



## **“Garden houses” Design: Sugar Factory Laborers Housing Cooperatives, Kayseri**

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### **ABSTRACT**

As a result of increasing industrialization during the Post World War II period in Turkey, new factories were established in Anatolia and, therefore, migration to the cities increased. Thus, a housing problem arose for factory laborers, resulting in a need for housing and laborers building cooperative houses in the areas close to the factory. In this context, seven building cooperatives with different names were established from 1954 to 1970 in order to accommodate laborers in Kayseri Sugar Factory, which was opened in Kayseri in 1955. The first phase of Sugar Housing Cooperative houses, which started to be built in 1958 as 72 houses, was designed by the Civil Engineer Fuat Attaroğlu. Sugar Laborers Housing Cooperative houses are examined within the scope of this study, as they are one of the original building cooperative examples that were designed in the context of the garden-house with a modern architectural design approach in 1950's.

The study employs qualitative techniques such as data collection from newspaper texts, architectural drawings, visual and written materials and document analysis. Sugar Housing Cooperative houses reflect the architectural design concept, original housing plan types, building techniques and material properties between the years of 1950 and 1970 in the modernization process. Cooperative houses in this period played an important role in transforming the city into one with a modern identity. In this study, it is suggested that the still inhabited cooperative houses must be registered and protected with their modern identity in terms of creating an exemplary architectural representation in the western periphery of the city.

**Keywords:** Modern Architecture, Garden-house design, Sugar Factory Laborer Housing Cooperative, Kayseri.

### **1.Introduction**

Cooperatives have long been recognized as a means of providing affordable housing (Willcox, 1953; Zimmer, 1977; and Davis, 1993). Since they are owned by their residents, cooperatives offer continuing economic incentives and social opportunities for residents who are interested in controlling their social environment and improving the quality of their lives (Miceli, et al.,1994; and Sazama and Willcox, 1995).

The first formal housing cooperative on record was organized in the mid nineteenth century in Germany. By the early twentieth century, housing cooperatives were found throughout Europe, but predominantly in Germany and the Scandinavian countries (International Labor Office, 1964). Though the first housing cooperative in the United States, called a "home club," was established in New York City in 1876, cooperatives did not become well established in the United States until after World War I (Sazama, 1996, p.1).

“Building cooperative” is a concept borrowed from the West, and it has been implemented since the beginning of the 20th century in order to meet the housing needs of industrialized cities and increasing population within the scope of statism-oriented development movements in our country (Demirkan and Salbacak, 2019). Starting from the early Republic, immigration to the cities increased as new factories opened



throughout the country. As a result, the existing housing stock in the city and the workers' lodgings within the factory could not answer the housing problem. During this period, worker building cooperatives were established, and laborer settlements were built within the factory plots or in areas close to the factory. Thus, modern settlements began to form in the city periphery. As Ali Cengizkan (2009) stated, "Laborers' houses that solve the housing problem of workers have been built together with the factories, and these houses have developed as a modern environment."

Building cooperatives, which were produced from the Early Republican Period to the 1970s, were considered as one of the important steps in solving the current housing problem of the citizens in the modernization process of the country. "Cooperatives were seen as one of the main components of the building of a new nation, and the establishment of cooperatives was encouraged by the state in order to accelerate the development movement and follow the modernization program" (Bakır Doğru, 2020, p.365). It would not be wrong to say that housing cooperatives in Turkey, in line with Atatürk's request, "started with the granting of advances to civil servants to establish cooperatives with the law no.586" (Keleş, 1979, p.31). Between 1930 and 1940, cooperatives were tried to meet the housing needs, especially in central cities such as Ankara, Istanbul, and Izmir, and 56 housing cooperatives were established throughout the country in this period. However, the building of only seven cooperatives in Ankara could be completed during this period (Uzgören, 1955).

