PROCEEDINGS

of the

INTERNATIONAL CONFERENCE

on

CHANGING CITIES III

Spatial, Design, Landscape & Socio-economic Dimensions

Under the aegis of

The Department of Planning and Regional Development, University of Thessaly
The Greek Ministry of Tourism

Editor:

Professor Aspa Gospodini

University of Thessaly

Syros-Delos-Mykonos Islands, Greece ● June 26-30, 2017
A. THE ORGANISING INSTITUTIONS

The conference is organised by the Lab of Urban Morphology and Design, Directed by Dr. Aspa Gospodini, Professor of Urban Planning & Design, Department of Planning & Regional Development, University of Thessaly, Volos, Greece.

In collaboration with:

- **The Department of Product & System Design Engineering**, University of the Aegean, Syros Island, Greece;
- **Syros Institute- Research Institute for sustainable development, cultures and traditions**, Syros Island, Greece;
- **The Association of Greek Planners (SEMPXPA)**;
- **The Association of Greek Planners (SEMPXPA) - Branch of Northern Greece**.

B. THE ORGANISING COMMITTEE

1. **Dr. Aspa Gospodini**, Professor of Urban Planning & Design, Director of the Lab of Urban Morphology & Design, Department of Planning & Regional Development, University of Thessaly, Greece, Chair of the Organising Committee and the Scientific Committee;
2. **Dr. Joseph Stefanou**, Honorary Professor of NTUA, President of Syros Institute- Research Institute for sustainable development, cultures and traditions, Greece, vice President of the Organising Committee and the Scientific Committee;
3. **Florence Ikonomidou**, Assistant Professor of Painting, Department of Product & System Design Engineering, University of the Aegean, Greece, member of the Organising Committee and the Scientific Committee;
4. **Emily Alexandropoulou**, Planning Engineer, President of the Association of Greek Planners (SEMPXPA), member of the Organising Committee and the Scientific Committee;
5. **Dr. Natasa Tasopoulou**, Planning Engineer, President of the Association of Greek Planners (SEMPXPA) - Branch of north Greece, member of the Organising Committee and the Scientific Committee.
C. THE CONFERENCE SECRETARIAT

6. **Maria Nikou**, Planner, MSc, Doctorate Student in Planning, Department of Planning & Regional Development, University of Thessaly, Chief of the conference secretariat;

7. **Stella Manika**, Planner, MSc, PhD Candidate in Urban Planning, Department of Planning & Regional Development, University of Thessaly, Officer of the conference secretariat.

8. **Dr. Maria Makropoulou**, Architect, Planner, Department of Planning & Regional Development, University of Thessaly, Officer of the conference secretariat.

9. **Marina Oikonomou**, Dipl. In Economics, MSc in Finance, University of Tilburg, The Netherlands, public relations officer;

D. THE CONFERENCE TECHNICAL SUPPORT

10. **Charalampos Alifieris**, ICT Technician, Department of Product and Systems Design Engineering, University of the Aegean, Officer of computer services in the conference venues;

11. **Dimitris Oikonomou**, assistant in computer services in the conference venues.

E. THE CONFERENCE FINANCIAL MANAGEMENT

12. **Nicos Economou**, Dipl. In Economics, MSc, University of Kent, UK, Financial Project Manager and Accounting Manager of the conference.
MEMBERS OF THE SCIENTIFIC COMMITTEE

Adamakis, K., University of Thessaly, Greece
Alexandropoulou, E., Planning Engineer, President of the Association of Greek Planners (SEMPXPA), Greece
Avgerinou-Kolonia S., National Technical University of Athens, Greece
Babalis D., Chair of INTEGRO UAD (International Group on Urban and Architecture Design), Università degli Studi di Firenze, Italy
Beriatos E., University of Thessaly, Greece
Bogiazides N., University of Thessaly, Greece
Carmona M., Bartlett School UCL, UK
Siddi, C., DICAAR – University of Cagliari, Italy
Chourmouziadou K., Aristotle University of Thessaloniki, Greece
Christodoulou C., Aristotle University of Thessaloniki, Greece
Christopoulos O., University of Thessaly, Greece
Cidre E., Bartlett School UCL, UK
Colonas, V., University of Thessaly, Greece
Cuthbert A., UNSW Asia Sydney Area, Australia
De Magalhaes C., Bartlett School UCL London, UK
Deffner A., University of Thessaly, Greece
Darzentas, j., Professor - Head of Department of Product & System Design Engineering, University of the Aegean, Greece
Dimelli D., Technical University of Crete, Greece
Dimitriou H., Bartlett School UCL, UK
Dimoudi A., Democritus University of Thrace, Greece
Economou D., University of Thessaly, Greece
Enlil Z., Yildiz Technical University Istanbul, Turkey
Fragopoulos Y., Aristotle University of Thessaloniki, Greece
Galani V., University of Thessaly, Greece
Gavara E., University of Macedonia, Greece
Geppert A., Universite Paris Sorbonne, France
Giacumacatos A., Athens School of Fine Arts, Greece
Pallagst K., Kaiserslautern University of Technology, Germany
Panetsos G., University of Patras, Greece
Papageorgiou M., University of Thessaly, Greece
Papagiannakis A., Aristotle University of Thessaloniki, Greece
Patrikios G., Democritus University of Thrace, Greece
Pendlebury J., Newcastle University, UK
Pere Serra, Universitat Autonoma de Barcelona, Spain
Petakis G., Rector of University of Thessaly, Greece
Petrooulou C., University of Aegean, Greece
Pitsiava-Latinopoulos M., Aristotle University of Thessaloniki, Greece
Polychronopoulos D., Dimokrition University of Thrace, Greece
Polyzos G., National Technical University of Athens, Greece
Ponzini D., Politecnico di Milano Milan, Italy
Pozani D., Epoka University, Albania
Pozoukidou G., Aristotle University of Thessaloniki, Greece
Punter J., Cardiff School of Planning and Geography, UK
Roberts M., University of Westminster London, UK
Rodi, A., University of Patras, Greece
Sakantamis K., Aristotle University of Thessaloniki, Greece
Salet W., University of Amsterdam, Netherlands
Salvati L., Third University of Rome, Italy
Sapounakis A., University of Thessaly, Greece
Sepe M., CNR-Università di Napoli Federico II, Italy
Serra P., Universitat Autonoma de Barcelona, Spain
Serraos K., National Technical University of Athens, Greece
Silva A. E., University of Cambridge, UK
Skayannis P., University of Thessaly, Greece
Stathakis D., University of Thessaly, Greece
Stefanou, J., Honorary Professor of NTUA, President of Syros Institute of Syros Institute – Research Institute for sustainable development, cultures and traditions, Greece
Stylidis I., University of Thessaly, Greece
Sutcliffe B. E., Middle East Technical University, Turkey
Tasopoulou, N., President of 7-the Association of Planners (SEMPXPA), Branch of north Greece
Tellios A., University of Thessaloniki, Greece
Theodora I., National Technical University of Athens
Terkenli T., University of Aegean, Greece
Thoidou E., Aristotle University of Thessaloniki, Greece
Townsend T., Head of School & Director University of Newcastle, UK
Triantafyllopoulos N., University of Thessaly, Greece
Trova V., University of Thessaly, Greece
Tsagkrasoulis A., University of Thessaly, Greece
Tselios V., University of Thessaly, Greece
Tsilimigkas G., University of Aegean, Greece
Veldpaus L., Newcastle University, UK
Velentzas, K., University of Macedonia, Greece
Vlastos T., National Technical University of Athens, Greece
Vougias S., Aristotle University of Thessaloniki, Greece
Voutira E., University of Macedonia, Greece
Vyzoviti S., University of Thessaly, Greece
Zavraka D., Eastern Macedonia and Thrace Institute of Technology, Greece
FORWARD

The 1st international conference on ‘Changing Cities’, which was hosted on Skiathos island, 18-22 June 2013, had started as an idea in 2012. The initial concept was to organise an academic event creative, inspiring, stimulating, and above all, international. There had been a belief that such an academic event may contribute in revitalizing academia and promoting tourism in Greece - hit by the economic crisis of public debt in the Eurozone. Given that during the last years, both societies and cities in Greece have been dramatically changing, shrinking in economic, spatial and demographic terms, we have chosen Changing Cities as the main theme of this series of conferences. Our aspiration had been to provide an international forum for transaction of ideas on cities and bring together architects, urban designers, landscape designers, urban planners, urban geographers, urban economists, urban sociologists and demographers, to investigate new challenges. This goal became a reality since the 1st Changing Cities conference gained strong interest of academics and researchers from many countries and regions around the world; Greece and the Balkans, south Europe and Mediterranean countries, northwest Europe, Middle East and Asia, Far East, North America, Latin America and Africa. A total of about 460 abstracts and 320 papers had been submitted in the conference – most of them, about 60% from abroad.

The 2nd Changing Cities conference, Porto Heli, Peloponnese, Greece, 22-26 June 2015, was also fruitful academically since it attracted the attention of scholars, not only from Greece, the Balkans and Europe, but also from far-away countries like USA and Canada, Brazil, Chile, Colombia in Latin America, and China, Japan and Australia in the far-east. We received about 500 abstracts and more than 350 papers. Among the scholars participating, there were about 185 Greek academics and researchers. This indicated that despite shortage of research funds, salary cuts, and broken morale, university teachers and researchers in Greek state universities were trying hard to keep a high-level academic status. Besides, the number of contributions by scholars from abroad (63%) emphatically pointed the international character of the conference.

The results of the 3rd Changing Cities conference, Syros Island, Greece, 26-30 June 2017, points that the series of conferences on Changing Cities is getting established in the international academia as a significant bi-annual international forum. We have received 485 abstracts and 200 papers from many countries around the globe – honouring our efforts as Organising Committee. The contribution by Greek researchers and scholars is 27.42% while that of foreign academics reaches 72.58%; this indicates the international character of the conference. Regarding foreign academics, many of them are from neighbouring countries such as Italy (69), Turkey (37), Cyprus (11), and
Serbia (6); but also many are from distant countries such as Brazil (27), USA (16), UK (16), Poland (11), and Netherlands (10).

The strong interest for this conference by academic communities allows us to have thoughts about organising the 4th Changing Cities conferences in two years’ time, spatially hosted in a different Greek sea resort – probably Santorini Island, or Crete.

I would like first to thank the Organising Committee, the keynote speakers, and the members of the international scientific board who supported enthusiastically the academic organization of this conference. I would especially like to thank those colleagues of the Scientific Committee who have also pre-organized special sessions in this conference. I would like to thank all the academic, political and scientific organisations which supported this conference in many different ways: University of Thessaly; The Municipal Authority of Syros Island; the Greek Ministry of Tourism; The Greek National Tourism Organisation (GNTO); Finally, I would like to thank the shipping companies ‘Blue Star Ferries’ and ‘SuperFast Ferries’ which sponsored sea travel to and from Syros Island.

Aspa Gospodini, PhD
Professor of Urban Planning & Design,
University of Thessaly,
Department of Planning & Regional Development
Chair of the Organising Committee
& the International Scientific Board
TABLE of CONTENTS

Organizing Committee ........................................................................................................ iii
Scientific Board .................................................................................................................. iv
Forward ............................................................................................................................. ix
Table of Contents .............................................................................................................. xi

KEYNOTE SPEECHES

• Prof. Taner Oc, Editor of Journal of Urban Design
  Honorary Professor, The Bartlett School of Planning, UCL
  Faculty of the Built Environment, London, UK
  and Elisabete Cidre, UCL, Bartlett School of Planning
  Heritage and Regeneration in Changing London ............................................................. 3

PRE-ORGANIZED SPECIAL SESSIONS

URBAN NATURES FOR CHANGING CITIES
  organized by Prof. A. Ippolito, Università degli Studi di Roma “La Sapienza”, Italy

• Temporary public landscape. Potential and risks of the public spaces in the Italian provincial town
  M. Aprile .................................................................................................................................. 25

• Fair natures in emerging minor urbanities. A green guide for seven categories
  R. Belibani, A. Capanna ....................................................................................................... 34

• Patterns of Participative Governance in Planning and Management of Urban Green Spaces. Initial Assessments through the European and Greek experience
  S. Chaldezou, Y. Theodora .................................................................................................. 45

• Natural spaces river land in the urban context area
  D. Cialdea, N. Quercio ....................................................................................................... 62

• New performances in urban nature. Recovery examples for the city crossing green pathways
  D. Cialdea .......................................................................................................................... 79

• Green infrastructures and biodiverse urban gardens for regenerating urban spaces
  M. Clemente, F. Bianconi, M. Filippucci, L. Salvati ......................................................... 94
Table of Contents

- Urban natures for public spaces
  M. Clemente ............................................................................................................................. 103

- Urban natures as a new model of interaction between city and environment:
  a political and normative interpretation
  D.S. Damiano .......................................................................................................................... 114

- Models of knowledge and development of the urban vegetal architecture.
  Villa Celimontana in Rome

- Urban natures for changing cities
  A. M. Ippolito .......................................................................................................................... 131

- Urban natures for urban resilience. Time-phases design for Changing Cities
  M. Marino ................................................................................................................................ 145

- Landscape by people: The landscape as glocalized resource
  C. Stivali ................................................................................................................................ 156

- Neither urban nor rural: landscape composition and land-use changes in the Mediterranean fringe
  I. Tombolini, S. Pili, L. Salvati ................................................................................................ 164

- Modern management of nature in the city
  A. Veisz ................................................................................................................................ 172

PUBLIC SPACE AND SUSTAINABLE REGENERATION
Organized and chaired by Prof. M. Sepe, CNR-Università di Napoli Federico II, Italy

- Public space and sustainability: achieving livability through multimedia and urban design
  M. Sepe ................................................................................................................................ 181

- Issues on urban design of public space: social and spatial identifications in the case of 4 central squares in Athens
  K. Advelidi, A. Vitopoulos, G. Gemenetzis, K. Gortsos, F. Vlastou, E. Massou ....................... 194

- A critical overview on the outcomes of mending of the suburbs. Case studies and experiments G124.
  R. Belibani, A. Capanna .......................................................................................................... 208

- DiverCity – intercultural perception for space
  K. Lehmann .............................................................................................................................. 219

- Incremental housing strategy. A possible approach for social and urban development
  M. Plastina ............................................................................................................................... 230

- A sequence of urban rooms. Public space as a regenerative structure
  L. A. Pezzetti ............................................................................................................................ 236

