

TeMA

Journal of
Land Use, Mobility and Environment

This special issue collects a selection of peer-review papers presented at the 8th International Conference INPUT 2014 titled "Smart City: planning for energy, transportation and sustainability of urban systems", held on 4-6 June in Naples, Italy. The issue includes recent developments on the theme of relationship between innovation and city management and planning.

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).

INPUT 2014

papers selected

Smart City

planning for energy, transportation
and sustainability of the urban system

SMART CITY

PLANNING FOR ENERGY, TRANSPORTATION AND SUSTAINABILITY OF THE URBAN SYSTEM

Special Issue, June 2014

Published by

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

TeMA is realised 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

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 scientific journals in the Areas 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 by their competences. 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, Università degli Studi di Napoli Federico II, Italy

EDITORIAL ADVISORY BOARD

Luca Bertolini, Universiteit van Amsterdam, Netherlands

Virgilio Bettini, Università luav di Venezia, Italy

Dino Borri, Politecnico di Bari, Italy

Enrique Calderon, Universidad Politécnica de Madrid, Spain

Roberto Camagni, Politecnico di Milano, Italy

Robert Leonardi, London School of Economics and Political Science, United Kingdom

Raffaella Nanetti, College of Urban Planning and Public Affairs, United States

Agostino Nuzzolo, Università degli Studi di Roma Tor Vergata, Italy

Rocco Papa, Università degli Studi di Napoli Federico II, Italy

EDITORS

Agostino Nuzzolo, Università degli Studi di Roma Tor Vergata, Italy

Enrique Calderon, Universidad Politécnica de Madrid, Spain

Luca Bertolini, Universiteit van Amsterdam, Netherlands

Romano Fistola, Dept. of Engineering - University of Sannio - Italy, Italy

Adriana Galderisi, Università degli Studi di Napoli Federico II, Italy

Carmela Gargiulo, Università degli Studi di Napoli Federico II, Italy

Giuseppe Mazzeo, CNR - Istituto per gli Studi sulle Società del Mediterraneo, Italy

EDITORIAL SECRETARY

Rosaria Battarra, CNR - Istituto per gli Studi sulle Società del Mediterraneo, Italy

Andrea Ceudech, TeMALab, Università degli Studi di Napoli Federico II, Italy

Rosa Anna La Rocca, TeMALab, Università degli Studi di Napoli Federico II, Italy

Enrica Papa, University of Amsterdam, Netherlands

TeMA

Journal of
Land Use, Mobility and
Environment

This special issue of TeMA collects the papers presented at the 8th International Conference INPUT 2014 which will take place in Naples from 4th to 6th June. The Conference focuses on one of the central topics within the urban studies debate and combines, in a new perspective, researches concerning the relationship between innovation and management of city changing.



CONFERENCE COMMITTEE

Dino Borri, Polytechnic University of Bari, Italy
Arnaldo Cecchini, University of Sassari, Italy
Romano Fistola, University of Sannio, Italy
Lilli Gargiulo, University of Naples Federico II, Italy
Giuseppe B. Las Casas, University of Basilicata, Italy
Agostino Nuzzolo, University of Rome, Italy
Rocco Papa, University of Naples Federico II, Italy
Giovanni Rabino, Polytechnic University of Milan, Italy
Maurizio Tira, University of Brescia, Italy
Corrado Zoppi, University of Cagliari, Italy

SCIENTIFIC COMMITTEE

Emanuela Abis, University of Cagliari, Italy
Nicola Bellini, Institute of Management, Scuola Superiore Sant'Anna Pisa, Italy
Mariolina Besio Dominici, University of Genoa, Italy
Ivan Blečić, University of Sassari, Italy
Dino Borri, Polytechnic University of Bari, Italy
Grazia Brunetta, Polytechnic University of Turin, Italy
Roberto Busi, University of Brescia, Italy
Domenico Camarda, Polytechnic University of Bari, Italy
Michele Campagna, University of Cagliari, Italy
Arnaldo Cecchini, University of Sassari, Italy
Donatella Cialdea, University of Molise, Italy
Valerio Cutini, University of Pisa, Italy, Italy
Luciano De Bonis, University of Molise, Italy
Andrea De Montis, University of Sassari, Italy
Filippo de Rossi, University of Sannio (Dean of the University of Sannio), Italy
Lidia Diappi, Polytechnic University of Milan, Italy
Isidoro Fasolino, University of Salerno, Italy
Mariano Gallo, University of Sannio, Italy
Lilli Gargiulo, University of Naples Federico II, Italy
Roberto Gerundo, University of Salerno, Italy
Paolo La Greca, University of Catania, Italy
Giuseppe B. Las Casas, University of Basilicata, Italy
Robert Laurini, University of Lyon, France
Antonio Leone, Tuscia University, Italy
Anna Loffredo, Institute of Management, Scuola Superiore Sant'Anna Pisa, Italy
Silvana Lombardo, University of Pisa, Italy
Giovanni Maciocco, University of Sassari, Italy
Giulio Maternini, University of Brescia, Italy

