



TeMA

This Special Issue of TeMA - Journal of Land Use, Mobility and Environment, collects twenty-seven contributes of international researchers and technicians in form of scenarios, insights, reasoning and research on the relations between the City and the impacts of Covid-19 pandemic, questioning about the development of a new vision and a general rethinking of the structure and urban organization.



Journal of
Land Use, Mobility and Environment

TeMA Journal offers papers with a unified approach to planning, mobility and environmental sustainability. With ANVUR resolution of April 2020, TeMA journal and the articles published from 2016 are included in the A category of scientific journals. From 2015, the articles published on TeMA are included in the Core Collection of Web of Science. It is included in Sparc Europe Seal of Open Access Journals, and the Directory of Open Access Journals.



Special Issue

Covid -19 vs City -20

scenarios, insights, reasoning and research



ISSN 1970-9889
University of Naples Federico II

TeMA

Journal of
Land Use, Mobility and Environment

Special Issue

COVID-19 vs CITY-20 SCENARIOS, INSIGHTS, REASONING AND RESEARCH

Published by

Laboratory of Land Use Mobility and Environment
DICEA - Department of Civil, Architectural and Environmental Engineering
University of Naples "Federico II"

TeMA is realized by CAB - Center for Libraries at "Federico II" University of Naples using Open Journal System

Editor-in-chief: Rocco Papa
print ISSN 1970-9889 | on line ISSN 1970-9870
Licence: Cancelleria del Tribunale di Napoli, n° 6 of 29/01/2008

Editorial correspondence

Laboratory of Land Use Mobility and Environment
DICEA - Department of Civil, Architectural and Environmental Engineering
University of Naples "Federico II"
Piazzale Tecchio, 80
80125 Naples
web: www.tema.unina.it
e-mail: redazione.tema@unina.it

Given the short time to produce the volume, the Editorial Board of TeMA Journal carried out the scientific quality audit of the contributions published in this Special Issue.

The cover image is a photo collage of some cities during the Covid-19 pandemic quarantine (March 2020)

TeMA Journal of Land Use, Mobility and Environment offers researches, applications and contributions with a unified approach to planning and mobility and publishes original inter-disciplinary papers on the interaction of land use, mobility and environment. Domains include: engineering, planning, modeling, behavior, economics, geography, regional science, sociology, architecture and design, network science and complex systems.

With ANVUR resolution of April 2020, TeMA Journal and the articles published from 2016 are included in A category of scientific journals. From 2015, the articles published on TeMA are included in the Core Collection of Web of Science. TeMA Journal has also received the *Sparc Europe Seal* for Open Access Journals released by *Scholarly Publishing and Academic Resources Coalition* (SPARC Europe) and the *Directory of Open Access Journals* (DOAJ). TeMA is published under a Creative Commons Attribution 3.0 License and is blind peer reviewed at least by two referees selected among high-profile scientists. TeMA has been published since 2007 and is indexed in the main bibliographical databases and it is present in the catalogues of hundreds of academic and research libraries worldwide.

EDITOR IN-CHIEF

Rocco Papa, University of Naples Federico II, Italy

EDITORIAL ADVISORY BOARD

Mir Ali, University of Illinois, USA

Luca Bertolini, University of Amsterdam, Netherlands

Luuk Boelens, Ghent University, Belgium

Dino Borri, Polytechnic University of Bari, Italy

Enrique Calderon, Polytechnic University of Madrid, Spain

Roberto Camagni, Polytechnic University of Milan, Italy

Derrick De Kerckhove, University of Toronto, Canada

Mark Deakin, Edinburgh Napier University, Scotland

Aharon Kellerman, University of Haifa, Israel

Nicos Komninos, Aristotle University of Thessaloniki, Greece

David Matthew Levinson, University of Minnesota, USA

Paolo Malanima, Magna Græcia University of Catanzaro, Italy

Agostino Nuzzolo, Tor Vergata University of Rome, Italy

Rocco Papa, University of Naples Federico II, Italy

Serge Salat, Urban Morphology and Complex Systems Institute, France

Mattheos Santamouris, National Kapodistrian University of Athens, Greece

Ali Soltani, Shiraz University, Iran

ASSOCIATE EDITORS

Rosaria Battarra, National Research Council, Institute of Mediterranean studies, Italy

Gerardo Carpentieri, University of Naples Federico II, Italy

Pierluigi Coppola, Politecnico di Milano, Italy

Luigi dell'Olio, University of Cantabria, Spain

Isidoro Fasolino, University of Salerno, Italy

Romano Fistola, University of Sannio, Italy

Carmela Gargiulo, University of Naples Federico II, Italy

Thomas Hartmann, Utrecht University, Netherlands

Markus Hesse, University of Luxemburg, Luxemburg

Seda Kundak, Technical University of Istanbul, Turkey

Rosa Anna La Rocca, University of Naples Federico II, Italy

Houshmand Ebrahimpour Masoumi, Technical University of Berlin, Germany

Giuseppe Mazzeo, National Research Council, Institute of Mediterranean studies, Italy

Nicola Morelli, Aalborg University, Denmark

Enrica Papa, University of Westminster, United Kingdom

Dorina Pojani, University of Queensland, Australia

Floriana Zucaro, University of Naples Federico II, Italy

EDITORIAL STAFF

Gennaro Angiello, Ph.D. at University of Naples Federico II, Italy

Stefano Franco, Ph.D. student at Luiss University Rome, Italy

Federica Gaglione, Ph.D. student at University of Naples Federico II, Italy

Carmen Guida, Ph.D. student at University of Naples Federico II, Italy

Andrea Tulusi, Ph.D. at Second University of Naples, Italy

Special Issue

COVID-19 vs CITY-20

SCENARIOS, INSIGHTS, REASONING AND RESEARCH

Contents

- 5** EDITORIAL PREFACE
Carmela Gargiulo
- 9** **Covid-19 and simplification of urban planning tools. The residual plan**
Pasqualino Boschetto
- 17** **Covid-19. Some moments of the 21st century, with a look at Milan**
Roberto Busi
- 31** **Geographic Information and Covid-19 outbreak. Does the spatial dimension matter?**
Michele Campagna
- 45** **Health emergency and economic and territorial implications. First considerations**
Salvatore Capasso, Giuseppe Mazzeo
- 59** **About the effects of Covid-19 on solid waste management**
Alessandra Cesaro, Francesco Pirozzi
- 67** **The city and natural resources.**
Pandemic disaster can be a driving force for new perspective
Donatella Cialdea

