



## **Holistic Sustainability in Industrial Buildings: Historical Kalaycılar Masmanası in Kilis**

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### **ABSTRACT**

As proof of industrial developments, industrial buildings make users feel a sense of space. They are cultural heritage examples and deliver a set of values from the past to the present and even to the future. The Kalaycılar Masmanası in Kilis, as an industrial building example which has continued its original function as an olive oil and soap-making factory until the 1960s and then it has been left to its fate for many years in ruined has been preserved with this awareness. First, between the years 2014 - 2016 the building was reconstructed and restored as a result of an extremely rigorous study by architect Sıdıka Bebekoğlu, who spent her childhood and youth in Kilis. Later, the building was restored one more time by the Ministry of Culture and Tourism to be used with a different context than its original usage. However, the Kalaycılar Masmanası which is one of the remaining industrial heritage examples of its kind should be kept alive not only spatially, but also with its traces of the original usage. The sustainability of collective memory will only be possible as a result of experiencing a structure by knowing its original use.

**Keywords:** Kilis, masmana, industrial heritage, holistic sustainability.

### **1. INTRODUCTION**

As evidence of industrial developments Industrial buildings do not only produce something, but they are concrete indicators expressing the technology of the period in which they were built, the memories people have with the buildings, their traditions and habits. At the beginning these buildings are constructed often for practical and functional purposes, and therefore do not often have a symbolic meaning, but as time passes, they gain value as a reference to the place and the time they testify. So even though industrial buildings are important indicators of a country's socio-economic history, they often lose their functions due to rapid technological developments and gain '*representation value*' [1]. In other words, industrial structures, which represent a certain period, are more than just the building designed to produce, they tell us about the technology of the time they were made and the ways in which they live, their traditions and habits [2]. These structures stand in the collective memory of societies as evidence of industrial developments and give a sense of place in the period in which they exist, and, even if time passes, they serve as a reference in the relationship established with that place. They are special places that include details of our origins and historical background, along with forms, features and usage histories. In the words of Loures, they are part of the identity because they represent more than one time layer and cultural activity [3].

According to the art historian Alois Riegl, who introduced the concept of '*industrial archeology*', what the structures represent is more important than to whom they serve. Riegl has defined a number of criteria to determine whether an industrial structure has a monument value. Riegl emphasizes the *historical value* as the value of the reminder and says that; "*..each successor implies its own premise and says that no successor cannot be as it was without the previous step*" [4]. Industrial buildings, which have witnessed a

certain period of history and contributed to the way in which the society lived and contributed to it, harbor the collective memory and common traditions and shared feelings of history of individuals even if they have no function. In this context, urban memory is the living witness of public memory, a social and temporal unifier. Among the values that Riegl has defined, the *value of antiquity* as a *value of reminder* is the state of emotion that physical aging on the object, or in other words, the aging of the material leaves it on those who experience it. Riegl, even though it was made for different purposes, argues that the value of antiquity combines society in a common point. One of the important reasons for the recognition of industrial heritage as cultural heritage is the awareness of *the art value* and the changes in the perception of the environment. [1]. With this awareness, the Kalaycılar Masmanası as an industrial structure is restored and joined to the city where it belongs to. This soap making center (*masmana / sabunhane*) is an important industrial structure with a special plan typology which can be found rarely in Kilis where soap is produced and distributed.

In the 1900s, Kilis is known to have two large soap making centers (*masmana*) operated by two Jewish families who have a strong trading tradition. The one belonged to the Jewish Murdok family, use to locate at the site of the present City Hall. The other one discussed in this article is Kalaycılar Masmanası near Çalık Mosque (1683) (Figure 1). Duran Kale (85 years old in 2012), who worked as a craftsman and municipal official in Kilis, said: *there was such a developed trade network that Murdok used to export to the Arab countries to the south, and Kalaycılar to the Anatolian cities to the north.* [5]. The Kalaycılar Masmanası continued its function as olive oil and soap factory until 1960 (Figure 1). The historical process of the structure that gained its true identity by being reconstructed physically and with the traces in the memory of the city while it was in a ruined state has been the subject of this article.



**Figure 1.** From the minaret of Çalık Mosque to the west and the north, early 20th century [6].

According to the Kilis Restitution Report for 2012, prepared by the architect Sıdıka Bebekoğlu, there are many monumental buildings and civil architecture examples in the immediate vicinity of Kilis Kalaycılar Masmanası (Figure 2 and Figure 3).

