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Tactical Design as a Strategy for Innovation

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Abstract

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Tactical design has emerged as an innovative strategy for transforming public spaces through temporary, flexible and participatory interventions. This study analyses its potential for urban innovation, focusing on methodologies, impacts and challenges. Through a mixed approach that includes field observations, interviews and case study analyses, the research highlights how tactical design favours social inclusion and the activation of collaborative networks. The project results at the University of Perugia demonstrate that small-scale interventions can improve the perception of urban spaces, strengthening the sense of belonging and the quality of the experience. The involvement of students emphasised the educational and transformative value of tactical design. The study contributes to the debate on experimental urban planning, highlighting the need to integrate these approaches into sustainable urban strategies supported by institutions.

Keywords: Design, Tactical design, Public space, Experimental urbanism, Innovation.

1. Introduction

In recent decades, the concept of tactical design has taken on a central role in urban innovation processes, establishing itself as a flexible and adaptive strategy for transforming public spaces. This design approach is based on temporary, inexpensive and participatory interventions that stimulate social change and urban regeneration through concrete and experimental actions (Kim & Jin, 2023). Interest in tactical design has grown in parallel with the debate on urban planning and the need for more rapid and effective responses to the critical issues of public space (Amen, Afara, and Nia 2023; Aziz Amen 2022; Amen and Nia 2020). As Husain and Salem (2024) explain, “Tactical urbanism has emerged as a flexible and low-cost strategy for addressing immediate urban issues and testing potential long-term solutions, especially in under-resourced neighborhoods” (Husain & Salem, 2024). This is why tactical design stands out for its ability to activate processes of co-creation and experimentation, allowing citizens to play an active role in shaping the urban environment (Lydon & Garcia, 2015). This approach responds to the growing need for more inclusive urban development, where design is no longer the exclusive prerogative of institutions but becomes a process shared between administrations, local communities and designers (Aleksieva et al., 2020). Tactical urbanism is at the intersection between strategy and tactics, two distinct but interdependent concepts. While strategy is traditionally associated with institutional planning and long-term interventions, tactics focus on local, temporary and immediate impact actions. De Certeau (2001) distinguished strategies as instruments of power used by institutions, while he defined tactics as creative and everyday practices adopted by individuals to subvert the imposed order.



Figure 1. Graphic diagram of the most used tactical urbanism techniques (Developed by Authors).

This distinction perfectly applies to tactical design, which uses ‘light’ interventions to test solutions that can be integrated into long-term strategies. One of the most important aspects of tactical design is its ability to promote social and spatial innovation by activating collaborative networks between different urban actors (Gianfrate, 2021). This approach is based on participatory methodologies, which allow local knowledge to be integrated with design skills, generating more effective and sustainable interventions. Tactical design is, therefore, an incremental process where small progressive changes can lead to significant urban transformations in the long term. Diffused innovation is another key element of tactical design. Through the diffusion of innovation, we analyse how new design ideas can be adopted and replicated in different contexts, contributing to sustainable urban regeneration (Kim & Jin, 2023).

This theoretical model allows us to understand how tactical design a series of sporadic interventions is not just but a fundamental tool for urban innovation. Tactical design is closely related to co-design and participatory design practices, which promote the inclusion of local communities in the design process. Through place-making and street design strategies, citizens are no longer passive users of urban space but protagonists of its transformation. The participatory dimension is particularly evident in the ‘Piazze Aperte’ (Open Squares) initiatives in Milan, where the use of tactical solutions has transformed public spaces into places for gathering and socialising (Camocini et al., 2020).