- 81** **Evolution of mobility sector during and beyond Covid-19. Viewpoint of industries, consultancies and public transport companies**
Pierluigi Coppola, Francesco De Fabiis
- 91** **Tourism on demand. A new form of urban and social demand of use after the pandemic event**
Fabio Corbisiero, Rosa Anna La Rocca
- 105** **Questioning urbanisation models in the face of Covid-19.**
The crisis as a window of opportunity for inner areas
Giancarlo Cotella, Elisabetta Vitale Brovarone
- 119** **The Covid-19 pandemic effects in rural areas.**
Turning challenges into opportunities for rural regeneration
Claudia De Luca, Simona Tondelli, Hanna Elisabeth Åberg
- 133** **Shaping space for ever-changing mobility. Covid-19 lesson learned from Milan and its region**
Diego Deponte, Giovanna Fossa, Andrea Gorrini
- 151** **From social distancing to virtual connections**
How the surge of remote working could remold shared spaces
Luisa Errichiello, Daniele Demarco
- 165** **The paradigms of urban planning to emergency-proof.**
Rethinking the organisation of settlements at the time of a pandemic
Isidoro Fasolino, Michele Grimaldi, Francesca Coppola
- 179** **Virucity. Rethinking the urban system**
Romano Fistola, Dino Borri
- 189** **The role of the urban settlement system in the spread of Covid-19 pandemic. The Italian case**
Carmela Gargiulo, Federica Gaglione, Carmen Guida, Rocco Papa, Floriana Zucaro, Gerardo Carpentieri
- 213** ***“Passata è la tempesta ...”*. A land use planning vision for the Italian Mezzogiorno in the post pandemic**
Paolo La Greca, Francesco Martinico, Fausto Carmelo Nigrelli

- 231 Covid-19 and spatial planning**
A few issues concerning public policy
Sabrina Lai, Federica Leone, Corrado Zoppi
- 247 Take advantage of the black swan to improve the urban environment**
Antonio Leone, Pasquale Balena, Raffaele Pelorosso
- 261 Imagining living spaces in extreme conditions: suggestions from a case study in Bari**
Giulia Mastrodonato, Domenico Camarda
- 269 Risk, health system and urban project**
Gerardo Matteraglia
- 283 Geographical analyses of Covid-19's spreading contagion in the challenge of global health risks**
The role of urban and regional planning for risk containment
Beniamino Murgante, Ginevra Balletto, Giuseppe Borruso, Giuseppe Las Casas, Paolo Castiglia
- 305 The resilient city and adapting to the health emergency.**
Towards sustainable university mobility
Francesca Pirlone, Ilenia Spadaro
- 315 Physical spacing and spatial planning.**
New territorial geographies and renewed urban regeneration policies
Piergiuseppe Pontrandolfi
- 327 Mega cities facing Covid-19 pandemic.**
How to use urban spaces in Tehran after the new pandemic
Elmira Shirgir
- 333 Rethinking rules and social practices. The design of urban spaces in the post-Covid-19 lockdown**
Maria Rosaria Stufano Melone, Stefano Borgo
- 343 Data analysis and mapping for monitoring health risk. What has the spread of the Covid-19 pandemic in northern Italy taught us?**
Michela Tiboni, Michèle Pezzagno, David Vetturi, Craig Alexander, Francesco Botticini
- 363 About the Sustainability of Urban Settlements.**
A first reflection on the correlation between the spread of Covid-19 and the regional average population density in Italy
Maurizio Tira

TeMA Special Issue | Covid-19 vs City-20, 315-326

print ISSN 1970-9889, e-ISSN 1970-9870

DOI: 10.6092/1970-9870/6854

Received 12th May 2020, Available online 19th June 2020

Licensed under the Creative Commons Attribution – Non Commercial License 3.0

www.tema.unina.it

Physical spacing and spatial planning

New territorial geographies and renewed urban regeneration policies

Piergiuseppe Pontrandolfi

Dipartimento delle Culture Europee e del Mediterraneo

University of Basilicata, Matera, Italy

e-mail: piergiuseppe.pontrandolfi@unibas.it

ORCID: <https://orcid.org/0000-0001-7398-458X>

Abstract

After several months of total emergency, many of the countries concerned seem to have the Covid-19 pandemic under control. Measures and policies have been implemented almost worldwide to support the difficult economic and social recovery. The different national systems will be tested in terms of the degree of overall resilience and capacity and effectiveness of actions. In this sense, the reform of local autonomous areas and Regions becomes today even more necessary to start a long and complex process of decision-making and government-level reorganization fostering new relations, in terms of political representation and competences of the different institutional levels.

The responses to limit the impact of the Covid-19 pandemic on the country's growth and development imply a reconfiguration of territorial and institutional geographies. In this context, the discipline of spatial planning can promote some useful reflections at two different scales of intervention: territorial and urban. This study follows these two trajectories, starting from the consideration that the choice of forcing so-called "physical distancing" (better than the ambiguous term "social distancing") has certainly represented one of the most effective ways of contrasting the contagion.

Keywords

Physical spacing; New territorial geographies; Urban regeneration.

How to cite item in APA format

Pontrandolfi, P. (2020). Physical spacing and spatial planning. *Tema. Journal of Land Use, Mobility and Environment*, 315-326. <http://dx.doi.org/10.6092/1970-9870/6854>

1. New territorial geographies for the relaunch of the country system

In the economic revival of our country, starting from phase two of the Covid-19 emergency, the ability to plan effective strategies and policies that can promote proper use of resources and avoid their waste or misuse will be fundamental, given the huge financial resources that will be made available.

In a country like Italy - in a condition of structural crisis in many sectors, even before the pandemic - we should not delude ourselves about an easy recovery of the country's system.

It will be necessary to put in place a process for successful implementation of interventions aimed at real-time monitoring of outcomes and impacts, and at the implementation of strategies for assessment of the effects produced and, if necessary, for intervention by correcting the plans and programs in a continuous and iterative process.

