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### **The Impact of the Infrastructure on the Urban Shell of Modern Piraeus**

The prosperity of Piraeus in the Classical era<sup>1</sup> was followed by a long period of decline and disasters, the most decisive of which was its burning by Sylla in 87BC. After a small scale regeneration during the rest of the Roman occupation, every sign of life disappeared after the Goths attack in 395. Arabs, Franks, Venetians and Turks were the subsequent conquerors. By the end of the 12<sup>th</sup> century, the destroyed city's three harbours lost all importance. Early 19<sup>th</sup> century travellers used Piraeus as a stopping place on their way to Akropolis-Athens and describe it as almost deserted.

The order to establish the new city of Piraeus -in 1833- was linked with the decision to transfer the capital of the Hellenic State<sup>2</sup> to Athens. The revival of this maritime nodal point was rendered imperative by the lack of a road network on the mainland and by its key geographical position and leeward harbours –an advantage which has made the classical city so affluent.

Furthermore, the planning of the harbour was part of the more general efforts of the central government -both Hellenic and Bavarian- to rebuild Greece<sup>3</sup>, including the creation of new settlements, which is connected with the endeavour to reinforce the concentration of urban population and activities in the areas designated for development<sup>4</sup> (Kafkoula-Papamihos-Hastaoglou, 1990). In the case of Piraeus, the state focused its efforts on creating the favourable conditions and legislating for incentives to attract settlers, from Chios island initially, and from Hydra island later on<sup>5</sup>.

Modern Piraeus first plan -elaborated in 1834 by the architects Kleanthis and Schaubert, both Schinkel's students- is based on the hippodamian street layout model<sup>6</sup>. The plan, which is developed at the eastern and western sides of the Athens-Piraeus road -existing from the Antiquity- in a symmetric way around the main port, has an obvious orientation towards the sea and it is strictly geometric<sup>7</sup>.

The two architects designed a regional town based on the neoclassical principles<sup>8</sup>, with significant open spaces and broad tree-lined avenues, enough space for large ground-plots, public buildings in the axes, enlarged main crossings through the cutting-off of the building plot angles, and they essentially permitted its expansion only toward the capital city and northwestwards (Malikouti, 2000: 139). It is worth devoting detailed investigation to the fact that their design is identical -with some small deviation (Eickstedt, 1991)- to the most likely conjectural plan for the Classical city, although the informations on the ancient topography were not available during the plan elaboration (Papageorgiou-Venetas, 1999).

The functional structure of the city was proposed in the sense of a maritime-commercial urban shell with the prospect of the organisation of self-reliant quarters for the settlers from Chios and Hydra, as well as for the immigrants from various places inside or outside the boundaries of the Hellenic State. The “right side” was devoted to the Chios community and included virtually all the central functions of the city. The Hydriots' quarter was planned as an expansion of the Chioties' one in the southeast. At the same time the existing antiquities were preserved.

The land policy failure<sup>9</sup> and the unstable finance situation were the main reasons of many revisions during the plan implementation in the first decades (Malikouti, 1996)<sup>10</sup>. After property ownership had been derestricted, groups of people from various places came and settled in the area. A great percentage of the diverse population was

temporary during the first decades. The influx of refugees from areas still under foreign rule, the annexation of new territories and the return of Greeks from abroad, as well as the economic development of the city -due to the special attention paid to export products, the favourable international situation of the Greek merchant navy, the investment of the commercial capitals in the secondary production and the expansion of both the domestic and the foreign markets after the Athens-Piraeus railway line operating in 1869- produced a population explosion after the mid-1860s.

The location of the railway station was the “signalling” for the first large scale urban transformation of the city. Although the station installations were erected in the adjacent area -the present one- the Royal Decree of 1864 included a very important planning regulation, decisive for the secondary sector activities expansion northwestwards<sup>11</sup>.

The spectacular development of Piraeus during the last quarter of the 19<sup>th</sup> century due to the “explosion” of both, the industrial and the maritime sectors<sup>12</sup>, became apparent in the organization of the urban space.

The city plan expanded to all possible directions, legally or not, following the geometric lay-out of rectangular building plots irrelevant to the geomorphology<sup>13</sup>. By the beginning of the 20<sup>th</sup> century, the entire urban area and the suburbs -Freattyda, Kastella and Neo Phaliro- had been planned and the industrial zone had been completely developed as an independent quarter<sup>14</sup>. The urban land became an object favourable for speculation. Besides, the building activity had been changed in the tempo and focus<sup>15</sup>.