- Sustainable regeneration of academic public spaces. A choice of case studies
  E. D. Rynska, U. Kozminsk, A. Tofiluk, K. Zinowiec-Cieplik ................................................ 249

- Strategies for urban regeneration in Brazil
  C. Sanna, R. Secchi, P. Pineschi, E. Paez, M. Colazza, M. S. Ristruccia .................................. 260
- Studies for a precise intervention – public spaces in a central area in Brasilia, Brazil
  G. Tenorio, B. Kronenberger ................................................................. 268

- Sport and leisure as elements for the regeneration of public spaces in the Catalonian region
  S. G. Troncone ........................................................................................................ 278

**WATERFRONTS FOR HUMAN FLOURISHING**
Organized and chaired by Prof. T. Townshend, Newcastle University UK and Prof. D. Babalis, Università degli Studi di Firenze, Italy

- Safeguarding old barracks and influencing positively nearby waterfront environment
  D. Babalis .......................................................................................................................... 291

- Re-designing urban waterfronts preserving heritage and improving urban environment. The case of Plomari

- Waterfronts and Cultural Heritage. Questions and Challenges. The Case of Hydra
  E. Maistrou .......................................................................................................................... 311

- Urban landscape transformations through waterfronts’ redesign. A new field to develop design tools and research approaches in architectural education
  D. Polychronopoulos, M. Grigoriadou ................................................................................ 321

**SUSTAINABLE DEVELOPMENT, CULTURAL HERITAGE AND SPATIAL PLANNING IN SYROS, GREECE**
Organized and chaired by Prof. J. Stephanou, Honorary professor of NTUA, President of Syros Institute, Prof. G. Pozoukidou and Dr. E. Linaki, Aristotle University of Thessaloniki, Greece

- Tangible and intangible cultural assets as means for sustainable urban planning and place making. The case of Ano Syros, Greece
  G. Pozoukidou, E. Linaki .................................................................................................... 333

- Cultural heritage management and development strategy: the case of Ermoupolis-Syros
  Z. Paparsenou ...................................................................................................................... 345

- Protection and heritage management of the historical centre of Thessaloniki, Greece: the designation of 199 buildings of the early 20th century
  M. Selevista, M.M. Vyzantiadou .......................................................................................... 356
SOCIAL AND URBAN INFORMALITY:
MIGRATION, MULTINATIONAL AND MULTICULTURAL SOCIETIES
Organized and chaired by Prof. K. Moraitis and E. Konstantinidou,
National Technical University of Athens, Greece

- Planning «Informality»  
  K. Moretti ................................................................................................................... 373
- Occupation of an Urban Territory - the Duality of Nature and the Human  
  A. Swiny, Y. Hadjichristou ......................................................................................... 380
- Absurd: the significative role of informality  
  K.-O. Yenias .............................................................................................................. 392
- Institutionalized Informal Urbanism on the Fringes of Mount Parnitha  
  A. Zomas, M. Papavasileiou ..................................................................................... 399

CULTURAL HERITAGE AND CHALLENGES OF TOURISM
Organized and chaired by Prof. Z. Enlil, Yildiz Technical University, Turkey

- Discontent and resentment in tourist-historic sites: Re-thinking tourism  
  via the perspectives and attitudes of local residents and local businesses  
  A. Altanlar, Z. Enlil, D. Kalkan Acikkapi ................................................................. 411
- A new approach for sustainable tourism as a driver of conservation  
  of the cultural heritage: Oleo tourism  
  K. Manisa, B. Yerliyurt .......................................................................................... 422
- Space of craftsmen: A case study of tourism effects on Şişhane  
  O. H. Yeğenağa, Y.S. Özer ................................................................................... 433

RESILIENT CITY – GOVERNANCE, NATURE, FORM,
PEOPLE AND ECONOMY
Organized and chaired by Prof. T. Mrđenović, University of Beograd, Serbia

- Resilience and Sustainability: The Mutual Relations  
  T. Mrđenović .......................................................................................................... 447

NEW APPROACHES IN HISTORIC CENTERS PRESERVATION
Organized and chaired by Prof. D. Dimelli, Technical University of Crete, Greece

- Ancient city gates and modern checkpoints of Nicosia  
  for the morphological theory of attractors  
  A. Camiz ................................................................................................................... 455
- Revitalizing the urban archaeological palimpsest - infilling the city fabric  
  K. Demiri ................................................................................................................ 466
- How would you design your home? A research in collective design  
  K. Varvatou, K. Sakantamis ................................................................................... 476
**Table of Contents**

**URBAN PRESSURE IN COASTAL AND ISLAND AREAS: THE CHALLENGES IN IMPLEMENTATION OF MARITIME SPATIAL PLANNING IN GREECE**
*Organized and chaired by Prof. S. Avgerinou-Kolonia, National Technical University of Athens, Greece*

- Coastal urbanization as a result of the absence of an integrated maritime spatial planning approach
  *S. Avgerinou-Kolonia, M. Rampavila* ................................................................. 2135
- Current attitudes and lessons learnt in Maritime Spatial Planning: a focus on governance issues in Europe
  *S. Kyvelou-Chiotini* .................................................................................................. 489
- Privatization of public land, spatial planning and natural capital
  *D. Litsardou, R. Klabatsea* ....................................................................................... 501
- Urban pressure in coastal areas of Greece: the case of Corinthiakos Gulf
  *M. Papageorgiou, O. Christopoulou, T. Kostopoulou* ........................................... 515
- Coastal space as a means for urban development. The case of Faliron Bay in Athens
  *E. Spanogianni, Y. Theodora* .................................................................................. 526

**‘SAILING CITIES’: SEASCAPE IDENTITY AND AEGEAN TOURISTIC PORT’S NETWORK**
*Prof. K. Moraitis, A. Mentekidou, National Technical University of Athens, Greece*

- Establishment of networks between the islands of Northeastern Aegean Sea, in order to promote their seascape identity
  *A. D. Mentekidou* .................................................................................................... 539
- Combined use of port facilities to host international sailing events as well operate as terminals of high capacity amphibious aircraft
  *S. Bouzeas, S. M. Gouloumis* ................................................................................... 549
- Santorini, down and across how access re-frames insular identity
  *R. Lava* ....................................................................................................................... 556
- Tourism and tragedy: the case of Lesvos
  *T. S. Terkenli* .......................................................................................................... 560
- Nodes of a Networked Seascapes
  *A. Zomas, M. Papavasileiou* .................................................................................... 568

**METHODOLOGICAL TOOLS OF ANALYSIS FOR CREATING STRATEGIES OF INTERNAL URBAN TECHNOLOGIES**
*Organized and chaired by Prof. N. Marda & Prof. G. Parmenidis, National Technical University of Athens, Greece*

- Mapping connections in online learning communities: architectural knowledge creation in the ‘connectivist’ paradigm
  *O. Ioannou* ............................................................................................................... 579
Table of Contents

- Crisis Control and Provisional Evacuation Management Scheme in Sana’a City
  H. Nafa, M. Saeed ............................................................. 590

- Sensing the urban landscape: The challenge of data visualization and multisensory mapping
  T. Petras ........................................................................... 599

- Design by mapping the relational city
  A. Stamatopoulou ............................................................. 606

- Using Expanded Cinema design principles as an urban intervention tool
  O. Venetsianou ............................................................... 618

BOTTOM UP PLANNING INITIATIVES IN THE URBAN SPACE.
A VEHICLE FOR A FURTHER DEMOCRATIZATION OF THE URBAN PLANNING PROCEDURE?
Organized and chaired by Prof. K. Serraos, National Technical University of Athens, Greece

- Civil society and institutional practices towards democratization of urban planning: case studies on three German cities
  K. Serraos, E. Asprogerakas, A. Chazapis, G. Gkoumopoulou, P. Voulelis ........................................... 629

- Athens revisited: Bottom up initiatives and organizational terms
  N. Anastasopoulos ........................................................... 640

- For a civic-familial Athens: Exploring the cultural background of participatory initiatives
  M. Kiourti ............................................................................. 649

- A systematic correlation of public participation procedures with characteristics of areas addressed: The case of Athens metropolitan area
  A. Vassi, K. Athanasopoulos, F. Vlastou ............................................ 658

UNDER COLLECTIVE CONSTRUCTION
Organized and chaired by Prof. C. Siddi, University of Calgari, Italy

- “Under Collective Construction”. About the participatory and social potential in city-making
  C. Siddi .................................................................................. 673

- Current trends and future prospect to develop a multi-scale landscape identity
  S. Mocci .............................................................................. 684

- Creative spaces. The landscape design as an experimental laboratory
  C. Sciarrone, M. Pasquali ................................................... 694
## INTEGRATED SUSTAINABLE ENERGY SPATIAL PLANNING

*Organized and chaired by Dr. N. Koutsoumarkos, Hellenic Association of Urban and Regional Planners (SEMPXPA), Greece*

- A Co-planning Approach for Area-Based Holistic Energy Planning: The Experience of INTENSSS-PA project

- Defining sustainability-aimed urban metabolism indicators
  - Y. Song, A. Timmeren, A. Wandl .................................................................................. 711

## INTEGRATED URBAN INTERVENTIONS, RESILIENT CITIES AND METROPOLITAN AREAS: CHALLENGES AND POLICIES

*Organized and chaired by Prof. E. Thoidou, Aristotle University of Thessaloniki, Greece*

- From factory to symbol of identity: the resilience process of disused economic sites
  - J. Cenci ....................................................................................................................... 725

- Changing approaches to urban intervention in Greece: The Integrated Territorial Investment (ITI) as a tool for sustainable urban development
  - G. Katsavounidou ........................................................................................................ 734

- Designing buildings for increasing the urban resilience
  - A. Krstic-Furundzic ..................................................................................................... 740

## ORIGIN OF METROPOLISES AND TRANSFORMATIONS OF ARCHITECTURE IN THE 21st CENTURY

*Organized and chaired by Prof. A. Giacumacatos, Athens School of Fine Arts, Greece*

- The impact of capital flows on urban growth in transition periods: Athens urban transformation (1875-1909)
  - A. Ntonou Efstratiadi, P. Dragonas ............................................................................. 755

- Induced stratification
  - A. Castagnaro, F. Izzo .................................................................................................. 766

## MAIN THEME SESSION

### EUROPEAN CITIES AND MIGRATION: SPATIAL IMPACTS OF OUT-MIGRATION AND IMMIGRATION

- Naples Historic Center Formation and Management: The Influence of Socio-Economic Mobility on the City Spatial Features and Urban Planning
  - M. Al Gammal ............................................................................................................. 773
<table>
<thead>
<tr>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphogenesis and social structure in modern Mediterranean cities: the case of Athens</td>
<td>784</td>
</tr>
<tr>
<td>C. Bakalis, S. Chtouris</td>
<td></td>
</tr>
<tr>
<td>The historic abandoned settlement as a potential strategic resource for a sustainable reception of immigrants</td>
<td>794</td>
</tr>
<tr>
<td>C. C. Falasca, A. Gigante</td>
<td></td>
</tr>
<tr>
<td>Welcoming cities: new strategies for contemporary urban requalification in the migration era</td>
<td>805</td>
</tr>
<tr>
<td>F. Ficcadenti, R. Belibani</td>
<td></td>
</tr>
<tr>
<td>Spatial aspects of housing policy developed in the aftermath of the recent refugee crisis in Greece</td>
<td>813</td>
</tr>
<tr>
<td>G. Gemenetzi, M. Papageorgiou</td>
<td></td>
</tr>
<tr>
<td>Introvert Boundaries and Vulnerable Cities: the design of Public Space as an Opportunity for the Managing of Migratory Flows and the Affirmation of Multiculturalism</td>
<td>825</td>
</tr>
<tr>
<td>A. Gritti, G. Setti</td>
<td></td>
</tr>
<tr>
<td>Diffusion of suburbanisation. Theoretical approach</td>
<td>837</td>
</tr>
<tr>
<td>M. Mayer-Wydra</td>
<td></td>
</tr>
<tr>
<td>Housing emergency and minimum requirements for reception: contribution to the strategy of resilience</td>
<td>850</td>
</tr>
<tr>
<td>I. Montella, C. Tonelli</td>
<td></td>
</tr>
<tr>
<td>Impact of population dynamics on spatial development of Belgrade urban region</td>
<td>861</td>
</tr>
<tr>
<td>T. Nikolić, J. Petrić, T. Bajić</td>
<td></td>
</tr>
<tr>
<td>The Impact of Migrations on the Spatial Characteristics of the City of Gdańsk</td>
<td>872</td>
</tr>
<tr>
<td>L. Nyka, J. Szczepanski</td>
<td></td>
</tr>
<tr>
<td>A guideline for intercultural city</td>
<td>882</td>
</tr>
<tr>
<td>B. Petrella</td>
<td></td>
</tr>
<tr>
<td>Ancienne; fragile; transitoire. The Panier case study; Marseille</td>
<td>893</td>
</tr>
<tr>
<td>N. Suraci, G. La Delfa, A. Geuna</td>
<td></td>
</tr>
<tr>
<td>An examination a relationship between migration-place attachment in refugee camps in the context of the image of the city and its components</td>
<td>901</td>
</tr>
<tr>
<td>S. Tapki</td>
<td></td>
</tr>
<tr>
<td>Refugees; migration and inclusive communities through design: an ‘urban interior’ approach to resilient cities</td>
<td>912</td>
</tr>
<tr>
<td>C. Vains</td>
<td></td>
</tr>
<tr>
<td>An evaluation of social impacts of spatial and functional changes in a historical urban site: Kuzguncuk</td>
<td>927</td>
</tr>
<tr>
<td>N.Z. Gülersoy, S. Seçmen, G. Kuzey, O. Kargül</td>
<td></td>
</tr>
<tr>
<td>Unravelling the urban challenge of ethnic and cultural diversity</td>
<td>939</td>
</tr>
<tr>
<td>E. Zippelius</td>
<td></td>
</tr>
</tbody>
</table>
### THEMATIC SESSIONS

#### URBAN DESIGN IN PLANNING

- **Menteşe In History: Four Different Period; Four Different Urban Texture**  
  *M. Aktaş, A. Sakarya*  
  953

- **Urban transformations in a coastal city and movement of people in public open spaces**  
  *F. Antocheviz, C. Arsego, A.C. Braga, A.T. Reis, F. Zampieri*  
  965

- **Assessment of social and spatial effects of urban design in Athens: insights for a methodological approach**  
  *K. Avdelidi, G. Gemenetzi, A. Vitopoulou, E. Massou, F. Vlastou, K. Gortsos*  
  977

