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On the Architectural Identity of a Lost Soap Factory on Cunda Island: An Analysis in the Light of Excavation Data and Visual Documents

Cunda Adası'nda Günümüze Ulaşmamış Bir Sabunhanenin Mimari Kimliği Üzerine: Kazı Verileri ve Görsel Belgeler Işığında Bir Analiz

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ABSTRACT

Soap factories function not only as production facilities but also as valuable testimonies to their era, reflecting the construction techniques, material choices, and plan typologies that define industrial architecture. The town of Ayvalık, distinguished by its prominence in olive oil production, preserves a variety of such structures. This study focuses on a soap factory located on Alibey (Cunda) Island, which was destroyed during the 1944 earthquake. The research combines the results of salvage excavations conducted in 2023 with restitution projects and historical visual materials to investigate the architectural features and contextual significance of the building. Excavation evidence including foundation remains, hearth traces, smokestack fragments, and a plastered basin confirms the industrial function of the structure as a soap factory. Primary data are derived from excavation findings and historical photographs, while secondary data are obtained through comparative analyses of other soap and oil factories that either survive or have been documented in the region. This methodological approach not only allows the identification of the building's specific spatial and formal characteristics but also enables its interpretation within the broader framework of regional production traditions. Of particular importance are a 1929 photograph and early postcards, which provide critical insights into the number of stories, façade arrangement, and certain architectural details. The juxtaposition of excavation data with these visual materials contributes to establishing a robust foundation for restitution proposals. Comparisons with similar factories in the region demonstrate that the building shares common architectural traditions yet exhibits distinctive features. The findings indicate that the soap factory was constructed between the late nineteenth and early twentieth centuries. Overall, this study contributes to the understanding of the historical continuity of industrial production facilities in Ayvalık and highlights the building as one of the rare examples on Cunda Island, underscoring its architectural and historical significance.

Keywords: Ayvalık, Cunda, industrial architecture, soap factory

ÖZ

Sabunhaneler, yalnızca üretim işlevleriyle değil aynı zamanda dönemin yapı teknikleri, malzeme tercihleri ve plan tipolojilerini yansıtmaları bakımından endüstri yapılarının önemli örnekleri arasında yer almaktadır. Zeytinyağı üretimiyle öne çıkan Ayvalık ilçesi, bu yapı türünün çeşitli örneklerine ev sahipliği yapmaktadır. Bu çalışma, Alibey Adası'nda (Cunda) 1944 depreminde yıkıldığı anlaşılan bir sabunhaneye odaklanmakta; 2023 yılında gerçekleştirilen kurtarma kazıları, restitüsyon projeleri ve tarihî görselleri birlikte değerlendirmektedir. Amaç, hem yapının mekânsal ve biçimsel özelliklerini ortaya koymak hem de Ayvalık ve çevresindeki endüstri yapıları içindeki yerini belirlemektir. Kazılarda ortaya çıkarılan temel izleri, ocak ve baca kalıntıları ile sıvalı havuz gibi buluntular, yapının sabunhane olarak işlev gördüğünü ortaya koymaktadır. Çalışmada birincil veri olarak kazı bulguları ve tarihî fotoğraflar; ikincil veri olarak ise bölgede ayakta kalmış ya da belgelenmiş benzer sabunhane ve yağhanelerin karşılaştırmalı analizleri kullanılmıştır. Bu yöntem hem yapıya özgü özelliklerin belirlenmesini hem de bölgesel üretim geleneğiyle ilişkili bağlam içinde yorumlanmasını mümkün kılmıştır. Özellikle 1929 tarihli fotoğraf ve erken dönem kartpostal görselleri, yapının kat sayısı, cephe düzeni ve bazı mimari ayrıntılarının çözümlenmesinde kritik rol oynamıştır. Görsel belgeler ile kazı verilerinin karşılaştırılması, restitüsyona dair ölçüsel ve şekilsel yaklaşımların sağlam temellere oturtulmasına olanak sağlamıştır. Bölgedeki benzer sabunhane ve yağhane yapılarıyla yapılan karşılaştırmalar, bu yapının hem ortak mimari geleneklerle uyumlu olduğunu hem de özgün ayrıntılar barındırdığını ortaya koymuştur. Elde edilen veriler, sabunhanenin 19. yüzyılın ikinci yarısı ile 20. yüzyıl başları arasında inşa edildiğini göstermektedir. Bu sonuç, Ayvalık ve çevresindeki üretim yapılarının tarihsel sürekliliğini anlamaya katkı sağlamakta, yapıyı Cunda'daki nadir örneklerden biri olarak mimarlık tarihi açısından önemli kılmaktadır.

Anahtar Kelimeler: Ayvalık, Cunda, endüstri mimarisi, sabunhane

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Introduction

Since antiquity, the olive has been one of the most significant plant species in human history. Olive oil has played essential roles in nutrition, healthcare, industry, and illumination, while olive oil–based soap has been widely used in hygiene practices. Specialized facilities, olive oil mills and soap factories, play a significant role in the production of these commodities. Predominantly located in coastal regions where olive cultivation is concentrated, these structures have occupied a distinctive position within the urban fabric, both in terms of their architectural characteristics and functional roles. Over time, although these facilities have exhibited variations in scale and internal configurations in response to technological developments, they have emerged as significant industrial structures that complement the urban fabric.

In this context, the present study focuses on a soap factory located within the boundaries of Alibey (Cunda) Island in Ayvalık, which is understood to have collapsed during the 1944 earthquake. Based on the results of salvage excavations conducted in 2023, restitution projects, and historical visual materials, the study aims to present spatial and historical analyses of the building. Excavation findings, such as foundation traces, hearth remains, and structural elements belonging to the smokestack, indicate that the structure functioned as a soap factory, thereby contributing to grounding restitution and reconstruction proposals on a scientific basis.

In this study, excavation findings and historical visual materials were employed as primary sources, while analyses of other functionally similar structures in the region were used as secondary sources. In this way, the research aims both to identify the building's original architectural features and to evaluate it within the context of regional typology. The findings indicate that the soap factory can be dated to the late nineteenth and early twentieth centuries.

A Historical Overview of Ayvalık and Cunda

Ayvalık, a district of Balıkesir Province, is a settlement located in the northern part of the Aegean Region, surrounded by numerous small and large islets. In antiquity, the group of islands situated in front of Ayvalık (Kydonies) was referred to as "Hekatonnesoi / Hekatonnèsos" (Bayraktar, 1998, p. 11; Psarros, 2018, p. 3; Strabon, 2000, p. 157). The exact date and founder of Ayvalık remain unknown; however, before coming under Ottoman rule, the region was successively dominated by the Greeks, Ionians, Lydians, Persians, Romans, and Byzantines (Bayraktar, 1998, p. 12). By the end of the nineteenth century, Ayvalık was referred to in various sources as "Aivali," and at that time it held the status of a district (kaza) within the Karesi Sanjak (Cervati, 1891, p. 803).

Today, historical information regarding Cunda also known as "Alibey Island," one of the islands attached to Ayvalık is rather limited. It is known, however, that in antiquity Cunda, together with the other islands, was a Greek colony (Bayraktar, 1998, p. 11). Nevertheless, there is little available information about the region prior to the eighteenth century. Dimitrios Psarros, quoting the European missionary François Tarillon, who visited the area between 1700 and 1710, reports that at the beginning of the eighteenth century Cunda Island had a population equal to that of Ayvalık, with approximately 600 houses in each settlement (Psarros, 2018, p. 6). Between 1773 and 1922, the urban population of the region consisted almost entirely of Orthodox Greeks (Anastassiadou, 2012, p. 1). However, during the Greek War of Independence, the region suffered heavy damage, and in 1821 the settlements of Ayvalık, Cunda (Moschonisi), and Küçükköy (Yeni Tsarohori) were almost completely burned down. Reconstruction of the ruined settlements did not begin until after 1832 (Psarros, 2018, pp. 6–7).

In the 1889–90 editions of the *Annuaire Oriental du Commerce de la Turquie* (Eastern Trade Yearbooks), Cunda Island was recorded as a district of the Sanjak of Mytilene under the name "Mosco-nıssa." In these yearbooks, Cunda is also referred to with different variations such as *Mosconissa, Moskonissi,* and *Moschonissa* (Cervati, 1889–1890, p. 695; Cervati, 1891, p. 803; The Annuaire Oriental Limited**,** 1914, p. 1560). It is further noted that Cunda was the only inhabited island among the group of islets located in front of Ayvalık (Cervati, 1891, p. 837).

In the years following the outbreak of the First World War, the development of the region slowed down due to the Turkish–Greek conflicts (Psarros, 2018, p. 10). During the occupation of İzmir, the city of Ayvalık remained under Greek control until it came under Turkish sovereignty in 1922. As a result of the Lausanne Treaty signed in 1923, the Greeks who had lived in the area for many years were forced to leave Ayvalık through the population exchange. They were replaced by Turks resettled from Lesbos, Crete, Ioannina, Macedonia, and the interior regions of Anatolia (Bayraktar, 1998, p. 259). Among these Turkish exchangees, the majority of those arriving from Crete settled particularly on Cunda Island. Consequently, the demographic structure of the region underwent a profound transformation (Şahin Güçhan, 2018, p. 73)

Historical Background and Definition of Soap

Soap was initially used as a medicinal substance in the treatment of various diseases, but it later became essential for personal hygiene and has continued to be employed throughout history up to the present day. Historical sources indicate that the Gauls were the first people to use materials such as goat fat and wood ash as soap (Türkiye'de Sabun Sanayii, 1958, p. 9). The earliest evidence of soap production appears in Mesopotamian clay tablets dating back to 3000 BCE. Another reference is found in Sumerian tablets dated to 2200 BCE, which contain a medical prescription and describe the structural components of soap. Considering its composition, derived from the combination of plant ash and animal fat, and its simple production technique, it is plausible that soap existed long before these records (Konkol & Rasmussen, 2015, pp. 245, 256).

