

PUBLIC SPACE AND URBAN RESILIENCE

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Abstract

The increasing population pressures, natural and man-made disasters, pandemics, epidemics, economic crises in cities create the need to change the perception for planning. An integral part is their public urban spaces since there are the places where all functions take place. Furthermore, public urban spaces are the places of prevention when sudden natural disasters, crises and dangers of all kinds take place. For this reason, trends in spatial planning is the resilient perspective since the latter is a dynamic and evolving process that seems to prevent from sudden changes in urban environment.

Greek cities, and especially large urban centres, are typical examples in which policies and tools of urban resilience can be integrated to ensure greater sustainability in their public urban space.

In the present article, public urban spaces are examined in relation to urban resilience tools in an institutional scale. Also institutional policies and practices of urban resilience are examined with a view of integrated urban planning policies.

Key words: *public space, legal framework, urban resilience, planning policies, planning tools.*

Introduction

According to the United Nations predictions, by 2050, cities are set to house 68% of the world's population¹. This, because of the pressures caused by the climate crisis, natural and man-made disasters, pandemics, migratory population flows, economic crises that are intensifying. The above crises are significant reasons for scientists to rethink and change the way cities are perceived and designed. The problems due to the overconcentration of the population due to the above factors will be constant, pressing and irreversible. This requires a review of the existing urban planning policies and the selection of new planning policies and strategies with innovative and sustainable solutions.

On October 20th 2016 the United Nations Organization HABITAT III adopted and mutually accepted by all the participating parties (State governments, civil society, local communities, and professional bodies, scientific and academic community) through the official text of the NEW AGENDA FOR CITIES², 'that Global urban planning policies

¹<https://ourworldindata.org/urbanization#what-share-of-people-will-live-in-urban-areas-in-the-future>.

² HABITAT III NEW URBAN AGENDA (2016), available in: <https://habitat3.org/wp-content/uploads/NUA-English.pdf>, 'Environmentally sustainable and resilient urban development 63. 'We recognize that cities and human settlements face unprecedented threats from unsustainable consumption and production patterns, loss of biodiversity, pressure on ecosystems, pollution, natural and human-made disasters, and climate change and its related risks, undermining the efforts to end poverty in all its forms and dimensions and to achieve sustainable development. Given cities' demographic trends and their central role in the global economy, in the mitigation and adaptation efforts related to climate change, and in the use of resources and ecosystems, the way they are planned, financed, developed, built, governed and managed has a direct impact on sustainability and resilience well beyond urban boundaries' (p.10).

henceforth include urban resilience policies'. In fact, there has been a turning point from urban sustainability, to urban resilience for planning and designing the cities. According to HABITAT 2016, it was recognized that 'city dwellers are vulnerable to the negative impacts of climate change and other natural and anthropogenic hazards, including earthquakes, extreme weather events (floods, storms, subsidence, heat waves, water scarcity, droughts, water pollution, etc.), which can be addressed with new policies that will promote the creation and maintenance of connected and distributed networks of open, multi-use, safe, inclusive, accessible urban green spaces that will strengthen the resilience of cities'. As urbanization increases, urban resilience will need to be strengthened.

An integral part of the cities is their public urban spaces. Public urban spaces are the dominant places where all functions take place (economic activities, exchange of goods, services, ideas, accessibility, mental and social stability, prosperity). These spaces ensure sustainable development, quality of life for the city dwellers. If urban resilience policies are implemented to those spaces, social exclusion and equality can be prevented especially for vulnerable social groups.

Public urban spaces are the first places that accept all pressures that the urban environment receives from sudden crises, disasters and dangers. In addition, it can also be the places of prevention from sudden and unexpected crises and disasters. Therefore, urban public spaces can be upgraded with urban resilience policies and tools aimed at preventing and better managing crises and disasters.

For the purposes of this article, urban public spaces are defined as public spaces of the cities, (i.e. squares, open green spaces, groves, parks and any green open space) that are accessible to a large and indefinite number of people. The above constitute the areas of the cities in which a large number of activities are concentrated and are open to an indefinite number of people. They are sovereign places in which through the planning it can be archived their optimal upgrading³ in terms of sustainable development and urban resilience.

Urban resilience is inextricably linked to public urban spaces. Its policies and planning tools achieve their best possible design. Resilience policies and tools include flexibility, inclusiveness, coherence, preparedness, ingenuity. Concerning urban public spaces urban resilience policies application helps their design in such a way that they can respond to intense pressures and create a framework for the prevention from natural and sudden disasters and crises.

Urban resilience is a new concept in spatial planning and has a broad conceptual content. It is a dynamic and evolving process and is used, *inter alia*, as a policy to prevent emergencies, chronic urban pressures and changes in urban environment.

In the present article, the definition of urban resilience is adopted by Meerow S, et al. (2016: 39), according to which, 'urban resilience refers to the ability of an urban system, as well as all components of socio-ecological and socio-technical networks at temporal and spatial scales, to maintain or return to desired functions in the event of a disturbance, adapt to change and rapidly transform systems that limit current or future adaptive capacity'. Under this perspective of urban resilience, policies and tools can be adopted for the purpose of integrated urban planning of urban public spaces, which will response to the current changes brought about by sudden changes in the human and natural environment of the cities and will prevent crises and disasters through the application of urban resilience tools.

³Zygouri, F. (2019): Urban public spaces in urban environment: A comparative overview of institutional tools and acquisition policies': 'The contribution of public urban space from social, economic, environmental, political, urban planning and aesthetic - quality urban living of citizens point of view, is multifunctional and multifaceted. It leads to the qualitative upgrading of the life of residents, while at the same time; it is a place that gathers diverse activities carried out by dwellers through absolute access to it'. PhD thesis, October 2019, p.1.

Greek cities, and especially large urban centers, are typical examples in which institutional policies and urban resilience tools can be applied to ensure greater sustainability.

Urban resilience policies have been implemented during the last decade, in the two biggest Greek cities, Athens⁴ and Thessaloniki⁵. Policies were implemented with the guidelines fund by European programmes. Programmes provided urban resilience tools (physical and digital), which were used in collaboration with citizen participation, the cooperation of experts and representatives of local government, civil society and project implementers.

