NAOUSA, THE FOUNDATION AND THE EVOLUTION OF A TOWN BASED ON WATER POWER

Introduction

Water, manifesting itself as sea, or in the form of lakes and rivers, has always constituted a magnet for the creation of human settlements. An exemplary case on which we will focus is the region of Central Macedonia; more precisely on the mountain range of Vermion which forms the boundary between western and central Macedonia. From these forested mountains several rivers and streams flow into the broad valley below and create a fertile environment for human habitation. (fig. 1)

Human settlements in this region stretch back to the prehistoric era. During historic times we know of the three most important cities, Veria, Miesa and Edessa. As Hellenistic towns and latter as Roman centers, they played an important role in the history of the region. Near the town Miesa there used to be the school of Aristotle, where Alexander, son of Phillip 2nd was educated. Archeological excavations have brought to light an amphitheatre and several Macedonian tombs.

At a short distance from ancient Miesa, at the foot of Mount Vermion and an elevation of 300 meters lies the town of Naoussa. In these towns, Veria, Naoussa and Edessa, the exploitation of the energy of the water falls, created a very important manufacturing and later industrial center during 18th and 19th centuries. We will follow the development and later decline of this exploitation through the history of one of them, the town of Naoussa.

The foundation of the town

The foundation of Naoussa dates to the beginning of the 15th century. The wider area of Vermion was part of the Byzantine Empire until conquered by the Ottomans under Gazi Evrenos Bey towards the end of the 14th century. During the Ottoman invasion the inhabitants of the area abandoned their towns and fled as isolated groups into the surrounding forests.

Due to initiatives taken by Sheik Lianes the Christian inhabitants were persuaded, after being promised various privileges, to settle in present-day Naoussa. Local tradition has it that Naoussa was actually founded 20 years before Constantinopole fell to the Ottomans in 1453. The privileges granted to the inhabitants of Naoussa together with various other rights that they enjoyed enabled economic growth in the town.

The second half of the 17th century was a period of prosperity for Naoussa with the town becoming a centre for cultural and educational activities. The number of houses increased to 2,000 and the entire population was Christian.

Within the overall framework of the 1821 Greek revolution the conquest of the town had led to the destruction of the majority of the buildings.

During the resettlement of the town (1830-1850) Christians and Moslems reconstructed the pre-existing ruins and houses. The urban structure of the town
before and after the resettlement remained virtually unchanged. The most important change that did occur was the resettlement of two of the old neighborhoods by Moslems. (fig. 2)

**The urban structure of the town**

The urban structural form that emerged had no preconceived spatial plan but was influenced by three main factors: The need for defense, the formation of the neighborhood “mahallas” in accordance with the social organization of larger families, and the need to adapt to local geomorphological conditions.

The Arapitsa River, together with the elevated position of the town above the surrounding area provided a natural defensive system.

The network of streams determined the formation of the “mahallas” with the streams sometimes passing through the “mahallas” and sometimes around them.

The principal elements of this structure are:

- the articulation of the houses into groups constituting distinct units called "mahallas”;
- the original formation of these "mahallas" was conditioned by the pre-existing network of water channels in the area (river, big or small streams). This water network was exploited to provide power for manufacturing and later on for industrial activities.
- the formation of the particular street network which determined mainly by the plots and the way these plots are distributed in the urban space.
- the size of the urban plots which almost always include a garden in which the house is placed according to precise typological rules. (fig. 3)

**The "mahalla"**

The residential areas were originally composed of individual neighborhoods. Each one was organized around a religious building. The "mahalla" was a very important unit of society and the city. The formation and the enlargement of the town were almost synonymous with the procedure of forming new "mahallas". In other words, homogeneous groups of farmers or immigrants from other urban centres, founded neighbourhoods based on religion, social status and similar origins with the houses being grouped around a cultural building or a religious ensemble (monastery). Individual constructions are rare.

Clearly, the "mahalla" presents the same characteristics as a small urban village comprising a number of administrative structures and elementary public buildings (school, church).

In the beginning these "mahalla" were ethnically or religiously homogeneous as evidenced by their present day names which have remained unchanged for many centuries.

When empty spaces existed between different "mahalla" they were exploited by new immigrants and the autonomy of the single "mahalla" was reduced.

More than one street connected one "mahalla" with another, and sometimes the cultural buildings are so close that the separation between different "mahallas" becomes indistinct.

The oldest reference to the "mahallas" of Naousa is that of Evliya Tselebi (17th century). He mentions 9 "mahalla": Alonia (Harman), Kioski (Kosk), Big mahalla (Kebar), St. Minas, Panaghias, St. Demetrios, St. Georgios, St. Sotirios, St. Parastevi, and the bazaar comprising 21 shops.
A typical “mahalla” is that of Alonia where we can observe how the buildings form the perimeter, the organization of the inner space defined by the buildings and the importance of the stream that still passes through the “mahalla” for providing water to the houses and power to the small manufacturing workshops.

**Manufacture and industry**

As far as traditional manufacture in the town during the 18th century is concerned, the most important activities were: manufacture of arms, textiles, dyeing and mills. The indispensable energy for these activities was the water power provided by the small and bigger streams passing through the town and the main river Arapitsa.