One of the earliest concrete pieces of evidence regarding soap production centers was discovered in the ancient city of Pompeii, during excavations from the Roman Empire period, where cooking cauldrons were unearthed. Due to its architectural features, the site is thought to have functioned as a soap factory. However, it remains uncertain whether soap was actually produced there. By the Byzantine period, soap-making had become an established craft, with soapmakers organized into guilds. Regulations from this period indicate a certain degree of standardization in production. The weight of soap bars was determined by decree, and each bar was required to bear a seal mark.

In the Middle Ages, soap was produced by boiling an alkaline solution prepared from olive oil, wood ash, and seaweed ash in cauldrons heated with steam. During this time, Marseille emerged as one of the most prominent centers of soap production. The industry spread from Marseille to Italy in the 12th century and later reached England in the 14th century. Although soap production still holds importance today, traditional methods have gradually been replaced by modern techniques in light of technological developments (Camuz, et al., 2015, pp. 12–13).

The modern definition of soap is the salt of a saturated or unsaturated fatty acid containing at least eight carbon atoms in its

hydrocarbon chain. Such soaps may consist of a single fatty acid salt or a mixture of these salts. Contemporary soap is a combination of alkaline salts and fatty acids (Konkol & Rasmussen, 2015, pp. 246, 256).

The raw materials used in soap production are highly diverse. The oils employed in the soap industry include both animal and vegetable sources: tallow from cattle and sheep, lard, bone fat, palm oil, olive oil, cottonseed oil, sunflower oil, coconut oil, palm kernel oil, and castor oil. Another group of raw materials consists of fatty acids such as olein, stearin, and soapstock. In addition, organic acids such as resin and naphthenic acids are also utilized.

The alkalis and electrolytes used in soap-making include sodium hydroxide (caustic soda), potassium hydroxide (caustic potash), sodium carbonate (soda ash), potassium carbonate, sodium chloride (salt), potassium chloride, sodium silicate (water glass), and complex phosphates. Furthermore, other organic substances such as Trilon A, Trilon B, and Tylos, which resemble complex phosphates, are added to enhance the foaming and cleansing properties of soap (Türkiye'de Sabun Sanayii, 1958, pp. 14–20).

An Overview of Soap Production in the Ottoman Empire

Soap production is possible through two methods: cold saponification and boiling saponification. The most common and oldest method is the boiling process. In the early periods, boiling was carried out by directly heating the cauldron with fire. In later periods, however, as a result of technological developments, boiling began to be achieved with steam. Nevertheless, most soap workshops, particularly those concentrated in Southern Anatolia, the Aegean region, and Istanbul, continued to operate with direct fire (Türkiye'de Sabun Sanayii, 1958, pp. 21, 24, 53). Traditional soap production consists of several stages, including the preparation of raw materials, boiling, casting, cutting, stamping, drying, and packaging (Çiftyürek, 2021, p. 33).

Although many different materials were used in soap production during the Ottoman period, the primary raw material was olive oil. Soaps produced from olive oil were also regarded as the highest quality (Öztürk, 2002, p. 1445). However, since the oil extracted from the first pressing of olives was more valuable and consumed as food, soap production generally relied on pomace oil (pirina oil), obtained from the second and third pressings (Çiftyürek, 2021, p. 33). The use of olive oil as a raw material for soap led to the concentration of soap workshops in regions where olive cultivation was abundant (Öztürk, 2002, p. 1445). Accordingly, during the Ottoman period, the islands of Lesbos and Crete, as well as Ayvalık, Edremit, Cunda, İzmir, and Urla, emerged as the main centers of soap production (Camuz et al., 2015, p. 14).

In the Ottoman Empire, soap was produced in small workshops called *sabunhane* (soap workshops) until the mid-19th century (Öztürk, 2002, p. 1444). With the Industrial Revolution that emerged in Europe in the 18th century, numerous technological innovations took place as steam power replaced fire, and factories appeared as a new building type. However, the effects of the Industrial Revolution reached the Ottoman Empire only in the 19th century. During this period, alongside small-scale soap workshops that relied on manual labor, large-scale soap factories powered by machinery also began to be established (Çiftyürek, 2021, p. 66).

This era also witnessed certain regulations concerning soap production. Each bar of soap was required to weigh 200 dirhams (641.4 grams), to bear a seal, and to display both the city of production and the name of the producing company (Öztürk, 2002, pp. 1446–1447).

In the Republican period, soap production continued to retain its importance within the industrial and development policies of the newly founded Turkish state. Soap factories were established in locations with easy access to raw materials, such as Ayvalık, Edremit, İzmir, Kilis, Gaziantep, and Istanbul (Çiftyürek, 2021, p. 66). Today, however, as most raw and auxiliary materials used in soap production are imported, proximity to raw materials has lost its significance in the site selection of new factories. Instead, strategies focus on addressing new challenges such as labor supply, energy provision, and logistics (Türkiye'de Sabun Sanayii, 1958, p. 61).

An examination of the architectural features of soap workshops reveals that they were generally constructed with masonry materials. These buildings were typically organized on two floors, with the ground floor containing the furnace, soap cauldron, storage, and service spaces, and the upper floor consisting of open areas without internal partitions where soap was poured, dried, cut, and stacked. Olive oil, the most important raw material of soap, was sometimes delivered from outside in barrels; however, in some workshops, a specific space was allocated for its production. In certain cases, the planning of these facilities also incorporated an independent olive oil mill within the structure of the soap workshop (Çiftyürek, 2021, pp. 33, 53).

The Production of Olive Oil and Soap in Ayvalık

When olive oil and soap production are examined specifically in the context of Ayvalık and Cunda, it becomes evident that, despite the changing social and demographic structure of these regions over time, these sectors have remained their most significant economic resource for centuries. From the 1880s onward, with the growth of production based on olives and their by-products, Ayvalık developed into an important commercial port (Şahin Güçhan, 2018, p. 73). In the 19th century, the northern region of İzmir, which included Ayvalık, was defined as the "olive region," and various countries, particularly the British, made significant investments there (Bayraktar, 1998, p. 23). By 1938, the city was known to host 18 olive oil factories and 13 soap workshops (Darkot, 1979, p. 78).

From the second half of the 19th century onward, in addition to the small-scale workshops producing soap, large factories combining soap and olive oil production were established in Ayvalık (Image 1). These factories were typically two to four stories high, rectangular in plan, and included various workshops and units, either attached to the main structure or located separately within the same courtyard. Powered by steam, the olive oil and soap factories were distinguished by their tall, cylindrical smokestacks constructed entirely of brick, which became a prominent feature of the city's skyline (Akın B., 2015, pp. 223–224).

Image 1.
Layout of factories in the urban plan of Ayvalık (Akın B., 2015)

The warehouse district located to the south of today's city center still exists despite various damages and transformations over time. With the relocation of soap and olive oil production outside the city, most of these buildings were left vacant. As can be seen from historical photographs, in the early 20th century the number of such production facilities exceeded twenty, and their tall smokestacks were striking features of the urban landscape. However, only a limited portion of them has survived to the present day (Şahin Güçhan, 2018, p. 103).

Soap Factory

The building is located in Balıkesir Province, Ayvalık District, Mithat Paşa Neighborhood (Cunda), at map section 41, block 1079, parcel 1, within the area designated as green space in the Ayvalık Conservation Plan dated January 22, 1984. The structure, which was damaged in the 1944 earthquake and subsequently entered into a process of accelerated demolition, is understood to have completely disappeared by the early second half of the twentieth century. In relation to its reconstruction, an application was submitted to the relevant authorities by restoration architect Hasan Esen Suda. In this petition, it was noted that an old photograph showed a soap and olive oil factory on the parcel in question, and that the term 'sabunhane (soap factory)' also appeared in the title deed records. The request was made to conduct excavations on the parcel in order to uncover the existing walls and, following registration and restoration, to reintegrate into the city what is considered to be one of the known soap and olive oil factories on Cunda (Image 2).

Image 2.

Parcel 1, Block 1079, prior to the excavation works

By the decision of the Bursa Regional Council for the Conservation of Cultural Heritage dated January 28, 2014, and numbered 2772, the municipality was requested to conduct excavations at the corners of the private parcel in order to identify building remains, and to submit the excavation results to the council together with measured drawings. In its subsequent decision dated January 16, 2015, the same council, based on the existing architectural traces and historical photographs, resolved that "within the framework of the architectural, historical, local, symbolic, documentary, functional, and memorial values of the soap factory building, it shall be registered as an immovable cultural property requiring protection in accordance with Law No. 2863; that it shall be designated as a Group II building under the conservation category; and that, in view of both its cultural property status and its historical contribution to the surrounding environment, a reconstruction must be unconditionally carried out within its original parcel, on the footprint of the former building, using its original façade characteristics, mass and scale, plan scheme, materials, and construction techniques, on the basis of a comprehensive restitution study."

The restitution project prepared for the immovable property was reviewed by the Bursa Regional Council for the Conservation of Cultural Heritage, and in its decision dated November 5, 2016, and numbered 6333, it was resolved that "the temporary iron construction on the property shall be removed; a detailed foundation excavation shall be conducted across the entire area to allow examination of the plan scheme, and the results shall be submitted to the council; the documentary evidence of the period examples cited in the restitution report shall be submitted to the council; and a detailed foundation plan scheme and restitution project, to be prepared in accordance with the restitution, shall be submitted to the council."