The reform of local autonomous areas and Regions becomes even more necessary today in order to start a long and complex process of decision-making and government-level reorganization privileging new relations in terms of political representation as well as expertise of the different institutional levels.

How can we not think about the critical issues experienced in our management system especially on occasion of the current health crisis and the consequent initiatives for recovery and exit from lockdown? A revision of the competences and powers shared between the State and Regions (certainly in a deeply revisited organization of the Regions that also looks at the issue of differentiated autonomy) offers an effective way of making the politics and public administration system more efficient and transparent.

A reform of the institutional geography which, starting from a macro-regional reform of the country, looks above all at a new multi-municipal/super-municipal dimension as the intermediate body (from metropolitan areas to internal areas), completing the interrupted process of suppression of the "current" provincial administrations, now emptied of powers, resources and actual political representation functions.

In the Italian context, the pulverisation of municipalities, the hyper-territorialization and the inadequacy of the current administrative network continue to be most likely causes of ineffective and inefficient public policies. Recognition of the interdependence that links the effectiveness and efficiency of policies to the territorial areas to which they refer is a crucial issue, especially within the framework of the government of the territory.

Hence, there is an urgent need to address the problems arising from an overall redesign of the institutional architecture to direct the current territorial and urban dynamics towards more institutional forms and institute instruments of territorial governance that are more responsive to the new challenges to which public action must respond. Therefore, we can imagine new forms and organizational structures for multi-municipal space and, in the case of Territorial Governance, more appropriate planning and management tools for the different territorial dynamics.

It is a matter of configuring a more appropriate institutional framework representing the "hard core" of policies and projects, capable of producing sedimentation and cumulative processes (Preto & Occelli, 1994) while recognizing "variable geometry" strategies, policies and actions (Celata, 2008; Dematteis, 2003.).

In recent years, there has been an increasing interest in these issues; specific research activities¹, starting from the close link between territorial and political areas, proposed experimentation for seeking possible criteria for the identification of multi-municipal areas, functional to the management and implementation of renewed development strategies and processes of territorial rebalancing.

The area of experimentation includes the southern regions of Campania, Puglia and Basilicata². The area of study is of considerable interest for several reasons. These include the presence of border territories where peculiar interregional dynamics are observed as well as the heterogeneity of territorial study contexts; we

¹ The research is widely documented in the text of the authors Pontrandolfi and Cartolano

² Calabria has not yet been included for the objective data unavailability that prevented the production of the same analysis carried out for the other Regions.

move from the metropolitan areas of Naples and Bari to the numerous "internal areas" present in each region considered (Fig. 1).

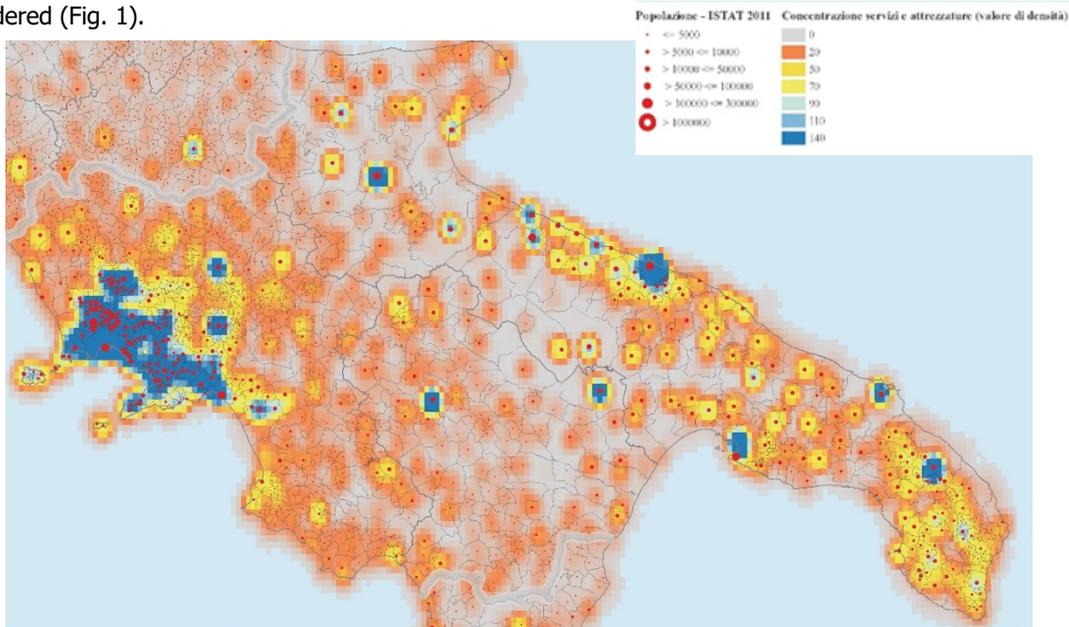


Fig. 1 Concentration map of services and equipment (from grey to blue the increasing intensity of territorial concentration of geolocalised services and equipment)

In light of recent events, it is becoming extremely difficult to ignore the importance of the experimentation topic in terms of physical distance transferred to the territorial scale. That means limiting the population concentration in large metropolitan/urban areas, encouraging instead the stable residence of significant proportion of the population in medium-size centres or even in the most inland villages of the territory, imagining, as we will see below, to structure and consolidate new urban systems able to guarantee a "city effect", also from a perspective of complex territorial rebalancing of functions and services and life and work opportunities.

The identification of preliminary multi-municipal morphologies based on the construction of a cognitive framework in addition to a plurality of information layers (often giving as a result very different organizations and territorial forms): services and accessibility, flows of people and goods, frameworks for planning and territorial districtualizations, physical, ecological-environmental and land use narratives, identity perception narratives.

The present work aims to identify territories that, remaining stable over time, can represent a design and management reference, a background upon which the different actors are placed and interact.

Experimentation is based on proposal of a taxonomy of six different multi-municipal morphologies (Fig. 2): from metropolitan areas (with novel proposed perimeters) to four types of multi-municipal morphologies that are characterized by the different demographic urban pole sizes and a different function involving a larger territory and its neighbouring municipalities (Pontrandolfi & Cartolano, 2019).