- **Urban densification and daylighting: Existing daylight levels in Swedish multi-family housing as a base for future daylight requirement**  
  *I. Bournas, M. Lundgren, M. Alenius, M.C. Dubois*  
  987

- **Neighborhood: different perceptions of the meaning by natives and immigrants in Athens during economic crisis: Examining the case of Kypseli**  
  *M. Charalampidi, C. Desi-Louka, S. Yiannoudes*  
  998

- **Transforming a small city through urban planning by integrating urban green spaces. Case Study: City of Nafpaktos**  
  *S. Ch. Fouseki, K. Sotiropoulou, V. Protopapa, D. Karvelas, E. Bakogiannis, I. Kyriazi*  
  1008

- **Residential choices and preferences in Athens: Implications for city planning**  
  *G. Gemenetzi, V. Mourati, E. Zervas*  
  1014

- **Environmental Interiorities: Design through real-time data collection and analysis**  
  *V. Geropanta, A. Karagianni, P. Parthenios*  
  1024

- **Examining the Role of Architectural Technology in Future Cities**  
  *S. Habibi*  
  1032

- **Supports; patterns and infrastructural processes in open-ended design**  
  *G. Kalnis*  
  1042

- **Prison and city: Reintegration of the “Korydallos” prison in Athens, Greece**  
  *A. Kalymniiou, K.A. Liapi, V. Petridou*  
  1051

- **Connected yet private: the design of multi-household housing in Japan**  
  *J. McIntosh, Y. Kuboshima*  
  1060

- **An Analytical Culture-led Approach to the Urban Revitalization of Historical Center and Walled Cities**  
  *X. Lu, L. Pezzetti*  
  1071

- **The Ghost Town of Famagusta, Cyprus**  
  *R. Makhoul Vassiliou*  
  1083

- **Urban interfaces and aesthetic evaluations**  
  *A.T. Reis, A. F. Panzenhagen, V. L. Gerson, F. Bonoldi*  
  1092
### Table of Contents

<table>
<thead>
<tr>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation of urban waterfronts as public spaces</td>
<td>1103</td>
</tr>
<tr>
<td>S. Seçmen, H. Türkoğlu</td>
<td></td>
</tr>
<tr>
<td>Gentrification and urban design in the urban fabric of Rotterdam</td>
<td>1116</td>
</tr>
<tr>
<td>P. Stouten</td>
<td></td>
</tr>
<tr>
<td>Towards a form for transgression: Civil disobedience in urban milieu</td>
<td>1127</td>
</tr>
<tr>
<td>A. Tsarouchi</td>
<td></td>
</tr>
</tbody>
</table>

### CITIES AND HEALTH

<table>
<thead>
<tr>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ecology and Design in Developing Ecosystem Services</td>
<td>1139</td>
</tr>
<tr>
<td>in Urban Regeneration Processes</td>
<td></td>
</tr>
<tr>
<td>M. L. Delendi</td>
<td></td>
</tr>
<tr>
<td>Industrial city and health: first industrial cities in early 1819</td>
<td>1147</td>
</tr>
<tr>
<td>to modern industrial cities</td>
<td></td>
</tr>
<tr>
<td>S. Ch. Fouseki, D. Karvelas, E. Bakogiannis, I. Kyriazi</td>
<td></td>
</tr>
<tr>
<td>The preliminary works of a study on the design of healing gardens</td>
<td>1157</td>
</tr>
<tr>
<td>for patients with mental disorders</td>
<td></td>
</tr>
<tr>
<td>E. Kamperi, A. Paraskevopoulou, C. Papageorgiou, M. Papafotiou,</td>
<td></td>
</tr>
<tr>
<td>N. Demiris, M. Economou, C. Theleritis, M. Kitsonas</td>
<td></td>
</tr>
<tr>
<td>Therapeutic landscape design for older persons health and well-being</td>
<td>1163</td>
</tr>
<tr>
<td>C. Kershaw, J. Cornwall, J. McIntosh, B. Marques</td>
<td></td>
</tr>
<tr>
<td>Smart systems for rehabilitation and independence</td>
<td>1171</td>
</tr>
<tr>
<td>J. Lim, J. McIntosh, B. Marques, J. Cornwall, E. R. Rodriguez-Ramirez</td>
<td></td>
</tr>
<tr>
<td>Primary school pupils’ perceptions of a typical urban school ground</td>
<td>1182</td>
</tr>
<tr>
<td>A. Paraskevopoulou, M. Panou</td>
<td></td>
</tr>
</tbody>
</table>

### SUSTAINABLE URBAN LANNING AND DEVELOPMENT

<table>
<thead>
<tr>
<th>Title</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transformation of the city identity: Causes and Effects</td>
<td>1191</td>
</tr>
<tr>
<td>M. Aboutorabi, B. Zalloom</td>
<td></td>
</tr>
<tr>
<td>GIS; VGI and open data during emergency: an experimental approach</td>
<td>1201</td>
</tr>
<tr>
<td>towards the resilient city</td>
<td></td>
</tr>
<tr>
<td>L. Barbieri, D. De Ioris</td>
<td></td>
</tr>
<tr>
<td>Physical landscape and social diversity: a study of Australian cities</td>
<td>1209</td>
</tr>
<tr>
<td>I. D. Bishop</td>
<td></td>
</tr>
<tr>
<td>The strategic role of Universities for the sustainable regional and</td>
<td>1217</td>
</tr>
<tr>
<td>urban planning</td>
<td></td>
</tr>
<tr>
<td>G. Calvano, G. Mangialardi, N. Martinelli, A. Tursi</td>
<td></td>
</tr>
<tr>
<td>Waterfront Development Management in Greece?</td>
<td>1228</td>
</tr>
<tr>
<td>The Case of “Lipasmata” in Piraeus</td>
<td></td>
</tr>
<tr>
<td>T. A. Daamen, T. Papadopoulos</td>
<td></td>
</tr>
<tr>
<td>Well thought-out compactness at infra-local scale: determining the</td>
<td>1242</td>
</tr>
<tr>
<td>qualitative criteria linked to the limits of objective compactness</td>
<td></td>
</tr>
<tr>
<td>when creating a predominantly residential block</td>
<td></td>
</tr>
<tr>
<td>I. de Smet, D. Laplume</td>
<td></td>
</tr>
<tr>
<td>Title</td>
<td>Authors</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Eco-cities: Strategies of Rebuilding Communities for Resilient and Sustainable development in Egypt with Particular Emphasis on Aswan</td>
<td>A. Elnokaly, A. Elseragy</td>
</tr>
<tr>
<td>Urban Space Living in a changing city: sidewalks of Curitiba</td>
<td>H. M. Faria, c. de A. Lima</td>
</tr>
<tr>
<td>The Vacant City: is there anything that we can do? The Land of València: a case study</td>
<td>G. i. Diaz, Fernando</td>
</tr>
<tr>
<td>A novel local development model paradigm: The case of Ippokratios race</td>
<td>A. Goulas, M. Pappa, G. Theodosiou</td>
</tr>
<tr>
<td>Climate governance in Cape Town and Oslo: Moving towards co-creational leadership?</td>
<td>T. Vedeld, H. Hofstad</td>
</tr>
<tr>
<td>Configurational analysis of the city of Sines: contributions to the sustainability of urban planning</td>
<td>B. Lopes, R. Guerreiro</td>
</tr>
<tr>
<td>Urban morphology of Western military architecture in the urban development of Vietnam: the case study of Hue City</td>
<td>V. N. Duc, A. Alici</td>
</tr>
<tr>
<td>Sustainable landscape design; key ideas for effective implementation</td>
<td>A. Nikologianni, K. Moore, P. Larkham</td>
</tr>
<tr>
<td>Urban network of 'green' and 'blue' corridors as a tool of metropolitan and environmental planning. Case study research: the northeastern part of Athens</td>
<td>E. Ntafa</td>
</tr>
<tr>
<td>The renaissance of tramway as a challenge for Transit Oriented Development: A pilot project in the city of Thessaloniki</td>
<td>A. Papagiannakis, A. Yiannakou, D. Pateraki</td>
</tr>
<tr>
<td>Assessing local stakeholders’ perceptions of the urban waterfront through the use of Q methodology</td>
<td>T. Papatheochari, S. Niavis, H. Coccossis</td>
</tr>
<tr>
<td>Visual impact: The case of wind turbines in Samos presentation of potential sites under specific context</td>
<td>F. Skalidi, D. Tsakou</td>
</tr>
<tr>
<td>Assessing the effect of Resilient Green Infrastructure on land values at the neighborhood level in the city of Cali, Colombia</td>
<td>S. Grafakos, A. Tsatsou, L. D’Acci, N.E. Ramirez Aranda</td>
</tr>
<tr>
<td>Evaluating the effect of cool materials on microclimatic parameters under different climatic conditions. Application in the city of Thessaloniki</td>
<td>S. Tsoka, E. Litsérinou, K. Tsikaloudaki</td>
</tr>
<tr>
<td>Evaluation of nuclear power plants in respect to sustainability: Mersin City example</td>
<td>S. Turgut, H. Berkmen</td>
</tr>
<tr>
<td>The role of Carrying capacity as a Quantitative method for Urban Sustainable Development</td>
<td>P. Voulellis, K. Serraos</td>
</tr>
</tbody>
</table>
# Table of Contents

- **Actor Analysis in Decision Making Process of Urban Renewal in China: The Way to Achieve Sustainability**
  T. Zhuang, Q. K. Qian, H. J. Visscher, M. G. Elsinga .......................................................... 1432

## URBAN LANDSCAPES; LANDSCAPE PLANNING AND DESIGN

- Types and representations of terrain vague in the cinematic city
  E. Asimakopoulou .......................................................... 1445

- Increase security by recreating urban rivers in Tehran
  E. Bigdeli, O.R. Rahimi .......................................................... 1455

- Intercultural narratives beyond borders
  L. Crespi, B. Di Prete, A. Rebaglio, R. Trocchianesi .......................................................... 1459

- A map, thousand cities
  U. Domblás .......................................................... 1471

- Comparative approach of Izmir and Thessaloniki’s eco-landscape
  A. Chavrali, T. Sidiropoulou, C. Petropoulou .......................................................... 1481

- Therapeutic Landscapes: the role of culture
  W. Hatton, B. Marques, J. McIntosh .......................................................... 1495

- The “urban sprawl” effect on the out-of-town real estate market
  A. Kiakou .......................................................... 1504

- Palmscaping. Tracing the multiple journey of the Palm tree
  The case of Mesolonghi; Greece
  C. Makedonopoulou .......................................................... 1516

- Recipro-city: synergistic processes from informal actions...
  A. Manca, C. Salaris .......................................................... 1528

- Removing disability: the restorative powers of landscape design
  J. McIntosh, B. Marques, M. McKone .......................................................... 1540

- Water-potential-mapping for urban flood/drought resilience:
  A holistic approach to sustainable spatial planning and design by augmenting use; reuse and storage capacity of storm water in South East Queensland
  K. Ozgun, A. Moulis, P. Leardini .......................................................... 1549

- Landscape changes: Quantitative representation of structure and spatial distribution of land uses in the Larger Urban Zones of Heraklion
  N. Rempis, G. Tsilimigkas .......................................................... 1562

- The impact of the coastal development projects in the urban landscape of Heraklion
  N. Rempis, G. Alexandrakis .......................................................... 1570

- Athens - unauthorized: Unplanned but more planning than you would believe
  B. Röe .......................................................... 1581

- Small city and a bridge. Landscape perspective
  A. Sas-Bojarska .......................................................... 1591
## Table of Contents

### ARCHITECTURAL DESIGN AND NEW TECHNOLOGIES

- Theoretical Outlines for a Complex Approach to Architecture  
  F. Alves, V. Rato ................................................................. 1605
- At school as in the city: spaces of imagination  
  F. Bonfante ........................................................................... 1615
- What about commons in higher education?  
  E. Frangedaki .......................................................................... 1625
- The innovative materials and technologies use as a means of architectural expression in urban lighting  
  E. Skafida ........................................................................... 1633

### URBAN CULTURES AND PUBLIC OPEN SPACES

- Morphological analysis of squares in Europe’s common cultural context  
  I. Alistratovaite-Kurtinaitiene .................................................. 1645
- Ladies who do ‘unboxing’ of their groceries. From Internet anecdote to contemporary material feminism applied to urban thinking  
  A. Alonso Albarracin ................................................................. 1656
- Human behavior and activity in public spaces  
  The case of Monastiraki square in Athens  
  C. Charalampaki, M. Kourouvani, D. Nikolaou ........................................ 1664
- Autobiographical urbanities and design regression: Effrontery towards the urban; or the city as a game  
  A. Dimitrakopoulos ................................................................... 1675
- Tactical Urbanism and the production of the common - an approach to emerging urban practices  
  A. Farias, A. Gonçalves ................................................................. 1685
- Disputes for memory’s place and artistic action against urban intervention: a Brazilian case  
  E. Marzulo, R. Capelato ................................................................. 1696
- Narrating migration. Mnemonic traces connecting here and there and feeling “at home” away from home  
  S. Moulara ........................................................................... 1704
- Interconnected realities: Transforming public space through digital networks  
  K. Ntampiza ........................................................................... 1716
- Resource characteristics of architecture in Open House initiatives  
  Y. Okamura, T. Nohara, A. Tanaka .............................................. 1723
- Inclusive playground for Children with Disabilities  
  B. Sah, S. Z. Sadri ................................................................... 1730
- Palimpsest industry: industrial heritage and intangible cultural heritage in the creative city. A comparative study of the Old Truman Brewery in London and Technopolis in Athens  
  S. Sarri ........................................................................... 1741
The city as a model for spatial design: museums; the new town squares  
K. Tzortzi, D. Monioudi-Gavala ................................................................. 1754

HISTORICAL CENTERS AND BUILT HERITAGE MANAGEMENT

Comparative Remarks on Design Principles; Concepts and Terms used in Urban Conservation  
N. Apostolopoulou, A. Rodi ................................................................. 1765

The Recreation of an Urban Centre: The Case of the Abdullah Gul University  
Sümer Campus in Kayseri; Turkey  
N. Baturayoğlu Yöney; B. Asiliskender ............................................................ 1775

Reloading 21st century cities with cultural energy. The transformation of gas factories into cultural hotspots in Amsterdam and Athens  
T. Chatzi-Rodopoulou ................................................................. 1786

Place-identity and urban tourism: a galaxy of social representations of places in capital cities  
A. S. de Rosa, L. Dryjanska, E. Bocci ............................................................. 1797

