
THE GREEK URBAN BLOCK SINCE THE ESTABLISHMENT OF THE GREEK STATE IN 19TH CENTURY - A CHRONICLE ABOUT MORPHOLOGY AND URBAN FORM

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Based on literature and archival research along with specific plans, the study considers the different transformations of the Greek urban block in relation to street network, built and open space. Case studies such as Thessaloniki, Athens, Patra, Serres, offer the opportunity to highlight the evolution of the Greek urban block through representative examples of urban development in specific periods of Greek history: in the neoclassic city of the 19th century, during the beginning of 20th century, during the interwar period (1923 - 1940) and in the post-war city during 1950s and 1970s. The investigation focuses on the general historical framework connected to urban development, whereas specific masterplans showcase the practice of each period respectively. Moreover, the study highlights parameters, which form, reform or transform the urban blocks, such as planning principles and design tools. The objective of this research is to analyze characteristics and qualities of the morphology of urban blocks in order to understand its importance in the organization of the city.

Keywords

urban block, Greek city, urban history, planning principles, design tools, transformation, morphology, urban form, Thessaloniki, Athens, Patra, Serres

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INTRODUCTION

Greek cities followed a complex historical path due to diverse political, social and economic factors, which influenced in a great extent their urban development. The gradual liberalisation of the Greek territory, the attempt of rationalism and europeanisation from 1820 until 1930s, the settlement of refugees in big urban centres after the population exchange between Greece and Turkey in 1923, the concentration in the cities because of the Greek Civil War in 1950s and the economic growth in 1960s and 1970s, led to multi-faceted transformations of the urban morphology. The predominance of private ownership and building regulations with continuous amendments formed and re-formed the modern Greek city, which is characterised by the massive reconstruction after the 1960s in the existing urban blocks with the building mechanism known as 'antiparochi' (exchange agreement, where the constructor of the building gives a part of it to the owner of the plot) which was established institutionally by the Law Nr. 3741 in 1929 and is dominated by the building typology of 'polykatoikia' (high blocks of flats). As a result the urban tissue of the Greek city has become standardised, expanded with masterplans, which consist a regular orthogonal grid of streets and urban blocks defined by the segmentation of urban land. The main goal of the research is to create an original study about the metamorphosis of Greek urban blocks and highlight their characteristics in four historical periods from the neoclassic city of the 19th century until the post-war city.

THE URBAN BLOCK IN THE NEOCLASSIC CITY OF THE 19TH CENTURY

The neoclassical city in Greece emerged the period after the Liberation with the reconstruction of the newly established Greek state at the administrative, institutional and city planning level. This period also known as a period of rationality from 1830s until the early of 19th century is characterised by the attempt to put the independent Kingdom of Greece on a path of development and modernisation. The organisation of the State based on strengthening the role of the central government with new administrative hierarchy and spatial restructuring based in urbanisation with main concentration in Athens, the new capital of the State¹. Starting from Kapodistrias presidency in 1828 and then under the Bavarian reign the plan of rebuilding and reconstruction of the Greek city was implemented.

The homogenised masterplan was the tool, which reflected the ideological model of rationality to the layout of the newly established city. The repeated use of the orthogonal grid with specific dimensions, absolute straight alignments, uniform and geometrical structure, rectangular urban blocks, regularity and symmetry, hierarchy of street network, clear separation of private and public space, division of urban land by rational land fragmentation demonstrate a straightforward policy about the urban form of the new city. Karadimou - Gerolymbou notes that the 'Greekness' was identified by the rectangular grid, while the 'Turkishness' by the spontaneous development of pre-capitalist city². The previous unregulated and irregular form disappears and is replaced by order and regularity. At this point it should be noted that the direct influence of the European practice, which has already appeared in the city of the Renaissance and Baroque with the revival of classical antiquity, continued until the modern city in London, Paris or Barcelona.