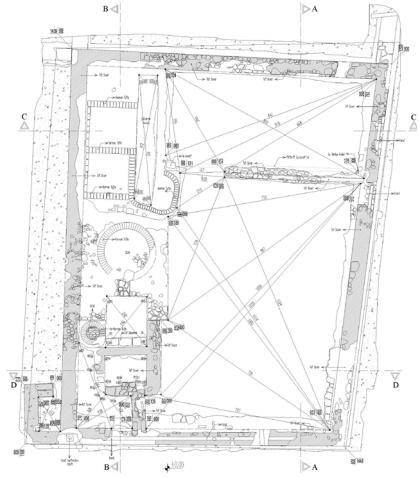
Based on the excavation foundation trace and research excavation report prepared by S. Alaca and F. Gürboğa, dated March 8, 2023, excavation works were carried out on Parcel 1, Block 1079, Sheet 41, covering an area of 187.87 square meters. The excavations began on February 7, 2023, and were completed on February 16, 2023. As stated in the excavation report, foundation remains with a nearly square rectangular plan oriented north–south were uncovered (Image 3). The west wall measured 15.46 m, the east wall 14.91 m, the north wall 12.60 m, and the south wall 12.90 m in length, with all walls having a thickness of 60 cm. The wall remains were constructed using rubble masonry technique with stone material, and traces on the wall surfaces indicated the use of wooden beams. As a result of the excavations, the architectural elements within the space conclusively revealed that the structure functioned as a commercial building serving as a soap factory (Figure 1).

Image 3.

View of Parcel 1, Block 1079, after the excavation works (Etap3 İnşaat Proje Ltd. Şti)

Figure 1.

Plan of the soap factory on Parcel 1, Block 1079 (Etap3 İnşaat Proje Ltd. Şti.)



The structural elements that formed the essential components of the soap factory, such as the basin and hearth, were located adjacent to the eastern wall. For this reason, the eastern façade was left blind. Based on the surviving traces, these units appear to have formed three adjoining groups. To the south, a basin measuring 4.81 × 0.71 m, with a depth varying between 29 and 47 cm, was uncovered. The interior was plastered with lime, and the ends were rounded. On the opposite side of the basin, a surface paved with stone and lime mortar was identified, divided into three sections by two rows of solid bricks (Image 4). It is likely that workshops, which have not survived to the present day, once stood here. Immediately to the west of the basin, a stone trough was uncovered. The water connection to this trough was provided by a channel consisting of terracotta pipes placed on a rubble-stone platform bonded with lime mortar and aligned in an east–west direction. These pipes, however, are now deformed (Image 4).

Image 4.

View of the basin (left); water channel oriented east-west (right) (Etap3 İnşaat Proje Ltd. Şti.)

On the eastern side, the foundational trace of a hearth likely the base where the cauldron was placed was uncovered on a rubble masonry podium 70 cm high. It was enclosed by double rows of bricks and set on a stone-paved floor. Circular traces were identified within a square area, indicating that the hearth opening faced north (Image 5).

Image 5.

Traces of the hearth base (Etap3 İnşaat Proje Ltd. Şti.)

In the northern area, walls extending in different directions and the channels between them are particularly noteworthy. Another striking feature in this area is the trace of a second hearth or smokestack located at the same level as the other hearth and adjoining the eastern wall. Within an approximately square-plan area, a circular hearth with a diameter of 1 m, constructed with two rows of bricks, was identified, with a small portion of its opening facing west (Image 6). In their detailed excavation report, S. Alaca and F. Gürboğa noted that this hearth was likely a later addition, based on its incompatibility with the first hearth (Alaca & Gürboğa, 2023, p. 6).

Image 6.

Remains of the secondary hearth adjoining the eastern wall (Etap3 İnşaat Proje Ltd. Şti.)

Discussion

Before the Industrial Revolution, oil mills that operated with traditional methods gradually began to take on the appearance of factories with the introduction of steam engines and presses (Manisa & Yerliyurt, 2018, p. 53). In regions engaged in olive cultivation, the architectural characteristics of facilities established for olive processing varied depending on the size and shape of the parcel on which they were located. Considering the transportation of raw materials and processed products by sea, these facilities were frequently situated along coastal areas. In the case of Ayvalık, olive oil and soap production increased rapidly from the nineteenth century onward. This growth was accompanied by a rise in population, yet it also accelerated the process of spatial separation between factories and residential areas (Akın B., 2015, p. 223). The modes of operation of these facilities also shaped their typologies.

The first type comprised establishments where olive producers paid the facility owner to press their olives. Since this arrangement required the olives to be stored separately without mixing, auxiliary units composed of distinct building blocks were constructed around the main structure. Such establishments were more common in rural areas.

The second type generally consisted of facilities founded by cooperatives, where hired laborers were employed. Unlike the first type, these complexes also included guesthouses or accommodation units.

In the third type, the factory owner purchased olives directly from producers and carried out production under his own name. These factories were usually larger in scale and often incorporated additional facilities, such as soap factories, within their complexes (Manisa & Yerliyurt, 2018, p. 59). Given their proximity to raw materials, soap factories were considered a subsidiary industry of olive oil factories. Depending on production capacity, both small- and large-scale soap factories existed. They were typically designed as at least two-story buildings covered with pitched roofs. Equipped with one or two cauldrons operated by direct firing, these structures relied on manual labor for soap production and thus displayed a simple and functional architectural character (Çiftyürek, 2021, p. 245).

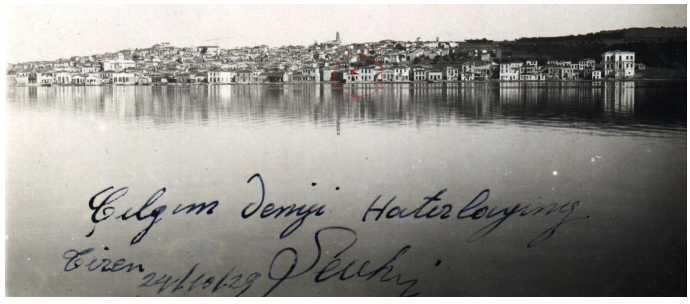
Based on the findings uncovered during the excavations carried

out at the corners of Parcel 1, Block 1079, a restitution proposal had previously been developed, taking into account the smokestack visible in a 1929 photograph included in the registration form, which appeared behind two buildings, one consisting of a ground floor and the other of a ground and first floor (Image 7). However, the data obtained from the comprehensive excavations conducted across the entire parcel in 2023 rendered this proposal invalid. It was understood that the building with a smokestack, identified as an oil mill and soap factory prior to the 1944 earthquake and which played a significant role in the registration of the site, was not related to the structure revealed in the excavations. The building with the smokestack in question was found to be located at a greater distance from the excavated structure. While the old photograph shows the smokestack on the western side of the building, the smokestack and furnace remains identified in the excavation area were located on the eastern side. Consequently, the archaeological data demonstrated that the building with the smokestack visible in the 1929 photograph actually belonged to a different oil mill. In this respect, it was concluded that the registration form should be updated and that this issue must be taken into account in restitution and reconstruction studies. (Alaca & Gürboğa, 2023, pp. 9- 12).

In the foundation trace investigations carried out in the area, the southern wall measuring 12.90 m, the eastern wall measuring 14.91 m, the western wall measuring 15.46 m, and the northern wall measuring 11.87 m, together with the foundation remains of the smokestack located on the eastern side of the structure and elements such as a pool, confirmed with certainty that this building functioned as a soap factory (Alaca & Gürboğa, 2023, p. 13).

Image 7.

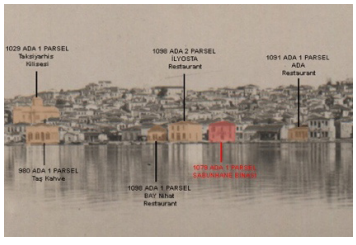
Photograph dated 1929 (Gülmez, p.8)



The location of the rectangular-plan building uncovered through the excavations was evaluated by comparing it with a photograph taken from approximately the same angle as the 1929 photograph (Image 8). In both photographs, the surviving buildings that have remained intact to the present day were cross-referenced, and as a result of this comparison, the position of the soap factory could be clearly identified in the 1929 photograph as well as in an earlier postcard (Image 9).

Image 8.

Soap factory and its surroundings in a 1929 photograph (left, detail from Image 7); pre-excavation view (right, Etap3 İnşaat Proje Ltd. Şti.)



The exact construction date of the factory, which is understood to have been standing before 1929, is not definitively known. A postcard image taken from approximately the same angle as the 1929 photograph contributes to the documentation of the building. A detailed comparison of the two images reveals no significant differences between them. It is generally accepted that the use of postcards in the Ottoman Empire became widespread after 1895 (Öztunç, 2020, p. 545). The postcard depicting Cunda from Tavuk Island dates to 1906 (Image 9). The black-and-white photograph, on the other hand, bears a note from 1929, suggesting that it was likely taken shortly before this date. The bricks uncovered during the excavations, believed to belong to the smokestack, exhibit similarities with those used in the surviving factory smokestacks and hearth structures of soap factories in Ayvalık and its surroundings, and they qualify as industrial bricks. This type of brick began to be produced intensively in Europe, particularly after the 1840s, with the widespread use of mechanical brick machines. Comparable examples were also manufactured in Ottoman territories during the nineteenth century, with production peaking in the last quarter of the century (Mutlu & Başaran Mutlu, 2020, p. 71).

Image 9.

Postcard depicting Cunda from Tavuk Island (left); detail of the postcard (right) (Wikimedia Commons, retrieved September 19, 2025)

Based on this information, it can be suggested that the soap factory was constructed between the second half of the nineteenth century and the early twentieth century. The available evidence indicates that the building was largely damaged during the 1944 earthquake. Furthermore, an aerial photograph from the 1960s shows that the soap factory, along with the surrounding buildings, had completely disappeared (Image 10).

Image 10.

Aerial photograph taken after the earthquake (Gülmez, p. 8)

In the subsequent period, a restaurant was constructed on the parcel where the soap factory had once stood; however, this building was also demolished in 2008. Prior to 2023, partial excavation works carried out on the parcel revealed foundation remains, which were covered with wooden planks, and a container was placed on top, allowing the parcel to be used as a tea garden.

In the comprehensive excavations conducted in February 2023, the foundations of the rectangular-plan building were uncovered. However, since the remains survived only at the foundation level, no traces of openings (such as doors or windows) were identified. For this reason, the existing architectural data proved insufficient for developing a restitution proposal of the building.

