



THE ATHENS INSTITUTE FOR EDUCATION AND RESEARCH

# Abstract Book:

7<sup>th</sup> Annual International Conference on  
**Urban Studies & Planning**  
5-8 June 2017, Athens, Greece

Edited by  
Gregory T. Papanikos

2017



Abstracts  
7<sup>th</sup> Annual International  
Conference on  
Urban Studies & Planning  
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## Preface

This book includes the abstracts of all the papers presented at the *7<sup>th</sup> Annual International Conference on Urban Studies & Planning, 5-8 June 2017, Athens, Greece* organized by the Athens Institute for Education and Research (ATINER). In total 44 papers were submitted by over 50 presenters, coming from 15 different countries (Australia, Austria, China, Colombia, Czech Republic, France, Israel, Italy, Japan, Portugal, South Korea, Spain, Turkey, UAE and USA). The conference was organized into 16 sessions that included a variety of topic areas such as urban structuring, landscapes, innovations, and more. A full conference program can be found beginning on the next page. In accordance with ATINER's Publication Policy, the papers presented during this conference will be considered for inclusion in one of ATINER's many publications.

The purpose of this abstract book is to provide members of ATINER and other academics around the world with a resource through which to discover colleagues and additional research relevant to their own work. This purpose is in congruence with the overall mission of the institute. ATINER was established in 1995 as an independent academic organization with the mission to become a forum where academics and researchers from all over the world could meet to exchange ideas on their research and consider the future developments of their fields of study.

It is our hope that through ATINER's conferences and publications, Athens will become a place where academics and researchers from all over the world regularly meet to discuss the developments of their discipline and present their work. Since 1995, ATINER has organized more than 400 international conferences and has published nearly 200 books. Academically, the institute is organized into seven research divisions and forty research units. Each research unit organizes at least one annual conference and undertakes various small and large research projects.

For each of these events, the involvement of multiple parties is crucial. I would like to thank all the participants, the members of the organizing and academic committees, and most importantly the administration staff of ATINER for putting this conference and its subsequent publications together.

**Gregory T. Papanikos**  
**President**



**FINAL CONFERENCE PROGRAM**  
**7<sup>th</sup> Annual International Conference on Urban Studies & Planning,**  
**5-8 June 2017 Athens, Greece**

**PROGRAM**

**Conference Venue: Titania Hotel, 52 Panepistimiou Avenue, Athens, Greece**

**C O N F E R E N C E P R O G R A M**

**08:00-09:00 Registration and Refreshments**

**09:00-09:30 (Room D-10<sup>th</sup> Floor) Welcome and Opening Address**

Gregory T. Papanikos, President, ATINER.

**09:30-11:00 Session I (Room D-10<sup>th</sup> Floor):  
Urban Structuring**

**Chair:** Nicholas N. Patricios, Vice President of Strategic Planning & Analysis, ATINER and Professor & Dean Emeritus, School of Architecture, University of Miami, USA.

1. Alan Frishman, Professor, Hobart and Wm. Smith Colleges, USA. Tracing Kano's Population and Spatial Growth.
2. Lina Martinez, Professor, Universidad Icesi, Colombia. The Surge of Night Economy in the Global South: The Case of Cali, Colombia.
3. Apostolos Kyriazis, Assistant Professor, Abu Dhabi University, UAE. The Evolution of Abu Dhabi's Superblocks: From Modernist Pragmatism to Regeneration Efforts.
4. Nguyen Hoang Linh, PhD Candidate, Southeast University, China. Dalat's City Planning under the French Colonial Era (1899-1944).

**09:30-11:00 Session II (Room E-10<sup>th</sup> Floor): Policy**

**Chair:** Virginia Sisiopiku, Associate Professor, The University of Alabama at Birmingham, USA.

1. Gurvan Branellec, Associate Professor, Brest Business School, France. Why Maritime Actors have Tried to Standardize Contracts and Support Arbitration Jurisdictions. How such Practices Contribute to a soft Uniformity of the Law?
2. Mi Sun Park, Assistant Professor, Konkuk University, South Korea & Hyowon Lee, Professor, Seoul National University, South Korea. Policy and Law for Urban Green Space Management in South and North Korea.
3. Belinda Robson, Senior Policy Advisor, Yarra City Council, Australia. Re-imagining Density in an Inner City Suburb of Melbourne: From 'Dangerously Overcrowded' to 'Urban Consolidation'.

**11:00-12:30 Session III (Room D-10<sup>th</sup> Floor):  
A Panel on Drawing and Representation:  
Environment-Landscape-City I**

**Chair:** Giulia Pellegrini, Associate Professor, Architecture-Polytechnic School, University of Genoa, Italy.

1. Patrizia Falzone, Professor, University of Genova, Italy. Color Landscape Architecture in the Ancient Mediterranean World.
2. Luisa Chimenz, Adjunct Professor / Lecturer, University of Genova, Italy & Eran Lederman, Senior Lecturer, Bezalel Academy of Arts and Design, Israel. Community as a Key-Player in Disaster Mitigation.
3. Nicoletta Sorrentino, Tutor / Assistant, Università degli Studi di Genova, Italy. The Design of Spaces for Young Children

**11:00-12:30 Session IV (Room E-10<sup>th</sup> Floor): Travel Behavior**

**Chair:** Belinda Robson, Senior Policy Advisor, Yarra City Council, Australia.

1. Virginia Sisiopiku, Associate Professor, The University of Alabama at Birmingham, USA. Travel Patterns and Preferences of Urban University Students.
2. Zhuoran Shan, Associate Professor, Huazhong University of Science and Technology, China & Yaping Huang, Dean, Huazhong University of Science and Technology, China. "Sub-region Life Circle" in Chinese Big Cities based on Human High-probability Daily Activity and Mobility: Characteristic and Formation Mechanism – Evidence from

<p>and Preschool in Emergency.</p> <p>4. Francesca Salvetti, Architect, University of Genova, Italy. Perception and Vision of Coastal Cities such as Method of Knowledge for Area's Identity Valorization.</p> <p>5. Sara Eliche, PhD Student, University of Genova, Italy. From Matter to Architecture, Building with Sustainability.</p>	<p>Wuhan.</p> <p>3. Matthew Zenkteler, PhD Candidate, University of Queensland, Australia. Home based Work in Cities: In Search for Appropriate Urban Planning Response.</p>
<b>12:30-14:00 Session V (Room D-10<sup>th</sup> Floor): A Panel on Drawing and Representation: Environment-Landscape-City II</b>	<b>12:30-14:00 Session VI (Room E-10<sup>th</sup> Floor): Transportation Operations</b>
<b>Chair:</b> Patrizia Falzone, Professor, University of Genova, Italy.	<b>Chair:</b> Deb Newberry, Director, Dakota County Technical College and Principal Investigator, Nano-Link, USA.
<p>1. <u>Mona Omar</u>, PhD Student, National Museum of Natural History (MNHN), France &amp; Nathalie Machon, Professor, National Museum of Natural History (MNHN), France. Drivers of Urban Plant Communities Found at the Base of Alignment Trees.</p> <p>2. *Matteo Giuseppe Romanato, Student, Università degli Studi di Milano, Italy. A Grassroot Look on the Landscape. The Challenge of the Digital City.</p> <p>3. Michela Scaglione, Professor, Università degli Studi di Genova, Italy. The Colour of Contemporary Landscapes: The Representation for the Project of the Urban Margins.</p>	<p>1. Essam Radwan, Professor and CATSS Director, University of Central Florida, USA. Pedestrian Safety at Mid-Block Crossings Based on Driving Simulation Experiment.</p> <p>2. <u>Man Yuan</u>, PostDoc, Huazhong University of Science and Technology, China &amp; Yaping Huang, Dean, Huazhong University of Science and Technology, China. Evaluating the Impacts of Compact Growth on Traffic Emissions and Exposure to Air Pollution in High-Dense Areas with a Land Use-Transport-Emission Integrated Model, a Case Study of Xiamen, China.</p>
<b>14:00-15:00 Lunch</b>	
<b>15:00-16:30 Session VII (Room E-10<sup>th</sup> Floor): Enabling Technologies</b>	
<b>Chair:</b> Jun Mitarai, Professor, Kyoto University, Japan	
<p>1. Vadivel Jagasivamani, Research Assistant Professor, Hampton University, USA. Interpreting Corrosion Activities in Reinforced Concrete Structures of Highway Bridges, Using Acoustic Emission Techniques.</p> <p>2. <u>Rahmad Sadli</u>, PhD Student, University of Valenciennes, France, Yassin El Hillali, Associate Professor, University of Valenciennes, France, Laila Sakkila, Researcher, University of Valenciennes, France, Atika Rivenq, Professor, University of Valenciennes, France &amp; Charles Tatkeu, Professor, Institut Français des Sciences et Technologies des Transports, France. The 4<sup>th</sup> Order Statistics on Ultra Wideband Short-Range Radar (UWB-SRR) for Cyclist Detection.</p>	
<b>16:30-18:00 Session VIII (Room E-10<sup>th</sup> Floor): Methodology</b>	
<b>Chair:</b> Matthew Zenkteler, PhD Candidate, University of Queensland, Australia.	
<p>1. <u>Jun Mitarai</u>, Professor, Kyoto University, Japan &amp; <u>Naphasinee Suebsuk</u>, Teaching Assistant, Kyoto University, Japan. Analysis of a Nationwide Area-Based Management Survey in Japan.</p> <p>2. Emilia Malcata Rebelo, Assistant Professor, University of Porto, Portugal. Contemporary Urban Development in the Global Area: A Methodological Assessment.</p>	

3. Elif Kirpik, Research Assistant, Yildiz Technical University, Turkey & Buket Aysegul Ozbakir, Associate Professor, Yildiz Technical University, Turkey. Development of a Public Participatory GIS Platform for Urban Transformation Projects: A Case Study in Kadikoy Historical Center.

**18:00-19:30 Session IX (Room E-10<sup>th</sup> Floor): A Roundtable Discussion on Teaching Urban Planning and Architecture in a Global World**

**Chair:** Nicholas N. Patricios, Professor & Dean Emeritus, School of Architecture, University of Miami, USA.

1. **Lina Martínez**, Professor, Universidad Icesi Cali, Colombia. Happy City.
2. **Takashi Nakamura**, Associate Professor, Tokyo City University, Japan. Teaching Urban Planning in Japan.
3. **Alan Frishman**, Professor of Economics, Hobart and Wm. Smith Colleges, USA. Teaching an Urban Economics/Urban Studies Class in the U.S.
4. **Anissa Benaiche**, Researcher Associate, Nantes University, France. General Overview of Urban Planners Training In France.
5. **Giulia Pellegrini**, Associate Professor, University of Genoa, Italy. Urban Planning Response-bilities: City, Landscape and Resilience.

