

TeMA

Journal of
Land Use, Mobility and Environment

There are a number of different future-city visions being developed around the world at the moment: one of them is Smart Cities: ICT and big data availability may contribute to better understand and plan the city, improving efficiency, equity and quality of life. But these visions of utopia need an urgent reality check: this is one of the future challenges that Smart Cities have to face.

Tema is the Journal of Land use, Mobility and Environment and 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).



SOCIO-ECONOMIC CHANGES IN ADVANCED SOCIETIES

Vol.9 n.3 December 2016

print ISSN 1970-9889 e-ISSN 1970-9870
University of Naples Federico II

SOCIO-ECONOMIC CHANGES IN ADVANCED SOCIETIES

3 (2016)

Published by

Laboratory of Land Use Mobility and Environment
DICEA - Department of Civil, Architectural and Environmental Engineering
University of Naples "Federico II"

TeMA is realized by CAB - Center for Libraries at "Federico II" University of Naples using Open Journal System

Editor-in-chief: Rocco Papa
print ISSN 1970-9889 | on line ISSN 1970-9870
Licence: Cancelleria del Tribunale di Napoli, n° 6 of 29/01/2008

Editorial correspondence

Laboratory of Land Use Mobility and Environment
DICEA - Department of Civil, Architectural and Environmental Engineering
University of Naples "Federico II"
Piazzale Tecchio, 80
80125 Naples
web: www.tema.unina.it
e-mail: redazione.tema@unina.it

Cover Image: The High Line, New York.

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 scientific journal in the Area 08. TeMA 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 is published under a Creative Commons Attribution 3.0 License and is blind peer reviewed at least by two referees selected among high-profile scientists. TeMA has been published since 2007 and is indexed in the main bibliographical databases and it is present in the catalogues of hundreds of academic and research libraries worldwide.

EDITOR IN-CHIEF

Rocco Papa, University of Naples Federico II, Italy

EDITORIAL ADVISORY BOARD

Mir Ali, University of Illinois, USA
Luca Bertolini, University of Amsterdam, Netherlands
Luuk Boelens, Ghent University, Belgium
Dino Borri, Polytechnic University of Bari, Italy
Enrique Calderon, Polytechnic University of Madrid, Spain
Roberto Camagni, Polytechnic University of Milan, Italy
Derrick De Kerckhove, University of Toronto, Canada
Mark Deakin, Edinburgh Napier University, Scotland
Aharon Kellerman, University of Haifa, Israel
Nicos Komninos, Aristotle University of Thessaloniki, Greece
David Matthew Levinson, University of Minnesota, USA
Paolo Malanima, Magna Græcia University of Catanzaro, Italy
Agostino Nuzzolo, Tor Vergata University of Rome, Italy
Rocco Papa, University of Naples Federico II, Italy
Serge Salat, Urban Morphology and Complex Systems Institute, France
Mattheos Santamouris, National Kapodistrian University of Athens, Greece
Ali Soltani, Shiraz University, Iran

ASSOCIATE EDITORS

Rosaria Battarra, National Research Council Institute of Studies on Mediterranean Societies, Italy
Luigi dell'Olio, University of Cantabria, Spain
Romano Fistola, University of Sannio, Italy
Carmela Gargiulo, University of Naples Federico II, Italy
Thomas Hartmann, Utrecht University, Netherlands
Markus Hesse, University of Luxemburg, Luxemburg
Seda Kundak, Technical University of Istanbul, Turkey
Rosa Anna La Rocca, University of Naples Federico II, Italy
Houshmand Ebrahimpour Masoumi, Technical University of Berlin, Germany
Giuseppe Mazzeo, National Research Council Institute of Studies on Mediterranean Societies, Italy
Nicola Morelli, Aalborg University, Denmark
Enrica Papa, University of Westminster, United Kingdom
Dorina Pojani, University of Queensland, Australia
Floriana Zucaro, University of Naples Federico II, Italy

EDITORIAL STAFF

Gennaro Angiello, PhD student at University of Naples Federico II, Italy
Gerardo Carpentieri, PhD student at University of Naples Federico II, Italy
Stefano Franco, PhD student at Luiss University Rome, Italy
Marco Raimondo, Engineer, University of Sannio, Italy
Laura Russo, PhD student at University of Naples Federico II, Italy
Maria Rosa Tremitera, PhD student at University of Naples Federico II, Italy
Andrea Tulisi, PhD at Second University of Naples, Italy