Towards the preservation of visual identity of small historical towns  
D. Dijokiene, A. Vete ................................................................. 1808

Revitalizing Alexandria through its symbolic significance of heritage; urban form; and the distinctive spirit of place  
A. Elseragy, A. Elnokaly, M. Sabbagh ............................................................. 1819

Landscape Conservation Policy and Tourism Developments in the Traditional Settlement of Oia; Santorini Island; Greece  
T. Ishimoto, Y. Okamura, K. Eguchi ............................................................. 1835

The Aegean vernacular as vacant signifier: projections of meaning by modernist and post-modern architects  
N. Magouliotis ................................................................. 1847

Showcasing the heritage of historic towns as a vehicle for development planning. Case study: Langadia; Gortynia; Greece  
E. Maravelia, A. Koupouli, M. Pateraki, V. Daskalakis, E. Kamontou,  
V. Katsimpoulas, I. Kavvada, M. Kilia, M. Kostagianni, I. Kourouni, D. Mpartzis,  
N. Papaoliou, M. Vasila, E. Vasileiou, E. Maistrour, E. Konstantinidou ............................................................. 1858

Residents’ perceptions about participation in cultural heritage displaying  
V. D. Spanos, O. Christopoulou ............................................................. 1869

When city branding meets ...geology  
V. D. Spanos ................................................................. 1879

Social and Spatial Changes In Urban Historic Neighbourhoods:  
Case of Cihangir District - Istanbul  
M. Ö. Kinaci, N. Z. Gülersoy ............................................................. 1885
## ENVIRONMENTAL URBAN PLANNING

- Waterscapes in transformation: insights on landscape accessibility challenged by new infrastructures for climate resilience: The case of the Flemish Coastal area: Uitkerkse Polders
  S. Pillen, K. Scheerlinck, E. Van Daele .......................... 1903
- The proposed Park Road between Itatiaia main center and Penedo township: reflections upon the interests of the county administration and the communities involved
  I. Silveira, J. Rodrigues ................................................... 1913
- Climate Adaptation Strategies in Mediterranean Metropolises
  S. Tsoumalakos, O. Christopoulou ........................................ 1923

## GREEN ARCHITECTURE AND URBAN PLANNING

- Deep renovation in changing cities: Densification and real-estate value for cost-effective energy targets in the ABRACADABRA strategy
  A. Ferrante, A. Fotopoulou, E. Cattani, G. Semprini .................. 1935
- The importance of green infrastructure planning in urban sustainability: Case study Ankara-Turkey
  N. Shakouri, M. Güneş ......................................................... 1947

## TRANSPORTATION PLANNING AND POLICY IN CITIES

- Niterói; RJ; Brazil; The Waterwais crisis and the “boalt revolt”
  M. Azevedo ...................................................................................... 1957
- The notion of “sustainable intelligence” in a “smart” road network. The case of Tsimiski str; a most important commercial axis in the center of Thessaloniki
  S. Vougias, K. Anastasiadou ........................................................ 1968

## URBAN PLANNING LAWS; REAL ESTATE AND PROPERTY RIGHTS

- Spatial planning system’s structure. Focus on urban development: Urban layout planning, plot arrangement – compensation acts, urban planning implementation acts
  T. Gkegkas, E. Stylianidis, P. Farmaki ........................................ 1981

## URBAN ECONOMIES AND SPATIAL IMPACTS

- Spatial configuration of industrial development corridors: configurational impacts of the road expansion in urban industrial sites of Porto Alegre – Brazil
  D. Altafini, A. Braga, F. Zampieri ............................................. 2001
- Where do Greeks work during the economic crisis? A quantitative study of the spatial concentration of Greek employees
  E. Anastasiou, S. Manika ............................................................. 2012
# Table of Contents

- **Urban metabolism under pressure three major Greek cities transforming through 20\(^{th}\) century**  
  *K. Christoforaki* ................................................................. 2024

- **Changing local urban spaces: the case of housing projects**  
  *M. Corrêa; M. L. Silva* .......................................................... 2036

- **Cyclades Archipelago: Regenerating productive landscapes**  
  *F. Pitoglou* ........................................................................... 2045

- **Expanding cities through summer residential suburban development**  
  *M. Stenou* ............................................................................ 2057

## PLACE MARKETING AND CITY BRANDING

- **Space; identity and memory policies for the Jewish Community of Thessaloniki: a diachronic approach**  
  *I. Frangopoulos, G. Kazantzì, M. Evdou, N. Karanikolas* ........ 2067

- **Branding areas in transition: Balkan cities**  
  *E. G. Gavra, K. Gkioufi* .......................................................... 2080

## SHRINKING CITIES AND DIVIDED CITIES

- **The housing emergency in Palermo between rights and legality**  
  *F. Lo Piccolo, A. Giampino, V. Todaro* .................................... 2089

- **Urban regeneration policies against spatial impacts of economic crisis**  
  *S. Manika, E. Anastasiou, K. Manika* ...................................... 2098

## MIGRATION, MULTINATIONAL AND MULTICULTURAL SOCIETIES

- **The development of a landscape: a Little India in the Pontine Plain**  
  *S. Boca* .................................................................................. 2109

- **Sociospatial integration of Haitian immigrants in Lajeado; Brazil: a configurational study**  
  *F. Braun-Spinelli, A. Braga* .................................................... 2118

- **The effects of higher education students on the housing market from the Studentification Perspective**  
  *T. Tuncer* .............................................................................. 2128

**Author Index** ...................................................................... 2149

**Subject Index** .................................................................... 2155

**Sponsors** ............................................................................. 2165
Public Space
& Sustainable Regeneration

Organized and chaired by:

Prof. M. Sepe
CNR-Università di Napoli Federico II, Italy
Sport and leisure as elements for the regeneration of public spaces in the Catalan region

S. G. Troncone

Department of Architecture, Built environment and Construction engineering, Politecnico di Milano, 20133, Milano, Italy

* Corresponding author: E-mail: saragiulia.troncone@polimi.it, Tel +39 3886156564

Abstract

In the Catalan region, after the fall of the dictatorship, a process of democratization of the cities begun. Especially the research will focus on the process of democratization of public open spaces and the practice of sports. Sports facilities are considered to be part of a system of basic equipments, to be included in a plan of reconfiguration of outdoor spaces and services for the citizen in general. The experimentation on this issue in the Catalan region has led to the definition, on one hand, of the sports pavilion, and on the other to the integration of sports and school services.

Keywords: public space, leisure, Catalan region, sport-for-all, equipment

1. INTRODUCTION

The work presented in this article is part of the research conducted for the Ph.D. thesis with the title "Theoretical and practical aspects in the design of architecture for sports: functional integration and settlement strategies". The thesis studies the evolution of facilities for sport and leisure since the post-war years till today. Although this topic is already studied by historians, sociologists and geographers, the experimentation and construction of buildings for leisure has yet to be fully investigated by architectural research.

In the first phase of the research has been studied the contribution of several disciplines that had introduced new paradigms and themes about the typological and settlement characteristics of the sport spaces.

The study does not focus on facilities specialized for the competitions, as many publications on stadia and sport palaces are already edited, but it deals with multifunctional facilities facing with the urban scale, related with the context in which are located and with a high level of attractiveness. My research will focus on facilities related to this.

1.1 'De-sportification' of sport and new settlement forms

Since the end of the Sixties and during the Seventies appeared the phenomenon named by the sport historians as Jogging Revolution. This is the era of the switch from sport as a specialised activity to leisure in which sport figures as part of a new and better way of life.

In the Italian context, an important reference is the work of the sociologist Nicola Porro.

1 Professor of Sociology at Facoltà di scienze motorie, Università di Cassino. He was president of the UISP association (Unione italiana sport per tutti) and of EASS (European Association of Sociology of Sport).
According to him, the expansion of the physical-motor practice, known in Italy in the last three decades of the Twentieth Century, brought back to a more general transformation of lifestyles which involved all the industrially mature societies. He notes, according with the theories of Inglehart and Knopp, a silent post-materialism revolution in which there was a simultaneous process of sportification of society and de-sportification of sport.

The outlines of the changing of the sport phenomenon given by sociologists and geographers introduce the issue of a transformation of the settlement forms of the spaces designed to the practice of sports. Running, as other sports, is no more performed exclusively in the specially fitted spaces (stadia, sport palaces, ecc.): sport is incorporated in the city both by a more free use of open public spaces and by the construction of multifunctional facilities for leisure.

1.2 Peculiarities and invariants of the leisure centre: a comparative approach

It was useful for the research purpose to frame the theme of the leisure complex in a wider spectrum. In this way I worked to focus the relationship among architecture, functional organization and customer. In this three main factors were recognized the key elements in setting of sports space. Taking this line of work it is possible to identify five main time-spans:

- 1900-1920: patronage and mutual association of self-support play an essential role in the organization of leisure
- 1920-1940: authoritarian, patronising and relief structures organize leisure in a political and hierarchical system
- 1950-1970: spread of the welfare-state policy related to the democratization of leisure
- 1970-1990: the increase of associative experience based mostly on voluntary action 'take place' of the state organization
- 1990-2016: the beginning of the debate about the organization of a 'Second Welfare' promoted mainly by private system

This periodization helps to make evidence of the relationship among customer, uses and settlement's characters of spaces for sports practice. Based on this it a first hypothesis was drawing up about the selected context for the comparison (Figure1):

- for the period 1950-1970 it considered the English case and the experimentation on multi-purpose buildings and civic centres. The leisure centre
- for the period 1970-1990 the Spanish case offers many suggestion, not only for the 'Barcelona model', but also for a range of architectural experiments on the issue of 'sport for all'. The district equipment
- for the period 1990-2016 the experience of the South/Central-American countries and the Brazilian Sesc that provides an interesting instances on the 'Second Welfare' opportunities. The second (welfare) opportunity

---


2 Porro N., 2001, Lineamenti di sociologia dello sport, Carocci, Roma

3 Related to the assignment of the 1992 Olympic games, it was being promoted a set of urban fabric renewal initiatives and had successfully developed the urban environment and its public spaces.

4 The Serviço Social do Comércio is a non-profit private institution, kept by businessmen in the trade of goods, services and tourism. It aimed primarily for the welfare of their employees and family but open to the general community.
2. METHODOLOGY AND CASE STUDY

Referring to the time-spans presented in the introduction the comparative work was organized among different contexts. The comparative analysis will be diachronic: cross-cutting through the identified spans, comparing different environments, Welfare policies and the architectural and settlement’s characters; synchronic: comparing case-studies studied in their peculiarities, with the aim to trace the experimentation on Welfare sport architectures in a specific geographical context and period of time.

The research aims to:
- clarify the relationship between "main issues" (as invariants) and architectural design
- assess the functional requirements and set out the architectural characters (interdependent variables) that are the constitutive elements of typology.
- codifying invariants and peculiarities of case-studies

2.1 Methodology

Compared to the overall goals this article aims to deepen the time span 1970-1990 and the Catalan case. In order to achieve the objectives it is preferred, after a brief introduction, focus on sport's architecture taken into consideration. Themselves will offer opportunities to a more general discussion on the Catalan architectural.

The analysis of this theme is based upon, at first, general texts on the architectural and urban matter of Barcelona. It was then examined the issue of the promotion of sport-for-all and its architecture in Catalonia. Than it was conducted an examination of journals at the Biblioteca de Catalunya and the library of the Col·legi d’Arquitectes de Catalunya.

The collected documentations has been indexed according to defined criteria (place, architect, typology, construction years) and organized interpretive profiling that summarize the settlement and architectural characters.

Through a redrawing of a selection of these architectures started the identification and comparison of the constituent architectural elements of the projects.

2.2 The Catalan case

The political change of the late 1970s was [...] the right time to believe that the age-long breach between culture and local government would be closed so that both sectors could work in harmony. The efforts made in this sense, both by the architects forming part of the government and by those others who, though not part of it, have contributed their design, began a new era of extraordinary vitality in Catalan architecture. Indeed, when compared
with the rest of contemporary architecture in Europe, the present state of Catalan architecture is unique in regard to the amount of output and its wide scope. [...] Our particular contribution in response to this challenge lies in understanding and struggling for architecture as a necessity.

(Josep Lluis Mateo¹)

The development of sports practice is inherently commingled with the social and political conditions of the country. Sixte Abadia Naudi, the sport historian, compares the democratic transition of Spain to the dissemination of sports practice “para todos”. In the first period, 1975-1979, sport associations are the main promoters of the indispensable reorganization of leisure activities. From 1979 on, it is the charter of self-government which stated that sports policy would be the exclusive competence of the Generalitat, so for the first time during peacetime, this regional Catalan institution was able to organize sports.

In the same year the Manifesto, edited by Asociaciones de Vecinos de Barcelona, finds the main set of problems of the city, among which «Sports equipment should be obtained, deprivatizing sports areas, to municipal ones, rearranging free zones for the construction of new equipment for the practice of sports. It will be extremely important to coordinate actions with school, cultural and sports facilities.»³ This piece clarifies that the understanding of sport they are looking at is the one of "de Vecinos", of "deporte para todos", to be integrated with the educational and cultural ones.

Sport is considered to be part of a system of basic equipments, to be included in a plan of reconfiguration of outdoor spaces and squares⁴. Therefore it is important that it is reached a widespread diffusion of these facilities within the city and that they are linked to other services as well (for example, a civic centre or a school).

3. PAVILLIONS AND SCHOOLS: TWO POSSIBLE SPORT'S FACILITIES

Sports facility is currently, in a developed society, the base of the practice of sport. Today you can not talk about sports minimally qualified without talking about adequate facilities. It is clear that, understanding the social phenomenon of sport as a whole, there are many opportunities to develop physical, recreational and sporting activities without having conventional facilities, since the natural settlement (beaches, Collserola mountains, parks and the city port) can be used by citizens to do sports activities. However, it seems clear that the natural environment is insufficient to develop the quanti-qualitative levels of sport and any efficient sport’s policy requires a good allocation of sport's installation.