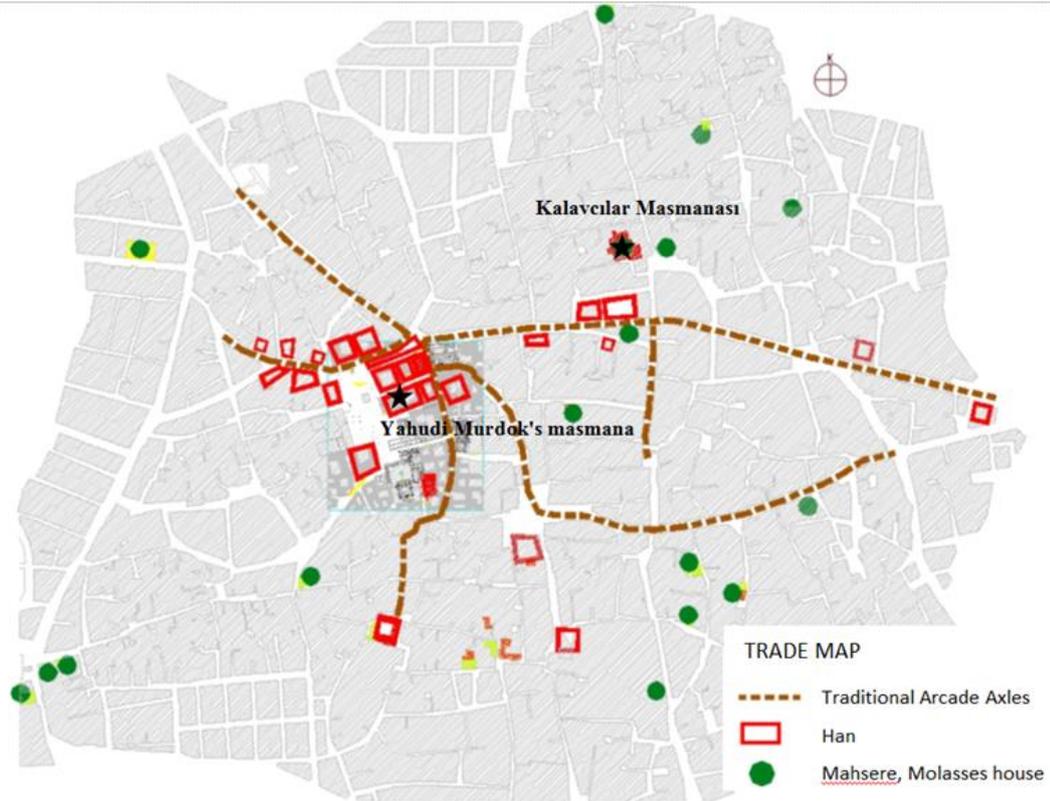


Figure 2. Production and trade buildings and market axes of Kilis in the Ottoman period.