The first example of a building cooperative organization in Turkey is the Ankara Bahçelievler Housing Cooperative, which was established in 1935. With the gathering of high-level civil servants working in Ankara, the settlement of houses with gardens, which is the first application of the history of the Republic in this sense, was implemented at a distance of three kilometers from Ulus, the city center of the period (Keleş, 2016, p.433). Increasing credit opportunities with the legal regulation made in 1944 has been one of the important steps in the development of cooperatives in Turkey. The mass housing applications and loan supports made by social security institutions for their employees have also been important steps of this development (Alkışer and Yürekli, 2004, p.65). Covering the land share, which constitutes a significant part of the total cost, by the state has accelerated the increase in the number of housing cooperatives (Onur, 2021). With the establishment of the Social Insurance Institution (SSK) in 1945, following the Turkish Real Estate Bank, the building of housing for state employees began to be supported and housing loans were given. Housing cooperatives, which previously included state employees with regular income and the upper income group, also paved the way for low-income people such as workers and civil servants to acquire housing (Tekeli, 2009).

Supporting the establishment of cooperatives in order to meet the housing needs of the workers first came to the fore with the Old Age Insurance Law No. 5417 on June 2, 1949 (Doğusan, 2013, p.156). However, the rapid industrialization, which was effective in the years 1950-1960, caused the housing problem faced by the country to become more evident with unqualified and unhealthy housing (Uysal, 2013). The approach to housing cooperatives with the statist ideology changed in this process. The private sector started to produce houses for users in different socio-economic situations in various parts of Anatolia, and the number of housing cooperatives increased rapidly in this period (Sey, 1998). According to the documents of the Prime Ministry Republic Archive, 744 cooperatives were established between the years 1950-1956. According to the article titled "Housing Cooperatives" in the journal "Turkey Engineering News" (1.7.1966), it is understood that there were 3 building cooperatives in 1935, 80 in 1949, 140 in 1950, and 2700 in 1960 (Akın, 1966, p.8-9).

Although it is known that the general trend was for single houses between the years 1960-1970, housing cooperatives built in the form of apartment blocks became widespread. The Property Ownership Law enacted in 1965 is one of the most important events affecting the housing production and presentation styles in Turkey. This law paved

the way for the production of apartments by cooperatives or private sector entrepreneurs (Tekeli, 2009). The Law on Cooperatives, which came into force in 1969, enabled the private sector investor, who bought land in the city periphery, to produce housing through cooperatives. In this way, by obtaining regular payment financing every month, many more houses could be produced numerically relative to the apartment (Sözen and Tapan, 1984). Therefore, "the state's taking some measures and enacting laws to ensure the development of cooperatives contributed to the proliferation of cooperatives" (URL 1). In the study, the story of the formation of the "Şekertepe Evler Mahallesi (Şekertepe Housing Neighborhood)" formed by the worker building cooperative houses belonging to the Kayseri Sugar Factory, which was established in 1955, and the new and original architectural language of the houses were examined in the aforementioned environment. This neighborhood was more than meeting the housing needs of the factory workers of the period. With the new spatial equipment and neighborhood relations it offers, it reveals its difference as an exemplary modern campus built in the style of a grid-planned "house with a garden" on the western periphery of the city.

## 2. "Garden City" Planning in Turkey-1935

It is possible to base the starting point of garden city design on the ideas of a social reformer named Ebenezer Howard, who pioneered the escape from the city in England at the end of the 19th century. "Howard is an urban planner and is known as the founder of the world's first garden city Letchworth, which he managed to organize as a cooperative after years of struggle and designed and realized 60 km north of London" (Kansu, 2009). "Even if it has developed or remained outside of the public collective this understanding will be reflected and sprout as Amele Mahallesi (Laborers' Neighbourhood)" (Cengizkan, 2006, p.16). In this context, the first "garden city" application in our country is Ankara Bahçelievler Housing Cooperative, designed by Hermann Jansen, the understanding of factory lodgings, which is one of the first steps, perhaps the first, of these foreign-sourced examples and pursuits in Turkey, was found in the Plan of Ankara (1928 and 1932), the capital of the Republic of Turkey. It is inevitable that Jansen (Kansu, 2009, p.54). "Ankara Bahçelievler Housing Cooperative" was established with a decree prepared under the leadership of Atatürk on January 26, 1935. The cooperative campus was built on a land to the west of Ankara, outside the boundaries of the zoning plan of the period (Figure 1). The houses met the modern space needs of the bureaucrats of the period. The houses designed in different types are traditional with their open balconies, functional interior solutions, and simple facades. It has moved away from residential architecture and presented a modern housing typology.