The sixth and last proposed multi-municipal morphology refers to areas classified as "rebalancing services" and coincides with the internal areas of the country, classified as peripheral and ultra-peripheral by SNAI (National Strategy for Internal Areas). No urban centres are present in these areas and, therefore, their configuration presupposes and requires, as a priority, policies to strengthen services and infrastructures for mobility to be implemented at the multi-municipal scale.

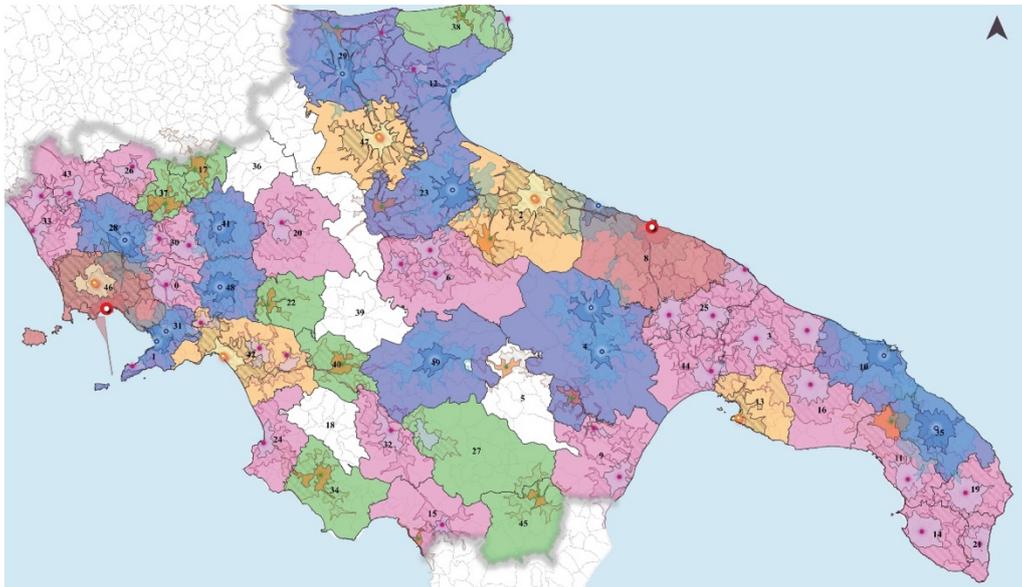


Fig. 2 Map of proposed multi-municipal morphologies (in each proposed morphology the isochrones of the times of accessibility to the urban poles are indicated)

In this last group, complex territorial areas are identified with the presence of several inhabited centres with weak functional relations between them (Parr, 2004). In particular, the centres considered, which generally have a reduced demographic size, should integrate into "city systems" to achieve, together, the so-called city effect, overturning the existing and traditional condition of dependence and gravitation with respect to higher-ranking, often distant, functionally overloaded and hypertrophic centres. This is what is called a "strategy of integration and polarization" (Archibugi, 2002).

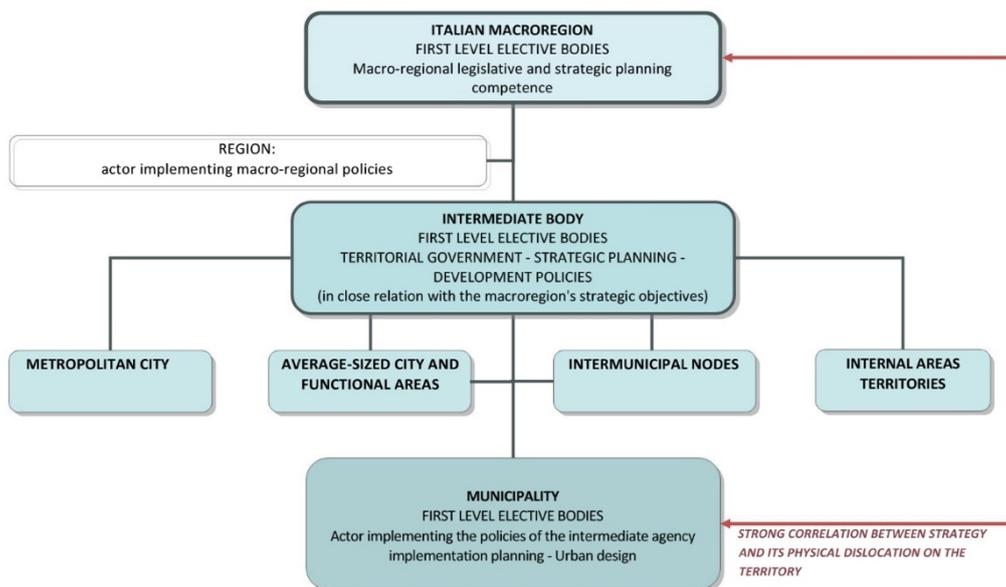


Fig. 3 Proposal for the institutional rearrangement of the country

A networked urban model (Camagni & Salone, 1993) in which the role of a centre does not necessarily depend on its size but also, and above all, on its ability to enter into exchange circuits - not only economic - by bringing its environmental and cultural specificities into play (Fanfano, 2001). Once the mutual accessibility between

the various centres has been verified to be within a maximum of 40 minutes, it is a question of imagining polycentric urban models based on existing potentials in terms of services and equipment.

Especially in the sixth type of multi-municipal morphology, appraisal of the proposal should be assessed through a strongly participatory evaluation process by public and private stakeholders. In this sense, the narrative criteria proposed in the research work could be guiding criteria for local actors (public and private) in a conscious self-recognition of the territories, inspired by the logic of interdependence and complementarity. The proposal to reconfigure the "institutional landscape" (Houghton & Allmendinger, 2008) is therefore characterized by the centrality of the intermediate dimension in its multiple configurations.

Metropolitan cities, supra-municipal aggregations of medium cities and relative belt areas, inter-municipal poles and aggregations of municipalities in internal areas, represent the possible aggregations imagined for the intermediate level.

With reference to the entire national territory, this articulated intermediate territorial dimension is part of macro-regions that are capable of supporting the economic development and competitiveness of the territories (Fig. 3).

In addition to the overall reinterpretation of administrative geographies, functions and competences, there is a need for new instruments of territorial governance (Fig. 4), flexible forms of planning, adaptable to the spaces to be governed (Allmendinger & Houghton, 2007).