The research of institutional policies and tools in Greek urban planning legislation reveals a lack of urban resilience tools, or the non-implementation of the already established ones, as well as the lack of integrated urban planning policies for urban green spaces. Indicatively, while the average of green space in various European capitals⁶ amounts to 7 sq.m./per inhabitant, in Athens it amounts to only 2.8 sq.m./inhabitant. Similar data exist for other Greek cities. These shortcomings are largely due to the overall perception that has been reproduced until today for urban planning and spatial planning in Greece, which is usually applied ad hoc, piecemeal, or inadequately, while there is also a lack of institutional capacity and will to develop policies aimed at integrated planning and the acquisition of adequate communal spaces designed in terms of urban resilience. At the implementation level, slowness, duplication of responsibilities, lack of funds and distortion in their implementation are detected.

Recently, the adoption of L. 4447/2016 and L.4759/2020, criteria and technical specifications were defined by Ministerial Decisions in Local Urban Plans and Special Urban Plans for the prevention, treatment and rehabilitation from natural hazards and environmental crises.

Urban public spaces are examined in the existing institutional urban planning tools of urban resilience in the Greek legal framework, the institutional policies of urban resilience and the prospects for their integration into urban planning.

Urban public spaces

1. The conceptual clarification of public urban spaces

The conceptual clarification of public urban spaces in urban environment becomes particularly difficult. Literature review and documented studies are limited. Through numerous overlaps and inadequacy of individual determinants, there is often a conceptual ambiguity⁷ about what exactly a public urban space is. Its conceptual clarification through the urban institutional framework differs between legal family and legal systems of the countries⁸

⁴ Network of 100 Resilient Cities (100RC).

⁵ URBACT III 'Resilient Europe and 100 Resilient Cities 100RC'.

⁶ Papadopoulos, A. (2015): 'Ecological research for the quantitative and qualitative improvement of urban greenery in the city of Katerini': 'The proportions per inhabitant in Paris are 9.0 sq.m./cat., in Rome 9.0 sq.m./cat., London 9.0 sq.m./cat., Berlin 13.0 sq.m./cat., Vienna 25 sq.m./cat., Washington 50.0 sq.m./cat., PhD Thesis Thessaloniki 2015, School of Agriculture, Forestry and Natural Environment, Aristotle University of Thessaloniki, p:13.

⁷Theoretical approaches, references to urban planning legislation and jurisprudence do not include comprehensive definitions of the precise meaning of communal spaces.

⁸ Confusion is often created in the way urban public spaces are defined through legal texts (urban planning legislation, constitutions, civil code, case-law, urban planning texts with principles and directions) and this is because, from a careful reading of legal texts, peculiarities arise in the way in which the concept of urban public spaces is rendered, but also of their individual characteristics. As a result, the same concept is treated as identical to another, demonstrating its conceptual relevance without any distinction. For example, open public spaces may

although; their meaning appears identical in legal texts and signifies a specific meaning and content. They may appear as identical concepts, but they have different legal implications. According to theoretical approaches⁹, public urban spaces are only linked to their physical characteristics and the way in which they are perceived by the persons who use them. Other approaches give particular emphasis on their environmental dimension, since they are linked to principles of environmental justice and sustainability.

Their common feature, however, is the fact that public urban spaces are parts of the city which are used individually or by a total of an indefinite number of people. They are common to all persons who use them and can't be dominated, nor can they be claimed by these persons. This because of their 'public' character. In these spaces everyone has the legal and physical right of access (regardless the economic and social situation of the persons).

Public urban spaces are a product and a result of the city plan that aims to put them into common use and enjoyment by all city dwellers, free accessible by all. They are designed and belong to public ownership and management (State, Municipality). They are differentiated from the natural formations of spaces, inherent in the urban fabric such as parts of free spaces, which are naturally formed and exist in the urban environment, without being designed and intended for a specific purpose. They don't belong to private property (individual owner).

Conceptual criteria for public urban spaces consist: a) the criterion 'common' space, which may be extended. For example, public urban spaces encompass the broader concept of a 'meeting place'. Include common streets, sidewalks, pedestrian streets, squares, parks, groves, urban green spaces or open green spaces. They are differentiated from private ones. The dividing line between them is fluid in the sense that they are not static. They are distinguished for the purpose that they fulfill and they aim to ensure the desired levels of interactions. They differ in use by different groups of persons, b) the criterion of 'common' space implies its common use by a group of more or even individual people who use it unhindered, uninterrupted and unhindered. These spaces are accessible to all members of a community or not. Therefore, public urban space is open and accessible to any person who uses it and is intended for the general common use, c) the criterion of 'accessibility' which means uninterrupted, unlimited use of the space by the citizens. Accessibility includes the elements of physical use of the common area all social groups, or individuals, the use of this space for any kind of activity and the participation of individuals in any kind of information for the development and processes of its use, d) the criterion 'public' which has a dual content: i) the use by all dwellers of a city that serves the public interest, which in this case is the understood as the common welfare of all citizens from the enjoyment of the public space or as a benefit, which the public urban space provides and belongs to all members of a society, ii) the common area belongs to the public and is dominated by public bodies, which are materially competent and act for the common benefit of all members of a community or a city or the State, that decide about its planning procedures in order to serve the common good of the members of the society. Therefore, urban public space belongs to the State, is designed and implemented by the State agencies and is intended for an indefinite number of people, known as the 'public', which enjoys all the benefits the space. At the same time, the community participates in the functions that this space provides.

include any space to which dwellers have unhindered access to it and without a specific description, include the urban parks, the urban squares, the urban groves, but also areas of rows of trees that usually function complementary to other urban public spaces.

⁹ According to Carmona, M. et al. 2008: 4-5, 'In general, the different meanings attached to the concept of public space derive their origin in the different traditions of urban policy-making of different countries which are multidimensional and have multiple objectives'.

2. Provisions for public urban spaces in Greek legal framework

In Greek legal framework, the notion of public urban spaces is defined by the Civil Code (CC), by the urban planning legislation and by the jurisprudence of the Council of State¹⁰, which interprets on a case-by-case, in accordance with the constitutional requirement of Article 24 of the Greek Constitution¹¹.

The legislation for public urban spaces in terms of their characteristics and purpose is adequate, while the way of their management and protection by the State is determined by a variety of provisions. Their protection and emergence as the highest 'public good', stems directly from the Greek Constitution and the legislation framework issued on the basis of the above constitutional requirement. This requirement aims at their rational planning and preservation through the adoption of necessary measures to render in perpetuity the fulfillment of their purpose (public access, use form indefinite number of people).