During the period of Kapodistrias presidency (1828-1832) most of the new masterplans were designed for destroyed cities such as Corinth, Nafplion, Aegio, Argos, Patras, etc. The basic planning principles were the orthogonal grid with a clear definition of the urban blocks and street network, the proper segmentation of urban land, economical construction of buildings and fundamental determination of the limits between private and public space.

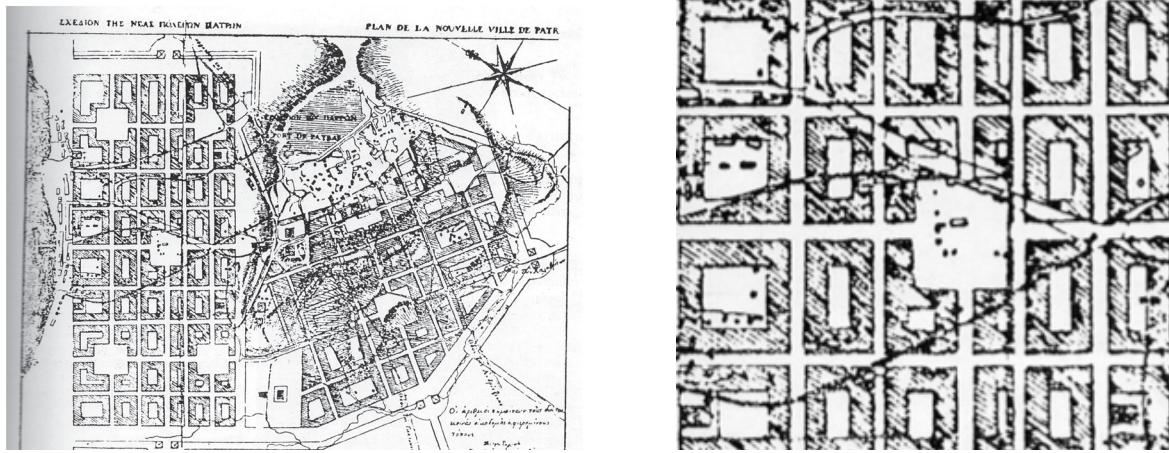


FIGURE 1 Left: The new city plan of Patra by Stamatis Voulgaris. Right: A segment of the same plan illustrating the layout of urban blocks. The orthogonal urban grid is the main design tool of the plan.

A representative example of this period is the masterplan of Patra in 1829 by Stamatis Voulgaris (1774 - 1842), engineer of the French Military Mission and main advisor of Kapodistrias on urban planning issues. The proposal (see figure 1 left) is based on two sections. The geometric composition consists of two orthogonal urban grids, which are intersected in order to highlight the Fortress as a key reference point of the plan. Urban blocks serve as the urban units of the plan's layout.³ The blocks have different dimensions, whereas the built width is equal for all of them. This characteristic together with the absence of land segmentation displays the essence of unity and uniformity (see figure 1 right). Moreover, the open space inside a block gives it an introvert character.

During the Ottonian period (1833-1862) modernisation and europeanisation continued and urban planning became the main subject of public interest. The new urban projects, directly influenced by the European classicism and Baroque design (orthogonal alignments, monumental prospects, horizontal spaciousness, axial approaches⁴), were associated with the historical period of Greek antiquity. Monioudi - Gavala characteristically notes: "Neoclassicism in Greece was linked to the visionary goal of national rebirth and revival of classical Greek architectural model."⁵ Regarding the institutional framework of city planning it is worth mentioning the Decree of 1835 "On hygienic building of cities and villages"⁶ which would be the basis of urban planning practice until 1923. This law enforced specific principles of organization and morphology of the cities, building regulations and function of state control. Other laws and regulations, significantly influenced by European legislation, followed and the state continued to dower public land with one condition: to reconstruct as soon as possible.⁷

