

REVIEW ARTICLE

Tactical Urbanism: From Temporary Action to Sustainable Urban Regeneration

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Abstract

This paper examines the evolving field of tactical urbanism, offering a comprehensive analysis of its application as a strategy for sustainable urban regeneration. The research utilizes a bibliometric approach to analyze a diverse corpus of literature and includes case studies such as guerrilla gardening, pop-up plazas, and PARK(ing) Day to demonstrate the impact of these low-cost, community-driven interventions on urban spaces. By employing an iterative methodology adapted from Design Thinking, the study underscores the significance of community engagement in fostering effective and enduring urban transformations. The discussion critically assesses both the short-term and long-term economic and social effects of tactical urbanism, highlighting its potential to stimulate broader urban renewal initiatives. The findings indicate that although these interventions are often viewed as temporary, they can create lasting connections and significantly influence urban development. The paper also introduces a new cyclical methodology specifically designed for tactical urbanism, which incorporates community participation, creative ideation, and continuous feedback to enhance and scale urban interventions. This proposed framework aims to balance innovation with sustainability, ensuring that tactical urbanism plays a crucial role in the long-term vitality of urban environments.

Bochra Hadj KILANI^{a,*}, and Najem DHAHER^b*University of carthage, Lab.OMRANE*^aORCID iD: 0009-0000-8648-7670^bORCID iD: 0000-0002-2569-9984*Correspondence: hadjki@gmail.com**Keywords:** Tactical urbanism, temporary urbanism, social empowerment, urban development, urban regeneration.

1. Introduction

Tactical urbanism encompasses a range of initiatives spearheaded by citizens with the objective of reclaiming public spaces for the purpose of fostering conviviality. These spaces are typically modest in scale and temporary in nature. The citizen-led interventions are a series of diversified projects with the objective of reclaiming public spaces for conviviality. The objective is to prioritize the community and to enhance social engagement and collective well-being. Collective well-being. The collaboration between urban planner Mike Lydon and Street Plans Collaborative is fundamental to the promotion of this concept. The concept is defined by five principles: a forward-looking approach to change, a priority to the local level, short-term and realistic commitments, and low-risk interventions. (Stevens and Dovey, 2022)

Low-risk, high-yield interventions entail the development of social and organizational capital within public, private, and nonprofit institutions. This illustrates the gradual adoption by institutional actors of the urban landscape. The process of "pedestrian" plays a crucial role in tactical urbanism, which prioritizes the improvement of walkability and public space.

The revitalization of public spaces through light pedestrian intervention is preferable to traditional heavy infrastructure.

Tactical urbanism encompasses a variety of writing practices, as previously described or as defined by Lydon and Garcia within the context of institutional discourse. (Lydon and Garcia, 2015) This diversity is reflected in the use of terms such as "DIY urbanism," "makeshift," "pop-up," "guerrilla," "insurgent," and "everyday." The nuances between these concepts are contingent upon the participants involved in the project (whether they are citizens or institutions), the relationship between established norms (whether they are authorized or not), the project process (including the pre-preparation stage or not), and the objectives pursued (functional, aesthetic, etc.). In essence, tactical urbanism offers a critique of urban planning that is perceived as detrimental to various urban social practices that rely on walking as a central element. These distinctions are essentially tactical in nature. Tactical urbanism draws upon the work of Henri Lefebvre, Jane Jacobs, William H. Whyte, and others.

Additionally, the work of notable urbanists such as Jane Jacobs, William H. Whyte, and Jan Gehl merits consideration. The creation of "stop area", which encourage individuals to linger in public spaces, can facilitate and promote walking through the implementation of tactical urban planning. The installation of furnishings and activities facilitates pedestrian walking by creating locations that encourage pedestrian activity. These stops are essential for the creation of attractive and vibrant areas, providing opportunities for respite during journeys. The promotion of walking in urban environments is advantageous as it provides individuals with the opportunity to engage in physical activity and become more active within their surrounding environment.

Tactical urbanism represents a novel approach to urban planning that employs temporary, low-cost interventions to shape urban spaces. This comprehensive review aims to synthesize diverse academic perspectives, transcend individual case studies, and weave a cohesive narrative that illuminates the broader economic, social, and transformative dynamics of tactical urbanism. By examining the dimensions of various studies, this analysis strives to establish a comprehensive understanding of the multifaceted nature of tactical urbanism. The essence of tactical urbanism is its capacity to adapt and respond to the dynamic challenges presented by the urban context. As Stevens and Dovey (2022) observe, the range of

adaptation strategies deployed by practitioners is broad and includes diverse interventions, from guerrilla gardening to the establishment of formalized temporary spaces. This adaptive capacity represents the fundamental tenet of tactical urbanism, endowing it with the capacity to navigate the complexities of ever-changing socio-economic and environmental contexts.

The adaptability of tactical urbanism manifests in various forms. Guerrilla gardening (Tracey, 2007), for example, represents an impromptu and popular approach where community members transform neglected or abandoned spaces into dynamic green zones without official authorization. This strategy illustrates the agility of tactical urbanism in responding to immediate local needs, often motivated by the desire to reclaim and revitalize underutilized spaces. On the other hand, the creation of formalized temporary spaces involves a more organized and structured approach. Examples include pop-up plazas or installations such as PARK(ing) Day, where designated spaces are transformed into lively public zones. This formalization allows for greater scalability and the possibility of collaborating with local authorities, demonstrating the adaptability of tactical urbanism to different scales and degrees of formality.

The adaptability of tactical urbanism is essential for fostering the resilience of urban communities. Facing socio-economic challenges, such as economic slowdowns or changes in population dynamics, tactical interventions can serve as immediate and cost-effective solutions to urgent problems. For instance, the temporary repurposing of vacant lots into community gardens during periods of economic downturn not only helps combat food insecurity but also strengthens the community's sense of resilience. Moreover, tactical urbanism addresses environmental changes by offering flexible solutions to enhance sustainability. Temporary interventions such as bike lanes or pedestrian zones allow cities to test and evaluate the impact of these changes on traffic patterns and community engagement before committing to permanent modifications. This adaptive approach aligns with the principles of sustainable urban development, where iterative trials inform long-term decision-making.

2. Literature review

The common thread among different tactical interventions is their ability to navigate and adapt to the evolving urban landscape. This adaptability is not just a strategic advantage but also a fundamental characteristic that defines the effectiveness of tactical urbanism. By essence, the adaptive and flexible strategies employed by tactical urbanism position it as a dynamic force capable of responding to ever-changing urban needs. From the organic and spontaneous nature of guerrilla gardening to the structured formality of pop-up plazas, tactical interventions embody a spectrum of approaches that collectively contribute to the resilience, dynamism, and adaptability of urban spaces (Stevens and Dovey, 2022). This adaptability makes tactical urbanism a valuable tool in the contemporary urbanist's toolkit, fostering innovative and reactive solutions to the constantly evolving dynamics of urban life.

The meticulous exploration by Rossitti et al. (2023) of the economic impacts associated with tactical urbanism interventions challenges conventional perspectives, providing a nuanced understanding of their role in urban regeneration. Contrary to expectations that tactical interventions could independently trigger regeneration, the study

reveals a more complex narrative. Rather than being autonomous regenerative forces, tactical urbanism interventions appear as catalysts, actively accelerating and amplifying ongoing urban transformations. This nuanced perspective underscores the adaptive and dynamic nature of tactical interventions, a theme that forms the basis for understanding their economic impacts. As practitioners navigate and adapt to the constantly evolving urban landscape, the economic potential of these interventions becomes evident. Rather than imposing rigid structures, tactical urbanism embraces flexibility, allowing for organic growth and responding to ever-changing needs.

The adaptive strategies employed by tactical urbanism make it a powerful tool for accelerating the economic vitality of cities. The role of these interventions as catalysts in ongoing urban transformations becomes evident when considering their ability to fill gaps, respond to immediate needs, and contribute to the overall vitality of urban spaces. The shift from viewing tactical urbanism as a trigger for regeneration to understanding its role as a catalyst is essential (De Smet and Van Reusel, 2018). This change in perspective paves the way for exploring the symbiotic relationship between tactical interventions and urban regeneration. The adaptive strategies that define tactical urbanism align with the complex and evolving nature of urban economies, where flexibility and reactivity are paramount. Moreover, the study encourages a reconsideration of the temporal aspects associated with economic impacts. Rather than expecting immediate and isolated economic transformations, the focus is on recognizing the cumulative and synergistic effects of tactical interventions over time.