For details on the discussion please [click here](#).

**21:00-23:00 The Pragmatic Symposium of the Conference as Organized in Ancient Athens with Dialogues, Food, Wine, Music and Dancing but fine tuned to Synchronous Ethics**

**Tuesday 6 June 2017**

**07:30-10:30 Session X: An Educational Urban Walk in Modern and Ancient Athens**

**Chair:** Gregory Katsas, Vice President of Academic Affairs, ATINER & Associate Professor, The American College of Greece-Deree College, Greece.

Group Discussion on Ancient and Modern Athens. Visit to the Most Important Historical and Cultural Monuments of the City (be prepared to walk and talk as in the ancient peripatetic school of Aristotle)

**11:00-12:30 Session XI (Room D-10<sup>th</sup> Floor): Urban Processes**

**Chair:** Lina Martinez, Professor, Universidad Icesi, Colombia.

1. Takashi Nakamura, Associate Professor, Tokyo City University, Japan. Recent Repopulation of Japanese Local Cities' Central Areas.
2. Esra Gurbuz Yildirim, Lecturer, Gaziantep University, Turkey. Understanding Gaziantep's Traditional Spatial Organisation in the Context of Socio- Cultural Effects.
3. Gizem Aksumer, Research Assistant, Mimar Sinan Fine Arts University, Turkey. Urban Transformation Machine: How the Urban Transformation Works from Gecekondu Houses to the Mass Housing Areas in Istanbul.
4. Nadin Fayad, PhD Student, University of Lille1 Sciences and Technologies, France. Relation to Environment, Amplified Geography and Alternative Urban Planning Strategy for Fragile Territories.

**11:00-12:30 Session XII (Room E-10<sup>th</sup> Floor): Public Transportation**

**Chair:** David Fernandez-Llorca, Associate Professor, University of Alcalá, Spain.

1. Roman Klementsitz, Senior Scientist, University of Natural Resources and Life Sciences (BOKU), Austria & Matthias Rieder, MSc Student, University of Natural Resources and Life Sciences (BOKU), Austria. Analysis of the Metro Night Service usage in Vienna, Austria.
2. Anissa Benaiche, Researcher Associate, Nantes University, France. Restructuring of Peri-urbanization around Railway Stations in some French Urban Areas.

<b>12:30-14:00 Session XIII (Room D-10<sup>th</sup> Floor): A Panel on Drawing and Representation: Environment-Landscape-City III</b>	<b>12:30-14:00 Session XIV (Room E-10<sup>th</sup> Floor): Innovations in Transportation</b>
<b>Chair:</b> Stefano Bertocci, Professor, Università degli Studi di Firenze, Italy.	<b>Chair:</b> Sherif Ishak, Lloyd J. Guillory Professor, Louisiana State University, USA.
<ol style="list-style-type: none"> <li>1. Starlight Vattano, Assistant Professor, University of Palermo, Italy. Urban Landscape in the Graphic Representations of the Cathedral of Palermo.</li> <li>2. Regina Helena Vieira Santos, Architect, Universidade de São Paulo, Brazil and Università degli Studi di Firenze, Italy. Architecture from 1920's in a block of the Avenida São João.</li> <li>3. <u>Silvia Rinalduzzi</u>, PhD Student, Università degli Studi Di Roma Tre, Italy, Laura Farroni, Assistant Professor, Università degli Studi Di Roma Tre, Italy &amp; Giovanna Spadafora, Associate Professor, Università degli Studi Di Roma Tre, Italy. Representing the Identity of a Territory: The Drawing to Inspect, to Systematize and to Render the Knowledge. The Case Study of Acque Albule Basin.</li> </ol>	<ol style="list-style-type: none"> <li>1. <u>David Fernandez-Llorca</u>, Associate Professor, University of Alcala, Spain &amp; Mario Jimenez-Garcia, Research Assistant, University of Alcala, Spain. CNN-based Vehicle Logo Classification for Vehicle Manufacturer Recognition.</li> </ol>
<b>14:00-15:00 Lunch</b>	
<b>15:00-16:30 Session XV (Room D-10<sup>th</sup> Floor): A Panel on Drawing and Representation: Environment-Landscape-City IIIV</b>	<b>15:00-16:30 Session XVI (Room E-10<sup>th</sup> Floor): Special Issues</b>
<b>Chair:</b> Starlight Vattano, Assistant Professor, University of Palermo, Italy.	<b>Chair:</b> Roman Klementschi, Senior Scientist, University of Natural Resources and Life Sciences (BOKU), Austria.
<ol style="list-style-type: none"> <li>1. <u>Stefano Bertocci</u>, Professor, Università degli Studi di Firenze, Italy, Monica Bercigli, PhD Student, Università degli Studi di Firenze, Italy, Matteo Bigongiari, PhD Student, Università degli Studi di Firenze, Italy &amp; Vincenzo Moschetti, PhD Student, Università degli Studi di Firenze, Italy. Rereading to Rewrite: Documentation and Requalification of Mediterranean Historical Centers, Jerusalem and Taranto Case.</li> <li>2. Silvia Bernardini, Project Manager, Umania S.r.l., Italy. Territorial Identity as Engine of the Project: The Sustainable Cellar <i>HIC ET NUNC</i>.</li> <li>3. Vincenza Garofalo, Assistant Professor, University of Palermo, Italy. Reading the Transformations of an Urban Edge: From Liberty Era Palermo to the City of Today.</li> </ol>	<ol style="list-style-type: none"> <li>1. <u>Sherif Ishak</u>, Lloyd J. Guillory Professor, Louisiana State University, USA, Maggie Ye, Graduate Student, Louisiana State University, USA &amp; Osama Osman, Research Associate, Louisiana State University, USA. Developing a Crash Risk Index and Detecting Driver's Engagement in Secondary Tasks from Driving Behavior Attributes and Socioeconomic Characteristics: A Naturalistic Driving Study.</li> <li>2. Ozan Hovardaoglu, Associate Professor and Vice Dean, Faculty of Architecture, Erciyes University, Turkey &amp; Seda Calisir-Hovardaoglu, Associate Professor, Erciyes University, Turkey. Changing Structure and Functions of Urban-Rural Fringes in a Process of Urban Stability in Turkey.</li> <li>3. Jiri Kugl, PhD Student, Czech Technical</li> </ol>

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| <p>4. Shan Li, Assistant Professor, City University of Hong Kong, Hong Kong. Liveability Performance of Public Housing Open Space in Hong Kong.</p> <p>5. <u>Pietro Becherini</u>, PhD Student, University of Pavia, Italy, Sandro Parrinello, Associate Professor, University of Pavia, Italy, Francesca Picchio, European PhD in Architecture, University of Pavia, Italy &amp; Raffaella De Marco, PhD Student, University of Pavia, Italy. The Drawn Landscape in 3D Databases: The Management of Complexity and Representation in the Historical City.</p> | <p>University in Prague, Czech Republic. Analysis of Tools for Revitalization and Rehabilitation of Brownfields.</p> <p>4. <u>Ayca Ozceylan</u>, Lecturer, Gaziantep University, Turkey &amp; Eren Ozceylan, Assistant Professor, Gaziantep University, Turkey. A View of Industrial Engineering Profession in Turkey: An Application of Web-Based Survey.</p> |
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21:00- 22:30 Dinner

<p style="text-align: center;"><b>Wednesday 7 June 2017</b></p> <p style="text-align: center;"><b>Educational Island Tour: (Details during registration)</b></p> <p style="text-align: center;"><b>or</b></p> <p style="text-align: center;"><b>Mycenae and Epidaurus Visit: (Details during registration)</b></p>
<p style="text-align: center;"><b>Thursday 8 June 2017</b></p> <p style="text-align: center;"><b>Delphi Visit: (Details during registration)</b></p>

**Gizem Aksumer**

Research Assistant, Mimar Sinan Fine Arts University, Turkey

**Urban Transformation Machine:  
How the Urban Transformation Works from Gecekondu  
Houses to the Mass Housing Areas in Istanbul**

This paper is an outcome of the PhD thesis. This research tries to demonstrate working principles of the urban transformation machine by focusing on gecekondu inhabitants who moved to mass housing areas. The theoretical framework of the study lean toward Deleuze and Guattari's philosophical perspective. Urban transformation process is taken as a Deleuzean "machine" working by different kinds of flows. This research focuses on three flow movements of the urban transformation machine.

First movement is about the word flows. During the word flows, data about the urban transformation projects transforms to the information mess and the information mess becomes ambiguous rumor into the gecekondu neighborhoods. The rumors about the prospective urban projects become one of the most important transformative force during the process.

The second movement is based on desire flows. During the urban transformation process, some spaces become more and more attractive and some others unattractive. Especially gecekondu areas were pushed to the periphery of the city, on the other hand luxury houses or big shopping malls took their places immediately.

During the third flow, gecekondu households obliged to move to the mass housing areas. They are reterritorialized by the new housing organisation, the new neighborhood relations and the new debts.

In this context, this study focuses on both how the urban transformation machine works and what are the final products of the machine in the context of transition from the gecekondu houses to mass housing areas.



**Pietro Becherini**

PhD Student, University of Pavia, Italy

**Sandro Parrinello**

Associate Professor, University of Pavia, Italy

**Francesca Picchio**

European PhD in Architecture, University of Pavia, Italy

&

**Raffaella De Marco**

PhD Student, University of Pavia, Italy

## **The Drawn Landscape in 3D Databases: The Management of Complexity and Representation in the Historical City**

The complex structure of *landscape*, from the multiple nature of the term, has motivated recent research, some extracts in this contribution, towards systems able to define the procedures needed to represent, in an appropriate way, complex relationships found in the analysed sites. As a result of an attempt to update on reading landscape's modes, research has tried to identify more or less complex urban scenes, deeply different from each other both from the formal point of view, both from the cultural and perceptual one. The contribution presents modes of analysis, digital acquisition and processing of these landscape enhancement systems, in order to analyse not just the formal differences, but also to structure a methodology of documentation and representation that can solve problems of management of city and landscape planning.