The new plans referred to reshaping existing cities, such as Athens, Chalkida, Ermoupoli, Monemvasia, Agrinio etc. In order to understand the planning principles and design tools of this period the study concentrates on the first masterplan of Athens as the new capital of the Greek State by Stamatis Kleanthes (1802 - 1862) and Eduard Schaubert (1804 - 1860), architects of the Government and students of Karl Friedrich Schinkel in Berlin. The plan is a representative example of Greek neoclassic planning. The layout is based on an isosceles triangle pointing to the archaeological site (Akropolis)⁸ and to a system of several urban grids (see figure 2). The composition is formed by strict geometry highlighting the symmetry and the perspective as basic planning principles of the plan. The dominance of squares, the hierarchy of street network and large urban blocks shape harmonious relationships between morphology and urban form. Regarding the built space, the 2-floor private houses are freely arranged inside the plots, which are equally distributed in each urban block.

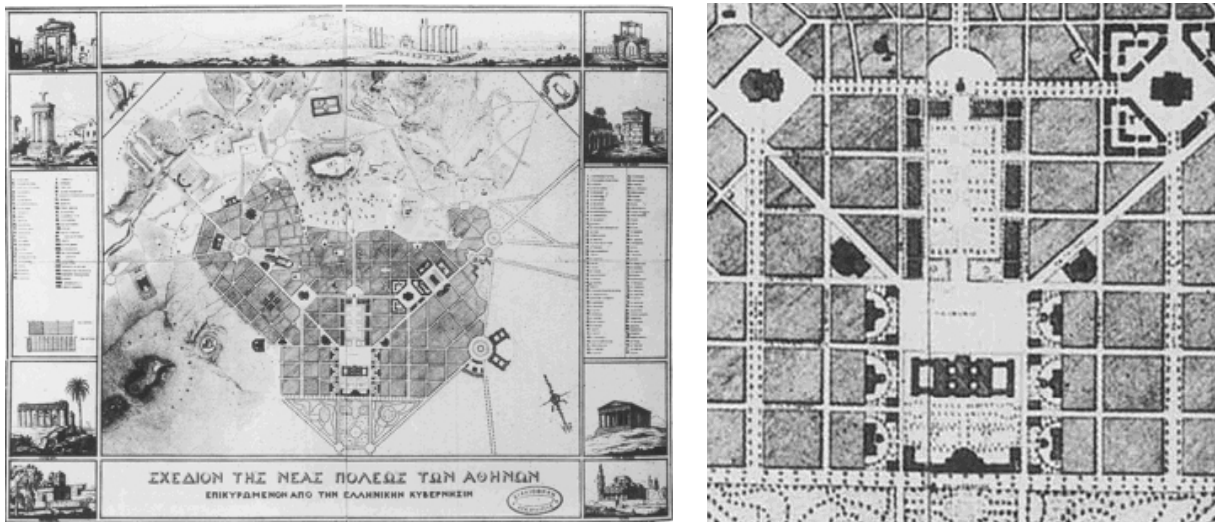


FIGURE 2 Left: The first masterplan of Athens by Kleanthes and Schaubert. Copy of 1836. Right: A segment of the same plan illustrating the layout of urban blocks. The influence of the European tradition is obvious in the proposed plan. Symmetry, geometry and perspective are the basic principles of the layout.

THE URBAN BLOCK DURING THE BEGINNING OF 20TH CENTURY (UNTIL 1922)

After the Balkan wars (1912 – 1913) Greek State had to integrate the ‘New Lands’ (Νέες Χώρες)⁹ to ‘Old Greece’ (Παλαιά Ελλάδα). The governments of Venizelos continue to modernise and reform policies and practices in spatial, legislative, institutional and city planning level. The interventions for upgrading the urban environment of cities in the New Lands displayed a “systematic state intervention in the urban space”.¹⁰ The Ministry of Transport and the Office of Eastern Macedonia Reconstruction (OEMR) headed by architect John William Mawson (son of Thomas Mawson) were established in 1914 and in 1919 respectively.

