

TeMA

Journal of
Land Use, Mobility and Environment

The climatic, social, economic and health phenomena that have increasingly affected our cities in recent years require the identification and implementation of adaptation actions to improve the resilience of urban systems. The three issues of the 16th volume will collect articles concerning the challenges that the complexity of the phenomena in progress imposes on cities through the adoption of mitigation measures and the commitment to transforming cities into resilient and competitive urban systems.

TeMA is the Journal of Land Use, Mobility and Environment and offers papers with a unified approach to planning, mobility and environmental sustainability. With ANVUR resolution of April 2020, TeMA journal and the articles published from 2016 are included in the A category of scientific journals. From 2015, the articles published on TeMA are included in the Core Collection of Web of Science. It is included in Sparc Europe Seal of Open Access Journals, and the Directory of Open Access Journals.



THE CITY CHALLENGES AND EXTERNAL AGENTS.
METHODS, TOOLS AND BEST PRACTICES

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The cover image shows the building of Kharkiv National University of Civil Engineering and Architecture, destroyed as a result of a missile and bomb attack. March 2022 (Source: STRINGER/Reuters/Forum. <https://www.pism.pl/publications/sweden-on-the-russian-aggression-against-ukraine>)

TeMA. Journal of Land Use, Mobility and Environment offers researches, applications and contributions with a unified approach to planning and mobility and publishes original inter-disciplinary papers on the interaction of transport, land use and environment. Domains include: engineering, planning, modeling, behavior, economics, geography, regional science, sociology, architecture and design, network science and complex systems.

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EDITORIAL PREFACE: TEMA JOURNAL OF LAND USE MOBILITY AND ENVIRONMENT

The city challenges and external agents. Methods, tools and best practices 1 (2023)

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The relentless march of time has become the real enemy of our cities hit by unexpected (?) and environmental, economic, and social events necessitating prompt and, most importantly, effective action to mitigate the impacts caused by associated factors such as global warming, migration, conflict, famine, and others - with cities being especially vulnerable.

In this issue, TeMA journal, for the first time, includes a scientific article addressing the topic of war. This article titled "Urban space at the time of the war. Configuration and visual image of Kharkiv (Ukraine)" by Valerio Cutini (University of Pisa, Italy), Mykhaylo Averbakh, Oksana Demydiuk (Kharkiv National University, Ukraine) considers the changes in the surrounding artificially created environment under the influence of the tragic circumstances of the Russian military invasion in Ukraine and the peculiarities in the perception of the urban environment, resulting from the interaction between it and the people.

Three months after the publication of the last issue of TeMA journal (30th December 2022), we would like to repropose the appeal contained in the editorial: *"TeMA journal, since 2007, has supported the global exchange of academic knowledge and that Editorial decisions have never been affected by the origins of the manuscript, including the nationality, ethnicity, race, or religion of the authors. Thus, for the sake of knowledge and to improve understanding, cooperation, and relationship, our position is to continue considering papers for publication from worldwide authors and institutions. Our established editorial policies, of peer review and declaration of competing interests, will guarantee to avoid publication of inappropriate or propaganda contents"*.

In the same way, we feel the need to underline that the complexity of the ongoing phenomena imposes on cities involves not only adopting mitigation measures aimed at reducing the adverse effects of these phenomena; this challenge requires scholars, researchers, technicians, and decision-makers to transform cities into resilient, competitive urban systems rapidly. The three issues of the 16th volume collect articles concerning the climatic, social, economic and health phenomena that have increasingly affected our cities in recent years and, hence, require the identification and implementation of adaptation actions to improve the resilience of urban systems.

For this issue, the section "Focus" contains four contributions. The issue of the first article is explained before. The second article, titled "The City Challenges and the New Frontiers of Urban Planning. Digital Twins as Tools of Urban Resilience: Research and Practices" by Gabriella Pultrone (University of Reggio Calabria, Italy), addresses the potential of new technologies, yet to be adequately explored in the fields of planning and design at different territorial scales, for better governance, sustainable development and quality habitats. It consists of three main sections, consistent with the methodology and the main steps of the ongoing research to which it refers.

The third article, titled "Nature-based solution for climate change adaptation and mitigation in urban areas with high natural risk. Proposals of possible measures for a municipality in the Vesuvius area" by Giuseppe Mazzeo (ISMed-CNR, Italy) e Salvatore Polverino (University of Genova, Italy), offers an analysis of the main NBSs applicable in an urban context and on different scales (from urban to building) and an applicative example related to their integration into territorial governance tools. In particular, the municipality of Cercola, a territorial context with a high natural risk in the Vesuvian area, has been analysed as a case study.

The last article of the section, titled "Social aspects in small ports tourism sustainability. Planning small ports and marinas through the lens of tourism and sustainability" by Alessandro Bove and Elena Mazzola (University of Pavia, Italy), focuses on small ports and marinas and investigates the real situation about services offered and the related possible tourism satisfaction for sustainable socio-cultural development. The paper has collected data from people connected to Italian and Croatian docks and analysed it with statistical methods and georeferenced maps.