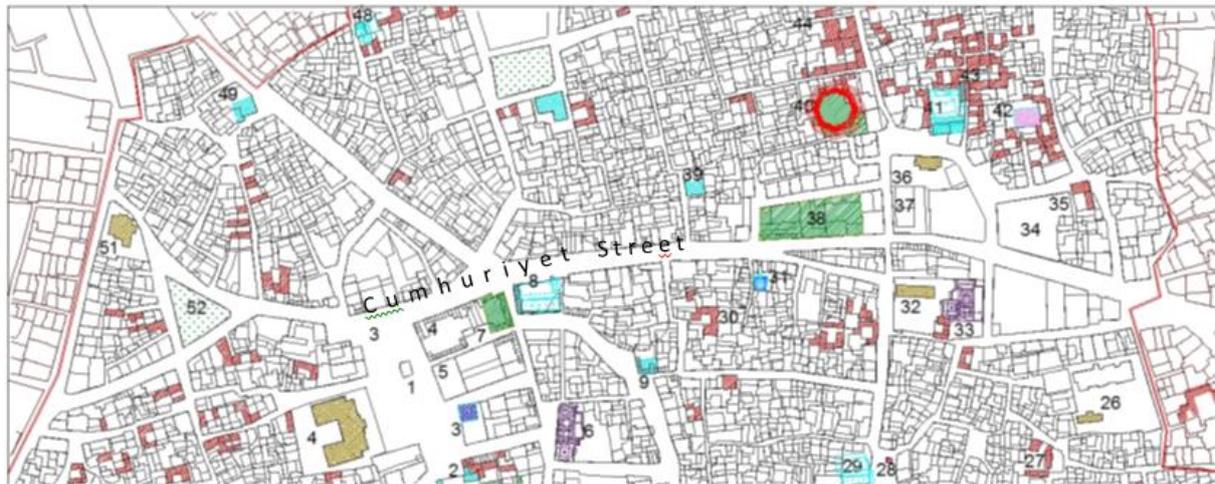


Figure 3. Distribution of Monumental Buildings: 1- Republic Square, 2-Tekye Mosque (1553), 3-Mevlevihane (1543), 4- Government House (1925), 5- Municipality (before Murdok Masmanası), 6- Pasha's Bath (1567), 7-Baytazzade Inn, 8-Kadı Mosque (1520-28), 9-Katran Mosque (1460- The Mamluk Period), 26- Old Republic School, 27-ÇATOM (Kilis House), 28- Salih Agha Fountain, 29-Tabakhane Mosque (1592), 30-İslam Bey Mansion, 31-Hacı Dervish Mosque (1551), 32-Kemaliye School (1925), 33-Hodja's Bath (1545 The Mamluk Period), 35- Former District Governor House, 36-Maarif Schoolyard (before community home), 37- Teacher house (before Maarif Schoolyard), 38- Municipality Inn (1925), 39- Sheikh Mosque (1569), 40-Kalaycılar Caravanserai, 41-Çalık Mosque (1683), 42-Kendirli Church, 43-Salihoğlu Shell and Mansion, 44-Hacı Mehmet Efendi Mansion, 49-Murtaza Mosque (1661), 51-Neşet Efendi Mansion (1925), 52-The Park for the War Victims

### 1.1. The Olive Processing Center (ZEYT MAHSERESİ) and The Bitter Olive Oil (ACI ZEYT)

Throughout history, olive has been one of the most important products for Kilis and has been used in many areas including edible oil, soap, *bürün* (fuel) and ash obtained as a result of incineration. Traditionally the olives are processed to extract the cooking oil first. In the next stage, the second quality oil which is the bitter olive oil (called *acı zeyt*) is extracted. The soap is obtained after cooking this oil with chemical additives. The buildings, each called *mahsere* or *zeyt mahseresi* in which olive oil is extracted are still present in the traditional Kilis urban texture (Figure 4). In the past, Kilis is known to have nearly 60 olive processing centers (*zeyt mahseresi*) [5]. In the past, it is known that there are many olive processing centers in the villages and their bitter olive oils (*acı zeyt*) are collected and brought to the soap making centers (*masmana*).



Figure 4. An olive processing center (*zeyt mahseresi*) plan and the interior details located in the south of Eski Hamam, Kilis [7].

The bitter olive oil (*acı zeyt*) obtained in these processing centers are then processed in large-scale integrated production and commercial soap making centers (*masmana*) in the city centers. The name *masmana* comes from the word *basmane*, which means that the soaps are cut as molds and where the seals are processed [5]. (Figure 5 and Figure 6).



Figure 5. An old grinding stone [5].



Figure 6: Seal application process on soap [8].

Since there were only two soap making centers (*masmana / sabunhane*) in Kilis, the bitter olive oils collected from all the villages and loaded in *tuluk's* (the leather cap) were brought to these soap making centers by camels or horses. These second grade oils were deposited in underground tanks called '*zeyt kuyusu*' (a type of cistern) called olive wells. Between the months of November and February, after the olive harvesting and olive processing process was completed, the soap boiling processes was going on in the spring and towards the summer [5].

## 1.2. The Kalaycılar Masmanası, Kilis

The ground floor of the historical structure is covered with vault on the stone feet and the upper floor is carried by several rows of arches. As a first impression, it is reminiscent of a caravanserai, and therefore it is also known as the Kalaycılar Caravanserai [8]. In the Ottoman period, the production of soap in the region has been an important industrial area and in written sources it is known that soap was sent to the Ottoman Palace from Kilis [5].

As a result of poor urbanization in Kilis since the 1970s, low quality multi-storey concrete structures were built in the traditional texture (Figure 7). In the course of this process of transition and transformation, the Kalaycılar Masmanası was gradually ruined over time. In the 1970s, when the structure lost its original function and was abandoned to its fate, Sıdıka Bebekoğlu stated that for a short time homeless people had settled in the venue, or the space hosted wedding activities because of the wide space opportunity but these activities were very damaging to the structure.