(Enric Truñó⁵)

² The investigation El Español y el deporte: datos de una encuesta conducted in 1975 by ICSA-Gallup pointed out a lack of facilities for sports claimed by people as a social need
³ Associació de Veïns de Sarrià. A tots els ciutadans. Sarrià, publicació de l’Associació de Veïns, 1979
⁴ Reconstrucción de Barcelona by Oriol Bohigas was published in 1986 and that was determining for the drawing up of the 'Barcelona Model' and its successful nomination to host the Olympic Games
⁵ in La ciutat de les anelles. L'esport a la Barcelona Olímpica, edicions 62, Barcelona 1987. Enric Truñó was councilman of the City Council between 1979 and 1998, being the councilor responsible for the 1992 Summer Olympics. As Councilor for youth created the Department of Youth (1979-1997) to implement the youth policy of the council
According to Bohigas\textsuperscript{1}, Barcelona was a city already done\textsuperscript{2} at the beginning of the eighties and has to be regenerated. Therefore projects have to resolve specific and situated problem that have a their own dynamics, within an existing possibilities.\textsuperscript{3} Sports facilities, for their public and popular nature, can include this dynamic force, but, using the words of Ignacio Paricio, «the insertion of these specific buildings into a residential plot can hardly be done without traumas to the urban fabrics or to the functionalism of the installations»\textsuperscript{4}.

The theme of the relationship between specific dimensional necessities and grafting in a consolidated context is dealt with in the design of services facilities of a neighborhood: in particular, as mentioned, sports equipment is often combined with school facilities, both of which require a significant increase and should be in every neighborhood of the city. This issue has led to the development of an experiment on the school typology that incorporates sports services into its own structure.

A second settlement of sports facilities has been the definition of a specific type for indoor sports: the sports pavilion. These facilities are built in Barcelona as well as throughout the Catalan region to provide citizens with a sheltered place suitable for both smaller sporting events and different types of recreational activities.

The article therefore focuses on the study of the architectural character of the sports pavilion, on the other hand, and, on the other, on the recognition of peculiarities of some facilities built in Barcelona.

3.1 Sports pavilion: setting of a typology

The issue that concerns us, the sports building, is a frequent program on the boards that implies a type of public construction in which converge some of the characteristics of the new task. Particularly three of them are often present: the reference to the city, the importance of the structural component and the forecast of the intense and hard public use of the facilities.

(Ignacio Paricio\textsuperscript{5})

The Real Decreto núm. 1668 /1980 of 31-7-1980 sets the transition of Physical Culture and Sports services from the State Government to the Government of Catalonia (Generalitat de Catalunya). The Direcció General de l’Esport was founded as a body that will directing sport in Catalonia.

\textsuperscript{1} Oriol Bohigas was professor at ETSAB since 1964 and in 1977 was appointed director, a position he left in 1980 to become delegated of the urban area of the City Council until 1984. Since then he became minister of urban development council, a position from which he determined the urban policy of Barcelona.

\textsuperscript{2} in Diàlegs a Barcelona. Oriol Bohigas-Óscar Tusquets, the two architects explain the town planning strategy adopted for Barcelona, a city that has no expansionist vocation, rather manifested a will to reconstruct the city already built.

\textsuperscript{3} Several studies have been published on the urban strategies implemented in Barcelona during the 1980s. At this stage, reference was made to Bohigas texts including: Per una altra urbaitat, in Plans i projectes per a Barcelona. 1981/1982, Ajuntament de Barcelona 1983; Reconstrucció de Barcelona, Edicions 62, Barcelona 1985


Eight years after its foundation the Direcció organizes the exhibition "Vuit anys d'arquitectura per a l'esport"\(^1\) at the museum and research centre on sport "Dr. Melcior Colet". The catalog of this exhibition shows the work's path conducted in this time span that had the intention of «minimally cover the entire region of Catalonia, helping to sport's frames, sort them, regulate them and try to place them in many cases at the level of the best sports structures in Europe regarding its functionality, services, pavements, hygiene, comfort, etc..» \(^2\).

This ambitious project sets at the basis three basic principles:

- facilities are at the service of sportsman rather than the spectator, in order to guarantee maximum functionality and comfort
- buildings have maximum performances at the lowest possible cost, which does not mean cost-effective constructive quality, but the actually constructed square meters are minimal in relation to their performance
- do not limit the space to a single sports practice, but design it suitable for as many uses as possible

In order to achieve this, and therefore the construction of hall for the practice of sports, in a high architectural quality at low cost the Direcció General de l’Esport sets a series of datasheets with the minimum requirements that define a "mòduls tipus"\(^3\).

These directions provide the elements from which architects move in the design of the sports halls. For this typology indeed there is not an architectural tradition from which drawing on as, we will see later, it was for school.

---

\(^1\) The catalog is published on the occasion of the exhibition with the title: Vuit anys d'arquitectura per a l'esport. *Catáleg de l'exposició*, Generalitat de Catalunya, Direcció General de l'Esport, Barcelona 1988

\(^2\) Josep Lluís Vilaseca i Guasch, Director General de l'Esport de la Generalitat de Catalunya, in the Introduction to Vuit anys d'arquitectura per a l'esport. *Catáleg de l'exposició*

\(^3\) The sheets, still used, are a collection of documents that briefly outline the typological requirements and regulatory aspects established by the Catalan Sports Council for the basic network facilities.
Studying some of these buildings, it is possible to recognize the architectural elements used to meet the technical and qualitative requirements. It has also been noted that despite the fact that pavilions refer to different classes, these elements remain constitutive design elements (Figure 3). These are:

- the relationship between the volume of the sports hall and the services one: the part containing services differ volumetrically and structurally from the main hall and retain their own figurative autonomy
- the organization of path: the paths for spectators and players are autonomous. The players' services are preferably located at the same level of the sports field and underneath the spectator's space, that is at a higher level to provide a good view of the playground through a balcony. Only some of the larger pavilions are equipped with stands
- the structural elements of the sorts hall: a sequence of reticular beams arranged orthogonal to the field represent the structural theme of the sports hall. The beams do not always have a symmetrical design: their profile is related to the internal organization of the spaces and the ways to bring in an indirect light. In turn it determines the volumetric shape of the sports hall

![Figure 3](image-url)

**Figure 3**: study of the architectural elements of three sports pavilion: relationship between volume of sports hall and services, organization of path, structural elements of sorts hall. Sports pavilion Raval, Jordi Farrando, 1989; Sports pavilion l'Escala, Llorens Geli i Batllori and Juan Luis Sancha, 1985, Sports pavilion La Floresta, Victor Rahola Aguade, 1984.
3.2 School: vertical organisation of district services

Perhaps the interesting novelty of this current experience -beyond their scope- is the appearance, sometimes discreetly, other times more explicit, of a form of design that wants to explain what about public, and therefore what is centrally urban, can mean a schools equipment, especially when it appears in the already built city. [...] This work, which is not strictly educational nor pedagogical in a restrictive sense of the term, may become, however, a truly civic task.

(Ignasi de Solà-Morales)¹)

When Manuel Brullet i Tenas in L’Arquitectura Escolar a Catalunya i la seva evolució² makes the evolution of architecture for schools presents the last span, 1977-1986, with the title L’escola com a equipament integrat. This slogan synthesize the way in which school are designed: not only the place of education but as a cultural and social center for the community living in a district. Its spaces have to be intended to offer different services during the all day. For this reason «must be defined clear architectural spaces, allowing use change and emphasise the unity and complexity of cultural relationships.»³

These words shape a cultural reorganization in which cultural and recreational organizations look at sport as an activity that can be integrated into their program. Architects called to design new schools, encouraged by school building sports development programs⁴, developed interesting solutions to integrate the spaces of sports into the school building.

In Barcelona this experimentation of school typology is measured with some antecedents called Escoles Actives⁵: schools built in the period 1957-1970 and conceived with a high degree of polyvalence of the common spaces that assumed a key role in the planimetric organization of the school. Until then it is mainly about private institutions. Examples are the ones designed by MBM arquitectes⁶: Escola Sant Jordi (Figure 4) where around a central collective place (square) are organized classrooms (private spaces) searching an analogy with the urban structure.⁷ Covering a range of terraces for the children recreation and a playground. These experiences have behind us an important season for Barcelona's school building. In 1916 was founded the Oficinas de la Comisión de la Cultura in which the advisory was the pedagogue Manuel Ainaud and Josep Goday was the architect of the Grups Escolars de Barcelona⁸. Among the built schools, eight in all, there is Escola Baixeras (Figure 5) in which «classrooms (...) are grouped around a vestibule that humanizes and gives physiognomy to this central place that, on the other hand, is used for exercising, (...) for singing and for

¹ in El públic i el domèstic en l'Arquitectura escolar, in "Mostra d'Arquitectura escolar". Ignasi de Solá-Morales was an architect and a philosopher. In addition to his professional works, he was professor of Architectural Composition at ETSAB and a scholar on Catalan architecture.
² in "Mostra d'arquitectura escolar", Generalitat de Catalunya, 1986
³ David Mackay, Funcionalisme?, in "Mostra d'arquitectura escolar", Generalitat de Catalunya, 1986
⁴ 1982: Plans d'Instal∙laciones Esportives Escolars; 1987: A l'escola més esport que mai
⁵ several schools, mostly private, are part of this group that follow a renewed pedagogical movement.
⁶ MBM arquitectes was founded in 1951 by Josep Martorell and Oriol Bohigas. In 1962 David Mackay was included.
⁷ This building refers to the pedagogical direction of Ramon Fuster i Rabés (1916-1976) author of L’educació, problema social (1965)
⁸ Les construccions escolars de Barcelona is a book that the Comisión de Cultura de la ciudad edited in 1922, as a summery of studies, projects and other examples to settle the problem of the dimension and the obsolescence of schools in Barcelona.
music\textsuperscript{1} and the Escola de Mar «in which the ecological rhythms - and their sports derivations - were extolled as pedagogical bases\textsuperscript{2}.

Figure 4: Barcelona, Escola Sant Jordi, MBM arquitectes, 1969

Figure 5: Barcelona, Escola de Mar, Josep Goday, 1922; Barcelona, Escola Baixeras, Josep Goday, 1917

These backgrounds provide some design ideas that are addressed and developed by architects during the 1970s and 1990s. The works of Jaume Bach and Gabriel Mora\textsuperscript{3} offer an interesting view on this subject.

In the Alzina School (Figure 6,a), located in the Sant Andreu district in Barcelona, the architects organize the block in three areas: one is dedicated to outdoor recreation; the building of the primary school that is shaped like a three-story parallelepiped volume and brings to the cover two outdoor playing fields; the secondary school building, taller than the first and volumetrically autonomous compared to this, of a trapezoidal shape to connect the first building with the back street. The patio with the accesses to the schools is among this two buildings.

\textsuperscript{1} Josep Goday, \textit{Rèplica documentada de l’Arquitecte Josep Goday i Casals als comentaris crítics inserits al número 9 de la revista AC}, in ‘Arquitectura i urbanisme’, n. 4, 1933


The J. M. Jujol School (Figure 6, b) rebuilds the edge of the building curtain and opens with a big arc to the Placeta de Sant Miquel. From here you can enter the back patio: the portico designed by J. M. Jujol that had hosted the Mañach laboratories and is recovered for student recreational activities and open the community after school time. Here again the school building roof provides additional equipment for the community hosting a open-air sports field.

Architects Bach-Mora again in the Gracia district faced with the development of a multi-sports building growing in height in a dense and consolidated urban context. (Figure 6, c) The building rationally differentiates the functions: from minor to greater structural light, from minor to greater need for natural light, from major to lower turnout. Ignasi de la Sola Morales, referring to the work of these architects, speaks of an elegant eclecticism that formally defines a precise typological choice and an efficient functional organization.

Figure 6: a, Alzina School; b, J. M. Jujol School, 1987; c, Sports center Perril, 1989. All works by Bach-Mora arquitectes.

4. CONCLUSIONS

This short review of projects shows how in the Catalan region the will to spread sport at different levels has been supported by a real investment in the construction of sports equipment. These buildings are not for the agonistic competitions, for the practice of high-level sport such as the facilities of Barcelona '92, but they are designed to provide a service to those who want to practice sports every day. Till now there is no literature that offers a systematic study of these buildings. This first study has shown how even these "minor" structures respond to settlements model and show clarity in the architectural composition of project elements. These projects can still provide useful elements for the design of sports facilities within the consolidated urban fabric of our cities.

References
1. Porro N., 2001, Lineamenti di sociologia dello sport, Carocci, Roma
10. AA.VV., 1988, *Vuit anys d'arquitectura per a l'esport. Catàleg de l'exposició*, Generalitat de Catalunya, Direcció General de l'Esport, Barcelona
Author Index

A
Aboutorabi M., 1191
Aktaş M., 953
Al Gammal M., 773
Aleinus M., 987
Alexandrakis G., 1570
Alici A., 1326
Alistratovaite-Kurtinaitiene I., 1645
Alonso Albarracín A., 1656
Altafini D., 2001
Altanlar A., 411
Alves F., 1605
Anastasiadis D., 299
Anastasiadou K., 1968
Anastasiou E., 2012, 2098
Anastasopoulos N., 640
Antocheviz F., 965
Apostolopoulou N., 1765
Aprile M., 25
Arsego C., 965
Asiliskender B., 1775
Asimakopoulou E., 1445
Asprogerakas E., 629
Athanasopoulou N., 1765
Avdelidi K., 194, 977
Azevedo M., 1957

B
Babalis D., 291
Bajic T., 861
Bakalis C., 784
Bakogiannis E., 1008, 1147
Barbieri L., 1201
Baturayoglu Yoney N., 1775
Belibani R., 34, 208, 805
Benetou A., 299
Berkmen H., 1412
Bianconi F., 94
Bigdeli E., 1455
Bishop I.D., 1209
Blathra S., 699
Boca S., 2109
Bocci E., 1797
Bonfante F., 1615
Bonoldi F., 1092
Bournas I., 987
Bouzeas S., 549
Braga A.C., 965, 2001, 2118
Braun F., 2118

C
Calvano G., 1217
Camiz A., 455
Cantero Celada S., 699
Capanna A., 34, 208
Capelato R., 1696
Castagnaro A., 766
Cattani E., 1935
Cenci J., 725
Chaldezou S., 45
Charalampaki C., 1664
Charalampidi M., 998
Chatzi Rodopoulou T., 1786
Chazapis A., 629
Christidou C., 699
Christoforaki K., 2024
Christopoulou O., 515, 1869, 1923
Chhtouris S., 784
Cialdea D., 62, 79
Cidre E., 3
Clemente M., 94, 103
Coccossis H., 1371
Colazza M., 260
Cornwall J., 1163, 1171
Corrêa M., 2036
Costopoulou T., 515
Crespi L., 1459

