018)	Environment and Planning A: Economy and Space	Q1
21	S	Dovey & Ristic (2017)	Journal of Urbanism: International Research on Placemaking and Urban Sustainability	Q1/Q2
22	S / W	Banville & Torres (2017)	Planning Theory	Q1
23	S	Watt (2016)	City	Q1
24	S / W	Atun (2016)	Open House International	Q2
25	S / W	Ansaloni & Tedeschi (2015)	Planning Theory	Q1
26	S	Dovey & Wood (2015)	Journal of Urbanism: International Research on Placemaking and Urban Sustainability	Q1/Q2
27	W	Tardiveau & Mallo (2014)	Journal of Urban Design	Q1
28	W	Rodgers, et al. (2014)	International Journal of Urban and Regional Research	Q1
29	S / W	Dovey (2012)	International Development Planning Review	Q2
30	W	Coward (2012)	Environment and Planning D: Society and Space	Q1
31	W	Jacobs (2012)	Progress in Human Geography	Q1
32	W	Hillier (2011)	European Planning Studies	Q1
33	S / W	Dovey, et al. (2009).	Urban Studies	Q1

and revealing possibilities of urban transformation. Thus, C3 presents assemblage not only as a descriptive frame for planning, but also as an ethical-political and methodological instrument. The cluster combines theoretical studies with empirical and methodological readings of assemblage in planning and design (Table 7).

Cluster 4 (Yellow): Affect and Micro-Practices

This cluster focuses on the dimensions of affect, desire, and the post-human within urban assemblage. Within this framework, assemblage is treated not merely as a physical structure but as a productive field of intensity that mobilizes both bodies and objects. Shafique (2022) traces invisible intensities in the Karail settlement, utilizing assemblage to

Table 4. Co-occurrence cluster results and thematic focuses of the analyzed literature

Cluster 1 (Red)	Cluster 2 (Green)	Cluster 3 (Blue)	Cluster 4 (Yellow)
Assemlage Thinking	Urban spatial politics	Planning ethics	Affect and micro-practices
Assemblage	City	Assemblage Thinking	Affect
Assemblage Theory	Deleuze	Ethics	
Deleuze and Guattari	Guattari	Planning	
Public Space	Politics	Urban Planning	
Resilience			
Subjectivity			
Urbanism			

understand 'how it works' rather than merely describing the city. Croft (2025) shifts urban research away from an object-centered reading, redirecting it toward the affective networks that operate between the body and materiality. Similarly, Buser (2018) analyzes public space as a dynamic network in which affects are produced. All studies in this cluster substantiate their theoretical frameworks through case studies, demonstrating how assemblage functions as an analytical lens in the urban field (Table 7).

Overlay Visualization: Temporal Shifts in Research Focus

The overlay visualization (Figure 8) reveals the chronological development of keywords during the period spanning from 2017 to 2021 and beyond. While ontological terms such as 'assemblage,' 'city,' and 'urbanism' occupied a central position in the early period, more specific concepts like 'politics,' 'ethics,' and 'affect' have become prominent since 2018–2019. The most current trends indicate a shift toward 'subjectivity,' 'resilience,' and a refined 'assemblage thinking' methodology. This trajectory demonstrates that in recent works such as Shafique (2022), Abrahams (2025), and Tafti (2025), the theory has become increasingly dominant in making sense of complex urban processes through a relational methodology.

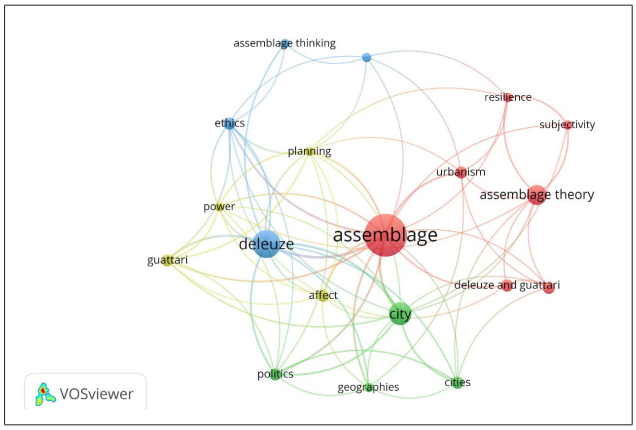

Figure 7. Co-occurrence network visualization.

Density Visualization: Core and Peripheral Concepts

The density visualization (Figure 9) renders the literature's theoretical core and its less-explored peripheral areas visible. While 'assemblage,' 'Deleuze,' 'politics,' and 'urban planning' are situated at the center, the presence of 'ethics' and 'assemblage thinking' indicates the theory's evolution into a methodological framework. In contrast, concepts such as 'subjectivity,' 'resilience,' and 'affect' are identified as research areas with significant expansion potential that have not yet reached mainstream density.