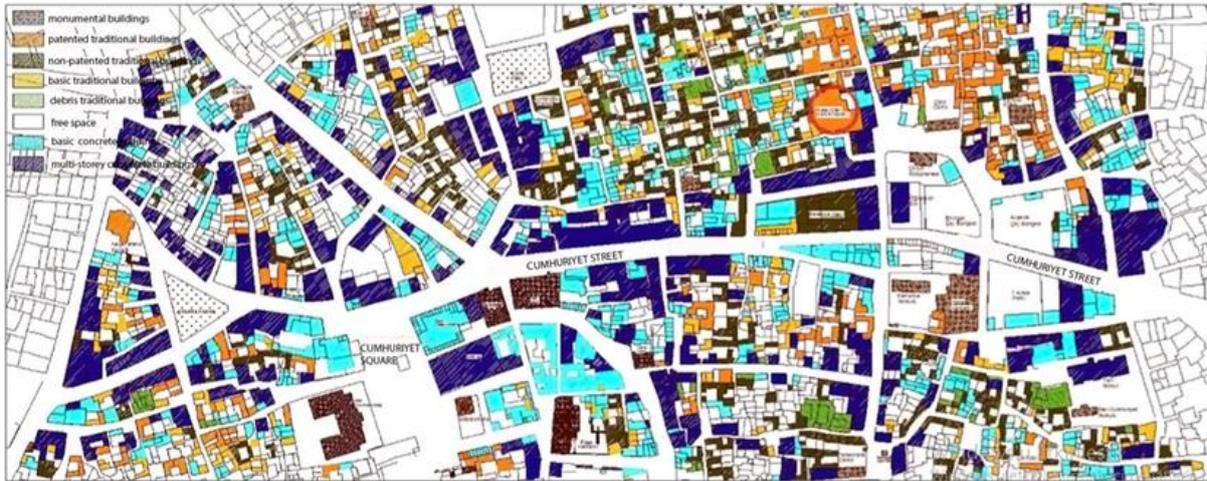


Figure 7. The proximity of the Kalaycılar Masmanası to the main pedestrian zone in the urban archaeological site and the historical texture [7].

In the photograph taken in 1995 by the Kalaycılar Masmanası, who had survived for many years while maintaining its original function and taking part in the memory of the city as part of the culture, it is seen that the original chimney is still standing (Figure 8). Destruction and losses continued in many parts of the building until the restoration application started in 2014 (Figure 9 and Figure 10).

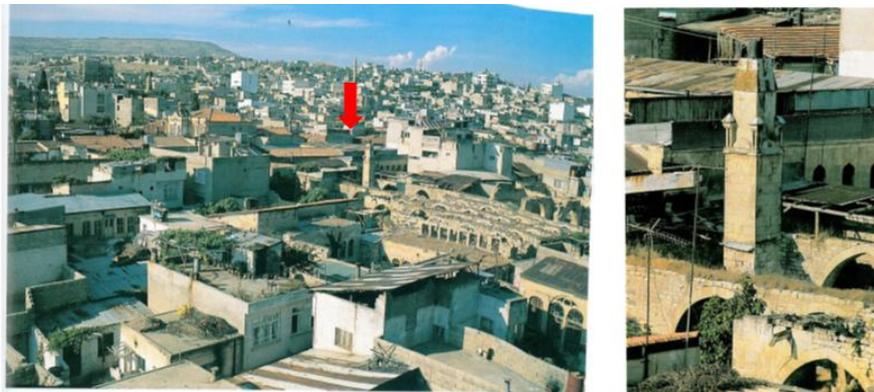


Figure 8. The Kalaycılar Masmanası, 1995 (the chimney has not yet been demolished yet) [7].

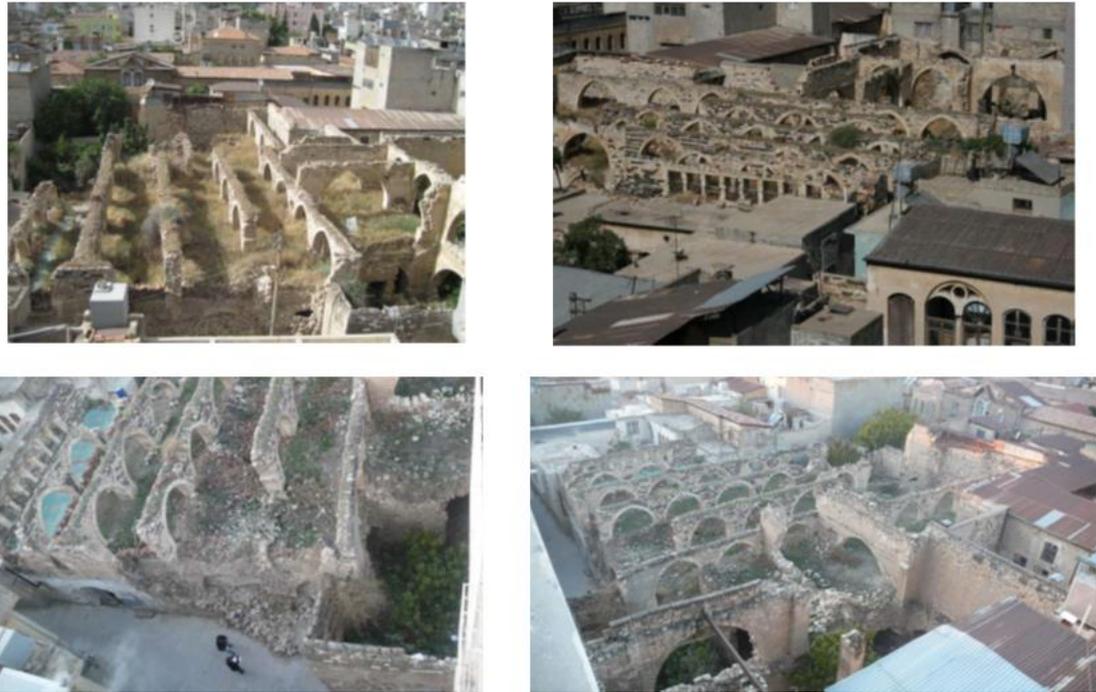


Figure 9. The Kalaycılar Masmanası, before 2011 [9].