The development of industry during the 19th century was due to favourable geomorphological and social factors. Such factors were the availability of workers with traditional experience in manufacture, the availability of energy from the waterfalls and the penetration of European industrial activities into the Ottoman Empire during the 19th century.

The most important aspect of industrial activity in Naoussa was spinning with the largest establishment being spinning mill of Loggos, Kirtsis, Tourpalis, founded in 1875. It used English spinning machinery and was powered (270 Hp) by an Austrian water turbine (Ganz industry). 270 persons worked in this factory. The Mpellier-Tsitsi spinning mill was founded in 1891 and employed 200 persons. English spinning machinery was used powered by the waterfalls. By 1903, the cotton spinning mill of Goutas, Karatzas was in production with similar technology and even greater power (500 Hp). The first weaving factory using electrical power from the waterfalls began operating in 1905 while the woollen mill of Lanaras-Pehlivanos using English and German machinery started production at almost the same time.

At the beginning of the 20th century Naoussa’s industrial base was one of the most important in Macedonia; other industrial centers being Edessa, Veria and Thessaloniki. (fig. 4)

**Table showing the industries of the town in 1910**

<table>
<thead>
<tr>
<th>Company</th>
<th>Foundation date</th>
<th>Employees</th>
<th>Annual production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spinning mill Loggou-Kyrtsi-Tourpal</td>
<td>1875</td>
<td>270</td>
<td>90 - 100,000 packets of thread</td>
</tr>
<tr>
<td>Spinning mill Mpellier-Tsitsi</td>
<td>1891</td>
<td>160</td>
<td>60 - 70,000 packets of thread</td>
</tr>
<tr>
<td>Spinning mill Goutos-Karatzas</td>
<td>1903</td>
<td>160</td>
<td>50,000 packets of thread</td>
</tr>
<tr>
<td>Weaving factory Chatiilazarou</td>
<td>1907</td>
<td>150</td>
<td>100,000 meters of cloth</td>
</tr>
<tr>
<td>Woolen mill Lanaras-Pehlivanos</td>
<td>1910</td>
<td>75</td>
<td>90,000 meters of cloth</td>
</tr>
</tbody>
</table>

*Source: Stouyannakis, E., p. 148.*

All this development was obviously related to the urban growth known as urbanization which was itself a result of expanding development of production, technological evolution and the process of modernization.

The development of Naoussa under the influence of industrialization is reflected in the architectural image of the town: the town preserved the main characteristics of the pre-industrial period but there were also big changes in its form.
The traditional urban fabric was transformed by the enlargement of the old streets, straightening their original curvilinear form, and the creation of new axes passing through the traditional neighbourhoods.

The morphological characteristics of these new constructions are different. Neoclassical and eclectic influences show in facades often covered with characteristic bricks made by the town's brick factory. The use of these bricks can be attributed to the influence of the architecture of big industries founded in the town at the end of the 19th century. It is, however, interesting to note that the structural and typological characteristics of the houses often remained the same, the only change being the morphological aspect. We can say that the new industrial technology was assimilated symbolically.

Life in the town changed, and this was reflected in the new architecture which now combined European models with local tradition. The town's aspect became such that one may talk of "urbanity". (fig. 5)

**The decline of the industrial activities in Naoussa**

This prosperity was short lived as the industrial activities moved to bigger urban centres. During the first decades of the 20th century steam power and later electric power produced from coal and oil replaced the complicated but ecologically sound systems of water power. The cheaper transportation provided by the big ports of Thessaloniki and Piraeus was also a factor which together with others led to the continuing decline of Naossa's industries between the World Wars. The majority of the industrial activities transferred to Thessaloniki and Athens together with a great number of the town's population. Nevertheless, today the textile industry in Naoussa continues to be one of the main activities together with the wine production.

**The industrial heritage**

Appreciation of the value of industrial heritage in Greece is rather recent. There are certain examples of the more or less successful rehabilitation of old industrial buildings.

In the area of Naoussa some old industrial buildings have been demolished, others are still in use, while the majority lie abandoned.

A very interesting exception is the effort to rehabilitate the historic buildings of the largest industry in the town founded in 1875 and functioning until 1933.

In this extraordinary building complex, subsequent to initiatives from the local authorities, some faculties of Macedonia University have been established and started to give new life to the town. (fig. 6)

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Last but not least, the local authority has started a programme to exploit the waterfalls once more for the production of electricity reusing some conserved historic industrial machinery.

The water resources of the area have started to be reconsidered as elements that could bring new approaches for the redevelopment of the town.
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Stouyannakis, E. Ιστορία της πόλεως Ναούσης, Έδεσσα, 1924
1. The region during the end of 19th century
2. The urban tissue of Naoussa during the beginning of 20th century. The industrial establishments are situated along the river Arapitsa.
3. The formation of the neighborhoods of Naussa in the beginning of 20th century.

With the numbers the following neighbourhoods are indicated:
4. Some aspects of the most important industry, the Spinning mill Loggou-Kyrtsi-Tourpali (founded in 1875), deserted, during 1970.
5. The influence of the architecture of big industries in the morphology of the houses.
6. The Spinning mill Loggou- Kyrtsi-Tourpali after the restoration and the new use as faculty of the Macedonia University.