The study by Rossitti et al. (2023) challenges the traditional dichotomy surrounding the economic impacts of tactical urbanism and regeneration. The shift from a simplistic view of triggering regeneration to a more nuanced understanding of catalyzing ongoing processes enhances our comprehension of the economic contributions of tactical interventions. The adaptive strategies inherent in tactical urbanism position it as a dynamic force, significantly contributing to urban economic vitality within the broader context of regeneration. This nuanced perspective opens the door to further research and informs urban planning practices that integrate the adaptive, reactive, and catalytic nature of tactical urbanism to foster economic regeneration (Widener, 2015). The study by Nello-Deakin (2023) serves as a bridge between the previously mentioned economic impacts and the broader landscape of public acceptance. If the economic contributions of tactical urbanism are important, their success is closely tied to how they are communicated and perceived by the public. Media narratives are the lens through which society as a whole views and interprets tactical interventions, making them a determining factor in success or resistance. The study by Salama et al. (2024) in Cairo provides a compelling exploration of the social dynamics inherent in tactical urbanism, highlighting the transformative potential that arises from community engagement. The study presents a methodology that transcends traditional urban planning approaches by translating informal activities into formal improvements, thereby fostering a dynamic and prosperous urban life. Tactical urbanism, as illustrated in the Cairo study, is distinguished by its participatory nature. It intrinsically involves communities in the transformation of their spaces, emphasizing the inclusion and empowerment of residents in the development of their urban environment. This participatory approach goes beyond merely transforming the physical spaces; it becomes a catalyst for broader social change.

The methodology of the study, which involves transforming informal activities into formal improvements, aligns with the ethos of tactical urbanism, which often emerges from local initiatives. By recognizing and formalizing the informal activities

already present in a community, the methodology leverages existing resources and practices, ensuring a bottom-up approach that resonates with the community's identity and aspirations. The transition from understanding the social dynamics of tactical urbanism to its participatory practices highlights the interconnection of these elements. While social dynamics refer to the broader patterns of interaction and influence within a community, participatory practices focus on the specific mechanisms through which this dynamic is actualized. Together, they contribute to the transformative potential of tactical urbanism.

The involvement of the community in shaping urban spaces is not merely symbolic; it is a fundamental aspect that defines the success and sustainability of tactical interventions (Kilani, 2023a). Communities are not passive beneficiaries but active contributors who bring local knowledge, cultural nuances, and a deep understanding of their needs to the planning process. This participatory ethos challenges traditional notions of urban planning and makes residents the co-creators of their urban environment. The Cairo study serves as a beacon illustrating how tactical urbanism, with its participatory practices, can respond to the unique challenges and opportunities present in different cultural and geographical contexts.

Herman and Rodgers (2020) take a historical look at the evolution of Park(ing) Day, tracing its trajectory from grassroots activism to institutionalized educational tool.

trajectory from grassroots activism to institutionalized educational tool. This transformative journey reveals the lasting impact of tactical interventions, challenging the conventional perception of tactical urbanism as inherently ephemeral. The Institutionalization of Park(ing) Day is a compelling case study that highlights the broader implications of tactical urbanism for urban development and planning practices.

The evolution of PARK(ing) Day: Born from a grassroots initiative in San Francisco in 2005, PARK(ing) Day has become a global phenomenon that transcends its initial guerrilla gardening roots. Herman and Rodgers narrate this evolution, explaining how the simple act of converting parking spaces into temporary public parks has become a powerful tool for reshaping urban spaces and challenging established urban planning norms. The story of PARK(ing) Day's evolution reflects the broader development of tactical urbanism itself, from spontaneous interventions to intentional and strategic urban transformations. The institutionalization of PARK(ing) Day challenges the notion of ephemerality often associated with tactical urbanism. While tactical interventions are traditionally viewed as temporary, the trajectory of PARK(ing) Day demonstrates that their impacts can be enduring and far-reaching. The transformation of a simple parking space for a day can influence perceptions, policies, and educational programs for years to come. This challenges the dichotomy between permanence and impermanence, suggesting that tactical urbanism can have lasting effects on the urban fabric.

By becoming an institutionalized educational tool, PARK(ing) Day marks a shift in how tactical urbanism is perceived and integrated into formal urban planning practices. The institutionalization of PARK(ing) Day sparks a broader debate on the long-term impact of tactical urbanism on urban development. It challenges the traditional view of tactical interventions as mere experiments, suggesting that they can significantly contribute to shaping the urban landscape.¹

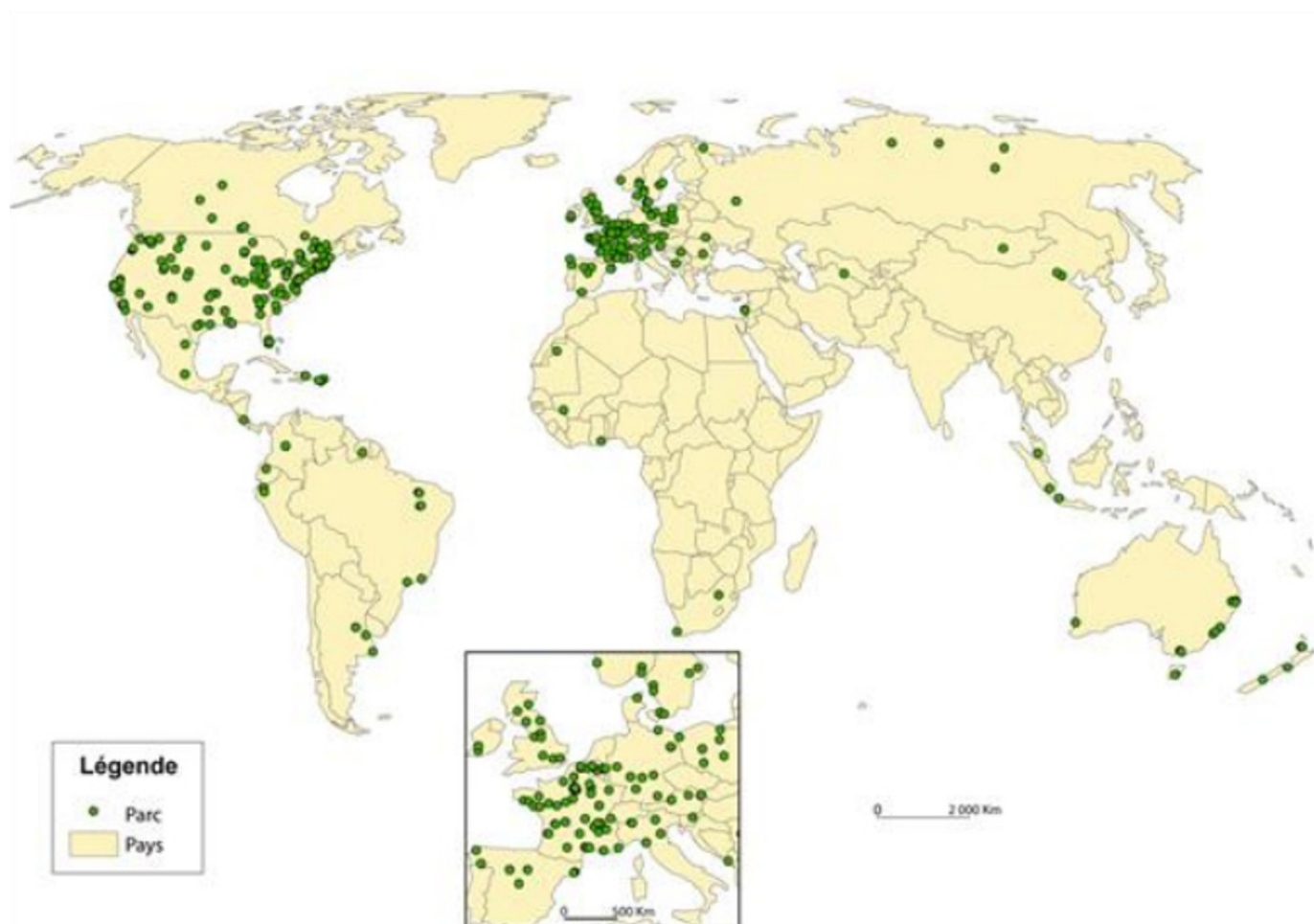


Figure 1. Park(ing) day Around the World. (Douay, Nicolas & Prévot, Maryvonne, 2014)