The proposed plans of the residential areas were influenced by the idea of the garden city. The experience of the garden city was incorporated in the plans by the British architects, which were among the staff of the OEMR, as documented by Kafkoulas¹¹. Planning is based on several design tools; organic street network, polygonal urban blocks with curved sides, equal land distribution, buildings in rows facing the street and the predominance of open space inside the plots. Unfortunately the reform effort of the program was interrupted due to several causes, such as: the electoral defeat of the Liberals in 1920, the influx of refugees from Russia, the continuation of the Asia Minor Campaign and economic decline¹². In the end only one proposal was built under the program of the Eastern Macedonia Reconstruction: the settlement of Nea Hrakleia - Tzoumagia. The layout has a uniform morphology influenced by western European suburbs in a quite simpler form.

The case study of this period is the reconstruction plan of Thessaloniki after the fire of 1917, which destroyed 120 hectares of the center. As a result it lost its traditional and irregular layout of the Ottoman period. The fire was a historical turning point for the city and the following plan was a major project of European urbanism of the 20th century. The Greek Government created the International Planning Committee (architects: Eduard Mawson, Ernest Hébrard - director, Aristotelis Zachos, Konstantinos Kitsikis, engineers: Aggelos Gkinis, Joseph Pleyer, Thomas Mawson as consultant architect and the Mayor of Thessaloniki Kontantinos Aggelakis) to prepare the new plan of the city. The reconstruction’s goal was to modernise and reorganise the city by applying dominant European planning principles and design tools and by eliminating the irregular and chaotic system of the neighbourhoods and the organic street network (remnants of the Ottoman period).

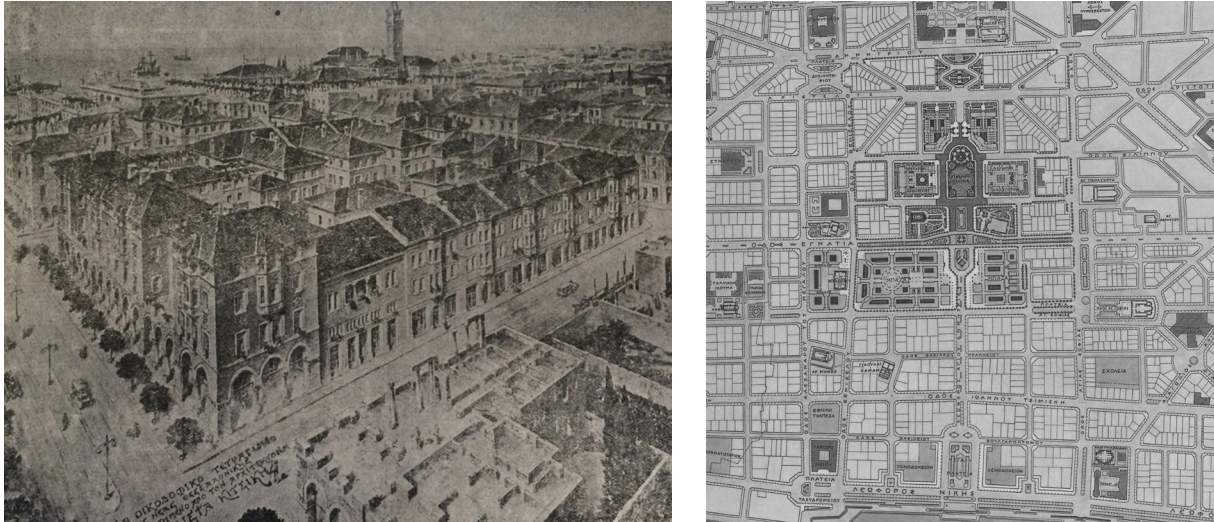


FIGURE 3 Left: Study on a continuous urban block by the architect Kostas Kitsikis published in 1919. The proposed form of the blocks illustrates the importance of urban housing in the city due to their volume and architecture. Right: A segment of the proposed plan in Aristotelous area showing the symmetrical layout and the orthogonal urban blocks.

