



The inadequacy and problematic functionality of public open space in the modern Greek city and the need to overcome its deficiencies

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Abstract

Public amenities and public space in particular in Greek cities constitute a major aspect of concern, as their inadequacy impacts upon the environmental degradation of urban spaces with direct negative consequences on the quality of urban life. The inadequacy of public spaces has been accentuated by the escalation of urbanization and the increase of urban population in the recent past as throughout the postwar period and especially during its early decades, Greek cities experienced acute pressure for urban expansion. Legislation has played a significant role towards this direction as it has been particularly late in establishing the means to secure the open spaces and public amenities required by a comprehensive and balanced urban development program. Still it is made clear that the inadequacies in public open space are also due to objective and subjective difficulties such as financial restrictions, and tedious legal and administrative procedures. Furthermore and despite the pressing character of the need for efficient planning, local plans conducted in the '80s and '90s encompassing a holistic approach to the provision of public amenities, were only partially implemented. It lies beyond doubt that the development of cities in Greece however, presents an example in which the organization of public open space has not been properly approached, the main reason being that urban development has tended to follow the needs of individual stakeholders, whether small scale or large scale. Thus, as the urbanization trends escalated, planning legislation in Greece has been particularly late in establishing the means to secure the open spaces and public amenities required by a comprehensive and balanced urban development program, even at times when the dimension of sustainability and the requirements it has set on environmental performance were not overtly expressed. The present paper examines the adequacy and contribution of public open spaces in the large urban centers in Greece. More specifically it attempts to provide a critical overview of past and current legal instruments and policies pertinent to the issue, paying particular attention to their functionality. The above will be tested against the present situation in medium sized cities like Patras and Volos where haphazard development has been less acute than the main urban centers of the country.

1. Introduction

As modern cities are continually aware of the need to maintain an adequate standard of environmental performance, a major issue concerning their capacity to develop resisting mechanisms to the degradation of their environmental parameters relates to the distribution, shape and above all availability of open spaces in the urban fabric. Taking into consideration the requirements of the compact city as the means to sustain development within the urban milieu, space and especially public open space may be considered as a luxury that needs to be well organized and managed so as to support the requirements of urban land uses while also maintaining its symbolic function needed.

More specifically, cities require open spaces, whether public or private, because they cater for the needs of urban communities in a manifold manner, not only covering their social and recreational needs but also, at a psychological level, relating to the

needs for symbolism and identification (Norberg-Schulz, 1980; see also Gehl, 2011). Thus, apart from purely functional, the benefits of public open spaces may be classified as environmental, social and economic ones. Still research has shown that Greek cities tend to follow an even more deprived pattern of public open space coverage than cities in other Mediterranean countries, which still are trailing behind the ample northwestern European archetype (Fuller & Gaston, 2009). Even though there is evidence to suggest that public space and especially parks in Greece may be used differently (as examined in Tsopouridou, 2008), the question is to examine the extent to which the ancient Greek Agora (as in Madanipour, 2010: p. 7) and other forms of public open space still manage to secure the needed coverage so as function in medium sized Greek cities as it did in the past.

2. The Legal Framework

The traditional method to secure open space in a city on Greece has been land expropriation as based on the legal framework of the 1920's. This method that has often taken the form of compulsory purchase, apart from being costly, was not readily accepted by the general public and especially those who lost their property. Apart from the most evident reasons for the negative notions associated with this, one must take into consideration that in earlier years compensation for the purchase of property tended to be very low, a fact further accentuated by the strong attachment of Greeks to private property as a result of many decades of political uncertainty and turmoil. The security feeling provided by having a house of one's own is depicted characteristically on the high percentage of home ownership in Greece that has always tended to exceed 80%.

