

## **VIDA's industrial heritage tours: Revisiting the old machine-making districts of Piraeus Port, Greece**

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### **ABSTRACT**

*The Vault of Industrial Digital Archive team aims at recording, documenting of industrial heritage in Greece. Organized tours around industrial heritage sites are among VIDA's activities.*

*VIDA recently organized walking tours around the districts of Piraeus Port, which have hosted many machine-making shops since the second half of the 19th century.*

*Based on a thorough research into the history of the machine-making sector in Greece and then more specifically in the Port of Piraeus, combined with fieldwork, archival research and recording of remains, VIDA organized three successful walking tours around these areas in order to introduce their history to the public and to attract attention to a quickly changing part of industrial Piraeus due to redevelopment projects, which endanger the character and significant heritage of a previously productive district.*

*Therefore, this is an interesting example of how industrial tourism can be a means of promoting awareness on the significance of industrial remains within a city and the need to embody the values of industrial heritage in urban regeneration projects to eliminate the danger of heritage extinction.*

### **1. ABOUT VIDA**

The Vault of Industrial Digital Archives (VIDA) was founded in 2017 as a collective interdisciplinary effort. It launched an enormous project with the aim to survey, record, document and rescue (in physical or digital form) the Greek industrial heritage, to raise public and state awareness and, eventually, to contribute to the preservation of this heritage.

Industrial heritage in Greece comprises a great variety of remains -sites, complexes, structures and machinery-, as the evidence of the industrialization process which took place in the country from the second half of the 19th century to the end of the 20th century.

VIDA was founded on the realization that, despite all achievements on the preservation of industrial heritage in Greece during the past forty years, there is still a lot to be done in a continuously changing world -especially in the aftermath of the pandemic-, a situation that sets new challenges ahead and requires new methods, approaches and practices to safeguard industrial heritage in all its tangible and intangible aspects. One of the main instruments of VIDA's work -and its main novelty- is its website which comprises a freely accessible database with information submitted by volunteers from all over Greece, its special feature being an interactive map on which industrial monuments are recorded and pinned by region. In fact, it is the only open interactive database for industrial heritage in Greece nowadays.



fig. 1: VIDA's site with the interactive map (2021)

## 2. VIDA'S INDUSTRIAL HERITAGE TOUR IN PIRAEUS: INDUSTRIAL ARCHAEOLOGY IN PRACTICE

Organized tours around industrial heritage sites and monuments are among VIDA's activities. These tours focus on familiarizing the public with industrial sites and the values of industrial heritage. The guides in these tours are experts on the history of the industrial past of each area.

However, VIDA's thematic walking tour around the so-called «settlement of the factories», and more specifically at the machine-making areas of industrial Piraeus, has some special features.

Firstly, the tour at the machine shops of Piraeus is the result of long and extensive research in the Greek machine-making industry that stretches beyond the limits of archival and bibliographical review, as it is also based on extensive recording and documentation of historic machinery. Therefore, this research stands firmly on the ground of material remains and fieldwork, hence, at the intersection of history and industrial archaeology.<sup>1</sup>

However, the archival and bibliographical research has been strenuous, as the engineering sector has not attracted the interest of scholars of Greek industry. Moreover, the lack of archival sources –mainly company archives- in combination with the disappearance of products and facilities of this activity, led to the ignorance of the engineering sector, creating an incomplete picture of the country's productive potential at least until 1960. Especially nowadays, when a completely «counter-productive» economic model prevails in Greece -and elsewhere-, the study of Piraeus' machine-making industry could trigger reflections and discoveries.

Secondly, apart from the above-mentioned research, VIDA's founding members organized several fieldtrips in Piraeus to locate and identify the remaining machine shops and to decide on the route of the tour.



fig. 2: VIDA's first fieldtrip in Piraeus (photo by Marilena Vakalopoulou, 2020)

Another motive for the specific tour was the realization of the rapid changes that have taken place in Piraeus. These changes started a few years ago but were accelerated during the pandemic. The new tram and metro lines, the Piraeus Port Plaza project -in the former tobacco and cigarette factory of Papastratos-, the re-use of former warehouses and workshops and their transformation into hotels, art galleries, bars and offices, are the signs of extensive urban redevelopment plans.

Furthermore, getting to know the heart of industrial Piraeus which is unknown to a great extent and thus «invisible», but its traces are still so vivid, is of great importance. The area is well-hidden by high buildings at the port front. the back streets. Therefore, walking a little further up the streets from the port reveals literally a city within the city and feels as if you are travelling in time.

