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The Industrial Cultural Heritage of Elefsina Area as a Tourist Destination in Western Attica Development

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Abstract. Elefsina, a historic city in Western Attica, Greece, has a specific position as a core of industrial cultural heritage and tourist destination. The city, known for its ancient Elefsinian Mysteries, has also played a central role in Greece's industrial development, holding great industrial buildings such as Titan Cement, Iris Paints, and Kronos Winery. However, the urban and social landscape of Elefsina was shaped by the industrialization of the wider region, creating at the same time a significant stock of industrial heritage with remarkable industrial buildings and mechanical installations. This paper examines how this industrial cultural heritage of Elefsina can lead to its tourist development. In fact, the selection of Elefsina as the European Capital of Culture 2023 was a milestone for its transformation into a center of cultural tourism. At the same time, it was an opportunity for the restoration and reuse of the city's industrial buildings, where the cultural events of this European institution would be hosted. By capitalizing on its historical identity, the city of Elefsina can now develop culturally and economically, as well as was established as a sustainable cultural tourist destination. This study examines how industrial heritage can contribute to sustainable tourism and urban regeneration. The strategic planning to reuse abandoned factories as museums, cultural centers and event spaces aimed not only to attract visitors to the city, but also to preserve its architectural and industrial heritage. By integrating industrial heritage tourism with the social participation of citizens, Elefsina is very likely to achieve economic development, while maintaining the authenticity of cultural spaces, as seen in several European case studies. However, challenges such as environmental pollution, a lack of infrastructure and low awareness of the potential of industrial tourism are holding back the full transformation of Elefsina. To address all these issues, a tourism development plan is needed, focusing on sustainable conservation, accessibility and educational tourism programs. In order for Elefsina, to be promoted as a top destination for cultural and industrial heritage, it is considered necessary to establish cooperation between local authorities, cultural organizations and private entities. In conclusion, Elefsina represents a significant blend of ancient and industrial history, providing crucial opportunities for cultural tourism and economic development. Elefsina can be developed into a model city for industrial heritage tourism in Greece and Europe, following the right policies and investments.

Keywords: Tourism destination; cultural identity; industrial heritage tourism; sustainable tourism development; Elefsina West Attica.

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INTRODUCTION

The city of Elefsina, located on the coast of Western Attica, has a valuable historical and cultural heritage, combining its archaeological heritage with its industrial activity. In particular, it served as a center of culture, from the era of ancient Elefsinian Mysteries to the period of industrial development during the 19th and 20th centuries. In antiquity, Elefsina, along with Athens, Olympia, Delphi and Delos, was one of the five sacred cities of Greece, and it was the endpoint of the famous Sacred Road that began in Athens. Today, abandoned factories, warehouses, and port infrastructures form part of its industrial heritage, representing both a tangible record of modern history and an invaluable resource for the development of alternative and thematic forms of tourism.

The purpose of this study is to examine the industrial heritage of Elefsina in relation to its potential to develop as a tourist destination in Western Attica. More generally, the wider region of Western Attica faces many challenges that affect not only the Municipality of Elefsina but also several neighboring municipalities, such as waste management, traffic congestion and environmental degradation. This study will therefore contribute significantly to the sustainable tourism development of the region, since it will be aligned with the principles of cultural heritage conservation, while at the same time functioning not only as a visitor attraction but also as a catalyst for social and economic development. More specifically, new jobs will be created, while at the same time it will develop into a destination for visitors seeking authentic cultural experiences and natural attractions. Cultural heritage is one of the main attractions for tourism, both locally and internationally. Furthermore, tourism, as the most important economic sector worldwide, plays a crucial role in the sustainable management and promotion of cultural resources.

The relationship between cultural heritage and tourism is a complex phenomenon, constantly evolving according to the influences coming from social, economic and technological factors, while in recent decades it has been the subject of scientific debates. Cultural tourism is a form of alternative tourism which, according to Richards (2018) [1] is evolving rapidly, as travelers seek destinations with cultural and aesthetic values. Also, industrial heritage, which constitutes a cultural capital with a unique character, is considered a form of alternative tourism with particular thematic interests for travelers. In particular, the reuse of old factories as cultural spaces and industrial history exhibits, such as the machinery of these factories, form part of contemporary tourism demand.