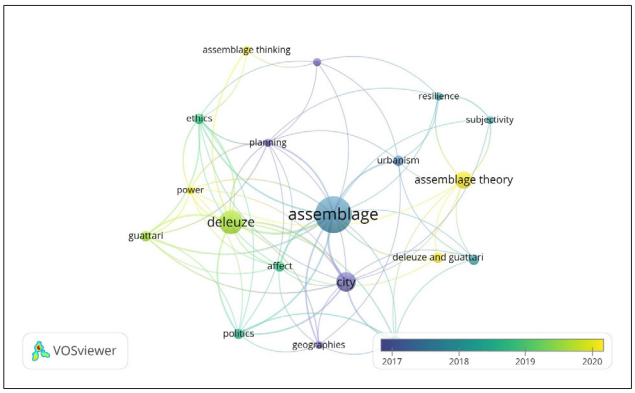

Figure 8. Co-occurrence overlay visualization.

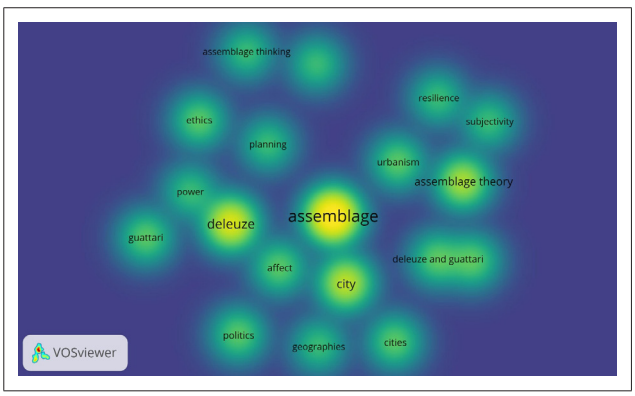

Figure 9. Co-occurrence density visualization.

Table 5. Co-citation cluster results and intellectual foundations of the literature

Cluster 1 (Red)	Cluster 2 (Green)	Cluster 3 (Blue)
Philosophical Roots of the Assemblage Thinking	Methodological Operationalization	The Virtual Logic of Desire and Affect
Gilles Deleuze & Félix Guattari	Brenner, N.	Anderson, B.
Deleuze, G.	DeLanda, Manuel	Buchanan, I.
Deleuze, Gilles	Hillier, J.	
Dovey, K.	McCann, E.	
Harvey, David	McFarlane, C.	
Massey, Doreen		

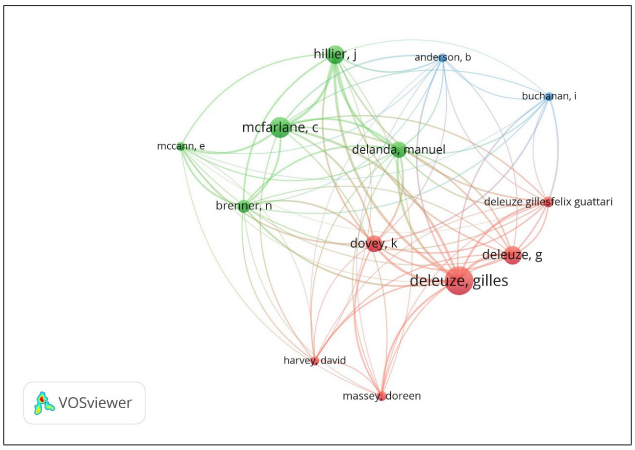

Figure 10. Co-citation-cited authors network analysis.



Figure 11. Co-citation-cited authors density analysis.

Co-Citation Analysis and Intellectual Foundations

According to the co-citation findings, Deleuze and Guattari, DeLanda, McFarlane, Dovey, and Buchanan constitute the foundational reference points of the literature (Table 6; Figures 10 & 11). While Deleuze and Guattari's (1987) assemblage thinking unquestionably emerges as the ontological center, DeLanda (2006) and McFarlane (2011) have translated this philosophical framework into the urban field, transforming the theory into a methodological tool. However, a distinct conceptual cleavage is evident in the literature. Authors such as Shafique (2022) and Abrahams (2025) critique researchers' excessive reliance on DeLanda's neo-assemblage interpretation and secondary sources, arguing that the theory's virtual logics —such as desire and becoming— have been neglected in favor of materiality. Conversely, Dovey (2010) and McFarlane