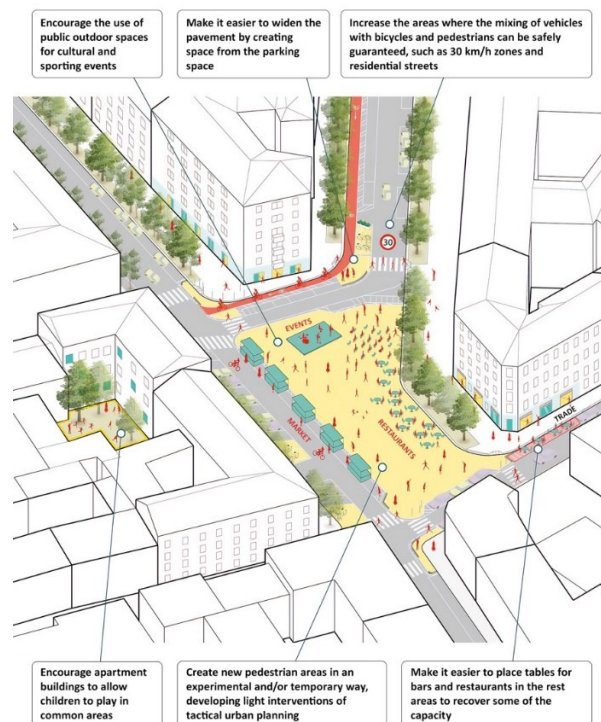


Figure 2. ‘Piazze Aperte’ (Open Squares) Project, Piazza Tito Minniti in Milan (Developed by dodecaedrourbano.com).

An emblematic case of tactical design applied to urban transformation is the Superkilen project in Copenhagen, which has demonstrated how tactical design can foster cultural diversity and social integration through the innovative use of public space (Boschetti, 2023). The evolution of tactical design as an innovation strategy is part of a broader landscape of experimental urban planning in which design adapts to the changing needs of contemporary cities. Although tactical urbanism was born as a temporary tool, more and more studies show how it can catalyse long-term interventions and integrate new urban policies (Bazzu, 2020). The objective of this study is to analyse the potential of tactical design as a lever for urban innovation through an analysis of its applications, limits and prospects. The following chapters will explore the methodologies and case studies, offering a detailed picture of the impact of this approach on the contemporary city.

2. Materials and methods

The study of tactical design as an innovation strategy is based on a mixed methodological approach, combining qualitative and quantitative analysis tools to explore the potential of this practice in transforming urban spaces. The research integrated field observations, case study analyses and interviews with key stakeholders, including designers, public administrators and citizens involved in tactical urbanism processes. Adopting an interdisciplinary perspective made it possible to investigate the phenomenon from a design point of view and a social, economic and environmental perspective. The data analysis focused on tactical design interventions in different urban contexts, particularly redevelopment projects of disused railway areas and underutilised public spaces. Projects involving modular furniture, temporary urban gardens, and participatory placemaking solutions were examined, as well as elements that characterise tactical design as a tool for urban experimentation. The methodological approach used a documentary analysis based on academic literature and evaluation reports of tactical urbanism interventions. Primary sources, such as scientific articles, technical reports and policy documents, were integrated with materials collected in the field, including photographs, maps and records of co-design activities. The theoretical framework of reference was inspired by the principles of Innovation-Diffusion Theory, which explains the mechanisms of adoption and diffusion of urban innovations (Kim & Jin, 2023). This model has allowed us to evaluate how tactical practices spread within urban contexts, analysing the variables influencing their success and scalability. This is an essential tool in education, as it allows for a better understanding of the needs of end users through immersive experiences and accurate simulations (Kocaoğlu & Demirkan, 2019).



Figure 3. Tactical urban planning intervention proposed by the Apicultura Collective in Via Pacini, Milan (Source: https://milano.repubblica.it/cronaca/2020/09/05/foto/via_pacini_milano_riqualficazione_urbanismo_tattico-266327772/1/).

To improve the impact of tactical design on the perception of public space, a field survey was conducted involving groups of citizens through semi-structured interviews and focus groups. The direct involvement of the community made it possible to collect data on the dynamics of participation and the level of acceptance of temporary interventions. Particular attention was paid to the interaction methods between institutional actors and citizens, analysing how co-design strategies influence the long-term sustainability of the interventions (Niccolini, 2024). Direct observation of tactical design interventions included a spatial analysis of urban transformations using behavioural mapping techniques and photo documentation. This method allowed us to record how the spaces were used before, during and after the implementation of the interventions, highlighting the effects on the behaviour of the users. In addition, indicators of social and economic impact were analysed, such as the increase in the number of visitors to the regenerated spaces, the diversification of uses and perceptions of urban security (Camocini et al., 2020).



