Chapter 27
Healthy Cities and Urban Planning: The QLandQLife Model as Input for Experimentation

Elio Trusiani

Based on input provided by the QLandQLife research, this contribution reflects on the potential of the content and devices contained in Law no. 10/2013, with particular reference to the national urban green plan. The questions asked by the research and its results highlight the importance of working with the open space of the contemporary city to improve environmental comfort and well-being in urban areas. Broadly speaking, these themes seek a renewed relationship between urban planning and health in which urban open/green space is only one of the structural elements addressed to promote better lifestyles and widespread well-being. In this view, the potential of the national urban green plan is seen not just as an additional tool for the sector but as an opportunity to reconsider urban green and open space as a possible incubator of new principles, functions, and activities. Reinterpreting some content and objectives expressed legislatively as matters of design inherent in ordinary planning tools seems indispensable. First of all, this means reconsidering the role of urban green areas as a necessary performance standard capable of overcoming the quantitative standard that arose at the end of the 1960s. This new interpretational key is capable of anchoring the principles of experimentation in the QLandQLife model with an existing and still-developing disciplinary debate regarding urban health and well-being. It favours the role that urban green areas can play in renewing consolidated approaches and paths in the city's governance tools according to a perspective that favours a healthy city and a reciprocal interest in health and urban planning.

E. Trusiani (✉)
School of Architecture and Design, University of Camerino, Ascoli Piceno, Italy
e-mail: elio.trusiani@unicam.it

R. Cocci Grifoni et al., *Quality of Life in Urban Landscapes*,
The Urban Book Series, https://doi.org/10.1007/978-3-319-65581-9_27

City, Health, and Urban Green Areas

Article 1 of the Manifesto *La salute nelle città: bene commune* [Health in Cities: a Common Good][1] states that "every citizen has the right to a healthy life integrated within their urban context". This implies urban policies that focus on citizen health, aiming to improve the quality of the urban environment. Actions include promoting the health of citizens, studying and monitoring the specific determinants of health in the urban context, making the most of the strong points of the city, and drastically reducing risks to health. In this view, an important role is played by policies and strategies to promote urban green areas and public spaces and the system of open spaces in general as containers/incubators of indicators and ecosystem services that can restore biodiversity, ecological continuity, and the quality of common living spaces.

The connection between health and nature, which is understood as green space on a range from the regional and urban scales down to pocket parks, is now acquired fact. Scientific research in recent decades has highlighted how the loss of biodiversity also negatively affects health and well-being and how, in contrast, life in contact with nature has beneficial effects for the physical and mental health of people (D'Onofrio and Trusiani 2015). Many projects around the world are proposing and experimenting with this relationship: from forest therapy and ecotherapy, capable of strongly recasting the central, strategic role of parks and natural protected areas, to public and private urban green areas. The former have the virtue of uniting the social, ethical, and economic consequences of protected areas and parks with positive effects on physical and mental health. The latter reactivate forms of sociability, inclusion, and participation, together with the qualitative redesign of green spaces and cycling and walking. These are, in many cases, associated with healthy lifestyles that promote daily physical activity as preventive medicine for the many illnesses of the twenty-first century (diabetes, obesity, cardiovascular diseases, etc.), as has been reported many times by the World Health Organization.[2]

All of this is naturally related to medium- and long-term policies and strategies implemented by public administrations. The European Healthy Cities Network presents an interesting panorama in which urban green areas become the dominant structure in significant urban regeneration projects. Many recent European experiences are moving in this direction. Cities such as Belfast, Bristol, Rennes, Copenhagen, Malmö, and Odense have for some time adopted policies and strategies where urban green areas act as a vehicle for and incubator of quality, encompassing sectoral objectives in a global scenario and a new way of understanding urban space. In the case of Malmo, for example, a dedicated commission within the public administration developed The City's Spatial Impact on Health report

[1] The manifesto was presented in Rome in July 2016 and was the result of work by a group of experts pertaining to the Health City Think Tank.

[2] WHO and UN-Habitat (2016), Global report on Urban Health: equitable, healthier cities for sustainable development, available at: http://who.int/kobe_centre/measuring/urban-global-report/en/.

(Stad 2014) within which two chapters are dedicated to the relationship between health and urban planning. Urban open/green space acts as an indicator of performance for urban-planning measures aimed at reducing segregation between residential areas and improving trust, safety, and social opportunities. It contributes to deliberately locating schools in good environments and creating a sustainable, mixed, inclusive city with new economic and strategic structures.