The virtual space is configured through a systematic drawing and it is structured on several case of studies, demonstrating how reality based interactive digital models can be valid systems for real landscape representation. Virtual space holds relations and exchanges data with its user simulating the real landscape and becoming the place where design and experimentation can be organized in a simplified form to clarify data and critical readings useful to increase some values of real landscape. Virtual data access tools are oriented towards an interaction between real and virtual space in a system that multiplies the size of real landscape to infinity: at the end of this complexity, the image, expression of synthesis of data, and the design, that generates the same image, are confirmed as the only instruments able to give order to a method of representation and description of environmental complexity. Three-dimensional models and databases, configure landscapes that define the future of research through the study of systems of interaction between man, drawing and virtual space.

In particular, the contribution examines the theme of three-dimensional representation of the historical center of the city of Pavia and the territorial relationship with his province, analysing documentation systems that, through digital drawing, contribute to the enhancement and awareness of landscaped urban heritage. Three-dimensional models are used as planning tools and become elements of cohesion between space and time, bringing to light Roman and Longobard cities to their present configurations, setting the groundwork for the design of the city of future. Any formal choice will be oriented on values of conservation, restoration and interpretation of the historical and cultural dimension of the city.

**Anissa Benaiche**

Researcher Associate, Nantes University, France

## **Restructuring of Peri-Urbanization around Railway Stations in Some French Urban Areas**

The continuation of peri-urbanization in France (particularly in metropolitan urban areas) is at the origin of some urban dysfunctions. This situation leads us to reflect on the spatial structuring of peri-urbanization in relation to sustainable development. Current reflection focuses on the coherence urban planning/transportation, which allows slowing down the urban dispersion phenomenon by encouraging urban concentration around railway stations. Consequently, the aim of this paper is to verify the tangible aspect of this reflection upon the three metropolitan urban areas of Pays de la Loire region (West France): Nantes, Angers and Le Mans. In order to know if railway stations could become dense clusters, the methodology is concentrated on the morphological study of communes served by a railway station. The principle tool used is the reading of some urban planning documents: Local Urban Development Plan and Land use plan. This study leads initially to detect realities and local practices with regard to the coherence urban planning/transportation. It reveals secondly that railway stations, in peri-urban space, don't offer the same potentialities and strategies of development. Indeed, there is a plurality of strategic profiles: communes without strategies and without projects, communes with a strategy for housing, communes with a strategy for employment, communes with a project articulating urban development and displacements.

**Silvia Bernardini**

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## **Territorial Identity as Engine of the Project: The Sustainable Cellar HIC ET NUNC**

### *Introduction*

In Vignale Monferrato there's a road called Ca' Milano where wonderful vineyards are dislocated actually not too far from large urban centers in the north-west of Italy, sufficiently accessible via the existing infrastructure, in a depressed area that, scenically and economically, deserve a speculative appreciation for the territory.

The new winery, called HIC ET NUNC, is an opportunity to experience a totally sustainable design, from the architectural, economic and social point of view.

### *Theme*

The perception and territorial identities

### *Research Methodology*

The basic idea then was to not move the business to a place most economically favorable but add to an already positive context and improvement, a branch of business that soundings new prospects for a qualitative and respectful of the market context in which you live.

Sustainability 360 degrees is the centerpiece of the project: economic (production and sale not only of wine, but all that with grapes and its waste can be produced), construction (in the attention to the construction, choice of materials and the transparency of processing quality), management (in the relationship with the territory and the re-evaluation of workers figures, to ensure an induced economic revival), communicative and social (in the will to interact for educational / artistic / cultural level with major local, national and international).

### *Expected Outcomes*

The territorial identity issues of the project, or the capacity of the local population to recognize the goals and values that the cellar HIC ET NUNC wants to promote, and attention to the physical building perception, understood as a new element added to a valuable context, make this experience an interesting example of how contemporary design must go beyond the mere architectural appearance involving all economic, cultural and social aspects.

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**Monica Bercigli**

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**Matteo Bigongiari**

PhD Student, Università degli Studi di Firenze, Italy

&

**Vincenzo Moschetti**

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## **Rereading to Rewrite: Documentation and Requalification of Mediterranean Historical Centers, Jerusalem and Taranto Case**

The contribution concerns the possibilities of utilization of the digital technologies focused on the documentation of the historical centers. The aim of the project is to evaluate the conservation status of the Heritage and the possibilities and opportunities of valorization and requalification of the historical urban core through projects that show a high level of compatibility with the environment.

In this occasion there is the presentation of the partial results of some case studies analyzed through several typologies of equipment (static and mobile laser scanner, S.f.M. photogrammetry) and which gave significant results such as high reliable 3D models, orthophoto for the decay mapping, analysis of the stability of the buildings. The analysis has been completed with census data and data related to the use conditions, the economic activities and the comfort of the inhabitants. The case studies selected in the Mediterranean area show the quality of what happens on the opposite shores between Taranto (Italy) and Jerusalem (Israel). These are current themes, especially in relation to the possibility of recovering ancient human settlements intended to abandon and decay but nowadays still full of important aspects concerning the local economy, structural stability and the inhabitants' safety.

In relation to these methodologies grows the need to take the inhabitants back to live again the historical center creating spots of complete requalification through the instruments of the architecture. The reading of the places in complete or partial decay and abandon status wants, hence, to get the basis for the preservation of them through precise interventions so that they can create significant synergies in which the inhabitants – through the architecture and their life – come back to inhabit that is to live again those places that, otherwise, time would take away letting forget and lose to the world extraordinary parties of landscape.

**Gurvan Branellec**

Associate Professor, Brest Business School, France

&

**Anne Choquet**

Associate Professor, Brest Business School, France

## **Why Maritime Actors Have Tried to Standardize Contracts and Support Arbitration Jurisdictions**

The international transport of goods by sea involves different kind of international trade operators. Therefore, uniformity of law seems to be the best solution to satisfy the demand of security from these various operators.

Nevertheless, states cannot create new rules for this activity only by unifying regulation in the conventional way.

There is a discord between the desire for uniformity and the reality in the implementation of the rules because of convention's conflicts.

This is the reason why maritime actors have tried to standardize contracts and support arbitration jurisdictions. But how do such practices contribute to a "soft" uniformity of the law?

**Luisa Chimenz**

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&

**Eran Lederman**

Senior Lecturer, Bezalel Academy of Arts and Design, Israel

## **Community as a Key-Player in Disaster Mitigation**

### *Introduction*

The paper aims to show, through theoretical argumentation and the provision of case studies, the demonstration of an on-going change in the perception of the role of the community in disaster relief and mitigation.

### *Research Methodologies*

Through the display of case studies, the paper wishes to demonstrate how involving community as a key-player and co-designer in the process of planning and executing disaster relief plans strengthen the possibility of restoring order, and rehabilitate the group itself. It will be presented that, through different approaches to be considered as qualitative facets of the research methodology, using involvement of the community and its common heritage and knowledge adds constructive wisdom to sheltering aspects. On the contrary, continuing to treat communities as passive solid bodies will affect the sense of trust, both in general and local Government as well as their representatives. The essay will show how the collective local identity can act as a tool having positive effects in preserving territorial capital and shared knowledge. Supporting both the community and Governmental Agencies in constructing and reinforcing each other's trust, through the provision of tangible strategies and design, may reach the purpose of satisfying sheltering while keeping community's narratives. As a result of the process of activation, the community better responds to the challenge, and reinforces the perception of itself as social capital in the territorial system.

### *Expected Outcomes*

This paper, part of a wider applied research, benefits of the knowledge directly acquired on the ground, sharpened towards the identification of a spontaneous thus practical practice, objectively recognized as accurate and adequate. The investigation, therefore, realizes the role of the community as necessary co-designer in DRM administration.

**Sara Eliche**

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## **From Matter to Architecture, Building with Sustainability**

### *Introduction*

The planner always lives the doubt about a possible dichotomy between drawing representation and built architecture. The drawing representation, in fact, translates, precises, transforms the idea into graphs and models; construction task is to translate, to spell out and to transform graphics and patterns in real buildings. This enchanting run between the first idea of project and the finished building is always complex: of this path the representation and the structural logic represent central moments. The architecture needs "the support of the matter", there writes Raphael Moneo, supporter about doing architecture where "what comes before is inseparable from what comes later", through a process that accepts from the beginning difficulty and compromises that really the matter offers to the one who intends to use it to give completeness and concreteness to an idea. A realized project is, in fact, a project in which the technical knowledge finds expression in the built act, offering project solutions of the constituent intentions of his author. This connection recovers in the sustainable architecture a further essential action, because the existing relationship between the architecture and the structural technologies is expressed through a conscious approach to the construction and to the repercussions of this one on the surrounding world, according to a temporal line that considers the development of the present time and of the future reciprocally dependent.

### *Research Methodology, Main Topic*

The knowledge of the performances of different materials and technical components, indispensable to think a building from the first project phases like an object with shape, colour, consistency, weight, are completed by the knowledge relative to the impact of the same materials and technical components on the natural environment and on the human being, in their phases of production, use and abandonment to conclusion of the cycle of life. Commonly materials that we find in nature and that have been screened by a custom centenary application are biocompatible and eco-sustainable. In the context of naturally derived building materials, for example, pressed straw's weight bearing capacity allows the creation of buildings with plastics and organic



forms. In this way the ideal natural straw building becomes a product to be implemented under dry construction techniques that define healthy environments for the inhabitants. The historical house Burke, in the city of Alliance, Nebraska, attracts attention as an architectural wonder and rarity. If this modest building, like many others, had not survived to the present day, straw buildings could not lift the interest of some builders, nor to a wider audience. In these last years new sensitiveness has developed and the young professionals turn above all on the study of structural systems that support the use of natural materials and that see the self building as a fundamental formative moment for the knowledge of the built Architecture. This study is the synthesis of a research's itinerary and formation through the study and direct elevation of a straw building realized in Liguria, Italy.

### *Conclusion*

A sustainable building is the result of an architectural aware project, where formal and constructive aspects converge to the same aim; for this the contribution that technical and technological disciplines can offer concerns first and foremost the ability to choose how to decline the principles of sustainability and how to articulate the broad spectrum of available construction choices. This interest is handing back to the matter, and then to the project, a forgotten moral responsibility, a role returned today more compelling by the urgency of the request of intervention and awareness, also in connection with the incredible possibilities which it has in a world in which all the economies are global, and connected.