Hébrard and his team created a layout by using the urban block in a repetitive orthogonal urban grid as the core element of the plan's composition. Yerolymbos notes: "this rectangular grid pattern was framed by a system of diagonal roads, entirely within the spirit of classical French urban layouts, though in this case loosely and sensitively plotted".¹³ Hierarchy of the street network, classical engravings, functional zoning (mixed-use was allowed in the centre), connection of historical monuments with footpaths, consecutive monumental squares and free open spaces for recreation are the main characteristics of the plan. Regarding plot distribution the plan required expropriation of land from 4.000 owners for further exploitation. The implementation of the new plan required, firstly, the total expropriation of the burnt area and secondly, auctions of the new plots under special conditions. Private ownership continued to be the most important mechanism of urban development in Greece. The Decree of 1920 "On implementation of the new plan of Thessaloniki"¹⁴ introduced specific regulations for the form of the urban blocks and the buildings. Urban blocks could be built with either a continuous system (see figure 3) or a mixed system regarding facing the street. The inner open space should be non-continuous and the vacant open spaces could be unified in order to create communal courtyards. Urban housing should be a maximum of three floors with two to four rooms per apartment.

THE URBAN BLOCK DURING THE INTERWAR PERIOD (1923 - 1940)

In 1923 the Treaty of Lausanne defined the Greek boundaries whereas another separate agreement decided the obligatory exchange of populations between Greece and Turkey. The refugee settlement was the beginning of an important chapter regarding the evolution of urban development. The inflow population exceeded the 22%¹⁵ of the residents in Greece and the 50% of them settled in urban areas. The following years were defined by rapid urbanisation and intense transformations of the urban space. The urban population from 9,7% in 1920 reached 14.5% in 1928.¹⁶

The Greek state, due to continuous housing needs, approved several policies in order to facilitate the construction of buildings, such as property expropriation, building cooperatives, horizontal property etc. Unfortunately the inadequate housing for the refugees was the engine of illegal construction of buildings and cities continued to grow gradually integrating these areas. All of the refugee settlements defined the urban expansion of the cities (e.g. Athens, Piraeus, Thessaloniki, Serres, Kavala) in a great extent. The main planning principles of the new plans were fast urban development, easy land distribution and mass construction of housing. Thus the orthogonal grid was chosen as the basic design tool, which ignored completely the topography of the sites.



FIGURE 4 A segment of the cadastral map of Toumba, a typical refugee settlement in Thessaloniki, 1934. The map shows the orthogonal layout of compact small urban blocks, the equal distribution of plots, the rudimentary hierarchy of streets and the absence of public open spaces.

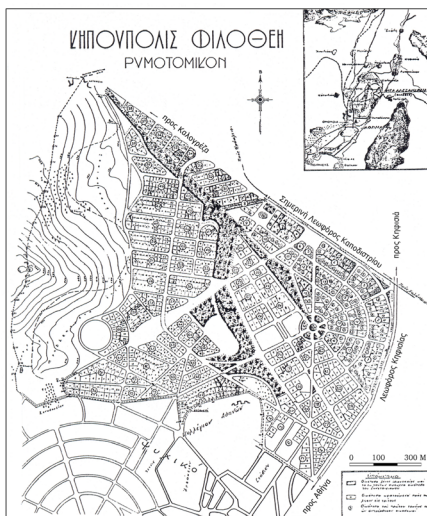


FIGURE 5 The masterplan of Filothei probably by the architect Nikolaos Zoumboulidis, approved in 1934. Right: A segment of the same plan. The urban blocks are compact, small and sometimes curved.



FIGURE 6 A typical continuous urban block dominated by the building typology of polykatoikia. The caption is at Agiou Dimitriou Street, in Thessaloniki.

Other planning instruments were compact small urban blocks, a rudimentary hierarchy of streets, several typologies of houses (the dominant type was the detached house with a small garden) and equal small plots (see figure 4). The street played an important role for creating small neighbourhoods, as it formed an urban sustainability of the space.