Francesco Domenico Moccia, University of Naples Federico II, Italy
Bruno Montella, University of Naples "Federico II" (Director of DICEA), Italy
Beniamino Murgante, University of Basilicata, Italy
Agostino Nuzzolo, University of Rome, Italy
Sylvie Occelli, IRES Turin, Italy
Rocco Papa, University of Naples Federico II, Italy
Maria Paradiso, University of Sannio, Italy
Domenico Patassini, IUAV, Venice, Italy
Michele Pezzagno, University of Brescia, Italy
Fulvia Pinto, Polytechnic University of Milan, Italy
Giovanni Rabino, Polytechnic University of Milan, Italy
Giuseppe Roccasalva, Polytechnic University of Turin, Italy
Bernardino Romano, University of L'Aquila, Italy
Francesco Russo, Mediterranean University Reggio Calabria, Italy
Michelangelo Russo, University of Naples Federico II, Italy
Ferdinando Semboloni, University of Firenze, Italy
Agata Spaziante, Polytechnic University of Turin, Italy
Michela Tiboni, University of Brescia, Italy
Maurizio Tira, University of Brescia, Italy
Simona Tondelli, University of Bologna, Italy
Umberto Villano, University of Sannio (Director of DING), Italy
Ignazio Vinci, University of Palermo, Italy
Corrado Zoppi, University of Cagliari, Italy

LOCAL SCIENTIFIC COMMITTEE

Rosaria Battarra, ISSM, National Research Council, Italy
Romano Fistola, DING, University of Sannio, Italy
Lilli Gargiulo, DICEA, University of Naples Federico II, Italy
Adriana Galderisi, DICEA, University of Naples Federico II, Italy
Rosa Anna La Rocca, DICEA, University of Naples Federico II, Italy
Giuseppe Mazzeo, ISSM, National Research Council, Italy
Enrica Papa, University of Amsterdam, Netherlands

LOCAL ADMINISTRATIVE TEAM

Gennaro Angiello, TeMA Lab, University of Naples Federico II, Italy
Gerardo Carpentieri, TeMA Lab, University of Naples Federico II, Italy
Stefano Franco, TeMA Lab, University of Naples Federico II, Italy
Laura Russo, TeMA Lab, University of Naples Federico II, Italy
Floriana Zucaro, TeMA Lab, University of Naples Federico II, Italy

EIGHTH INTERNATIONAL CONFERENCE INPUT 2014

SMART CITY. PLANNING FOR ENERGY, TRANSPORTATION AND SUSTAINABILITY OF THE URBAN SYSTEM

This special issue of TeMA collects the papers presented at the Eighth International Conference INPUT, 2014, titled "Smart City. Planning for energy, transportation and sustainability of the urban system" that takes place in Naples from 4 to 6 of June 2014.

INPUT (Innovation in Urban Planning and Territorial) consists of an informal group/network of academic researchers Italians and foreigners working in several areas related to urban and territorial planning. Starting from the first conference, held in Venice in 1999, INPUT has represented an opportunity to reflect on the use of Information and Communication Technologies (ICTs) as key planning support tools. The theme of the eighth conference focuses on one of the most topical debate of urban studies that combines , in a new perspective, researches concerning the relationship between innovation (technological, methodological, of process etc..) and the management of the changes of the city. The Smart City is also currently the most investigated subject by TeMA that with this number is intended to provide a broad overview of the research activities currently in place in Italy and a number of European countries. Naples, with its tradition of studies in this particular research field, represents the best place to review progress on what is being done and try to identify some structural elements of a planning approach.

Furthermore the conference has represented the ideal space of mind comparison and ideas exchanging about a number of topics like: planning support systems, models to geo-design, qualitative cognitive models and formal ontologies, smart mobility and urban transport, Visualization and spatial perception in urban planning innovative processes for urban regeneration, smart city and smart citizen, the Smart Energy Master project, urban entropy and evaluation in urban planning, etc..

The conference INPUT Naples 2014 were sent 84 papers, through a computerized procedure using the website www.input2014.it . The papers were subjected to a series of monitoring and control operations. The first fundamental phase saw the submission of the papers to reviewers. To enable a blind procedure the papers have been checked in advance, in order to eliminate any reference to the authors. The review was carried out on a form set up by the local scientific committee. The review forms received were sent to the authors who have adapted the papers, in a more or less extensive way, on the base of the received comments. At this point (third stage), the new version of the paper was subjected to control for to standardize the content to the layout required for the publication within TeMA. In parallel, the Local Scientific Committee, along with the Editorial Board of the magazine, has provided to the technical operation on the site TeMA (insertion of data for the indexing and insertion of pdf version of the papers). In the light of the time's shortness and of the high number of contributions the Local Scientific Committee decided to publish the papers by applying some simplifies compared with the normal procedures used by TeMA. Specifically:

- Each paper was equipped with cover, TeMA Editorial Advisory Board, INPUT Scientific Committee, introductory page of INPUT 2014 and summary;
- Summary and sorting of the papers are in alphabetical order, based on the surname of the first author;
- Each paper is indexed with own DOI codex which can be found in the electronic version on TeMA website (www.tema.unina.it). The codex is not present on the pdf version of the papers.