While the architectural findings allowed for a complete interpretation of the wall foundations within the parcel, as well as ground-floor units such as the pool and the hearth, they did not provide reliable evidence regarding structural elements such as doors, windows, upper floors, or the roof. The most significant visual sources for restitution are a postcard dated to the early 20th century and a black-and-white photograph inscribed with "1929." Although there are no substantial differences between these two images, both taken from approximately the same angle, they are significant for making inferences about the southern and eastern façades of the soap factory.

As can be observed in the historical photograph and engraving, the building, consisting of a ground floor and one upper floor, had a symmetrical arrangement on its southern (seaside) façade. On the ground floor, there was a wide rectangular entrance opening in the center, flanked by rectangular windows on either side. On the upper floor, directly above the ground-floor entrance, a narrower doorway with an associated balcony can be discerned. In addition, a pair of windows aligned with the lower ones were also located on this level. The building was roofed with a hipped structure.

Numerous soap and olive oil factories are known to have existed in Ayvalık and its surroundings, though only a few examples have survived to the present day. A careful examination of these buildings, some of which have been discussed in previous publications, reveals that soap and olive oil factories shared certain common architectural characteristics.

In general, door and window openings were framed with architraves. Building corners, as well as door and window architraves and cornice moldings, were constructed with finely cut stone or brick, while the main walls were built of roughly dressed stone. Entrance openings were typically closed with double-leaf doors.

In some examples, balconies were placed on the upper floor, supported by ornamental iron brackets. In factories roofed with gable structures, the triangular pediment formed by the roof lent the building a neoclassical appearance. In other examples, hipped roofs were preferred.

In two-story buildings, the upper floor was constructed with a wooden covering supported by wooden beams. On the ground floors, the flooring was typically made of *sarımsak taşı* (a locally sourced limestone characteristic of the region). The wooden beam roof structure was designed in such a way that it remained visible from the interior.

An evaluation of the foundation remains uncovered during the salvage excavations conducted in the area of the now-absent building indicates that the structure occupied the parcel in its entirety. The construction material of the building cannot be clearly identified from historical photographs and postcards. While the color tones in the postcard suggest the possibility that the building may have been plastered, no definitive conclusion can be drawn in this regard. An examination of other commercial soap factories in terms of construction materials reveals that roughly dressed stone, rubble stone, finely cut stone, and brick were commonly used. During the Republican period, however, the easier accessibility of cement and iron resulted in the replacement of traditional construction materials with reinforced concrete systems. Brick, in particular, was widely employed as a construction material for smokestack, hearths, walls, and window arches in some soap factories. Wooden material, on the other hand, was used in staircases and ceilings.

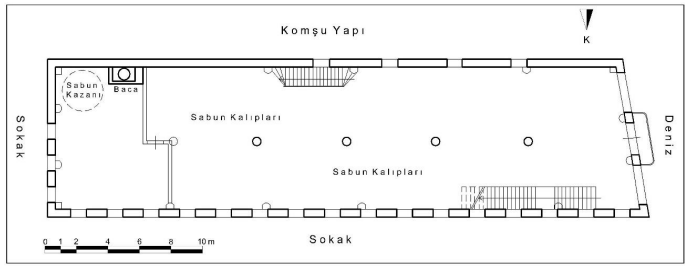
A review of both soap and olive oil factories in Ayvalık, as well as other commercial buildings in the immediate vicinity of the parcel, indicates that they were typically constructed using roughly dressed stone in combination with finely cut stone. Furthermore, the foundation remains unearthed during the excavations confirm that the masonry of the walls was formed with rubble stone and roughly dressed stone. For the hearth and smokestack, as in comparable examples, brick was most likely the preferred material.

Soap factories were shaped according to the location of the parcel on which they were constructed and can be classified into three main groups in terms of their plan characteristics. The first group comprises factories where different units are arranged around a shared courtyard. The second group consists of those with an inner courtyard, while the third group encompasses factories designed without a courtyard (Çiftyürek, 2021, p. 250). Considering both its foundation plan and its position relative to surrounding buildings as seen in historical photographs, the soap factory located on Parcel 1, Block 1079 should be categorized among courtyardless factories. Such factories are directly connected to the street. The rectangular-plan building contained entrance openings at both of its narrow ends, providing access to the interior. Whether with or without courtyards, soap factories were generally designed with rectangular plan schemes. In cases where the building consisted of a combined olive oil mill and soap factory, similar plan layouts are observed. In some examples, however, an "L"-shaped plan scheme can also be found.

Soap factories were most commonly built as two-story structures. For instance, the Erman Soap Factory in Ayvalık has a rectangular plan (Figure 2). However, its seafront façade is irregular due to the position of the parcel. The building contains entrance openings on both the street and seafront façades. On the ground floor, the soap cauldron and furnace are located in the corner of the building, while the upper floor served as the soap casting hall, where a greater number of openings were provided (Çiftyürek, 2021, p. 75; Çiftyürek & İnce 2023, pp. 156-161).

Figure 2.

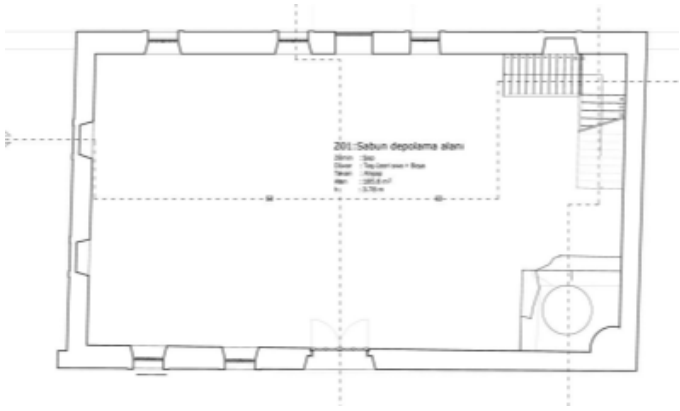
The plan of the Erman Soap Factory in Ayvalık (Çiftyürek 2021)



The Hüsnü Tolun Soap Factory in Burhaniye also has a rectangular plan (Figure 3). Due to its location within a larger courtyard, the entrances are placed along the longer sides of the building. The soap cauldron is located in the corner. The upper floor served as the casting hall, where the number of window openings was greater compared to the ground floor (Akın D., 2014, pp. 30–31).

Figure 3.

Ground floor plan of the Hüsnü Tolun Soap Factory in Burhaniye (Akın, D., 2014)

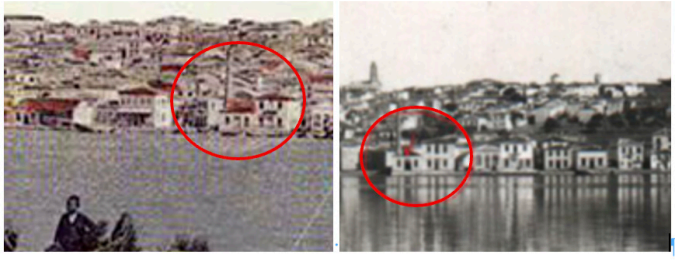


The Ali Rıza Köroğlu Soap Factory in Edremit, which consisted of an olive oil mill, a soap factory, numerous storage spaces, and a courtyard, also featured a rectangular plan. Access to the building was provided through the courtyard and storage sections. On the ground floor, a divided space functioned as an oil storage area, while the section allocated for soap production contained the soap cauldron and the caustic soda pool. The upper floor was entirely used as the soap casting hall (Çiftyürek, 2021, p. 115).

Although it has not survived to the present day, another olive oil mill–soap factory complex located in Cunda clearly reflected the regional plan typology, as seen in an old photograph. This building, oriented along the north–south axis, was designed with a rectangular plan and consisted of two stories (Image 11).

Image 11.

View of the olive oil mill–soap factory located further east in Cunda (detail from Image 7 and 9)



Similarly, the Soap Factory located in the 150 Evler District of Ayvalık also features a rectangular plan. Due to the building's considerable width, wooden support columns were incorporated on the ground floor. Access to the interior of the factory was provided through two openings in the garden. Windows were positioned on both of the narrow façades, while the upper floor was used as the soap casting hall, containing a greater number of openings compared to the ground floor (İgüs, 2022, p. Figure 10). A similar rectangular layout is observed in the Trilye Olive Oil Mill and Soap Factory. According to the restitution proposal, the ground floor contained the soap-boiling furnace and cauldron, with the cauldron's opening located on the first floor. The first floor served as the production area, where soap was poured into molds, cut, and dried. Unlike the olive oil mill, the soap factory furnace possessed a separate smokestack (Acar Bilgin, 2015, pp. 102, 140). Accordingly, the plan reconstructed on the basis of foundation remains uncovered during the excavation exhibits significant similarities to other soap factory layouts in the region through its rectangular form.

Although the complete destruction of the building following the earthquake prevents direct assessments of its interior layout, the excavated remains clearly indicate that the site belonged to a soap factory, as also emphasized in the excavation report. Soap and olive oil factories, shaped by their functional requirements, display highly straightforward plan schemes and interior arrangements. Structural elements such as pools, furnaces, smokestacks, and staircases are found in nearly all examples, yet their exact placement does not follow a standardized pattern.

In soap-production facilities, the ground floor was typically reserved for furnaces, soap cauldrons, and pools, while the upper floor was arranged as the production area where liquid soap rising from the cauldrons was poured into molds. In factories combining both olive oil production and soap-making, two structures with similar layouts were constructed adjacently in direct connection with one another. Among these, the two- or three-story building was generally designated as the soap factory. Therefore, the foundation-level remains identified in Parcel 1, Block 1079, provide significant insights into the ground-floor organization of the now-lost building.

The eastern section of the building was dedicated to furnace and pool functions. Indeed, at the foundation level of this area, a water channel constructed with terracotta pipes placed on a rubble-stone and lime-mortar platform was uncovered, extending in an east–west direction to supply the pools with water. This feature grants the structure a distinctive position among comparable examples. In addition, adjacent to the pools on the eastern side was a stone basin intended for water use. However, no findings indicative of a fountain or similar installation were identified.