"Bahçeli Evler  
Kooperatifi"  
Sokak  
Perspektif.  
Hermann  
Jansen, 1935

Architekturmuseum  
der Technischen  
Universität Berlin  
Archiv

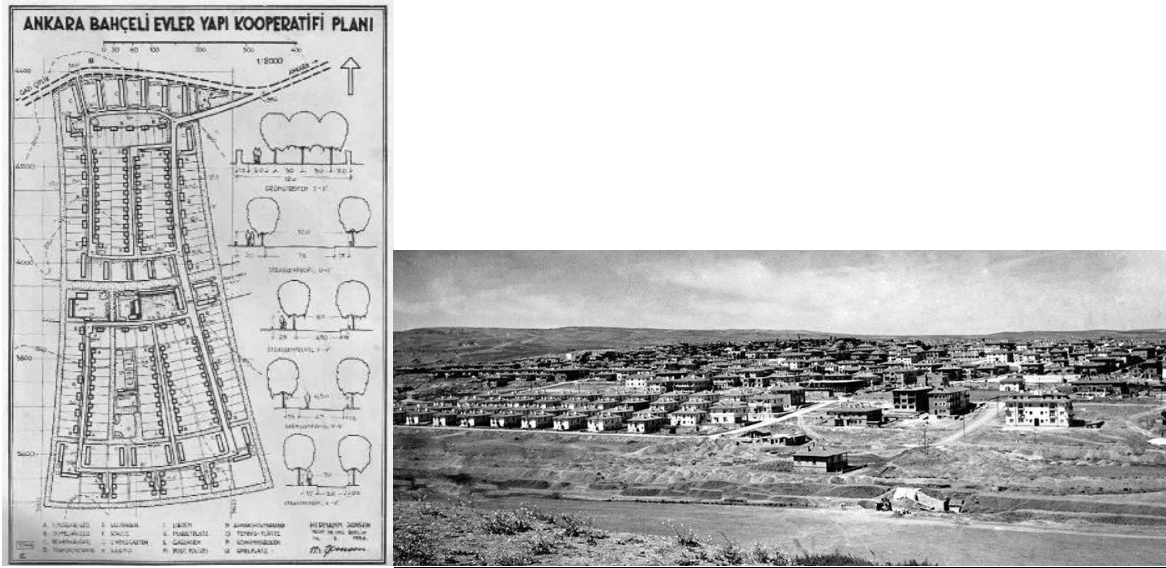


**Figure 1.** Street perspective of Bahçeli Evler Cooperative, Hermann Jansen, 1935. (Kansu, 2009).

The afore-mentioned Ebenezer Howard designed and realized the world's first garden city, 60 km north of London, in the Ankara Development Plan of 1937. This newly implemented housing typology was defined as follows:

"Houses are designed as single, double or row houses with one or two floors. Although these houses are very similar and modest, they contain all kinds of comfort and needs. All of the houses, the smallest with 3 rooms and the largest with 6 rooms, have cellars/storage structures. Every house has a garden. The gardens are not very ornate and trendy, on the contrary, they contain dignified and simple designs" (Ankara building Plan, 1937).

Established in the 1930s, the Bahçelievler Housing Cooperative aimed at an open green space in the settlement and throughout the urban fabric. Each of the houses in this sparse settlement texture, which was designed as a garden city, was designed as detached houses in its own garden (Yerli, 2016, p.386). In the cooperative, not only housing blocks were built, but also Ankara city was taken into consideration, and a design approach read from the upper scale was adopted by connecting important components such as traffic, green areas, administration and government structures. The entire district was planned as a city in itself, with the cooperative being a bazaar, school, casino, club, library, and park (Figure 2).



**Figure 2.** Garden Houses Housing Cooperative, Ankara. 1935 (URL 3).

### **3. Establishment of Housing Cooperatives in Kayseri**

In Turkey, the cooperative house first emerged as housing models for the civil servant and worker positions in the newly formed institutions of the state, where the population migrating to the cities would be accommodated. Building cooperatives, which came to the fore as a form of collective housing production with a limited budget in order to meet the housing supply in the 1950s, have been both an economical and reliable way for public employees to own housing. Since the 1950s, the number of building cooperatives and the houses they produce has increased rapidly with the financial means of the state (Bakır Dođru, 2020, p.365).