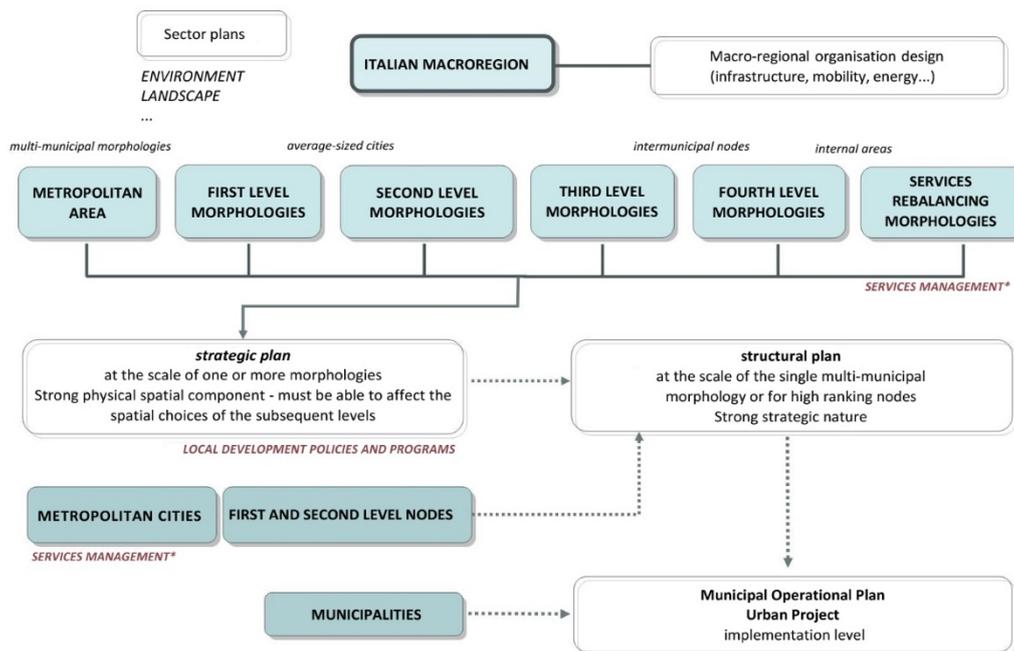


Fig. 4 Morphologies and territorial planning and governance tools

In particular, it is desirable that a deep and different conception of the strategic-structural dimension of the plan is fostered, envisaging a strong connection between programming and planning at the supra-municipal scale.

On the one hand, forecast of a strategic tool, possibly developed at the scale of several inter-municipal organisations, should enshrine the local development project, bring coherence to the various sectoral policies and have a strong spatial component for the operational translation of strategies.

On the other hand, each intermediate organisation should be responsible for drawing up the inter-municipal structural plan in full coherence with the strategic vision, possibly drawn up at the scale of several intermediate

aggregations. Finally, the Municipality, individually or associated, has the task of proceeding with the programmatic and operational translation of the choices made³.

In this context, a reconfiguration of territorial and institutional geographies is essential for the responses implemented to limit the impact of the Covid-19 pandemic on the country's growth and development. The discipline of spatial planning can promote some useful reflections at two different scales of intervention: territorial and urban, starting from the consideration that the choice of forcing so-called "physical distancing" has certainly represented one of the most effective ways of contrasting the contagion.

2. Reshaping the territory and the question of inland areas

Nowadays, what does it mean to interpret the theme of physical distance in light of the functional organization of our territories and cities? What does it mean to imagine the slowing down of the progressive and accelerated urbanization of the population? Under what conditions is it possible to imagine that significant proportions of the population might prefer to live and work in the country's small, depopulated villages, using (currently present only as rhetoric statements) innovative forms of "agile work" and services mainly provided through the new communication technologies?

In Italy there are 7,998 municipalities; 5,585 of these are small municipalities with a population below 5,000 inhabitants and represent 70% of Italian municipalities. The territorial surface area of small municipalities represents more than 50% of the entire national territory and these places count more than 10 million inhabitants, 16.59% of the Italian population.

Municipalities are defined as "small towns" or "small villages" with reference to the number of inhabitants, territorial extension or the presence/absence of functions and services of daily living.

Currently, there are three types of minor villages in Italy:

- inhabited villages, already included in processes of valorisation;
- villages at risk of abandonment, for which it is necessary to launch a strategic policy for local development;
- villages now abandoned for some time, for which numerous investments are needed to start regeneration⁴.

Nowadays, most of these small places suffer from depopulation and progressive physical and social degradation. Their recovery plays a crucial role in regulating economic and social aspects that can link the new generations to the local territory and attract new residents. In this sense, the proposal to re-inhabit small villages may decongest the large urban centres and at the same time promote physical distancing of the population across the territory. Considering the recent health emergency, this perspective appears to be an adequate response to the foreseeable effects and the new conditions.

The past decade has seen the development of the aforementioned perspective in some interesting initiatives trying to reinterpret the role of the minor and marginal centres of the peninsula.

In 2017, Anci promoted the "Counter-exodus Agenda" to reverse the migration flow. It attempted to attract new families to non-urban areas, namely internal, peripheral, rural and demographically small areas, that can become highly attractive by offering a certain level of quality of life.

³ The proposal involves overcoming the experience of the so-called associated plans that often take the form of mere sum of the choices of individual municipal administrations. In fact, in view of the Delrio reform, an associated plan, even if referring to a very large territory, always remains a municipal-level plan if it cannot highlight super-municipal issues but only local interests. It is not a question of size or technical expertise, but of the approach to the topics of a larger area, requiring a cultural and methodological change.

⁴ <http://community-pon.dps.gov.it/areeinterne/postignano/>

On September 30, 2017, the Parliament approved Law no. 158, "Measures for the support and enhancement of small municipalities, as well as provisions for the redevelopment and recovery of the historic centres of the same municipalities". The measure aimed to support and enhance the value of small municipalities and made available a multi-year budget from 2018 to 2023⁵.

To date, over two years after the law's approval, there have been no significant initiatives for its implementation. In fact, there are still major critical issues, such as the lack of approval of the implementing decrees and the inadequacy, compared to the size of the problem, of the allocated financial resources.

There is the need for a National Plan for the requalification of small municipalities, giving priority to the recovery, requalification and safety of buildings and the maintenance of the territory.