SMART CITY PLANNING FOR ENERGY, TRANSPORTATION AND SUSTAINABILITY OF THE URBAN SYSTEM Special Issue, June 2014

Contents

- 1. The Plan in Addressing the Post Shock Conflicts 2009-2014.
A First Balance Sheet of the Reconstruction of L'Aquila** 1-13
Fabio Andreassi, Pierluigi Properzi
- 2. Assessment on the Expansion of Basic Sanitation Infrastructure.
In the Metropolitan Area of Belo Horizonte - 2000/2010** 15-26
Grazielle Anjos Carvalho
- 3. Temporary Dwelling of Social Housing in Turin.
New Responses to Housing Discomfort** 27-37
Giulia Baù, Luisa Ingaramo
- 4. Smart Communities. Social Innovation at the Service of the Smart Cities** 39-51
Massimiliano Bencardino, Ilaria Greco
- 5. Online Citizen Reporting on Urban Maintenance:
A Collection, Evaluation and Decision Support System** 53-63
Ivan Blečić, Dario Canu, Arnaldo Cecchini, Giuseppe Andrea Trunfio
- 6. Walkability Explorer. An Evaluation and Design Support Tool for Walkability** 65-76
Ivan Blečić, Arnaldo Cecchini, Tanja Congiu, Giovanna Fancello, Giuseppe Andrea Trunfio
- 7. Diachronic Analysis of Parking Usage: The Case Study of Brescia** 77-85
Riccardo Bonotti, Silvia Rossetti, Michela Tiboni, Maurizio Tira
- 8. Crowdsourcing. A Citizen Participation Challenge** 87-96
Júnia Borges, Camila Zyngier
- 9. Spatial Perception and Cognition Review.
Considering Geotechnologies as Urban Planning Strategy** 97-108
Júnia Borges, Camila Zyngier, Karen Lourenço, Jonatha Santos

- 10. Dilemmas in the Analysis of Technological Change. A Cognitive Approach to Understand Innovation and Change in the Water Sector** 109-127
Dino Borri, Laura Grassini
- 11. Learning and Sharing Technology in Informal Contexts. A Multiagent-Based Ontological Approach** 129-140
Dino Borri, Domenico Camarda, Laura Grassini, Mauro Patano
- 12. Smartness and Italian Cities. A Cluster Analysis** 141-152
Flavio Boscacci, Ila Maltese, Ilaria Mariotti
- 13. Beyond Defining the Smart City. Meeting Top-Down and Bottom-Up Approaches in the Middle** 153-164
Jonas Breuer, Nils Walravens, Pieter Ballon
- 14. Resilience Through Ecological Network** 165-173
Grazia Brunetta, Angioletta Voghera
- 15. ITS System to Manage Parking Supply: Considerations on Application to the “Ring” in the City of Brescia** 175-186
Susanna Bulferetti, Francesca Ferrari, Stefano Riccardi
- 16. Formal Ontologies and Uncertainty. In Geographical Knowledge** 187-198
Matteo Caglioni, Giovanni Fusco
- 17. Geodesign From Theory to Practice: In the Search for Geodesign Principles in Italian Planning Regulations** 199-210
Michele Campagna, Elisabetta Anna Di Cesare
- 18. Geodesign from Theory to Practice: From Metaplanning to 2nd Generation of Planning Support Systems** 211-221
Michele Campagna
- 19. The Energy Networks Landscape. Impacts on Rural Land in the Molise Region** 223-234
Donatella Cialdea, Alessandra Maccarone
- 20. Marginality Phenomena and New Uses on the Agricultural Land. Diachronic and Spatial Analyses of the Molise Coastal Area** 235-245
Donatella Cialdea, Luigi Mastronardi
- 21. Spatial Analysis of Urban Squares. ‘Siccome Umbellico al corpo dell’uomo’** 247-258
Valerio Cutini

- 22. Co-Creative, Re-Generative Smart Cities.
Smart Cities and Planning in a Living Lab Perspective 2** **259-270**
Luciano De Bonis, Grazia Concilio, Eugenio Leanza, Jesse Marsh, Ferdinando Trapani
- 23. The Model of Voronoi's Polygons and Density:
Diagnosis of Spatial Distribution of Education Services of EJA
in Divinópolis, Minas Gerais, Brazil** **271-283**
Diogo De Castro Guadalupe, Ana Clara Mourão Moura
- 24. Rural Architectural Intensification: A Multidisciplinary Planning Tool** **285-295**
Roberto De Lotto, Tiziano Cattaneo, Cecilia Morelli Di Popolo, Sara Morettini,
Susanna Sturla, Elisabetta Venco
- 25. Landscape Planning and Ecological Networks.
Part A. A Rural System in Nuoro, Sardinia** **297-307**
Andrea De Montis, Maria Antonietta Bardi, Amedeo Ganciu, Antonio Ledda,
Simone Caschili, Maurizio Mulas, Leonarda Dessena, Giuseppe Modica,
Luigi Laudari, Carmelo Riccardo Fichera
- 26. Landscape Planning and Ecological Networks.
Part B. A Rural System in Nuoro, Sardinia** **309-320**
Andrea De Montis, Maria Antonietta Bardi, Amedeo Ganciu, Antonio Ledda,
Simone Caschili, Maurizio Mulas, Leonarda Dessena, Giuseppe Modica,
Luigi Laudari, Carmelo Riccardo Fichera
- 27. Sea Guidelines. A Comparative Analysis: First Outcomes** **321-330**
Andrea De Montis, Antonio Ledda, Simone Caschili, Amedeo Ganciu, Mario Barra,
Gianluca Cocco, Agnese Marcus
- 28. Energy And Environment in Urban Regeneration.
Studies for a Method of Analysis of Urban Periphery** **331-339**
Paolo De Pascali, Valentina Alberti, Daniela De Ioris, Michele Reginaldi
- 29. Achieving Smart Energy Planning Objectives.
The Approach of the Transform Project** **341-351**
Ilaria Delponte
- 30. From a Smart City to a Smart Up-Country.
The New City-Territory of L'Aquila** **353-364**
Donato Di Ludovico, Pierluigi Properzi, Fabio Graziosi
- 31. Geovisualization Tool on Urban Quality.
Interactive Tool for Urban Planning** **365-375**
Enrico Eynard, Marco Santangelo, Matteo Tabasso