Along with the refugee settlement, the urban space in Athens extended to the northeast suburbs by private housing settlements of medium and high incomes, which “doubled the area of Athens”¹⁷. These settlements are divided in two categories, the first category refers to projects by construction companies with the available capital or bank support and the second refers to cooperative settlements. During 1923-1929 seventeen suburb settlements were established, such as Psyxiko (1923), Kalogreza (1925), Ilioupoli (1928) etc. and during 1929 – 1926 ten cooperative settlements were approved, such as Neo Psyxiko (1929), Filothei (1933), etc.¹⁸ All of the plans were influenced by design layouts of garden cities in a simpler form.

The chosen case study is the “garden city of Filothei” (or New Alexandria) due to the historical fact that it “was the first mass construction of housing in Athens during the interwar period from non-state actors”.¹⁹ The settlement of Filothei intended to be built for the employees of the National Bank. The masterplan probably made by the architect Nikolaos Zoumboulidis was approved in 1934²⁰. The plan illustrates a garden city, but with a relative regularity and a medium density. The urban blocks are compact, small and sometimes curved (see figure 5). In addition, the plan illustrates a non-hierarchical street network, whereas the green spaces seem to adjust to the plan without any principle. Kafkoura notes that the plots were relatively large (1300 – 1500 sq. m.²¹). Finally, the houses were designed according to several alterations of existing typologies and built in a free layout.

THE URBAN BLOCK IN THE POST-WAR CITY DURING 1950S AND 1970S

After the Second World War and the Greek Civil War (1946 – 1949) Greece faced financial vulnerability and massive concentration of population in cities. Due to high unemployment rates and the lack of housing and capitals, the ‘reconstruction’ mechanisms of the Greek state had to provide economic development and to improve the living standards. The existing goals for industrial development were abandoned and instead the construction of buildings became the “lever of the economical life”²². Although the state managed to implement programs of social housing complexes during 1960s, the result was not satisfying²³. Private initiative in the reconstruction process and the individual plot continued to prevail and dominate in the urban transformation of the cities.

The Law 3741 “On the ownership by floors” of 1929²⁴, which introduced the building mechanism known as antiparochi and later the Building Codes (ΓΟΚ) of 1955 and 1973 managed to exploit the maximum of the available plots without any proper management at urban level. The emergence of the typology of polykatoikia illustrated a new massive form of housing in the modern city. The new masterplans continue to display the orthogonal layout of the street network and the urban blocks without any regulations for the buildings. Construction of buildings on the other hand strictly follows the Building Code, which was and still is the unique design tool for the Greek urban space. Filippidis notes that, “planning has been used as a tool of political expediency rather than a tool of space configuration.”²⁵

The new blocks are compact and continuous (see figure 6). The low-rise houses (see for example refugee settlements) are replaced with higher buildings, which follow standardization practices and a repetition of basic architectural patterns, far away from aesthetics and harmony. A typical characteristic of the polykatoikia is the balcony in order to connect with the external space. The vacant open space in the plot is actually a small area ensuring minimum ventilation and amount of daylight inside the apartments. The urban block lost its high quality of urban environment and its original social character.

CONCLUSIONS

Urban block has clearly been the basic planning unit of urban form in Greek cities since the establishment of the Greek State in 19th century. During the first examined period (neoclassic city of 19th century) the repeated use of the orthogonal grid in order to reflect rationality, regularity and modernisation led to a uniform layout of urban blocks and street network. The example of Patra showcases a characteristic proposal of an organised built space without land segmentation. In contrary, during the Ottonian period the new laws and regulations together with the new proposed plans dealt for the first time with plot distribution. The first masterplan of Athens by Kleanthes and Schaubert influenced by European urban layouts displays an important moment for neoclassical planning with large urban blocks and a clear hierarchy of streets.