Examination of the ground-floor foundations further suggests that the traces south of the furnace likely belonged to tanks for olive pomace and soap oil. Additional insights regarding the architectural components of soap factories can be drawn from an 1871 document, which specifies that a soaphouse was required to include a pool, furnace, cauldron, compartments for cooling liquid soap drawn from the cauldrons, and a smokestack (Çiftyürek, 2021, pp. 65–66). Accordingly, it is possible to conclude that the structure in Parcel 1, Block 1079 fully incorporated these essential features.

Analysis of soap factory plans demonstrates that no standardized location existed for the furnaces supporting the cauldrons. Constructed of either brick or stone, the furnaces were most frequently placed along the side walls or at the corners (Image 12). For instance, in the Fazıl Doğan Soap Factory in Ayvalık, the Eminzade Soap Factory in Havran, and the Küçükkuyu Burnaz Soap Factory in Ayvacık, double furnaces were positioned along the narrow side; in the Ali Rıza Karagözoğlu Soap Factory in Edremit, the Hüsnü Tolun Soap Factory in Burhaniye, the Ali Aday Soap Factory in Ayvalık, and the Yağcı Soap Factory in Burhaniye, they were located at the corners of the narrow side. In the Urla Soap Factory, however, the furnace was situated along the long side (Çiftyürek, 2021). As these examples illustrate, the brick furnace remains uncovered during the excavations in Parcel 1, Block 1079 exhibit similarities with the furnace placements observed in surrounding soap factories. In the reconstruction of the building, it is therefore of great importance to preserve the original architectural elements of the ground floor, particularly the pools, furnace, and channel located in the eastern section.

Image 12.

Examples of soap factory furnaces in the region (Akın, D., 2014; Çiftyürek, 2021).

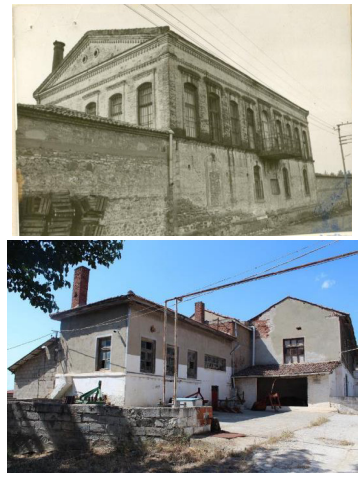
When the smokestacks of olive oil mills, which constitute one of the fundamental elements of such facilities in Ayvalık, are examined, it is observed that their base diameters range between 2.50 m and 2.90 m and that all of them were constructed with brick material. In terms of dimensions, they differ from soap factory smokestacks. These smokestacks exhibit a conical plan, tapering upwards, while most of their bases are cylindrical in form, and their placement may vary. In some examples, the smokestack is positioned outside the building (Akın, D., 2014, p. 44), whereas in others it is located within the structure (Yıldız, 2017, p. 58, Image 19; Pulant, 2019, p. 58).

The smokestacks of the furnaces located near the eastern wall of Parcel 1, Block 1079, have not survived to the present day. A review of preserved examples in the vicinity shows that in the Hüsnü Tolun Soap Factory in Burhaniye, smokestacks were constructed along the wall against which the furnace was placed (Akın, D., 2014, p. 43, Figure 5.2). Similarly, the smokestack in the Yağcı Soap Factory in Burhaniye is cylindrical in form, like that of the Tolun Soap Factory (Çiftyürek, 2021, p. Fot.108). In contrast, the smokestacks of the Pelitköy Soap Factory in Burhaniye (Çiftyürek, 2021, p. Fot.257) and the 150 Evler Soap Factory in Ayvalık (İgüs, 2022, p. Image 17) rise above the roof with a square section. Built entirely of brick, these smokestacks are smaller in scale than the tall cylindrical smokestacks of olive oil mills (Image 13).

The smokestack of the soap factory on Parcel 1, Block 1079, cannot be clearly identified in historical photographs. However, it is likely that the smokestacks of this building were not the large, wide-sectioned smokestacks characteristic of oil mills but instead square-sectioned, smaller ones. In the reconstruction process of the building, such smokestacks should be incorporated along the eastern wall in a manner consistent with comparable examples, thereby underscoring the soap factory function of the structure.

Image 13.

Smokestacks of the Hüsnü Tolun Soap Factory in Burhaniye and the Pelitköy Halil İbrahim Selçuk Soap Factory (Çiftyürek, 2021)



When examining examples of soap factories in the region, one of the significant elements encountered on the ground floor is the administrative office unit. The continuous functional transformations of soap factories over time have prevented the preservation of their interior layouts in their original form. Since only the foundation level of the building on Block 1079, Parcel 1 has survived, it is difficult to determine the precise location of the office section. However, based on nearby examples, it can be observed that offices were generally positioned to the right or left of the entrance on the street-facing façade (Image 14).

Image 14.

Office section of the Bademli Araser Olive Oil Factory (Akın, D., 2014)

Given the presence of vat rooms along the eastern wall of Parcel 1, Block 1079, it is likely that the office or sales unit was located in the northwestern corner. An examination of existing examples indicates that office units were generally constructed with wooden materials. Accordingly, it is highly probable that the administrative office of the soap factory in Parcel 1, Block 1079, was originally built entirely of wood.

In most soap factories, which were predominantly organized as ground floor plus one story, access to the upper floor, used as the soap casting and cutting area, was provided by a wooden stair-

case located on the ground floor (Image 15). The position of the wooden staircase typically varied depending on the placement of the cauldrons on the ground floor. Additionally, the location of the entrance openings also influenced the positioning of the staircase. When the entrances were located on the narrow façade, staircases were usually placed along the side walls, whereas when the entrance was on the long façade, the staircase was placed on the narrow side. Another consideration in staircase placement was to avoid creating excessive partitioning on the upper floor, which often led to positioning the staircase along the edges.

From an interior design perspective, in some cases, such as the Burhaniye Yağcı Soap Factory (Lim, 1997, Figure A26) and the Burhaniye Hüsnü Tolun Soap Factory (Akın, D., 2014, p. 30, Figure 4.6), the staircases were placed opposite the soap cauldrons. In others, such as the Ayvalık Fazıl Doğan Soap Factory (Çiftyürek, 2021, p. 344, Figure 33) and the Cömertler Soap Factory (Çiftyürek, 2021, p. 347, Drawing 39), they were positioned on the same side, close to the cauldrons. It is understood that the staircases providing access to the upper floor were generally constructed of wood. In the soap factory located on Parcel 1, Block 1079, however, the placement of a wooden staircase along the eastern façade, where cauldrons and vat rooms were located, appears structurally and functionally implausible. Based on comparable examples, it is more likely that the staircase was situated on the western façade, immediately adjacent to the administrative office.

When examining soap factory buildings from the Ottoman and Early Republican periods, it is observed that the load-bearing walls were constructed using masonry techniques with stone or brick materials. The floors and ceilings of the upper stories were typically made of timber (Image 16). In almost all soap and olive oil factories, which were predominantly designed with rectangular plans, whenever the width exceeded approximately five meters, the wooden flooring of the upper story was frequently reinforced by a single row of support elements on the ground floor. By contrast, in the upper floors where the processes of soap casting, cutting, and drying were carried out, such vertical supports were rarely employed, so as not to obstruct the working space (Çiftyürek, 2021, p. 253).

Image 15.

Examples of wooden staircases from soap factories in the region (Akın D., 2014; Acar Bilgin 2015)

In addition to timber supports, particularly during repairs undertaken in the Republican period or in some constructions from the early stages of that era, the structural systems were also built in reinforced concrete or brick. In the Ali Aday Soap Factory in Ayvalık, the ground-floor supports were constructed of brick (Akın, B., 2014, p. 105). In the Erman Soap Factory (Çiftyürek, 2021, p. 440) and the Cömertler Soap Factory (Çiftyürek, 2021, p. 465), the supports were made of reinforced concrete. In contrast, the olive oil storage unit of the Ertemler Soap Factory in Ayvalık (Çiftyürek, 2021, p. 470), the Eminzade Soap Factory in Havran (Çiftyürek, 2021, p. 479), and the Fevzipaşa Neighborhood Soap Factory in Ayvalık (Çiftyürek, 2021, p. 460) featured timber supports on the ground floor.

In soap factories with timber supports and ceilings, the ceiling of the ground floor was generally constructed in an inverted-ceiling arrangement, while in the upper floor, flat ceiling applications can be observed in some examples.

Image 16.

Ground floor of the Ertemler Olive Oil Factory and view from the first floor of its soap factory in Ayvalık (Çiftyürek, 2021)

When compared with similar structures, the soap factory located on Block 1079, Parcel 1 can be classified within the group of soap factories characterized by wooden supports and ceilings. In this context, it is likely that the ground floor featured a reversed wooden ceiling system resting on a single row of wooden supports. The upper floor, when evaluated in light of comparative examples, must have been designed with a wooden flooring system suitable for the placement of soap molds used in cutting and drying processes.

An examination of soap and olive oil factories reveals that these rectangular-plan structures were generally constructed with two distinct roof types (Image 17). The width of the building played a significant role in determining the roof form. The most common type was the gable roof, frequently employed in Ayvalık and its surroundings for commercial buildings. The gable form allowed for the creation of triangular pediments on the narrow façades of the building, thus imparting a neoclassical appearance to the exterior. The other type was the hipped roof, which is observed in certain examples. Notable cases of this latter type include the Hüsnü Pazarbaşı and Yağcı Soap Factories in Burhaniye, as well as the Ertemler, Fevzipaşa Neighborhood, Hulisi Zarplı, and Nusret Dervent factories in Ayvalık, along with the Gümüşlü Eminzade complex (Çiftyürek, 2021).

Image 17.