- 32. Visual Impact in the Urban Environment.
The Case of Out-of-Scale Buildings** 377-388
Enrico Fabrizio, Gabriele Garnerò
- 33. Smart Dialogue for Smart Citizens:
Assertive Approaches for Strategic Planning** 389-401
Isidoro Fasolino, Maria Veronica Izzo
- 34. Digital Social Networks and Urban Spaces** 403-415
Pablo Vieira Florentino, Maria Célia Furtado Rocha, Gilberto Corso Pereira
- 35. Social Media Geographic Information in Tourism Planning** 417-430
Roberta Floris, Michele Campagna
- 36. Re-Use/Re-Cycle Territories:
A Retroactive Conceptualisation for East Naples** 431-440
Enrico Formato, Michelangelo Russo
- 37. Urban Land Uses and Smart Mobility** 441-452
Mauro Francini, Annunziata Palermo, Maria Francesca Viapiana
- 38. The Design of Signalised Intersections at Area Level.
Models and Methods** 453-464
Mariano Gallo, Giuseppina De Luca, Luca D'acierno
- 39. Piano dei Servizi. Proposal for Contents and Guidelines** 465-476
Roberto Gerundo, Gabriella Graziuso
- 40. Social Housing in Urban Regeneration.
Regeneration Heritage Existing Building: Methods and Strategies** 477-486
Maria Antonia Giannino, Ferdinando Orabona
- 41. Using GIS to Record and Analyse Historical Urban Areas** 487-497
Maria Giannopoulou, Athanasios P. Vavatsikos,
Konstantinos Lykostratis, Anastasia Roukouni
- 42. Network Screening for Smarter Road Sites: A Regional Case** 499-509
Attila Grieco, Chiara Montaldo, Sylvie Ocelli, Silvia Tarditi
- 43. Li-Fi for a Digital Urban Infrastructure:
A Novel Technology for the Smart City** 511-522
Corrado Iannucci, Fabrizio Pini
- 44. Open Spaces and Urban Ecosystem Services.
Cooling Effect towards Urban Planning in South American Cities** 523-534
Luis Inostroza

- 45. From RLP to SLP: Two Different Approaches to Landscape Planning** 535-543
Federica Isola, Cheti Pira
- 46. Revitalization and its Impact on Public. Space Organization A Case Study of Manchester in UK, Lyon in France and Łódź in Poland** 545-556
Jarosław Kazimierczak
- 47. Geodesign for Urban Ecosystem Services** 557-565
Daniele La Rosa
- 48. An Ontology of Implementation Plans of Historic Centers: A Case Study Concerning Sardinia, Italy** 567-579
Sabrina Lai, Corrado Zoppi
- 49. Open Data for Territorial Specialization Assessment. Territorial Specialization in Attracting Local Development Funds: an Assessment. Procedure Based on Open Data and Open Tools** 581-595
Giuseppe Las Casas, Silvana Lombardo, Beniamino Murgante, Piergiuseppe Pontrandolfi, Francesco Scorza
- 50. Sustainability And Planning. Thinking and Acting According to Thermodynamics Laws** 597-606
Antonio Leone, Federica Gobattoni, Raffaele Pelorosso
- 51. Strategic Planning of Municipal Historic Centers. A Case Study Concerning Sardinia, Italy** 607-619
Federica Leone, Corrado Zoppi
- 52. A GIS Approach to Supporting Nightlife Impact Management: The Case of Milan** 621-632
Giorgio Limonta
- 53. Dealing with Resilience Conceptualisation. Formal Ontologies as a Tool for Implementation of Intelligent Geographic Information Systems** 633-644
Giampiero Lombardini
- 54. Social Media Geographic Information: Recent Findings and Opportunities for Smart Spatial Planning** 645-658
Pierangelo Massa, Michele Campagna
- 55. Zero Emission Mobility Systems in Cities. Inductive Recharge System Planning in Urban Areas** 659-669
Giulio Maternini, Stefano Riccardi, Margherita Cadei