Table 6. Theoretical mapping of foundational authors within the sample

Theoretical Mapping of Foundational Authors within the Sample	
Foundational Authors	**Articles Citing These Authors (Author and Year)**
Gilles Deleuze & Félix Guattari	Tafti (2025), Croft (2025), Abrahams (2025), Kamalipour (2025), Mansfield et al. (2024), Lea et al. (2022), Shafique (2022), Briassoulis (2023), Cruickshank (2021), Mitsuhashi & Gyobu (2021), Ye (2021), Coffin (2020), Harris (2019), Araabi & McDonald (2019), Lara-Hernandez et al. (2019), Lysgård (2019), Tafti (2020), Buser (2018), King (2018), Sarmiento (2018), Dovey & Ristic (2017), Watt (2016), Banville & Torres (2017), Atun (2016), Ansaloni & Tedeschi (2015), Dovey & Wood (2015), Tardiveau & Mallo (2014), Dovey (2012), Hillier (2011), Dovey et al. (2009).
Manuel DeLanda	Tafti (2025), Croft (2025), Abrahams (2025), Lea et al. (2022), Shafique (2022), Briassoulis (2023), Cruickshank (2021), Ye (2021), Coffin (2020), Harris (2019), Araabi & McDonald (2019), Lara-Hernandez et al. (2019), Lysgård (2019), Buser (2018), King (2018), Banville & Torres (2017), Atun (2016), Ansaloni & Tedeschi (2015), Dovey & Wood (2015), Tardiveau & Mallo (2014), Dovey (2012), Dovey et al. (2009).
Colin McFarlane	Croft (2025), Abrahams (2025), Shafique (2022), Briassoulis (2023), Cruickshank (2021), Ye (2021), Harris (2019), Araabi & McDonald (2019), Lara-Hernandez et al. (2019), Lysgård (2019), Tafti (2020), Buser (2018), King (2018), Sarmiento (2018), Watt (2016), Banville & Torres (2017), Ansaloni & Tedeschi (2015), Dovey & Wood (2015), Tardiveau & Mallo (2014), Dovey (2012), Jacobs (2012).
Kim Dovey	Croft (2025), Abrahams (2025), Kamalipour (2025), Shafique (2022), Briassoulis (2023), Ye (2021), Araabi & McDonald (2019), Lara-Hernandez et al. (2019), Lysgård (2019), Buser (2018), King (2018), Banville & Torres (2017), Dovey & Wood (2015), Tardiveau & Mallo (2014), Dovey (2012), Dovey et al. (2009).
Ian Buchanan	Tafti (2025), Abrahams (2025), Lea et al. (2022), Shafique (2022), Harris (2019), Araabi & McDonald (2019), Tafti (2020).

Table 7. Methodological and thematic matrix

Year	Author	Theme				Method	
		Cluster 1	Cluster 2	Cluster 3	Cluster 4	Theoretical Studies	Case Studies
2025	Tafti, M.T. (2025)		●			●	●
	Croft, C. (2025)				●	●	●
	Abrahams, G. (2025)	●				●	○
	Kamalipour, H. (2025)	●				●	●
2024	Mansfield, M., Nilan, P., & Wibawanto, G. R. (2024)				●	●	●
2023	Briassoulis, H. (2023)			●		●	○
2022	Lea, T., Buchanan, I., Fuller, G., & Waitt, G. (2022)		●			●	●
	Shafique, T. (2022)				●	●	●
2021	Cruickshank, J. A. (2021)				●	●	●
	Mitsuhashi, M. & Gyobu, I. (2021)				●	●	●
	Ye, X. (2021)	●				●	●
2020	Coffin, J. (2020)	●				●	○
	Tafti, M. T. (2020)		●			●	●
2019	Harris, K. (2019)		●			●	●
	Araabi, H. F. & McDonald, A. (2019)			●		●	○
	Lara-Hernandez, J. A., Melis, A., & Lehmann, S. (2019)				●	●	●
	Lysgård, H. K. (2019)		●			●	●
2018	Buser, M. (2018)				●	●	●
	King, R. (2018)		●			●	●
2017	Sarmiento, E. (2018)				●	●	●
	Banville, M.-S. & Torres, J. (2017)			●		●	○
	Dovey, K. & Ristic, M. (2017)	●				●	●
2016	Watt, P. (2016)		●			●	●
	Atun, R. A. (2016)		●			●	○
2015	Ansaloni, F. & Tedeschi, M. (2015)			●		●	●
	Dovey, K. & Wood, S. (2015)	●				●	●
2014	Tardiveau, A. & Mallo, D. (2014)				●	●	●
	Rodgers, S., Barnett, C., & Cochrane, A. (2014)		●			●	○
	Dovey, K. (2012)				●	●	●
2012	Coward, M. (2012)		●			●	○
	Jacobs, J.M. (2012)	●				●	○
2011	Hillier, J. (2011)			●		●	●
2009	Dovey, K. et al. (2009)	●				●	●

(2011) stand out as the primary references bridging the gap between philosophical depth and urban practice.

Finally, the methodological and thematic matrix established in Table 7 presents a synthesis of how the literature is constructed by integrating bibliometric data, quantitative networks, thematic clusters, and the studies' methodological tendencies as theoretical or case-oriented.

DISCUSSION

The VOSviewer-based co-occurrence and co-citation analyses, together with qualitative synthesis, show that assemblage theory in urban research is not merely a conceptual borrowing, but has evolved into a relational reading practice that reshapes how the urban is understood. The findings reveal a heterogeneous field structured by thematic clusters, intellectual genealogies, theoretical divergences, and methodological openings rather than a homogeneous whole. Accordingly, this discussion reads the quantitative and qualitative findings together through the Deleuzo-Guattarian framework established in the introduction, clarifying the conceptual and methodological contributions that assemblage theory offers to urban research.