Madra Olive Oil and Soap Factory in Ayvalık (left); Halil İbrahim Selçuk Soap Factory in Pelitköy, Burhaniye (right, Çiftyürek, 2021)

The roof system of the soap factory located on parcel 1, block 1079, which has not survived to the present day, is identified in historical photographs and postcards as a hipped roof, consis-

tent with the examples discussed above. The same roof form can also be observed in many houses on Cunda Island. Furthermore, the same photograph reveals that another olive oil–soap factory complex, situated to the east and likewise no longer extant, had its olive oil mill section also covered with a hipped roof.

Façade Characteristics

Since the wall remains of the structure have survived only at the foundation level, it is not possible to determine the exact width of the entrance openings. However, a drawing likely dating to the early 1900s, together with a photograph dated 1929, provide important information regarding the southern façade of the north–south oriented rectangular-plan building.

In these visual sources, a central entrance opening is observed on the ground floor, flanked on either side by vertically rectangular windows. On the upper floor, a balcony aligned with the entrance and accessible through a doorway is visible, accompanied by two additional windows positioned in line with the ground-floor windows.

Considering the presence of furnaces and pools on the eastern side of the ground floor, no window openings are expected in this direction. Comparative analysis with similar regional examples indicates that, unless the soap factory building was directly adjacent to another structure at the second-floor level, both of its longitudinal façades typically featured multiple window openings.

Indeed, an older photograph shows that to the east of the soap factory on parcel 1, block 1079, there existed an adjacent building of the same height and order. Consequently, the eastern façade contained no upper-floor window openings. The ventilation and lighting necessary for the rapid drying of soap poured into molds were instead provided through windows on the northern, southern, and western façades.

Direct information about the arrangement of the northern and western façades is unavailable, as the surviving visual sources were all taken from the seaside perspective. Nevertheless, since no adjacent structure existed on the western façade, it is reasonable to assume that window openings were also present there.

Comparative evidence from other soap and olive oil factory buildings allows for further inferences regarding façade arrangements. Where the factory was not located within a courtyard or adjacent to olive oil mills and storage units, entrance openings were generally placed on the short side of the rectangular plan. On either side of these entrances were windows, while the upper floors typically featured a balcony aligned with the entrance and flanked by one or more windows.

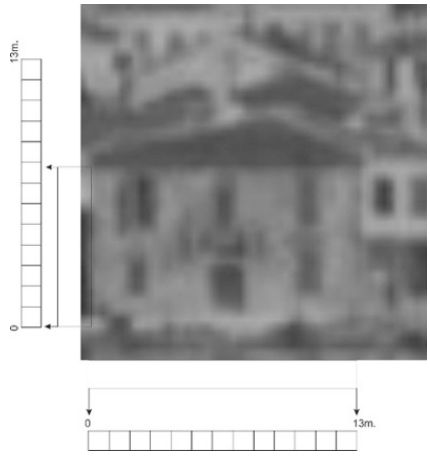
The soap factory on parcel 1, block 1079, likewise demonstrates this short-side arrangement with a central doorway flanked by windows. Such façade compositions are common in single- and two-story olive oil mills, soap factories, and other commercial buildings in Ayvalık and its surroundings. Examples include the soap factory in Fevzi Paşa District (Çiftyürek, 2021, p. 346), the Madra Oil Plant (Efe et al., 2013, p. 46), and Ali Onay's Shop in Cunda (Erdem et al., 2007, p. 93, Figure 8).

The two-story section of another olive oil–soap factory, located further east and clearly visible in the 1929 photograph, displays façade and roof arrangements similar to those of the soap factory on parcel 1, block 1079. Excavation data reveal that while vat rooms were located on the eastern side of the ground floor, no furnaces or workshops were built adjoining the northern façade. Given that the northern façade also faced a street lined with shops, it is plausible that it exhibited a similar arrangement to the southern façade.

When the 1929 frontal photograph is compared with the foundation measurements of the southern (seaside) façade, approximate dimensions of the elevation can be established. The height to the eaves is estimated at approximately 7.50–8.00 meters (Image 18).

Image 18.

Scaled version of the photograph (Detail from Image 7)



The scaling indicates that the doorway of the building measured approximately 1.40–1.60 m in width and around 3.00 m in height, including the overdoor window. The calculations reveal that a proportional relationship of approximately 1:2 was maintained in the window openings. An examination of the façades of the surrounding buildings within the parcel, as well as comparable structures in Ayvalık, demonstrates that these proportions were consistently repeated and that the dimensions were strikingly similar (Image 19). In these examples, it is notable that the upper boundaries of door and window jambs terminate on the same horizontal line, and that overdoor windows were frequently placed above the doorways.

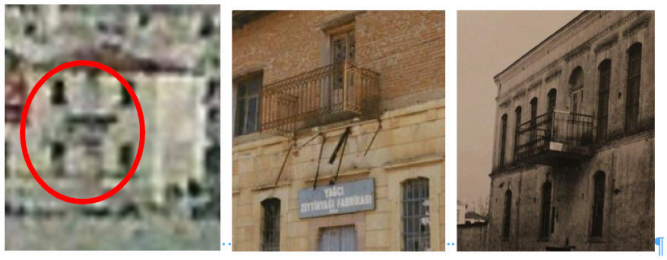
Image 19.

Examples of window designs with a 1:2 proportion from Cunda

The entrance opening located on the upper floor of the southern façade of the building indicates the presence of a balcony, which is clearly visible in the postcard. An examination of the surrounding buildings within the parcel shows that balconies were equipped with wrought-iron railings and supported by decorative iron consoles (Image 20). Comparable examples of wrought-iron balconies can also be observed in other soap factory buildings.

Image 20.

A soap factory located further east in the same postcard depicting Cunda, and examples of balconies from surrounding soap factories (Detail from Image 9; Akın, D., 2014; Çiftyürek 2021)



Based on the available data, and considering together the excavation findings, historical photographs, and the surrounding soap factory structures, it may be inferred that the soap factory building under examination which has not survived to the present day was designed with a rectangular plan oriented along the north–south axis and consisted of a single story above the ground floor (Figures 4,5). On the east side of the ground floor, vat rooms containing smokestacks and boilers, as well as a wooden staircase providing access to the upper floor, were located. The north and south walls of the ground floor featured door openings and windows, while the west wall included only windows. The wooden flooring of the upper story was specifically designed for soap casting. While the eastern façade lacked openings, the other elevations followed a design similar to that of the ground floor. On the seaside façade, a balcony was also present. The building was reconstructed between 2024 and 2025 (Image 21).

Figure 4.

The ground floor restitution plan of the soap factory (Etap3 İnşaat Proje Ltd. Şti)

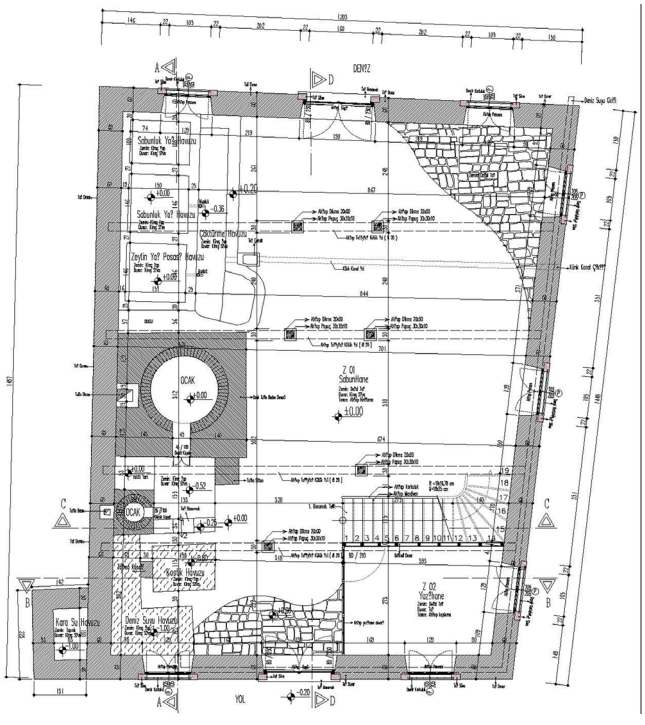


Figure 5.

The first-floor restitution plan of the soap factory (Etap3 İnşaat Proje Ltd. Şti)

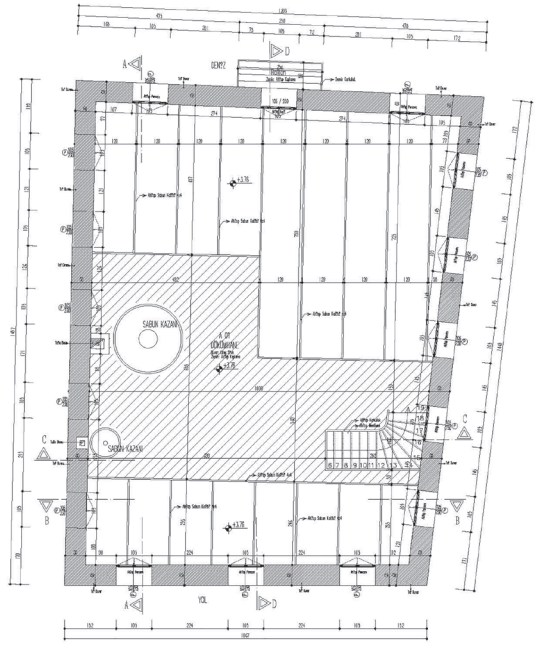


Image 21.

Present-day general view of the reconstructed soap factory, repurposed as restaurant. (Hanya Cunda Restaurant Official Website, Retrieved: September 19, 2025)

Conclusion

This study has sought to examine, in a comprehensive manner, the architectural identity of the soap factory located on Cunda Island, Ayvalık, which is understood to have collapsed following the 1944 earthquake, with the aim of contributing to its restitution process. The physical remains revealed during the excavations including foundations, traces of hearths, and plastered basins have provided tangible evidence of the spatial layout supporting the building's function as a soap production facility. These findings demonstrate that the structure belonged to an industrial establishment dedicated to soap manufacture. Both its surviving architectural elements uncovered during excavation and its documented appearance prior to destruction indicate that the building conformed to the typology of soap factories of the period, characterized by a rectangular plan, two stories (ground floor plus one), hipped roof, and smokestack.