According to the Civil Code (CC), public urban spaces are defined as 'things' out of transaction. In article 966 these spaces are: 'things out of transaction are things common to all, common expenses and intended to serve public, municipal, communal or religious purposes; Article 967 indicatively defines the types of public urban spaces. These are 'things'¹² that belong to the public domain, 'especially free-flowing waters, roads, squares, seashores, harbours and bays, the banks of navigable rivers, large lakes and their banks'. In article 968, public property is owned by the State. From the above provisions it is inferred that in common property of the State or municipality, if there is no exception from the law. The establishment of a common, a private law relationship is created between the citizen and the public, which contains the power of the individual to use it freely but for temporary use. This originates directly from the right to personality (article 57 CC)¹³. The description of common areas by the Civil Code is broader than it is defined by urban planning legislation. Although public urban spaces are listed indicatively in article 967CC, i.e. streets and squares are referred to as public urban spaces; Also Civil Code does not provide a specific procedure for their acquisition and designation. A property becomes common when: a) it is characterized as common by its characterization as common use land in the city plan, i.e. by law b) by the will of the owner, who puts it into common use by a legal act, by personal will, by donation or by renunciation of ownership in order to make it common property by a notary document and its transcription and c) by immemorial seniority under the previous law in force and which is not recognized by the CC. In this case, from the establishment of the Greek Civil Code (23.2.1946) the conditions had been fulfilled in a certain situation. This situation refers to two generations (80 years) that a public urban space was created and existed.

In urban planning legislation, public urban spaces are defined by a variety of provisions. According to the current legislation public urban spaces are artificial constructions designed by experts, and building constructions are prohibited. They designated by an Act of public administration. Public urban spaces are defined in:

¹⁰ Council of State Court Decisions 88/2016, 3370/2014, 4925/2014, 1421/2014: 'Forest areas that have been included in the city plan not as buildable spaces or roads, but as communal areas, even if they are not explicitly characterized as parks or groves or as green spaces, are subject to the protection regime of groves and cannot become buildable areas by amending the plan'.

¹¹ For example, in the case of public green spaces.

¹² Council of State Court Decision 135/1994 states that, '... things in the public domain are those which are entitled to be used by an indefinite, wider, but not necessarily unlimited, number of persons'.

¹³ The above power does not derive from a right in rem to confer power directly in favor of a certain person, does not confer a right of possession or quasi-possession or possession, but is power for transient use, which is a manifestation of freedom, which is included as an element of the personality of the individual.

a. article 2 of the Legislative Decree (LD) of 1923. City plans define not only building areas, but also public utility and public urban spaces, those that are intended for common use in which built is prohibited. Indicatively these spaces are: (i) streets and squares, public gardens, lawns and groves and, in general, for public purposes requiring common areas'. b. article 20 par. 1. It is impermissible to form private areas on private initiative but, 'indirect formation of urban public spaces is permissible under certain conditions'. c. article 23. Provides that facilities serving common needs, such as decorative or ornamental facilities and public service facilities which are not permanent are permitted on public urban spaces., d. article 2 par.2, 4, 5 of the General Building Code (G.O.K 1577/1985) 'public urban spaces are all kinds of streets, squares, groves and generally the free spaces intended for common use, which are determined by the approved city plan of the settlement or have been put into common use in any other legal way", while further, the streets and sidewalks are described, '... Roads are common areas, which mainly serve traffic needs. 'Pedestrian streets are streets that are mainly intended to serve pedestrians. The meaning of the square was determined by the Court Decision no. 1245/1960 of the Council of State.

e. In article 2, par. 39 of the New Building Code (NBC), not only the public urban spaces of the city plan are defined, but also those that have been put into common use in any other legal way. In particular, according to the above article it is stated that: 'Public urban spaces are the common use free spaces, defined by the approved city plan or put into common use in any legal way'. Subsequently, according to article 20 of the New Building Code (NOK), 'constructions in public urban spaces are allowed for: a) landscaping, such as staircases, walls, corridors, inclined levels, mechanical means of covering altitude differences, as well as constructions to serve people with disabilities or people with disabilities, b) their landscaping and aesthetic upgrade, their equipment and safety and generally constructions to serve the destination of these spaces, c) prefabricated and temporary constructions, d) for the operation and service of Public Transport. The above constructions are implemented by the Municipality or by other public or private bodies or legal entities or individuals, following a decision of the Municipal Council and permission of the Building Service. By a ministerial decision of the Minister of the Environment and Energy, the categories of constructions or installations for which no Building Permit is required and their inspection procedure in terms of safety and aesthetics are determined. In addition, in accordance to par. 2 of the above article, a number of installations serving the public interest are permitted, as specified in the provision.

f. According to article 28 of L. 1337/1983 (Government Gazette A' 33), private streets, squares and other common use areas that have been formed in any way, even in violation of the existing urban planning provisions and that are located within the approved city plans, belonging to the Municipality or to the community and no compensation was paid is due to planning, are defined as public urban spaces. These spaces legally exist and not taken into account for the calculation of the land contribution of the owners (article 8 par. 11, L. 1337/1983).

In forest legislation (article 3, L. 998/1979 'For the protection of forests and forest areas in general of the country', parks and groves are defined (articles 4 and 49).¹⁴

In Article 35 of the L.3937/2011 (Government Gazette A' 60) 'Conservation of biodiversity and other provisions', provides for the "Ratification of a network of communal areas of settlements without an approved street plan". The Decentralized Administration at home or at the proposal of the relevant municipality or at the request of any person with a

¹⁴ The Law assimilates forests and provides increased constitutional protection also to groves or urban parks located in a public space within an approved city plan (Council of State Court Decisions 281/1990, 55/1993).

legitimate interest may expedite the ratification process of the existing network of communal areas of settlements without an approved street plan, whether they are settlements with a population of up to 2,000 inhabitants, delimited according to its provisions from 24.4-3.5.1985 presidential decree (PD- Government Gazette D 181), as applicable, either for settlements existing before the year 1923, demarcated in accordance with the relevant provisions as in force, or for non-demarcated settlements, including those declared as traditional, as well as stationary settlements. A network of public areas means, in particular, streets, pedestrian streets, squares and other free public spaces. The process begins with the preparation of a topographic diagram or orthophoto map of appropriate scale, for all or parts of the area of the settlements, in which the above network of common areas is depicted. Then the process of imprinting them. Then a Ministerial Decision is published by the Minister of Environment, Energy and Climate Change, and specifies the content, the data depicted and the way of drawing up the topographic diagram and other necessary special studies, as well as any other necessary detail that is determined. The procedure for ratifying the network of public urban spaces may also include parts of property that had been put into common use until the publication of the above Law, even if the relevant concession deeds have not been transcribed and notaries deeds drawn up before 29.1.2010.