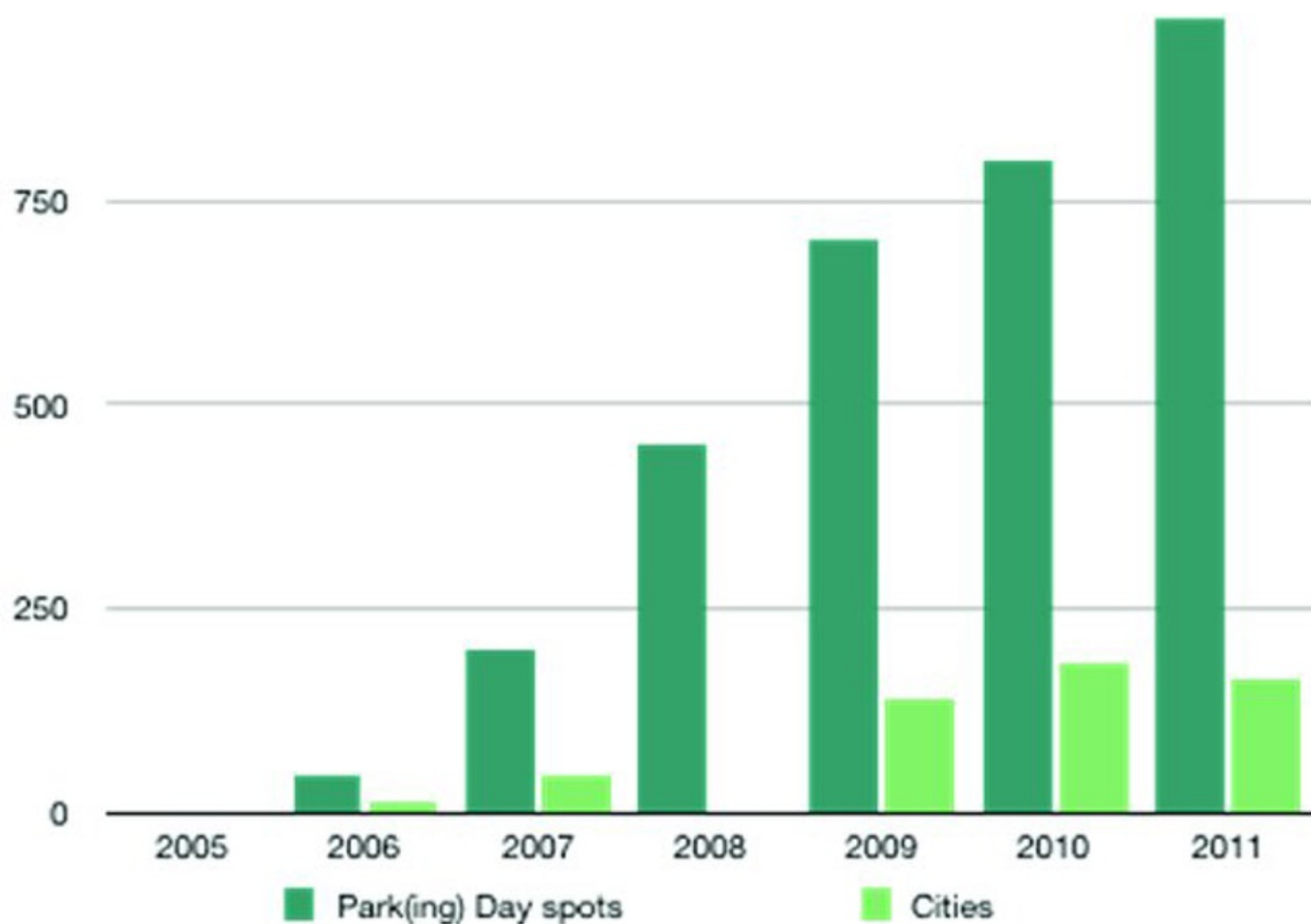


Figure 2. Growth of Park(ing) Days (PD) from 1 spot in 1 city (2005) to 975 parks created in 162 cities in 35 counties in 2011 (last year of formal counts) [20]. No data for the number of cities participating in 2012..2024 (Douay, Nicolas & Prévot, Maryvonne, 2014)

The exploration by Herman and Rodgers (2020) of the evolution and institutionalization of PARK(ing) Day provides insights into the transformative potential of tactical urbanism. This case study challenges preconceived notions about the temporary nature of tactical interventions, demonstrating how they can become agents of sustainable change. The institutionalization of PARK(ing) Day signals a shift in urban planning paradigms, suggesting that tactical urbanism can be a driving force in shaping the future of urban development.

The critical examination by Brenner (2015) questions the transformative potential of tactical urbanism, positioning it as a continuation and reinforcement of neoliberal urbanism. This critique serves as an entry point for a nuanced exploration of the philosophical dimensions of temporality in tactical interventions. By questioning the assumptions and implications of tactical urbanism, Brenner invites us to delve deeper into the underlying ideologies that shape urban development. Brenner's skepticism lays the groundwork for a philosophical examination of temporality as a central element of tactical urbanism. The temporality inherent in tactical interventions becomes a lens through which we can analyze their impacts on urban development. The temporality of these interventions raises questions about their ability to address long-standing issues and the sustainability of their transformative effects. The transformative claims of tactical interventions require a careful examination of their capacity to address deeply rooted challenges such as inequality, exclusion, and injustice.

Stevens' (2020) exploration of temporality introduces a philosophical dimension that goes beyond conventional narratives. Stevens' exploration redefines the temporal dynamic within the context of tactical urbanism. Rather than viewing temporality as a limitation, the lens of assemblage thinking allows us to appreciate its transformative potential. The paradox lies in the simultaneous establishment of new, durable relationships and lasting effects, challenging the assumption that temporary urban interventions are ephemeral and inconsequential. Despite their ephemeral label, these interventions establish durable relationships and have extended and lasting effects on urban spaces. This paradox challenges preconceived notions about the temporary nature of tactical interventions, prompting us to reconsider their long-term implications.

The temporal dynamic, viewed through the lens of assemblage thinking, positions tactical urbanism as a force that leaves a lasting imprint on the urban fabric. Stevens' exploration of temporality goes beyond the temporal dynamic of tactical urbanism. This philosophical dimension makes tactical urbanism a transformative force that leaves a lasting imprint on the urban fabric in the broader sense, challenging traditional perceptions of ephemerality.

The contribution of Hinthel et al. (2020) highlights the interconnection of tactical urbanism with best practices and the pursuit of sustainable urban imagery. This dimension broadens the discourse on tactical interventions, emphasizing a socio-ethical consideration that transcends the immediate physical transformations generally associated with these interventions. The key proposition of Hinthel's work revolves around the reciprocal relationship between practices of the common good and tactical urbanism.

The work of Hinthel et al. (2020) brings a crucial dimension to the understanding of tactical urbanism. By emphasizing the reciprocal relationship with practices of public interest, their work highlights the inherent socio-ethical considerations of these interventions. This transition broadens the narrative, positioning tactical urbanism as a holistic approach that not only transforms physical spaces but also contributes to the sustainable well-being of urban communities and the creation of a durable urban imagery.

The evaluation by Cariello et al. (2021) of tactical urbanism activities in Italy serves as a central objective through which the cultural context of these interventions is explored. By reflecting on how short-term interventions inspire planning institutions and contribute to the sustainable urban regeneration of public spaces, this study contributes to a broader understanding of tactical urbanism. The importance of this global perspective extends beyond the specific case of Italy, highlighting the need for an approach that considers the applicability of tactical urbanism in diverse urban landscapes worldwide.

The evaluation by Cariello et al. (2021) of tactical urbanism in Italy offers a multifaceted exploration of the cultural framework and global applicability of these interventions. This dimension calls for a global approach to tactical urbanism that recognizes its transformative potential by inspiring planning institutions, contributing to sustainable urban regeneration, and navigating diverse cultural landscapes. By adopting a global perspective, tactical urbanism can evolve into a more universally applicable and culturally sensitive approach to shaping the urban environment.

3. Methodology

Literature Selection: The initial step involved compiling a list of relevant literature on tactical urbanism. (12 955 publications) Each source was carefully examined, and key themes were identified by Dimensions Database bibliometric analysis. These themes included economic impacts, media narratives, social dynamics, evolution, critique, temporal dynamics, public good, and global perspectives.

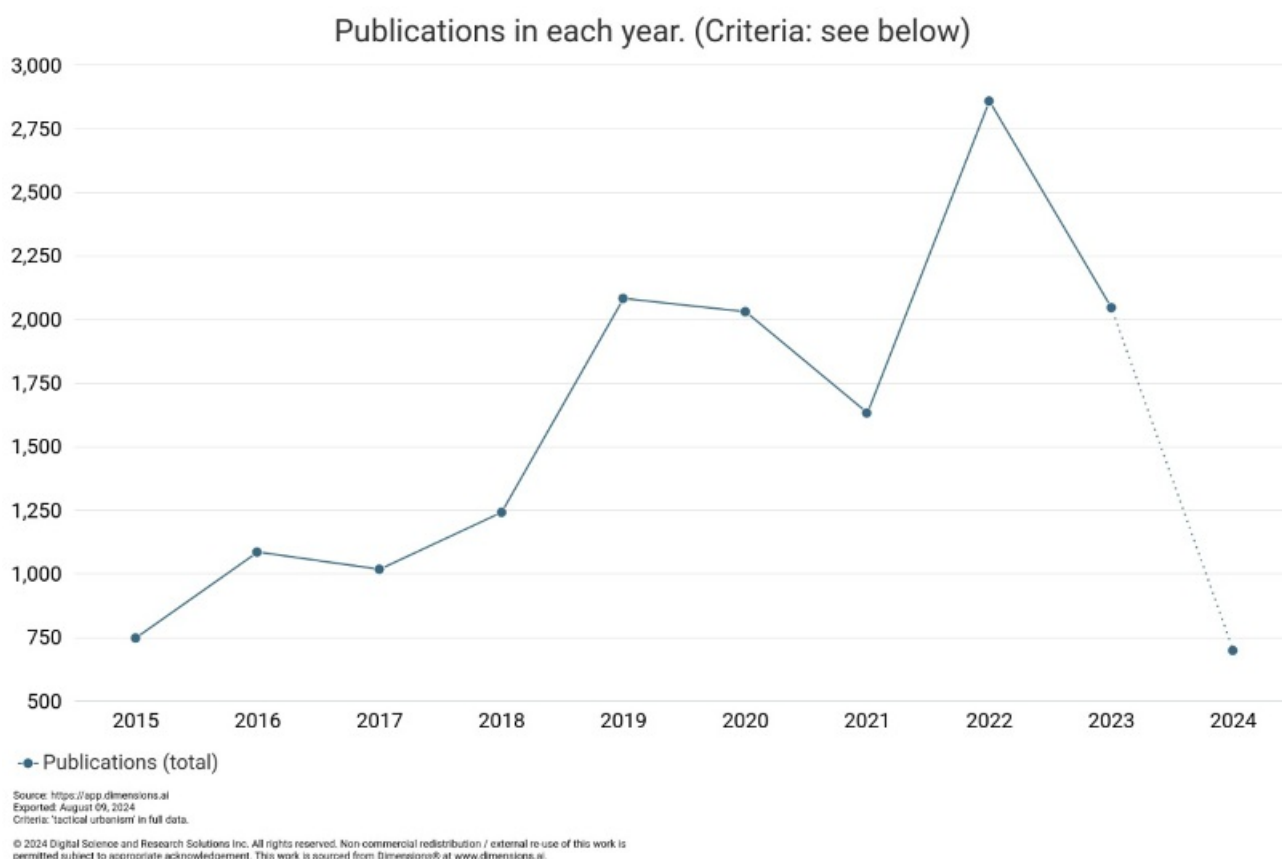


Figure 3. Vosviewer bar Graph authors publication and co-citation from the years 2015 to 2024 (keyword: tactical urbanism) © the authors (2024)