- 56. Urban Labelling: Resilience and Vulnerability as Key Concepts for a Sustainable Planning** 671-682
Giuseppe Mazzeo
- 57. Defining Smart City. A Conceptual Framework Based on Keyword Analysis** 683-694
Farnaz Mosannenzadeh, Daniele Vettorato
- 58. Parametric Modeling of Urban Landscape: Decoding the Brasilia of Lucio Costa from Modernism to Present Days** 695-708
Ana Clara Moura, Suellen Ribeiro, Isadora Correa, Bruno Braga
- 59. Smart Mediterranean Logics. Old-New Dimensions and Transformations of Territories and Cites-Ports in Mediterranean** 709-718
Emanuela Nan
- 60. Mapping Smart Regions. An Exploratory Approach** 719-728
Sylvie Occelli, Alessandro Sciuolo
- 61. Planning Un-Sustainable Development of Mezzogiorno. Methods and Strategies for Planning Human Sustainable Development** 729-736
Ferdinando Orabona, Maria Antonia Giannino
- 62. The Factors Influencing Transport Energy Consumption in Urban Areas: a Review** 737-747
Rocco Papa, Carmela Gargiulo, Gennaro Angiello
- 63. Integrated Urban System and Energy Consumption Model: Residential Buildings** 749-758
Rocco Papa, Carmela Gargiulo, Gerardo Carpentieri
- 64. Integrated Urban System and Energy Consumption Model: Public and Singular Buildings** 759-770
Rocco Papa, Carmela Gargiulo, Mario Cristiano
- 65. Urban Smartness Vs Urban Competitiveness: A Comparison of Italian Cities Rankings** 771-782
Rocco Papa, Carmela Gargiulo, Stefano Franco, Laura Russo
- 66. Urban Systems and Energy Consumptions: A Critical Approach** 783-792
Rocco Papa, Carmela Gargiulo, Floriana Zucaro
- 67. Climate Change and Energy Sustainability. Which Innovations in European Strategies and Plans** 793-804
Rocco Papa, Carmela Gargiulo, Floriana Zucaro

- 68. Bio-Energy Connectivity And Ecosystem Services.
An Assessment by Pandora 3.0 Model for Land Use Decision Making** 805-816
Raffaele Pelorosso, Federica Gobattoni, Francesco Geri,
Roberto Monaco, Antonio Leone
- 69. Entropy and the City. GHG Emissions Inventory:
a Common Baseline for the Design of Urban and Industrial Ecologies** 817-828
Michele Pezzagno, Marco Rosini
- 70. Urban Planning and Climate Change: Adaptation and Mitigation Strategies** 829-840
Fulvia Pinto
- 71. Urban Gaming Simulation for Enhancing Disaster Resilience.
A Social Learning Tool for Modern Disaster Risk Management** 841-851
Sarunwit Promsaka Na Sakonnakron, Pongpisit Huyakorn, Paola Rizzi
- 72. Visualisation as a Model. Overview on Communication Techniques
in Transport and Urban Planning** 853-862
Giovanni Rabino, Elena Masala
- 73. Ontologies and Methods of Qualitative Research in Urban Planning** 863-869
Giovanni Rabino
- 74. City/Sea Searching for a New Connection.
Regeneration Proposal for Naples Waterfront Like an Harbourscape:
Comparing Three Case Studies** 871-882
Michelangelo Russo, Enrico Formato
- 75. Sensitivity Assessment. Localization of Road Transport Infrastructures
in the Province of Lucca** 883-895
Luisa Santini, Serena Pecori
- 76. Creating Smart Urban Landscapes.
A Multimedia Platform for Placemaking** 897-907
Marichela Sepe
- 77. Virtual Power Plant. Environmental Technology Management Tools
of The Settlement Processes** 909-920
Maurizio Sibilla
- 78. Ecosystem Services and Border Regions.
Case Study from Czech – Polish Borderland** 921-932
Marcin Spyra
- 79. The Creative Side of the Reflective Planner. Updating the Schön's Findings** 933-940
Maria Rosaria Stufano Melone, Giovanni Rabino

- 80. Achieving People Friendly Accessibility.
Key Concepts and a Case Study Overview** 941-951
Michela Tiboni, Silvia Rossetti
- 81. Planning Pharmacies: An Operational Method to Find the Best Location** 953-963
Simona Tondelli, Stefano Fatone
- 82. Transportation Infrastructure Impacts Evaluation:
The Case of Egnatia Motorway in Greece** 965-975
Athanasios P. Vavatsikos, Maria Giannopoulou
- 83. Designing Mobility in a City in Transition.
Challenges from the Case of Palermo** 977-988
Ignazio Vinci, Salvatore Di Dio
- 84. Considerations on the Use of Visual Tools in Planning Processes:
A Brazilian Experience** 989-998
Camila Zyngier, Stefano Pensa, Elena Masala

TeMA

Journal of
Land Use, Mobility and Environment

TeMA INPUT 2014
Print ISSN 1970-9889, e- ISSN 1970-9870

DOI available on the online version

Licensed under the Creative Commons Attribution
Non Commercial License 3.0
www.tema.unina.it

SPECIAL ISSUE

Eighth International Conference INPUT
Smart City - Planning for Energy, Transportation and Sustainability
of the Urban System