Perhaps the best results are being achieved with implementation of the programmes within the so-called National Strategy for Internal Areas (SNAI), started in 2014, significantly by using the resources earmarked by European Union programs.

The main strategical objectives are to improve essential services accessibility, enhance the population's quality of life, increment the rate of employment, increase the use of territorial capital, reduce the social costs resulting from inadequate and unsustainable anthropization processes and foster local development (Borghi, 2017).

In particular, the projects involve protection of the territory and local communities, enhancement of natural and cultural resources and sustainable tourism, agro-food systems and local development, energy efficiency and local renewable energy supply chains, know-how and craftsmanship⁶.

Thus, the projects aim to revitalize the internal areas by investing in economic initiatives to retain young people that are still residents as well as to attract new people⁷.

The attractiveness of the territories is increased not only by the relaunch of local economies but also and above all by a comprehensive reorganization of basic services, to ensure an acceptable quality of life for both new citizens and current residents.

In fact, the marginalization of internal areas is mainly due to poor accessibility to services. The actions to be implemented must include the reorganization, in an inter-municipal dimension and in a perspective of complementarity of the services offered by each urban centre, of the supply of services by improving the time and methods of commute within the areas concerned and from these towards the higher-ranking external centres.

Only in this way will it be possible to define the size and location of individual facilities based on adequate demand, so as to guarantee high levels of quality in the provision of services and above all an acceptable economic return in the management of the offered services.

Interventions in favour of mobility and local public transport and the innovative reorganisation of the basic services network (health and education in particular) become strategic in this perspective⁸.

⁵ Municipalities characterized by hydrogeological instability, economic backwardness, strong demographic decrease, inadequate housing, inefficiency or absence of essential citizenship services and a long distance from major urban centres can benefit from the loans granted.

⁶ http://www.agenziacoazione.gov.it/opencms/export/sites/dps/it/documentazione/Aree_interne/Strategia_nazionale_per_le_Aree_interne_definizione_obiettivi_strumenti_e_governance_2014.pdf, *Strategia nazionale per le Aree interne: definizione, obiettivi, strumenti e governance*, p. 44.

⁷ In this sense, a serious relaunch of the reception policies of migrants in the municipalities of the internal areas should not be underestimated, reinforcing the reception and integration projects started in the recent past by initiative of the State, Regions and many Municipalities.

⁸ Speaking of the new government approaches to be adopted after the disastrous effects of the latest health emergency, it is necessary to reorganize the national health system. In internal areas, for example, the use of hospitalization is high even for interventions that do not require such an intervention method. It is necessary to invest in territorial assistance distinguishing the management of emergencies from the management of diagnostic services; rapid interventions must be guaranteed and the healthcare service should be brought closer to patients (health houses, telemedicine, home care). As part of the health services, the Strategy introduces innovative interventions such as: family and community nurses, the development of telemedicine, the creation of health points where, in associated form, various services are provided and integrated with home care.

In such an approach, particular importance is given to information infrastructures to favour the diffusion of new technologies on the territory; in fact, only with highly innovative methods will it be possible to guarantee living conditions and quality of services that are competitive with what is presently offered in urban and metropolitan contexts.

All this will help transform the very definition of marginality for "internal areas", defined as the distance of a community from access to basic services. But the role of digital technologies is not limited to the effects on the concept of marginality; on the one hand, they can open the doors to new strategic development assets and on the other hand, they can directly affect the geographical and spatial configuration of territorial systems "relevant" for the launch of realistic local development policies.

3. Regenerate the existing city: an opportunity

At the urban scale, how to conceptualise the theme of physical distancing? Is it possible to imagine models of life that do without the undoubted advantages and opportunities that only social concentration favoured by high population density in metropolitan areas can guarantee? Is it possible to hypothesize tout court the rarefaction of urban settlement and a gradual further population growth of the open territory as some authors already claim? What does it mean to inhabit the countryside for 21st century man in terms of quality of life, employment opportunities and social relations? Who could afford such a settlement and housing model and at what individual and collective costs? In all this, can we still think of drastically limiting (as at least in Italy an attempt has been made, in truth without success) further land consumption?

A possible alternative to a policy of further settlement dispersion is the radical adaptation of the existing urban structure. It is realistic, in fact, to effectively address the issue of physical sprawling by intervening first of all on the gradual redesign of existing cities.

The housing emergency ensuing after the Second World War was determined primarily by urbanization and demographic growth, and was addressed mainly through a quantitative response, with little attention to the qualitative aspect of the built environment, generating peripheral built-up areas often without adequate urbanization works and essential services.

A considerable percentage of residential buildings built in those years have now exceeded their performance efficiency limit, both because of the degree of widespread obsolescence and often because of the lack of maintenance interventions necessary to combat their unstoppable degradation. From the processing of data, mainly from ISTAT sources, it is estimated that in Italy 70% of residential buildings are over 30 years old, while 55% are over 40 years old, a time limit beyond which substantial maintenance interventions are essential.

This comprises an asset of about ten million dwellings that, often, not presenting acceptable performance qualities, have also lost a significant part of their economic value. In this sense, the residual economic value inherent in existing cities becomes crucial to defining economically and socially sustainable urban regeneration processes (Micelli, 2014).

An in-depth examination of the methodological aspects underlying credible urban regeneration policies and the recovery/optimization of the existing building stock is of particular interest today, also with reference to some policies that the government intends to promote after the health emergency of recent months for the economic revival of the country.

Fiscal incentive policies to support the building sector are aimed in particular at favouring interventions for the recovery and efficiency of the existing building stock.

The opportunity offered is particularly interesting because it is linked to the effective possibility, for all property owners, to transfer to third parties the tax credits granted by the State for each property unit. In this way, it

is possible to carry out recovery and efficiency improvement interventions also in the case of multi-family buildings and condominiums.

Such an opportunity, however, should not be wasted with respect to the need for a more widespread and articulated rethinking of the physical and functional assets of our cities. The risk is to carry out an indiscriminate recovery of the existing building stock. On the one hand, an effective economic evaluation of the convenience of the recovery is necessary, as opposed to building replacement. On the other hand, it is essential that an assessment is made of the need for more radical interventions that also affect the form and organization of the parts of the settlement system, imagining more comprehensive urban redevelopment interventions that can significantly contribute to urban quality: from those more directly related to the housing heritage to those related to equipment and infrastructure, and finally to the ones relating to the perceived and environmental quality of the urban space.