The utilization of Elefsina's industrial heritage, following its declaration as European Capital of Culture 2023, is of particular importance, since it has contributed to the city's international recognition. The industrial identity of the city of Elefsina, has demonstrated its potential to be transformed into a tourist product, since many of the cultural activities organized during the Capital of Culture year, were hosted in former industrial facilities. However, in order to ensure the sustainability and authenticity of Elefsina as an industrial cultural destination, integrated strategic planning is required, which should address the protection of monuments, the development of appropriate infrastructure, and the active participation of the local community.

Therefore, the aim of this study is to highlight the industrial heritage of Elefsina as a destination for tourist development, while proposing cultural and thematic tourism strategies for the wider underdeveloped region of Western Attica.

HISTORICAL DEVELOPMENT OF THE INDUSTRIAL HERITAGE IN ELEFSINA

Elefsina was the third and last historical industrial center of Attica, after Piraeus and Lavrio, with a development lag of about a decade. The strategic geographical position of Elefsina in the Saronic Gulf, as well as its proximity to the city of Athens, led to its development as one of the main industrial centers of Greece, at the end of the 19th century [2]. It is worth noting that the industrialization of Greece began in the cities-ports, and not in the countryside, based on the sea exploitation, since the main means of transportation was by ship [3]. In addition, the construction of the railway network, the port and the availability of uncultivated land, suitable for industrial facilities, contributed to the industrial development of the region [4].

The historical industrial zone of Elefsina extends for 2.5 kilometers along the coastal front of the city, where entire factories or parts of them are located and dating from approximately 1875 to 1939. Factories built between 1948 and 1971 filled the gaps along the seafront inside and on both sides of the city, along the entire 16 kilometers of the Gulf of Elefsina coast [5]. Finally, industrial installations at the end of the 20th and the beginning of the 21st century are scattered in the lowland hinterland of the city of Elefsina.

Various industrial units were established in Elefsina, covering sectors such as the cement industry, metal processing, winemaking, the textile industry and other chemical or heavy industries. As a result, the city of Elefsina

became a characteristic industrial development model, which was adopted in the effort to industrialize and urbanize Greece.

FIGURE 1. Industrial cultural heritage of Elefsina area: General view.

However, the phenomenon of deindustrialization of the last quarter of the 20th century did not reach the same scale in Elefsina as in other industrial areas of Greece (Piraeus, Patras, Lavrio, Ermoupolis, etc.) [2]. In Elefsina, very few of the large historical industrial units located within the urban fabric of the city were closed, such as “Kronos”, “Iris,” “Elaiourgiki”, “Votrys”, while most of the remaining industries remain active ‘Figure 1’. It is worth noting that in Elefsina, the extensive phenomenon of industrial ruins is not observed, as it happened in cities affected by deindustrialization. Therefore, today only a few intact inactive industrial monuments of the first period are preserved, while in the operating industries of the 1948–1971 period, which continue to be modernized, parts of the original facilities, buildings, and equipment have also been preserved.

Although several industrial units are not operating or have been abandoned and turned into ruins, the character of the city has been influenced by tangible and intangible heritage, which they left behind. At the same time, the adaptive reuse of these sites is being discussed, with the aim of integrating industrial history into the modern city of Elefsina, while contributing to the preservation of collective memory ‘Figure 2’.

FIGURE 2. Aerial photography including the port and the industrial area of Elefsina.

THE HISTORIC INDUSTRIAL UNITS OF ELEFSINA

The industry that developed in the wider area of Elefsina over three periods managed to transform the area, causing increased pollution of the soil and subsoil, while also generating numerous industrial jobs, contributing to Elefsina's development as an urban center. However, the industrial character of Elefsina is particularly reflected in certain industrial units that functioned as pillars of the local and national economy.

FIGURE 3. Left: Titan Cement factory at the beginning of the 20th century. **FIGURE 4.** Right**:** Titan Cement factory at the middle of the 20th century in Elefsina.

Titan Cement Factory (1902)

The Titan factory in Elefsina is one of the oldest and largest industrial cement production plants in Greece, contributing significantly to the urban reconstruction of the country during the 20th century.

The first factory to produce reinforced concrete, a newly introduced building material in Greece, was constructed between 1902 and 1910 'Figure 3'. The plant was located on the western edge of Elefsina's coastal front next to the hill of the ancient city, which partially served as a quarry for raw materials. The "Titan" factory in Elefsina continues to produce white cement to this day, while the main factory has been relocated to Kamari. In the Elefsina complex, a complex of five large building units has been preserved, which includes dozens of smaller structures, tanks, heavy mechanical equipment, overhead piping networks, and other active facilities 'Figure 4'.