Much later, it was during the 1980's that new legal instruments provided more flexible means to urban planning. This shift in the country's legal framework with reference to the development of cities was based on the notion that the land needed for open space and public amenities in general was drawn from land contributions by individual property owners prior to their property's incorporation within the official city plan. Thus there was no need to employ land expropriation, a measure which apart from its unpopular character relied on financial resources that had usually been hard to secure (Lalenis, 2004). In addition to that, contemporary legal framework not only requires ample coverage for public open space but also specifies a standard of 8 square meters per person for green spaces. Yet even then, in reality local plans still had to face the difficulty of having to conform with neighborhoods of usually unauthorized building activity that had already developed in the periphery of the existing official city plan. As a result and although well conducted in as much as their interest in public open space is concerned, local plans seldom manage to be fully implemented

The difficulty in securing open space in Greek cities is elucidated when one focuses on specific paradigmatic cases and approaches the manner in which their urban fabric has developed. Thus in the present context, two medium sized cities in Greece, Volos and Patras, are addressed, focusing on the legislative frameworks as it has

been shaped during the years and aiming to examine the reasons behind the inadequacies of public amenities. The reason of selecting the particular case studies lie on the facts that (a) they are both medium sized cities that are representative of the Greek paradigm, (b) their urban fabric presents notable similarities as they are both coastal and (c) they both present a record of sizeable urban sprawl. Furthermore both cases represent typical examples of the implementation of urban development policies that have been applied so far in Greece, unpacking the critical policy's issues that led to the present situation with reference to public space.

3. The case of Volos

Volos is a medium sized city with a population of around 150.000 people located in Thessaly in central Greece. Volos has a long history, traced back in the prehistoric period, indicating that the specific area has been continually inhabited since then. However the present form of the city is fairly new and has little geographic relation with the original settlements. It is a city that has basically emerged a few decades before the year 1900 based on a mid-19th century plan that covered a fairly extensive coastal zone between the already inhabited stronghold of Palia and the uphill village of Ano Volos (Haritos, 2004). Since then a extensive number of annexes gave the city its present form. In as much as the central quarters are concerned, the original city plan did not specify land use and hence has been unable to secure open spaces, the provision and organization of public amenities being a matter of negotiation. As a result, the city center is characteristically poor in public open spaces as the few squares created were in fact nothing more than the necessary breathing space provided for the few centrally located churches built before 1881 (Hastaoglou, 2007).

To become more precise, it is worthwhile explaining the current situation with specific reference to the provision and adequacy of public amenities through the examination of the city's urban development during the last two centuries in the city. From 1840 onwards and especially after its independence from the Turkish 15th-19th century occupation in 1881, the city started to expand to the southeast, an area formerly used for storage. Indeed, within a period of 25 years the particular area has grown in size from 80 warehouses to more than 1200 dwellings. The road network consisted of four main streets parallel to the waterfront and forty roads vertical, thus creating a settlement of nearly 200 blocks. At that period urban development did not follow other official plans apart from the original overall grid merely adjusted to individual needs (Hastaoglou, 2007).

This problematic situation was further intensified due to the population increase. The transformation of the city's profile in one of the most important industrial cities in Greece generated the need to accommodate new land uses and increased the demand for public amenities and open space in general. By the turn of the century, the inadequacies of public space in the city center obliged the municipality to expand the width of the waterfront. The Volos waterfront is until today very popular, both due to its image and its functionality, operating as the principal zone of entertainment based on the leisure activities it has attracted.

In as much as both the creation and distribution of public space in Volos is concerned, it is important to note that middle income districts tend to be better equipped compared to those of lower incomes. In particular, areas that attracted population of higher incomes, such as Agios Nikolaos in the southeast, have been benefited by more open space, whereas lower income areas, such Analipsi at the western part of the city was not given particular attention in terms of public spaces until very recently.

The issue of public amenities and public space in particular has attracted increasing attention after the 1920's leading to the establishment of the relevant legislation for the first time in Greece. At that period the Volos city plan was adjusted so as to meet the new legislative requirements. However, the updated plan which still covered only the central zone of the contemporary city, envisaged only one more public square with no concern for other forms of public space. In addition to this, even this only square provided by the plan did not actually function as a purely open space since it was occupied by the municipal gym. What underlines further the lack of concern for public space is the fact that the new urban blocks as indicated by the plan, reached the edge of both streams that surround the city center, leaving no room for the development of a sizeable green belt between the urban fabric and the stream. Furthermore, these two streams which might potentially offer the public space and greenery needed, are not only in a state of dereliction, but also threatened by new urban development in the very recent past.