After 1890, the fast pace of urbanization, together with the specific conditions created by the industrial development of the port western periphery -with the concomitant massing of workers-, were the main factors in the constant, rapid increase of permanent residents, even at times when other Hellenic urban centres were declining or remaining stable<sup>16</sup>.

On the other hand, the need for the enhancement of the transport networks and the amelioration of the port facilities, as well as for the multiplication of the connection possibilities in the local, national, European and Mediterranean level, increased.

In addition to the completion of the local road network<sup>17</sup>, two new railway lines -to the Peloponnese and northern Greece- began to function during the late 19<sup>th</sup> century.

The land uses, aligned with the new needs, were related with the intensive infrastructure works directly, as well as additional urban transformations were dictated. The railway links with the Peloponnese and northern Greece, as also the function of the Corinth Canal -in 1893-, put Piraeus in first place between the Greek harbours from the end of the 19<sup>th</sup> century onwards<sup>18</sup>.

But, as the location of the infrastructure installations and equipment -which also played an important role to the urban landscape- were not the proceeds of a planning project, they “produced new limits” for the city and prepared its future definitive division into 3 parts -the urban centre, the industrial sector and the maritime zone, where the raise of the tertiary sector was excessive<sup>19</sup>. Besides, we must not forget the real estate transformation in the wider maritime front.

Under the conditions mentioned above, Piraeus, by the beginning of the 20<sup>th</sup> century, although it was undeniably equal to the demands of its original role as the commercial “satellite” of the capital, evolved at the same time into a self-reliant and remarkable regional centre aligned with the European principles. The city had a complete transport infrastructure, considerably improved harbour facilities, a generally adequate water supply and drainage system, a clearly delineated sector of economic activity, a large industrial zone, extensive residential areas, picturesque suburbs, a lot of urban facilities and public amenities, and a lively social and cultural life.

If we compare the urban development of similar regional port cities in the Balkans within the framework of the circumstances of the 19<sup>th</sup> century, it is sure that we will

arrive to similar remarks focusing on the main role of the infrastructure. In the case of Piraeus, we must count additionally the impact of the capital Athens.

An ulterior interesting side and point for discuss could be the drawing of a parallel between the 19<sup>th</sup> century and the present.

In the perspective of the 2004 Olympic Games, the harbour zone of Piraeus is in the way of an operational and aesthetic upgrading. Apart from the environmental interventions<sup>20</sup> and the security measures, we can notice a lot of actions aiming at the enhancement of the coastal zone and the functional change of extended stretches of the built environment, as well as at the development of cultural and recreational initiatives and the promotion of the port history; also, and this is the most important and questionable, some new developments, which the Olympic Hospitality dictates, are in progress or in the project level<sup>21</sup>.

Besides, Piraeus is in the dynamic of a serious transformation procedure: the construction of a high speed ring road -for the connection of the Attica coastal zone with the northwest suburbs and the highway to Peloponnese, and the blunt of the harbour zone traffic jam- and the tram and suburb railway lines<sup>22</sup>, which pass through the historic centre; the “deconstruction” of the traditional urban tissue and the complete isolation of the relevant city part are among the probable negative effects (Malikouti, 2001).

It's impossible to give documented answers in the raising justifiable questions, answers which must be the result of a detailed research in all levels “the day after”. But, it is more than obvious, that the projects for Piraeus don't follow a Master Plan or an integrated strategy for the maritime and the urban area, which is faced as an infrastructure tool rather than a live organism.

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<sup>1</sup> As Steinhauer says, the special features of Piraeus was determined by two strictly organised functions, on the one hand as the Athens dockyard and military base of the Athenian Empire, and on the other as commercial centre of the Eastern Mediterranean (Steinhauer, 2000: 59).

<sup>2</sup> The Hellenic State was reestablished in 1830, after 400 years under the Turkish occupation. The first capital was Nafplion in Peloponnese.