Figure 4. Redevelopment of Piazzale Loreto (Milan) with graphics designed by Camilla Falsini.
(Source: <https://www.internimagazine.it/architettura/citta/asphalt-art/>).

The research also included a comparative analysis of projects in different contexts, evaluating the role of urban regulations and policies in facilitating or hindering the spread of tactical design practices. The experiences studied show that the success of these interventions depends not only on the quality of the design but also on the ability to involve the community and the flexibility of local administrations in implementing and integrating experimental solutions into urban planning processes (Softaoğlu, 2019; Softaoğlu, 2021). Finally, a longitudinal analysis was conducted on several projects carried out over the last ten years to understand the potential of tactical design as a lever for innovation. This method made it possible to evaluate the interventions' durability and ability to generate structural changes in the long term. The incremental approach of tactical design has emerged as an effective strategy for urban regeneration, capable of adapting to emerging needs and stimulating new practices for public space management. Through this integrated methodology, the study aims to offer a detailed picture of the dynamics and implications of tactical design, highlighting its potential and limitations in the context of contemporary urban transformation.

3. Results

The results obtained from the application of tactical design in the context of the project carried out by the students of 'Architecture and Temporary Installations' of the three-year degree course in design at the University of Perugia together with the 'Tangram' Cultural Association have highlighted the transformative potential of this approach in the redevelopment of the access areas to the Centre of the Department of Civil and Environmental Engineering in Perugia. The initiative involved over one hundred students who, through a co-design process, proposed and implemented design solutions for three specific areas: the 'Perugia Università' station stop, the access ramp and the car park. The project focused not only on the functionality and aesthetics of the interventions but also on creating a visual and symbolic identity for these places, reinforcing the sense of belonging and recognition of the university spaces. This process of visualising identity has made the place immediately recognisable, strengthening the link between the University and the territory. The students developed innovative signage that emphasises the connection between the station and the University, guiding visitors along an intuitive and symbolically relevant route. This strategy, typical of wayfinding and tactical urbanism, has created a visual continuity between the railway access point and the internal spaces of the campus, facilitating orientation and strengthening the role of the University as a centre of reference for the local community. A second important aspect that emerged from the project was the rethinking of the access ramp, which, from a simple infrastructural element, became a real transition space enhanced by temporary installations and graphics capable of communicating the identity of the University. This transformation has improved the perception of the place, making it more welcoming and less anonymous, positively impacting the quality of the user experience. The active involvement of students in the design process has demonstrated how tactical design can act as a tool for empowerment, stimulating greater awareness of the value of public spaces and the need to take care of them in a participatory and shared way. Regarding car parking, the project emphasised the need to balance mobility requirements with a greater focus on environmental sustainability and the liveability of the space. Placemaking solutions were introduced that allowed for the redefinition of some areas as temporary gathering spaces, demonstrating how even a place mainly dedicated to parking can become an opportunity for socialisation and for creating a new urban quality. Including modular furniture, interactive signage and bicycle parking areas has encouraged a more dynamic and flexible use of the space, increased user interaction and enhancing the area through a visual language consistent with the overall concept of the intervention (Camocini et al., 2020).



Figure 5. General layout of the area identified for the intervention, photographic analysis of the car park and vehicle flow map (Developed by student Cavadenti, Pizzighella, Renzacci, Senise and Trabona).

From a methodological point of view, the project confirmed the effectiveness of the incremental approach typical of tactical design. Adopting temporary interventions made it possible to test design solutions with a minimum initial investment, favouring a participatory evaluation process based on direct observation and user feedback. In this sense, the temporary urbanism model has proven particularly effective in demonstrating how flexible and adaptive interventions can generate significant changes in the perception and use of public space. From the point of view of participation, the experience showed how the active involvement of the students not only increased their sense of belonging but also encouraged broader reflection on the quality of the built environment and individual responsibility in the care of study and workspaces. The concept behind the project, which aimed to make young people the protagonists of their future by transforming everyday places, took the form of a highly participatory and generative process. This demonstrates how tactical design is not only a spatial transformation method but also an opportunity to stimulate civic awareness and social cohesion. Contemporary urbanisation can be interpreted through the metaphor of the ‘urban cage’, wherein human beings, like domestic animals, progressively lose their autonomy and freedom in favour of an increasingly controlled and regulated system (Sadri, 2017). Finally, the analysis of the post-intervention effects showed an improved perception of safety and the welcoming nature of the transformed spaces. Interviews with students and teachers revealed a greater propensity to use these places, with increased attendance and a strengthening of the sense of identity and belonging. The possibility of transforming often neglected environments into meaningful and recognisable spaces has confirmed the ability of tactical design to act as a catalyst for broader and more structured urban regeneration processes (Lingua, 2016). In summary, the results obtained from the project demonstrate that tactical design can represent an effective strategy for transforming urban spaces, not only from an aesthetic and functional point of view but also from its impact on participation and the construction of collective identity. The design project carried out by the students of the Degree Course in Design has shown how tactical urbanism can be used to raise awareness and active involvement, making students protagonists in improving their study and living environment.

