

Theory, methodology and practical approaches to address wicked environment-oriented problems in regional and urban planning and practices

Giulia Motta Zanin * and Stefania Santoro *

This issue of *Plurimondi Journal* entitled “Dealing with wicked environmental problems in urban and regional planning” has been conceived for collecting a series of important topics included in current research interests and practical applications coming from young researchers regarding interdisciplinary and transdisciplinary works connected with social and environmental issues. In particular, it tries to bring together young academics working in basic and applied science (engineering, architecture, planning, technology, economics and social sciences), to compare and discuss advances in research theories, methods, models, tools, applications and achieved results and to design some future perspectives for regional and urban planning and practices to address environment-oriented wicked problems in regional and urban planning and practices.

Authors have been asked to base their contributions on some key concepts:

* Department of Civil, Environmental, Land, Construction and Chemistry (DICATECh), Polytechnic University of Bari (Italy)

- *Climate Changes and Impact on Urban Environment* (including strategies for mitigation and adaptation, modelling and planning for resilience);
- *Complexity and Uncertainty issues in integrated environmental system* (including disaster risk management, disaster risk reductions, urban and regional resilience, risk assessment);
- *Sustainable management of natural resources* (including water management, land use and land cover changes, resource efficiency, biodiversity, ecosystem services, nature- based solutions);
- *Energy resources management* (including energy efficiency, renewable energy sources, smart energy systems, smart buildings, smart grids, energy planning);
- *Environmental dynamics and human influence* (including environmental impact assessment, strategic environmental assessment, life cycle assessment, corporate social responsibility);
- *Decision making, knowledge interaction & public participation in Environmental modelling* (including social inclusion, territorial cooperation, planning for resilient communities, participatory planning processes, urban environment).

Working on the territory means to realize, both theoretically and practically, an interrelated and rationalized complex of choices, in order to structure the space in such a way that a harmonic balance between population, productive resources and physical environment is determined. This set of choices on the one hand is based on precise criteria, for example of an economic nature, on the other hand is conditioned by cultural, ethical, historical needs and values, which are not reducible to straightforward scientific solutions.

A seminal paper by Rittel and Webber (1973) argues that solving planning problems means to deal with inherently wicked problems.

It should be noted that, because of the wide margin of uncertainty and non-scientific features that characterizes most planning aspects, and for the same essence of the problems that planning deals with, there will never be resolute results (Rittel and Webber, 1973).

The contributions presented in this issue of *Plurimondi* address in different ways and on different scales a number of wicked environmental problems faced by urban and regional planning.

Specifically, although the topics of the papers are different in terms of case studies, issues and scales of intervention, it is possible to recognize a *fil-rouge* on themes of great debate in the field of urban and regional planning: (i) the complexity in the management of the territory (Marchau et al., 2019); (ii) the need for society to learn to live with risks because their assessment and management is increasingly difficult due to their own complexity (Beck, 1992); (iii) the importance of integrating bottom-up processes with traditional, sometimes ineffective planning techniques, through approaches such as action-research (Saija, 2017; Argyris, C., and Schön, 1991), or social mobilization that aggregates in small groups or organized movements (e.g., Friedmann, 1987), and (iv) the need to work on the existing environment aimed at the regeneration of a territory in economic and welfare terms rather than by increasing the expansion and consumption of land (e.g. Aigwi, Egbelakin and Ingham, 2018).

All the research efforts presented here arise from the will and enthusiasm of emerging researchers, in the field of urban and regional planning, to team up and work together, to join efforts of reflection, to open debates and considerations and

to work on an integrated planning concept, made of new knowledge and transversal interactions.

Going into the details of the present issue of *Plurimondi*, seven contributions have been collected.

The empowerment process of a group of citizens engaged in promoting a local project with the university has been the focus of the first paper (see *Caruso*). She proposes a reflection on i) the role of the actors involved within the process and of the university as an engaged party and ii) the capacity of an organized community to create strong and weak connections into planning processes.

Going ahead, from the second contribution presented by *Balena and De Lucia*, it is possible to understand how to manage the capacity of the social system to organize itself and to improve resilience to pre- and post-natural disaster events, through the analysis of the case-study of Haiti.

The theme of urban regeneration of underutilized areas and disused historic buildings is increasingly becoming a key intervention strategy to develop smart cities. The paper by *Vizzarri, Piludu, Calderazzi and Fatiguso* aims at selecting the best design solution for a specific the former Stanic refinery of Bari, starting from a multicriteria analysis concerning social, physical-morphologic, environmental and urban aspects.

The fourth contribution by *Balena* aims at understanding how the different forms of information, transmitted on Social Networks during an emergency, could help people to be safe.

Another perspective has been presented by *Dell'Omo, Limongi, Privitera, Somma and Vingelli*, whose contribution tries to recognize a fil rouge made up of common research interests of young Italian PhD students, oriented at identifying, through analogies and common traits, the

potential of interdisciplinary knowledge exchange and research networks.

The second last paper (see *Pavone*) aims to compare the traditional approach to risk management and the new challenges posed by the Anthropocene era, starting from the need to strengthen the relationship between technical-scientific knowledge and common knowledge for an integration of the resilience approach in local government practices.

Finally, *Damiano and Marino* focus their contribution on the integration of the objectives of two specific strategies, i) the National Strategy for Adaptation to Climate Change (hereinafter SNAC) and ii) the National Strategy for Sustainable Development, into spatial planning policies and spatial planning tools.

References

- Argyris, C., and Schön, D. (1991). Participatory action research and action science compared: A commentary. In Whyte, W. F. (ed.), *Participatory Action Research*, Sage, Newbury Park, CA, pp. 85-96.
- Aigwi I. E., Egbelakin T., Ingham J. (2018), Efficacy of adaptive reuse for the redevelopment of underutilized historical buildings: towards the regeneration of New Zealand's provincial town centers, *International Journal of Building Pathology and Adaptation*, 36(4), pp. 385-407.
- Beck U. (1992), *Risk Society: Towards a New Modernity*, New Delhi, Sage.
- Marchau, V. A., Walker, W. E., Bloemen, P. J., & Popper, S. W. (2019). *Decision Making Under Deep Uncertainty: From Theory To Practice*. Switzerland, Springer Nature.

- Rittel H.W., Webber M.M. (1973), Dilemmas in a general theory of planning, *Policy Sciences*, 4,2, pp. 155–169.
- Saija L. (2017). *La Ricerca-Azione In Pianificazione Territoriale E Urbanistica* [Action research in urban and territorial planning], Milan, Franco Angeli.