Thematic Axes and Conceptual Patterns of Urban Assemblage

C1 (Assemblage Thinking): Relational Urbanism and the Ontology of Becoming: Studies in this cluster conceptualize the city not as a static object (city/being), but as a dynamic process of becoming (urban/becoming) in which heterogeneous elements are continuously articulated. In this regard, the cluster is directly linked to the foundational concepts of agencement, becoming, and multiplicity discussed in the introduction. It displaces the image of the city as a bounded and internally ordered organism, reframing the urban as a Body without Organs (BwO) open to new connections, intensities, and flows. This relational ontology addresses the urban impasse through the relational urbanism developed by Farías (2009) and Müller (2015), where the urban is reframed as a continuous mode of "doing" rather than a finalized output.

Jacobs (2012) and Coffin (2020) treat the city as a multiplicity, more than the sum of its parts and open to new connections at any moment. Following Law (2004) and Phillips (2006), they define it not as a finished product, but as an unfolding and transforming process of agencement. Ye (2021) brings this logic into the empirical field through the case of Macau, operationalizing double articulation by reading architectural structures as 'content' and heritage narratives as 'expression'. In this case, the fixing of place identity is interpreted through territorialization, while the erasure of the past and everyday life is read through deterritorializing and reterritorializing processes. Abrahams (2025) deepens this line by arguing that assemblages are not random structures but dynamic processes organized through expressive qualities. In this context, the studies in C1 show how assemblage evolves from philosophical abstraction into an analytical toolbox for urban complexity by reorienting inquiry from treating the city as being to reading the urban as becoming and replacing "what is the city?" with "how does the urban work?" (Dovey, 2010).

C2 (Urban Spatial Politics): Spatial Politics and Power Struggles: C2 shows how the conceptual triad of striated/smooth space, lines of flight, and apparatuses of capture operates within urban political topographies. It conceptualizes the city not as a passive background, but as a political field in which nomadic war machines and apparatuses of capture confront one another. While the state apparatus seeks to code and striate space through infrastructural decisions, hierarchical regulatory practices, and spatial restrictions, everyday resistances and informal articulations erode these arrangements through lines of flight, opening smooth passages within striated space.

Case-oriented studies ground this tension empirically. Watt (2016) reads the Focus E15 campaign of young mothers threatened with eviction in East London as a nomadic war machine that opened smooth space within London's striated housing landscape through direct actions and temporary occupations. King (2018) frames informal urban additions in Hanoi as "fissures" in state order and as a "Deleuzean diagonal cut," while Tafti (2025) shows that power is exercised through spatial distortions and bureaucratic protraction rather than overt coercion alone. Ultimately, C2 frames urban/becoming as a site where practices leak through lines of flight, decode state spatial orders, and open smooth passages within and against striated space.

C3 (Planning Ethics): Ethics and Methodological Transformation in Planning: C3 reframes transcendent planning paradigms through an immanent ethics that treats planning as situated praxis rather than a fixed regulatory model. Briassoulis (2023) reframes the "good plan" as an ethical practice rather than a static text, aimed at collective phronesis and the symbiosis of human and non-human components. Hillier's (2011) strategic navigation treats tracing not as structural copying, but as an empirical register of how actual conditions, fixities, strata, and impasses came to be and are put back onto the map (Deleuze & Guattari, 1987). Later urban readings use cartographic mapping to reopen this register toward virtual potentials (Dovey & Ristic, 2017). Araabi and McDonald (2019) extend this line to urban design through rhizomatic relations, territorialization, and the interaction of content and expression. Banville and Torres (2017) translate this shift into planning subjectivity, framing the planner as a micro-political actor rather than a state coordinator. Ansaloni and Tedeschi (2015) define spatial justice as a "temporary armistice" produced through bodily encounters. Ultimately, C3 positions assemblage as an ethical-methodological toolbox for planning that works with emergent urban relations rather than fixed regulatory models. Here, tracing registers existing fixities as empirical grounds, while cartographic mapping works through these records to make visible virtual potentials of becoming and lines of flight.

C4 (Affect and Micro-Practices): Affective Urbanization and Micro-Practices: C4 foregrounds affect, desire, and atmosphere as key dimensions of affective urbanization and

everyday micro-practices. Within this cluster, the urban is not treated merely as a collection of physical structures, but as a production of desire that mobilizes bodies, objects, memories, and atmospheres (Deleuze & Guattari, 1987; Tafti, 2025). Shafique (2022) reads Karail as a landscape of intersecting desires in which socio-material relations, capacities, narratives, and affects generate a field of possibilities that shapes what the settlement can do and become. Croft (2025) shifts attention to sensorial relations between bodies and materiality, while Buser (2018) reads public space as a productive intersection where affects and objects mobilize one another. Along this axis, affect operates as a connective force that holds heterogeneous components in relation and shapes urban atmospheres (Müller, 2015; Tafti, 2025). C4 therefore shows that urban assemblages must be read through encounters, micro-practices, capacities, and flows of desire, as well as through visible material arrangements.