Figure 10. The years 2007 and 2011 comparatively [7].

In 2010, the Ministry of Culture first introduced conservation-implementation works on urban scale in terms of street rehabilitation (the streets to the east of Çalık Mosque). The 2nd stage street rehabilitation project was prepared by the Ministry for the close surroundings of the Kalaycılar Masmanası, but not implemented. At every opportunity, the architect Sıdika Bebekoğlu, who expressed the need for a complete urban protection with a holistic approach, offered an urban protection proposal to the island where the structure was located, to preserve the traditional houses and other structures here, but this could not yet be realized (Figure 11).

### 1.3. The Kalaycılar Masmanası and its Historical Periods

Due to the fact that it is an industrial building, the building has been formed in a flexible way over time and the parts of the structure have been shaped in different periods. According to the information obtained from the old photographs and oral sources, it is known that the structures adjacent to the soap making center (the *sabunhane*) are structures supporting the soap function (Figure 11). There is one olive processing center (*zeyt mahseresi*) to the west of the Çalık Mosque and to the east of the Kalaycılar Masmanası. One of the two inscriptions found in the house of the registered cultural heritage of the north-eastern neighbor of the building is 1860 [7]. Although the exact date of construction is not known, it is estimated that Kilis Kalaycılar Masmanası was built in the early or mid-1800s. The fact that a house adjacent to the east of the building has transitions with the soap house suggests that this house might belong to the manager.

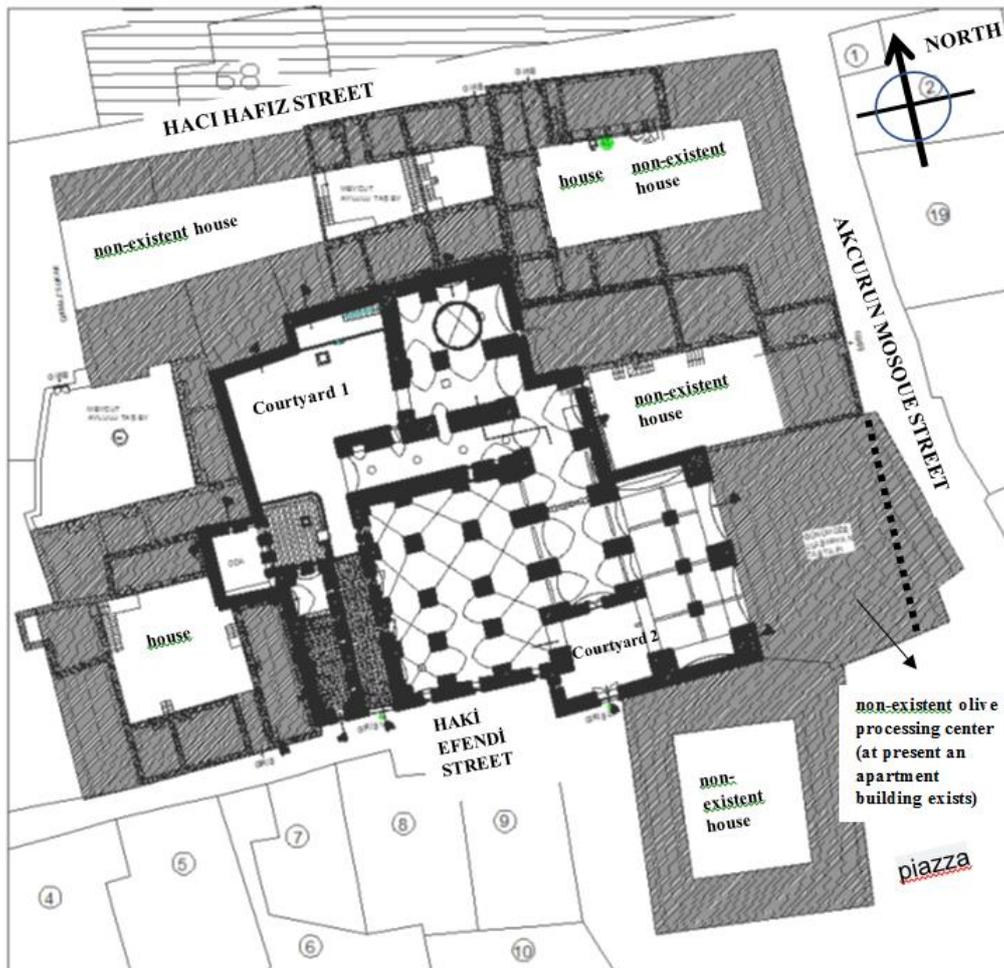


Figure 11. The Kalaycılar Masmanası and the adjacent buildings that used to serve the soap making center [7].