The goal was to comprehend the position adopted by each author on tactical urbanism, whether it was a positive endorsement, a critical examination, or a neutral observation. The sources were compared and contrasted to identify commonalities, contradictory viewpoints, and complementary ideas.

This step aimed to create a coherent narrative synthesizing various perspectives. The final step involved synthesizing the individual analyses into a coherent and holistic understanding of tactical urbanism. This synthetic and critical examination aimed to compare and analyze the different approaches presented in the literature, providing insights into the economic impacts, media narratives, urban planning strategies, and the evolution of tactical urbanism. To facilitate this analysis, the Dimensions database² was utilized to gather literature on "tactical urbanism" from the years 2015 to 2024. VOSviewer³ was employed to visualize and analyze the keywords and themes emerging from the literature. The references included in

this study were drawn from chapters, articles, and edited books.

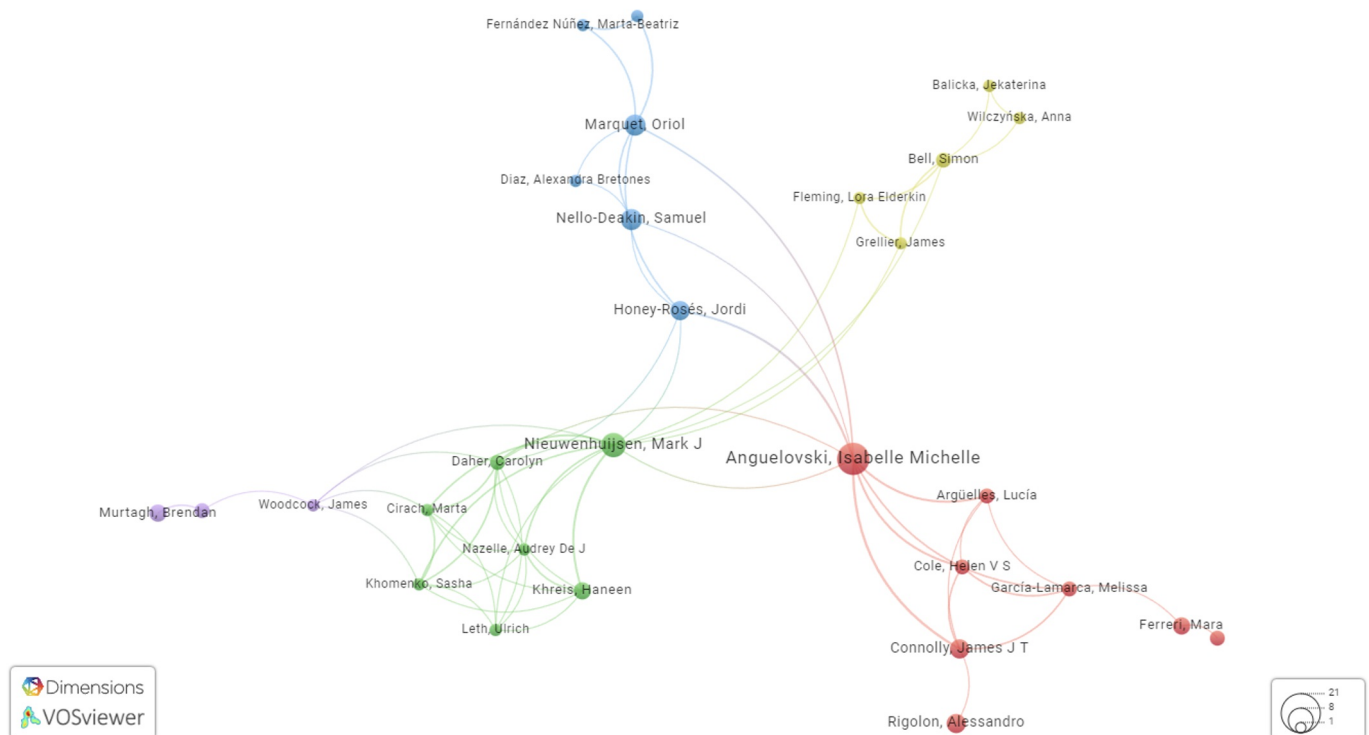


Figure 4. Vosviewer Graph authors publication and co-citation from the years 2015 to 2024© the authors (2024)

Table 1. Dimensions

Database authors publication
and co-citation selected
8,274 from the years 2020 to
2024 © the authors (2024)

Year	Number of Publications
2024	626
2023	1,887
2022	2,629
2021	1,390
2020	1,742
Total	8,274

Table 2. Dimensions Database authors publication about “tactical urbanism” from the years 2015 to 2024 © the authors (2024)

Number of Publications about tactical urbanism	Authors
20	Quentin Stevens
14	Isabelle Michelle Sophie Anguelovski, Ikechukwu Ogeze Ukeje
13	Christopher L Atkinson
12	Kim Dovey, Niki Frantzeskaki
11	Mario Coccia, Abeer Mohamed Elshater
10	Joseph Mpeera Ntayi
9	Germaine R Haleboua, Loren B Landau
8	Mark J Nieuwenhuijsen, Gordon C C Douglas, Federico Camerin, Pius Gumisiriza, Suwastika Naidu
7	Katharina Hölscher, Marcus Foth, Hassan Danaeefard, Luca Staricco, Carlos José Lopes Balsas, Vincent Ekow Arkorful
6	Ward S Rauws, Oriol Marquet, Cristina Hernandez-Santin, Alberto Corsín Jiménez, Adolfo Estalella, Rob Kitchin, Sônia Regina Paulino, E Elaine Stratford, Lauren Andres, Natalia Borisovna Ermasova, Frank Louis Kwaku Ohemeng, Elisabetta Vitale Brovarone, Hesam Kamalipour, Samuel Nello-Deakin
5	Martín Tironi

Table 3. Dimensions Database authors citation about “tactical urbanism” from the years 2015 to 2024 © the authors (2024)

Citation Range	Authors
500 and above	Isabelle Michelle Sophie Anguelovski (891), Mark J Nieuwenhuijsen (726), Jordi Honey-Rosés (459), Mimi B Sheller (306), Timon McPhearson (252)
100 to 499	Niki Frantzeskaki (540), Ward S Rauws (228), Rob Kitchin (199), Derk A Loorbach (154), Abdoumalik Simone (149), Katharina Hölscher (207), Elisabetta Vitale Brovarone (112), Federico Savini (112), James J T Connolly (280)
50 to 99	Simon J Marvin (213), Marcus Foth (90), Lauren Andres (65), Abeer Mohamed Elshater (65), Luke Hespanhol (55), Federico Camerin (35), Alessandro Rigolon (180), Michiel De Lange (41), Mara Ferreri (128), Tim Paul Denham (73)
10 to 49	Loren B Landau (107), Amelia Thorpe (55), Natalie Osborne (58), Joel Fredericks (109), Rike Sitas (14), Cristina Hernandez-Santin (8), Julia Maria Wittmayer (91), Tina Robinson (46), Iva Mrak (40), Nils Walravens (96)
1 to 9	Quentin Stevens (86), Kim Dovey (53), Germaine R Haleboua (45), Raffaello Furlan (39), Alberto Corsín Jiménez (0), Adolfo Estalella (0), Andrea Gorrini (23), Suwastika Naidu (0), Amelia Thorpe (11), Federico Camerin (35)

Table 4. Dimensions Database authors citation mean about “tactical urbanism” from the years 2015 to 2024 © the authors (2024)