Taken together, C1–C4 show the evolution of urban assemblage from a philosophical abstraction toward an analytical-methodological toolbox. C1 reframes the urban through becoming and multiplicity; C2 foregrounds spatial politics through capture, struggle, and lines of flight; C3 links assemblage to immanent planning ethics and cartographic method; and C4 opens the field to affect, capacity, atmosphere, and desire. Together, these clusters make the urban legible through how it works, what it can do, and what it may become.

Intellectual Genealogies, Theoretical Cleavages, and Methodological Openings

Urban assemblage's intellectual genealogy is shaped by two theoretical cleavages and one methodological opening. First, DeLanda (2006) systematizes assemblage as a materialist social ontology based on relations of exteriority, coding/decoding, and emergent capacities. Buchanan (2015) warns against detaching assemblage from its Deleuzo-Guattarian sources, especially desire, becoming, and machinic arrangements. Read with Shafique (2022) and Abrahams (2025), this cleavage marks the risk of reducing urban assemblage to a descriptive language of heterogeneous components rather than a machinic composition animated by virtual forces. Second, friction persists between assemblage's flat ontology and urban political economy. Brenner et al. (2011) treat assemblage as requiring macro-structural contextualization, whereas McFarlane (2011) reads it as an orientation in which power is distributed across social and material phenomena. Finally, a methodological opening emerges from the shift from the city as static object to the urban as becoming (Farías, 2009; Müller, 2015). Tracing records coded and stratified conditions, while mapping reopens them toward virtual potentials (Hillier, 2011; Dovey & Ristic, 2017; Shafique, 2022).

Assemblage as a Methodological Toolbox

The analysis indicates that, especially after 2021, assemblage gains weight not only as a theoretical reference but as a refined mode of "assemblage thinking" (Figure 8). Recent empirical studies show that the theory enters the field and matures methodologically (Shafique, 2022; Abrahams, 2025; Tafti, 2025). This development follows an ontological shift from the city as a static state of being (city/being), or a holistic organism, toward the urban as becoming (urban/becoming) and as a Body without Organs (Farías, 2009; Müller, 2015). It also reframes method. Tracing describes what already exists. It records the actual constants, codes, strata, and organizational forms of the urban field. Mapping then works as an experimental practice that reopens these records through relations, affects, desire, power, lines of flight, and virtual potentials (Deleuze & Guattari, 1987; Dovey & Ristic, 2017). Tracing is therefore not rejected but put back on the map as an empirical ground for reading dynamic urban processes. In this sense, assemblage becomes a concrete methodological toolbox against the urban impasse (Dovey, 2010; Farías, 2009). It shifts urban inquiry from what the city is to how it works (Shafique, 2022).

Gaps in the Literature and Future Projections

When the density map (Figure 9) and thematic synthesis are read together, subjectivity, resilience, and desire remain relatively limited, while affect has gained visibility without becoming a mainstream axis. Among these underdeveloped concepts, desire is especially significant as a constitutive motor of assemblage thinking. Its marginal use points to a major research gap for future studies on how desire intersects with subjectivity and resilience, what capacities urban assemblages produce, and how they configure the urban within processes of becoming.

CONCLUSION

This review reads the four clusters identified through bibliometric and thematic analysis not as separate domains, but as interconnected knowledge plateaus within a rhizomatic multiplicity. Its central ontological finding is a shift from treating the "city" as a static, bounded state of being, or as a holistic organism, toward understanding the "urban" as a relational field of becoming, aligned with the logic of the Body without Organs. Responding to the structuralist urban impasse, assemblage thinking brings into view the distributed agency of human and non-human entities and the micro-practices, material arrangements, affective relations, and heterogeneous connections through which the urban is continuously assembled, temporarily stabilized, and transformed.

Regarding RQ1, the findings indicate a marked methodological maturation. Earlier pre-2017 work primarily established urban assemblage's ontological ground, whereas more recent studies mobilize assemblage as a methodological toolbox. This shifts inquiry from asking what the city is to examining how the urban works through the immanent mechanisms, relations and forces that compose it (Shafique, 2022). Methodologically, the review does not replace tracing with mapping. Tracing records the actual constants, codes, strata, material arrangements, and institutional blockages that organize urban fields; mapping reopens them through relations, affects, desire, power, lines of flight, and virtual potentials (Deleuze & Guattari, 1987; Dovey & Ristic, 2017). In this sense, "putting the tracing back on the map" means using the actual as an empirical ground for reading the virtual, not as a closed representation (Deleuze & Guattari, 1987). Thus, assemblage becomes a methodological toolbox for revealing both stabilized arrangements and transformative potentials within the urban.