The restitution analyzes performed by Sıdıka Bebekoğlu in 2012, different construction techniques and materials, inter-group dilatations are proof that the center belongs to many periods. In the light of these data, it is determined that there are five periods in the soap making center. Period 1 is the oldest one and, unlike other periods, it has an introverted plan system. Although Period 1a has close characteristics to Period 1, it does not keep the same axes and dimensions as Period 1 and the cradle vault and wall texture are different. The lower and the upper floors of both Period 1 and Period 1a were not constructed at the same time. The upper floor and the lower floor axes, which are identified as period 2, do not overlap on top of each other. Besides, the stone wall pattern and color of the upper floor of both periods are different from each other. The fact that they were made at different times is also understood from the differences in material qualities and stone patterns. Period 3 and Period 4 were constructed at different times, and it is understood from the arch types and the differences in stone patterns. Period 5, which is located in the eastern part of the building, exhibits a completely different structure from the others. The lower floor and upper floor of this period have the same characteristics. In the other sections, although the rubble stone system is dominant, in Period 5 the cut stone texture and more careful workmanship, wide / narrow pointed arches, and wide round arches are observed here (Figure 12).



Figure 12. Kalaycılar Masmanası Different Periods [10].

This Section 5 in the form of L is twice as high and grasps a gallery gap. The three stone footsteps and the iron beams found here show that this section is recently dated. In

addition, this section is distinguished from the others as the highest section of the roof (Figure 13 and Figure 14).



Figure 13. Period 5 in the eastern part, before the restoration [9].

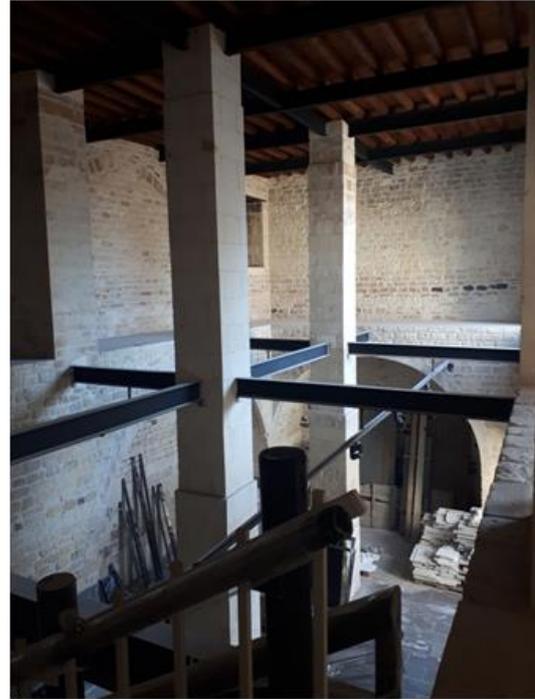


Figure 14. Period 5 in the eastern part, after the restoration

The building complex, built over a total of five periods over time, has two courtyards; the big one to the north and the small one to the south. There are two entrances to the building from Hâkî Efendi Street. From these entrances, when passing through the large one with a small another door inside, it is entered into a narrow long passage and then the courtyard at the north is reached. The other small entrance opens to the small courtyard of the building (Figures 15, 16, 17, 18, 19 and 20).

The architect Sıdika Bebekoğlu, who has carried out the restoration project and documentation studies of the building, spent her entire childhood in Kilis until he started his architectural education in the Istanbul State Academy of Fine Arts. She is highly aware of the cultural accumulation and knowledge of life. She has witnessed the experience of many people in the family environment and traditional life (Figure 21). In addition, the success of the researches on which the Kilis Cultural Inventory [11] which was prepared in 2008 in the context of the development of Cultural Heritage in the EU-GAP Region, should not be overlooked.



Figure 15. Haki Efendi Street Facade, before the restoration, 2011 [9].



Figure 16. Haki Efendi Sokak Cephesi, after the restoration, 2018.



Figure 17. The narrow long passage approaching the courtyard at the north, before the restoration, 2011 [9].



Figure 18. The narrow long passage approaching the courtyard at the north, after the restoration, 2018.



Figure 19. The narrow long passage from the courtyard, before the restoration, 2011 [9].



Figure 20. The narrow long passage from the courtyard, after the restoration, 2018.



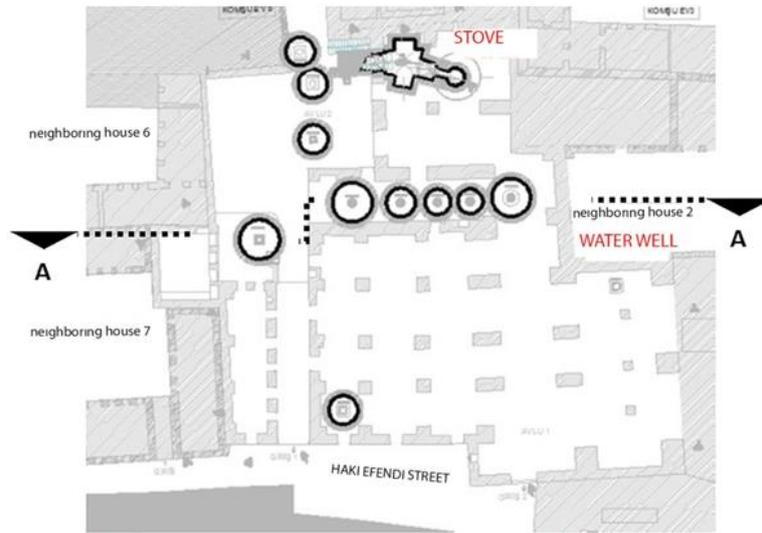
Figure 21. Kilis, home-made soap, while drying. (Architect Sıdıka Bebekoğlu's mother) [7].