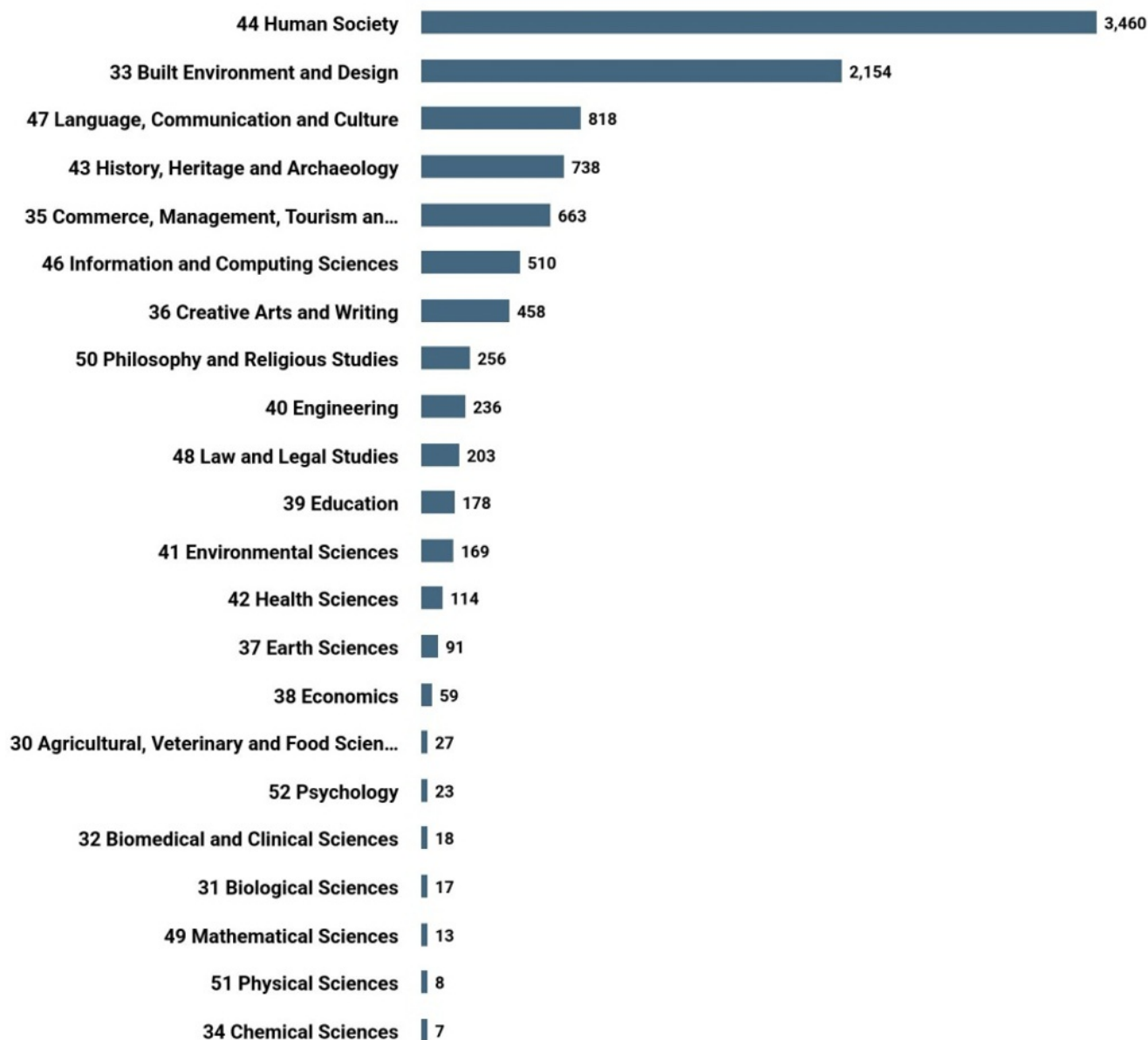
Citation Mean Range ⁴	Authors
60.00 and above	Isabelle Michelle Sophie Anguelovski (63.64), Mark J Nieuwenhuijsen (90.75), Timon Mcphearson (63.00), Mimi B Sheller (76.50)
40.00 to 59.99	Niki Frantzeskaki (45.00), James J T Connolly (56.00), Jordi Honey-Rosés (91.80), Timon Mcphearson (63.00), Galen D Newman (43.00)
30.00 to 39.99	Alessandro Rigolon (36.00), Ward S Rauws (38.00), Rob Kitchin (33.17), Nils Walravens (19.20), Mara Ferreri (32.00), Derk A Loorbach (38.50)
20.00 to 29.99	Katharina Hölscher (29.57), Luca Staricco (16.29), Hesam Kamalipour (15.00), Julia Maria Wittmayer (18.20), Elisabetta Vitale Brovarone (18.67), Federico Savini (22.40), Lamia Abdelfattah (20.00), Ginevra Balletto (22.75), Simon J Marvin (53.25)
10.00 to 19.99	Abdounaliq Simone (11.46), Loren B Landau (11.89), Cristina Hernandez-Santin (1.33), Amelia Thorpe (11.00), Lauren Andres (10.83), Joel Fredericks (21.80), Andrea Gorrini (4.60), Michiel De Lange (8.20), Iva Mrak (10.00), Nancy Odendaal (20.50)
5.00 to 9.99	Quentin Stevens (4.30), Kim Dovey (4.42), Abeer Mohamed Elshater (5.91), Germaine R Halegoua (5.00), Natalie Osborne (11.60), Martin Tomitsch (19.80), Amelia Thorpe (11.00), Raffaello Furlan (9.75), Alessandro Melis (7.25), Niki Frantzeskaki (45.00)
1.00 to 4.99	Ikechukwu Ogeze Ukeje (0.07), Oriol Marquet (4.17), Vincent Ekow Arkorful (0.00), Pius Gumisiriza (0.00), Suwastika Naidu (0.00), Federico Camerin (4.38), Lina Vyas (0.00), Petri Juhani Virtanen (0.71), Ahmad Elrahman (23.40)
0.00 to 0.99	Mario Coccia (0.00), Joseph Mpeera Ntayi (0.00), Amelia Thorpe (11.00), Rike Sitas (2.80), Alberto Corsín Jiménez (0.00), Adolfo Estalella (0.00), Haris Alibašić (0.20)

To refine research within the discipline of urban studies, a structured approach is essential for selecting the most relevant papers from a citation dataset. This process begins with defining the specific research focus within urban studies, such as examining high-impact studies, recent advancements, or particular methodologies. Clarifying these objectives ensures that the selected papers align closely with the intended research goals. Once the research focus is established, the next step involves evaluating papers based on their citation mean, which reflects the average number of citations each publication receives. While papers with high citation means often indicate significant influence and impact within their field, it is essential to narrow this focus to ensure relevance to urban studies specifically. For instance, although authors like Isabelle Michelle Sophie Anguelovski and Mark J Nieuwenhuijsen have citation means of 63.64 and 90.75 respectively, reflecting their substantial contributions, the selection process must prioritize papers directly related to urban research. By focusing exclusively on urban studies, we limit the corpus to works that are thematically pertinent and aligned with the core subject of the research.

Evaluating the number of publications by authors is crucial for gaining a comprehensive perspective within urban studies. Authors with a higher number of publications often provide a more extensive and in-depth view of the field. For instance, Quentin Stevens, with 20 papers and a citation range of 50 to 99 citations, offers a significant body of work that contributes broadly to urban studies. In contrast, Samuel Nello-Deakin, with 6 papers and a citation range of 10 to 49 citations, has fewer publications. While Nello-Deakin's work may still be valuable, the broader and more established body of research from authors like Stevens provides a richer resource for understanding key themes and advancements in urban studies. This approach ensures that the selected corpus reflects both depth and breadth in the field. Finally, achieving a balanced view involves including papers with varying citation means, combining high-impact studies with emerging research in specific fields related to urban studies, such as built environment and design, human society, tourism, and management. This approach ensures a well-rounded and current examination of urban studies, providing a

comprehensive basis for in-depth analysis and research.

number of publications in each research category. (Criteria: see below)



Source: <https://app.dimensions.ai>

Exported: August 09, 2024

Criteria: 'tactical urbanism' in full data; Publication Year is 2015 or 2016 or 2017 or 2018 or 2019 or 2020 or 2021 or 2022 or 2023 or 2024; Publication Type is Chapter or Article or Edited Book.