The plan adopted in 1930, despite its inefficiencies, was not transformed or updated before 1957. Hence, for a period of almost 30 years the development of the city was based on a plan with little concern for public amenities. The plan was amended only two years after 1955 following two massive earthquakes that devastated the city providing an opportunity to reconsider its condition and expansion. Still it was as late as 1968 that a more substantial amendment was conducted following the residents' demand. In as much as public amenities are concerned, the new plan suggested the allocation of 17% of total space for open spaces. However this venture was particularly complicated and was never implemented, due to the difficulty of intervening in an environment that already existed and for this reason involved excessive funding to acquire the space required.

The most decisive changes with regards to public spaces in Volos have taken place after 1980. In particular, the aim was to decentralize land uses in order (a) to enhance the quality of peripheral districts in the urban fabric and (b) to allow public space to develop in the packed city center. However, it should be noted that these changes usually tended to remain in paper, not reaching the stage of implementation both because of the financial shortages mentioned above and because of subjective public and private sector inadequacies (see also Lalenis, 2004). Thus despite some changes that are already evident in new peripheral quarters of the city, the percentage of public space in Volos still remained low.

It was as late as 1982 when the first contemporary local plan was adopted. The plan was based on the grid that already existed and attempted to allow the areas of expansion to blend with the already established layout of the city so as to become a homogeneous entity. Although the plan is characterized by a number of innovative elements, the concern for public amenities has still remained low and the six new public squares provided were not only failed to meet the per capita coverage criteria, but were also randomly distributed in the urban fabric. It is noted however that this inadequacy was more due to the objective difficulty in employing the instrument of compulsory purchase in the expropriation of property in view of the lack of economic resources, rather than a purely subjective one.

Furthermore, public amenities have attracted major attention by the Master plan adopted in 1986. This envisaged the creation of public squares at neighborhood level, the organization of pedestrian and cycling networks and the unification of private back yards in a manner that may allow them to be used as public space. The Master Plan also suggested the upgrading of the area around the stream of Krafsidonas and the need to regenerate the area of Palia. What must be noted at this stage is that although the plan introduced a number of changes that could improve the condition of public space in Volos, these changes were either not implemented at all or have not been operating as planned. More specifically, the plan's provisions relevant to open space were concerned with the following:

- Proliferation of public squares: The plan envisaged the creation of 11 public squares which were intended to be distributed in different neighborhoods of the city. However these interventions required substantial economic resources causing severe implementation problems.
- Organization of pedestrian and cycling networks: an extended network for cyclists has been established, still being characteristically problematic as (a) the cyclist network is not functional as a whole, (b) cyclist routes do not blend with the geometry of the existing road network and (c) the separation between the road and the cyclist surface is made by barriers that are dangerous for cyclists.
- Upgrading the area around the stream of Krausidonas: Although the stream is acknowledged that it may function as an important element that could enhance public open space and the presence of the natural environment along the edge of the urban fabric, nothing has been done towards this direction so far.
- The regeneration of Palia area: Although the plan indicates the need to upgrade the specific district and certain actions and measures have already been implemented two decades ago, little has been done by the public sector to sustain the initiatives already taken and support the private sector towards this direction.

4. The case of Patras

Patras is a medium sized city with a population of around 210,000 people located in the south of Greece at the north-western corner of the Peloponnese. In as much as urban development is concerned, the city of Patras bears a number of similarities compared to Volos, i.e. Patras' inhabitancy has a long history traced back to the 3rd millennium BC, while the form of the contemporary city is a product of continual expansions and transformations. Furthermore, public space tends to be integrated in the rectangular grid plan principle followed by a sizeable portion of the city's layout.