Bebekoğlu said in a meeting with herself in January 2019;

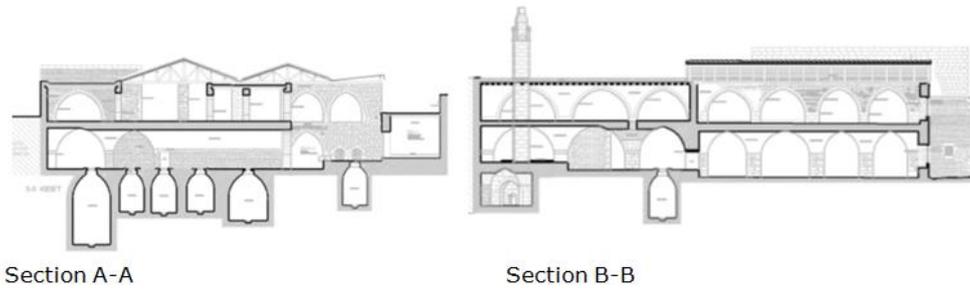
*For me, the life stories I spent in this building were the things I was not unfamiliar with. This is the geography I have lived in since I was a child, and it was a field that I studied and know each piece as an architect within the scope of Kilis Culture Inventory research. For this reason, it was not difficult for me to interpret the historical, technical and social values of the structure in detail. However, if it was possible to work in more cooperation, communication and participation with decision makers in the implementation and subsequent usage processes, the reflection of this information to the implementation and usage phase would have made it possible to achieve more detailed high-level results.*

The architecture of this soap making center is mainly developed according to storage, cooking and drying functions. While the Ground Floor is the place where the soap production is made, the First Floor is generally composed of the places where the soaps are laid, dried and molded. As stated by Bebekoğlu, the product is either prepared as a bitter olive or it comes after the extraction of the bitter olive. It is converted into soap by cooking on a main stove. *Zeyt wells* are very important original elements of soap making architecture. It is buried under ground level and has lids. In the building, 10 wells were determined for storage purposes (6 in the interior, 1 below the courtyard terrace and 3 in the courtyard). The diameter of the wells is 3 meters and height reaches up to 6 meters (Figure 22).

The cooking function shapes the space. The building has a very high and showy chimney. The original pieces of the chimney were found during the excavation before the restoration and rebuilt according to the old photographs and its' project. Since the project architect was not consulted during this implementation process, no accurate interpretation was made. Since the chimney and the large cooker connection is not applied during the restoration process, the chimney does not have the chance to be actively used today. At the bottom of the building there was a large wrought iron hand made boiler buried in the ground level to perform the cooking process of the bitter olives. The boiler had a diameter of 3.7 meters and a depth of 1.3 meters and a depth of 2 meters (Figures 23, 24, 25 and 26). Unfortunately, the original forged iron boiler was replaced by a new boiler in the restoration.



Basement Plan, olive wells (olive oil tanks) and the water well.



Section A-A

Section B-B

Figure 22. Kalaycılar Masmanası Plan and Sections [6].

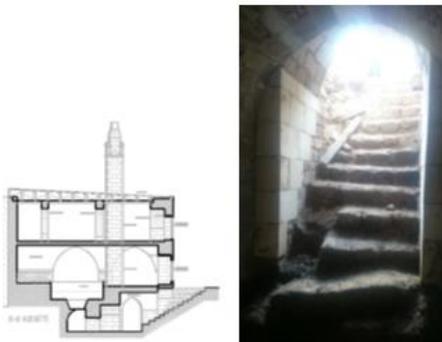


Figure 23. Section through the boiler, before the restoration [6].



Figure 24. The big courtyard, after the restoration (Basement entrance is on the left)



Figure 25. The boiler, before the restoration [12].



Figure 26. The boiler, after the restoration<sup>1</sup> [5].

After the baking process is completed in the boiler, the product of hot and dark liquid consistency is laid and the drying process is applied in the upper floor, in the wind, but in the shaded wide area (Figure 27 and Figure 28). Therefore, the upper floor is large and spacious. In the openings on the exterior there are only iron bars without joinery. On top of this 650 square meters top floor, there was a roof covered with air-covered light hair, but in the new application, the gable roof covered by tiles and the gaps that provide daylight access at certain points of the roof had been made. According to Bebekoğlu, the fact that iron bars are used very often compared to other structures is a security measure to prevent the stealing of soap bars with commercial value.