D
D’ Acci L., 1389
Daamen T.A., 1228
Damiano D.S., 114
Daskalakis V., 1858

Proceedings
of the International Conference on Changing Cities III:
Spatial, Design, Landscape & Socio-economic Dimensions
Syros, Delos, Mykonos Islands, Greece ● June 26-30, 2017
ISBN: 978-618-5271-12-1
<table>
<thead>
<tr>
<th>Author</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>De Ioris D.</td>
<td>1201</td>
</tr>
<tr>
<td>de Rosa A.S.</td>
<td>1797</td>
</tr>
<tr>
<td>de Smet I.</td>
<td>1242</td>
</tr>
<tr>
<td>Delendi M.L.</td>
<td>1139</td>
</tr>
<tr>
<td>Demiri K.</td>
<td>466</td>
</tr>
<tr>
<td>Demiris N.</td>
<td>1157</td>
</tr>
<tr>
<td>Desi-Louka C.</td>
<td>998</td>
</tr>
<tr>
<td>Di Prete B.</td>
<td>1459</td>
</tr>
<tr>
<td>Dijokiene D.</td>
<td>1808</td>
</tr>
<tr>
<td>Dimitrakopoulos A.</td>
<td>1675</td>
</tr>
<tr>
<td>Domblás U.</td>
<td>1471</td>
</tr>
<tr>
<td>Dryjanska L.</td>
<td>1797</td>
</tr>
<tr>
<td>Dubois M.C.</td>
<td>987</td>
</tr>
<tr>
<td>Duc V.N.</td>
<td>1326</td>
</tr>
<tr>
<td>De Ioris D.</td>
<td></td>
</tr>
<tr>
<td>Economou M.</td>
<td>1157</td>
</tr>
<tr>
<td>Eguchi K.</td>
<td>1835</td>
</tr>
<tr>
<td>Elnokaly A.</td>
<td>1253, 1819</td>
</tr>
<tr>
<td>Elseragy A.</td>
<td>1253, 1819</td>
</tr>
<tr>
<td>Elsinga M.G.</td>
<td>1432</td>
</tr>
<tr>
<td>Enlin Z.</td>
<td>411</td>
</tr>
<tr>
<td>Evdou M.</td>
<td>2067</td>
</tr>
<tr>
<td>Falasca C.C.</td>
<td>794</td>
</tr>
<tr>
<td>Faria H.M.</td>
<td>1264</td>
</tr>
<tr>
<td>Farias A.</td>
<td>1685</td>
</tr>
<tr>
<td>Farmaki P.</td>
<td>1981</td>
</tr>
<tr>
<td>Ferrante A.</td>
<td>1935</td>
</tr>
<tr>
<td>Ficcadenti F.</td>
<td>805</td>
</tr>
<tr>
<td>Filippucci M.</td>
<td>94</td>
</tr>
<tr>
<td>Fotopoulou A.</td>
<td>1935</td>
</tr>
<tr>
<td>Fouseki S. Ch.</td>
<td>1008, 1147</td>
</tr>
<tr>
<td>Frangedaki E.</td>
<td>1625</td>
</tr>
<tr>
<td>Frangopoulos I.</td>
<td>2067</td>
</tr>
<tr>
<td>Falasca C.C.</td>
<td></td>
</tr>
<tr>
<td>Faria H.M.</td>
<td></td>
</tr>
<tr>
<td>Farias A.</td>
<td></td>
</tr>
<tr>
<td>Farmaki P.</td>
<td></td>
</tr>
<tr>
<td>Ferrante A.</td>
<td></td>
</tr>
<tr>
<td>Ficcadenti F.</td>
<td></td>
</tr>
<tr>
<td>Filippucci M.</td>
<td></td>
</tr>
<tr>
<td>Fotopoulou A.</td>
<td></td>
</tr>
<tr>
<td>Fouseki S. Ch.</td>
<td></td>
</tr>
<tr>
<td>Frangedaki E.</td>
<td></td>
</tr>
<tr>
<td>Frangopoulos I.</td>
<td></td>
</tr>
<tr>
<td>Gaja i Díaz F.</td>
<td>1274</td>
</tr>
<tr>
<td>Gavra E.G.</td>
<td>2080</td>
</tr>
<tr>
<td>Gemenetzì G.</td>
<td>194, 813, 977, 1014</td>
</tr>
<tr>
<td>Geropanta V.</td>
<td>1024</td>
</tr>
<tr>
<td>Gerson V.L.</td>
<td>1092</td>
</tr>
<tr>
<td>Geuna A.</td>
<td>893</td>
</tr>
<tr>
<td>Giampino A.</td>
<td>2089</td>
</tr>
<tr>
<td>Giannouli I.</td>
<td>699</td>
</tr>
<tr>
<td>Gigante A.</td>
<td>794</td>
</tr>
<tr>
<td>Gigantes T.</td>
<td>1981</td>
</tr>
<tr>
<td>Gkioufi K.</td>
<td>2080</td>
</tr>
<tr>
<td>Gkounoupoulou G.</td>
<td>629</td>
</tr>
<tr>
<td>Gonçalves A.</td>
<td>1685</td>
</tr>
<tr>
<td>Gortsos K.</td>
<td>194, 977</td>
</tr>
<tr>
<td>Goulas A.</td>
<td>1287</td>
</tr>
<tr>
<td>Gouloumis S.M.</td>
<td>549</td>
</tr>
<tr>
<td>Grafakos S.</td>
<td>1389</td>
</tr>
<tr>
<td>Grigoriadou M.</td>
<td>321</td>
</tr>
<tr>
<td>Gritti A.</td>
<td>825</td>
</tr>
<tr>
<td>Guerreiro R.</td>
<td>1315</td>
</tr>
<tr>
<td>Gugerell K.</td>
<td>699</td>
</tr>
<tr>
<td>Gülersoy N.Z.</td>
<td>927, 1885</td>
</tr>
<tr>
<td>Güneş M.</td>
<td>1947</td>
</tr>
<tr>
<td>Habibi S.</td>
<td>1032</td>
</tr>
<tr>
<td>Hadjichristou Y.</td>
<td>380</td>
</tr>
<tr>
<td>Hatton W.</td>
<td>1495</td>
</tr>
<tr>
<td>Havrali A.</td>
<td>1481</td>
</tr>
<tr>
<td>Hofstad H.</td>
<td>1294</td>
</tr>
<tr>
<td>Ioannatou E.</td>
<td>299</td>
</tr>
<tr>
<td>Ioannou O.</td>
<td>579</td>
</tr>
<tr>
<td>Ippolito A.M.</td>
<td>131</td>
</tr>
<tr>
<td>Ishimoto T.</td>
<td>1835</td>
</tr>
<tr>
<td>Izzo F.</td>
<td>766</td>
</tr>
<tr>
<td>Kalkan Açikkapi D.</td>
<td>411</td>
</tr>
<tr>
<td>Kalnis G.</td>
<td>1042</td>
</tr>
<tr>
<td>Kalymnìou A.</td>
<td>1051</td>
</tr>
<tr>
<td>Kamontou E.</td>
<td>1858</td>
</tr>
<tr>
<td>Kamperì E.</td>
<td>1157</td>
</tr>
<tr>
<td>Karagianni A.</td>
<td>1024</td>
</tr>
<tr>
<td>Karanikolas N.</td>
<td>2067</td>
</tr>
<tr>
<td>Kargül O.</td>
<td>927</td>
</tr>
<tr>
<td>Karvelas D.</td>
<td>1008, 1147</td>
</tr>
<tr>
<td>Katsavounidou G.</td>
<td>734</td>
</tr>
<tr>
<td>Katsimpoulas V.</td>
<td>1858</td>
</tr>
<tr>
<td>Kavvada I.</td>
<td>1858</td>
</tr>
<tr>
<td>Kazantzi G.</td>
<td>2067</td>
</tr>
<tr>
<td>Kershaw C.</td>
<td>1163</td>
</tr>
<tr>
<td>Kiakou A.</td>
<td>1504</td>
</tr>
<tr>
<td>Kilia M.</td>
<td>1858</td>
</tr>
<tr>
<td>Kiourtí M.</td>
<td>649</td>
</tr>
<tr>
<td>Kitsonas M.</td>
<td>1157</td>
</tr>
<tr>
<td>Klabatsea R.</td>
<td>501</td>
</tr>
</tbody>
</table>
Author Index

Konidi A., 299
Konstantinidou E., 1858
Kostagianni M., 1858
Koumpouli A., 1858
Kourouni I., 1858
Kourouvani M., 1664
Koussoulos G., 299
Koutsomarkos N., 699
Kozminska U., 249
Krenenberger B., 268
Kuboshima Y., 1060
Kuzey G., 927
Kyriazi I., 1008, 1147
Kyvelo-Chiotini S., 489

L
La Delfa G., 893
Laplume D., 1242
Larkham P., 1338
Leardini P., 1549
Lehmann K., 219
Leonhart Petersen K., 699
Liapi K.A., 1051
Lim J., 1171
Linaki E., 333
Litsardou D., 501
Litserinou E., 1401
Lo Piccolo F., 2089
Lopes B., 1315
Lu X., 1071
Lundgren M., 987

M
Magouliotis N., 1847
Maistrou E., 299, 311, 1858
Makedonopoulou C., 1516
Makhoul Vassiliou R., 1083
Malkakis V., 299
Manca A., 1528
Mangialardi G., 1217
Manika K., 2098
Manika S., 2012, 2098
Manisa K., 422
Maravelia E., 1858
Marinero Peral A.M., 699
Marino M., 145
Marques B., 1163, 1171, 1495, 1540
Martinelli N., 1217

Marzulo E., 1696
Massou E., 194, 977
Mayer-Wydra M., 837
McIntosh J., 1163, 1171, 1495, 1540
McKone M., 1540
Mentekidou A.D., 539
Mocci S., 684
Monioudi-Gavala D., 1754
Montella I., 850
Moore K., 1338
Moretti K., 373
Moula S., 1704
Moulis A., 1549
Mourati V., 1014
Mpartzis D., 1858
Mrdjenovic T., 447

N
Nafa H., 590
Niavis S., 1371
Nikas G., 299
Nikolaou D., 1664
Nikolić T., 861
Nikologianni A., 1338
Nohara T., 1723
Ntafa E., 1347
Ntampiza K., 1716
Nyka L., 872

O
Oc T., 3
Okamura Y., 1723, 1835
Özbay Kinaci M., 1885
Özer Y.S., 433
Ozgun K., 1549

P
Paez E., 260
Panou M., 1182
Panzenhagen A.F., 1092
Papadopoulou T., 1228
Papafotiou M., 1157
Papageorgiou C., 1157
Papageorgiou M., 515, 813
Papagiannakis A., 1357
Papailiou N., 1858
Papaioannou A., 699
Paparsenou Z., 345
<table>
<thead>
<tr>
<th>Author</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Papatheochari T.</td>
<td>1371</td>
</tr>
<tr>
<td>Papavasileiou M.</td>
<td>399, 568</td>
</tr>
<tr>
<td>Pappa M.</td>
<td>1287</td>
</tr>
<tr>
<td>Paraskevopoulou A.</td>
<td>1157, 1182</td>
</tr>
<tr>
<td>Parthenios P.</td>
<td>1024</td>
</tr>
<tr>
<td>Pasquali M.</td>
<td>694</td>
</tr>
<tr>
<td>Patrakī D.</td>
<td>1357</td>
</tr>
<tr>
<td>Patrakī M.</td>
<td>1858</td>
</tr>
<tr>
<td>Petras T.</td>
<td>599</td>
</tr>
<tr>
<td>Petrella B.</td>
<td>882</td>
</tr>
<tr>
<td>Petrić J.</td>
<td>861</td>
</tr>
<tr>
<td>Petridou V.</td>
<td>1051</td>
</tr>
<tr>
<td>Petropoulou C.</td>
<td>1481</td>
</tr>
<tr>
<td>Pezzetti L.A.</td>
<td>236, 1071</td>
</tr>
<tr>
<td>Pili S.</td>
<td>164</td>
</tr>
<tr>
<td>Pillen S.</td>
<td>1903</td>
</tr>
<tr>
<td>Pineschi P.</td>
<td>260</td>
</tr>
<tr>
<td>Pitoglou F.</td>
<td>2045</td>
</tr>
<tr>
<td>Plastina M.</td>
<td>230</td>
</tr>
<tr>
<td>Polychronopoulos D.</td>
<td>321</td>
</tr>
<tr>
<td>Pozoukidou G.</td>
<td>333</td>
</tr>
<tr>
<td>Protopapa V.</td>
<td>1008</td>
</tr>
<tr>
<td>Q</td>
<td></td>
</tr>
<tr>
<td>Qian Q.K.</td>
<td>1432</td>
</tr>
<tr>
<td>Quercio N.</td>
<td>62</td>
</tr>
<tr>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Ramirez Aranda N.E.</td>
<td>1389</td>
</tr>
<tr>
<td>Rampavila M.</td>
<td>2149</td>
</tr>
<tr>
<td>Rato V.</td>
<td>1605</td>
</tr>
<tr>
<td>Rebaglio A.</td>
<td>1459</td>
</tr>
<tr>
<td>Reis A.T.</td>
<td>965, 1092</td>
</tr>
<tr>
<td>Rempis N.</td>
<td>1562, 1570</td>
</tr>
<tr>
<td>Ristuccia M.S.</td>
<td>260</td>
</tr>
<tr>
<td>Rodi A.</td>
<td>1765</td>
</tr>
<tr>
<td>Rodrigues J.</td>
<td>1913</td>
</tr>
<tr>
<td>Rodriguez-Ramírez E.</td>
<td>1171</td>
</tr>
<tr>
<td>Röe B.</td>
<td>1581</td>
</tr>
<tr>
<td>Rynska E.D.</td>
<td>249</td>
</tr>
<tr>
<td>S</td>
<td></td>
</tr>
<tr>
<td>Sabbagh M.</td>
<td>1819</td>
</tr>
<tr>
<td>Sadri S.</td>
<td>1730</td>
</tr>
<tr>
<td>Saeed M.</td>
<td>590</td>
</tr>
<tr>
<td>Sah B.</td>
<td>1730</td>
</tr>
<tr>
<td>Sakantamis K.</td>
<td>476</td>
</tr>
<tr>
<td>Sakarya A.</td>
<td>953</td>
</tr>
<tr>
<td>Salaris C.</td>
<td>1528</td>
</tr>
<tr>
<td>Salemik K.</td>
<td>699</td>
</tr>
<tr>
<td>Salvati L.</td>
<td>94, 164</td>
</tr>
<tr>
<td>Sanna C.</td>
<td>260</td>
</tr>
<tr>
<td>Sarri S.</td>
<td>1741</td>
</tr>
<tr>
<td>Sas-Bojarska A.</td>
<td>1591</td>
</tr>
<tr>
<td>Scheerlinck K.</td>
<td>1903</td>
</tr>
<tr>
<td>Sciarrone C.</td>
<td>694</td>
</tr>
<tr>
<td>Secchi R.</td>
<td>260</td>
</tr>
<tr>
<td>Seçmen S.</td>
<td>927, 1103</td>
</tr>
<tr>
<td>Selevista M.</td>
<td>356</td>
</tr>
<tr>
<td>Semprini G.</td>
<td>1935</td>
</tr>
<tr>
<td>Sepe M.</td>
<td>181</td>
</tr>
<tr>
<td>Serraos K.</td>
<td>629, 1420</td>
</tr>
<tr>
<td>Setti G.</td>
<td>825</td>
</tr>
<tr>
<td>Shakouri N.</td>
<td>1947</td>
</tr>
<tr>
<td>Siddi C.</td>
<td>673</td>
</tr>
<tr>
<td>Sidiropoulou T.</td>
<td>1481</td>
</tr>
<tr>
<td>Silva M.L.</td>
<td>2036</td>
</tr>
<tr>
<td>Silveira L.</td>
<td>1913</td>
</tr>
<tr>
<td>Skafida E.</td>
<td>1633</td>
</tr>
<tr>
<td>Skalidi F.</td>
<td>1382</td>
</tr>
<tr>
<td>Song Y.</td>
<td>711</td>
</tr>
<tr>
<td>Sotiropoulou K.</td>
<td>1008</td>
</tr>
<tr>
<td>Spanogianni E.</td>
<td>526</td>
</tr>
<tr>
<td>Spanos V.D.</td>
<td>1869, 1879</td>
</tr>
<tr>
<td>Stamatopoulou A.</td>
<td>606</td>
</tr>
<tr>
<td>Stenou M.</td>
<td>2057</td>
</tr>
<tr>
<td>Stivali C.</td>
<td>156</td>
</tr>
<tr>
<td>Stouten P.</td>
<td>1116</td>
</tr>
<tr>
<td>Stylianidis E.</td>
<td>1981</td>
</tr>
<tr>
<td>Suraci N.</td>
<td>893</td>
</tr>
<tr>
<td>Swiny A.</td>
<td>380</td>
</tr>
<tr>
<td>Szczepański J.</td>
<td>872</td>
</tr>
<tr>
<td>T</td>
<td></td>
</tr>
<tr>
<td>Tanaka A.</td>
<td>1723</td>
</tr>
<tr>
<td>Tapkı S.</td>
<td>901</td>
</tr>
<tr>
<td>Tasopoulou A.</td>
<td>699</td>
</tr>
<tr>
<td>Tenorio G.</td>
<td>268</td>
</tr>
<tr>
<td>Terkenli T.S.</td>
<td>560</td>
</tr>
<tr>
<td>Thelekitis C.</td>
<td>1157</td>
</tr>
<tr>
<td>Theodora Y.</td>
<td>45, 526</td>
</tr>
<tr>
<td>Theodosiou G.</td>
<td>1287</td>
</tr>
<tr>
<td>Thomas G.</td>
<td>1060</td>
</tr>
<tr>
<td>Timmeren A.</td>
<td>711</td>
</tr>
<tr>
<td>Todaro V.</td>
<td>2089</td>
</tr>
<tr>
<td>Tofiluk A.</td>
<td>249</td>
</tr>
</tbody>
</table>
Author Index