Among the most recent experiences, even outside the Healthy Cities Network, it is worth citing the case of Essen, Germany, winner of the European Green Capital Award of 2017. This city abandoned its industrial past and was transformed into a city with extraordinary environmental performance based on 12 heterogeneous indicators, one of which is urban green areas, which play a decidedly important role in pursuing the established objectives. Other indicators include energy production, biodiversity, waste production and management, and measures to adapt to and mitigate climate matters. In recent years, some Italian cities such as Udine, Reggio Emilia, Bologna, and Turin have also finalized projects and actions aimed at promoting these principles. In many cases, the health/urban-planning binomial represents the most advanced research and experimentation. In this sense, particular reference should be made to some initiatives promoted by the United Kingdom, such as Reuniting Health with Planning, the National Planning Policy Framework, and the Healthy Urban-Planning Checklist (D'Onofrio and Trusiani 2017), which offer the possibility of integrated paths for planning and realization. In addition, all of this corresponds to a new model of welfare that affects administrative budgets in the medium and long terms. Of particular interest in these experiences is the role played by green areas and public space in processes of urban regeneration and the quality of life in cities.

In light of this, and based on the QLandQLife experimentation, it is interesting to investigate Law 10/2013 as a possible field of application respect to the Italian experience. Among the various objectives, it evidences the drafting of a national urban green plan, which has still not been applied.

Law n.°10, 2 October 2013: "Norme per lo sviluppo degli spazi Verdi urbani" [Norms for the Development of Urban Green Areas]

Italian national law 10/2013 came into effect on 16 February 2013. It aimed to promote the development of urban contexts according to what was established by the Kyoto Protocol, that is, sustainable development respectful of the environment and citizens and in the full awareness and knowledge of the green heritage.

The main focus of the law is aimed at recognizing the role that trees, in particular, play in controlling emissions, protecting the land, and improving air quality, the microclimate, and the livability of cities. The detailed knowledge and management of the arboreal heritage play an important, almost strategic role for any municipal administration. The law, in its general objectives, establishes that all municipalities

with more than 15,000 inhabitants adopt a registry of trees, that a new dedicated tree is planted for each child born or adopted in the city, that the data of the dedicated tree are communicated to the parents of the child, and that city administrators produce a green budget at the end of the mandate that demonstrates the impact of the administration on public green areas (number of trees planted and cut down, consistency and state of the green areas, etc.).

Law 10/2013 seems to fill a legislative gap on the national level. Article 7, which specifies regulations for the protection of monumental trees, rows of trees, and wooded areas of particular landscape, natural, monumental, historical, and cultural prestige, brings the issue to the fore and defines criteria to identify a monumental tree. These then become unique and homogeneous throughout the national territory and are attributed with environmental and cultural value as a symbol of historical or cultural events or traditions or simply identify a place and the people that live there.

Three years on, the annual report (2016) drafted by the committee for the development of urban green areas in the Italian Ministry of the Environment and Protection of the Land and Sea offers an opportunity for reflection. This includes not only on the state of the art but also and especially the law's unexpressed potential when considered as input to experimentation with innovative paths to connect/integrate health and urban planning. From this point of view, the object of the present essay is not the main focus of the law. Rather, it addresses an apparently secondary aspect that is not, in reality, secondary but which could potentially represent an interesting disciplinary innovation to reflect on: the proposal of the national urban green plan.

This plan is a working hypothesis supported by ISPRA, the Italian National Institute for Environmental Protection and Research, which has initiated activities and actions aimed at understanding the needs of local administrations and a broader reflection on the proposed tool. The transverse nature of the theme connects it with tools, laws, and national and international programs such as the Convention on Biological Diversity (CBD), the Strategic Plan for Biodiversity 2011–2020,[3] the Charter of Rome on the Natural and Cultural Capital (December 2014),[4] and the National Biodiversity Strategy adopted by the State-Regional Conference on 7 October 2010,[5] to name a few.

[3] The plan gives biological diversity an important role in supporting the provision of essential ecosystem services for human well-being.

[4] This represents a connective element between the European and national contexts. The Charter of Rome provides support for the protection, conservation, and enhancement of the natural capital. Among the various aspects considered, "creating synergies between the green infrastructure and rural and urban zones" is of particular importance.

[5] The strategy is organized into 15 working areas, including area number 9, "urban areas". Specific mention is made of the need to address planning by integrating plans for green management, promoting the maintenance of green areas, and aiming to regenerate the system of natural areas within territorial government plans to allow the biodiversity to be continuous, even in anthropized areas. The 11 objectives specified include number 7, "integration of green plans in local in urban planning".