In response to RQ2, the four clusters reveal divergences across relational ontology, spatial politics, immanent planning ethics, and affective micro-practices. These axes position assemblage theory as an analytical frame for making the urban legible through becoming, capture and flight, cartographic method, affect, capacity, and desire. Within a genealogy still anchored in Deleuze and Guattari's conceptual vocabulary, two cleavages stand out. DeLanda's (2006) materialist ontology of exterior relations stands in tension with Buchanan's (2015) warning against detaching assemblage from its Deleuzo-Guattarian sources, especially desire's virtual force and machinic arrangements; this warning has become a critical anchor for more recent attempts to recover a direct engagement with Deleuze and Guattari's corpus (Abrahams, 2025; Shafique, 2022). The Brenner–McFarlane debate exposes a productive friction between macro-structural political economy and assemblage-based attention to situated socio-material processes (Buser, 2018; Cruickshank, 2021; Harris, 2019). This corrective tension prevents assemblage from becoming either a descriptive inventory of local relations or a macro-structural account that overlooks distributed agency. The review shows that desire, despite its constitutive role, receives less attention than affect. This gap opens a productive path for research on what urban assemblages can do, what capacities they generate, and how they configure the urban.

Ultimately, this study grounds a philosophically dense theory in an analytical framework and clarifies how assemblage can operate as an integrated methodological toolbox for reading the urban through how it works, becomes, and opens virtual potentials.

ETHICS: Not applicable

PEER-REVIEW: Externally peer-reviewed.

CONFLICT OF INTEREST: The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

FINANCIAL DISCLOSURE: The authors declared that this study has received no financial support.

REFERENCES

Abrahams, G. (2025). Drawing out Deleuze and Guattari's assemblage: New insights for geography. *Deleuze and Guattari Studies*, *19*(3), 341–375. https://doi.org/10.3366/dlgs.2024.0568

Anderson, B., & McFarlane, C. (2011). Assemblage and geography. *Area, 43*(2), 124–127. https://doi.org/10.1111/j.1475-4762.2011.01004.x

Anderson, B., Kearnes, M., McFarlane, C., & Swanton, D. (2012). On Assemblages and Geography. *Dialogues in Human Geography, 2*(2), 171-189. https://doi.org/10.1177/2043820612449261

Ansaloni, F., & Tedeschi, M. (2015). Ethics and spatial justice: Unfolding non-linear possibilities for planning action. *Planning Theory, 15*(3), 316–332. https://doi.org/10.1177/1473095215591676

Araabi, H. F., & McDonald, A. (2019). Towards a Deleuzoguattarian methodology for urban design. *Journal of Urbanism: International Research on Placemaking and Urban Sustainability, 12*(2), 172–187. https://doi.org/10.1080/17549175.2018.1552883

Aria, M., & Cuccurullo, C. (2017). Bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics, 11*(4), 959-975. https://doi.org/10.1016/j.joi.2017.08.007

Atun, R. A. (2016). Envelopment: A methodological approach in structuration of urban dialectics. *Open House International, 41*(2), 52–60.

Banville, M. S., & Torres, J. (2017). On embracing an immanent ethics in urban planning: Pursuing our body-without-organs. *Planning Theory*, *16*(3), 255–274. https://doi.org/10.1177/1473095216668170

Böhme, G. (2017). *The aesthetics of atmospheres* (J. P. Thibaud, Ed.). Routledge.

Brenner, N., Madden, D. J., & Wachsmuth, D. (2011). Assemblage urbanism and the challenges of critical ur-

ban theory. *City, 15*(2), 225–240. https://doi.org/10.1080/13604813.2011.568717

Briassoulis, H. (2023). The making of good public plans: Phronesis, phronetic planning research and assemblage thinking. *Planning Theory, 22*(1), 58–84. https://doi.org/10.1177/14730952221102533

Buchanan, I. (2015). Assemblage Theory and Its Discontents. *Deleuze Studies, 9*(3), 382–392. https://doi.org/10.3366/dls.2015.0193

Buser, M. (2018). Machinic assemblages of publicness. *International Journal of Urban and Regional Research, 42*(5), 769–784. https://doi.org/10.1111/1468-2427.12602

Çetinkaya, Ş. B., Gençel, Z., & Kepenek, E. (2025). Mapping trends and hotspots of urban morphology research in the past 55 years: A bibliometric analysis using VOSviewer and Bibliometrix. *Urban Morphology, 29*(2), 153–169. https://doi.org/10.51347/UM29.0018

Coffin, J. (2020). Deleuzoguattarian place marketing: Becoming, between, beneath and beyond. *Journal of Place Management and Development, 13*(3), 229–240. https://doi.org/10.1108/JPMD-01-2019-0003

Coward, M. (2012). Between us in the city: Materiality, subjectivity, and community in the era of global urbanization. *Environment and Planning D: Society and Space, 30*(3), 468–481. https://doi.org/10.1068/d11011

Croft, C. (2025). Disrupting sense of place in a northern English city: The assemblage of everyday encounter. *Ethnography, 26*, 1–21. https://doi.org/10.1177/14661381251330806

Cruickshank, J. A. (2021). Global capitalism guided by desire- Solvang, CA, as a "real" place. *Journal of Rural Studies, 86*, 410–419. https://doi.org/10.1016/j.jrurstud.2021.06.022

DeLanda, M. (2006). *A new philosophy of society: Assemblage theory and social complexity*. Continuum.