Tombolini I., 164
Tonelli C., 850
Trocchianesi R., 1459
Troncone S.G., 278
Tsakou D., 1382
Tsarouchi A., 1127
Tsatsou A., 1389
Tsilimigkas G., 1562
Tsoka S., 1401
Tsoumalakos S., 1923
Tuncer T., 2128
Türköğlu H., 1103
Tursi A., 1217
Tzortzi K., 1754

V
Vains C., 912
Van Daele E., 1903
Varvatou K., 476
Vasila M., 1858
Vasileiou E., 1858
Vassi A., 658
Vedeld T., 1294
Veisz A., 172
Venetsianou O., 618
Vete A., 1808
Visscher H. J., 1432

W
Wandl A., 711

X
Xanthopoulou X., 299

Y
Yeğenağa O.H., 433
Yenias K.-O., 392
Yerliyurt B., 422
Yiannakou A., 1357
Yiannoudes S., 998

Z
Zalloom B., 1191
Zampieri F., 965, 2001
Zhuang T., 1432
Zinowiec-Cieplik K., 249
Zippelius E., 939
Zomas A., 399, 568
Zuidema C., 699
Subject Index

A
Abdullah Gül University Sumer Campus, 1775
absurd, 392
access, 556
accessibility as socio-economic value for waterscapes, 1903
activism, 1998
actor analysis, 1432
actual residence, 1014
adaptation strategy, 1923
add-ons, 1935
adoption of a public space, 1528
Aegean, 1847
Aegean open sea, 568
aesthetic evaluations, 1092
Athereta-unauthorized, 1581
agro-forest systems, 164
air corridors, 1455
alternative tourism, 422
America’s Cup, 549
amphibian aircraft, 549
analytics, 579
anthropology, 649
archaeological remains, 466
architectural education, 321
architectural heritage, 356
architectural identity, 1819
architectural lighting, 1633
architectural overwriting, 236
architectural projections, 618
architectural technology, 1032
architecture, 649, 1605, 1615, 1847
arrangement and compensation acts due to urban layout, 1981
artistic against-intervention, 1696
Aswan, 1253
Athens, 784
attractors, 455
Australian cities, 1209
autobiography, 1675

B
balkans, 2080
barren lands, 1455
Belgrade, 861
borders, 1459
Bosphorus, 411
bottom up, 373
bottom-up participation, 1528
boundaries, 1083
Brasilia, 268
bridge, 1591
brownfield site, 725
brownfield, 208
buffer zone, 380
building design, 740
building information modeling, 172
built environment, 1032
built heritage management, 773
built heritage, 345

carrying capacity, 1420
CartoDb visual program, 590
case study, 1051
Catalan region, 278
cement canals, 1455
central Athens, 194
central part of the city, 1645
changes in local urban space, 2036
children with disabilities, 1730
Cihangir neighborhood, 1900
cinematic city, 1445
citizen and governance, 684
citizen science, 156
city, 219, 1591, 1730
city branding, 1879
city brochures, 1797
city center development, 1819
city formations, 2024
city making, 673
city planning, 1147
city planning, 526
civil disobedience, 1127
<table>
<thead>
<tr>
<th>Subject</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>civil society</td>
<td>629</td>
</tr>
<tr>
<td>climate adaptation</td>
<td>1338</td>
</tr>
<tr>
<td>climate change</td>
<td>452, 1201, 1923</td>
</tr>
<tr>
<td>climate change and landscape resilience</td>
<td>1903</td>
</tr>
<tr>
<td>climate transformation</td>
<td>1294</td>
</tr>
<tr>
<td>coastal area</td>
<td>1562, 1570</td>
</tr>
<tr>
<td>coastal city</td>
<td>965</td>
</tr>
<tr>
<td>coastal landscape</td>
<td>62</td>
</tr>
<tr>
<td>coastal urban space</td>
<td>526</td>
</tr>
<tr>
<td>coastal urbanization</td>
<td>2135</td>
</tr>
<tr>
<td>coastal zone</td>
<td>515</td>
</tr>
<tr>
<td>co-creational leadership</td>
<td>1294</td>
</tr>
<tr>
<td>co-existence</td>
<td>998</td>
</tr>
<tr>
<td>co-habitation</td>
<td>476</td>
</tr>
<tr>
<td>collaborative design of homes</td>
<td>476</td>
</tr>
<tr>
<td>collaborative processes</td>
<td>1480</td>
</tr>
<tr>
<td>collective design</td>
<td>476</td>
</tr>
<tr>
<td>collective memories</td>
<td>1459</td>
</tr>
<tr>
<td>collective self-build</td>
<td>1528</td>
</tr>
<tr>
<td>commons</td>
<td>156, 1625</td>
</tr>
<tr>
<td>commons standards</td>
<td>1625</td>
</tr>
<tr>
<td>commonwealth</td>
<td>1685</td>
</tr>
<tr>
<td>communities</td>
<td>805</td>
</tr>
<tr>
<td>compact city</td>
<td>1935</td>
</tr>
<tr>
<td>compact growth</td>
<td>164</td>
</tr>
<tr>
<td>comparative approach</td>
<td>1481</td>
</tr>
<tr>
<td>complexity</td>
<td>1605</td>
</tr>
<tr>
<td>concepts-terms in urban conservation</td>
<td>1765</td>
</tr>
<tr>
<td>conflict</td>
<td>590</td>
</tr>
<tr>
<td>connectivity</td>
<td>579, 1060</td>
</tr>
<tr>
<td>conservation</td>
<td>927</td>
</tr>
<tr>
<td>contemporary architecture</td>
<td>766</td>
</tr>
<tr>
<td>contemporary public spaces</td>
<td>1696</td>
</tr>
<tr>
<td>cool materials</td>
<td>1401</td>
</tr>
<tr>
<td>Corinthiakos gulf</td>
<td>515</td>
</tr>
<tr>
<td>craftsmen</td>
<td>433</td>
</tr>
<tr>
<td>creative economy</td>
<td>1858</td>
</tr>
<tr>
<td>creativity</td>
<td>1741</td>
</tr>
<tr>
<td>criteria of reasonable compactness</td>
<td>1242</td>
</tr>
<tr>
<td>cultural</td>
<td>927</td>
</tr>
<tr>
<td>cultural heritage</td>
<td>321, 345, 422, 1869</td>
</tr>
<tr>
<td>cultural identity</td>
<td>2080</td>
</tr>
<tr>
<td>cultural impacts</td>
<td>556</td>
</tr>
<tr>
<td>cultural landscape</td>
<td>1495</td>
</tr>
<tr>
<td>cultural tourism</td>
<td>411</td>
</tr>
<tr>
<td>culture</td>
<td>1287</td>
</tr>
<tr>
<td>culture’s preservation; seasonality</td>
<td>2056</td>
</tr>
<tr>
<td>culture-led approaches</td>
<td>1071</td>
</tr>
<tr>
<td>cultures of participation</td>
<td>640</td>
</tr>
<tr>
<td>Curitiba-Brazil</td>
<td>1264</td>
</tr>
<tr>
<td>Cyclades Archipelago</td>
<td>2045</td>
</tr>
<tr>
<td>cycle network</td>
<td>1008</td>
</tr>
<tr>
<td>D</td>
<td></td>
</tr>
<tr>
<td>data contextualization</td>
<td>579</td>
</tr>
<tr>
<td>data visualization</td>
<td>599</td>
</tr>
<tr>
<td>daylight factor</td>
<td>987</td>
</tr>
<tr>
<td>daylighting</td>
<td>987</td>
</tr>
<tr>
<td>decision making process</td>
<td>1432</td>
</tr>
<tr>
<td>democratization of planning</td>
<td>629</td>
</tr>
<tr>
<td>densification</td>
<td>987, 1242, 1935</td>
</tr>
<tr>
<td>design</td>
<td>766, 1163</td>
</tr>
<tr>
<td>design strategies</td>
<td>1024</td>
</tr>
<tr>
<td>design studio course</td>
<td>321</td>
</tr>
<tr>
<td>desire of place</td>
<td>556</td>
</tr>
<tr>
<td>Deskati</td>
<td>1879</td>
</tr>
<tr>
<td>development</td>
<td>766</td>
</tr>
<tr>
<td>development corridors</td>
<td>2001</td>
</tr>
<tr>
<td>development projects</td>
<td>1570</td>
</tr>
<tr>
<td>development strategy</td>
<td>345</td>
</tr>
<tr>
<td>diffusion model</td>
<td>837</td>
</tr>
<tr>
<td>digital commons</td>
<td>1625</td>
</tr>
<tr>
<td>digital survey</td>
<td>119</td>
</tr>
<tr>
<td>digital technologies</td>
<td>1171</td>
</tr>
<tr>
<td>digitally expanded cinema</td>
<td>618</td>
</tr>
<tr>
<td>disability</td>
<td>1540</td>
</tr>
<tr>
<td>dispersed urbanization</td>
<td>164</td>
</tr>
<tr>
<td>diversity</td>
<td>219, 939</td>
</tr>
<tr>
<td>domestic</td>
<td>1656</td>
</tr>
<tr>
<td>dwellers appropriation of space</td>
<td>2036</td>
</tr>
<tr>
<td>E</td>
<td></td>
</tr>
<tr>
<td>East-West</td>
<td>1516</td>
</tr>
<tr>
<td>eco-cities</td>
<td>1253</td>
</tr>
<tr>
<td>eco-landscape approach</td>
<td>1481</td>
</tr>
<tr>
<td>economic crisis</td>
<td>2098</td>
</tr>
<tr>
<td>economic growth</td>
<td>1287</td>
</tr>
<tr>
<td>economic reinforcement</td>
<td>2045</td>
</tr>
<tr>
<td>economic sustainability</td>
<td>1060</td>
</tr>
<tr>
<td>ecosystem services</td>
<td>156, 1139</td>
</tr>
<tr>
<td>ecosystem-based management</td>
<td>489</td>
</tr>
<tr>
<td>education</td>
<td>1217</td>
</tr>
<tr>
<td>eHealth</td>
<td>1171</td>
</tr>
<tr>
<td>elderly</td>
<td>1163, 1171</td>
</tr>
<tr>
<td>emergency</td>
<td>1201</td>
</tr>
</tbody>
</table>
emotion, 684
employed by economic activity, 2012
enhance the quality, 1455
Envimet, 1401
environment, 1455, 1947
environmental impact assessment, 1591
environmental parameters, 1024
environmental planning, 1913
environmental policy, 1347
environmental tools, 1347
equipment, 278
Ermoupolis, 345
escapism, 2057
essential housing models, 850
ethnic groups, 872
ethnicities, 939
Europe, 1645
European heritage days, 1723
European Union, 734
evaluation, 590
expandable housing, 230
expanded cinema, 618
experimentation, 694

F
family, 649
feedback systems, 1171
feminism, 1656
feral cities, 380
first-time visitors, 1797
fishing boat harbor, 568
fitness equipment, 1163
flexible, 373
flexible models to contrast marginalization, 260
flood management, 1139
flood risk, 1389
form, 1127
formal, 373
fragmentary archaeological sites, 466
fringes, 1504
functional change, 927