According to ISPRA's proposal, the concept of the national green plan should be articulated in the following five steps: (1) state of the art in urban green-area planning and management, (2) directions and tools for designing urban green areas, (3) directions and tools for managing urban green areas, (4) directions and tools for monitoring interventions, and (5) directions for the formation of educational and awareness-raising initiatives.

Recent data on the city environment (Istituto nazionale di statistica (ISTAT) 2016) show a panorama in which only 12 of 110 provincial capitals have approved a green plan, always intended as a voluntary tool integrated within the general urban plan. Since 2011, another 13 cities have adopted a still-unapproved green plan as a tool to support the local plan. Analysis of annual reports shows that existing plans are not all configured in the same way and that their treatment assumes different forms and content. In some cases, it is composed almost exclusively of documentation regarding the current state, while in others it anticipates planning actions and interventions through pilot projects. Likewise, the types of greenery targeted in the plans also vary, from classical areas such as rows of trees, parks, and play areas to more extensive areas in peri-urban and rural areas, such as forests and river watersheds, even extending types to favour biking and walking such as bicycle paths.

In addition, the relationship between the green plan and other general sectoral urban-planning tools, its position in time with respect to the development of other tools, and the binding nature of the indications contained therein is still unclear.

Despite the differences mentioned above, some common points among the plans exist. Plans in Emilia-Romagna, characterized by the integration of urban sustainability policies, consider bike paths as the natural ally of a green vision of the city. These strategic elements connect the city and country and act as greenways to unite the external areas with the city centre and tie together places for living again. More in general, additional common elements include the methodological approach, the content, and the recognition of the importance of viewing the heritage of urban green areas as a diverse, complex set of open spaces that cross the city and interact with different uses and functions of the city itself, from the neighbourhood scale to the territorial scale.

As the ISPRA working group confirms, the experience also highlights a "delay probably due, on the one hand, to the absence of both national regulations regarding matters of public green areas and local green infrastructures and a binding legal basis with respect to the theme of governing the urban green areas. On the other hand, it is due to the 'cultural' difficulty of overcoming the urban-planning idea of green areas as a mere dimensional parameter (m^2/inhabitant)". Aside from this, one could also mention the usefulness or not of an additional sectoral plan for which methods of drafting, activating, and relating with existing local planning should be defined. Rather, it could represent an opportunity to direct research directly towards planning criteria on the local scale. This is especially true for programs of urban regeneration where urban green areas can progressively assume new roles and functions and respond to what is desired in the latest annual report, which revisits the connection with planning tools and with probable innovative paths. "Urban green areas become important elements for environmental quality, representing real 'tiles'

in a natural network. Increasingly often, one therefore talks about green infrastructures defined as a network of natural and seminatural areas capable of providing a vast range of ecosystem services. This network of green spaces represents a versatile, multifunctional tool capable of creating social, ecological, and economic benefits" (Ministero dell'Ambiente e della Tutela del Territorio e del Mare 2016).

In this view, experimentation with the QLandQLife model, with all its possible variations, leads to considering legislation as one of the possible fields for experimentation with and innovation in existing urban-planning tools and not as an additional sectoral plan. The point of view has changed to reinterpreting the content of the law and experimenting with it. Precisely by making the most of expertise, always relied on by ISPRA with respect to urban environmental quality monitoring indicators (e.g. density, availability of public green areas, its composition, protected and agricultural areas; Bajo and Guccione 2004; Chiesura and Mirabile 2014), a step ahead in terms of design and experimentation would be desirable.

Research Perspectives

It is clear that local administrations, the main actors in planning and managing green spaces in urban areas, require a plan with a clear definition of objectives and the operational means to make it an effective, efficient reference tool. Beyond the method adopted by ISPRA, interest lies in using the opportunity offered by the law, not so much to develop a national green plan and to sow more uncertainty as to innovate and experiment with new paths for urban planning related to the theme of quality of life and well-being in synergy with determinants of health. In this sense, urban green areas, and the system of open spaces in general, can play an important role. The second step in ISPRA's path seems to offer precisely this opportunity: directions and tools to design urban green areas. This could be the step in which criteria rather than directions are provided to design urban green areas in relation to determinants of health (see WHO), environmental comfort, and urban well-being, as proposed in part by the QLandQLife experimental model. It would mean activating a design path integrating health and urban planning that is inserted directly in the design process of local urban-planning tools rather than formulating directions and general guidelines within which the level of generality is often rather high. The other steps in the ISPRA concept could correspond to the operational phases of monitoring and managing the results obtained, in addition to the indispensable phase of education and awareness raising, which would perhaps require new specific skills related to the theme.