In article 7 of Chapter C of L.4447/2016 (Government Gazette A' 241) 'Spatial planning - Sustainable development and other provisions', in the Local Urban Plans (LUPs), the areas to be built in this category are determined, the boundaries of urban units and the general proposal for their urban organization is described (i.e. the categories of land use permitted within them, general, and, where appropriate, the density, the building coefficient, average at the level of the urban unit, and potentially final for specific parts of the urban unit, and the other building conditions and restrictions, as well as the general assessment of the needs of each urban unit in public urban spaces, public services and public infrastructure and networks. In article 10 of the same Law, it is stated that in the City Planning Implementation Plans (CPIP), the preparation and the approval for a CPIP, for a certain area, is required. This includes the City Plan and the Implementation Act. The plans specify, at the scale of the city or settlement or parts thereof or in zones and areas of special uses, the regulations of the Local or Special Urban Plans, regarding land use and building conditions and define precisely the communal, public utility and buildable areas of the area to be built, as well as the diagrams of the infrastructure networks.

In Article 28, par. i, of L. 4495/2017 (Government Gazette A' 167) 'Control and protection of the Built Environment and other provisions' in Chapter One "Procedure for checking building permits – categories of permits, it is stated that: 'Public Urban Spaces are all kinds of streets, squares, groves and generally the free spaces intended for common use that are defined by the approved city plan of the settlement or have been put into common use in any other legal way. Furthermore, they are the designated spaces in common use in case of horizontal or vertical co-ownership'.

Finally, according case-law of the Council of State, public urban spaces are an essential element of urban planning, and it is necessary to preserve their character and free access to them¹⁵. In addition, it recommends Unacceptable deterioration of the residential environment any even minimal loss of communal spaces (such as green and recreational areas), while their preservation is a top priority for the protection of the quality of the urban environment. Any reduction is subject to review by the Council of State.

¹⁵Council of State 3047/2015: 'The amendment of a city plan with the simultaneous creation of a new public space must be based primarily on criteria relating to the functionality of the settlement. The fragmentation of public space must not hinder the urban planning function, which this area as a whole is intended to serve'.

Urban Resilience

1. The concept of urban resilience and theoretical approaches

The concept of resilience is founded in a variety of theoretical approaches to the scientific bibliography. Resilience is a dynamic and evolving process. Initially, the concept of resilience occupied the science of ecology in the 70's. Durability was distinguished in ecological and engineering. In the first case, ecological resilience was defined as the measure to absorb changes in the ecosystem and bring it back into balance and engineering resilience is the ability of a system to return to equilibrium or steady state after a disturbance (natural disaster, social disturbance). 'From this perspective, resistance to disturbance and the speed at which the system returns to equilibrium is the measure of resilience. The faster the system 'bounces', the more durable it is'. (Tsiknas, 2021:20).

In particular, urban resilience has been identified through the policies and institutional tools adopted by the International¹⁶ and European agencies¹⁷, national and local governments. Cities have always faced dangers through lack of resources, natural hazards and conflicts. However, in the 21st century, the global pressures on cities, especially to those with a large number of populations, the climate change, sudden natural disasters, pandemics, economic crises, population flows, terrorism¹⁸, set out new strategies and policies to prevent from them. States have therefore taken initiatives to address uncertainty and prevent risks more flexibly through the implementation of urban resilience tools.

In terms of urban development policies, urban resilience is described as 'the ability of the cities to function so that residents living and working in cities, particularly poor and vulnerable social groups, can survive and thrive regardless of the stress and shock they face' (CITY RESILIENCE INDEX, ROCKFELER FOUNDATION, ARUP 2016:11).

The connection between urban resilience and the public spaces of cities is described better in Meerow's et al. definition (2016:39), 'urban resilience refers to the ability of an urban system, as well as all components of socio-ecological and socio-technical networks at temporal and spatial scales, to maintain or return to desired functions in the event of a disturbance, adapt to change and rapidly transform systems that limit current or future adaptive capacity'. The above concept is chosen, since it's a process that occupies the urban system at all scales (temporal and spatial) and provides the ability to improve with positive actions urban spaces quickly and flexibly against sudden situations and risks (natural, social etc.).

2. Public spaces: from urban sustainability to urban resilience

Modern urban planning policies for the design of public urban spaces focuses mainly on urban sustainability, social exclusion, economic competitiveness, landscapes, images, aesthetics, equal access, ethnic, religious, cultural issues, to the identity of people gathering in these spaces, etc. This multidimensional approach is legitimate and necessary, since these spaces are transformed according to the conditions formed in the cities and in the modern

¹⁶ UN, UN-HABITAT, Rockefeller Foundation 100 Resilient Cities, World Bank etc.

¹⁷OECD, (2022) 'Reports and cities, available in: <https://www.oecd.org/cfe/>' Definition, which is widely used and gives specific directions for managing and implementing urban resilience, according to which, 'Resilient are cities that have the capacity to absorb, recover and prepare for future shocks (economic, environmental, social and institutional). Resilient cities promote sustainable development; inclusive prosperity and growth'.

urban environment. This transformation takes into account the historical circumstances, population movements (migration and refugee issues). Therefore, national governments, local governments and international organizations,¹⁹ implement urban policies for more qualitative and quantitatively increased public urban spaces.