<sup>3</sup> The development of the modern Greel State in the 19<sup>th</sup> century went hand in hand with intensive activity in the sphere of town planning. From 1828 onwards, dozens of town plans were produced at a rapidly increasing rate. Those towns with a large population and considerable economic importance were planned first. By 1845, all the country's important centres had been redesigned. The state also turned its attention to coastal towns at an early stage, owing to the importance of maritime transport. Both large and small ports, irrespective of population or economic range, acquired a town plan (Kafkoulas-Papamihos-Hastaoglou, 1990: 232).

<sup>4</sup> In some cases this endeavour was also connected with a broader trend towards developing national consciousness and led to the foundation of new towns on the famous sites of antiquity. Sparta, Eretria and, naturally, Athens are the typical examples. There are also isolated proposals and attempts by foreigners to establish colonies which however, did not materialize (Kafkoulas-Papamihos-Hastaoglou, 1990: 234).

<sup>5</sup> Chios was completely destroyed by the Turks in 1822. Part of its population was temporary settled in Hermoupolis (the rich capital of Syros island) and the rest emigrated in all Europe and Russia, especially in trade centres. In 1833, many of both parts demand to be settled in the new city of Piraeus.

The Hydriots were very poor sailors. They began to be settled in Piraeus in 1838.

<sup>6</sup> Hippodamus designed the classical city immediately after the departure of the Persians; the plan followed the regular pattern characteristic of all cities built from the beginning, whether Greek or Roman, or large American cities. In contrast to old cities that grew up naturally, such as Athens, Corinth or Sparta, with their labyrinthine street that follow the concurrences of the terrain and property ownership, the irregular squares and the scattered sacred and public buildings, the colonies of Miletus, homeland of Hippodamus, and the new cities of Magna Grecia are distinguishable by their straight roads, regular building blocks and the central position of the square with the public buildings and the temple. The equal distribution of the colonists' lots lends the new settlements an image of democratic uniformity. Hippodamus, who continued this tradition in Piraeus, expressed a comprehensive philosophical viewpoint of the rational organisation of city life (Steinhauer, 2000: 92).

<sup>7</sup> The geometry was inserted to the urban tissue of the modern Greek cities as a tool with a double role, technical and theoretical; the space arrangement and the ideological marking of the break with the Ottoman past (Tsakopoulos, 1997: 35).

<sup>8</sup> The town-planning policy, which the Governor Kapodistrias (1828-1832) and the Regency and King Otto's reign (until 1862) intended to apply follows the functionalist approach of European Neoclassicism. The morphological models of the Greek cities during the first decades of the new State were inspired by the neoclassical aspect of the European romantic movement, and were brought to Greece by the foreign technicians and architects who worked in the country, chiefly up until 1843. This town-planning concept serves as a vehicle for the links with the West, for the renewal and rationalisation of urban structure, and for the preservation of the nation's historical continuity by reconnecting the ancient world and the modern kingdom (Tsakopoulos, 1997: 41 / Kafkoulas-Papamihos-Hastaoglou, 1990: 235-236).

<sup>9</sup> To implement the first plan and to ensure the independence of the Chiot's quarter, a number of measures were initiated to settle the ownership status, especially the reallocation of property in the "right side", where specific conditions were enacted regarding the granting of space. Previous owners, from the Turkish period, had to exchange their holdings with national lands in the "left side" of the city plan. By means of successive legal settlements, from 1834 to 1842, land policy gradually adapted to the existing conditions, as they were being shaped by the owners reactions, the low degree of response on the part of Chiot immigrants, and by the economy status of the newly constituted Hellenic State, according to which the compensations could not be paid (Malikouti, 2000: 140).

<sup>10</sup> Among them:

-The efforts to create self-reliant quarters came to naught.

-The building plots were divided by two in 1836, with visible results in the building heights/street widths proportions.

-The enlargement of the crossings in the east side of the city was cancelled.

-The place of several land uses changed. The decisions for the Cemetery, the Hospital, the Barracks, the Bank changed. The location of the Theatre, the Bourse, the Library, the Hotel, the Post and two Markets, as well as of some green spaces in the maritime zone were cancelled (Malikouti, 1999).

<sup>11</sup> The above mentioned regulation was related with the organizing of an industrial core in a surface of 4 building plots. The plan of the industrial quarter was ratified in 1875 and revised in 1892.