G
game, 1675
gasworks, 1786
Gdańsk, 872
gemeinschaft/gesselschaft, 640
gentrification, 1116, 1471, 1885
gentrification projects, 433
geodatabase, 684
geographical variables, 670
geology, 1879
German cities, 629
GIS, 1201
GIS mapping, 1549
globalisation, 156, 1191, 1471, 1696
Greater Athens, 977
Greece, 515, 536, 813, 1228
Greek cities, 734
Greek landscape, 1516
green areas, 208, 249
green categories, 34
green corridors and public spaces, 260
green guide, 34
green infrastructure, 94, 103
green infrastructure benefits, 1389
green network, 1347
green pathways, 79
green/blue corridors, 1347
groundwater, 1455

H
hacktivism, 1716
haitian immigrants, 2118
Hamburg, 229
health, 1163
health planning – methods, 1147
healthy cities, 1147
hedonic pricing model, 1389
Heraklion, 1562, 1570
heritage, 893
heritage buildings, 1819
heritage designation and management, 356
heritage urban landscape, 236
high street, 1819
higher education, 2128
historic environment, 291
historic garden, 119
historic memory, 1083
historic settlement, 794
historical center, 1071, 1808
historical city center, 25
holistic energy planning, 699
hospitality, 825
housing, 805
housing emergency, 2089
housing market, 2128
housing policies, 813, 2089
housing projects in Rio de Janeiro, 2036
housing rehabilitation, 813
human behavior, 1157, 1664
human topographies, 380
human urban environments, 1116

I
ideal residence, 1014
identity, 556, 765, 893, 902, 1326, 1459, 1471
image, 2080
immigrants, 794
impairment, 1540
improving urban environment, 299
inclusive design, 1540
inclusive playground, 1730
incremental housing strategies, 230
independent living, 1060
indigenous knowledge, 1495
industrial cities, 1147
industrial heritage, 432, 1741, 1786
infill architecture, 466
informal, 373, 1581
informal actions, 1528
informal cities, 850
informal settlements, 825
informality, 392, 399
inner city regenerations, 1071
institutional/participatory planning, 629
insular, 556
intangible cultural heritage, 1741
intangible heritage, 1858
integrated and objective compactness, 1242
integrated coastal zone management, 1371, 2135
integrated urban & transport planning, 1357
interactive and digital media, 618
interactivity, 579
interconnection, 1716
intercultural city, 882
intercultural potential, 1459
interdisciplinary, 1605
interpersonal communication, 1797
intersensoriality, 599, 606
inventory, 987

Italiaia county, 1913
Izmir, 1481

J
Japan, 1060
Jews, 2067
journey, 1516

K
Kayseri, 1775
Kuzguncuk, 927

L
Lajeado / RS, 2118
land use, 1562
land use changes, 194
land values, 1389
landscape, 132, 1591, 1947
landscape architecture, 1163, 1540
landscape conservation, 1835
landscape design, 103, 1182, 1338
landscape identity, 684
landscape metrics, 1562
landscape planning, 2109
landscape preservation, 79
landscaping, 1455
land-sea interaction, 489
Larissa, 1504
latent conflicts, 2089
law, 1127
learning community, 579
learning patterns, 589
legal system, 2135
legislation, 114, 1382
leisure, 278
Lesvos, 560
light management, 1633
lighting applications, 1633
limit, 1127
listed buildings, 356
liveability, 939
Living Labs, 699
local development, 1287
local identity, 1858
local media, 1716
localisation, 1191
Location Quotient (LQ), 2012
long-term change, 673
low carbon, 1338
Lower Silesian Voivodeship, 837
Lüneburg, 219

M
management and planning of territory, 114
manufacture, 433
Maori, 1495
mapping, 606, 1445
marine spatial planning, 515
maritime governance, 489
Maritime Spatial Planning, 489, 2135
mature as ethics, 156
meaning, 392
Mediterranean, 1923
Mediterranean basin, 164
medium sized cities, 1371
memory, 466
memory policies, 2067
mending the suburbs, 208
mental healthcare facilities, 1157
mental maps, 998, 1741
Metropolis, 1455
Metropolitan areas, 1923
microclimate simulation, 1401
migrant, 784, 882
migrants’ routes, 825
migration, 219, 805, 872, 893, 902, 912, 2109
military architecture; landscape, 1326
minimum requirement, 850
minor urbanity, 34
mobility, 1913
models, 805
modernism, 1847
monumental buildings, 345
morphogenesis, 784
morphological transformations, 965
morphology, 1242, 1645
mountainous settlement, 1858
movement of people and vehicles, 965
multiculturalism, 766, 825
multi-family housing, 987
multi-household, 1060
multinational, 998
multiscale identity, 684
multitude, 1685
museum space, 1754

natural heritage, 501
natural resources, 114
natural structure, 1412
nature as method, 156
nearly zero energy, 1935
need, 392
neighbourhood, 998
neoliberal capitalism, 1685
network, 568
network, 1217, 1716
new technology, 1615
New Zealand, 1495
Nicopolis, 1869
non-planning, 1581
northeastern Aegean, 539
North-South, 1294
nuclear energy, 1412

O
observation tools, 1664
Oia, 1835
old barracks, 291
oleo tourism, 422
open green spaces, 45, 1008
Open House London, 1723
open space, 694
open street maps, 599
open-ended design, 1042
Opole Voivodeship, 837
other, 1516
overproduction, 1274

P
palm tree, 1516
Park Road, 1913
participation, 476, 673, 1371, 1581, 1869
participatory culture, 649
participatory decision making, 699
participatory planning, 45, 373, 526
patterns, 1042
pedestrians, 1264
perception of tourism, 411
PGIS, 684
physical landscape, 1209
place attachement, 902
place branding, 539, 1858
place identity, 1797
place memory, 1696
planetary urbanization, 399
planning, 658, 1581
planning adaptive methodology, 850
planning Green Infrastructure, 1947
planning strategies, 1116
playground equipment, 1171
political and scientific discourse, 194
pontine plain, 2109
popular uprising presence, 1957
population dynamics, 861
port-city interface, 1228
position, 1412
post-modernism, 1847
post-occupancy, 1605
post-socialist city, 1645
PPS, 1136
preserving heritage, 299, 311
prime city plan, 684
prison-city, 1051
privacy, 1060
private and public, 1723
proactive vs retroactive, 640
process, 1042
production of ethnicity, 2118
productive landscapes, 399
Profitopolis, 1642
project, 208
property price, 1504
protection of the environment, 1420
prototyping, 1042
psychopathology, 1675
public access, 1723
public design, 45
public dialogue, 45
public good, 501
public land, 501
public open space, 25, 103, 965
public participation, 658
public space, 45, 94, 194, 268, 278, 752, 836, 998, 1103, 1459, 1664, 1716, 1730
public spaces and buildings, 236
publicness, 1103
pupil participation, 1182

Q
Q methodology, 1371
quality of life, 181, 526
questionnaire survey, 1182

R
real estate bubble, 1274
real estate value, 1935
real-time data, 1024
rebuilding communities, 1253
reception, 794
reconstruction, 1083
reconversion, 725
recovery, 794
recycle, 694
rediscovery, 1103
reduction of CO2 emissions, 740
reduction of energy consumption, 740
ree software, 1625
refugee camp, 902
refugee crisis, 560, 813
refugees, 912
regeneration, 62, 208
regeneration strategies, 1228
regional development, 699
relational city, 606
renewable energy sources, 1382
renewable energy technologies, 740
repellers, 455
requalification, 805
residential satisfaction, 1014
residents, 1869
resilience, 62, 447, 640, 850, 1389
resilient city, 882, 912, 1201, 1253
resource, 156
resource characteristics, 1723
restoration and adaptive reuse of industrial buildings, 1775
reuse, 291
revitalization, 1819
Rio de Janeiro-Niterói connection, 1957
river valleys, 1455
riverbeds, 1455
Rome, 164
rural landscape, 2109

S
safeguard, 114
sailing, 549
Samos, 1382
Santorini, 556, 1835
school, 1615
school planting, 1182
seacoast, 2057
seascape, 568
seascape network branding, 539
segregation, 939
self-construction, 694
sensory mapping, 599
Serbia, 861
sewer, 1455
shared housing, 1060
sharing, 694
short-term actions, 673
sidewalks, 1264
significative, 392
Şişhane, 433
small town, 1808
smart city, 1008, 1024, 1032, 1968
smart street, 1968
social and human approach, 673
social and spatial effects, 977
social change, 927
social conflicts, 1957
social diversity, 1209
social exclusion, 1445
social housing, 230
social identifications, 194
social integration, 784
social methodologies, 640
social regeneration, 684
social representations, 1797
social space, 640
social structure, 784
social sustainability, 1060
social variables, 658
societize, 156
socio-cartography, 2067
socio-cultural identity, 1191
socio-cultural sustainability, 1060
socio-economic crisis, 560
socio-economic mobility, 773
software in higher education, 1625
South-European countries, 2089
space syntax, 1315, 2118
spaces of the urban collective, 156
spatial analysis, 1315
spatial autocorrelation, 2012
spatial changes, 773
spatial configuration, 2001
spatial design, 1754
spatial division, 1083
spatial effects, 813
spatial governance, 45
spatial impact, 2001
spatial impacts of migration, 872
spatial planning systems, 1981
spatial planning, 501, 699, 1504, 1981
spatial quality, 1338
spatial statistics, 2012
sport event, 1287
sport-for-all, 278
square, 1645
strategic planning, 489
strategies, 447, 490
student lifestyle, 2128
student mobility, 2128
studentification, 2128
suburban development, 2057
suburbanization, 837
Sümerbank, 1775
supports, 1042
surface temperature, 1401
sustainability, 34, 114, 156, 181, 447, 711, 794, 977, 1217, 1294, 1325, 1326, 1338, 1389, 1412, 1947
sustainable, 1432
sustainable city development, 1008
sustainable design, 132
sustainable development, 311, 501, 1032
sustainable industrial cities, 1147
sustainable intelligence, 1968
sustainable masterplanning, 291
sustainable mobility, 1968
sustainable planning, 1968
sustainable regeneration of public spaces, 249
sustainable regeneration, 773
sustainable strategies, 1253
sustainable tourism, 422
sustainable transportation, 1008
sustainable urban development, 734, 1765
Syros Island, 333, 345
system, 1605
system approach, 447
systematic correlation, 658

T
tactical urbanism, 1685
tag cloud, 684
taxonomy, 1754
Technopolis, 1786
temporary urban spaces, 912
temporary use, 893
terminals, 555
terrain vague, 1445
territory-city, 399
Tethys, 1879
therapeutic garden design, 1157
therapeutic landscapes, 1495
therapy, 1675
Thessaloniki, 207, 1481, 2067
third place, 1516
threats, 1591
time-phases design, 145
to rethink the existing city, 260
top down, 373
tourism, 560, 2045, 2057
tourism development, 411, 1835
tourism support, 411
town squares, 1754
townscape, 1808
traditional local expertise, 1858
traditional settlement, 333, 1835
tramway, 1357
transformation, 1786
transgression, 1127
transit oriented development, 1357
transitory, 893
transplantation, 1516
transport accessibility, 1357
transport crisis, 1957
TripAdvisor, 1797
Twentieth century, 2024

U
universal design, 1730
universities, 249
university and city, 766, 1217
urban, 1389
urban adaptation, 1201
urban and regional planning, 882
urban area, 1947
urban Atlas, 1562
urban centers, 268
urban change, 373
urban competitiveness, 526
urban conservation, 1885
urban culture, 1754
urban design, 25, 103, 181, 321, 526, 953, 977, 1014, 1092, 1116, 1139, 1664, 1675
urban design assessment tools, 977
urban design processes, 606
urban design strategies, 1765
urban development, 45, 526, 953, 1287
urban ecology, 1549
urban economics, 2001
urban ecosystem, 172
urban form, 164, 861, 939, 1326, 1357
urban gardens, 94
urban governance, 1294
urban governance and planning, 1228
urban green, 103
urban green spaces, 1008
urban happiness, 181
urban health, 1147
urban heritage, 773, 927, 1326, 1808
urban historic neighbourhood, 1885
urban history, 455
urban hydrological cycle, 1549
urban identity, 1191
urban interfaces, 1092
urban interiors, 912
urban interpretative tools, 236
urban intervention, 734, 1765
urban justice, 1685
urban landscape, 25, 172, 1471, 1481, 1570, 1633
urban layout planning, 1981
urban legislation, 1913
urban life, 1051, 1664
urban lighting, 1633
urban livability, 181
urban marketing, 25
urban metabolism indicator, 711
urban metabolism set, 711
urban morphology, 455, 1741
urban nature, 34, 79, 103, 114, 132, 145
urban nature management, 172
urban palimpsest, 466
urban pattern, 953
urban planning, 333, 1008, 1315, 1347, 2109
urban planning implementation acts, 1981
urban policies, 433
Subject Index

urban politics, 953
urban pressure, 515
urban regeneration, 45, 94, 236, 268, 1071, 1116, 1274, 1528
urban regeneration policies, 2098
urban region, 861
urban reintegration, 1051
urban renewal, 1432
urban requalification, 1696
urban resilience, 145, 725, 740
urban rivers, 1455
urban safety, 882
urban screens, 618
urban shape, 1083
urban shrinkage, 2098
urban space, 599, 953, 1103, 1264
urban sprawl, 1504
urban structure, 872
urban sustainability, 977, 1264
urban texture, 1455
urban thermal, 1401
urban tissue continuity, 1051
urban transformation, 1191, 2024
urban transitions, 1445
urban waterfronts, 299, 311, 1103
urban wildlife and ecology, 380
urbanism, 1656
urbanity, 268
user-driven methods, 1024
sustainable development, 1420

V
vacant city, 1274
vacation home, 2057
vegetal architecture, 119
vernacular, 1847
VGI and open data, 1201
villa Celimontana, 119
visibility analysis, 1382
visual identity, 1808
visual impact, 1382

W
walled cities, 1071
waterfront, 321, 1371
waterfront development, 1228
waterfront urban space, 291
wellbeing, 1163
Westergasfabriek, 1786
wheelchair athletes, 1540
wilderness, 1540
WSUD, 1549

Y
YouTube, 1656
Sponsors

University of Thessaly

Ministry of Tourism

Blue Star Ferries

SuperFast Ferries

Municipality of Syros, Division of Culture.
Under the aegis of Culture vice Mayor Mrs. Thomais Mendrinou