The recognition of equality and fairness in the design and management of public urban spaces is closely linked to the principle of sustainability, since everyone should share the benefits of a safe and clean environment as well as future generations. The quality of public urban space is therefore a top priority in urban planning policies. By necessity, public urban spaces have been transformed into spaces of major value for economic development, participatory democracy, ultimately becoming spaces of urban regeneration. For this reason,²⁰ their acquisition and design are shared between the State bodies involved, the social partners, the participation of citizens. Those are responsible for the design and management of public urban spaces, in addition to assessments of how the latter evolve and are regulated, their balance in the urban fabric and the allocation of responsibilities regarding ownership and responsibility for their design, the application of institutional tools and the implementation of urban planning policies. As Carmona (2019:51) states, 'there are numbers of plans, legislative tools and urban policy frameworks'. Usually, their design is based on general principles for 'good' design, most on hypotheses and intuitive analyses (for example in the UN Habitat 2013 program), but also on empirical tests with the implementation of policies in specific cities (case studies).²¹

From the perspective of urban sustainability policies, there has been an urgent need to transition to urban resilience policies, due to the overconcentration of population in cities combined with population movements due to war conditions (refugee flows) and huge climate changes. Public spaces, as parts of the city, multifunctional and accessible to a large number of people. Public urban spaces are the spaces that these integrated policies can be applied, as a prevention and response to all kinds of disasters.

A resilient city should possess seven (7) qualities in order to be able to withstand crises and pressures. According to ARUP (2016), these qualities are: a) flexibility, b) surplus, c) robustness, d) ingenuity, e) reflectivity, f) accessibility and g) inclusiveness. Public urban spaces, as natural and artificial parts of the city, should be designed based on the above qualities for the best possible living of citizens after the disaster and the avoidance of further risks from disasters. In terms of resilience, they are the first refuges – places of gathering, distribution of information and goods. Therefore, their design should also include a set of institutional planning tools and policies with principles and terms of urban resilience.

¹⁹ During the last twenty years, a new framework of conditions and trends has evolved at international and European level, with multiple, often differentiated on a case-by-case basis and over time, impacts on places and societies. Its main characteristics: a) the globalized economic environment of "network organization", b) the ever-increasing mobility of populations combined with the emergence of new flows of people, goods and capital, c) the establishment of powerful "centers" of decision-making, concentration, services and work of international scope. In these conditions, "spatial polarizations" intensify, inequalities are reinforced, while the environmental [and not only] effects of climate change are visible at all spatial levels, while the differentiation of needs, demands and priorities requires a change in the perception, regulation/organization of "space". (Theodora: 2017: 189).

²⁰ According to Carmona, 2008: 80, 'Empirical research, on the contrary, tends to demonstrate that ultimately the rights and responsibilities associated with public spaces and the concept of public are to whom it belongs and who manages them'.

²¹ Carmona, M. et al., 2008, in their research defines some critical factors that can form the basis of the principles for the design of public spaces is based on the principle of urban sustainability.

Urban resilience tools in the Greek institutional urban planning framework

1. L. 1337/1983 and the Urban Reconstruction Company (EPA) to L. 4447/2016, as is now in force with the amendments by L. 4759/2020

The first Law that set the goals of the reorganization of the urban planning system in Greece is L. 1337/1983 (Government Gazette A' 33), 'Extension of urban plans, residential development and related regulations as well as the Urban Reconstruction Company (EPA). For the first time an attempt is made for integrated urban planning²². Thus, General Urban Plans and Urban Planning Studies were introduced, the staggered contribution in land and money for the acquisition of the necessary public urban spaces and for public uses and purposes. In this Law there also provisions for the Active Urban Planning and Urban Consolidation Zones, the Neighborhood Committees, the opinions of the bodies, open consultations, publications in the press, tackling illegal construction and many innovative tools for systematic and organized urban planning including clear objectives and policies. Although the concept of urban resilience had already begun to enter to the agenda of urban development policies at international, national and local level, in the Greek reality this was not possible, since at this early stage a targeted urban reconstruction of the country was attempted. This reconstruction was an attempt to solve problems of urban planning of the country of the last fifty years, since Legislative Decree 17-7-1923. The Law²³ passed by the Greek Parliament as a transitional one, but however it turned out to be the only institutional tool for the development of cities and settlements and for the acquisition of public urban spaces through the approved city plans. It was implemented piecemeal, with time-consuming procedures, chronic property commitments due to non-existence of implementation of expropriation Furthermore; it lacked implementation for housing development policies. During the years of 1982-1984²⁴, the Urban Reconstruction Company (EPA), should have completed all the General Urban Plans and Urban Planning Studies, according to Law and began the elaboration of the General Urban Plans and Urban Planning Studies with further provisions for the revision of the General Urban Plans over a five-year period. It aimed to change the way the built environment was produced by imposing new plans, sustainable and flexible²⁵. Unfortunately, this reconstruction became difficult to implement, complex, time-

²² According to the explanatory Memorandum of the Law, it is stated, that 'there was a need to formulate a new law aimed at effectively addressing the immediate urban planning and housing problems without postponing them. A law that has a flexible character and applies to all cases of coverage, such as the inclusion of arbitrary ones in the plan, the redevelopment and upgrading of residential areas and the implementation of a popular housing policy... the need for appropriate urban planning legislation that simultaneously provides for the appropriate financial and urban planning incentives and organically integrates urban and residential development into the general development planning (5-year plans) ...'.

²³ It was preceded by the well-known 'Manos Law', (947/197) 'on residential areas', which was not applied due to strong social rejection. It was considered unfavorable to the detriment of vulnerable social groups due to the fixed contribution in land and money. Also see, explanatory Memorandum of L. 1337/1983, NOMOS, (Bank of Legal Information).

²⁴ It's purpose was the spatial and urban organization of the Country through the organization of arbitrary housing, the organization of settlements of less than 2,000 inhabitants, holiday homes, the organization of the national cadastre, the drafting of the Master Plans of Athens and Thessaloniki and in general to impose an integrated housing policy integrated into this protection of the environment.

²⁵ Urban Plan Studies were carried out in 453 cities, which were carried out according to various criteria due to the seriousness of urban planning problems, such as degraded environment, arbitrary construction. By 1987, 150 towns had been added. As Tasopoulou, A. (2021: 35) mentions 'A total of 472 General Urban Plans (460 local authorities) were assigned between 1982 and 1992 with the corresponding Zones of urban control (ZOE) and 368 General Urban Plans (78%) and 52 Zones of urban control (ZOE) were approved (Synadinos, 1993). By

consuming, costly and ultimately became ineffective. In fact, the urban reorganization lasted much longer, at least until the year 1997 where a new Law came into force (2508/1997) and ceased to be a vision of urban reconstruction and reorganization.²⁶ Proof of its ineffective implementation was the fact that until today public urban spaces in Greek cities are in constant shortage, degraded and there is inability to maintain them.