Regarding the beginning of 20th century, the Greek state tried to solve the emerged problems due to the integration of the New Lands with an ambitious program of Eastern Macedonia Reconstruction. The proposed plans with organic layouts, irregular urban blocks and predominance of open space, influenced by the ideas of garden city, had great potentials for the development of the specific area. Furthermore, the plan of Thessaloniki after the fire of 1917 proved to be a highly important opportunity to reorganize the city. Until 1917 the main components of the urban fabric were the street and the neighbourhood, in the new plan the role of the organisation tool goes to the continuous urban block.²⁶

During the interwar period Greece faced the most crucial social upheaval in its modern urban history. Due to the urgent need for fast development of urban housing the refugee settlements were planned with only basic design tools, such as the orthogonal urban grid, compact urban blocks, equal small plots, typologies of houses

and rudimentary hierarchy of streets. However, the plans were not as sophisticated as for example the plans of the previous examined periods, but managed to create a high quality of urban environment and an appropriate balance between built and open space. Concerning the suburbs extension in Athens both settlement categories (projects by constructing companies and cooperative settlements) illustrate simpler forms of garden cities with organic layout, relatively compact urban blocks and large plots.

Finally, the urban block in the last examined period of the study (post-war city during 1950s and 1970s) dominates the morphology of Greek cities until today. The building mechanism of antiparochi, the importance of the individual plot and the polykatoikia transformed the urban blocks to large volumes of built space defined by the current Building Code. The street lost its social character and the built space failed to connect with the urban environment.

Last but not least, it is worth mentioning that city planning in Greece has never been a strategic tool that prevented problematic situations, but it became just the opposite, the result of social and economic changes, which have influenced the configuration of the urban space in a great extent. Although the Greek State managed to make proposals for reorganization, upgrading or reconstruction of urban space, they unfortunately remained theory. Many of the described case studies were not realised in their initial proposed form but had been continuously altered for many years (e.g. Athens).

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Figure 1: Nikos Mpakounakis, in Greek: Νίκος Μπακουνάκης. Πάτρα, 1828-1860. Μια ελληνική πρωτεύουσα στον 19ο αιώνα (Αθήνα: Καστανιώτη, 1988), 40.

Figure 2: Kostas Mpiris, in Greek: Κώστας Μπίρης. Αι Αθήνα από του 19ου εις τον 20ον αιώνα (Αθήνα: Μέλισσα, 1999), 36.

Figure 3: Left: Kostas Kitsikis, in Greek: Κώστας Κιτσίκης. Η Κτιριολογική Άποψις του Νέου Σχεδίου της Θεσσαλονίκης (Αθήνα: Αδελφοί Μπλαζουδάκη, 1919), i. Right: Thessaloniki Department of the Cartographic Heritage Archives of General State Archives of Greece.

Figure 4: Thessaloniki Department of the Cartographic Heritage Archives of General State Archives of Greece.

Figure 5: Personal archive of Kyriaki Kafkoulas.

Figure 6: Photograph made by the author.