**Patrizia Falzone**

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## **Color Landscape Architecture in the Ancient Mediterranean World: Finishes, Materials, Textures and Decorative Elements**

There are basic themes:

A - The building, at architectural, building and urban levels, in the relationship between architecture - chromatic and decorative values;

B - The theme of the landscape and of the environment, the built in relationship with urban spaces and territory.

C - The theme, most important, about the mutual influences and contamination - colors and decorative types - resulting from dense web of relationships of populations across the Mediterranean sea.

Common to the themes is the very important aspect of the identification of places in relation to their prevailing color components, or to the types of decorative and chromatic devices. If the interest of the writer for the color is developed in a wide span of time, the study of architectural-chromatic-decorative elements of the facades of historic buildings from the Middle Ages to the nineteenth century, here however they retrace the origins and history, to prove, both from what remains both the most from the ancient and authoritative sources, that this building and decorative practice, the decorative surface finishing function, either with exterior and interior architecture, is an integral part of architecture that has always been.

It is the continuation of a very ancient and widespread practice in many countries bordering the Mediterranean, as in the Egyptian world, whose origins precede the fourth millennium BC, and in the neighboring cultures, Syrian-Palestinian and Phoenician. The same is found in the Greek and pre-Hellenic world, from what remains at Knossos in Crete and in Greece, as documented by the architectural type color treatment, pretending colored marble, the portion of the wall, rebuilt, kept at museum of Pella (Macedonia), referring to the fourth century. C., and the reign of Philip II (between 359-366), and the Macedonian Tombs use of wall paintings, made in the second half of the fourth century BC, the golden age of Greek painting. Everything is transmitted to the Roman world, which is already in direct contact with the Etrusco world, which already widely used this practice, as witnessed XI sec. to. C. in the complex and rich paintings of the tombs of Cerveteri and Tarquinia.

**Nadin Fayad**

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## **Relation to Environment, Amplified Geography and Alternative Urban Planning Strategy for Fragile Territories**

Recently, we always hear by urban projects in ecologically fragile territories, bearing the title "nature structures the urban", "reconnecting with the landscape", "moving out the urban planning of perimeters", "urbanism and ecological rationality", "water as Drawing »... These titles are all based on the obsession of urban planning which creates urban geographical continuity and are likely to be more "marketing" than anything else, but implicitly or explicitly all justify a "geographical amplification" embodied in an urban project. Therefore it seems important to explain this method of urban regeneration and development in these territories where "urban continuation" is not only a rhetorical geographical figure of a kind of "already existing" territory, but a systematic, scientific and rigorous method of knowledge of the territories supporting their project. This "geographical amplification" of fragile / peripheral territories deserves to be well elaborated especially as it questions the nature and the capacity of the environments ("les milieux" in french) to propose "habitable" environments.

The "amplified geography", is a strategy of urban planning which is considered as an instrument of construction of an habitable environments where the latent urban resource of the physical geography is transformed into project material.<sup>[1][2]</sup> Starting from the notion of "inhabited urban environments" is trying to understand how the interactions between Nature, Man and Environment occurs. Therefore, the method of amplified geography is a geographical/natural urban extension of the environment where the relation of man to nature is favored. This scientific method of urban planning (the "amplified geography"), is a cross between the evolution of all the questions concerning the relation of man to his living environment in geography, philosophy and landscape AND the theories of urban planning where physical geography is in measure.

**David Fernandez-Llorca**

Associate Professor, University of Alcala, Spain

&

**Mario Jimenez-Garcia**

Research Assistant, University of Alcala, Spain

## **CNN-based Vehicle Logo Classification for Vehicle Manufacturer Recognition**

Vehicle Manufacturer Recognition (VMR) has recently become a key feature to be used when license plate numbers cannot be detected or fake plate numbers are used in traffic control and management applications. One of the clearest indicators of a vehicle manufacturer is its vehicle logo. In this way, most of the vision-based VMR approaches are based on vehicle logo classification. In this work, we contribute to this topic by presenting an experimental comparison of different Convolutional Neural Networks (CNN) applied to vehicle logo recognition. A data set containing 26.289 logo images corresponding to 31 car manufacturers is used to validate the proposed approach. The ability of the CNN to learn features robust to rotations is analyzed by artificially increasing the data set up to 446.913 adding rotated samples. The proposed methodology is also compared with a baseline classifier based on Histograms of Oriented Gradients (HOG) and Support Vector Machines (SVM). Experiments show an average accuracy of 99.33%.

**Alan Frishman**

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## **Tracing Kano's Population and Spatial Growth**

Kano, Nigeria is a huge and unique African city, yet it has been ignored and overlooked by scholars and other researchers. It is the only city south of the Sahara that has survived over the last millennium to become a major urban center in Africa. A thousand years ago, there were many preindustrial cities that were much larger and more prosperous than Kano. Some of those cities were entrepôts trading centers, while others were capitals of great empires. When the empires collapsed and trade shifted, those cities contracted in size and population. Kano is a notable exception in that it continuously grew and now has a population of over four million, making it the 120th largest city out of 992 cities in the world with half a million population or more.

Kano is also exceptional in that it is not the capital of Nigeria, it is 700 miles from the coast, and there are no major resources nearby. All the other large African cities have one or more of those characteristics. In addition, Kano is in the center of a heavily populated hinterland. In 2006, fourteen and a half million people lived within 100 kilometers of Kano, which would make it more populous than 33 other nations on the continent at that time. As the distance increases to 300 kilometers there were only four countries other than Nigeria itself (Democratic Republic of the Congo, Egypt, Ethiopia and South Africa) with larger populations. This relationship is still relevant today and therefore Kano should be one of the major regions of concern on the African continent.

This paper will trace Kano's population and spatial growth, its reasons for survival, and its planning board's attempt to provide social and physical infrastructure for its continually growing population.

**Vincenza Garofalo**

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### **Reading of the Modifications of an Urban Edge: From Art Nouveau Palermo to Present City**

To commemorate the battle of May 27, 1860, the City Council of Palermo in 1910 decided to build a monument. The center of a large circular plaza was chosen to serve as the final part of an elegant arterial road on the edge of the town where the monument would have done as a backdrop.

The construction of the monument was commissioned to Ernesto Basile who also designed the plan of the garden, beyond which ran a circular road that delimited and concluded the square.

In 1927 the City Council decided to dedicate the monument to the fallen in war and asked Basile to add an architectural backdrop.

The initial project was a continuous curtain that completely absorbed the square and the ring road, only interrupted by passages in proximity of the surroundings roads. The final project was instead the realization of a semicircular exedra with columns that separated the monument from the ring road and introduced a change in the perception of the square.

The subsequent development of the city has incorporated the square between high and anonymous buildings, made without an order of relationships, causing a loss of identity of the surrounding tissue. A road with three carriageways was built behind the monument, and the square is now an intense traffic node. The circular path affects the perception of the square, the monument and the dynamic hierarchy of the elements that compose it. The square and the monument have lost their characteristic of terminal elements of the urban system, their symbolic intentionality and the role of place in the social relationship.

Through the survey of the current situation, the analysis of the original drawings (1909 and 1930), the representation of the changes that occurred over time and analysis of formal, dimensional, spatial and urban connections, this paper proposes a reading of the square configuration and its surroundings from the design of the monument to the present day.

**Nguyen Hoang Linh**  
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### **Dalat's City Planning under the French Colonial Era (1899-1944)**

During 1899-1944, under French colonial urbanism, Dalat experienced a significant transformation for both construction and development to become a famous hill station in Indochina. Consequently, five master plans were implemented in this period. The analysis of planners' concept and spatial development strategies are conducted through studied each plan as well as the impact on Dalat's modern cityscape. The result gathered from the study show the noticeable feature. All of Dalat's planners defined Dalat as a French city and zoning became the main instrument to implement their segregationist policies. Besides, budgetary deficit, the rapid growth of population, and the interest conflicts among stakeholders play key roles in the effects of Dalat planning's implementation.

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**Changing Structure and Functions of Urban-Rural Fringes  
in a Process of Urban Stability in Turkey**

Urbanization experience that Turkey has gone through for more than 5 decades is characterized by rapid urban growth and urban population booming. With a national demographic tendency of population booming, national level urban population increase rates sometimes tripled and even quadrupled the total population increase rates. Since the national economic development policies have mostly supported industrialization as the main component of both national and regional development efforts, population has indispensably intensified on urban areas. Urban growth and growth related urban problems, therefore, have always been on the focal point of national urbanization agenda of Turkey. The last two decades, however, began to show changing demographic trajectories. The growth rates of urban population nationwide have been declining. In many Anatolian cities, moreover, urban population began to be stabilized. During a period of rapid urban growth urban-rural fringes in many of the cities have either been planned to be reserve areas for further growth, or identified to be locations of certain land-uses which should not or could not be located in urban areas, or in many cases, become slum house areas. However, in a period of stability, urban-rural fringes seem to be left without proper planning decisions. This study aims at reimagining a theoretical framework for urban-rural fringes as new opportunities for urban economic development by re-constructing the relations between urban areas and fringes and new opportunities for rural development as well by suggesting new functions to urban-rural fringes as the places for spillover effects from “near-rural” areas to rural settlements.



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**Developing a Crash Risk Index and Detecting Driver's  
Engagement in Secondary Tasks from Driving Behavior  
Attributes and Socioeconomic Characteristics:  
A Naturalistic Driving Study**

Distracted driving has long been acknowledged as one of the leading causes of death or injury in roadway crashes. The focus of past research has been mainly on the impact of different causes of distraction on driving behavior. However, only a few studies attempted to detect distracted driving from driving behavior attributes. This study takes advantage of the rich SHRP 2 Naturalistic Driving Study (NDS) database to develop a model for detecting the likelihood of a driver's involvement in secondary tasks from distinctive attributes of driving behavior. Five performance attributes, namely speed, longitudinal acceleration, lateral acceleration, yaw rate, and throttle position were used to describe the driving behavior. A model was developed for each of three selected secondary tasks: calling, texting, and passenger interaction. The models were developed using a supervised feed-forward Artificial Neural Network (ANN) architecture to account for the effect of inherent nonlinearity in the relationships between driving behavior and secondary tasks. The study also proposed a Crash Risk Index (CRI) to estimate the crash risk associated with the socioeconomic characteristics of drivers and their tendency to experience distracted driving. The proposed CRI was developed based on the crash risk associated with performing secondary tasks during driving and the effect of socioeconomic attributes on the likelihood of engagement in secondary tasks. Logistic Regression analysis was conducted to identify the significant secondary tasks with high crash risk and the socioeconomic characteristics with significant effect on drivers' engagement in secondary tasks. The developed CRI indicates the relative crash risk associated with the socioeconomic characteristics of drivers, given the likelihood of engagement in secondary tasks.