The next framework by L. 2508/1997 (Government Gazette A' 124) 'Sustainable residential development of the country's cities and settlements and other provisions' emphasized to principles of sustainable development and rational alignment with spatial plans and development planning. The new planning policies based on guidelines for the future development of cities and the upgrading of the residential environment. The new General Urban Plans had a strategic and regulatory character, expanded in wider areas of Kapodistrian Municipalities. The General Urban Plans were more binding for the development of the areas. Also, Open City Spatial and Residential Organization Plan (SCHOAP) were introduced for the municipalities with population of less than 2,000 residents. An important innovation of this Law was the implementation of Urban Regeneration Plans. They aimed urban interventions for the regeneration, upgrading and improvement of degraded areas. These areas were defined through the General Urban Plans. Also there could be e defined in Specially Regulated City Planning Areas (PERPO) and in land located outside the city plan for one or more categories of land use. Subsequently, these areas are urbanized. The renovations were prepared by European Union funds²⁷ (NSRF, Urban Pilot Projects, Urban programs). They applied mainly in the two large cities of Greece, Athens and Thessaloniki. Unfortunately, the lack of integrated urban policies and fragmented planning, regeneration did not include urban resilience tools, although in it as institutional tool, aimed for the urban reorganization of an area and public urban spaces.

An integrated urban regeneration programme the institution of Integrated Urban Intervention Plans (SCHOAP) was also provided by L. 2742/1999 (Government Gazette A' 207) 'Spatial planning and sustainable development and other provisions. It is an important policy tool that mainly focuses on the local development of an area, with a multidimensional character and elements of urban resilience. It serves social and cultural cohesion, the restoration for security and legality, the recovery and upgrading of urban public space, the improvement of environmental conditions, participatory planning, and the improvement of governance. Its specifications were approved only in 2012.²⁸ In L.2508/2007, the guidelines were not accompanied by completeness and adequacy of policy texts.

The next revision was set by L.4269/2014 (Government Gazette A' 142) 'Spatial and urban reform - Sustainable development'. The new Law attempted to reform the previous legal urban planning system and aimed to remedy the conflicts of the rules of law by setting new basis for spatial and urban restructuring and development of the Country for the safe of future generations. There was an attempt to reduce the times for the completion of the urban plans, to separate and allocate responsibilities between administrative bodies and to legally protect the Acts of public administration.

1997, when Law 2508/1997 was passed, 395 General Urban Plans by the enactment of L. 1337/1983 had been approved and in the next 10 years another 14 (Economou, 2009).

²⁶ The results of the PSC project have been partially assessed and there is no official evaluation report.

²⁷ As Tasopoulou, A., (2021:38) mentions, 'In the period after 2001, the preparation of GIS / SCHOAP of several Municipalities of the country began based on the provisions of L.2508/97 and funded in the majority by European programmes'.

²⁸ The Municipality of Athens drafted the study and elaboration of an Integrated Urban Intervention Plan (Government Gazette B 64/2015), for the rehabilitation of the center of Athens, The results of this plan have not been analyzed until recently.

An important reform of the Law was the introduction of new institutional tools, such as the Local Spatial Plans (LSP) and the Special Spatial Plans (SPP). The above, together with the Town Planning Implementation Plan (TPIP), fall into the category of regulatory planning. The Local Spatial Plan is prepared in an area of one or more units of a Municipality and can also be applied in an area of municipal units in neighboring Municipalities following relevant decisions of relevant municipal councils.²⁹ The Special Spatial Plan was broadened and was elaborated within wider administrative boundaries.³⁰ The above two plans were legally binding. New technologies were incorporated for the process of compiling, approving, monitoring and uniform registration of all institutional lines of the country. Finally the Law was not implementing and it was more an obligation from the Memorandum that Greece signed during the economic crisis.

A new Law (L.4447/2016 Government Gazette A' 241) 'Spatial Planning - Sustainable Development' passed, to strengthen the country's development prospects, while protecting the natural and man-made environment and promoting social cohesion and justice. The main axes were: a) legal certainty as a basis for the proper economic development of the Country, b) the reduction of the planned project categories and the attribution of a distinct role and content to each level of planning and category of projects with the aim of accelerating the planning process and reducing overlaps, contradictions and contradictions between projects of different levels, c) the clear distinction of planning levels at strategic and regulatory level, in conjunction with levels of development planning, d) the distribution of responsibilities according to the new administrative division of the country and the legal shielding of the Acts of the administration, e) the relief of the central State through the assignment of the responsibility for approving the Town Planning Plans to the Decentralized Administrations of the Country. The Law tried to streamline planning and harmonize it with the settled case law of the Council of State and the judgments of the European Court of Human Rights (ECHR). Regulations for new land uses were included, while Local Spatial Plans are now strategic in nature³¹. They elaborated at the level of the Municipal Unit (one or more within a Municipality or may also cover the area of municipal units of Municipalities located in neighboring municipalities, following the decisions of the municipal councils), which would contribute to the faster completion of the plans. The Local Urban Plans of this Law included technical specifications for the prevention, response and recovery from natural disasters (urban resilience tools). The urban resilient tools should: 1) define the types, location and intensity of land use (land availability – land supply) for emergence situations, 2) secure land

²⁹It was replaced by article 7 of L. 4447/2016 (Government Gazette A' 241), which was replaced by article 9 of Law 4759/2020 (Government Gazette A' 245). In particular, Article 9 of the L. 4759/2020 states that the LTS define the model of spatial organization and development and the basic programmatic sizes, boundaries of urban units and settlements, land use, building conditions and restrictions, significant urban planning interventions, building reception zones, zones of special urban incentives, the road network, other transport, technical and environmental networks and infrastructure, climate change adaptation measures, measures supporting emergency response and consequence management of natural and technological disasters and other threats, as well as any other measure, condition or restriction required for integrated spatial development and organization of the study area. In this article, the legislator regulates the organization and development of urban units in terms and measures of urban resilience, since measures should be taken in support of the preparation of climate change and disaster response LTS. However, no specific reference is made to public spaces.

