

TeMA

Journal of
Land Use, Mobility and Environment

Urban sprawl processes characterize the landscape of the areas surrounding cities. These landscapes show different features according to the geographical area that cities belong to, though some common factors can be identified: land consumption, indifference to the peculiarities of the context, homogeneity of activities and building typologies, mobility needs exasperatedly delegated to private cars.

Tema is the journal of the Land use, Mobility and Environment Laboratory of the Department of Urban and Regional Planning of the University Federico II of Naples. The journal offers papers with a unified approach to planning and mobility. TeMA Journal has also received the Sparc Europe Seal of Open Access Journals released by Scholarly Publishing and Academic Resources Coalition (SPARC Europe) and the Directory of Open Access Journals (DOAJ).



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TeMA

Journal of
Land Use, Mobility and Environment

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.

The Italian National Agency for the Evaluation of Universities and Research Institutes (ANVUR) classified TeMA as one of the most highly regarded scholarly journals (Category A) in the Areas ICAR 05, ICAR 20 and ICAR21. TeMA Journal has also received the Sparc Europe Seal for Open Access Journals released by Scholarly Publishing and Academic Resources Coalition (SPARC Europe) and the Directory of Open Access Journals (DOAJ). TeMA publishes online in open access under a Creative Commons Attribution 3.0 License and is double-blind peer reviewed at least by two referees selected among high-profile scientists, in great majority belonging to foreign institutions. Publishing frequency is quadrimestral. TeMA has been published since 2007 and is indexed in the main bibliographical databases and present in the catalogues of hundreds of academic and research libraries worldwide.

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EDITORIAL PREFACE: RESILIENT CITIES

ROCCO PAPA

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This issue of the Journal focuses on a growing interest subject within the international urban planning scientific community: the elasticity of urban systems in setting up adaptation processes to absorb external strongly destabilizing stresses: the resilient cities. The attention is focused on the strategies and actions which have been set off in European context as well as in national and urban ones, in order to increase urban resilience against the main stressing factors affecting development: phenomena of climate change, natural risks strictly related to them, shortage of energy resources.

The concept of resilience has been studied since the first half of the 20th century in different scientific-disciplinary fields, from engineering to ecology and social sciences. In the course of time, also thanks to different disciplinary contributions, the concept has gone through important evolutions: from the original idea, pertaining to engineering, which intends resilience as the capacity of an element or a system to face and absorb the impacts produced by a stressing factor – by rapidly re-establishing its balance – to the one, belonging to ecological systems, which defines resilience as the capacity of a system to adapt to external stressing events, by re-organizing and innovating itself to cope with the changed conditions of the context.

This interpretation of resilience, much more adequate to the characteristics of complex systems, from the natural ones to the social and territorial ones, has been further investigated during the last decade, mainly thanks to its spreading in the field of natural and man-made risks study. Nowadays, the word resilience is more and more used to describe an interrelated system of adapting capacities able to guarantee processes of adaptation in front of external stressing factors. It is according to this idea of resilience that, mainly in the last decade, a line of study on Urban Resilience has been established also in urban planning field.

In our times cities are responsible from 60 to 80% of the global energy consumption and, at least in Europe, for 69% of climate-impacting gases emissions. With over 50% of world population, cities enclose most of the demand for energy and services necessary to meet the different and increasing requirements (mobility, lighting, interiors comfort, and so on). On the contrary, cities are systems very vulnerable to direct and indirect effects of climate change: intense and short-lasting rainfalls that increase the hydro-geological land fragility and often cause great

damages to urban areas, drought, urban heat islands, problems of water supply are only few examples of the several impacts produced by those phenomena on urban and regional systems.

In order to cope with those phenomena, the territorial systems and, above all, the big urban areas are compelled to re-consider their organization forms according to climate change and shortage of available energy resources mainly to improve their resilience, becoming systems capable not only of coping with short-term phenomena related to climate changes but also of reacting in order to withstand the stress produced by those phenomena in the long term.

In the FOCUS section of this issue the subject of resilience is faced through its several aspects. In particular, the paper by Rabino and Cutini points out the relationship between urban resilience and mobility networks at the urban scale, suggesting methods and techniques for configurational analysis, in order to assess and anticipate the spatial aptitudes of urban contexts, and considering resilience as an useful concept for improving the spatial orientation in urban environment. The paper by Gargiulo, Pinto and Zucaro shows the new transition from the concept of sustainability to that of resilience and provides a review of European and Italian policies and best practices targeted to improve energy efficiency of urban settlements, as starting point for defining an integrated approach to the policies of land-use and mobility planning aimed at reducing energy consumption. The paper by Salat and Bourdic explores the relationships between resilience and models of spatial and functional organization of urban systems, pointing out that different urban structures show different efficiency and resilience features. The paper by Galderisi and Ferrara investigates the evolution of the resilience concept, proposing a model of interpretation as tool for guiding, according to the resilient point of view, the present strategies and policies of urban systems adaptation to the ongoing climate changes. The paper by Pirlone focuses on the subject of resilience in the framework of natural risk mitigation, providing a methodology for setting up of strategic elements inside the cities, with particular attention to the hospital equipments. The paper by Angela Colucci shows a review and comparison among different approaches to the concept of resilience and, mainly, among the different strategies for increasing the resilience of cities and territorial systems. The paper by Saporiti, Echave, Scudo and Rueda investigates the resilience features of the “neo-ecosystems”, emphasizing the differences among resilience, sustainability and urban quality. The paper by Verissimo deals with “the spatial resilience in outdoor domestic space in Mozambique”. The paper by Atun provides an in-depth-analysis of the resilience concept in relation to the case study of London, considered as a typical example of resilient city, namely of the city being able to cope with and recover from a natural hazard. The paper by Tezer, Yaman, Altun e Albayrak delves into the relationship between resilience and services necessary for urban ecosystems, with particular attention to an urban district of Istanbul. Finally, to close the Focus section, the Journal proposes a paper by the Chairman of the Centro Studi Sistema Protezione Civile – Istituto Italiano di Resilienza.

The LUME section includes the paper by Xifilidou, Karanikolas e Spatalas, which quotes a study on the effects produced by the location of the underground stations on the property value in the central urban areas, with particular attention to Thessaloniki in Greece, and the paper by Macaluso, Guarracino Clemente e Acunzo, of the Agenzia Napoletana per l’Energia, which provides a review of the European funding for mobility and environment.