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## **Interpreting Corrosion Activities in Reinforced Concrete Structures of Highway Bridges, Using Acoustic Emission Techniques**

Highway Bridges are vital part of transportation system. Steel reinforced concrete structures, used in Highway bridges are prone to attack by corrosion. Periodic nondestructive tests are carried out to look for corrosion damages. Visual inspection is commonly used along with electrochemical and resistivity measurements to determine the vulnerability of concrete structures to corrosion.

In-service monitoring for corrosion-damage evaluation of steel-reinforced concrete structures are very useful to ensure the safety and the reliability of the structures and to reduce the maintenance costs, especially when the onset of corrosion is detected at early stages. Acoustic Emission (AE) monitoring is a promising method to detect the early stages of corrosion. AE monitoring is very useful in collecting data from the concrete structures, without the need for the presence of an operator at the bridge site. There are some difficulties in implementing AE technology. Ambient noises arising from traffic situations, along with mechanical disturbances will greatly interfere with the AE data. Reliable methods of interpreting the measured AE signals, need to be evolved.

Large volumes of data are collected during the course of monitoring the structure. Identifying the useful part of the measured data and interpreting the test results are time consuming and also, interpretation is ambiguous in many circumstances. Commercially manufactured AE systems provide several useful parameters of the AE bursts, for analyses of data. It is up to the end users to identify the most relevant parameters.

The characteristics of the AE waveform can be an indicative of the corrosion activities taking place in concrete. Also, some parameters deduced from AE bursts are useful in identifying the emissions due to corrosion. This research effort focuses on developing a useful technique to identify the underlying mechanisms of corrosion and interpreting acoustic emission data in assessing the activities of corrosion in concrete structures.

**Elif Kirpik**

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&

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### **Development of a Public Participatory GIS Platform for Urban Transformation Projects: A Case Study in Kadikoy Historical Center**

Due to the weaknesses in economic vitality and social challenges, new approaches are required to meet the changing needs of life, economy, social profile, technology and democracy in urban transformation process.

Being one of them, Planning Support Systems (PSS) became very popular in recent years in order to strengthen the participation of the community and all stakeholders in the decision-making process, enhance effective communication and monitor the effects of applied policy and management plans more effectively.

Furthermore, a great awareness has also been increased on related concepts such as resilience, participation, mobility, cooperation, environment, human capital, quality of life and governance towards a more sustainable and smart urban lifestyle. Among these concepts, “governance” has been on the focus of urban agenda which allows participatory democracy through the inclusion of citizens as well as decision makers at all steps. Both national and international literature surveys remark that Public Participation should be used effectively in urban transformation projects for smarter cities and smarter communities.

Moreover, urban transformation projects in Turkey indicates that traditional participation methods are inadequate in some dimensions such as accessing to disadvantaged groups, timing and spatial problems and ease of expression. With the development of the Internet and technology, participation methods have been diversified with tools such as urban information systems, discussion forums, and geo-questionnaires. One of these tools is Public Participatory Geographic Information Systems (PPGIS).

Within the context of this study, the pilot project has been tested in Kadıköy Historical Center through a PPGIS platform as an e-participation method. The platform has been developed to analyse the physical, social and economic dimensions of the Center and to employ a location based online survey to understand the level of participation in

areas where traditional participation methods are not sufficient in urban transformation projects.

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&

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**Analysis of the Metro Night Service usage in Vienna,  
Austria**

Since September 2010 the public transport company “Wiener Linien” operates its metro network 24 hours at weekends and holidays. All the 5 existing metro lines are running every 15 minutes between 0:30 hours and 5:00 hours. Passenger counts in the year 2015 show, on the average 6.5 Mio. Passenger trips were carried out with the night metro with an increasing demand over the last years. The aim of the research work is to get a clearer picture of the users of this service. Can there be detected behavioural changes in terms of mode choice, destination choice or changes in the time period of the trips because of this supply? Another aspect is security, do feel passengers safe, is there a difference between male and female users? In spring 2016 in total 154 interviews were carried out at the stops and in the vehicles. Main results to be presented are: The frequency of usage is strongly related to age class with highest share of persons aged 20 to 30, but there is no relation to the occupation status or availability of a car. 50% of the users are combining their trip through the night with other transport modes, mainly the feeder night-bus, regional trains or taxi. The majority of users have shifted their trips because of the metro night services, e. g. resulting in later returns from visits of restaurants and bars in the city. More than 50% of the users would carry out the observed trip without night metro service as well, but would shift in time or mode choice. Only 13% would omit the trip. Male users feel safer than female. Whereas main aspect for males is violence, females fear mainly of harassments and thefts. But the rating of security of travel, both of males and females is positive.

**Jiri Kugl**

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## **Analysis of Tools for Revitalization and Rehabilitation of Brownfields**

This work focuses on answering the difficult question of how we can work with brownfields and it deals with tools that enable the revitalization and rehabilitation projects in the area. The aim of this work is to identify, classify and analyze these instruments. It studies instruments from several countries with long-term experience with this issue (eg. France, Great Britain, USA, Germany, Denmark, Czech Republic) and analyze their contribution and the feasibility of their implementation in other countries. The conclusion is that the tools can be divided into several categories from different perspectives: strategic tools, legislative tools, spatial planning and urban design tools, economic tools, construction tools, organizational tools, information tools, education tools, contractual tools, cultural heritage tools and rating tools. This leads to situation where the issue of brownfields is often handled by numerous institutions and instruments which could complicate the process. Some of the tools (especially the economic and legislative ones) are country-specific and cannot be that easily implemented, however some effective tools (for example organizational, information and education tools) don't require any legislative background and can be therefore easily used by any country to help their brownfield revitalization and rehabilitation process.

**Apostolos Kyriazis**

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### **The Evolution of Abu Dhabi's Superblocks: From Modernist Pragmatism to Regeneration Efforts**

Abu Dhabi's transition from a fishing village to a contemporary capital city in less than 50 years is more than remarkable. Its rapid growth, fueled by oil revenues and combined with a real estate frenzy and an over-managed public space is reflected into the main characteristic of Abu Dhabi's urban morphology: the Superblocks.

This paper is part of a wider Research program regarding the Urban Regeneration initiative for the Superblocks as it derives from Abu Dhabi's Strategic "2030 Plan". It examines their origins and evolution that swings between raw pragmatism and specific modernist influences. It also argues in favor of an alternative regeneration approach that could be based on this modernist heritage and furthermore apply bottom-up participatory procedures to reinforce the city's shallow collective memory.

To the support of that argument, a case study for a specific Superblock will be presented. The analysis of its morphological properties, their drawbacks and opportunities may forge a new regeneration pathway. One that rises from the individual plot to the urban scale, actively engages the end users and leads to more flexible/less formal urban action. A potential success may function as a pilot for other Superblocks to follow and also as a regeneration paradigm for other GCC cities to activate their social, historic and cultural capital.

**Shan Li**

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## **Liveability of Performance of Public Housing Open Space in Hong Kong**

Hong Kong promotes livability in her high-dense context to enhance the living quality to her people. Open space, one of the critical components of living environment, influences the achievement of livability. The livability performance of the residential open space contributes to people's satisfaction on the living environment.

The aim of this paper is to present case studies on the livability performance of open spaces in public housing areas in Hong Kong. The scope of the paper covers: i) the literature review on livability and previous studies on Hong Kong open space, ii) the conceptual framework to describe livability performance of open space in Hong Kong, and iii) the survey results of livability performance of public housing open spaces. The survey method was adopted in this study, and the data was collected through face to face interview. The analysis was done by using statistical results and design information.

It was found that there are no differences among these open spaces in performing accessibility and connectivity. While, these open spaces perform differently in areas of human experience, community activation and cultural animation. The reasons leading to these differences were analyzed, and the suggestions for open space planning and design were provided.



**Emilia Malcata Rebelo**

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## **Contemporary Urban Development in the Global Area: A Methodological Assessment**

Throughout the last years, governments and states that struggle with increasing financial difficulties have been increasingly forced to resort to private stakeholders and different financial mechanisms to fund urban activities, considering the prevailing financial and fiscal crisis. States have successively restructured their agendas through design and implementation of instruments that intercross state and market stakeholders. Thus they have developed instruments to include private partners in decision processes that traditionally belong to the public sphere, namely in the provision of services, urban equipment and infrastructure, and public spaces. In these relations between the state and private stakeholders, the former resorts to a rationale that traditionally belongs to privates that, by their turn, pursue their own interests to create value-added profitable products and services, minimizing risk, which inevitably shapes the urban landscape.

The main goal of the current article consists in presenting an innovative analysis framework of the new step in urban production we are currently going through, featured by the increasing influence of neoliberalization; the social, economic, financial, political and communicational globalization; the relevance of marketization at urban and metropolitan levels; and by the growing tendencies to find alternatives to fund property. This analysis is aimed at the identification and systematization of the influences they have exerted on urban production in general and on public infrastructure and equipment in particular, thus conveying the new urban landscape (corresponding to a new urban development phase) that characterizes current real estate markets. It is, thus, outstanding to deeply comprehend the relations between real estate and markets, so to figure out how urban development projects are designed by and guided to many different investors.

This reference framework systematizes relative spatial and temporal information, being a useful instrument to support decision-making processes, either on public, private, or mixed product-private sectors on urban development issues. Beyond its importance for strategy design, this instrument also fits governments' increasing needs to fund urban development through means alternative to the traditional taxes.

**Lina Martinez**

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## **The Surge of Night Economy in the Global South: The Case of Cali, Colombia**

Many cities around the world, particularly in developing countries are implementing different measures to incentivize a night economy. London, Sidney and Amsterdam are probably the most notorious cases. The surge of a night economy is aimed at “adding value” to the night in city life. Night economy is starting to gain followers around the world, and the global South with measures that are implemented in Mexico, Venezuela and Colombia are becoming the new generation of cities adopting policies and regulations to incentivize a vibrant night life because it creates jobs, strength social networks, and give people a wide choice as to how they spend their free time. Cali, the third largest city in Colombia is starting to implement different measures to incentivize a night economy.