³⁰The Special Spatial Plans were abolished by article 8 of L. 4447/2016, from the Special Urban Plans which organize and develop spatially areas regardless of administrative boundaries, which may act as hosts of plans, projects and programs of supralocal scale or strategic importance, for which special regulation of land use and other development conditions is required.

³¹According to Melissas, D (2019:114) 'The above position makes the Local Spatial Plan is a strategic instrument, insofar as it makes it clear that random spatial diffusion is no longer acceptable mainly in rural areas. On the contrary, it proposes in regulatory terms organized development in all local authorities and determines its intensity and density, based on social and environmental criteria, thus seeking balanced territorial development.

infrastructure services through nature based solutions strategies and 3) interconnect land uses, ensure transport, pedestrian networks, transportation, and services. After the implementation of Law 4447/2016, two Local Urban Plans are being prepared, in Thessaloniki and Samothrace.³²

In 2020, L.4759/2020 (Government Gazette A' 245) 'Modernization of Spatial and Urban Planning Legislation and other provisions', revised the previous one in a more detailed direction the content of the Local Spatial Plans and the Special Villages Plans, which with L. 4685/2020 (Government Gazette A' 92/2020) 'Modernization of environmental legislation, incorporation into Greek legislation of Directives 2018/844 and 2019/692 of the European Parliament and of the Council and other provisions' (article 99)), were renamed to Local Urban Plans (LUB) and Special Urban Plans (SLPs).

The Ministerial Decision YPEN/GRYFCHAP/121492/1903/2021 (Government Gazette B' 6046), 'Preparation and approval of programs for the preparation of studies of Local Urban Plans and Special Urban Plans (B' section of urban planning programs), funds³³ Programmes for the preparation of studies of Local Urban Plans and Special Urban Plans. These plans should be implemented in parts until June 30, 2025. According to this decision, it is expressly stated that: 'The inclusion of relevant studies in these Programmes shall be guided by the resolution of chronic problems or the radical and effective response to specific or exceptional circumstances, in particular: addressing critical spatial problems, promoting projects and programmes of supralocal scale or strategic importance, urban regeneration or environmental protection programmes, dealing with serious consequences of natural disasters; or interventions under programmes co-financed by the European Union.

The Ministerial Decision AP/24435/2992/2021 entitled: 'Preparation and approval of programmes for the preparation of studies of Local Urban Plans and Special Urban Plans (A section of urban planning programs) reports that a total of 17 studies of Local and Special Urban Plans were announced for their rational planning, while, with the Joint Ministerial Decision YPEN/DNEP/69553/2588/2021 (Government Gazette B' 3527, the above programs are defined and specified in order to accelerate urban planning throughout the Country with a view to the rational organization of space.

According to the above Law, a Ministerial Decision was also issued (YPEN/DPOLS/6015/136/2022 Government Gazette B' 510) 'Technical specifications of studies of Special Urban Plans (SPP)'. According to this Ministerial Decision, (PRINCIPLES, PURPOSE AND OBJECTIVES OF ICP), Special Urban Plans (SPPs) are drawn up for the spatial organization and the development of areas regardless of administrative boundaries, which may act as hosts of plans, projects and programmes of supralocal scale or strategic importance, for which special regulation of land use and other conditions of their development is required. Such plans may also be drawn up: (a) for urban regeneration or environmental protection programmes or for dealing with the consequences of natural disasters, (b) for intervention areas under programmes co-financed by the European Union (EU), such as Integrated Territorial Interventions and (c) in case of need for rapid completion of the first level urban planning by the state, due to critical spatial problems that require immediate response or preventing the creation of faits accomplis due to lack or insufficiency of urban planning. The area for which an EPS is prepared is called the intervention area. In A8.1 of the Decision, Risks and Civil Protection, there is an explicit reference for risks and disaster prevention, while in Chapter P4, planning is adapted to climate change and

³² Island in North- East Aegean Sea.

³³The funds are taken by the Recovery and Resilience Fund from the Public Investment Programme (PIP) - SATA 075, under the general title of Projects 'URBAN REFORMS'.

emergency response with adaptation measures for climate change at municipal unit level. In Chapter P.42. urban maps are included for operational emergency response plans at pre-catastrophic and post-catastrophic levels. In particular, reference is made to open spaces and water surfaces at municipal unit level. Due to the recent adoption of this Decision, there is still no evidence how public urban open spaces will be designed in terms of urban resilience. In article 92 the preparation of an operational plan for public urban spaces is reported: 1. In order to plan the completion of the implementation of the city plan and the acquisition of the designated public spaces, municipalities shall draw up a business plan, in which the public urban spaces are designated by the city plan, recorded and categorized. Public urban spaces whose expropriation has not taken place are prioritized, by the municipality or municipal unit or municipal community, and their implementation, is based on their urban importance for the city. 2. Public urban areas, for which the expropriation has not taken place, are divided into: a. areas, for which the expropriation for streets has been lifted by a court decision, b. public urban spaces, for which an application has been submitted for the lifting of the expropriation street or for which a court decision on the removal is pending, c. spaces, for which the expropriation street has been automatically lifted, but no application has been filed for the amendment of the plan, d. other areas, which do not fall under the above cases.

The review of urban planning legislation shows that only recently, especially after the force of L. 4957/2020, measures are taken during the planning and preparation of studies to deal with man-made and natural disasters. The Local Urban Plans provide technical specifications for the prevention and rehabilitation. These specifications relate to the availability and supply of land (land use), green infrastructure strategies and the provision of networks (transport and services). These arrangements include elements and can create urban resilience tools. Technical specifications are also provided for the Special Urban Plans, as specified in particular in the ministerial decision number YPEN/DPOLS/6015/136/2022 (Government Gazette B' 510). However, due to the recent enactment of the Law, there are no results from the implementation of these plans, nor documented information on the type of urban resilience tools that will be implemented. As it also appears, the regulations of the provisions do not specify and do not directly link to any policies and applications of urban resilience tools regarding public urban spaces, which are the first places for prevention of all forms of risks in the cities. The regulations do not provide for overall and organized planning for public urban space, but as it turns out, public urban spaces are dealing with ad hoc arrangements, unconnected with the rest of the planning. The delay in amending the Ministerial decision on urban planning standards also creates a legal gap for the type and form of urban planning standards for public urban spaces. In addition, participatory processes between actors and citizens are not included in the new regulations, which is essential for building urban resilience policies in planning in general and for public spaces in particular. Municipalities could also contribute to this completion by preparing business plans for public urban spaces in order to actually record and categorize the already existing common areas and optimize them. From constitutional perspective, the protection of public urban spaces reveals that they do not meet the objectives for their protection and the goals for integrated planning achieved with urban resilience tools.