Naples, 4-6 June 2014



PLANNING UN-SUSTAINABLE DEVELOPMENT OF MEZZOGIORNO METHODS AND STRATEGIES FOR PLANNING HUMAN SUSTAINABLE DEVELOPMENT

FERDINANDO ORABONA ^a MARIA ANTONIA GIANNINO ^b

^a Ministero delle Infrastrutture e Trasporti – Provveditorato Interregionale
alle Opere Pubbliche Campania e Molise
PhD candidate, Dipartimento di Architettura e Disegno industriale, Luigi
Vanvitelli, Seconda Università degli Studi di Napoli,
Aversa (CE)
e-mail: ferdinando.orabona@unina2.it

^b PhD candidate, Dipartimento di Architettura e Disegno industriale, Luigi
Vanvitelli, Seconda Università degli Studi di Napoli,
Aversa (CE)
e-mail: mariaantonia.giannino@unina2.it

ABSTRACT

Growing like “wildfire”, traffic congestion, the spread of pollution, the inefficiency of the services, the chaotic mix of land uses, lack of green are some of the features, unfortunately now become familiar in cities across the world.

This is an interesting time for both examine the tools available to urban planners expression of for the analysis and definition of policies both to see how they have adapted to the new conditions.

A better environment and quality landscapes are necessary conditions for attracting investments, assets and people. But they are not sufficient. It should also be a social and human landscape equality to trigger local development.

For example, consider the network of “slow city”. It was founded as a cultural and proposal of new lifestyle. But that possesses significant practical implications in terms of more balanced regional development, because polycentric. The same report city / country is improved by slow development of these practices. They are able to reduce the depopulation and activities to the centers of larger size, reducing costs (congestion, agglomeration, overuse of resources) both in the areas of concentration in the internal ones (better use of resources, maintenance / control of the territory, etc.).

KEYWORDS

Development, Sustainability, Recycling

1 INTRODUCTION

The crisis of the city sits as a place of maximum concentration and specialization of activities on the territory undeferrable makes a radical rethinking of the scientific and technical the specific discipline of those who, like us, studying the city for to understand, to identify ways of guidance and control, to define trajectories of evolution. Growing like “wildfire”, traffic congestion, the spread of pollution, the inefficiency of the services, the chaotic mix of land uses, lack of green are some of the features, unfortunately now become familiar in cities across the world.

They are some of the inevitable consequences of the enormous concentration of population and activities that cities have become more serious consequences were often from the high speed of growth and lack of planning and coordination, not only. These are some of the factors behind the recent major changes with the appearance of new development models mark not only in urban areas but the entire territory.

This is an interesting time for both examine the tools available to urban planners expression of for the analysis and definition of policies both to see how they have adapted to the new conditions.

1.2 THE CURRENT FRAMEWORK

The general framework of departure gives us a reality southern characterized by now well-known historical and Shortcomings that greatly reduce the attractiveness of the area: the network of physical infrastructure, the level of specialization of services (extremely low) in the low participation of different actors the various projects, in other words, the limited availability of capital in Mezzogiorno (which means poor coordination in the activities and actions very often means conflict between different actors instead of cooperation):

- institutional fragility;
- increasing level of lawlessness,
- lack of innovative capacity of cities which results in reduced production processes of wealth.

Also the potential in Mezzogiorno is still very high, because:

- Mezzogiorno has a lovely location in the Mediterranean who is a context in a dynamic evolution: the South itself as a great platform logistics - with its port facilities, its transportation infrastructure - in a more interesting relationship with the Far East, and other geographic locations (the north-western and the south-east) of the South itself;
- Mezzogiorno has a high potential consequent to his unique cultural landscape, which is characterized by its artistic heritage, architectural, environmental, cultural, unique in the world for its extraordinary beauty;
- the creativity of its people and the innovative capacity of some of its research facilities remains high.

The question that arises is: why this potential is hard to translate into concrete reality? Hard to translate into greater ability to attract and entrepreneurial skills? Hard to translate into greater competitiveness? Why does not reduce the gap between expert knowledge (new knowledge, research) and practical knowledge (practices)?

The town and city networks are the critical element in promoting economic development in the South. Urban issues, environmental issues and the issue of culture are closely intertwined: one leads to the other and vice versa. For example, economic development, can be born as a reaction to environmental degradation, and generate or less capacity for self-organization. Of course, we do not have recipes: we can only prepare proposals and considering very carefully the results of that trial.

2 UN-SUSTAINABLE DEVELOPMENT IN THE SOUTH

Today there is no programmatic document regional, provincial or municipal level that does not make formal reference to the promotion of sustainable development. But the "facts" go in a completely different direction from the "principles." You may remember some of these "facts":

- continued loss of biodiversity in many areas;
- the increasing scarcity of water resources, natural, scenic;
- the pollution of soil, air, water (with human and eco system damage to the human health).

Environmental degradation is the general context in which it accelerates – above a certain threshold then critical – the progressive loss of employment, reduction in the level of income, loss of ability to export etc., namely the economic and social degradation.

Sustainable development is characterized by a strong promotion of "relations" and then for the promotion of synergies through coordination of actions / choices. The savings from synergies are to be considered today the most significant economies of scale or agglomeration.

The environment is one of the "commons" that everyone can enjoy, as well as the land, climate stability, water, landscape, cultural heritage, etc. For example, if we focus our attention on the environment as a common good it becomes a resource to be preserved and protected in a responsible manner, exceeding the vision of the environment to be "used" instrumentally and to take the necessary resources to the economic system that waste products for download.