Despite the positive economic and social benefits that a night economy offers, there are important policy implications in the implementation of those measures. Security increase, business licensing, regulation of alcohol consumption, city zoning, policing and offering of services like public transportation and diversification of night activities are amongst the challenges of creating a night economy.

As a base line for the policy implementation, we developed a study aimed at knowing citizens’ perceptions of the measure, their willingness to participate in additional night activity, type of activities that they would like to be offered in the city, services expected to be offered by the government, willingness to pay for night activity and desired city zoning. 800 randomly selected adults were interviewed across the city. Preliminary results show that more than 75% of the respondents favor the measure. Security and transportation are the most sensible issues. There are important differences by gender in terms of preferences and willingness to pay. Sports and open-air activities are the most favored. Surprisingly, no important differences in willingness to spend when low and high-income respondents are compared. This study provides valuable information for city zoning, allocation of resources in terms of policing and public transportation and type of activities to be incentivized.

**Jun Mitarai**

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&

**Naphasinee Suebsuk**

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## **The Analysis of Nationwide Area-Based Management Survey in Japan**

Japan is now facing population decrease, low growth rate, financial stringency, and difficulty to maintain plenty of infrastructure. So, the way to revitalize economy and improve way of life is not the development, but the management of the resource each city. Therefore, Area Based Management (ABM) , defined as an independent actions to solve problems and to enhance value of a specific area by group of the residents, business owners and landowners, is now widespread in Japan. However, there are no any survey about the situation of the ABM in Japan. So, we conducted the nationwide ABM survey by questionnaire to local city governments in 2015 and 2016. Objective of this paper is to summarize cognate field of ABM in Japan, which are purpose, organization structure, activities, and some other fields.

From the survey, there are found at least 574 ABM organizations over Japan. Main purposes of ABM are: firstly, creating visitors, secondary, creating beautiful townscape and thirdly, creating community awareness and networking. ABM organizations initiated by public sectors are 35% and approximately 70% of ABM organization don't have juridical authority. The revenues of ABM organizations are sorted in descending following order: government supporting, membership supporting and earning from ABM activities. Events are highest percentage from six categories of ABM activities, though their percentage is less than half. In addition, the main problems of ABM are financial and human resources.

In conclusion ABM in Japan are based on various organization structures and various activities under three main purposes.

**Takashi Nakamura**

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## **Recent Repopulation of Japanese Local Cities' Central Areas**

Recently, in the local cities of Japan, the decline in central areas due to the suburbanization of various functions associated with the progress of motorization is posing to be a great challenge. Amidst this, population regression to central areas will be a key factor in the revitalization of local cities. On the other hand, recently, cities with population regression to central areas are also being observed. This study targets 34 cities with population ranging from over 100,000 to less than 400,000 that do not fall in the three major metropolitan areas (Tokyo, Nagoya and Osaka) and confirms the actual conditions of population regression in central areas. The study especially analyzed the location of the condominiums that constituted the main place of residence for the town residents. As a result the following points were demonstrated.

A. During the period from 2000 to 2010, in areas that formed the base of local cities with a population of 100-400 thousand, signs of population maintenance or population regression to central areas are observed. The increase in the population of central areas in local cities is majorly due to the increasing relocation of families to those areas.

B. From the perspective of continuity of population regression of central areas, there are significant aspects that rely on the location of the condominium. Predicting whether this will continue in the future or whether it is condominium relocation that will progress is a challenge in terms of population regression and maintenance to central areas in the future. The following factors seem to be important for location of condominiums in central area: (1) the existence of vacant spaces, (2) fall in land prices, (3) demand for residence in central areas. The stagnation in the supply and availability of existing condominiums is a challenge.

C. Challenges associated with the location of the condominiums in central areas include securing parking space, scenery, issues pertaining to the demeanor of residents and local community issues, and the problem of continuity of utilization of land situated in commercial districts.

**Mona Omar**

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&

**Nathalie Machon**

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## **Drivers of Urban Plant Communities Found at the Base of Alignment Trees**

Many studies show how quality of biodiversity influences the wellbeing of citizens. Nevertheless, little is known about the drivers that shape it in urbanized zones. Tree bases occupy a much-reduced surface area, but are present in great number and arranged deliberately through space. They could play an important ecological role in the urban context, which offers limited favorable spaces for the development of spontaneous flora. Our objective was to determine the factors influencing composition and dynamics of spontaneous vegetation around street trees.

We thus analyzed the data of floristic inventories growing at the base of 1474 trees in 26 streets in 2014 located in the district of Bercy in Paris.

Our results indicate that species richness and composition depended on the district scale (distance to green spaces), on the street scale (streets orientation to the Seine River and the railway station of Lyon and Bercy), on tree base characteristics (tree base equipment, tree species and the solar radiation within each tree base) and on the plants' biological characteristics (such as seed longevity in the soil bank and species' strategy type).

The results of a software modeling metapopulation dynamics run on inventory data collected every year between 2009 and 2015 showed that for most of the species, tree bases were sinks for source populations growing in larger sites (e.g. parks) but for some other species, they also participate to the movement of species across the city (stepping stones).

This study showed that the tree bases are favorable habitats for a certain number of species and could be considered as corridors between more important green spaces like parks or gardens.

The results will define the best management plans for urban biodiversity.

**Ayca Ozceylan**

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&

**Eren Ozceylan**

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### **A View of Industrial Engineering Profession in Turkey: An Application of Web-Based Survey**

Industrial engineers determine the most effective ways to use the basic factors of production - people, machines, materials, information, and energy - to make a product or to provide a service. They are the bridge between management goals and operational performance. The profession of industrial engineering gets attention both in the world wide and in Turkey. In this study, it is aimed to present the existing situations of graduated industrial engineers at industry and to reflect their thinking about profession in the future. To do so, a web-based survey from literature is applied to the 865 industrial engineers registered to the Chamber of Mechanical Engineers in Turkey between October and December 2016. 368 responses are considered for the analysis. Different results related with sectors, demographic and economic are obtained and illustrated. We believe that results help to head of industrial engineering departments in academic area, to engineers and managers in production/service sector, and to candidate industrial engineers. In addition, this study lights the way for future of the industrial engineering profession in Turkey.

**Mi Sun Park**

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&

**Hyowon Lee**

Professor, Seoul National University, South Korea

## **Policy and Law for Urban Green Space Management in South and North Korea**

Urban green spaces provide ecosystem services as the benefits people obtain from ecosystems. Green space promotes physical activity, psychological wellbeing, and the general public health of urban residents. Demands on urban green spaces emerged and is increasing. Establishing and managing green spaces is a crucial issue in the urban policies. Since the 1990s, policies on managing urban green spaces have been mentioned in South Korea and North Korea. Two Koreas have established and implemented urban green space management policies. This study attempts to investigate changes of the policies on managing urban green spaces over two decades in South Korea and North Korea. For the analysis, documents such as plans, regulations and policy reports on urban greening and urban planning from 1990s to 2015 were collected and analyzed. In particular, Acts regarding to urban green space management in South Korea and North Korea were deeply analyzed. South and North Korean policy approaches to urban green spaces were described and compared, using the concept of sustainability and ecosystem services. The research findings do contribute to a better understanding of institutional and legal systems for urban green spaces in South and North Korea. This paper also recommends basic policy principles and a legal framework for urban green space management within a unified Korea in the future. We expect our efforts to contribute to preparations for Korean unification. Also the research findings can provide other countries with significant information on policy and laws to establish and manage green spaces towards urban sustainability.

**Essam Radwan**

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## **Operational Performance of Partial Crossover Displaced Left Turn Intersections**

This paper focused on the Crossover Displaced Left-turn intersections (XDL), also known as Continuous Flow Intersections (CFI). The XDL concept is best suited for intersections with heavy or unbalanced traffic volumes. There is little guidance on determining whether partial

XDL intersections are adequate to mitigate the overall intersection condition or full XDL is always required. The primary objective of this paper was to evaluate the overall intersection performance in the case of different partial XDL designs compared to a full XDL. The study intersection in Orlando, Florida, is experiencing two heavy conflicting movements operating near capacity. The XDL alternative was investigated for 4 different designs. Also, the impact of increasing volume on the intersection performance was considered by modeling the unbalanced volumes with 10% increment resulting in 5 different traffic scenarios. The results showed that a partial XDL alternative proved to be effective and compared favorably to a full XDL. Significant throughput improvements were observed in the XDL scenarios at the higher volume level with increase in capacity of 25%, 30-45% reduction in delay for the critical movements, and 25-40% reduction in queue lengths. The analysis revealed how partial XDL design can improve the overall intersection performance at various demands, reduce the costs associated with full XDL and proved to outperform the conventional intersection. However, partial XDL serving low volumes or only one of the critical movements while other critical movements are operating near or above capacity do not provide significant benefits when compared to the conventional intersection.



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&

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### **Representing the Identity of a Territory: The Drawing to Inspect, to Systematize and to Render the Knowledge. The Case Study of Acque Albule Basin**

Recognising the identity of a territory and examining its balances means recognising a complex and delicate system in which all its elements are interdependent and linked to each other. For this reason, the study shows partial results about an inter-disciplinary research carried out on Acque Albule Basin, located in Northeast of metropolitan areas around Rome (Lazio Region in Italy). In particular, the trial of a methodological protocol to define the knowledge system is proposed. This system is useful to draw up guidelines to cultural heritage sustainable regeneration. In this operating environment, the drawing, through its aspects, confirmed its function as a tool for knowledge. The acquisition, the integration and the systematization of data allowed the identification of main and minor themes, showing their mutual connections. In fact, landscape study is carried out from soil superior layers to the deepest ones, linking information that are very different in the scale of analysis and language. The study about historical and iconographic documentation, the integrated surveys and 3D digital reconstruction highlight that the area is characterized by its peculiar balance, as a result of natural and humans aspects and their combined action in time. The methodological protocol wants to combine natural resources information (water and Lapis Tiburtinus) and natural hazards data with anthropogenic and cultural aspects, due to industrial exploitation (travertine mining), agricultural use of soil and archaeological and architectonic heritage in the area. Comparing data is possible thanks to peculiar cognitive and organizational filters. Some aspects dealt with the research are shown below: a. the cataloguing of territorial elements, divided in anthropic, cultural and natural aspects through texts, ancient and actual cartographies, geological maps, iconographies, photos, instrumental survey analysis; b. data vectorization to create maps and diagrams and to render historical information with scientific language; c. the cataloguing of natural

hazards, obtained from a preliminary study about geomorphological and hydrogeological structure and its consecutive graphical representation, connected with territorial aspects; d. the cataloguing and graphical representation of related sceneries to mapping empathic balance or affected landscapes, according with temporal steps. In conclusion, the aim of this study is to identify an algorithm to discretize a complex landscape. Data management, due to a multidisciplinary approach and led by representation, is useful to render the cultural identity, nowadays cancelled by recent urbanistic and territorial transformations.