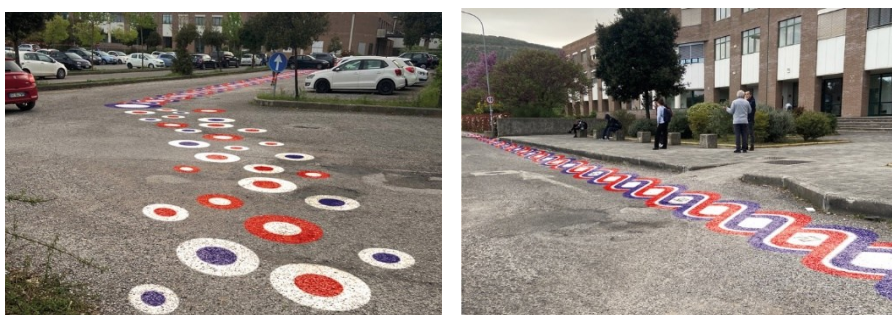


Figure 6. Photo insertion of the final tactical design project (Developed by student Cavadenti, Pizzighella, Renzacci, Senise and Trabona).

4. Discussion

Analysing the results obtained through the tactical urbanism project developed by the Degree Course in Design students at the University of Perugia allows us to reflect on various key aspects of the application of tactical design in transforming public spaces. The project demonstrated how small-scale interventions can significantly impact the perception and use of spaces, contributing to the construction of a new urban identity and strengthening the sense of belonging of the academic community. The transformation of the 'Perugia Università' railway station highlighted the potential of tactical design in making a place visible and recognisable through graphics and signage. Creating a specific visual identity for the area strengthened the link between the station and the university, providing a clear and immediate reference point for students, teachers and visitors. This aspect is part of a broader debate on the role of graphic design in improving urban accessibility and the ability of signage to influence the experience of public space (Kim & Jin, 2023).

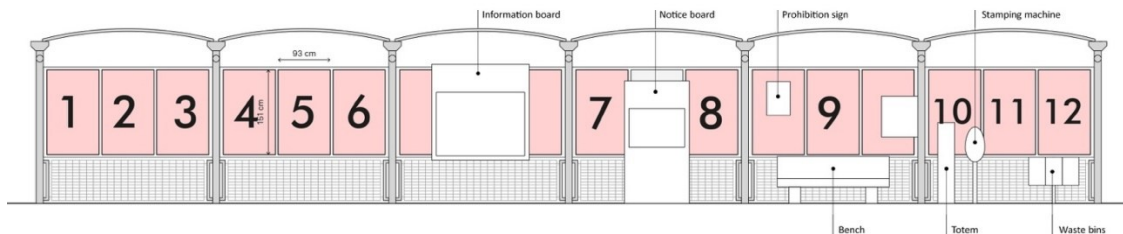


Figure 7. Graphic diagram of the 'Perugia Università' station (Developed by Tangram).