<sup>12</sup> Between 1870 and 1875, the number of factories quintupled. In 1883, 34,5% of the Greek "mechanical facilities, representing 56,4% of the country's total power, were operating in Piraeus, and 51% of the Greek work force was employed in the factories. Despite the recession in the years that followed, the city continued to wield the sceptre in terms of the distribution of the industry even after 1900, though the major proportion of the capital was already being invested in real estate.

As regards trade, the indexes shot up by leaps and bounds until the mid-1880s. A decisive part was played in this by the opening of the branch office of the National Bank in 1862. In 1870-72, the port was the centre of trade, and later on, in 1887, it was described as "the mouth of Greece". In the last decade of the 19<sup>th</sup> century, when trade in the traditional centres of Greece -Patras, Hermoupolis, Corfu- was suffering a significant decline, the indexes of the related activities in Piraeus rose steeply. Up to a point, they suffered the effects of the Greek economy collapse of 1893, but recovered after 1910.

As for shipping, Piraeus held first place in Greece's import trade in 1869. For exports, the port became a serious rival to Hermoupolis in 1880. In 1883, it had the greatest number of steamships.

<sup>13</sup> After 1856 the institutional framework is regularized in Greece and important public works are constructed. The new town-planning with its simple othogonal composition is characterised by the systematic provision of public amenities, especially for the coastal towns and their harbours. It can be more closely related to the proposals for the cities of the new nation states of the Balkans than with those of Europe, since there the industrial city has already posed different problems to be solved (Tsakopoulos, 1997 – Yerolympos, 1996).

<sup>14</sup> Even the plot numbers were different from those of the rest of the city. The industrial sector had about 125 building plots in 1892.

<sup>15</sup> The vacant spaces of 1840, the "sketch of a city" described by the French traveller Buchon in 1843, and the sparsely built strip around the main harbour in 1850 were a thing of the past. Piraeus had 2.500 private buildings in 1875 and 4.500 in 1898. During the 1890s, the number of taxed residences increased by an average of 130 a year (Malikouti, 1999).

<sup>16</sup> The population of Piraeus between 1834 and 1920 (Leontidou, 1989: 48):

YEAR	CITIZENS
1834	150
1836	1.011
1840	2.033
1850	5.286
1870	10.963
1879	21.618

1890	36.000
1896	50.200
1907	73.759
1920	133.482

<sup>17</sup> We can count the impact of the peripheral Piraikei coastal road as positive, regarding the development of the suburbs and the enhancement of the interesting landscape of the whole area.

<sup>18</sup> By the beginning of the 1st World War, Piraeus harbour was the fourth in the Mediterranean, after Marseille, Napoli and Genoa.

<sup>19</sup> During the 19<sup>th</sup> century, the available harbour installations were unefficient, because of the rapid maritime activities development. Large scale transformations and equipment construction began in the 1930s.

<sup>20</sup> Piraeus Port Authorities S.A. is currently involved in the process of formulating a structured environmental policy with specific plans of action: the implementation of an integrated system of handling every liquid and solid ship related wastes, the management of the hazardous cargoes in a safe way, the undertaking of innovative initiatives in collaboration with the local authorities for the protection of the wider area environment, the creation of a waste collection system in collaboration with the Olympic Games Accommodation Programme.

<sup>21</sup> Among the mentioned above:

- The construction of the new passenger terminals and the rehabilitation of the existing ones.
  - The construction of the new port facilities for the cruise-ships, which will serve the Olympic Hospitality.
  - The development of the Piraeus Port Authorities S.A. real estate at the Hetionian Quay, which consists in the conversion of the multi-store warehouses into a maritime commercial complex and the re-use of the Silo complex as a National Museum of Maritime History parallel to the insertion of recreation activities in the wider area.
  - The rehabilitation of an old stoney Warehouse into a passenger terminal and the transformation of the old industrial cargo loading installations into a restaurant.
  - The construction of additional passenger facilities (a network of info kiosks, an underground parking station in the Exhibition Centre, etc.).
  - The implementation of an integrated rehabilitation programme for the open spaces and the cruise zone of the harbour.
  - The project for a rail fixed guideway transport system, which will be constructed for the ring connection of the central port.
  - The project for a five stars hotel in the south side, a low income residence district with small two-storeyed houses and narrow building blocks.
- <sup>22</sup> Ship passengers will have access to the port by means of the Athens Metro extension, the Athens Light Railway and the Suburb Railway.

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