**Belinda Robson**

Senior Policy Advisor, Yarra City Council, Australia

## **Re-imagining Density in an Inner City Suburb of Melbourne: From 'Dangerously Overcrowded' to 'Urban Consolidation'**

The City of Yarra is one of 79 locally elected local governments in Victoria – providing land use planning and population amenity in a way which complements the Federal and State government tiers of government. Yarra is located just to the north east of Melbourne's CBD. The City has a population of approximately 90,000 people spread over 20 square kilometres at a density of 45.6 people per square hectare. It has been estimated that the number of dwellings will increase by 50% over the next twenty years, mostly through additional medium to high-density apartments. As Melbourne's population is experiencing rates of population growth not seen since the 1960s, inner city Councils such as Yarra must balance development pressure with the expectations from the community about protection of neighbourhood amenity, particularly heritage character, housing affordability and maintaining social diversity.

This paper will firstly provide an historical analysis of the changing attitudes to inner city density in Melbourne. It will describe how housing density was seen as producing ill-health in the early twentieth century, being associated with working class poverty, the close proximity of manufacturing factories and lack of space for children to play. Following a process of 'slum clearance' from the 1950s, a period of gentrification revitalised the areas from the 1980s. With land value rapidly increasing, the new population growth in Yarra is primarily from young professionals, encouraged by state government policy positions to consolidate population growth in inner and middle-city areas. Council must now respond to new residents' demands for access to public space in private apartments.

To demonstrate the social dynamics which shape Council's current challenge, this paper will present the findings of a population survey of 833 residents from Yarra conducted in 2015 as part of its Planning Scheme re-write. These findings suggest that there are three distinct groups of residents living in Yarra, roughly connected to their years of residence in the area: the newcomers, who are prepared to embrace densification; long-standing residents (20 years plus) who are not prepared to accept any further densification; and a third group who feel uncertain about the impacts on their quality of life. For the newcomers,

densification needs to occur so that more people can enjoy proximity to inner city amenity, while for the more long-standing residents there is a fear that community infrastructure is not keeping pace with the increased population.

The paper will finally consider the findings of a photo-voice project conducted in partnership with Deakin University that looks how parents in newly built high-density apartments perceive their local area. This project provides deeper insights into how residents experience high-density living, especially the neighbourhood attributes they are most likely to value as well as those they see as barriers.

The paper will conclude with some observations about how inner city local councils are adapting to these conflicting views of housing density as well as what the Yarra experience means for current social planning research.

**Matteo Giuseppe Romanato**

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## **A Grassroot Look on the Landscape: The Challenge of the Digital City**

The key words of the 2.0 media revolution are basically involvement and participation. This phenomenon, less or more, drives to overcome the traditional gap between cold media and hot media. Blogs, discussion forums, personal sites, amateur groups and other web sites are strongly increasing their role in contemporary debate.

The development of the user-generated contents, thanks to the digital turn (open software, new media, digital resources etc...), have produced in the last years images, texts, discussions, proposals, sometimes not so naïve researches on the urban environment that can register interests, ambitions, passions etc. As outcome of a PhD research program carried out by the author of this paper on the landscape through the new media, an amount of more than 500 images of urban landscape has been collected and analyzed with a specific focus on space, urban landscape, as well as cities in transformations and cultural heritage.

If the involvement of people is basic for a landscape policy then a bottom-up perspective should be necessary for the social construction and preservation of a shared landscape. The web communication can be so considered a fertile ground to explore the incoming new request for a place identity by ordinary people and not only an exercise of digital ethnography. Some of the producers of such contents are not directly stakeholders but yet skilful and well informed. What need do they express about the city?

As was to be expected the results of this research could not be univocal due to the overwhelming rise of the ICT nowadays. Even narrowing down the inquiry on specific case study (Milan) it is possible to find supporters of place transformations as well as "watchdogs" of urban decay or offenses to the landscape by property speculation. An interpretative path runs so on a knife-edge between renovation and preservation. A lot of influences can be found among these digital users and their aspirations: from international references and fascination for cosmopolitanism to the wish to go back to the local memory as far as to the restoration of past buildings or even the nostalgia for lost landscapes. Anyway, beyond the controversial views on urban matters displayed, it is possible to detect a new form of participatory citizenship based on the representation of places and especially on the digital

images of the real (or still virtual) landscape.

In conclusion it is possible to argue that the emerging digital urban landscape can be considered a new challenge for scholars, planners and architects for the future.

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&

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### **The 4<sup>th</sup> Order Statistics on Ultra Wideband Short-Range Radar (UWB-SRR) for Cyclist Detection**

The lack of surface of radar cross section (RCS) on the cyclist limits the amount of radar energy (low SNR) back to the radar receiver. With a very low SNR of the received echo, it is very difficult to determine the cyclist position by using the original correlator or 2<sup>nd</sup> order statistics. So, in this paper we proposed of the implementation of the 4<sup>th</sup> order statistics or the so-called *higher order statistics* (HOS) on the Ultra Wideband Short-Range Radar (UWB-SRR) for cyclist detection. The main purpose of this work is to investigate the performance of UWB-SRR for cyclist detection by using HOS. The advantage of using HOS is can suppress the noise over the useful radar signal in estimation time delay between the received echo and the UWB reference pulse. The uses of Ultra Wideband technology in cyclist detection is because it offers good precision of detection. The comparison results of using HOS and original 2<sup>nd</sup> order statistics are presented in this paper. Preliminary results show that the implementation of HOS in UWB-SRR gives better performance for the cyclist detection compared to the original 2<sup>nd</sup> order statistics.

**Francesca Salvetti**  
Architect, University of Genova, Italy

## **Perception and Vision of Coastal Cities such as Method of Knowledge for Area's Identity Valorization**

### *Introduction*

The built along the Mediterranean Mediterranean coasts, stands out and becomes unique because of the chromatic and formal values of architecture in connection with the surrounding area, especially in the coastal towns bordering the sea. This study aims to identify the identity of the place through the analysis of formal features of the built landscape as a whole, in relation to the contexts both built and natural ones, sequentially from the sea to the scenes that surround the environment in wider field of view, noting in particular how the major changes implemented over the last years, not only in the selection but also the use of color, is understood as a cultural asset, have brought the building to be the point of vulnerability in landscaping.

### *Research Methodology*

The visual/perceptual reading of typological features, materials and colorimetric of the relationships and the historical evolution of the study area, is the basis for proper urban-landscape chassis examination aimed to provide reference for the planning compatible operations with all types of different operations in order to preserve the identity of the place, "Genius Loci".

This study is characterized by preliminary analysis (overview, analytical vision as an image of the features and close-up view of the details) and real analysis that defines the structures and the complex relationships that lead to the formation of environmental image.

### *Conclusions*

This procedure does not provide for the formulation of a value scale between the areas and the elements that compose them, but want to describe the landscape and its color values in its visual/ perceptual characters , through the use of new detection methods, and of innovative digital techniques (UAV PLATFORM), to be able to define the possible design attitudes aimed to enhance, recovery to the conservation and to the transformation; the choice of color, in its basic function of environmental characterization, which affects the visual image and visual memory itself of a place, is not an independent action, it is always to evaluate and select a set in order to reach a colors



harmony.

In this sense, the visual / perceptual analysis, gives general suggestions or possible guide for developing an intervention project on color.

**Regina Helena Vieira Santos**

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di Firenze, Italy

**Architecture from 1920's in a block of the Avenida São João**

**Michela Scaglione**

Professor, Università degli Studi di Genova, Italy

## **The Colour of Contemporary Landscapes: The Representation for the Project of the Urban Margins**

### *Introduction*

Traditionally, urban edge of the historic city limits were clearly defined by signs on the territory: the walls were the physical expression of this desire for separation and protection, a symbol of belonging and power.

If from a legal point of view the city boundaries and territories retain a significant importance, from the physical point of view, the peri-urban landscapes do not configure more as limits to the city but they are the connection between rural and urban areas can generate new opportunities and, thanks to the absence of a recognizable own identity, space for the creation of new and original urban landscapes.

### *Theme*

The margins (the signs of memory and cities in progress).

### *Research Methodology*

The drawing of the city stands today as a fundamental tool for the analysis and understanding of these landscapes: the article, after a brief historical overview on the representation of the city, want to point out how the design and the means provided by information technology they can be useful tools for the understanding and the interpretation of these hybrid landscapes.

The color, in particular, is configured not only as a tool for analysis and representation but more and more often becomes the protagonist of significant regeneration of urban peripheries.

### *Expected Outcomes*

The article aims to highlight how necessary is a correct representation (either with traditional methods with those provided by information technology) to reach a deep understanding of a territory: essential process to enable changing of these sensitive urban landscapes.

Through the analysis of a series of projects brought here for example, the article wants highlight the connection between design and knowledge and illustrate, also, as the color is a fundamental part of both the representation and the urban planning.

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&

**Yaping Huang**

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**“Sub-Region Life Circle” in Chinese Big Cities Based on  
Human High-Probability Daily Activity and Mobility:  
Characteristics and Formation Mechanisms**

With an increasing trend of regionalization and polycentricity in Chinese contemporary big cities, “sub-region life circle” turns to be an effective method on rational organization of urban function and spatial structure. By the method of questionnaire, network big data, route inversion on internet map, GIS spatial analysis and logistic regression, this article makes research on characteristic and formation mechanism of “sub-region life circle” in Chinese big cities. Firstly, it shows that “sub-region life circle” has been a new general spatial sphere of residents' high-probability daily activity and mobility in China. Unlike former literatures' analysis of the whole metropolitan or the micro community, “sub-region life circle” has its own characteristic on geographical sphere, functional element, spatial morphology and land distribution. Secondly, according to the result with Binary Logistic Regression Model, the research finds that seven factors including land-use mixed degree and bus station density impact the formation of “sub-region life circle” most, and then analyzes the index critical value of each factor. Finally, to establish a better “sub-region life circle”, this paper indicates that several strategies including jobs-housing fit, service cohesion and space reconstruction are the keys for its spatial organization optimization. This study contributes to a further understanding of cities' inner sub-region spatial structure based on human daily activity and mobility, and expands the theory of “life circle” in urban's meso-scale. Conclusions above not only provide a theoretical basis of sub-region spatial organization and land-use layout in big cities, but also implicate several critical dimensions for the further research on principle and standard of “sub-region life circle.”

