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La collana editoriale Esempi di Architettura nasce per divulgare pubblicazioni scientifiche edite dal mondo universitario e dai centri di ricerca, che focalizzino l'attenzione sulla lettura critica dei progetti. Si vuole così creare un luogo per un dibattito culturale su argomenti interdisciplinari con la finalità di approfondire tematiche attinenti a differenti ambiti di studio che vadano dalla storia, al restauro, alla progettazione architettonica e strutturale, all'analisi tecnologica, al paesaggio e alla città. Le finalità scientifiche e culturali del progetto EDA trovano le ragioni nel pensiero di Werner Heisenberg Premio Nobel per la Fisica nel 1932.

... È probabilmente vero, in linea di massima, che nella storia del pensiero umano gli sviluppi più fruttuosi si verificano spesso nei punti d'interferenza tra diverse linee di pensiero. Queste linee possono avere le loro radici in parti assolutamente diverse della cultura umana, in diversi tempi ed in ambienti culturali diversi o di diverse tradizioni religiose; perciò, se esse veramente si incontrano, cioè, se vengono a trovarsi in rapporti sufficientemente stretti da dare origine ad un'effettiva interazione, si può allora sperare che possano seguire nuovi ed interessanti sviluppi.

Spazi di riflessione

La sezione Spazi di riflessione della collana EdA, Esempi di Architettura, si propone di contribuire alla conoscenza e alla diffusione, attraverso un costruttivo confronto di idee e di esperienze, di attività di ricerca interdisciplinari svolte in ambito sia nazionale che internazionale. La collana, con particolare attenzione ai temi della conservazione del patrimonio costruito nonché dell'evoluzione del processo costruttivo anche in ambito ingegneristico, è finalizzata ad approfondire temi teorici e metodologici propri della progettazione, a conoscere i protagonisti promotori di percorsi evolutivi nonché ad accogliere testimonianze operative e di attualità in grado di apportare validi contributi scientifici. Le attività di ricerca accolte nella collana EdA e nella sezione Spazi di riflessione possono essere in lingua straniera.

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This book offers the theoretical contributions and design project proposals developed within the final workshop of Tempus SEHUD project “*Architecture and Sustainable Urban development based on eco-Humanistic Principles & Advanced Technologies without Losing Identity*” (coordinator Maria Grazia Folli, Polimi), begun in 2012 and completed at the end of 2015. The goal of the program, funded by the European Commission, has been developing high competencies for MSc, LLL and PhD Ukrainian students through the interdisciplinary cooperation between European and Ukrainian partners: Politecnico di Milano, University of Cambridge, University of Saragossa, National Institute of Applied Sciences of Lyon, Technological Educational Institute of Athens, Fondazione Politecnico di Milano, Polytechnic Institute of Guarda, Varna Free University “Chernorizets Hrabar”, Assoc. Exchange & Consulting in International Technologies, Kharkiv National University of Civil Eng. & Architecture, Prydniprov’ska State Academy of Civil Eng. & Architecture, Kyiv National University of Construction and Architecture, Lviv Polytechnic National University, Inst. of Architecture, Odessa State Academy of Civil Engineering and Architecture, Kharkiv City Council: Dep. of Urban Development & Architecture, Kharkiv Research & Project Inst. “KharkovPromstrojNIIproekt”, Kharkiv Region Union of Architects, Ministry of Autonomous Republic of Crimea, Ministry of Autonomous Republic of Crimea, Former Chamber of Commerce.



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DEPARTMENT OF ARCHITECTURE
AND URBAN STUDIES

SEHUD

Urbanity

Theories and Project Designs
New Strategies for Sustainable Developments of Ukrainian Cities

Edited by
Maria Grazia Folli

Contributions by
Giovanni Azzone, Gabriele Pasqui, Maria Grazia Folli
Oleksandr Chelnokov, Iryna Shvets, Kateryna Kozlova
John Kiousopoulos, Evgenia Tousi, Andrés Fernández-Ges
Maurizio Boriani, Maria Cristina Giambruno, Nora Lombardini
Elena Fioretto, Carmen Díez Medina , Javier Monclús Fraga
Maria João Lino Silva Gomes, Rositsa Nikiforova, Ivan Nikiforov
Eugenia Silvestri, Matteo Moscatelli, Sara Caspani





Aracne editrice

www.aracneeditrice.it
info@aracneeditrice.it

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www.giacchinoonoratieditore.it
info@giacchinoonoratieditore.it

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Urbanity NEW UNIVERSITY VISION TOWARDS SUSTAINABLE FUTURE

Prof. Giovanni Azzone
Rector (2010-2016)
Politecnico di Milano - POLIMI

10

In 2013, on the occasion of the Politecnico's 150th anniversary, we set out our future vision for our university: *"an international university with strong roots in Italian culture"*.

Our university is an international university which provides people from different cultures and backgrounds with a research and learning environment, allowing them to work together on solutions to global social challenges such as climate change, scarcity of natural resources, quality of life in cities and the digital divide. Yet at the same time it is a university that is proud of its roots and aspires to be a gateway between Italy and the rest of the world, bringing our culture and traditions into contact with other people's needs and visions.

Of course, translating this vision into a consistent set of concrete actions and behavior is not easy and demands a great deal of effort; in this regard, Urbanity is a significant example of such effort and its results.

Urbanity is about cities, and I believe that today, with over half of the world's population living in cities, and even more in the future (it is forecast that more than five billion people

will be living in cities by 2050), most global social challenges will be faced in cities, and advances in city design will be critical to quality of life worldwide. It will also be important to analyze cities systematically, with a strong interaction between different disciplines and a clear focus on sustainability.