The section "LUME" (Land Use, Mobility and Environment) contains seven contributions. The first is titled "Identifying spatial variation in the values of urban green at the city level. A case study in Thessaloniki, Greece" by Antonia Giannakidou and Dionysis Latinopoulos (Aristotle University of Thessaloniki, Greece), attempts to examine if the proximity to green spaces has a fixed/homogenous effect on residential property values across the city. A global regression analysis was first applied to explore which structural, locational and green/environmental characteristics likely have a statistically significant effect on housing prices.

The second article of the section, titled "Public perceptions of barriers to walk in urban areas: walkability insights from Lahore, Pakistan" by Muhammad Ahsan, Nabeel Shakeel and Farrukh Baig (University of Management and Technology Lahore, Pakistan), examines the public's perception of barriers to walking in Lahore, Pakistan. Surveys were conducted online using structured questionnaires. A valid sample of 277 responses was analysed using a weighted factor and regression analysis to investigate pedestrians' perceptions of walking constraints.

The third contribution, titled "Soil de-sealing for cities' adaptation to climate change. Planning of priority interventions in urban public space", by Marianna Ceci, Barbara Caselli, Michele Zazzi (University of Parma, Italy). The paper aims to outline a methodological approach, supported by GIS technology, to map in detail urban public soils and identify priority areas to be depaved. In particular, the method assesses the permeability of public land concerning hydraulic and heat island hazard exposure of potentially vulnerable urban systems.

The fourth article, titled "Usability and Accessibility of Urban Service Areas with Increasing Epidemics: The case of Bursa/Turkey. The Effect of Urban Service Areas on the Quality of Life in the Post-Pandemic Period" by Elvan Ender Altay and Diba Şenay (Bursa Uludag University, Türkiye), deepens the concept of urban life quality. It comes to the fore with urbanisation, and it is directly related to the quality, quantity, and sufficiency of the urban service areas of the cities. In the paper, cultural and open spaces and green areas in the central district of Bursa are classified and evaluated within the scope of pre- and post-pandemic conditions. Solution suggestions were developed to increase the quality of life.

The fifth paper, titled "Applying Delphi Method to Develop Sustainable City Indexes a case study of Chiang Mai, Thailand" by Wiwat Pongruengkiat, Korrakot Y. Tippayawong, Pruk Aggarangsi, Preda Pichayapan, Tossapon Katongtung and Nakorn Tippayawong (Chiang Mai University, Thailand), develops appropriate indicators for assessing the sustainability of Chiang Mai city using the Delphi method of panel surveys. At least 20 experts in various fields were selected for the Delphi surveys conducted in three rounds.

The sixth article, titled "The small smart city: renewable energy sources in the little town of Italy" by Romano Fistola (University of Naples Federico II, Italy), Federica Gaglione, Ida Zingariello (University of Sannio, Italy), deals with the topic of energy. The scientific community has concentrated its studies on optimisation models to support the energy organisation of territorial contexts and on identifying optimal strategies within complex management systems such as urban systems. Wind energy is a valid option to improve economic conditions and reduce the environmental impact. The work is inspired by a scientific-technical consultancy aimed at assisting the technical office of the municipality of Biccari (FG) in defining the guidelines for the General Urban Plan.

The last paper of the section, "Investigating the socio-spatial logic of historic urban areas through space syntax" by Chiara Garau, Alfonso Annunziata, Claudia Yamu (Oslo Metropolitan University, Norway), Dario D'Orlando, Marco Giuman (University of Cagliari, Italy), aims to address a gap in the existing literature by developing a method to analyse the configuration of historical urban sites to understand the social and cultural antecedents of the transformation and development of urban areas in the Roman era. The study builds on

Space Syntax theories and techniques to develop an analytical protocol that combines syntactical analysis and statistical analysis to measure and compare spatial, visual and social relationships in four urban Roman sites in the Mediterranean.

The Review Notes section proposes four insights on the themes of the TeMA Journal. The first section, "Urban Planning Literature", by Carmen Guida and Valerio Martinelli, is dedicated to books highlighting the role of new technologies in managing good-quality energy data, which is essential to support reliable decision-makers in reducing energy consumption in urban environments.

The second contribution, "Policies and practices of transition towards climate-neutral and smart cities", by Federica Gaglione, examines how current challenges, from climate change to energy consumption in urban areas, can find a valid foundation in adopting a "smart". In particular, the review focuses on the objectives of the smart city within the Europe 2020 strategy and the climate-neutral & smart cities mission. The third section, "European cities and e-scooters at the crossroad", by Gennaro Angiello, analyses the complex relationships between European cities and electric scooters and reports on the case study of Paris where, in a recent non-binding referendum, Parisians opted overwhelmingly to ban e-scooters in the French capital. The fourth contribution, "Circular economy in urban areas: evidence from global cities", by Stefano Franco, aims to address the issue of circular economy in urban contexts by describing theoretical approaches and identifying best practices from cities worldwide. Finally, "The interventions of the Italian Recovery and Resilience Plan: digitalisation in cities", by Sabrina Sgambati and Tonia Stiuso, deals with the topic of digitalisation in urban areas within the framework of the Italian National Recovery and Resilience Plan. It provides an overview of the proposed reforms, strategies and interventions to boost the digital economy and digitalise public services within the urban context.