SOCIO-ECONOMIC CHANGES IN ADVANCED SOCIETIES 3 (2016)

Contents

252 EDITORIAL PREFACE
Paolo Malanima

FOCUS

257 **Rebranding a District: the Breiðholt Project in Reykjavik**
Catherine Wilkinson, Ilaria Fumagalli, Silvia Rossetti

LAND USE, MOBILITY AND ENVIRONMENT

269 **Harnessing the opportunities of austerity: a detailed mapping of the Greek transportation sector**
Iraklis Stamos, Evangelos Mitsakis, Theodore Tsekeris

287 **The distribution of public services from the perspective of spatial equality**
Nader Zali, Mohammad Rahimpoor, Saeid Saed Benab, Mehrnaz Molavi, Saber Mohammadpour

305 **Waterfront and urban regeneration. New challenges for Genoa**
Francesca Pirlone, Davide Erriu

323 **Planning according to new urbanism: the Ostadsara neighborhood case study**
Nader Zali, Nasim Gholami, Amir Reza Karimiazari, Seyed Reza Azadeh

343 REVIEW PAGES

Gennaro Angiello, Gerardo Carpentieri,
Maria Rosa Tremiterra, Laura Russo, Andrea Tulisi

EDITORIAL PREFACE:

THE URBAN TRANSITION CHANGES IN PROGRESS

PAOLO MALANIMA

University «Magna Graecia» in Catanzaro

Department of Law, History, Economy and Society

e-mail: malanima@unicz.it

1 INTRODUCTION

Between 1960 and 2015, World urban population rose by about three billion. Its daily increase, in these 55 years, was about 150,000 inhabitants. In part this rise was the effect of demographic growth within the cities themselves. For the main part it was, however, the consequence of migration from the rural world; the greatest migration ever seen in the history of mankind. This urban transition started two centuries ago, after some millennia of stability of the cities' inhabitants between 5 and 10 percent of total population or very slow rise (Bairoch, 1988, p. 495; Vries De, 1984, p. 349). Then, from 1800 onward, the urban transition began in some western European countries. It was the *first wave* of modern urbanisation.

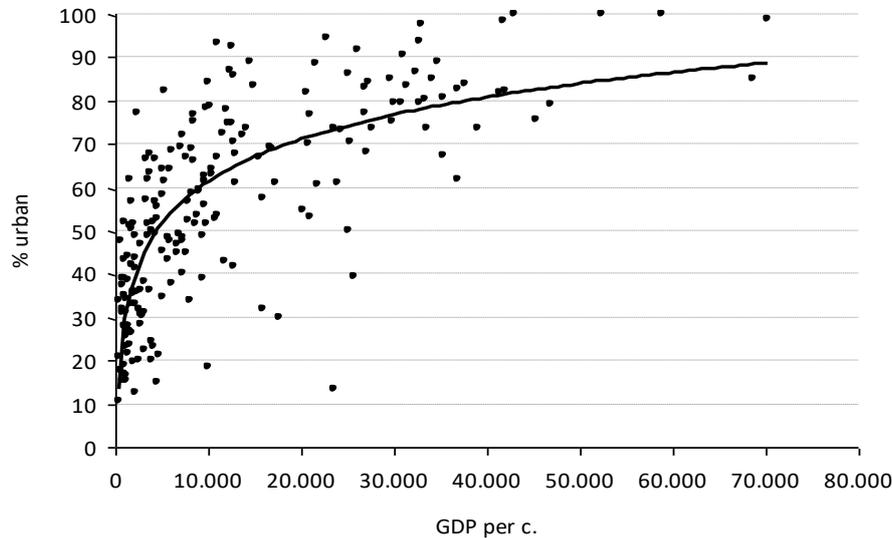
In 1900, when World urbanisation rate was about 15 percent, the bulk of the urban inhabitants lived in western Europe. From then on a *second wave* of urban transition began and involved primarily western European offshoots, that is north America and Oceania.

The pace of urban growth, however, rose especially after the Second World War, when the rate of increase of urban inhabitants overtook by about 1 percent the already fast rise in global population. While earlier high rates of urbanisation growth were only typical of rich countries, during this *third wave* the highest rates were registered by Asia and Africa (Satterthwaite, 2005). In both continents the urban growth was by far faster than the capacity of local institutions to cope with it. The environmental decay of many mega-cities around the Globe is the visible consequence (Henderson, 2002).