In this labyrinthine complex of buildings, networks and machines, the entire course of its 110 years of operation is reflected [6].

FIGURE 5, 6. The Olive Oil Processing Plant "Elaiourgiki" (1955).

Olive Oil Processing Plant “Elaiourgiki” (1955)

The “Elaiourgiki” production plant was built in 1955 by the “Elaiourgiki - Central Cooperative Union of Olive Producers of Greece” on the site of the former soap factory, which dated back from 1891-92 and had ceased operations in 1922. The “Elaiourgiki” factory has been completely destroyed except for a small building which likely belonged to the 19th-century soap factory. The preserved building was located in the southwest wing of the “Elaiourgiki” complex and may have originally been part of either the 1955 complex or the earlier soap factory. The 1955 building complex was three-storey, extending over 3,000m2, while the shape of the building was long and narrow and had an approximate total length of 160m and a width of 22m. Its central section was covered with a curved reinforced concrete roof, elevated with lateral skylights. It is a two-storey urban building with a hipped wooden roof and tiling ‘Figure 5, 6’. It has characteristics of an administration building and was likely used for administrative purposes, located next to the factory’s central entrance from the sea. The factory’s mechanical and tool equipment has not been preserved [6].

FIGURE 7. “Iris” Paint Factory (1925) twin semi-cylindrical reinforced concrete roof.

FIGURE 8. Left: “Iris” Paint Factory (1925), The first building unit is a small three-room ground-floor building
FIGURE 9. Right: “Iris” Paint Factory (1925), The central chimney.

“Iris” Paint Factory (1925)

In 1925, the “Iris” paint factory was founded on the eastern edge of the city’s coast, using pine resin as the main raw material. The “Iris” factory’s heyday lasted until the end of World War II, and ceased at the end of the 1970s. Three buildings without mechanical equipment were preserved, as was the central chimney with the company’s logo ‘Figure 9’.

The three surviving units correspond to three different construction phases. The first building unit is a small three-room ground-floor building with a stepped gable roof and an elevated skylight along the longitudinal axis ‘Figure 8’.

It was built in 1925, with masonry walls and reinforced concrete slabs. The second building is an impressive single-storey structure with a tall rectangular floor plan and a reinforced concrete load-bearing structure. It is divided into two equal compartments by a central colonnade and is roofed with twin semi-cylindrical slabs suspended from seven inverted curved beams ‘Figure 7’. The third unit is a relatively simple conventional building constructed over three levels, with a reinforced concrete frame on a grid of columns and corresponding slabs [6].

FIGURE 10. Votrys Winery (1880) with its neighboring “Oil Mill”.

Votrys Winery (1880)

This winery industry is considered one of the first in Greece specializing in the production of wine and spirits, and subsequently became one of the largest industries in the sector. The company produced lighting alcohol, wines, spirits, vermouth, cognac and carbon disulfide. In particular, the spread of lighting alcohol was overwhelmingly successful, thus creating a new competitive market for petroleum-based products. It operated until 1974, when another company was established in the same space for the storage and transshipment of chemical products.

The site is architecturally a single whole with its neighboring “Oil Mill”, as was the case throughout the operation of the two factories ‘Figure 10’. The building units of the winery are single-storey and two-storey buildings with the exception of the four-storey tower of the distillery (refinery) which is located in the middle of the northeastern side of the factory site. Next to the tower, adjacent to the power plant, is the factory’s tall chimney. The successive building systems (stone masonry and pitched wooden roofs with tiles, brick masonry, reinforced concrete structures, additions) show the continuous expansions and changes that the complex underwent [6].

Kronos Winery S.A. (1923)

The “Kronos” factory was built between1923-1926 on the eastern edge of the urban seafront of Elefsina and produced wines and alcoholic beverages. In fact, it was considered particularly innovative for its time, as it was constructed almost entirely of reinforced concrete, with vaulted and honeycomb structures, constituting an excellent example of interwar industrial architecture. The complex survived intact and operated until 2005, as a venue for art exhibitions and performances of ancient drama, it has remained closed for the last five years.