The "XENOKRATIS" project

The XENOKRATIS' project was approved by the Ministerial Decision (299/2003 Government Gazette B' 423/2003) of the Minister of the Interior, Public Administration and Decentralization, the General Plan for Civil Protection to formulate a plan of effective response to catastrophic phenomena and therefore and for the protection of life, health and property and the protection of natural environment. The plan constitutes guidelines for risk

and emergent situations. The services and bodies involved coordinating at all levels. Also data shall be provided to the competent authorities for the assessment of situations, risk assessment, identification of vulnerable areas and subsequent preparation of specific plans within the framework of the basic plan "XENOKRATIS" to address the risks, as appropriate. Guidelines are given for the formulation of strategies and tactics, the proper organization and equipment of services and the formation of an operational philosophy, for the timely mobilization, activation, direction and coordination of human resources and means. It also provides logistical capacities to deal with problems of both operational forces and affected civilians. It is planned to set up a system of communication and information flow between all services and actors involved in crisis management.

The plan also includes the capacity and means of implementation such as the preparedness of the state apparatus to deal with catastrophic phenomena and risks. It also includes the participation in the project of all government services, as well as voluntary civil protection organizations, qualified civil protection volunteers at central, regional and local level, who undertake the support of prevention and rehabilitation projects and actions, as well as disaster preparedness and response actions.

According to the plan, disaster is any rapidly or slowly evolving to natural phenomenon or technological incident in land, sea and air space which causes widespread adverse effects on humans, man-made or natural environments. The intensity of the disaster is determined by the magnitude of the loss or damage to the life, health and property of citizens, goods, productive sources and infrastructure. Risk is any probability of occurrence of a natural phenomenon or technological incident or other disasters in combination with the intensity of the regional and local level, for the purposes of civil protection and in particular for dealing with emergencies from disasters or for controlling and limiting the adverse effects related to the respective risks.

All involved Ministries send an action plan. In particular, according to Decision, the Ministry of Environment and Energy should define the measures to deal with catastrophic phenomena, repair the damage and provide assistance to those affected, within its sphere of jurisdiction. The design should take into account any accidents or sabotage that may occur in the metro or other facilities, as well as terrorist phenomena that occur around the world. Also, the Ministry of Environment and Energy should provide and take any measure to protect the environment, during the period of calm or in case of sabotage or extensive pollution due to an accident. The Ministry is obliged to inform the population about earthquakes and act immediately in risk phenomenon.

The "XENOKRATIS" plan provides the possibility of drafting a plan for disaster and risk prevention in which co-competent ministries participate by drafting and sending their plan. From the point of view of spatial planning, the plan is not inspired by a clear spatial orientation and is not linked to urban resilience policies and tools that will help contain the risk in cities and places where large numbers of inhabitants are concentrated, i.e. in public urban spaces. It does not appear that the relevant services can provide sufficient information and training to the population described in the plan. Although after the pandemic of Covid-19, the State rapidly digitally transformed, digital technologies are not prioritized in the project of XENOKRATIS, which will help as a tool to prevent risk and deal with emergency situations and smooth adaptation after the sudden event. Urban resilience tools for public urban spaces are lacking, and there is a lack of strategies for preventing and protecting the natural and man-made environment. Subsequently, no evaluation reports of results are provided so as to be able to monitoring the plan and make a real feedback of its implementation. The draft was not put to public consultation and there was no bottom-up participation in its drafting. Its modification and alignment with the new framework of urban planning, which includes urban resilience policies and tools through the technical

specifications of the Local Urban Plans and the Special Urban Plans, is necessary in order to provide targeted prevention from risks and disasters. Subsequently, there should be harmonization and connection of this plan with an integrated plan of urban resilience policies for public spaces, which must be drafted in cooperation between the co-competent Ministries and the stakeholders of the administration.

Conclusions

It is necessary to review the legal framework for urban resilience tools and planning policies. Public urban spaces are the 'reception' areas and the first places that accept sudden risks. Crises go beyond the administrative boundaries and governance of a city and are sudden. Therefore, any urban resilience tool and policy should be set as a planning strategy and should provide flexibility and adaptability. Public urban spaces, as dominant places of the city, are required to ensure connection between them, accessibility and participation. Policies for their design and institutional tools should be the result of participation and cooperation between social actors, citizens and administration. Digitalization and new technology will contribute to the use of tools for smart cities, which are becoming adaptive and flexible.

In Greek urban planning framework, there is a lack of policies and tools of urban resilience for public urban spaces, at least at an institutionalized level for a number of years.

Few urban resilience programmes have been implemented,³⁴ in the two large cities. The application could be the basis for new proposals for urban planning policies in terms of resilience for public urban spaces. Many flexible urban planning tools for public urban spaces were not applied until today and urban policy missing of resilient approaches. Although an attempt was made to revise the institutional urban planning framework with the new framework of spatial planning and sustainable development towards an integrated and more rational planning system which includes terms and tools of urban resilience, there is concern about the implementation times of the new plans, the contents of the land uses and the tender procedures of the studies. In addition, urban resilience policies and institutional tools that will make public urban spaces of cities the places of prevention from all kinds of disasters and risks are completely absent.

The new urban planning project should be placed under evaluation and monitoring so that the gaps and delays of the past are not repeated and with real addressing of the issues and taken into account by scientists, researchers, public administration, who will be called upon to implement the new urban planning policies, because cities are directly at risk of successive crises and disasters. Vigilance and honest implementation of urban plans and urban policies through collaborations, transparency, participation, of all those involved in planning, citizens, social actors, networks, are required, in order to prevent sudden crises and disasters and for the better quality and equal living of the citizens.

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³⁴Urban Institute, (2022): 'Urban Resilience, in Local Practice – Executive summary of the final evaluation of the results of the 100 Resilient Cities project', states that the results of the implementation of the programmes are good practice for new urban resilience policies, after of course assessing the positive actions and shortcomings in the implementation of the programmes.

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