The photographic and postcard evidence from 1929 employed in this study has played a crucial role in clarifying the building's

number of stories, façade arrangement, and certain architectural details. When assessed together, the visual sources and excavation data have allowed the restitution to be grounded in as much scientific accuracy as possible in terms of dimensional and formal approaches. Furthermore, typological comparisons with similar soap factories and olive oil mills in the region reveal that this structure represented an example that was both distinctive within the industrial heritage of Ayvalık and consistent with local architectural traditions. Its significance is further underscored by the fact that, apart from those in central Ayvalık, this was among the rare known examples of such soap factory buildings on Cunda Island.

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References

Acar Bilgin, E. (2015). *19. yüzyıl endüstri yapılarının kültürel miras olarak değerlendirilmesi: Trilye'de zeytinyağı fabrikası restorasyon projesi* (Tez No: 426016). [Yüksek Lisans Tezi, Bursa Uludağ Üniversitesi]. YÖK Tez Merkezi. https://tez.yok.gov.tr/UlusalTezMerkezi/tezDetay.jsp?id=e7szofvm8KxAl7CMHtaBiw&no=AJxwVmNp5FuFsiv6NGiz4A

Akın, B. (2014). *Osmanlı'nın son dönemlerinde Ayvalık ve yakın çevresinde endüstri ve ticaret yapıları* (Tez No: 384038). [Doktora Tezi, Çanakkale Onsekiz Mart Üniversitesi]. YÖK Tez Merkezi. https://tez.yok.gov.tr/UlusalTezMerkezi/tezDetay.jsp?id=6DxPazVaaChsLeaphaXH8w&no=17fmghBNmu_xv0pHtZQYDw

Akın, B. (2015). *Bir kentin kimliği: Ayvalık zeytinyağı ve sabun fabrikaları. IV. In Türkiye Lisansüstü Çalışmalar Kongresi Bildiriler Kitabı-1* (Kütahya, 14–17 Mayıs 2015). İlmi Etüdler Derneği (İLEM).

Akın, D. (2014). *Burhaniye Hüsnü Tolun zeytinyağı fabrikası koruma projesi* (Tez No: 363625). [Yüksek Lisans Tezi, Çanakkale Onsekiz Mart Üniversitesi]. YÖK Tez Merkezi. https://tez.yok.gov.tr/UlusalTezMerkezi/tezDetay.jsp?id=KdNBr0pLa0LtgaT5h8NR9Q&no=8hOUmBXBX1IBE4uwv_6PUQ

Alaca, S., & Gürboğa, F. (2023). *Alibeyköy (Cunda) 1079 ada 1 parsel kurtarma kazısı raporu* [Unpublished excavation report].

Anastassiadou, M. (2012). Quitter Ayvalik/Kydonies et ses oliviers: regards sur une société de l'entre-deux. *Jeunes-Turcs en Macédoine et en Ionie,* (40). https://doi.org/10.4000/ceb.958

Bayraktar, B. (1998). *Osmanlı'dan Cumhuriyet'e Ayvalık tarihi*. Atatürk Kültür, Dil ve Tarih Yüksek Kurumu, Atatürk Araştırma Merkezi.

Camuz, D., İpekoğlu, B., & Böke, H. (2015). *Tarihi Osmanlı sabunhaneleri: Antakya Kuseyri Sabunhanesi'nin mimari özellikleri ve koruma sorunları.* Kârgir Yapılarda Koruma ve Onarım Semineri VII Bildiri Kitabı. İstanbul Büyükşehir Belediyesi, Kültür Varlıkları Daire Başkanlığı, Koruma Uygulama ve Denetim Müdürlüğü (KUDEB).

Cervati, R. C. (1889–1890). *Annuaire Oriental du Commerce de l'Industrie, de l'Administration et de la Magistrature.* Constantinople: Cervati Frères & Cie. https://archives.saltresearch.org/handle/123456789/2914

Cervati, R. C. (1891). *Annuaire oriental (ancien Indicateur oriental) du commerce, de l'industrie, de l'administration et de la magistrature 1891.* Constantinople: Imprimerie Générale.

Çiftyürek, M. (2021). *Türkiye'de sabunhaneler* (Tez No: 670497). [Doktora Tezi, Pamukkale Üniversitesi]. YÖK Tez Merkezi. https://tez.yok.gov.tr/UlusalTezMerkezi/TezGoster?key=8tbPippmWV_b-Irrn9YEAvQ1jEUtbt3widos1AsACAwod-zkFtadSP9jnRvzRxw3

Çiftyürek, M. & İnce, K. (2023). Antakya'da bulunan Selahattin Ökten Sabunhanesi ve sabunhane plan tipolojisi üzerine bir değerlendirme. Art-Sanat, 19, 133-167. https://doi.org/10.26650/artsanat.2023.19.1106544

Darkot, B. (1979). Ayvalık. In *İslam Ansiklopedisi* (Vol. 2, p. 78). Milli Eğitim Basımevi.

Efe, R., Soykan, A., Cürebal, İ., & Sönmez, S. (2013). *Edremit yöresi yağhaneleri: Geçmişten günümüze zeytin, zeytinyağı ve sabun sanayii*. Anadolu Grubu.

Erdem, A., Özakın, R., & Yergün, U. (2007). Ayvalık (Balıkesir) Alibey/Cunda Adası kentsel mimarlık envanteri 2005–2006. *TÜBA Kültür Envanteri Dergisi, 6,* 77-97.

Gülmez, M. (n.d.). *Mithatpaşa Mahallesi 1079 Ada 1 Parsel sanat tarihi raporu* [Unpublished report].

İgüs, E. (2022). The soap factory building: An example of industrial heritage in Ayvalık. *Cedrus, 10*, 419–436. https://doi.org/10.13113/CEDRUS.202223

Konkol, K. L., & Rasmussen, S. C. (2015). An ancient cleanser: Soap production and use in antiquity. In S. C. Rasmussen (Ed.), *Chemical Technology in Antiquity* (pp. 245-266). American Chemical Society. https://doi.org/10.1021/bk-2015-1211.ch009

Lim, R. (1997). *Burhaniye'de Yağcı Zeytinyağı Fabrikası restorasyonu* (Tez No: 66642). [Yüksek Lisans Tezi, İstanbul Teknik Üniversitesi]. YÖK Tez Merkezi.

Manisa, K., & Yerliyurt, B. (2018). Batı Anadolu'da eski zeytinyağı işlikleri ve mimari özellikleri. *TÜBAKED, 17*, 49–61. https://doi.org/10.22520/tubaked.2018.17.003

Mutlu, S., & Başaran Mutlu, M. (2020). Haydar Paşa kazılarında ele geçen 19. ve 20. yüzyıl damgalı tuğlaların arkeolojik değerlendirmesi. *TÜBAKED, 22*, 67–91. https://doi.org/10.22520/tubaked.2020.22.005

Öztunç, H. B. (2020). Osmanlı döneminde kartpostal kullanımı ve yasaklı kartpostallar. *Türkiyat Araştırmaları Enstitüsü Dergisi, 67,* 541–561. https://doi.org/10.14222/Turkiyat4274

Öztürk, S. (2002). Osmanlı Devleti'nde sabun sanayi. In *Türkler Ansiklopedisi* (Vol. 10, pp. 1444–1463). Yeni Türkiye Yayınları.

Psarros, D. (2018). Kydonies: Ayvalık'ın kentsel tarihi. In N. Ş. Güçhan (Ed.), *Ayvalık: Kent Tarihi Çalışmaları* (pp. 3-13). Balıkesir Büyükşehir Belediyesi Kent Arşivi Yayınları.

Pulant, T. (2019). *Ayvalık Ahmetçe'de tarihi zeytinyağı fabrikası restorasyon projesi* (Tez No: 612863). [Yüksek Lisans Tezi, Maltepe Üniversitesi]. YÖK Tez Merkezi. https://tez.yok.gov.tr/UlusalTezMerkezi/tezDetay.jsp?id=RF0-sYQgTXsaAgxb4U6wrw&no=AgdkGlv2Abn5PNSdpSqM7Q

Strabon. (2000). *Geographika: Antik Anadolu coğrafyası kitap XII–XIII–XIV* (A. Pekman, Trans.). Arkeoloji ve Sanat Yayınları.

Şahin Güçhan, N. (2018). Dr. Şerafeddin Mağmudi'nin izinden 1890'da Ayvalık. In *Ayvalık: Kent Tarihi Çalışmaları* (pp. 69-108). Balıkesir Büyükşehir Belediyesi Kent Arşivi Yayınları.

The Annuaire Oriental Limited. (1914). *Annuaire Oriental, commerce, industrie, administration, magistrature de l'Orient, 34e Année 1914.* Constantinople: The Annuaire Oriental Limited. https://archives.saltresearch.org/handle/123456789/2923

Türkiye Ticaret Odaları, Sanayi Odaları ve Ticaret Borsaları Birliği. (1958). *Türkiye'de sabun sanayii.* Türkiye Ticaret Odaları, Sanayi Odaları ve Ticaret Borsaları Birliği.

Yıldız, G. (2017). *A study for the conservation of Ertem Olive-Oil Factory in Ayvalık* (Tez No: 489511). [Yüksek Lisans Tezi, Orta Doğu Teknik Üniversitesi]. YÖK Tez Merkezi. https://tez.yok.gov.tr/UlusalTezMerkezi/tezDetay.jsp?id=tFlgVHDIPcl3Lbjwp4wo3w&no=0T_MmP9vM0TY6NVzM8MIzQ

Image References

Image 1.

Akın B., 2015

Image 2.

Author's personal archive (2024)

Image 3.

Etap3 İnşaat Proje Ltd. Şti.