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Figure 5. Dimensions Database Classification: Fields of Research © the authors (2024)

Selected “corpus”

Table 5. Summary of Academic Articles selected with citation. © the authors (2024)

Article	Key Themes	Methodology	Perspective	Contributions	Citations
Rossitti et al. (2023)	Economic impacts, Acceleration of regeneration	Property values as a proxy, Detailed overview of tactical urbanism	Nuanced view, Tactical urbanism as a tool	Economic impacts are not autonomous, Context-specific impacts	1
Weidner (2015)	land use regulators deprived inner-ring suburbs collaborative strategies.	Thematic approach, Historical overview of tactical urbanism	and use regulators can partner with developers	Land use regulators must proactively consider economic impacts, prioritize opportunities in inner-ring suburbs, and partner with developers and citizens to revitalize these areas.	4
Nello-Deakin (2023)	Media narratives, Typological classification	Comprehensive review of media narratives	Nuanced analysis of media positions	Influence on policies and practices, New perspective	8
Salama, Wanas, & Abdel-Moneim (2023)	Transformation of Cairo's downtown, Methodology	Methodology detailing data collection and analysis	Vibrant urban life, Transition from informal to formal	Small sample size, Potential for improvement	3
Brenner (2015)	Neoliberal critique, Governance crisis	Critique of tactical urbanism, Challenge of underlying structures	Part of the governance crisis, Call for scrutiny	Need for transformative alternatives, Emphasis on critique	151
Herman & Rodgers (2020)	Evolution of Park(ing) Day, Case studies	Case studies from New Zealand and Poland, Evolution trajectory	Artistic and educational tool, Institutionalization	Local qualities, Potential for designer education	32
Hintheil, Hussein, & Aldabbagh (2020)	Public good impact, Urban scene dynamics	Theoretical framework, Analysis of local projects	Reciprocal relationship, Impact on the urban scene	Emphasis on urban sustainability, Testing research indicators	4
Cariello, Ferorelli, & Rotondo (2021)	Value assessment, Place-making initiatives	Evaluation of tactical urbanism activities	Inspiration for planning institutions	Influence of short-term interventions, Community rebuilding	22
Stevens (2020)	Temporality, Actor-network theory	Exploration of time, Assemblage thinking, Actor-network theory	Temporality in urban development formation	Sustainable relations, Critique of neoliberalism	4

4. Discussion

Tactical urbanism represents a dynamic and multifaceted approach aimed at reshaping the urban landscape through

temporary and low-cost interventions. A comprehensive review of the literature reveals key dimensions that contribute to a holistic understanding of tactical urbanism, extending beyond its immediate impacts to encompass broader economic, social, and transformative dynamics.

Beyond Physical Transformations:

The synthesis of various dimensions of tactical urbanism reveals a nuanced and comprehensive understanding of this dynamic approach. At its core, tactical urbanism transcends mere physical transformations; it is a dynamic, adaptive, and participatory process that influences economic, social, and cultural dimensions. This holistic perspective positions tactical urbanism as a versatile tool capable of reshaping the urban environment on multiple fronts.

Dynamic and Adaptive Nature:

The inherent dynamism and adaptability of tactical urbanism form the foundation of its transformative potential. Stevens and Dovey (2022) highlight this adaptability, emphasizing how practitioners employ a range of adaptive strategies, from guerrilla gardening to formalized temporary spaces. This adaptability allows tactical interventions to respond dynamically to evolving urban challenges. The ability to navigate and adjust to a changing urban landscape positions tactical urbanism as a resilient and reactive approach, capable of addressing socio-economic and environmental changes.

Economic Influence:

Rossitti et al. (2023) challenge traditional notions of the economic impacts of tactical urbanism. Although these interventions may not independently trigger regeneration, they act as catalysts, accelerating ongoing economic transformations. This economic dimension broadens the scope of tactical urbanism, recognizing its role in influencing economic vitality within the urban fabric. The economic impact extends beyond immediate physical changes, highlighting the long-term contributions of tactical interventions to urban regeneration processes.

Social Dynamics and Participatory Practices:

The intrinsically participatory nature of tactical urbanism, illustrated by the study of Salama et al. (2024), serves as a catalyst for social change. Communities are actively involved in transforming their spaces, fostering inclusion and empowerment. This social dimension acknowledges that tactical interventions are not limited to physical changes but also aim to cultivate dynamic and socially connected urban communities. The participatory practices embedded in tactical urbanism contribute to creating spaces that reflect the diverse needs and aspirations of the community.

Cultural Dimension:

The evaluation of tactical urbanism in Italy by Cariello, Ferorelli, and Rotondo (2021) introduces a cultural dimension to the discourse. Reflecting on how short-term interventions inspire planning institutions, the study contributes to the sustainable urban regeneration of public spaces. This global perspective underscores the need for a comprehensive approach that considers the applicability of tactical urbanism across diverse urban landscapes worldwide. Intercultural enrichment enhances our understanding of tactical urbanism and its potential to navigate various cultural contexts.

The historical perspective offered by Nello-Deakin (2023) on the evolution of Park(ing) Day introduces the temporal dynamics and institutionalization aspects. From grassroots activism to an institutionalized educational tool, this evolution challenges the notion of ephemerality associated with tactical urbanism. The enduring impact of temporary actions highlights the long-term influence of tactical interventions on teaching and urban planning practices.

The synthesis of these dimensions leads to a comprehensive understanding of tactical urbanism. It is not merely a tool for immediate physical transformations but a dynamic and adaptive approach capable of influencing economic, social, and cultural dimensions. This holistic perspective calls for ongoing critical discourse, ensuring that tactical urbanism continues to evolve and adapt to complex challenges.

Table 6. Dimensions and Insights into Tactical Urbanism: Key Authors and Observations © the authors (2024)

Dimension	Authors	Key Observation
Dynamic Adaptability	Stevens & Dovey (2022)	Tactical urbanism adapts to socio-economic and environmental changes, employing diverse strategies.
Economic Catalyst	Rossitti et al. (2023)	While not triggering regeneration independently, it accelerates ongoing economic transformations.
Social Empowerment	Salama, Wanas, & Abdel-Moneim (2023)	Communities participate, fostering inclusivity and empowerment, impacting both physical and social aspects.
Media Influence	Nello-Deakin (2023)	Managing public perceptions is crucial for the success and acceptance of tactical interventions.
Cultural Enrichment	Cariello, Ferorelli, & Rotondo (2021)	Italian tactical urban planning inspires global practices, emphasizing a comprehensive approach.
Temporal Dynamics & Institutionalization	Herman & Rodgers (2020)	Park(ing) Day's evolution challenges ephemerality, emphasizing lasting influence on urban planning education.
Critical Discourse & Continuous Evolution	Brenner (2015), Stevens (2020)	Ongoing critical discourse fuels the field's evolution.

4.1. Creation of a Prototype within the Context of Tactical Urbanism

The creation of a prototype within the framework of tactical urbanism is crucial for several reasons. Prototypes serve as tangible representations of proposed interventions, allowing stakeholders to visualize and interact with ideas before their large-scale implementation. Here are some case studies illustrating the significance of prototyping in tactical urbanism:

4.1.1. Park(ing) Day

Case Study: PARK(ing) Day provides an opportunity to create temporary public spaces, one parking spot at a time. This global event brings together citizens, artists, and activists who transform metered parking spaces into temporary public areas. In 2005, Rebar, an art and design studio from San Francisco, converted a metered parking space in the city center into a temporary public park. From this initiative, PARK(ing) Day has evolved into a global movement. PARK(ing) Day is a non-commercial initiative that fosters creativity, civic engagement, critical thinking, social interactions, generosity, and play.



Figure 6. A pop-up cafe in New York inspired by Park(ing) Day (Douay and Prevot, 2014) Source:

<https://journals.openedition.org/eue/docannexe/image/303/img-4-small580.jpg>

Importance of prototyping: Park(ing) Day's initial prototype provided a tangible example of how a small, temporary intervention could transform urban space, encouraging communities around the world to adopt similar tactics.

4.1.2. Guerrilla gardening

Case study: Guerrilla gardening is the unauthorized cultivation of neglected or abandoned land. In New York, the "Green Guerillas" began by planting sunflowers in vacant lots without authorization, highlighting the potential for transforming urban wastelands into dynamic green spaces.

Criticism and controversy surrounding guerrilla gardening:

In his 2011 study, Hardman critiques the prevailing portrayals of guerrilla gardening, arguing that these often inflate or romanticize the celebratory aspects of illegal urban cultivation from a somewhat detached viewpoint. A significant criticism is that the popular representations of guerrilla gardening tend to idealize the practice, overlooking the complex realities faced by practitioners. As McKay (2011) has observed, key aspects such as the geographical context, the underlying

motivations for engagement, and the social or professional backgrounds of those involved are frequently insufficiently examined.

In contrast, Crane et al. (2012) present a more grounded perspective through their participatory action research, which incorporates direct feedback from guerrilla gardeners. This approach provides insight into the practical aspects of their activities. Nevertheless, Crane et al.'s emphasis on how these gardeners challenge conventional uses of urban space is consistent with earlier accounts that view guerrilla gardening as a means for marginalized communities to assert their "right to the city" (Douglas, 2011). While this study offers a more complex perspective, it still resonates with the broader idealized narratives that portray guerrilla gardening as a form of urban resistance and space reclamation.



Figure 7. Hardman with F Troop⁵ in action in 2011. (Adams et al., 2014)



The significance of prototyping in the development process cannot be overstated. The sunflower plantation served as a prototype, illustrating the potential for the revitalization of previously neglected areas. The project demonstrated the impact of small-scale, low-cost interventions on community well-being.



Figure 9. Sunflower plantation Bruxelles Belgium Rue Lesbroussart, Bruxelles. 2007, © by brusselsfarmer2 [CC BY-SA 2.0] via Flickr

These Belgian guerilleros want to regain control of urban space, to green the city, but also to rethink the collective, to offer places to share and to return to a more natural, less resource-intensive way of life. Grouped together but not organized, they invite everyone to take peaceful, convivial and creative action with only seeds, compost and a few tools as weapons.

4.1.4. Bike lanes and tactical urban planning

Case Study: Tactical urban planning often involves the installation of temporary bike lanes to promote cycling and improve urban mobility. In cities like New York and San Francisco, pilot projects have been pilot painted bike lanes and temporary infrastructure before permanent changes were made.