2 URBANISATION AND GROWTH

The great migration from rural to urban world depends, first of all, on the process of modern growth and the structural change taking place with it. Given the low elasticity of the demand of agricultural goods to income, the rise in agricultural productivity must necessarily be followed by the diversion of population from the countryside toward the cities. A flow of workers is pulled toward the cities by the urban-rural differential in wages, that is the differential between better-paid work in industry in comparison with those in agriculture. Whenever we contrast the urbanisation rate of about 200 states around the World with their levels of per capita GDP, we see that a robust relationship exists (Figure 1). The level of per capita GDP explains 58 percent of the process of urbanisation. We also see that the relationship is not linear (Henderson, 2010). The urbanisation rate suddenly increases whenever income per capita rises from the level of absolute poverty to

about 15,000 dollars (international 2005 dollars PPP), that is during the industrial phase of modern growth. From then on, with the end of the industrial growth and the development of the tertiary sector, the speed diminishes remarkably.



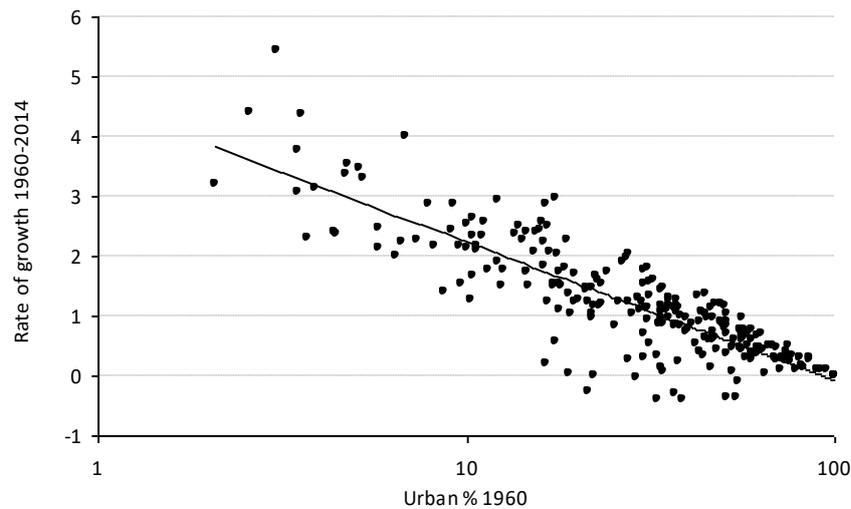
The values of the log equation are: $\text{urbanisation} = -68.383 + 14.079 \ln(\text{per c. GDP})$ ($R^2 = 0.58$). We see in the graph that some nations registered in 2010 an urbanisation rate of 100 percent. This level is reached by particular countries such as Hong-Kong or Singapore, where city and state coincide.

Fig. 1 Urbanisation rate as a function of per capita GDP (in 2005 international dollars PPP) in 2010.

3 CONVERGENCE IN URBANISATION

Urbanisation is still in progress. In the five years from 2005 until 2010, global urban population overcame rural population. Between 2000 and 2015 the urban rate of growth was still higher than population rise by about 1 percent; such as in the earlier decades. In 2015 World urbanisation rate was 54 percent. At the time the highest urbanisation rates were still those of the high and middle income countries of the World. In Europe, northern America, Latin America and Oceania, urbanisation rates were comprised between 73 and 83 percent. Asia and Africa still lagged behind, with urban percentages of 40-45, but with rates of increase still dangerously high (Demographia, 2016; Glaeser, 2014). Urban transition involves not only developing, but also poor countries, wherever a reservoir of workforce with productivity near zero exists in the rural world. "Urbanisation without growth" is not so uncommon nowadays, especially in Africa (Fay, Opal, 2000).

The existence of urban convergence within the process of urbanisation is represented in Figure 2, where the rate of growth in urbanisation between 1960 and 2014 is a function of the level of urbanisation in 1960 (in log). We see that between the variables a robust relationship exists and that the coefficient of the independent variable is negative (as expected, whenever a process of convergence exists). The higher the urbanisation in 1960, the lower the probability of rising further. If a first comer (such as a nation on the right side of the graph) is proceeding slower, as in this case, it will be necessarily reached by the followers. Since the process of urbanisation can not overtake 100 percent, as soon as the process approaches this ceiling its intensity must necessarily slow down and finally stop.