Image 4.

Etap3 İnşaat Proje Ltd. Şti.

Image 5.

Etap3 İnşaat Proje Ltd. Şti.

Image 6.

Etap3 İnşaat Proje Ltd. Şti.

Image 7.

Gülmez

Image 8.

Gülmez; Etap3 İnşaat Proje Ltd. Şti.

Image 9.

Wikimedia Commons. (1906). Panorama of Cunda [Photograph] Wikimedia Commons (Retrieved: September 19, 2025)

Image 10.

Gülmez

Image 11.

Gülmez; Wikimedia Commons. (1906). Panorama of Cunda [Photograph] Wikimedia Commons (Retrieved: September 19, 2025)

Image 12.

Akın, D., 2014; Çiftyürek, 2021

Image 13.

Çiftyürek, 2021

Image 14.

Akın, D., 2014

Image 15.

Akın, D., 2014; Acar Bilgin 2015

Image 16.

Çiftyürek, 2021

Image 17.

Çiftyürek, 2021

Image 18.

Gülmez

Image 19.

Author's personal archive (2024)

Image 20.

Wikimedia Commons. (1906). Panorama of Cunda [Photograph] Wikimedia Commons (Retrieved: September 19, 2025); Akın, D., 2014; Çiftyürek 2021

Image 21.

(Hanya Cunda Restaurant Official Website, Retrieved: September 19, 2025)

Figure 1.

Etap3 İnşaat Proje Ltd. Şti.

Figure 2.

Çiftyürek, 2021

Figure 3.

Akın, D., 2014

Figure 4.

Etap3 İnşaat Proje Ltd. Şti.

Figure 5.

Etap3 İnşaat Proje Ltd. Şti

Yapılandırılmış Özet

Geç Osmanlı ve erken Cumhuriyet dönemlerinde Ege kıyı kentlerinde gelişen zeytinyağı ve sabun üretimi, bölgenin ekonomik ve mekânsal dönüşümünde belirleyici bir rol oynamıştır. Söz konusu üretim zincirinin temel unsurlarından biri olan sabunhaneler, yalnızca üretim işlevleriyle değil aynı zamanda dönemin endüstri kültürünü ve yapım tekniklerini yansıtan mimari nitelikleriyle de dikkat çeker. Bu çalışma, Balıkesir ili Ayvalık ilçesine bağlı Alibey (Cunda) Adası'nda yer aldığı tespit edilen ve 2023 yılında gerçekleştirilen arkeolojik kazılarla kalıntıları ortaya çıkarılan bir sabunhaneyi ele almaktadır. Çalışmada birincil kaynak olarak kazı bulguları ve tarihî görsellerden yararlanılmıştır. Buna ek olarak bölgedeki benzer işlevli yapılarla bir karşılaştırma yapılmıştır. Kazılarda belirlenen temel kalıntıları, ocak kalıntıları ve baca unsurları, yapının sabun üretim işlevine hizmet eden bir endüstri yapısı olduğunu açık biçimde ortaya koymaktadır. Çalışmanın amacı, Cunda Adası'ndaki bu sabunhane yapısının kazı bulguları ve tarihî belgeler ışığında değerlendirilmesi, dönemin benzer sabunhaneleriyle karşılaştırmalı olarak mimari özelliklerinin ortaya konulması ve bu doğrultuda yapının üretim süreciyle ilişkili mekânsal kurgusunun yeniden anlaşılmasına katkı sağlamaktır.

Osmanlı döneminde sabun üretimi, 19. yüzyıl ortalarına kadar "sabunhane" adı verilen küçük ölçekli, el emeğine dayalı işletmelerde gerçekleştirilmekteydi. 18. yüzyılda Avrupa'da başlayan Sanayi Devrimi'nin etkisiyle üretim süreçleri mekanikleşmiş, buhar gücünün kullanımıyla yeni bir yapı tipi olarak fabrikalar ortaya çıkmıştır. Osmanlı İmparatorluğu'nda bu dönüşüm 19. yüzyıl ortalarından itibaren etkisini göstermiş; geleneksel yöntemlerle çalışan sabunhanelerin yanı sıra makine gücüyle üretim yapan büyük ölçekli sabun fabrikaları da kurulmaya başlanmıştır. Cumhuriyet döneminde sanayileşme politikalarının teşvikiyle sabun üretimi önemini korumuş, özellikle Ayvalık, Edremit, İzmir, Kilis, Gaziantep ve İstanbul gibi hammaddeye yakın bölgelerde sabun ve zeytinyağı üretim tesisleri faaliyet göstermeye devam etmiştir.

Sabunhaneler genellikle kâgir malzemeyle inşa edilmiş iki veya daha fazla katlı yapılardır. Zemin katlarda ocak, sabun kazanı, depo ve servis birimleri; üst katlarda ise sabunun dökülüp kurutulduğu, kesilip istiflendiği geniş açıklıklı mekânlar bulunur. Zeytinyağı kimi zaman dışarıdan hammadde olarak temin edilmiş, kimi örneklerde ise üretim tesisinin bir bölümünde doğrudan üretilmiştir. 19. yüzyılın ikinci yarısından itibaren Ayvalık'ta sabun ve zeytinyağı üretiminin bir arada olduğu buhar gücüyle çalışan entegre tesislerin yaygınlaştığı bilinmektedir. Bu dönemin endüstri yapılarında tuğla malzemeyle örülmüş yüksek silindirik bacalar, sanayi mimarisine özgü kimliği tanımlayan en karakteristik öğelerden biridir.

Cunda sabunhanesi, Ayvalık ilçesi Mithatpaşa Mahallesi'nde, 41 pafta, 1079 ada, 1 parselde konumlanmakta olup 1984 tarihli Ayvalık Koruma Planı'nda yeşil alan olarak belirlenmiştir. Yapının kesin inşa tarihi bilinmemekle birlikte, 1906 tarihli bir kartpostaldan 20. yüzyılın başlarında var olduğu anlaşılmakta; 1929 yılına ait fotoğraflarda ise mimari özelliklerinde belirgin bir değişiklik gözlenmemektedir. Kazılarda bulunan endüstriyel tuğlalar, 19. yüzyılın son çeyreğinde Osmanlı topraklarında yaygın olarak üretilen mekanik tuğlalarla benzerlik göstermektedir. Bu veriler birlikte değerlendirildiğinde, yapının 19. yüzyılın ikinci yarısı ile 20. yüzyılın başı arasında inşa edildiği anlaşılmaktadır. 1944 yılında meydana gelen depremde büyük ölçüde zarar gören yapı, 1960'lı yıllara ait hava fotoğraflarından anlaşıldığı üzere çevresindeki yapılarla birlikte tamamen ortadan kalkmıştır.

Sabunhanenin bulunduğu parsel üzerine ilerleyen yıllarda bir restoran inşa edilmiş, ancak bu yapı da 2008 yılında yıkılmıştır. 2023 yılı öncesinde yapılan kısmi kazılarda ortaya çıkarılan temel kalıntıları ahşap bir platformla kapatılmış, parselin üzerine yerleştirilen bir konteynerle alan bir süre çay bahçesi olarak kullanılmıştır. 2023 yılında yürütülen kapsamlı kazılarda, dikdörtgen planlı yapının temelleri ile havuz ve ocak kalıntıları yeniden ortaya çıkarılmıştır. Ancak kalıntıların yalnızca temel seviyesinde korunmuş olması nedeniyle, kapı ve pencere gibi açıklıklara ilişkin doğrudan izler tespit edilememiştir. Bu durum, restitüsyon süreci için mimari verilerin sınırlı kalmasına yol açmıştır.

Bununla birlikte kazı bulguları, tarihsel belgeler ve çevredeki benzer endüstri yapılarının karşılaştırmalı değerlendirilmesi sonucunda, yapının mimari özellikleri belirlenebilmiştir. Buna göre sabunhanenin kuzey–güney doğrultusunda uzanan dikdörtgen planlı bir düzene sahip olduğu anlaşılmaktadır. Zemin katın doğu bölümünde bacalar ve kazan dairelerinin yer aldığı, üst kata ise ahşap bir merdivenle çıkıldığı tespit edilmiştir. Üst kat döşemesinin sabun döküm ve kurutma işlevine uygun biçimde tasarlandığı değerlendirilmektedir.

1929 tarihli fotoğraf ve çeşitli kartpostallar yapının kat adedi, cephe düzeni ve mimari ayrıntılarının aydınlatılmasında önemli rol oynamıştır. Buna göre doğu cephesinde herhangi bir kapı ya da pencere açıklığına yer verilmezken, diğer cephelerde düzenli biçimde açıklıklar oluşturulmuştur. Yine görsel belgelerden, deniz yönündeki cephede bir balkonun bulunduğu anlaşılmaktadır.

Tüm bu özellikler, yapının işlevsel gereksinimlere uygun, dönemin tipik sabun fabrikası plan şemasını yansıttığını göstermektedir. Ayrıca, Ayvalık ve çevresinde yer alan benzer sabunhane ve yağhanelerle yapılan tipolojik karşılaştırmalar, Cunda sabunhanesinin hem yerel mimari geleneklerle uyumlu hem de özgün nitelikler taşıyan bir örnek olduğunu ortaya koymaktadır.

Sonuç olarak Cunda sabunhanesi, 19. yüzyılın ikinci yarısı ile 20. yüzyıl başlarında Ege bölgesinde gelişen endüstriyel üretim anlayışını temsil eden özgün bir örnektir. Kazı verileri ve tarihî belgeler, yapının hem üretim sürecine hem de mimari kurgusuna ilişkin önemli bilgiler sağlamıştır. Her ne kadar özgün haliyle günümüze ulaşamamış olsa da yapı Ayvalık'ın endüstriyel mimari geçmişini belgeleyen ve korunması gereken önemli bir kültürel miras niteliği taşımaktadır. Sabunhane binası 2024-2025 yıllarında özgün mimari karakteri korunarak yeniden inşa edilmiştir.