Kayseri, which entered the process of regular urbanization and industrialization with the 1944-45 Aru-Oelsner building plan, building cooperatives began to be established to meet the housing need. In due to the increasing population. In addition to the new neighborhoods to be built according to the zoning plan, industrial zones and the housing and building cooperatives to be built in these areas and the development directions of the city have been determined. The first building cooperative established in Kayseri is the Örnekevler Housing Cooperative, which was built between Çandır Mahallesi and the Train Station on May 14, 1946. Sixty-seven people from the notables of the city became members of this one-storey cooperative with a garden, which was considered modern at the time. Depending on the number of members, the name of the cooperative was also



called "67 Houses" (Erkiletlioglu, 2006). This was followed by the Sümer Housing Cooperative, which was founded in 1949. Established under the chairmanship of factory manager Ismet Erdem, its aim was to have 500 workers as home owners with this cooperative. (Erkiletlioglu, 2006).

Cooperativezation, which started rapidly in Kayseri ten years after Ankara, was mentioned as an important development movement in the local press. Kayseri Deputy Ahmet Hilmi Kalac (1946) emphasizes the necessity of establishing cooperatives as follows:

"While talking about the zoning works of Kayseri, it would be appropriate to contact the new cooperative houses to be built. It is known that a place is sought for these houses. We do not hesitate when the interested parties will find a successful place by examining all sides. It is our desire that the cooperative houses serve the beauty and public works of the city while making homes for the homeless. Even if it is possible, if we build these houses on the empty and dilapidated places on the main streets..."

Asım Yahyabeyoglu (1952), on the other hand, in his article titled "Blessings of Cooperatives" in the *Istiklal Newspaper*, explained the importance of cooperatives in the building of the city and the hope for citizens to have new homes:

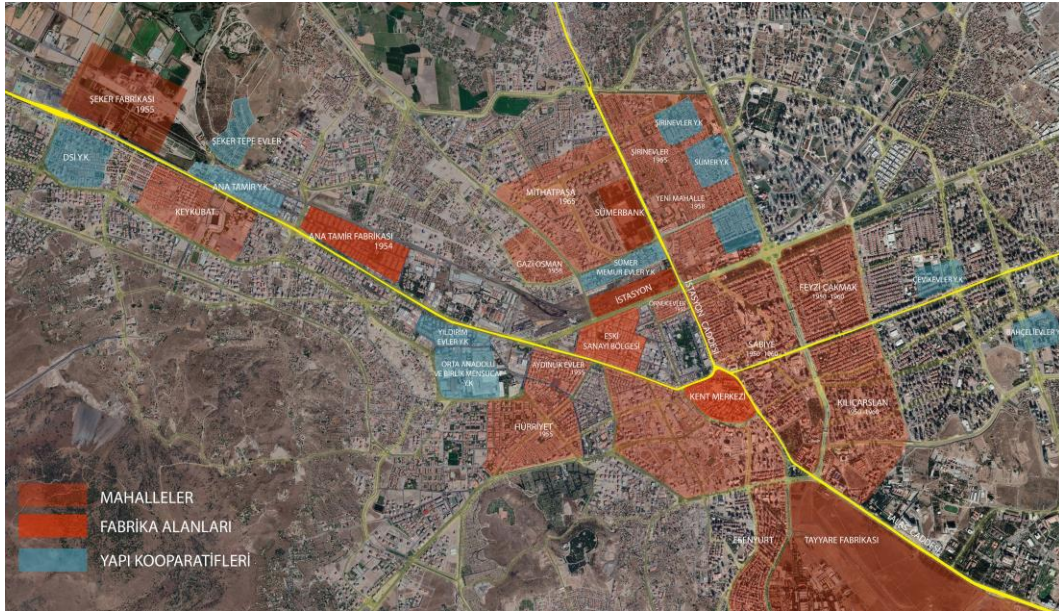
"It was possible to read the joy of having a home in the eyes of the families who would live in the houses that the Aircraft Factory Textile Assistance Houses Cooperative started to build. It is impossible not to greet the initiative that ensures 37 of our citizens to be home owners, with a sincere heart and appreciation. Our cooperatives, which have brought many of our citizens, who do not have the opportunity to build houses through cooperatives, to the happy home of their dreams, also increase the beauty of our city by serving for the development of our city, and both our citizens and the country benefit from the blessings of cooperatives, which we consider as a sign of social and economic development."