As a result, VIDA has already organized four successful walking tours at the area which has hosted -and still does in some cases- many machine shops since the second half of the 19th century, with some of the most important machine-making companies of the country. One of the main objectives of the tour is to attract attention to a dramatically changing part of industrial Piraeus due to redevelopment -or rather, gentrification- projects, which endanger the character and significant heritage of a previously productive district.

### 3. PIRAEUS: PORT AND INDUSTRY

The modern city of Piraeus was designated as the main port of the newly established capital of Athens in the young Greek Kingdom in 1833. Although Piraeus was then an insignificant and remote town, population growth, urbanization, the transport network, and the port soon turned Piraeus into a favourable place for the development of industry. Hence, between 1860 and 1875 the city, besides trade and shipping, evolved into the first genuinely industrial city of the country. Practically all industrial sectors were represented in it: flour and paper mills, textile and soap factories, distilleries, metal-working industries etc. A further advantage was the fact that it was the only city in Greece to have an institutionalized industrial zone by 1892.<sup>2</sup>

At the dawn of the 20th century large-scale factories marked the new era of industrial Piraeus: the first factory for chemical products and fertilizers in the country was established in Drapetsona in 1909 and a cement factory in 1911. The city was granted the title «the Greek Manchester» or «Manchester of the East» due to its industrial development.

Within this frame, the machine-making sector occupies a significant position in Piraeus' industry.

### 4. THE GREEK MACHINE MAKING INDUSTRY

On an international level, the production of machinery has been crucial for the development of industry since the 19th century. The existence or absence of the machinery manufacturing industry has largely determined the character, intensity and course of industrialization in each country, being a criterion and measure of industrial development.

Consequently, this sector enables us to trace all the structural features of Greek industrial technology - its dependence on the import of technology and know-how, its adaptation to the raw materials and conditions here, etc. - while at the same time it is representative of the transition from craft to industrial production.

In the first period of the development of the engineering industry, the ports of Hermoupolis on the island Syros and Piraeus, in the still limited Greek territory, were not only centres of transit trade but also important centres of shipbuilding and ship repair. This activity was the first impetus for the creation of machine shops around the ports and constituted the first reservoir of know-how and technical manpower, working

with mainly English engineers who were employed in the largest machine shops of the time. Vassileiadis, John MacDowall and Kouppas in Piraeus were repairing and then building ships and engines. The largest machine-building units turned to transport, namely railways and shipping. Thus, the machine shops of the Hellenic Railway Company in Piraeus (1902), the Thessalian Railways in Volos (1889), the new factory of Vassiliadis in Piraeus (1898), and Neorion in Hermoupolis were organized. The machine shops created for the maintenance of machinery, steam cars, wagons and rolling stock for the railways in general, played a particularly important role in the field of Greek mechanical engineering, because they confronted the difficulties of processing large objects for the first time. The first machine shops were also involved in the manufacture of agricultural tools and machinery.

Machine shops were also established in cities or areas of the country with a concentration of factories in Hermoupolis, Thessaloniki, Volos, Patras and Lesvos. Initially their work was limited to covering the needs of the industries accepting orders for repairs and supplementary work. Gradually, from the beginning of the 20th century, they started to build sections or entire machines in order to meet the equipment needs of the main branches of industry in the food, clothing and consumer goods sectors (olive mills, soap factories, flour mills, textile mills, etc.) operating in each town.

The great number of machine-building units in all the urban centres of the country prove that this sector did exist in Greece -with its lags and discontinuities- and that it reached its peak in the interwar period.

Particularly in the 1920s and 1930s the volume of machine production increased, making machine building one of the three sectors -paper industry, textile industry and machine building- with the most dynamic growth, despite its low specific weight in total industrial production.



Fig. 3: VIDA's tour at the machine shops of Piraeus (photo by Christos Lambropoulos, 2021)

In the 1930s, due to the imposition of import restrictions, new trends and directions emerged in the machinery industry, which turned to the manufacture of machinery and components for the rest of the country's industry (e.g. centrifugal pumps, oil press pumps, grape presses, oil mills, bakery cylinders, cranes, steam engines, steam boilers, soap boilers, textile machinery), agricultural machinery and tools, but also diesel engines. At the same time, the construction of engineering works gave a boost to metalworking, which was undertaken by a very few large and specialized machine shops (e.g. Kouppas in Piraeus and BIO in Athens).

In the afterwar period, the end of the Marshall Plan led to the closure of some machine shops that could not repay the loans of the Plan, given the change of correlations in the international technological field and the consequent shift to the import of machinery, which in its turn resulted in the decline of the Greek machine-making industry in the 1960s.