The values of the log equation are: $\text{rate} = 4.5579 - 1.006\ln(\text{level})$ ($R^2 = 0.73$).

Fig. 2 The inverse relationship on the World scale between the level of urbanisation in 1960 (in log on the horizontal axis) and the yearly rate of growth of urbanisation in 1960-2014 (percent).

4 FUTURE DEVELOPMENTS

The United Nations forecast an urbanisation rate of 60 percent in 2030 and 66 percent at the middle of this century (United Nations, 2014). Trying to project farther in the future such a forecast, we could reach the conclusion that World urbanisation will be equal to 100 percent by the end of our century. World's inhabitants would be only urban at the time. Naturally the perspective is not realistic! Probably the level of urbanisation of the already advanced World economies, that is 70-80 percent, will not be overtaken by future World averages. Modern growth and modern urbanisation, two interdependent developments, have been underpinned by the great migration from the rural to the urban world. This migration has been among the main supports of the industrialising economies, allowing them to exploit the unlimited supply of labour entering every day the cities (Lewis, 1954). Progressing economies, such as China and India, are still fed by rural-urban migration. This process will still last some decades. The rural reservoir, however, is emptying! During the last two centuries the diversion from the rural to the urban world was one of the main drivers of modern growth. This long phase allowed a continuous formation of a reserve army for industry and contributed, as a consequence, to keep wages relatively low in the phase of industrial development. Present advanced countries can not rely on the reservoir of low paid workforce any longer and have to progress without; ordinarily through innovations in technology and organisation able to replace workers. In a matter of decades it will be the time of low-middle income countries such as China and India to follow the same path of the first comers in the West.

5 WITHIN THE CITIES

All these current and future global trends of urbanization determine social, economic and spatial modifications within city structure. In this perspective, studies aimed at providing solutions for reducing the adverse effects and strengthening the benefits of these changes are required in order to increase the ability of urban areas to effectively adapt to these challenges and, at the same time, improve the quality of life of their citizens.

This issue of TeMA Journal focuses on the effects of socio-economic dynamics on the city organization and way of living. In detail, the issue includes five papers present a different set of topics in this regard.

The first article, titled "Rebranding a District: the Breiðholt Project in Reykjavik" explores how the community of Breiðholt, a neighbourhood of Reykjavik, is being transformed from a disadvantaged suburb, characterised

as a 'ghetto', into a thriving community where citizens play a central role in decision-making. It presents the outcomes of a fieldwork experience, undertaken in Breiðholt as part of COST Action's Winter Training School, focused on the drivers behind, actions, and benefits of the Breiðholt Project and the Breiðholt Congress. In making recommendations for the Project and Congress, and other community-based initiatives, this paper encourages the sharing of best practices among different departments of the city, and to better utilize bridge makers (key stakeholders/community leaders) to build trust through face-to-face interactions with citizens.

The second article, titled "Harnessing the opportunities of austerity: a detailed mapping of the Greek transportation sector", focuses on the impacts of the Greek crisis and following austerity measures on the Greek transportation sector. It focuses besides, on opportunities and positive potentialities for this sector that may arise also as a result of the crisis. Hence, the paper is structured in two parts, where the first is devoted to the impacts while the second on the opportunities and positive potentialities. On the bases of the indicators taken into account, authors underline how the worst effects of the economic crisis and regulations have ended and that the transport sector in Greece has started to recover slowly considering that crisis can act as accelerator of processes and performance that can improve the transport system.

The third article, titled "The distribution of public services from the perspective of sustainable spatial equality in the Tabriz Metropolitan in Iran", aims at ranking decuple regions of Tabriz in terms of the distribution of the municipal services using three different methods (capitation, accessibility and residents' idea) and action priorities for each region have been presented. The results indicate an inequality in the distribution of the public services to the population (capitation) and the residents' accessibility and demand. The data on the public services in Tabriz are incompatible with the standard use capitation and accessibility of the services. Moreover, inequality is evident in the various regions of Tabriz in terms of the residents' capitation, accessibility and satisfaction.