Endnotes

- 1 The central location of Athens, its long history and cultural heritage are the main causes that Athens was declared as the new capital in 1834. Before 1834 Athens was a village of 4.000 inhabitants and until the end of the period under examination (1907) has 165.000 as documented by Loukakis.
- 2 Alexandra Karadimou – Yerolymbos, in Greek: Αλεξάνδρα Καραδήμου - Γερόλυμπου, Καταβολές και εξέλιξη της νεώτερης ελληνικής πόλης. Πόλεις και πολεοδομία του ελληνικού κράτους ως το 1940. (Θεσσαλονίκη: Τμήμα Αρχιτεκτόνων Α.Π.Θ., 2003). 41.
- 3 Thirty years later (1860) Ildefons Cerdà proposed his extension plan of Barcelona based on the same principle.
- 4 Vilma Chastaoglou – Martinidis, “City Form and National Identity: Urban Designs in Nineteenth-Century Greece”, *Journal of Modern Greek Studies* 13 (1995): 108
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- 6 In Greek: Β.Δ. 3 Απριλίου 1835 “Περί υγιεινής οικοδομής των πόλεων και χωριών” ΦΕΚ 19/Α/15.05.1835
- 7 Karadimou – Yerolymbos, Καταβολές και εξέλιξη της νεώτερης ελληνικής πόλης. 47.
- 8 Kleantes and Schaubert were inspired by the plans of Versailles and Karlsruhe, where the palace is located in the top of the triangle.
- 9 The New Lands are the following territories: a big part of Macedonia, southern Epirus, islands of North and East Aegean and Crete.
- 10 Emmanouil Marmaras, in Greek: Εμμανουήλ Μαρμαράς, “Ελληνική πόλη και μοντερνισμός. 1900-1940.” In Η ιστορία της ελληνικής πόλης, edited by Αλέξανδρος - Φαίδων Λαγόπουλος (Αθήνα: Ερμής, 2004), 390.
- 11 Kyriaki Kafkoulas in Greek: Κυριακή Καγκούλα, Η περιπέτεια των κηπουπόλεων. Κοινωνική και περιβαλλοντική μεταρρύθμιση στην Ευρώπη και την Ελλάδα του 20ού αιώνα (Θεσσαλονίκη: University Studio Press, 2007). 263.
- 12 Kafkoulas, Η περιπέτεια των κηπουπόλεων, 280.
- 13 Alexandra Yerolymbos, “Thessaloniki (Salonika) before and after 1917. Twentieth century planning versus 20 centuries of urban evolution”, *Planning Perspectives* 3 (1988): 155
- 14 In Greek: Β.Δ. 8 Μαΐου 1920 “Περί εφαρμογής του νέου σχεδίου Θεσσαλονίκης” ΦΕΚ171/Α/31.07.1920
- 15 Karadimou – Yerolymbos, Καταβολές και εξέλιξη της νεώτερης ελληνικής πόλης, 116.
- 16 Pavlos Loukakis, in Greek: Πάυλος Λουκάκης, “Αθήνα 1830-1840: Ιστορικές φάσεις ανάπτυξης του υπερσυγκεντρωτισμού της”, in Νεοελληνική πόλη: Οθωμανικές κληρονομίες και Ελληνικό κράτος, τ. Α’ , Αθήνα 26-28 Σεπτεμβρίου 1984, Ερμούπολη 29-30 Σεπτεμβρίου 1984, 85-96. (Αθήνα: Εταιρεία Μελέτης Νέου Ελληνισμού, 1985).93.
- 17 Kafkoulas, Η περιπέτεια των κηπουπόλεων, 324.
- 18 Ibid., 311, 348.
- 19 Ibid., 354.
- 20 The plan is unsigned. See for further details Ibid., 352.
- 21 Ibid., 354.
- 22 Dina Vaiou, Maria Mantouvalou, and Maria Mavridou, in Greek: Βαΐου, Ντίνα, Μαντούβαλου, Μαρία, Μαυρίδου, Μαρία. “Η μεταπολεμική Ελληνική πολεοδομία, μεταξύ θεωρίας και συγκυρίας”, in Η πολεοδομία στην Ελλάδα από το 1949 έως το 1974. (Βόλος: Πανεπιστημιακές Εκδόσεις Θεσσαλίας, 2000). 31.
- 23 These complexes were not integrated in the urban fabric and led quickly to social exclusion.
- 24 In Greek: Ν 3741/1929 “Περί της ιδιοκτησίας κατά ορόφους” ΦΕΚ 4/Α/09.01.1929
- 25 Dimitris Fillipidis, in Greek: Δημήτρης Φιλίππιδης, Για την Ελληνική Πόλη: Μεταπολεμική Πορεία και Μελλοντικές Προοπτικές. (Αθήνα: Θεμέλιο, 1990). 245.
- 26 Nikos Kalogirou, in Greek: Νίκος Καλογήρου, “Τα συστατικά στοιχεία του αστικού τοπίου στη Θεσσαλονίκη: Συνέχεις και ασυνέχειες”, in Η Θεσσαλονίκη: επιστημονική επετηρίδα του Κέντρου Ιστορίας Θεσσαλονίκης του Δήμου Θεσσαλονίκης, Vol 1 (Θεσσαλονίκη: Κέντρο Ιστορίας Θεσσαλονίκης, 1985). 563,567.