## 5. MACHINE-MAKING IN PIRAEUS

As mentioned above, Piraeus evolved into the country's machine-building centre par excellence from the second half of the 19th century to about 1960 -when the decline of the industry in the country began-, and thus it is distinguished by the highest density of machine shops. More than two hundred smaller and larger machine shops, which did not just carry out repairs, but also manufactured machinery of various kinds, have been recorded in Piraeus through VIDA's research. Among these we can distinguish the machine shops of Kouppas, Rontiris - Stroumboulis (ROSTRO), TECHNIKA Malcotsis, Fronimos, Lipovatz and Axelos, etc., which were of nationwide importance. Walking along these «metal streets» means literally walking along a century and along a whole industrial sector, as one goes past machine shops from this entire period along the way and can trace the development of the Greek machine-making industry.

Nevertheless, apart from identifying the sites and their architectural features, there are more stories to be told in an attempt to perceive the unique «genius loci» as well as intangible aspects of this area. I shall briefly mention some of the «parallel stories» we try to narrate during the tour:

- The testimonies of owners and workers in the machine shops of the area reveal a picture of constant motion in the streets and the movement from one machine shop to another, thus the establishment of a productive fabric that includes larger and smaller units, as well as «satellite» workshops, e.g. wire mills, rolling mills and nail mills, foundries, etc., which collaborate in many cases. This is certainly a unique case nationwide and a typical case for the study of technological development and technological convergence, networks of raw materials, know-how and technology, but also the mobility of the workforce in the sector and even some sort of collectivity.
- The machine shops in Piraeus also present the constant process of mergers, partnerships and spin-offs over time, all in the same area. Therefore, many plants are often organically linked together as one derives from the other.
- The history of Greek mechanical engineering presents many examples of copying and patenting, which evolved into basic forms of incorporation and reproduction of know-how and technology in the country. From the patents of Kouppas and Vassiliadis for olive-oil machinery in the interwar period, to Malcotsis' copying of a German oil engine during the Occupation, the methods used by machine builders



demonstrate both lagging behind and mechanical ingenuity, a phenomenon inherent in the process of technology production.

- The streets of the “aristocracy” of the machine-making factories are the streets with have undergone the biggest changes in the re-use of the buildings. The “secondary” streets of the industry are still intact to a great extent, possibly because the buildings are still used as machine shops. It is quite evident that survival has been a matter of scale: the large-scale units have disappeared, whereas the small-scale ones still exist, showing more stamina due to their continuous operation.

Nowadays, the districts of Saint Dionysius and Papastratos form a rare cluster of past industrial activity which remains alive and active in a way today. However, this cluster is about to undergo a dramatic change through large-scale gentrification. Where once the sound and smell of metalworking prevailed nowadays galleries, bars and hotels take over the place, displacing all productive activities, mainly metal working units and machine making.

## CONCLUSION

One of the most intriguing aspects of the preparation and presentation of this specific tour by VIDA is that it brings forth the need for recording all aspects of this heritage as the only way to capture the identity of the whole area of industrial Piraeus.

Hence, it is of utmost importance to create a comprehensive narration which conveys all the tangible and intangible elements of this heritage in all its complexity and diversity. It is always a matter of quality, not a matter of quantity. That is, we might preserve and reuse many industrial buildings and sites in the area but keep missing the meaning behind the facades. The real history of the place and its people will keep «slipping away», and we shall end up creating an «industrial Disneyland», a «no man’s land» deprived of its context, history, meaning and memory. Even worse, disregarding the historical and social contexts of heritage within redevelopment plans, inevitably leads to gentrification and social exclusion, whereas what is needed nowadays is social inclusiveness and offering better opportunities to local communities.

Nevertheless, an optimistic aspect of VIDA’s tour is that several people have participated in it, showing a wider interest in the history of the area, as well as memory, heritage, continuity, collective identity, and sense of place.

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<sup>1</sup> Maria Mavroeidi, *The Greek machine-making sector in 1920-1950 and the documentation of historic machinery*. University of the Aegean, School of Social Sciences, Department of Cultural Technology and Communication, Greece.

<sup>2</sup> For the history of Piraeus, see: Marianthi Kotea, *The industrial zone of Piraeus (1860-1900)*, doctoral thesis, Panteion University Publications, Athens, 1997 (in Greek). Nikos Belavilas, *History of the city of Piraeus. 19 th and 20 th centuries*, Athens, Alexandria 2021.