The reality is that in the South the most important areas in industrial tradition have become sites of major environmental crisis. Many of these are port areas / coastal. I'm a pretty well-known as the industrial areas of Taranto, Augusta-Priolo, which must be added those of Naples (Bagnoli-Coroglio), all the Domitian coast. They are in "competition" with Livorno, Piombino, Portomarghera, etc. The negative impacts on eco natural system and human health are massive.

Taranto (with the largest steelworks in Europe is included among the 14 areas with the highest environmental risk due to the concentration of industry (Ilva, Eni, Edison, Cementir, etc.). Resulting therefore pollutants such as benzene, carbon monoxide, sulfur, nitric oxide, zinc, chromium, lead, cadmium, arsenic, particulate matter and nanoparticles. At Priolo, where he was made one of the largest petrochemical complexes in Europe (Erg, Esso, Syntal, Isab Energy, Polimeri Europa, etc.), The ecological damage at the same time respect the land, air and sea water, with the well-known consequences on the health and eco systemic.



Fig. 1 ILVA Taranto

The metropolitan area of Naples (where the incinerator is located the largest in Europe) has a fine particulate pollution among the highest in Italy combined with the pollution of the waters of the Gulf, with the mismanagement of waste on the territory (from the rest of the country), with the illegal building. Widespread environmental degradation characterized in short, in a more or less homogeneous, the cities of the South. In fact, prevailed – in the industrial activity of the southern cities – an attitude utilitarian / instrumental towards the environment.



Fig. 2 Incinerator of Acerra, Naples

It was regarded as a quarry from which to extract everything you need to produce and how to dump waste. How can you get out of this situation of "vicious circularity" which increases the discomfort, marginalization and suffering? We need a highly innovative / creative to avoid systemic collapse eco overall and then to actually implement sustainability in our cities. It is an essential element that is based on the quality of human capital and social capital. These are the two most important forms of capital to promote sustainable human development.

2.2 LANDSCAPE IN THE CITIES OF MEZZOGIORNO

The problem of Mezzogiorno has been interpreted as an urban issue (Cafiero 1977). In fact, the wealth of a country or a region is produced in the city. Yet it still lacks a national urban policy / south.

The cities of Mezzogiorno are more demographically too large in relation to their productive capacity and employment, and therefore (not being self sufficient / self sustainable) require a continuous transfer of public spending. In recent years inward investment has been represented in particular by the EU structural funds, with poor results due to the dispersion of those investments to objectives and areas not well explained. The use of EU funds for urban regeneration in the period 2000-2006 on the axis it is preferred to disperse the available resources rather than concentrating them in specific integrated projects, reducing its effectiveness. The landscape quality is a formidable factor in the competition between attractive territory and represents a comparative advantage in a geographic location to another. A degraded landscape is not attractive, but rather rejects investment activities. The question becomes: how to transform this potential resource of Mezzogiorno in real asset in the promotion of local development? How to preserve, enhance and

manage the assets for the urban regeneration of the city and the region? The knowledge / culture, preservation of cultural heritage that sees the cultural and natural resources as a catalyst for tourism development but also to add value to local production of goods and services related to local identity represent circuits of value creation that integrate the strategic model of new urban base.

2.3 CITIES ARE INCUBATORS OF NEW CREATIVITY

Today there are about 60 cities in the world have themselves with this label: Vancouver, Toronto, Ottawa, Glasgow, Yokohama, Brisbane, are just some of the most famous examples. It is mostly coastal cities and ports.



Fig. 3 View of a new Smart City

Often they have chosen to base their new development strategy on the creative industries (media, design etc.), integrating the production of traditional physical infrastructure (urbanization, equipment, specialized services, financial services, etc.) with infrastructure assets (urban landscape attractive, lively cultural atmosphere, etc.). In this way, they are becoming more and more attractive not only for tourists but also to the highly skilled workforce and external investment.

A creative city requires, however, beyond all the different definitions, a strategy that is based on a strong vision of the future in the long term. The construction of this vision is itself a creative act. In turn, it requires a creative governance and leadership as creative to be implemented in time and space.

The thread that binds all, however, the successful experiences of creative cities is the ability to combine multiple and heterogeneous elements, the ability to synthesize original, weaving together elements of tradition, which constitute the identity of the city, with modernizing more push prompted by an increasingly globalized. Another element that characterizes good practice is a strong investment in education / training and research, to promote a common way of thinking, critical and creative together.

3 SLOW CITY: STRATEGIES OF SUSTAINABLE DEVELOPMENT

At the macro level lacks a national policy for the city. Interesting experiences are found only in a few cities, and in particular in the city of small size.

The experiences of the "virtuous community," Grid "Slow City" may offer a number of good practices from which to learn how to make the circuit saving, reuse, recovery, recycling, reclamation, renewable, and most importantly how to transform the ecological, territorial in cultural / civil values. They offer interesting interpretations of what is called "good governance" especially from an environmental perspective (often caught in a systemic dimension). Represent concrete examples of creativity to promote sustainability. For example, consider the network of "slow city". It was founded as a cultural and proposal of new lifestyle. But that possesses significant practical implications in terms of more balanced regional development, because polycentric. The same report city / country is improved by slow development of these practices. They are able to reduce the depopulation and activities to the centers of larger size, reducing costs (congestion, agglomeration, overuse of resources) both in the areas of concentration in the internal ones (better use of resources, maintenance / control of the territory, etc.).