It is necessary to imagine selective ways of recovering the existing building heritage and redeveloping the current urban structure, in order to assess the complex system of economic and procedural advantages that guide the selection of interventions and the choice of priority urban areas on which to concentrate public and private financial resources, urging and encouraging the widespread real estate to take advantage of tax benefits. In some cases, it is a matter of promoting complex regeneration projects that can include partial demolition and reconstruction of the existing building heritage when it is not convenient to intervene on the overall structural and functional retrofitting of the buildings.

Relevant and targeted cognitive analyses in different contextual situations, from the building scale to the urban scale, are the precondition to promoting widespread and effective processes of regeneration and redevelopment of existing cities.

The issue revolves around defining interventions for the gradual replacement of large parts of existing cities, which, even with appropriate relocation of the necessary portions to be rebuilt, earmark, for example, large recovered areas for urban green areas for social agriculture within urbanized areas, or envisage the construction of centres for new neighbourhood equipment fostering pedestrian or bicycle mobility.

Interventions on existing cities find in physical planning the methods and tools to coordinate and direct the policies of urban regeneration; in this sense this discipline needs to reflect on redefining methods and tools for city planning and design, also consolidating interesting experiences that, in recent years, have developed in our country⁹.

For example, it is interesting to recall here the research experience carried out in some urban contexts by the Sustainable Cities and Towns Observatory of the Interactive Territory Department of the Polytechnic Institute and the University of Turin¹⁰, and, in particular, the development and testing of an index for the quantification of the degree of environmental quality of urban residential space, namely the space constituted by housing and basic services¹¹.

The residential space serves families most directly and represents a large part of the urbanized territory. Thus, an index that measures its quality is sufficiently representative of the quality level of the urban environment that hosts the daily life of the population. Experimentation with the proposed model started from this assumption. For each single land unit (buildings and appurtenant areas), indices were generated considering the characteristics of the land unit itself, the characteristics of its urban context and the offer and accessibility of the social services actually used by the citizen.

⁹ With specific reference to the relationship between health and well-being and urban planning tools, see also the experience promoted in recent years by part of the Association of Municipalities of the Bazzanese area in Emilia in preparation of the Municipal Structural Plan and Operational Plans.

¹⁰ With particular reference to the studies and research carried out by the working group coordinated by Prof. Carlo Socco.

¹¹ An interesting investigation of residential quality indicators was performed in the Municipality of Reggio Emilia.

Finally, the overall quality index of residential space is the weighted sum of the different quality indices of: living space in the strict sense; service space; the environmental context perceivable from the dwelling; the basic social services and the home-basic social services pathways.

Mapping of the values of the overall index (or even of the partial specific indices) for the different land units allows identification of the areas of intervention and of the type of intervention, also implying a more direct interaction with the citizens concerned. Subsequently, it is possible to proceed to urban planning by areas of intervention and to perform a pre-evaluation of the changes induced by the project, repeating the calculation of the index for the project configuration. Based on a detailed design, different intervention alternatives can be formulated in terms of performance by measuring their effectiveness (environmental quality improvement effect) and efficiency (cost of the intervention compared to effectiveness). The evaluation of the different alternatives necessarily involves, also in this case, the citizens concerned.

For evaluation of the quality indexes of the individual residential unit (single-family or multi-family), availability of the so-called building dossier or specific information on the construction characteristics and on structural and plant engineering adequacy of the building structures becomes fundamental.

The complexity of urban redevelopment and building recovery operations at the scale of parts of the city could be addressed by relaunching STU's organizational form (Società di Trasformazione Urbana – Urban Transformation Society), with its ability to ensure effective coordination between public and private. The promotion of a STU would allow the Municipality to maintain the administrative control of the initiative and, at the same time, to entrust a public-private entity with the direction and coordination of all the operations foreseen by the urban transformation and regeneration process.

4. Conclusions

Given the huge resources that will be available in the economic recovery phase after the health emergency, it will be necessary to plan effective strategies and policies that can encourage the proper use of resources and avoid waste or misuse.

Such a condition is not to be taken for granted in a country like Italy that already showed evident system inefficiencies and a ten-year delay in the definition of structural reforms capable of supporting a new model of social and economic development.

In particular, it is extremely difficult to ignore the existence of the need to match policies and intervention programmes with a "fair and relevant" territorial dimension, consistent also with the different institutional levels of government, in order to make effective use of the considerable financial resources that are expected to be made available for the economic revival of the country.

Reform of local autonomous areas and Regions becomes today even more necessary to start a rearrangement of decision-making and government levels. The process can create new relations in terms of both political representation and of the competences of the different institutional levels.

Recognition of the interdependence that links the effectiveness and efficiency of policies to the territorial areas to which they refer is a crucial issue, especially within the framework of territorial government.

From a more strictly academic perspective, we must also note that among the lessons learned from the recent health emergency, physical distancing has certainly been effective in containing spread of the epidemic. So effective that some authors see its possible future implementation, in a stable form, even when the current emergency will be overcome, and as a preventive measure to deal with other possible future emergencies.

Physical distance can become an interesting goal to pursue also in the planning and design of cities and territories. For example, limiting accelerated urbanization phenomena in large urban centres and metropolitan areas means making attractive those territories and urban centres that presently are more marginal and peripheral, favouring the demand for both return and new housing. In order to make even the most internal

territories an attractive alternative to large urban concentrations, it is necessary to imagine new territorial and institutional geographies in which, starting from a more effective organization of citizenship services and accessibility conditions (internal and external), it is possible to imagine the implementation of sustainable and concretely implementable economic development paradigms.

In this sense, internal areas are contexts in which it is possible to launch new initiatives, foster new economies and create new centralities thanks to technical, social and administrative innovations (De Rossi, 2018).

For example, considering the new conditions imposed by the health emergency, why not intercept the new demand for "proximity" tourism by further developing the forms of slow tourism, as an alternative, for example, to the mass tourism typical of some more mature tourist resorts in our country? Small municipalities and inland areas could revive through projects capable of re-creating community bonds and reactivating the local economy. In a country like Italy, which has a significant part of the world's cultural heritage, such prospects for promoting the territory take on even more particular significance. In fact, the depopulation and abandonment of the internal areas of the country would represent the irreversible abandonment of a significant part of our cultural heritage present not only in the so-called art cities, but often widespread in territories also characterized by significant natural resources and distinctive landscape features.

