



International Symposium on
GREENER CITIES
FOR MORE EFFICIENT ECOSYSTEM SERVICES
IN A CLIMATE CHANGING WORLD

Bologna - ITALY | 12-15 September 2017

BOOK OF ABSTRACTS



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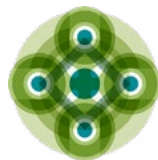
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WELCOME

Dear Colleague,

welcome to the **International Symposium on Greener Cities for More Efficient Ecosystem Services in a Climate Changing World** hosted by **Alma Mater Studiorum, University of Bologna** and the **National Research Council** in Bologna (Italy) from September 12 to 15, 2017.

The symposium focuses on themes dealing with the multifaceted role that urban green infrastructures can play on the city climate change resilience and adaptation. State-of-the-art experiences in the fields of horticulture, plant physiology, sociology, urban planning, architecture, civil engineering, economics, sustainability, health, and meteorology will be brought together in order to promote fruitful discussion among participants.

The objective of this event is not only to provide a forum for scientists, but also to share different experiences from public administrators, no-profit bodies and private entrepreneurs.

Enjoy the Symposium!

Francesco Orsini, Teodoro Georgiadis and Giorgio Prosdocimi Gianquinto

Convenors

BOOK_{OF}**ABSTRACTS**

GREENER CITIES FOR MORE EFFICIENT
ECOSYSTEM SERVICES IN A CLIMATE
CHANGING WORLD

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LECTIO

MAGISTRALIS

Creative Empathy

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Abstract

When it comes to the concept of sustainability, there is a clear divorce between ambition and reality. The difficulty of defining this term has to do with our particular historical situation: we come from a culture marked by a great industrial transformation that generated, on the one hand, technology and an improved quality of life, but on the other hand, years later, presented us with a bill for environmental and social costs reckoned in terms of the survival of the planet.

Sustainability as we imagine it should account for precisely this: emerging out of networks, from relationships with citizens, and not only from budget planning. Envisioning sustainable buildings means entering into an intimate relationship with the climate, and with the concept of place. Let's imagine ourselves rethinking buildings in such a way that the relationship between architecture and engineering becomes not only technological, but genetic: in form and matter, and no longer just in machines. We have to imagine buildings with minimal visible technology, maximizing instead the efficiency of form, as materials change to become an active part of the final result, silently performing a task, a function, becoming part of a new circular economy. This process seems to me a step closer to the complexity of nature rather than of mechanical artifice. These buildings will possess a high degree of empathy, a creative empathy.

Mario Cucinella

Mario Cucinella is the founder of Mario Cucinella Architects. With over 20 years of professional practice, MCA has developed extensive experience in architectural design, with particular attention to energy and environmental impact of buildings. He regularly holds conferences in Italy and abroad, while maintaining an active role in teaching at several universities.



In 2016, the Royal Institute of British Architects (RIBA) awarded him an International Fellowship. In 2017, he received the important Honorary Fellowship Award by the American Institute of Architects (AIA).

In 2012, he founded Green Building the Future, a non-profit organization that promotes sustainable development through green architecture and urban regeneration. In 2014, he worked as a tutor with 'Senator for Life' Renzo Piano on the G124 project for the recovery of the suburbs in Italy. Since 2015 he has started in Bologna S.O.S. - School of Sustainability, focused on training new professionals in the field of sustainability.

S1.

CITIES AND CLIMATE CHANGE

S1.A

GREEN SOLUTIONS FOR
CLIMATE CHANGE

S1.A10. A preliminary assessment of green areas of the Matera city and their potential role in climate changes mitigation

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Abstract

Urban greening offers a series of services including the improvement of air quality, water cycle, through several functions. There is an increasing attention to quantify urban green areas and the related benefits to the extent ISTAT scores the “green value” of the main cities. There are still uncertainties on the classification of the green areas and their potential to provide services that collectively improve the urban life quality and contribute to reduction of atmospheric CO₂.

Therefore, this study analysed the green areas of the urban environment of the Matera city, focussing their category and size and their potential capability to serve as CO₂ sink.

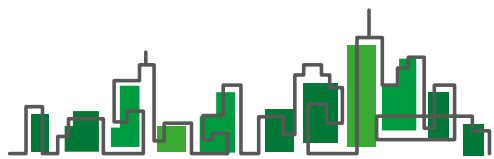
The analyses were carried out on four representative areas and the size of the various categories was assessed through cadastral and other municipal data. The urbanization process had influenced urban ecosystems including plant biodiversity, increasing the abundance of plant alien species. Knowledge on the spread of plant alien species might help to understand formation of new ecosystem.

Therefore, a qualitative survey of the existing alien plant species in the urban environment was performed in the above mentioned areas. Preliminary results show that the total urban green areas calculated in this study is m² and that private gardens share the higher surface.

Considering that the green areas within the built environment is most beneficial for human well-being and that areas covered by trees are limited, a possible scenario related to the carbon (C) sequestration capacity of these areas after the introduction of trees will be presented.

A potential green corridor connecting some existing spot green areas to promote social aspects and improve well-being of citizens and environmental sustainability will also be discussed.

This study might be supportive for urban planners and local policy makers contributing to drive future decisions toward a greener built environment of the Matera city.



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MADRE

Metropolitan Agriculture for Developing an innovative,
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MADRE aims to promote metropolitan agriculture in the Mediterranean area through the creation of a transnational cluster of key stakeholders on Urban and Periurban Agriculture.

Six flagship metropolitan areas are involved: Barcelona, Montpellier, Marseille, Bologna, Tirana, Thessaloniki.

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