The slow city were born as a reaction to the faster, the bigger, the North American culture of instant cities, and have embraced a philosophy (shared both Abbiategrosso, Chiavenna, Fontanellato that from Amalfi, Positano, Pollica, Trani, Francavilla al Mare, up of slow city of Sicily etc.) reaction to the increasing de-contextualization.



Fig. 4 CitySlow, scheme

This culture is very slow assonant culture of sustainable development. It produced trajectories of local self-sustainability. The development strategy of slow city starts from the recognition and enhancement of local identity, of what is specific in the territory, culture and geography of places and determines a comparative advantage. The culture promotes a slow redevelopment of the area, enhancing agricultural production (especially biological), craft production, livestock production, the gastronomic etc..

At the same time preserves the landscape and makes it attractive for the application farm, thanks to a multifunctional approach, which protects the use values but also the values of existence of the landscape itself.

4 CHARACTERISTICS FOR A NEW GOVERNANCE

A new governance is absolutely essential to promote creativity / innovation and to improve the resilience of ecological, economic, social, cultural city and then to actually implement sustainability. Through the

preservation, enhancement and regeneration of the "places", the involvement of the third sector contributes significantly to urban resilience.

Since 2008, we see a steady reduction of available public resources and therefore the need to achieve the maximum result, the maximum efficiency in the use of increasingly scarce resources that you have. It is clear that in this context the processes of efficient use of available local resources (planning, efficient / effective, etc.). Become absolutely essential for urban policies.

These assessment processes, in other words, should serve to innovate / adapt constantly and creatively policies that are being implemented in the territories in choosing among alternatives.

The new urban governance must bridge the gap between theoretical and practical operational practices processing, building bridges of communication between the city and research, in order to transform scientific knowledge into urban policies for sustainable development.

The new governance must be based on solid theoretical foundations and empirical evidence of good. It always promotes new partnerships between public, private and civil sector / social. A new governance is required at both strategic and tactical operational and to stimulate innovation.

A feature of the innovative governance is the recognized importance, particularly in the experiments, projects - pilot, the specific catalyst actions, which must be carefully evaluated in their impacts in the short, medium and long term, in order to produce new knowledge and better choices.

5 CONCLUSIONS

A better environment and quality landscapes are necessary conditions for attracting investments, assets and people. But they are not sufficient. It should also be a social and human landscape quality to trigger local development. However, if you want to carry out the general principles of a new development which respects the environment and human and sustainable development, we need to invest in creativity and innovation. Many cities in Europe and the world are moving in the direction of the green economy, with employment benefits as well as economic and environmental well. Are significant examples of New York, San Francisco, Boston, etc. How are denser networks and circular relationships between research, business, public institutions, providers of finance and civil society, the greater the success.

The brownfield sites and the port areas are the entry point where you can try out a development strategy that turns problems into opportunities. Need entrepreneurs capable of organizing the recovery, reuse, recycling, regeneration of materials in the production of compost in the clean economy, in the handicraft production of excellence in the field of knowledge / culture, stimulating circularization.

Mezzogiorno is an area in which the model of sustainable human development can be applied with success from its town if you fail to meet certain conditions, which promote new energy "from below." And necessary to promote cultural workshops, to develop and test new paths towards a culture less crushed economically and more open in the reciprocal exchange / intersubjective, interdependencies, capable of enhancing relationships, to consider the values itself, and not only instrumental values, the medium-long term and not just short.

The above is essential to integrate resilience ecological / economic capital with the cultural one. Without the spread of this culture, any effort exclusively technical, organizational, management is doomed to failure.

The South will be able to configure itself concretely as a great laboratory for experimentation / reconfiguration of this strategy?



Fig. 5 Green Jobs, scheme

REFERENCES

- Droege, P. (2006), *The Renewable City*, Chirchester, Wiley and Sons.
- Florida, R. (2005), *City and Creative Class*, New York, Routledge.
- Franke, S., Cerhagen, E. (2005), *Creativity and the City*, Rotterdam, NaIPublishers.
- Zeleny, M. (2006), *Human System Management*, Amsterdam: IOS.

IMAGES SOURCES

- Fig. 3: IBM Sources
- Fig. 5: Center for American Progress

AUTHOR'S PROFILE

Maria Antonia Giannino

Architetto-Ingegnere, PhD candidate «Rappresentazione, Tutela e Sicurezza dell'ambiente e delle strutture e governo del territorio», Dipartimento di Architettura e Disegno industriale, Luigi Vanvitelli, Seconda Università degli Studi di Napoli, Abazia di San Lorenzo ad Septimum, Aversa (CE).

Ferdinando Orabona

Funzionario del Ministero delle Infrastrutture e Trasporti – Provveditorato Interregionale alle Opere Pubbliche Campania e Molise. PhD candidate, Dipartimento di Architettura e Disegno industriale, Luigi Vanvitelli, Seconda Università degli Studi di Napoli, Aversa (CE).