The intervention on the access ramp highlighted a fundamental aspect of tactical urbanism: the possibility of rethinking often neglected infrastructural elements and making them an active part of urban life. Using graphic elements and temporary installations transformed a transitional space into a place capable of communicating and interacting with users. This type of intervention is significant because it demonstrates how tactical design can act on different scales, not limiting itself to large squares or urban parks but also intervening in liminal spaces, which, if enhanced, can improve users' daily experience. The project also highlighted the need to consider the perception of public spaces in terms of hospitality and safety. The introduction of visual elements and signage has made the connection between the station and the university clearer and more intuitive, reducing the feeling of disorientation that often characterises transit areas (Alekseevaa et al., 2020). The analysis of the intervention in the car park raised an important reflection on the role of spaces dedicated to mobility within the urban fabric. The project demonstrated that even an area primarily designed for parking can be reimagined to encourage new dynamics of socialisation and interaction. This result is part of a broader debate on the need to reduce the predominance of cars in urban planning and to rethink car parks as multifunctional spaces capable of adapting to the needs of local communities.

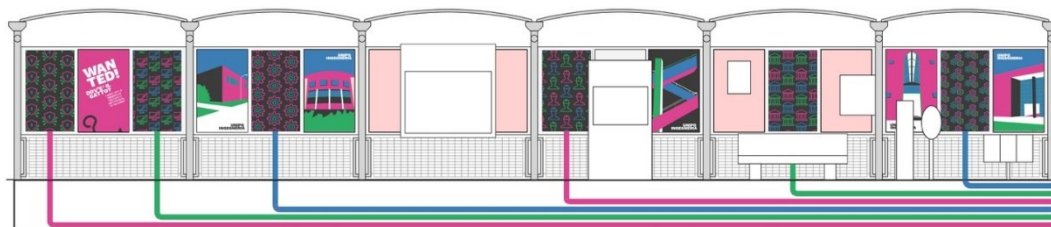


Figure 8a. Example of vertical tactical urbanism applied to the 'Perugia Università' station (Developed by student Argenio, Capogrossi, De Iure, Musio, Piermartini, Rossberg).

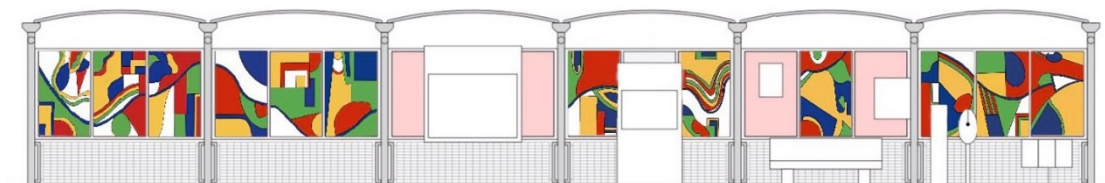


Figure 8b. Example of vertical tactical urbanism applied to the 'Perugia Università' station (Developed by student Cannoni, Crescentini, Critelli, Fioretti, Iennaco, Libimbi, Tinti).

Adopting placemaking elements and creating gathering areas within the car park have highlighted how tactical design can contribute to a more flexible and inclusive use of urban spaces (Camocini et al., 2020). Another aspect that emerged from the project is the role of active participation in the design process. The involvement of students showed how tactical design can be used not only as a tool to improve urban space but also to make citizens aware of the importance of taking care of their daily environment. The possibility of designing and implementing concrete interventions has fostered a greater awareness of the impact of design choices on the quality of urban life. This element is particularly relevant in the academic context, where tactical urbanism can be integrated as a teaching method to stimulate experiential learning and critical reflection on the relationship between design, society and territory (Gianfrate, 2021). From a methodological point of view, the experience confirmed the effectiveness of the incremental approach typical of tactical design. Adopting temporary solutions allowed testing different design strategies with a limited investment, reducing the risks associated with permanent interventions and offering the possibility of making changes based on user feedback. This highlights the value of tactical design as a tool for urban innovation, capable of adapting to the changing