Deleuze, G., & Guattari, F. (1983). *Anti-Oedipus: Capitalism and schizophrenia* (R. Hurley, M. Seem, & H. R. Lane, Trans.). University of Minnesota Press.

Deleuze, G., & Guattari, F. (1987). *A thousand plateaus: Capitalism and schizophrenia* (B. Massumi, Trans.). University of Minnesota Press.

Deleuze, G., & Parnet, C. (2002). *Dialogues II* (H. Tomlinson & B. Habberjam, Trans.; Rev. ed.). Columbia University Press.

Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research, 133*, 285–296. https://doi.org/10.1016/j.jbusres.2021.04.070

Dovey, K. (2010). *Becoming places: Urbanism/architecture/identity/power*. Routledge.

Dovey, K. (2011). Uprooting Critical Urbanism. *City, 15*(3-4), 347-354. https://doi.org/10.1080/13604813.2011.595109

Dovey, K. (2012). Informal urbanism and complex adaptive assemblage. *International Development Planning Review*, *34*(4), 349–368. https://doi.org/10.3828/idpr.2012.23

Dovey, K., & Ristic, M. (2017). Mapping urban assemblages: The production of spatial knowledge. *Journal of Urbanism: International Research on Placemaking and Urban Sustainability*, *10*(1), 15–28. https://doi.org/10.1080/17549175.2015.1112298

Dovey, K., & Wood, S. (2015). Public/private urban interfaces: Type, adaptation, assemblage. *Journal of Urbanism: International Research on Placemaking and Urban Sustainability*, *8*(1), 1–16. https://doi.org/10.1080/17549175.2014.891151

Dovey, K., Woodcock, I., & Wood, S. (2009). A test of character: Regulating place-identity in inner-city Melbourne. *Urban Studies*, *46*(12), 2595–2615. https://doi.org/10.1177/0042098009344070

Farías, I. (2009). Introduction: Decentring the object of urban studies. In I. Farías & T. Bender (Eds.), *Urban assemblages: How actor-network theory changes urban studies* (pp. 1–24). Routledge.

Farías, I. (2011). The politics of urban assemblages. *City, 15*(3-4), 365-374. https://doi.org/10.1080/13604813.2011.595110

Harris, K. (2019). Making room for the extraeconomic: Ontology for contemporary critical urban inquiry. *City*, *23*(6), 751–773. https://doi.org/10.1080/13604813.2020.1717759

Hillier, J. (2011). Encountering Gilles Deleuze in another place. *European Planning Studies*, *19*(5), 861–885. https://doi.org/10.1080/09654313.2011.561041

Jacobs, J. M. (2012). Urban geographies I: Still thinking cities relationally. *Progress in Human Geography*, *36*(3), 412–422. https://doi.org/10.1177/0309132511421715

Jamshidi, S. (2025). Simulation in the built environment: A bibliometric analysis. *Metrics, 2*(3), 13. https://doi.org/10.3390/metrics2030013

Kamalipour, H. (2025). Framing urbanities: Invisible/visible urban assemblages. *Visual Studies*, *40*(3), 608–614. https://doi.org/10.1080/1472586X.2024.2301735

Kärrholm, M. (2007). The Materiality of Territorial Production: A Conceptual Discussion of Territoriality, Materiality, and the Everyday Life of Public Space. *Space and Culture, 10*(4), 437-453. https://doi.org/10.1177/1206331207304356

King, R. (2018). Hanoi as an assemblage of façades and the Deleuzean diagonal cut. *Journal of Urban Design*, *23*(3), 354–366. https://doi.org/10.1080/13574809.2017.1345619

Lara-Hernandez, J. A., Melis, A., & Lehmann, S. (2019). Temporary appropriation of public space as an emergence assemblage for the future urban landscape: The case of Mexico City. *Future Cities and Environment*, *5*(1), 1–22. https://doi.org/10.5334/fce.53

Law, J. (2004). *After method: Mess in social science research.* Routledge.