During the 19th Century, the development of the city of Patras boosted following the country's independency. Still, unlike Volos, from the very early stages of the evolution of modern Patras, planning had to deal with the existing built environment which restricted the adoption of decisive interventions. In view of the above, public spaces were formed accordingly, their quantity and quality usually being confined by the existing situation and by the insufficiency of economic means to implement planning intentions.

These intentions have been expressed through a series of plans, the first of which was prepared by St. Voulgaris immediately after the independence of the Greek State from the Turkish occupation in 1829. One of the most important elements in the plan's rationale lied basically on its attempt to follow the principles of contemporary urban design according to which the main roads axes were directly linked to major reference points. Another important concern directly linked to the provision of public space, has been the creation of green zones around the archaeological sites (Tsonakas, 1997).

In addition to interventions relating to the already developed built environment, the plan suggested the expansion of the city across the western side of the waterfront. The layout of the expansion zone followed the rectangular rationale and approached the need for public amenities and public space in particular by providing a green walkway along the coast and five public squares distributed evenly in the urban grid. A major innovative suggestion with regard to public space was the attempt to unify patches of un-built private space, which when made accessible to the general public, would increase the total coverage of open spaces in the city. It is important to note that this idea had been coined in the case of Patras much earlier than in Volos. Still this suggestion as well as the ones mentioned earlier, were not finally implemented as they were rejected in several occasions for a number of reasons. More specifically, the final plan, approved in 1858 included both areas mentioned above but ended up having adopted very few of the initial concerns for public space:

- Public squares and green zones around archaeological sites have finally been reduced dramatically compared to the initial plan. In particular, only two out of five squares proposed were approved and implemented, while the green zone around the city's castle has never been established, new building development literally touching its walls.
- The green walkway, suggested by the plan, was never implemented although the area was built.

- The idea of the unification of un-built private space was abandoned as the compulsory purchase procedure of properties from the municipality was considered exceptionally costly and time-consuming, being further hindered by legal complexities.

Furthermore it is interesting to follow the approach to the provision of public space as the city later gradually expanded, starting from the years between 1877 and 1929. It is evident that the issue of public spaces was neither on the focal point of planning nor of implementing the interventions. In fact, as the city's size reached 384.5 Ha, its public space consisted of only the 2.2% of its total coverage, thus merely allowing a measure of only 1.41 square meters per resident (Tsiatoura, 2011). More specifically:

- Two expansions of the city were suggested and took place in 1877 and 1882 respectively. However, in both cases the issue of public space was neglected. The zone around the Roman amphitheater was finally conceded to private development as in the case of the green belt protecting the south side of the castle that had been abandoned earlier.
- Similarly the expansions adopted in 1886, 1900 and 1903, which were almost symmetrical to the city center, did not entail a comprehensive approach to the need for public space.
- Likewise, public space was not considered important in the case of the unavoidable expansions of the city from 1903 to 1929 a measure of which catered for the housing needs of the refugees from Asia Minor.

In contrast to the years between 1877 and 1929, the period between 1929 and 1971 is characterized by planning inactivity. The absence of organized urban development paired with the dramatic demands for urban sprawl gave rise to the phenomenon of unauthorized building activity, threatening the image of the city and setting the concerns for public space aside. It is interesting to note that central government authorities at the time conducted a fairly extensive Patras Development Plan in which both living conditions in the residential areas but also the need for public space attracted minimal attention (Ministry of Coordination, 1967).

It is further important to note that after 1971, both the coverage and the population of the Patras conurbation developed differentially as the coverage of 1996 was six times the size of 1971 with only a 0.6% population increase for the same period (Pappas et al, 2000). This dramatic change in the city's institutional character in fact rested on the fact that the city plan expanded so as to gradually incorporate extensive neighborhoods of unauthorized building, devoid of public amenities, that had already been developed in the form of clusters along the outskirts of the existing official city plan. Thus areas that chiefly consisted of low-cost haphazard unauthorized development became officially parts of the city in 1971 and 1972. Although these areas are characteristically poor in public amenities, their low densities produce a misleading picture of exceptionally favorable densities for Patras (Papadatou-Giannopoulou, 1991).