needs of public spaces and experimenting with new configurations before proceeding with definitive interventions. The experience also emphasised the importance of collaboration between institutions, designers and local communities. The realisation of the project required coordination between the degree course, the municipality and the managers of the infrastructures involved, demonstrating how the success of a tactical urbanism initiative depends on the ability to create synergies between the different actors involved in the urban transformation process (Boschetti, 2023). One of the most critical aspects that emerged from the experience concerns the long-term sustainability of tactical interventions. Although the results showed an improvement in the perception and use of the transformed spaces, it remains to be seen whether these changes can be integrated into broader urban strategies and become part of structural planning. This issue is central to the debate on tactical urbanism, which, on the one hand, is configured as an experimental and adaptive approach but, on the other hand, risks remaining confined to temporary initiatives without any real long-term impact. The project showed that, for tactical design interventions to produce lasting effects, strong institutional support and integration with existing urban policies are necessary (Martino et al., 2021). In conclusion, the experience of the Degree Course in Design has demonstrated the value of tactical design as a tool for urban transformation and the active involvement of local communities. The project confirmed that targeted interventions, even if temporary, can significantly impact the perception and use of public spaces, contributing to the construction of a more inclusive and welcoming environment. However, for tactical design to become an effective strategy for urban innovation, it must be supported by a regulatory and institutional framework that guarantees its integration into the planning and management processes of public space.

5. Conclusion

The analysis of tactical design as a strategy for urban innovation has highlighted its effectiveness in transforming public spaces through flexible, low-cost interventions with a high social impact. The experiment conducted by students of the Degree Course in Design at the University of Perugia has shown how tactical urbanism can be a powerful tool for improving the quality of shared spaces, encouraging the active participation of the community and strengthening the identity of places. The project has shown that even small changes to public spaces, such as the introduction of identity signage or modular furniture, can profoundly impact users' perceptions and urban experience (Kim & Jin, 2023). One of the most significant elements that emerged from the experience was the role of tactical design as a catalyst for participatory processes and raising awareness of the care of shared spaces. The students developed a strong sense of belonging to the transformed places, demonstrating how tactical urbanism can generate physical improvements in urban space and a cultural change in how these spaces are perceived and used. Active participation in the design process led to greater involvement of the academic community, helping to strengthen the bond between the university and the surrounding area (Alekseevaa et al., 2020). The adoption of an incremental approach has confirmed the validity of the tactical urbanism model in the context of contemporary urban planning. The experiments have shown that it is possible to test design solutions quickly and effectively without significant initial investments. This approach allows for real-time feedback and the progressive adaptation of interventions based on user needs. However, for tactical design to evolve into a long-term urban regeneration strategy, institutions must support these processes, integrating them into a more structured and lasting planning framework (Camocini et al., 2020). One of the most important aspects that emerged from the research concerns the need to balance the temporary nature of the interventions with the possibility of making them permanent. Tactical urbanism was born as a rapid method for tackling urban challenges, but its effectiveness is measured by its ability to influence long-term planning. While temporary interventions offer the opportunity to experiment with new spatial configurations, they risk remaining ephemeral if adequate urban policies do not support them. This aspect emphasises the importance of creating synergies between designers, administrations and local communities so that tactical design practices can be integrated into urban transformation processes in a lasting way (Gianfrate, 2021). Another crucial aspect is the educational potential of tactical design. The project developed with the students highlighted how this methodology can be used as a teaching tool to make new generations aware of the value of public space and the importance of participatory design. The direct involvement of the students allowed them to acquire practical skills in the field of urban design while developing a greater awareness of the designer's role in the construction of more inclusive and sustainable urban environments (Boschetti, 2023). The experience also raised some critical issues that deserve further investigation. The financial sustainability of the interventions remains an open question, as many tactical urbanism projects rely on limited resources and the will of groups of citizens or students. Furthermore, the scalability of these interventions is a challenge since the success of the tactical design is often linked to the specificity of the local context. To overcome these limitations, it is necessary to promote greater collaboration between designers, public bodies and private investors so that tactical design can be recognised as a legitimate practice and integrated into urban management (Lingua, 2016). In conclusion, tactical design is confirmed as an effective strategy for promoting urban innovation, combining design flexibility, active participation and economic sustainability. The experiment shows that even small-scale interventions can significantly impact the quality of urban life and the sense of belonging to a place. However, for tactical design to evolve from an experimental practice to a structural tool for urban regeneration, more excellent institutional support and integration with planning policies are essential. This study contributes to a broader picture of the potential and limitations of tactical design, offering insights for future research and applications in increasingly complex and dynamic urban contexts.

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Conflict of Interests

The Author(s) declare(s) that there is no conflict of interest.