The fourth article, titled "Waterfront and urban regeneration", investigates about the strength of water as driving force for redevelopment and urban regeneration of a city-port. The line of contact between the water and the city forms the waterfront, a sort of permeable urban surface where the link with water is able to conjugate different ways to live this special bond. For this reason, the waterfront can be considered a new way to watch the city, a sort of inspiration's source for its future assets. To investigate these premises are analysed the Mediterranean cities of Marseille, Valencia and Barcelona. For the city of Genoa, the research brings from a debate among different actors (University, Planning Section of the Municipality, Port Authority) and deepens some future proposals which underline the different meanings of the relationship with water in the west area of city (Prà-Voltri).

The fifth article, titled "Study of Possibility of Planning the Successful Neighborhood Center in Ostadsara Neighborhood of Rasht with an Emphasis on New Urbanism Principles", aims at evaluating and analysing the Ostadsara neighborhood in the Iran city of Rasht by assessing the concept of neighborhood and neighborhood centers and identification of inefficiency causes according to the new urbanism principles. The paper refer to historical and descriptive-analytic research methods to describe the social and environmental condition by providing data collected through accurate library researches, using documents, observation, field studies, questionnaires and interview. The authors attempt to discuss appropriate strategies and suggestions for changing the mentioned neighborhood into a desirable and prosperous one by providing, for instance an appropriate ground for attracting inhabitants' cooperation, local needs of the residents or improving the sense of place considering neighborhood's historical identity.

The section "Review Pages" defines the general framework of the issue's theme, with an updated focus on websites, publications, laws, urban practices and news and events on the subject of energy reduction consumption in the transport sector. In particular the Web section by Maria Rosa Tremiterra describes three web resources: i) the Urban Transformations portal; ii) the UCLG – CISDP website and iii) the Sustainable

Cities Platform. The Books section by Gerardo Carpentieri briefly reviews three relevant books related to the Issues' theme: i) "Urbanization and development: emerging Futures"; ii) "Socio-economic inclusion of migrant EU workers in 4 cities" and iii) "Metropolitan Areas and Smart Governance. Successful Initiatives and Critical Aspects towards Smart City". The Law section by Laura Russo keeps readers up to date with recent European and Italian strategies for the promotion of the digital culture. The Urban Practices section by Gennaro Angiello presents two relevant case studies of sustainable city logistic solutions: i) The Manchester study case and ii) the New York study case. Finally, the News and Event section by Andrea Tulisi reports on five conferences related to the Issue's theme that will be held in 2017.

REFERENCES

Bairoch, P. (1988). *Cities and Economic Development. From the Dawn of History to the Present*, Chicago: The University of Chicago Press (1st French ed. 1985).

Demographia (2016). *World Urban Areas, Built Up Urban Areas or World Agglomerations*.

Fay, M., Opal, C. (2000). *Urbanization without Growth. A Not-So-Uncommon Phenomenon*, Policy Research Working Paper, World Bank, 2412.

Glaeser, E.L. (2014). *A World of Cities: the Causes and Consequences of Urbanization in Poorer Countries*, *Journal of the European Economic Association* October 2014 12(5):1154–1199. doi:<http://dx.doi.org/10.1111/jeea.12100>.

Henderson, J. Vernon (2002). *Urbanisation in Developing Countries*, *The World Bank Research Observer*, 17, 89-112. doi:<http://dx.doi.org/10.1093/wbro/17.1.89>.

Henderson, J. Vernon (2010). *Cities and Development*, *Journal of Regional Science*, 50, 515-40. doi:<http://dx.doi.org/10.1111/j.1467-9787.2009.00636.x>

Lewis, A. (1954). *Economic Development with Unlimited Supplies of Labour*, *The Manchester School*, 22, 139–91. doi:<http://dx.doi.org/10.1111/j.1467-9957.1954.tb00021.x>.

Satterthwaite, D. (2005). *The Scale of Urban Change Worldwide 1950-2000 and its Underpin-nings*, *Human Settlements Discussion Paper Series Theme: Urban Change –1*.

United Nations (2014). *Department of Economic and Social Affairs, Population Division. World Urbanization Prospects: The 2014 Revision, CD-ROM Edition*.

Vries De, J. (1984). *European Urbanization 1500-1800*. London: Methuen.

World Bank (2016). *World Development Indicators*.

IMAGE SOURCES

Fig. 1, 2: World Bank, *World Development Indicators* (2016).