Lea, T., Buchanan, I., Fuller, G., & Waitt, G. (2022). New problems for assemblage thinking: Materiality, governance and cycling in Sydney, Australia. *Journal of Environmental Policy & Planning*, *24*(3), 343–354. https://doi.org/10.1080/1523908X.2022.2052271

Lysgård, H. K. (2019). The assemblage of culture-led policies in small towns and rural communities. *Geoforum*, *101*, 10–17. https://doi.org/10.1016/j.geoforum.2019.02.019

Mansfield, M., Nilan, P., & Wibawanto, G. R. (2024). Rebel imaginings: Street art in Yogyakarta, Indonesia. *Visual Studies*, *39*(1-2), 239–253. https://doi.org/10.1080/1472586X.2023.2237001

Massumi, B. (1987). *Translator's foreword: Pleasures of philosophy. In G. Deleuze & F. Guattari, A thousand plateaus: Capitalism and schizophrenia* (B. Massumi, Trans., pp. ix–xv). University of Minnesota Press.

McFarlane, C. (2011). Assemblage and critical urbanism. *City, 15*(2), 204–224. https://doi.org/10.1080/13604813.2011.568715

McFarlane, C., & Anderson, B. (2011). Thinking with assemblage. *Area, 43*(2), 162–164. https://doi.org/10.1111/j.1475-4762.2011.01012.x

Mitsuhashi, M., & Gyobu, I. (2021). How Did the Young Children Encounter the Japanese Urban Landscape ?: A Study on Emergent Pedagogy for Sustainability Transformation. *Sustainability*, *13*(17), 9723. https://doi.org/10.3390/su13179723

Müller, M. (2015). Assemblages and Actor-networks: Rethinking Socio-material Power, Politics and Space. *Geography Compass, 9*(1), 27–41. https://doi.org/10.1111/gec3.12192

Nail, T. (2017). What is an Assemblage? *SubStance, 46*(1), 21-37. https://doi.org/10.3368/ss.46.1.21

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., & ... Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ, 372*(n71). https://doi.org/10.1136/bmj.n71

Phillips J. W. P. (2006). Agencement/Assemblage. *Theory, Culture & Society*, *23*(2–3), 108–109.

Pritchard, A. (1969). Statistical bibliography or bibliometrics? *Journal of Documentation, 25*, 348.

Rethlefsen, M. L., Kirtley, S., Waffenschmidt, S., Ayala, A. P., Moher, D., Page, M. J., Koffel, J. B., & PRISMA-S Group. (2021). PRISMA-S: An extension to the PRISMA statement for reporting literature searches in systematic reviews. *Systematic Reviews, 10*(1), 39. https://doi.org/10.1186/s13643-020-01542-z

Rodgers, S., Barnett, C., & Cochrane, A. (2014). Where is urban politics? *International Journal of Urban and Regional Research*, *38*(5), 1551–1560. https://doi.org/10.1111/1468-2427.12143

Sarmiento, E. (2018). The affirming affects of entrepreneurial redevelopment: Architecture, sport and local food in Oklahoma City. *Environment and Planning A: Economy and Space*, *50*(2), 327–349. https://doi.org/10.1177/0308518X17743506

Shafique, T. (2022). Re-thinking housing through assemblages: Lessons from a Deleuzean visit to an informal settlement in Dhaka. *Housing Studies*, *37*(6), 1015–1034. https://doi.org/10.1080/02673037.2021.1988065

Sharma, S., & Kumar, A. (2025). Research progress mapping on urban sprawl: A bibliometric analysis. *Journal of Asian Architecture and Building Engineering, 2025,* 2574555. https://doi.org/10.1080/13467581.2025.2574555

Tafti, M. T. (2020). Assembling street vending. *Urban Studies*, *57*(9), 1887–1902. https://doi.org/10.1177/0042098019856864

Tafti, M. T. (2025). The spatiality of encounters: Contesting planning decisions in Tehran. *Transactions of the Institute of British Geographers*, *50*, e70029. https://doi.org/10.1111/tran.70029

Tardiveau, A., & Mallo, D. (2014). Unpacking and challenging habitus: An approach to temporary urbanism as a socially engaged practice. *Journal of Urban Design*, *19*(4), 456–472. https://doi.org/10.1080/13574809.2014.923743

Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British Journal of Management, 14*(3), 207–222. https://doi.org/10.1111/1467-8551.00375

Van Eck, N. J., & Waltman, L. (2023). *VOSviewer manual.* Leiden University.

Watt, P. (2016). A nomadic war machine in the metropolis. *City*, *20*(2), 297–320. https://doi.org/10.1080/13604813.2016.1153919

Ye, X. (2021). Making post-colonial place identity: The regeneration of the St Lazarus neighbourhood, Macau. *Open House International*, *46*(1), 114–129. https://doi.org/10.1108/OHI-10-2020-0155

Zhang, J., Yu, Q., Zheng, F., Long, C., Lu, Z., & Duan, Z. (2016). Comparing keywords plus of WOS and author keywords: A case study of patient adherence research. *Journal of the Association for Information Science and Technology, 67*(4), 967–972. https://doi.org/10.1002/asi.23435

Zourabichvili, F. (2012). *Deleuze: A philosophy of the event* (K. Aarons, Trans.; G. Lambert & D. W. Smith, Eds.). Edinburgh University Press.