**Figure 27.** The upper floor, before the restoration [9].



**Figure 28.** The upper floor, after the restoration [5].

## 2. CONCLUSION

The 'holistic' approach has a great importance in the continuity of cultural heritage. According to Riegl [4], in order for the historical value to be expressed correctly, the design must provide the 'authenticity' and 'holistic' qualities. Sıdıka Bebekoğlu states that the *holistic approach* emphasized by his mentor Turgut Cansever, is also an indispensable basic principle of her [13]. In this approach, restoration projects need to be addressed not only on the basis of buildings, but also in the vicinity and urban protection level. For instance the restoration project implemented to Kalaycılar Masmanası should not only focus on the building itself, but also be regarded in the urban context (with adjacent buildings, streets, squares, and even with Çalık Mosque and the whole of the city). In this holistic approach the development of all aspects of the restoration sector, establishment of institutional structures such as laboratories, development of materials and application techniques, master and worker training, development of material resources, access to local materials and details are required. The fact that the repair of the Kalaycılar Masmanası made with Urfa stone, not Kilis, can be a small example of this local material incompatibility. In fact these types of wrong



implementations have been applied due to not involvement of the project architect as much as necessary. For Bebekoğlu the biggest problem of restoration projects is that a holistic approach cannot be achieved and maintained in all of the stages of the decision-making processes including design, implementation and usage. It is necessary to ensure the participation of interested parties and, most importantly, the participation of the public who would continue this tradition of culture and production, and to share an open cooperation and information in all decision stages. On the other hand, the inevitable reality is that; the time and budget shortage allocated to projects make it difficult to put forward the qualified works.

In his article called '*Protection with Questions and Answers*', Mete Tapan states that the most correct approach in protection is '*by using*'. This idea can also be applied to historical industrial structures whose function has been out of date. In the Restoration Project proposed by Bebekoğlu, the new use of the building has been proposed as the Sabunhane Industrial Museum. All the processes and historical stories of the Kilis olive and soap production tradition could be observed in the proposed museum approach of her. In an arrangement in which partial reproduction and application can also be done, the lower floor is arranged as exhibitions: production systems and tools for the processing of soap and olive. The upper floor space with its pointed arches is intended for socio-cultural purposes for meetings and events. For Bebekoğlu, this museum should not only be a place to be visited, but it should also contain many activities. In particular, it should involve activities that describe the production of soap that will enable the participation of the public or involve the people in the soap production function. Perhaps the participants can create the content of their own soap and then take it to use. However, neither the project architect nor the public has been informed on how to use the museum, which is still currently underway.

Apart from Kilis Kalaycılar Masmanası, there are many examples of historical industrial buildings that are protected by a new function. One such example is the Bursa Merinos Cultural Center and Park. The building was built in 1935 and during the period when the factory was active, this center made significant contributions to the economy of Bursa. However, following the closure of the factory, the buildings of the center was re-commissioned with three different functions outside its original function [14]. Another important historical building is the historical Bomonti Brewery complex in Istanbul. The complex, located in the Şişli district of Istanbul, was formed by the addition of different building blocks to each other at different periods. The earliest of these structures date back to 1893-95. Even though the complex has lost most of its traces in the past with the restoration work it has undergone and it has become difficult to make readings on the historic brewing function through the building [15], almost all buildings have managed to reach the present day through different interventions. Today, they successfully serve popular culture and art activities [16]. It is possible to come across examples in Istanbul where this industrial heritage is re-functionalized and protected. Some of these examples with their current functions are as follows [17]: Silahtarağa Power Plant (present function: Santral İstanbul Education, Culture and Art Center), Bağlarbaşı Power Plant and Tram Depot (present function: Bağlarbaşı Cultural Center and Transportation Museum), Cibali Tobacco and Cigarette Factory (present function: Kadir Has University), Feshane Fabrika-i Hümayunu (present function: Feshane International Fair Congress and Culture Center), Tophane-i Amire (present function: Mimar Sinan Fine Arts University Culture and Art Center), Lengerhane-i Amire and Şirket-i Hayriye Shipyard (present function) : Rahmi Koç Museum), Bakırköy Baruthanesi (present function: Bakırköy Ispirtohane Building Music and Art School and Yunus Emre Cultural Center).

For Rossi, '*continuity*' is a history that can still be experienced today, and the past, which has been experienced since its existence, and even experienced in the future, are values that add value to the value of the structure. With the expression of Rossi "... they are concrete values, but at the same time it is something different than concrete. Although



they are determined they also determine themselves" (Rossi, 1982). While experiencing these concrete representations, each generation will bring a different interpretation to the past, will receive a new inspiration from it, and will leave the present with different memories.

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