**Virginia Sisiopiku**

Associate Professor, University of Alabama Birmingham, USA

## **Travel Patterns and Preferences of Urban University Students**

Students at urban university campuses often have distinct travel patterns. Few studies have documented university students' travel behavior explicitly, and their travel choices and preferences are not very well known. Understanding travel patterns, and transportation choices is important for serving student transportation needs within and around a university campus and promoting active transportation choices.

The study objective was to document commuting patterns of students at the University of Alabama at Birmingham (UAB) in order to benchmark current practices and preferences and identify opportunities and barriers to active transportation in and around the UAB campus.

This paper summarizes results from a comprehensive campus-wide anonymous questionnaire survey through which UAB students reported information on their daily travelling habits as they relate to commuting travel modes, origins and destinations, and travel preferences. The questionnaire was designed based on practices recommended by the Manual of Transportation Engineering Studies and contained 22 questions. The Survey Monkey platform was used for developing and administering the questionnaire survey in November 2015.

Analysis of over 4,150 questionnaire responses revealed that UAB students are currently heavily automobile-dependent on their commute to campus with over 82% of students reporting commuting solo by automobile. Students reported that they shy away from active transportation options because travel times are too long as the majority live outside the limits of comfortable biking or walking. Cross tabulation of responses indicated that the percentage of students walking reduces steadily as they approach graduation (from 23% in freshman year to 9% in senior year). Of those choosing active modes, women outnumber male walkers 2:1 while males show a stronger preference in bicycle use when compared to female students.

Even though the overwhelming majority of students currently drive alone to UAB, they report being receptive of the idea of shifting to alternative transportation modes including biking and walking, given availability, convenience, and potential incentives. Infrastructure improvements including expansion of campus housing, designated

bike lanes, pedestrian and bicyclist amenities, as well as education and encouragement initiatives can promote active transportation within the UAB campus. The study can serve as a reference for other university campuses that are interested in understanding commuting patterns of their users in order to increase active transportation and serve better their current and future commuting needs.

**Nicoletta Sorrentino**

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## **The Design of Spaces for Young Children and Preschool in Emergency**

### *Introduction*

The paper aims to show how to develop and treat spaces devoted to childhood and the restarting of teaching activities after disaster, in situations of emergencies, particularly reflecting the needs of early childhood age. This choice is motivated by the fact that this early stage of age requires diverse and adequate devices, especially for what concerns the constitution of the environment where they live and experience extraordinary conditions.

### *Research Methodologies*

The essay will present, through a quantitative evaluation of the impact of disasters on minors, the significance and the consequences of traumatic events on children, as expressed in their way of behaving and reacting both personally and within in relation with the community.

The research methodology, progressing from a general presentation of the psychological facets and focusing on the dynamics of relationships with adults and other children, follows the narrative of the features of the correct preschool environment.

As a result, the research depicts the peculiarities of proper strategies for mitigation and intervention in the occurrence of disasters, as how expressed by NGOs.

Furthermore, the essays tend to become more technical, examining the state of the art and indicating good practices of design for childhood purposes and preschools; on the other hand, less addressed designs, actually widely used will be compared.

In the end, the paper will show some concept designs, applicable to different contexts and landscapes, on the Italian territory, that for their inner peculiarities could be used as early age children school.

### *Expected Outcomes*

On the basis of what will be presented in the research, a design process has been constituted for achieving valuable answers, coherent with the theme under examination, also applicable once stopped the emergence and in extraordinary conditions.

The attention focuses on the interior and furniture design and its setting, that in most cases aren't enough cared, while for the external

housing structures the concepts offer different solution, also considering products already part of the mass production.



**Starlight Vattano**

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## **Urban Landscape in the Graphic Representations of the Cathedral of Palermo**

The present study offers some reflections on the relationship between the cathedral of Palermo and the urban area in which it insists, regarding the indissoluble link with the landscape aspect that through the history offered a variety of perceptive suggestions, marked by the passage and presence of different dominations. The historical urban multi-scale analysis carried out, focuses on the role that territorial and urban morphology, over time, has had compared to the cathedral of Palermo. In this sense, it is considered the correlation between the architectural body and the urban context in respect of its access routes, starting from the Phoenician domination to the current configuration, by consulting graphics studies on the Arab-Norman city, early maps drawn up in the sixteenth century, to the representations by Gaetano Lossieux of 1818.

The cartographic analysis and the orographic modeling provide images of a non-existent territorial context, as subject to time transformations, resulting in changeable landscape and urban faces where the cathedral is placed taking, under this aspect, multiple configurations based on space and time points of view. The goal is the graphic reconstruction of the most significant architectural and urban moments of the Palermo's cathedral in its context, pursuing a reflection linked to the intimate connection between architecture and landscape, focusing on morphological and territorial conformations that, over time, the unconscious perception of the visitor has articulated in a dynamic visual tale. The five historical periods considered concern the Phoenician domination (VII century BC), Arabic (831-1072), Norman (1072-1194), the city from the sixteenth to the nineteenth century and the contemporary city. The identification of the access routes leading to the cathedral is the key of the graphic reading, perception and recognition of the elements that characterize the architectural body of the cathedral. Further representations, in support of the iconographic research phase of the cathedral, including some drawings made by the travelers of the Grand Tour who, driven by curiosity to know the places of the Mediterranean, supplied graphic and literary descriptions showing how the time changes have affected on the perception of the building in its history.

The cognitive storytelling of the cathedral of Palermo is obtained

through a graphic study on routes which, in different historical phases, have provided multiple images in function of the addition and subtraction of volumes, voids, urban portions and soil transformations, while keeping the scar of time in the elaboration of orographic sections and perspective views through which highlighting the role of perception in this changing combination of architecture and landscape.

**Esra Gurbuz Yildirim**  
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## **Understanding Gaziantep's Traditional Spatial Organisation in the Context of Socio-Cultural Effects**

Understanding the spatial and social organization and network of a city is a very challenging subject for researchers and designers. Because this relational network gives clues about daily use of the city in different scales, social and cultural background of the city, and spatial behaviors of users from different cultural background. Understanding of all these information about the city is essential for new and sustainable designs in cities especially which have a traditional urban pattern.

Spatial organization of cities and their urban fabric may be quite different from each other because of their society, users' socio-cultural life, climate, topography and etc. In the scope of this paper traditional city pattern of Gaziantep and its formation under the effects of culture and society will be analyzed in a syntactic manner.

Gaziantep is a city, which has a unique architectural style and urban pattern, shows Islamic traditions and Turkish culture in its built form. It is located in the southeast part of Turkey. The city used to be one of the most important stops for Silk Road and had a very important role in the commercial life of the region. Gaziantep city hosted many different ethnic groups like Jewish, Christian, Armenian, during Ottoman Empire period. This paper aims to understand spatial reflections of socio-cultural differentiations of these ethnic groups over naturally evolved, old city with the help of space syntax. Main motivations of this research are providing sustainability of the city's architectural and social memory and also some guiding information and inspirations for new designs in traditional parts of the city.

For this research old city map of Gaziantep, which was probably produced by architect Harutun Poladyan in 1920's, and redraw by Barsumyan and Nazaryan in 1950's will be used for axial and visual analysis. With comparative and syntactic analyses of 3 districts; Bey (Armenian), Sekeroglu (Muslim), Dökmeci/ Düğmeci (Jewish) and also whole old city, it is aimed to understand spatial differentiations and similarities and how city was formed.

Also there are some questions, which will be handled in the scope of this paper;

- How socio-cultural differences shaped the architectural patterns

and the spatial relationship of these patterns with the city?

- As commerce is a very important issue for the city how was the relationship between residential and commercial areas?
- As privacy and security are very important issues for citizens, confrontation of locals and strangers is an unwanted situation in residential areas. How this relationship was organised in spatial manner?

Becoming aware of the richness of this historic urban environment is very important for continuity of the configurational properties of naturally evolved urban patterns. But discontinuity between the present city and the old city is a critical problem for Gaziantep. The development of modern architecture in Gaziantep caused a big gap between old and new. So spatial researches about the city in order to understand how it was formed is very important for interpretations and for future designs.

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**Evaluating the Impacts of Compact Growth on Traffic  
Emissions and Exposure to Air Pollution in High-Density  
Areas with a Land Use-Transport-Emission Integrated  
Model: A Case Study of Xiamen, China**

With a rapid urbanization and motorization, increasing traffic emissions has become the major source of air pollution in Chinese cities. Besides fuel quality and vehicle technology, the effects of urban form on traffic emissions should be paid attention to, but studies on high-dense cities are quite limited. In this paper, we developed a land use-transport-emission integrated model, selected Xiamen City as the study area, and evaluated the effects of compact growth on traffic emissions and exposure to air pollution in a high-dense city. The results show that a compact, high density urban development combined with improvement of subway system may significantly reduce regional traffic emissions. However, compact growth scenario may produce higher overall population-weighted and employment-weighted exposures to air pollution, which suggests that compact growth may be associated with more people exposed to higher concentrations. This implies that the key to minimizing adverse breath effects for citizens is a compact urban form with an improvement of the public transport system linked to an appropriate urban structure.

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## **Home-Based Work in Cities: In Search for Appropriate Urban Planning Response**

Contemporary policies guiding economic development of cities appear to recognise that technological advances and changing lifestyle preferences have been shifting the employment patterns, with one of the outcomes being a growing popularity of home based work. To capitalise on this trend, policymakers at all levels of government identify home based work as potential remedy to declining employment in cities. Whilst initiatives promoting this form of employment can indeed bring benefits to the economy of cities, there is a need to better understand the relationships between home based work and city planning.

This paper presents results of a large survey of home based workers within the City of Gold Coast in Queensland, Australia. Through this survey, the research team attempted to collect data about the impacts of home based work on neighbourhoods, overall financial viability of home businesses and the preferences of people working from home towards living in cities and neighbourhoods that cater for this type of employment.

Results of the survey provide an important body of knowledge in the field of changing work-family-territory arrangements and cities, particularly their urban structure and the relationship between urban planning and economic development.