Figure 10. Temporary confinement cycle paths, St-Jacques-de-la-Lande - June 2020 © Nicolas Bourgeois

The utilization of prototypes is of paramount importance in the assessment of the impact of temporary bike lanes on traffic flow, safety, and community acceptance. The data obtained from these prototypes was instrumental in the decision-making process regarding the implementation of a permanent cycling infrastructure.

4.1.5. Tactical Urbanism for Public Markets

In 2006, Jason Roberts established the non-profit organization Oak Cliff Transit Authority with the goal of revitalizing Dallas's streetcar system. Subsequently, he spearheaded the city's efforts to secure a \$23 million federal grant to reintroduce a modern streetcar system in Dallas. Tactical urbanism was employed to create prototypes for public markets in various cities. Temporary markets, such as the "Better Block Project" in Dallas, allowed communities to experience the vibrancy and economic potential of revitalized market spaces.



Figure 11. The “Better Block Project” in Dallas (before/after) (c) <https://www.betterblock.org>

The significance of prototyping in the development process cannot be overstated. The use of temporary markets allows for the testing of a concept's viability, the attraction of vendors and consumers, and the gathering of information regarding the economic and social benefits, prior to the commitment to a permanent infrastructure. In 2010, Jason organized a series of projects under the Better Block initiative. These projects involved the conversion of vacant properties in Dallas into temporary pedestrian neighborhoods.

The conversion included the installation of pop-up businesses, bike lanes, cafés, seating areas, and landscaping. The project has gained international recognition as an open-source movement, with initiatives occurring in locations as diverse as Melbourne, Australia, and Tehran, Iran. Its impact has been widely documented in prominent media outlets, including

the New York Times, the Washington Post, and Dwell Magazine.

The use of prototyping in tactical urban planning allows for experimentation, community engagement, and data collection, which collectively inform decision-making processes. The case studies demonstrate that temporary interventions can serve as effective tools for testing ideas, evaluating community response, and advocating for more permanent transformations in urban spaces.

4.1.6. Tactical Urbanism through Street Art in Djerbahood

Tactical urbanism through street art in Djerbahood, Tunisia, represents an innovative approach aimed at transforming the urban environment creatively and participatively. Djerbahood, located on the island of Djerba, became the stage in 2014 for a unique artistic initiative where local and international artists used street art as a means to reinvent public space.

This form of tactical urbanism is based on the idea that temporary artistic interventions can significantly impact the perception and use of urban spaces. Walls, streets, and facades became canvases for artistic expression, transforming the area into an open-air art gallery. (Kilani, 2023b)

The participatory aspect of this initiative was reinforced in 2022, allowing residents to engage with and take ownership of the public space, thus strengthening social ties and community spirit. Furthermore, tactical urbanism in Djerbahood offers an alternative to traditional urban planning by encouraging flexible, evolving transformations that respond to the changing needs of the community.



Figure 12. Drawing by artist DABRO in djerbahood (c) <https://djerbahood.com>

Comparative Analysis of Tactical Urbanism Case Studies:

Table 7. Comparative Analysis of Tactical Urbanism Case Studies: Advantages, Limitations, Methodologies, and Hypotheses. © the authors (2024)

Example	Advantages	Limitations	Approach Methodology	Hypothesis Tested
Park(ing) Day	<ul style="list-style-type: none"> - Creates temporary public spaces - Fosters creativity and civic engagement - Increases visibility of urban issues 	<ul style="list-style-type: none"> - Temporary interventions may be perceived as superficial - Limited impact if not supported by permanent changes 	<ul style="list-style-type: none"> - Temporary transformation of parking spots into public spaces - Engagement of citizens, artists, and activists 	<ul style="list-style-type: none"> - Temporary interventions can inspire permanent changes in urban space management
Guerrilla Gardening	<ul style="list-style-type: none"> - Revitalizes neglected spaces - Engages the community in positive actions - Enhances urban green spaces 	<ul style="list-style-type: none"> - Illegal practices can lead to conflicts - Idealized representations may obscure real challenges 	<ul style="list-style-type: none"> - Unauthorized cultivation of vacant lots - Actions by informal groups such as the "Green Guerillas" 	<ul style="list-style-type: none"> - Engaging in guerrilla gardening can strengthen citizens' rights to transform their urban environment
Sunflower Plantation in Belgium	<ul style="list-style-type: none"> - Demonstrates potential for revitalizing neglected areas - Encourages community participation - Improves aesthetics and community well-being 	<ul style="list-style-type: none"> - Impact may be limited to specific areas - Projects may require ongoing support for lasting effect 	<ul style="list-style-type: none"> - Planting sunflowers in neglected urban areas - Actions by unorganized local groups 	<ul style="list-style-type: none"> - Temporary gardening interventions can transform public spaces and encourage more sustainable practices
Bike Lanes and Tactical Urban Planning	<ul style="list-style-type: none"> - Improves urban mobility - Tests the acceptability of infrastructure before permanent implementation - Temporarily reduces traffic issues 	<ul style="list-style-type: none"> - Temporary changes may be poorly received if users do not see immediate benefits - Data may not reflect long-term conditions 	<ul style="list-style-type: none"> - Installation of temporary bike lanes - Data collection on impact on traffic flow and safety 	<ul style="list-style-type: none"> - Temporary bike lane prototypes can demonstrate potential benefits of permanent infrastructure
Tactical Urbanism for Public Markets	<ul style="list-style-type: none"> - Revitalizes market spaces - Tests the viability of market concepts - Increases community and economic engagement 	<ul style="list-style-type: none"> - Limited effect if temporary projects are not followed by permanent changes - May require ongoing support to maintain engagement 	<ul style="list-style-type: none"> - Creation of temporary markets such as the "Better Block Project" - Engagement of local communities and vendors 	<ul style="list-style-type: none"> - Temporary markets can act as catalysts for broader urban and economic revitalization
Tactical Urbanism through Street Art in Djerbahood	<ul style="list-style-type: none"> - Transforms public spaces creatively - Strengthens community bonds - Offers an alternative to traditional urban planning 	<ul style="list-style-type: none"> - Impact may be limited to artistically transformed spaces - May require ongoing support to maintain engagement 	<ul style="list-style-type: none"> - Use of street art to reinvent public spaces - Engagement of local and international artists 	<ul style="list-style-type: none"> - Temporary artistic interventions can lead to increased awareness and changes in urban space management

4.2. Adaptation of Design Thinking Methodology to Tactical Urbanism

This diagram illustrates the cyclical and iterative process involved in adapting design thinking methodology to tactical urbanism. It highlights the importance of community engagement, creative problem-solving, experimentation, and continuous learning within this context. Each step builds upon the knowledge and outcomes of previous stages, contributing to a holistic and evolving approach to urban development.

Tactical Urbanism: Represents the overall concept, integrating temporary, low-cost interventions to address urban issues and engage communities.

- **Empathize:** Involves engaging with the local community to identify and understand their needs, concerns, and perspectives. This step ensures that interventions are grounded in the lived experiences and aspirations of the community.
- **Define:** Synthesizes the insights gathered during the empathy phase to clearly articulate the problem or challenge. This step frames the issue based on the understanding acquired, providing a clear focus for the subsequent stages.
- **Ideate:** Involves brainstorming and encouraging collaboration to generate creative solutions for the defined problem. This phase fosters innovative thinking and diverse perspectives to address the challenge.
- **Prototype:** Creates small-scale models or pilot versions of the proposed solutions and tests them in controlled environments. Prototyping allows for tangible experimentation and refinement of ideas.
- **Test:** Implements prototypes in real-world settings and evaluates the short-term impact of the interventions. This step assesses how well the solutions address the problem and gathers feedback for further refinement.
- **Implement:** Expands successful interventions and collaborates with local authorities for broader application. This phase involves scaling up the solutions and integrating them into the urban fabric.
- **Revise:** Collects feedback post-implementation and revises the interventions based on the lessons learned. This step ensures that the solutions remain effective and relevant.
- **Reflect:** Assesses the long-term impact of the interventions and considers changes in community dynamics. Reflection helps in understanding the sustained effects and adapting future approaches.
- **Communicate:** Documents and shares the success of the interventions, engaging with media for positive narratives. Effective communication helps in garnering support and visibility for the initiatives.
- **Conclude:** Evaluates the long-term impacts and uses the data and feedback for future planning. This final step consolidates insights and informs ongoing and future urban planning efforts.

This adapted methodology underscores the iterative and adaptable nature of tactical urbanism, integrating principles from design thinking to enhance urban regeneration and community engagement.

The City as a "Laboratory" for Ephemeral Urban Experimentation:

The concept of "trial-and-error prototypes" within the context of tactical urbanism represents a pragmatic approach aimed at experimenting with innovative solutions on a temporary basis before implementing them on a larger scale. This method relies on the principle of testing ideas in a concrete manner, observing their functionality in real-world conditions, and, if necessary, making adjustments or canceling the project.