The amendment of the Master plan during the aforementioned period and the expansions that have taken place respectively have increased the proportions of

public spaces both within individual neighborhoods and the entire city. However it must be noted that some neighborhoods, particularly new ones, have been benefited more in terms of public space as they are not susceptible to comply with earlier restrictions. Hence, the expansions and amendments of the Master plan between the years 1971 and 1979 led gradually to the allotment of 5.73% of the city's total coverage to public space, which corresponds to 10.49 square meters of public space per resident (including roads). The above proportions vary among the different neighborhoods ranging from 3 to 7% of the total public space coverage and from 5 to 36 square meters of public space per resident respectively.

Similarly, in the case of expansions of the city plan that have taken place after 1980, the proportion of public space is 4.79% of the total area. The allotment of public space coverage per resident for the whole city is respectively 12 square meters, reaching in specific neighborhoods the figure of 190 square meters. The discrepancies in public space coverage among the various neighborhoods indicate not only the imbalances among the different parts of the city, thus questioning its functionality, but also the failure of the plan to approach the issue of public space holistically (Polydoridis, 1986).

In total, the proportion of envisaged public space for the whole city comes up to 37% of the total area, 32% of which concerns roads while only 5% is allotted to public squares, open spaces and public greenery in general. It is important to note that from the above envisaged percentages less than the 2/3 have been acquired by the municipality in order to implement the plan. More specifically, out of 32% public space (including roads) proposed by the plan, only 69% has been already acquired, while the remaining 31% is still to be obtained. At this point it should be noted again that economic restrictions do not allow the purchase of the land required. Indeed what normally happens is that as delays in acquiring the land allocated for public space are usually too long, private owners generally manage to claim their property back.

This indicates that although current legislation allows local plans to arrive at comprehensive suggestions towards the right direction in as much as public amenities and especially public open space are concerned, their implementation tends to be particularly tedious. Planners and policy makers are already aware of this situation and they are very careful in arriving at too radical proposals concerning public space, the result being that plans tend not to envisage adequate land coverage for public space.

5. Conclusions

The preceding brief overview of the history of the development of the urban fabric for the cases of the two cities with reference to their open spaces has attempted to show the difficulties involved in securing them, while it also elucidated a number of key issues explaining their inadequacy. It is clear that the shortages in open space observed in the central quarters of both cities are not only due to earlier legal

framework which did not emphasize the need to provide public amenities but also a matter of economic and practical reasons. In many cases private ownership has not been against land expropriation due to unfavorable compensation. Thus compulsory purchase becomes tedious. Furthermore, as owners are faced with their prime property being unable to be exploited, the procedure is often legally invalidated. Thus even when local plans are particularly favorable in terms of the public open space they provide, as in the case of the early Voulgaris plan for Patras, the interests of individual owners and the private sector in general may annihilate the plan's intentions.

It is interesting to note the case of multiple expansions of city plans to incorporate unauthorized urban sprawl of the post war period. In most cases as in the case of Patras, the approach of new local plans could do nothing more than to grant official status to extended neighborhoods built without any provisions for open space and public amenities. It is evident that such approaches are fragmented and do not contribute to the improvement of the living standards in the urban milieu.

On the other hand, local plans conducted after the 1980's were more efficient in providing open space as not only they had to conform to better standards concerning their land coverage but they also could rely on land contribution of individual property owners as the main instrument for securing it.

Apparently for the cases of both cities, the delay in the formulation of the required legal framework, paired with specific objective and subjective deficiencies of the public as well as private sector, have been responsible for the sizeable inadequacies in the provision of open space in the urban milieu. Some of these difficulties, like those concerning the legal aspect, do not pose the same problems as they did in the past. Taking into account the European standards of cities in terms of the proportion of green spaces per resident (such as London and Paris with 9 square meters per resident, Berlin with 13sq meters, Amsterdam with 27 sq m., Vienna with 20sq.m.) and the fact that in Greek cities in general public space (including roads) does not exceed 10 square meters per resident, it is evident that a lot of work is needed to be done towards the direction of achieving cities with adequate and more functional public space

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