References

- Alekseevaa, I. V., Koltsova, H. A., & Skovorodnikova, N. A. (2020). Formation of tactical urbanism by means of street art as the design-method. *IOP Conference Series: Earth and Environmental Science*, 459(2). <https://doi.org/10.1088/1755-1315/459/3/032091>
- Amen, M. A., Afara, A., & Nia, H. A. (2023). Exploring the link between street layout centrality and walkability for sustainable tourism in historical urban areas. *Urban Science*, 7(2), 67. <https://doi.org/10.3390/urbansci7020067>
- Amen, M. A., & Nia, H. A. (2020). The effect of centrality values in urban gentrification development: A case study of Erbil city. *Civil Engineering and Architecture*, 8(5), 916–928. <https://doi.org/10.13189/cea.2020.080519>
- Aziz Amen, M. (2022). The effects of buildings' physical characteristics on urban network centrality. *Ain Shams Engineering Journal*, 13(6), 101765. <https://doi.org/10.1016/j.asej.2022.101765>
- Bazzu, A. (2020). *Urbanismo tattico e strategie per l'abitare. Nuovi strumenti per integrare la visione dei cittadini nei processi di trasformazione della città [Tactical urban planning and strategies for living. New tools to integrate the vision of citizens in the processes of transformation of the city]* [Unpublished doctoral thesis]. University of Sassari.
- Boschetti, B. (2023). Eco-design giuridico (trasformativo) per la “net-zero age” e la sua economia [Legal (transformative) eco-design for the “net-zero age” and its economy]. *Le Istituzioni del Federalismo*, 2022, 821–850.
- Camocini, B., Daglio, L., Gerosa, G., & Ragazzo, S. (2020). Progetti per la riattivazione temporanea dello spazio pubblico: quale eredità? [Projects for the temporary reactivation of public spaces: what legacy?]. *TECHNE - Journal of Technology for Architecture and Environment*, 19, 125–133. <https://doi.org/10.13128/techne-7828>
- De Certeau, M. (2001). *L'invenzione del quotidiano [The practice of everyday life]*. Edizioni Lavoro.
- Gianfrate, V. (2024). *Innovare la città dei servizi: Co-design responsabile, inclusivo, sostenibile [Innovating the service city: Responsible, inclusive, sustainable co-design]*. Società Editrice Umberto Allemandi.
- Husain, H. R., & Salem, O. (2024). The role of tactical-ism and community engagement in shaping decent neighbourhoods: Cairo case study. *New Design Ideas*, 8(Special Issue), 106–130. <https://doi.org/10.62476/ndisi106>
- Kim, J., & Jin, H.-Y. (2023). Interpreting tactical urbanism through innovation–diffusion theory: Insights from a collaborative design studio experience. *Land*, 13(1), 14. <https://doi.org/10.3390/land13010014>
- Kocaoğlu, M., & Demirkan, H. (2019). An experiential study on empathic design in interior architecture education. *Journal of Contemporary Urban Affairs*, 3(3), 15–26. <https://doi.org/10.25034/ijcua.2019.v3n3-2>
- Lingua, V. (2016). From tactics to strategies and back: Regional design practices of contamination. In *A new cycle of urban planning between tactic and strategy* (pp. 323–328). Planum Publisher.
- Lydon, M., & Garcia, A. (2015). *Tactical urbanism: Short-term action for long-term change*. Island Press.
- Martino, C., Proto, M. E., & Cosentino, S. (2021). Progettazione spaziale: Esperienze ed esperimenti di rigenerazione urbana per una possibile tassonomia. *AGATHÓN: International Journal of Architecture, Art and Design*, 9, 204–213. <https://doi.org/10.19229/2464-9309/9202021>
- Niccolini, V. (2024). *Parole in piazza: Come il design diventa strumento di interazione con la comunità [Words in the square: How design becomes a tool for interaction with the community]* [Unpublished doctoral thesis]. University of Florence.
- Softaoğlu, H. (2021). Unhuman entities that shaped a century: Non-anthropocentric analysis of the case of Great Stink and pandemic, Victorian London. *Proceedings of the International Conference of Contemporary Affairs in Architecture and Urbanism (ICCAUA)*, 4(1), 691–699. <https://doi.org/10.38027/ICCAUA2021268N5>