Urbanity brings together a number of European partners with a view to fostering diversity, which can be enriching as opposed to inducing fear. Moreover, it works on students, at different levels, whose education is the best contribution to a better world.

Finally, Urbanity draws on our university's skills and expertise to support Ukrainian cities, providing a concrete example of how Italian culture – and specifically the Politecnico di Milano – can make a positive contribution to other peoples and nations.

Thus it gives me great pleasure to note the central role played by Politecnico di Milano in the project. I also wish to offer my sincere thanks to professors Maria Grazia Folli and Nora Lombardini, as well as all of our own researchers and scholars who worked on the project, for their efforts and the quality of their results.

De te fabula narratur
WHAT WE CAN LEARN
FROM UKRANIAN CITIES

Prof. Gabriele Pasqui
Politecnico di Milano - POLIMI

As Maria Grazia Folli explains in her foreword, this book presents the rich experience of the Sehud Project, which brought together European and Ukrainian partners (including architects, planners, experts, civil servants and students). Specifically, it sets out the results of the final workshop organized as part of the Tempus-Sehud activities and contains articles with both a theoretical focus and regarding practical design experiences in relation to five Ukrainian cities.

One of the main themes of the book is the fact that, while Ukrainian cities face their own highly complex, specific problems connected with Ukraine's geopolitical and socio-economic situation, most of their urban problems are similar to those of many European cities. Evidence of this "convergence" is that the process of development of the Urban Agenda for the EU is concerned with issues and challenges that are very close to those discussed in this book.

On the 6th and 7th of April 2016, members of the Urban Development Group of the EU

met in Amsterdam to discuss the Pact of Amsterdam¹ and related partnerships. The Pact of Amsterdam is an attempt to set out a shared European urban agenda, involving cities, regions and state members.

This agenda is based on the general principle that cities represent both the most complex problems and the main resources for sustainable development in Europe.

Indeed, more and more people are living, working and spending their free time in cities, which provide fertile ground for new businesses, platforms for cultural dialogue and diversity and incubators for innovation.

With the current European trend towards urbanization, cities and urban areas will continue to grow in importance. This growth is accompanied by complex challenges, including a growing risk of socio-spatial segregation, increased crime and environmental problems.

Through the Urban Agenda for the EU, Member States, cities, European institutions and other stakeholders are seeking to set

out a clear strategy for a sustainable, socially inclusive, innovative and economically powerful Europe.

International research² has revealed that cities are of huge importance to Europe, as they are to states such as Ukraine which have undergone a complex transition in the last twenty years. Cities are the powerhouses of economic growth, innovation and employment. 72% of all Europeans live in cities. This percentage is expected to rise to 80% by 2050.

Complex challenges related to the environment, transport and social cohesion are having an increasingly negative impact on quality of life in cities.

Moreover, the same traditions that have characterized European cities throughout the centuries need to be safeguarded and developed.

For all these reasons, the challenges faced by Ukrainian cities – which are an important part of this tradition – are closely connected to the main objectives of the European urban agenda.

The majority of the twelve priority themes and cross-cutting issues identified by the Pact of Amsterdam³ form the core focus of this book, and closely reflect the complex problems of Ukrainian cities.

Moreover, five crucial aspects in the re-design and regeneration of Ukrainian cities are main issues and priorities for a new European urban agenda.

The first regards the strengthening, through architecture, planning and integrated urban

policies, of a new urbanity that can foster a better quality of life for citizens and city users through projects for public spaces, sustainable mobility, mixed-use settlements and regeneration projects.

The second concerns the implementation of regeneration projects to reduce socio-spatial injustice, through the inclusion of disadvantaged social groups and populations in a full spatial citizenship and the growth of accessibility to public services.

The third has to do with the enhancement of cultural and natural heritage, through the protection and restoration of “historical” cities and landscapes and the promotion of culture-led regeneration of the astonishing array of traditions and heritage represented by European cities.

The fourth aspect is related to the creative re-use of post-industrial or under-used areas and “drosscapes” through technologically advanced environmental interventions on polluted water, air and soil and through the redefinition of uses and sustainable economic activities.

The fifth and final aspect involves trialing policies and projects to counter the negative effects of climate change, fostering sustainable energy policies, using new and sustainable building techniques and the reduction of soil consumption.

All of these strategies are discussed in the theoretical articles, while examples of their implementation are described in the design exercises proposed by students in the second part of the book. These exercises, in particular, try to apply “eco-humanistic principles and advanced technologies” to specific

Ukrainian contexts, showing the importance of an integrated, place-based approach to urban reuse and regeneration.

For these reasons, the story told here is our story, and the contents of this book may be useful for researchers, designers and policy makers in European cities and countries. This is also the reason why the Sehud project

should not be considered merely an example of knowledge or technology transfer from EU universities to Ukraine universities and institutions, but also a concrete example of interdisciplinary and intercultural cooperation that can enrich all the partners involved and generate new competences and capabilities.

Notes

- ¹. "Establishing the Urban Agenda for the EU. Pact of Amsterdam". Agreed at the Informal Meeting of EU Ministers Responsible for Urban Matters on 30 May 2016 in Amsterdam, The Netherlands. http://urbanagendaforthe.eu/wp-content/uploads/2016/05/Pact-of-Amsterdam_v7_WEB.pdf.
- ². See for example the Report "Cities of Tomorrow. Challenges, Visions, Ways Forward", produced in 2011 for the European Commission, Directorate General for Regional Policy.
- ³. Inclusion of migrants and refugees; air quality; urban poverty; housing; circular economy; jobs and skills in the local economy; climate adaptation; energy transition; sustainable use of land and Nature-Based solutions; urban mobility; digital transition; innovative and responsible public procurement.