The distinctive architecture of the Kronos factory buildings, with visible reinforced concrete elements in the load-bearing structure and eclectic elements in the facades, the attention of visitors ‘Figure 11, 12’. Although some of the buildings in the complex were constructed with a reinforced concrete load-bearing structure, a new material of the 20th century, they feature a meticulous and elaborate eclectic morphology typical of the 19th century, as seen in the facades of the tower-like distillery complex, ‘Figure 13’. It is worth noting that large industries, or those built in

peripheral sites, created high-quality spaces with characteristics of mansions, for the residence and work of their executive staff [6].

FIGURE 11. Left: Kronos Winery complex (1923), The special architecture of the buildings
FIGURE 12. Right: The abandoned Kronos Winery building.

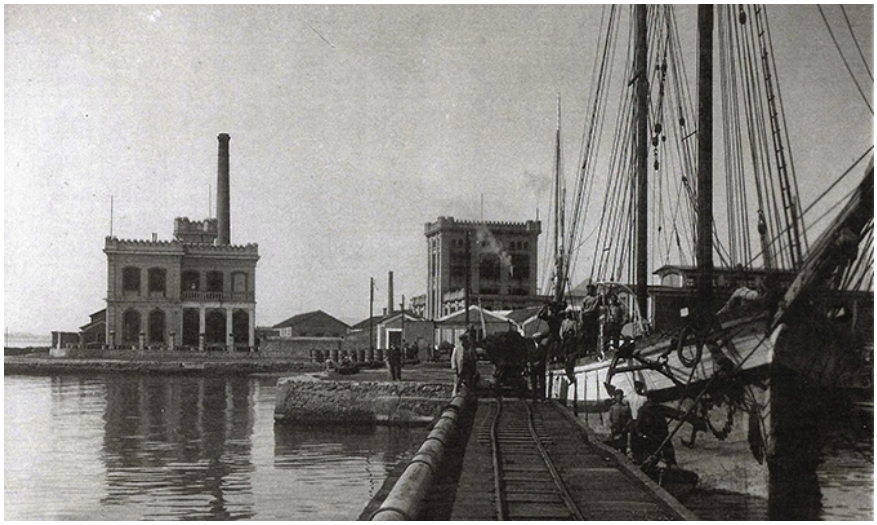

FIGURE 13. Kronos Winery complex (1923), a view from the sea.

THE UTILIZATION OF INDUSTRIAL HERITAGE AS A CULTURAL TOURISM DESTINATION

The industrial character of Elefsina is preserved in its building stock over time and is now an important document of the industrial heritage of the region. In recent decades, the abandoned industrial units of the past have been recognized as cultural and tourist assets. Many old factories and industrial facilities, which are part of a broader trend of cultural reuse, have been converted into cultural spaces (museums, exhibition centers, theaters, etc.), with the aim of preserving local identity and collective memory [7].

An important reason for the utilization of the industrial heritage of the region the selection of Elefsina as the European Capital of Culture in 2023. Thus, several characteristic industrial buildings have already been repurposed or are about to be adaptively reused, mainly as cultural spaces, while emphasizing the industrial identity of the city as

a key element of its tourist and cultural development [8]-[9]. Through these conversions of industrial buildings, local history and culture are highlighted, new jobs are created, and the city becomes an attractive tourist and cultural destination. Notable industrial buildings of Elefsina have already been included or are about to be included in cultural reuse programs.

The Iris paint factory, also characterized as a listed building, was converted into a cultural event space, in particular to be used as the main venue for the Aeschylia festival. Spaces of the Titan cement factory are planned to be used mainly for artistic activities and tours. Furthermore, the redevelopment of the old Votrys winery facilities is being considered, to create a thematic museum and exhibition space that will be linked to the history of wine and local production. Former industrial coastal zones are also integrated into urban landscape regeneration plans, creating cultural routes of industrial heritage in the modern urban environment.

THE ROLE OF ELEFSINA AS CULTURAL CAPITAL OF EUROPE 2023 IN ITS TOURISM DEVELOPMENT

In 1985, the European Capital of Culture initiative was established by the Council of Ministers of the EEC, with the aim of highlighting Europe's diverse cultural heritage and strengthening intercultural relations among its member states [10]. Furthermore, the investments of each city that received the title, both in cultural infrastructure and in artistic actions and programs, significantly enhance tourist visitation, as well as citizen participation [11]. Thus, one or more cities of the European Union are selected each year, which are invited to organize cultural programs to highlight their history and cultural heritage, whether tangible or intangible. This initiative essentially contributes to the development of cultural tourism and the local economy of each selected European city, through its urban regeneration [12].