At the urban scale, economic and productive recovery should be based on the spread of urban regeneration practices with particular reference to the recovery and efficiency of the existing public and private building heritage.

Awareness of the collective costs linked to the further consumption of agricultural land is the premise for policies that, at national and local level, promote the redevelopment of the already urbanised parts of the territory.

Recent laws and regulations strongly encourage the recovery and re-functionalisation of existing buildings. However, a careful evaluation of what is actually worth recovering is necessary, in terms of the effectiveness of the technical interventions and the economic convenience of the intervention, but also in relation to an effective revaluation of the value of the recovered real estate assets.

In many cases it will be appropriate, on the basis of specific programmes of broader scope, to promote complex urban regeneration interventions that also include demolition and reconstruction of the existing obsolete building stock for which it is not convenient to provide a structural and functional retrofit of existing buildings. The relaunch of the country's economy after the health emergency of recent months must look to the development of highly innovative sectors and policies that, also from experience, point to a real and widespread implementation of the paradigm of sustainability.

Indeed, regeneration processes are underpinned by the compliance with criteria of environmental, social and economic sustainability. In particular, environmental sustainability must be pursued through strategies acting on the transformation of urban spaces, reducing the consumption of new land, increasing the resilience of existing urban structures, i.e. reducing its vulnerability to possible natural events or environmental changes.

From this point of view, promoting interventions to replace the building heritage that it is not convenient to recover could, within the context of more elaborate projects on the urban scale, also favour a greater physical distance between activities and functions to be relocated across the territory.

We are certainly facing the prospect for numerous potential changes, even radical ones, which will certainly affect the disciplines of territorial and urban planning and design.

More generally, however, regarding the different sectors within which action will have to be taken in the coming months, it will be necessary to promote profound reforms of the country's system so that significant results can be produced within a short time.

As with many other events, there is the risk of essentially returning to the previous conditions of normality, missing the great opportunity to proceed rapidly with deep innovation processes underpinned by economic

and social policies and, above all, by the methods associated with public administration and representation of collective interests.

References

- Allmendinger, P., & Houghton, G. (2007). The fluid scales and scope of UK spatial planning. *Environment and Planning A*, 39(6), 1478-1496. <https://doi.org/10.1068/a38230>
- Archibugi, F. (2002). *La città ecologica: urbanistica e sostenibilità*. Bollati Boringhieri.
- Borghi, E. (2017). *Piccole Italie. Le aree interne e la questione territoriale*. Donzelli, Roma.
- Camagni, R. P., & Salone, C. (1993). Network urban structures in northern Italy: elements for a theoretical framework. *Urban studies*, 30(6), 1053-1064. <https://doi.org/10.1080/00420989320080941>
- Celata, F. (2008). L'individuazione di partizioni del territorio nelle politiche di sviluppo locale in Italia: ipotesi interpretative. *Rivista geografica italiana*, 115(2008), 1-25. Retrieved from: https://web.uniroma1.it/memotef/sites/default/files/Celata_RGI_Partizioni_2008.pdf
- Dematteis, G. (2003). SLoT (Sistema locale territoriale). Uno strumento per rappresentare, leggere e trasformare il territorio. Documento del Convegno: per un patto di sostenibilità. Sviluppo locale e sostenibilità tra teoria e pratica.
- De Rossi, A., & Barbera, F. (Eds.). (2018). *Riabitare l'Italia: le aree interne tra abbandoni e riconquiste*. Donzelli, pp. VIII-594.
- Fanfano, D. (2001). *La descrizione delle reti territoriali per il progetto di sviluppo locale autosostenibile*. Magnaghi, A. (a cura di), *Rappresentare i luoghi, metodi e tecniche*. Alinea, Firenze.
- Houghton, G., & Allmendinger, P. (2008). The soft spaces of local economic development. *Local Economy*, 23(2), 138-148. <https://doi.org/10.1080/02690940801976216>
- Micelli, E. (2014). L'eccezione e la regola. Le forme della riqualificazione della città esistente tra demolizione e ricostruzione e interventi di riuso. *Valori e Valutazioni*, 12, 11-20. Retrieved from: https://urbanpromo.it/content/uploads/sites/2/2014/08/MICELLI-IUAV_Riqualificazione-della-citt%C3%A0-esistente-tra-demolizione-ricostruzione-e-riuso_Luglio2014.pdf
- Parr, J. (2004). The polycentric urban region: a closer inspection. *Regional studies*, 38(3), 231-240. <https://doi.org/10.1080/003434042000211114>
- Preto, G., & Occelli, S. (1994). *Zonizzazione territoriale ed ambiti spaziali delle politiche: considerazioni teorico-metodologiche*. IRES.
- Pontrandolfi, P. Cartolano, A. (2019). *Territori pluricomunali. Nuovi assetti istituzionali e strumenti per il governo del territorio e la promozione dello sviluppo locale*. Melfi, Editore Libria

Image Sources

Fig.1: Concentration map of services and equipment (Pontrandolfi and Cartolano, 2019)

Fig.2: Map of proposed multi-municipal morphologies (Pontrandolfi and Cartolano, 2019)

Fig.3: Proposal for the institutional rearrangement of the country (Pontrandolfi and Cartolano, 2019)

Fig.4: Multi-municipal morphologies and spatial planning and governance tools (Pontrandolfi and Cartolano, 2019)

Author's profile

Piergiuseppe Pontrandolfi

He is an architect and associate professor of Urban Planning and Technique at DiCEM (Department of European Cultures of the Mediterranean) of the University of Basilicata in Matera. He carries out research activities on urban and territorial policies and on new forms and instruments of territorial governance. He is a member of several research groups within European projects on the themes of local development and territorial planning. He has written essays and articles in Italian and in international journals in the sector, as well as being the author of several publications. He has been Councillor for Urban Planning of the Municipality of Potenza. From 2003 to 2006 he was coordinator of the second level university Master's degree promoted by the University of Basilicata on "New instruments of governance and territorial management". Curator of the series "Territorio e Cultura di Piano" for publisher Libria.