In addition, the recent plan for peripheral areas financed by the Italian government could be a further field of application to experiment with pointlike application of the model. Many of these areas, subject to public financing, grew out of the principles and criteria of rationalist urban planning and, successively, from urban-planning standards. Many times they do not lack standard green space; what they lack is *quality* green space. Why not rethink these areas starting specifically from

experimental projects based on scientific criteria related to environmental comfort and well-being in the city and in response to climate change and the social demand of residents? Why not attempt integrated paths that go beyond the classical categories of intervention to include determinants of health, urban green-area performance, and the needs of residents, thereby overcoming the standard quantitative idea as desired by the above-mentioned annual report and the disciplinary debate from premier research institutes such as the Italian National Institute of Urban Planning and the Italian Society of Urban Planners? The field may be extremely fertile and allow for experiences capable of activating fruitful reflection, from the micro-scale of the project for urban regeneration to the macro-scale of the local urban-planning tool.

It therefore seems opportune not only to consider but especially to reinterpret the real possibilities inherent in the idea of the national urban green plan, its effective organization, and relative perspectives for development. This is within a view that favours innovative paths, integration, and forms of experimental design between general urban planning and determinants of health, in order to pursue better lifestyles and the well-being of city inhabitants. Urban green areas can act as a tool to promote a reciprocal interest between urban planning and health. In this view, the QLandQLife research opens the door to possible new design frontiers that unite some themes of the healthy city within a broader vision of refining and experimenting scientifically with local planning tools, between a theoretical/applicative reflection and a critical revision of the concept of *standard* in a need- and performance-based key. In this, particular interest is assumed by experimentation with QLandQLife on the urban scale and its application to the sample area. It is on this scale that a large part of the urban quality of life in existing historical and contemporary cities is addressed under different structural conditions of transforming, adapting, and making the urban fabric resilient. With a revision of the consolidated planning process, it is probably necessary to revisit the consolidated glossary of urban green areas and introduce checklists for new planning indicators/criteria (Fry et al. 2009) and categories (Boeri 2011) that best respond to the transformation underway and the demand for urban health, well-being, and environmental comfort.

References

Bajo N, Guccione M (2004) La qualità ecologica e tutela della biodiversità negli ambienti metropolitani. In. I Rapporto ISPRA “Qualità dell’ambiente urbano”

Boeri S (2011) Biomilano. Corraini edizioni, Milan

Chiesura A, Mirabile M (2014) Strumenti di governo del verde. In XI Rapporto ISPRA “Qualità dell’ambiente urbano”

D’Onofrio R, Trusiani E (2015) Health facilities and open spaces: integrated policies at the landscape and territorial level. In: Giofrè F, Dukanovic Z (eds) Health spaces. Hospital outdoor environment. Thesis Inter-University Research Centre Systems and Technologies for Social and healthcare Facilities, University of Florence, Florence

D’Onofrio R, Trusiani E (2017) Città, salute e benessere. Percorsi innovativi per l’urbanistica. Franco Angeli, Milan

Fry G, Tveit MS, Ode A, Velarde M (2009) The ecology of visual landscapes: exploring the conceptual common ground of visual and ecological landscape indicators. Ecol Indic 9:933
Istituto nazionale di Statistica (ISTAT) (2016) Statistiche – Focus verde urbano del 23 May 2016
Law n.°10, 2 October 2013: "Norms for the development of urban green areas" [Legge (2013) 10/02/2013: "Norme per lo sviluppo degli spazi verdi urbani"]
Ministero dell'Ambiente e della Tutela del Territorio e del Mare (2016) Comitato per lo sviluppo del verde pubblico, Relazione annuale 2016
Stad M (2014) The city's spatial impact on health. Background report for the Commission for a Socially Sustainable Malmö

Websites

http://www.euro.who.int/en/health-topics/environment-and-health/urban-health/activities/healthy-cities/who-european-healthy-cities-network/what-is-a-healthy-city
http://www.healthcitythinktank.org/Manifesto-la-salute-nelle-citta-bene-comune.pdf
http://www.retecittasane.it/
https://ec.europa.eu/environment/efe/themes/welcome-essen-european-green-capital-2017_it