Elefsina was designated European Capital of Culture for 2023, along with Timisoara in Romania and Veszprém in Hungary. It was also the fourth Greek city, after Athens (1985), Thessaloniki (1997) and Patras (2006), to receive this title. This event was a strategic opportunity for Elefsina, a city with a rich archaeological and industrial heritage, to transform itself from an "industrial landscape city" into a "cultural destination city" [13]. As one of the smaller cities, Elefsina faced the challenge of emerging as an international cultural epicenter.

There were three thematic axes according to which the Elefsina 2023 program was organized: Human-Society, Environment-Industry and Cultural Memory-History, included events that promoted the local community participation, artistic interventions in former industrial sites and archaeological tours. The impact on tourism and the economy of Elefsina was direct and positive since, according to the organization's report [14], the city's tourist traffic increased by 35% compared to 2022. In addition, the stay of visitors in the city, mainly due to the cultural events, was longer and local businesses were strengthened by the high number of visitors. The infrastructure and networks, created also constitute a major asset for the city's sustainable tourism development.

SUSTAINABLE DEVELOPMENT AND TOURISM PROSPECTS

The city of Eleusis faces many challenges in preserving and promoting its cultural and industrial heritage. In particular, the industrial buildings stock has suffered significant damage over time and the risk of their collapse is quite high [15]. Furthermore, the expansion of industrial activity, from the 1880s to the present, has caused severe pollution in the wider area, thus, for the city's tourist development, environmental decontamination and restoration are essential [16]-[17]. The fear of the commercialization of cultural heritage poses risks for the "overtourism" of Elefsina, which may compromise the city's character [18]. The continuous commercialization of cultural resources and the distortion of the historical significance of monuments ultimately lead to a loss of authenticity, which visitors seek when they select the city as a tourist destination [19].

According to the World Tourism Organization [20], the sustainable tourism development of a place is linked to both economic development and environmental protection. Elefsina requires a modern planning approach and infrastructure that do not alter, but coexist creatively with tourist enterprises in the industrial cultural zone. The revival and reuse of industrial buildings, such as their conversion into museums, increases the attractiveness of the city, while preserving their authenticity [21]. An important aspect is also the participation of the local community, in the form of local cooperatives, art workshops and other relevant small businesses, so that the economic benefits are distributed fairly within community [22]. It is also necessary to create green infrastructure, such as bicycle paths or pedestrian networks, which reduce traffic congestion and offer greater mobility and comfort for visitors.

The establishment of the city of Elefsina on the national map as a tourist and cultural destination is based on the combination of cultural activities and sustainable management. It has the potential to be transformed into a multidisciplinary cultural destination, as well as part of the Elefsina–Athens–Lavrio cultural axis, since Lavrio is also a city with significant industrial heritage. The goal is for Elefsina to become a tourist destination that highlights its values, while respecting its residents, visitors, and environment.

CONCLUSION

The present study showed that the city of Elefsina, being an industrial city since the late 19th century, has a rich stock of industrial buildings and facilities with significant historical, architectural and cultural value. Typical examples of industrial heritage such as the Titan cement factory, the Votrys winery, the Kronos factory and the Iris paint factory, collectively narrate the story of the industrial development of Greece from the late 19th to the late 20th century.

The variety in the techniques and construction materials of industrial buildings covers a wide range, ranging from traditional stone and brick constructions to innovative reinforced concrete structures. Furthermore, Elefsina, as the European Capital of Culture 2023, opened a new chapter in its history, aiming to maintain and strengthen its cultural role and position in Europe. The reuse of these buildings for the cultural events of this institution contributed to the revival of the city, highlighting both its industrial past and modern identity. Also, all these cultural actions that took place in the celebration of "Elefsina European Cultural Capital 2023", became a major attraction for visitors, while also strengthening the city's tourism profile. In conclusion, the industrial heritage of Elefsina can contribute to the city's economic development, as long as the facilities of these industries are transformed from silent monuments of the past into sustainable buildings of industrial heritage and culture. In other words, the city of Elefsina has the potential to be developed into a tourist destination in Western Attica, transforming the character of the polluted industrial landscape into an area of sustainable development.

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