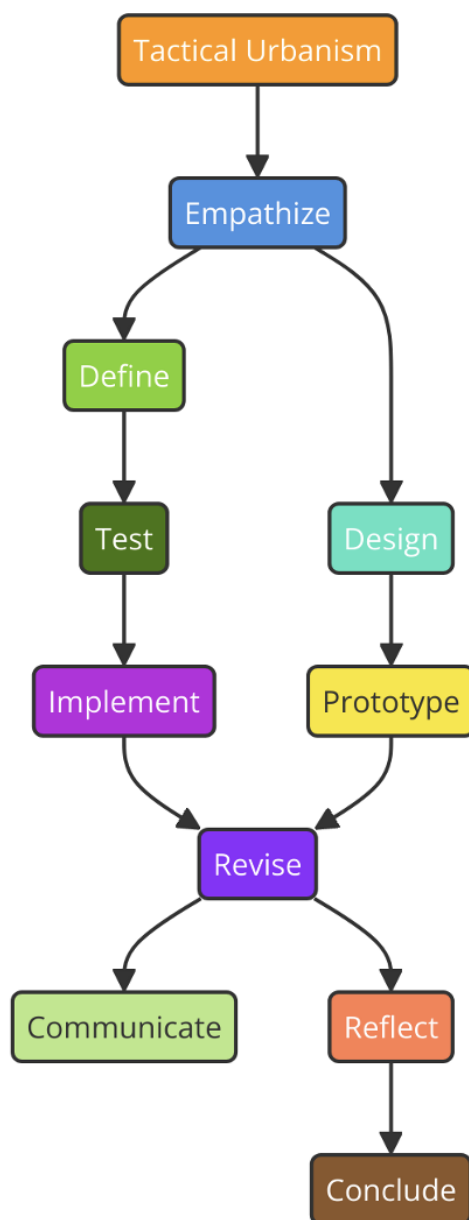


Figure 13. Tactical Urbanism Workflow © the authors (2024)

When a community or urban planners propose a tactical intervention, they often begin by creating prototypes, which are scaled-down and temporary versions of the proposed ideas. These prototypes are placed in specific areas of the city to assess their feasibility, community acceptance, and impact on the urban environment. The prototyping process begins with a thorough evaluation where community needs are understood, the problem to be solved is clearly defined, and potential ideas are generated. Urban planners then develop a prototype based on these ideas, ensuring it is on a small scale and easily modifiable. Once the prototype is in place, both quantitative and qualitative data are collected to evaluate its effectiveness, impact, and community reaction.

If the prototype does not meet expectations or presents unforeseen issues, a critical evaluation is conducted. Based on

this evaluation, a decision is made to either cancel the project if the challenges are insurmountable or make significant adjustments to improve the concept. In the case of success, the project can be expanded to other areas of the city, while continuing to monitor and adjust based on new conditions. This approach of trial-and-error prototyping reflects the flexibility and responsiveness inherent in tactical urbanism, where active experimentation and constant adjustment are essential for creating sustainable and adaptive urban solutions.

5. Conclusion

Tactical urbanism lies at the intersection of creativity, community engagement, and urban transformation. A thorough exploration of the literature and case studies related to this dynamic approach has revealed a rich mosaic of ideas, painting a nuanced picture of its multifaceted nature and potential. Concluding our journey through the realms of tactical urbanism, it is evident that this strategy represents more than just a series of interventions—it embodies a philosophy that reshapes our understanding of urban development.

At its core, tactical urbanism exemplifies adaptability and flexibility, dynamically responding to the ever-evolving challenges presented by modern urban environments. As Stevens and Dovey (2022) eloquently state, tactical urbanism is not confined to a singular approach; rather, it spans a spectrum of strategies from guerrilla gardening to formalized temporary spaces. This adaptive capacity allows urban practitioners to remain agile and resilient, thereby enhancing their ability to navigate socio-economic and environmental changes effectively.

The economic impact and regenerative potential of tactical urbanism constitute one of the key dimensions highlighted by our study. Rossitti et al. (2023) challenge traditional notions by asserting that while tactical interventions may not independently trigger regeneration processes, they act as catalysts that accelerate ongoing transformations. This reframing of economic contributions broadens our understanding, emphasizing the interconnectedness of tactical urbanism within a larger framework of urban regeneration.

Furthermore, the power of media narratives in shaping public perception cannot be underestimated. Nello-Deakin's (2023) typology of media representations—ranging from critical to positive—underscores the complex relationship between media narratives and societal attitudes towards tactical urbanism. Recognizing this, communication strategies become crucial, enabling navigation between diverse public sentiments to foster a more inclusive and informed discourse.

The participatory ethos of tactical urbanism emerges as a transformative force, involving communities in the very fabric of their urban evolution. Salama et al.'s (2024) study in Cairo provides a brilliant example, introducing a methodology that translates informal activities into formal improvements, thereby empowering communities to actively contribute to urban development. This social dimension emphasizes inclusivity, demonstrating how tactical urbanism can bridge the gap between formal planning processes and the lived experiences of residents.

The historical evolution of tactical interventions, as illustrated by Herman and Rodgers (2020) in their exploration of Park(ing) Day, reveals a trajectory from grassroots activism to an institutionalized educational tool. This evolution

challenges the notion of ephemerality associated with tactical urbanism, showing how temporary actions can leave lasting imprints on the urban landscape.

However, our exploration would be incomplete without addressing the critical lens through which scholars view tactical urbanism. By situating it within the continuum of neoliberal urbanism, the critique prompts introspection on the underlying assumptions and implications of tactical interventions. This critical dimension encourages deeper reflection on the role of tactical urbanism in addressing systemic urban problems and in promoting genuine transformative potential.

The temporal dynamics, as discussed by Stevens and Dovey (2022), introduce a philosophical dimension to tactical urbanism. The concept of assemblage thinking and actor-network theory offers lenses through which we can understand how temporality shapes urban development. The paradoxical nature of temporary urbanism challenges conventional perceptions of ephemerality, establishing relationships and enduring effects that resonate well beyond the temporary interventions.

The socio-ethical considerations highlighted by Hinthel et al. (2020) emphasize the reciprocal relationship between sound public practices and tactical urbanism. Aligning tactical interventions with the public good becomes a crucial consideration, fostering a sustainable urban image that transcends immediate physical transformations.

Global perspectives, such as those provided by Cariello in their evaluation of tactical urbanism in Italy, underscore the importance of understanding tactical urbanism within diverse cultural and geographical contexts. This global perspective reminds us that the impact of tactical interventions is intrinsically linked to the unique challenges and opportunities presented by different urban landscapes. Synthesizing these various dimensions, a holistic understanding of tactical urbanism emerges. It is not merely a set of interventions but a dynamic, adaptive, and participatory approach that goes beyond immediate physical transformations.

The strategy of "prototype, trial, and cancellation" within the framework of tactical urbanism embodies an approach that transcends conventional experimentation. This thoughtful and iterative methodology aims to introduce temporary solutions into the urban fabric, while also offering the possibility of constant revision based on the outcomes achieved. The creation of prototypes, representing condensed and adaptable versions of proposed ideas, is conceived as a living act of design. The objective is not solely to test technical feasibility but also to evaluate the emotional and social responses of the public. Prototypes should be conceived as flexible installations, capable of being adjusted based on experiential feedback.

The term "cancellation" itself should be understood more as an evolution or transformation rather than as a failure. Cancellation may signify a temporary retreat for thorough reevaluation, thereby integrating a concept of sustainability and adaptability. In some cases, the cancellation of a prototype may give rise to new ideas, thus fueling a continuous creative process. This thoughtful and contextual approach of "prototype, trial, and cancellation" fits into a broader vision of tactical urbanism as a catalyst for sustainable urban transformations. It reveals the necessity for continuous community participation, multidimensional evaluation, and ongoing reflection to shape more resilient and adaptive urban environments.

The future of research in the field of tactical urbanism seems promising, with innovative perspectives that could deepen

our understanding and improve the implementation of these creative urban interventions. A significant research direction would involve conducting a thorough evaluation of the social impacts of tactical urbanism initiatives. This would require a detailed analysis of changes in community dynamics, social inclusivity, and implications for residents' quality of life, thereby allowing for a more nuanced understanding of social benefits.

Another avenue would be to explore the integration of innovative technologies, such as augmented reality, artificial intelligence, or real-time data collection (Kilani, 2023c), to optimize the planning, implementation, and evaluation of tactical urbanism projects. This approach would pave the way for more advanced methods and better utilization of available technological resources.

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No potential competing interests to declare.

Footnotes

¹ Around the World: Thousands of Parks Over 500 Cities Worldwide, In France: 250 Parks, Over 30 Cities.

² Dimensions Database. (n.d.). Retrieved from [Dimensions Database Website](<https://www.dimensions.ai/>).

³ Van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. **Scientometrics*, 84* (2), 523-538.

⁴ The citation mean number is typically calculated by dividing the total number of citations received by an author's publications by the total number of publications they have. This gives an average number of citations per publication and is a common metric used to assess the impact or influence of an author's work in their field

⁵ In the context of guerrilla gardening, "F Troop" refer to a specific group or initiative that engages in covert, unauthorized gardening activities in public spaces. The term "F Troop" could be used metaphorically or as a nod to guerrilla gardeners' informal and sometimes rebellious approach to urban greening. (Hardman, M. ,2011)

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