According to the information received from the Kayseri Chamber of Commerce, while 35 building cooperatives were established in the city between 1950-1960, this number increased to 91 between 1960-1970. Therefore, the problem experienced in housing production with the developing industry and increasing population in the city was resolved through cooperatives.

With the factories opened and the building cooperatives established around them, the city has grown beyond its periphery. Building cooperatives were primarily built in areas close to factory areas, since factories and public institutions were mostly owned by workers and civil servants. These residences were built on areas with low land cost such as gardens and fields, in a region close to the factory campuses and far from the city center. (Sönmez, 2012, p. 68). As Ali Cengizkan (2006, p.16) states, "each class and position has started to own a house in a corner of the city that it has adapted according to its own income."

Building cooperatives in Kayseri increased between 1950-70 and became effective in the physical and spatial change of the city's housing culture together with family apartments. In this context, as Zeybekoğlu (2009) stated, it would not be wrong to refer to factories that contribute to urban development as "factories that produce city." The industrial facilities established outside the city also affected the city settlement and the cooperative houses built by the employees around the factories changed the growth direction and speed of urbanization. Considering the economic developments, it is seen that the factories established and the local manufacturing industry are also an important factor in the development and arrangement of the settlement plan of the city. The workers who born with the factories have reshaped the spatial and social stratification in the city by producing their own lodging and building cooperative housing type (Sönmez, 2012).

In order to meet the housing needs of the working personnel in and around the factories, lodgings, building cooperatives as well as new neighborhood formations have started. For example, as seen in Figure 3, while Sümerbank Kayseri Textile Factory (1935) and "Yeni Mahalle" developed on the northern axis of the city, Airplane Factory (1926) and "Esenyurt Mahallesi" were developed. Birlik Mensucat (Textile) (1951), Orta Anadolu Mensucat (Textile) (1955) and Şeker Fabrikası (Sugar Factory) (1955) encouraged potential residential areas in the west of the city (Sönmez, 2012). After 1950, the housing production policy made with loans for the working class in Turkey enabled many cooperatives to build many houses in Kayseri and had an impact on the spatial development of the city. Sümer, Hürriyet, Şeker and Kılıçaslan Neighborhoods were formed within the framework of this production policy (Onur, 2011).



**Figure 3.** Locations of building cooperatives established between 1949-1970 in Kayseri, Factory and new neighborhoods established around it (Sonmez, 2012, p.67).

According to the data obtained from the archives of Kayseri Kocasinan and Melikgazi Municipalities, it has been determined that 8 cooperative structures were put into practice between 1955-60, 5 between 1960-65, 25 between 1965-70, 43 between 1970-75, and 38 cooperative structures between 1975-80. It is thought that developments such as the establishment of the Ministry of Rebuilding and Settlement within the scope of the Zoning Law No. 6785 (1958), the arrangements in the Social Insurance Institution in 1965 to provide credit to the worker cooperatives, and the enactment of the Cooperatives Law No. 1163 of 1969 increased the number of cooperatives in Kayseri (Onur, 2017).

### 3.1. Kayseri Sugar Factory and Housing Cooperatives

The sugar industry is one of Turkey's most important production and industrial moves. A total of eleven new sugar factories were built in Turkey between 1951 and 56, and this number reached fifteen in 1956. Kayseri Sugar Factory, which was planned to be completed between 1951-56, was put into service in 1955 by Prime Minister Adnan Menderes. For the housing problem of civil servants and workers working in the factory, "seven two-storey lodgings were built, and two more single-storey lodgings were added to these in 1960. However, since the excess of the workforce working in the factory and the facility's distance of approximately 7 km from the city center increased the demand for lodgings, the existing accommodation facilities were insufficient and the surrounding lands belonging to the Factory were opened for development in 1957" (Asiliskender, 2008, p.118). The factory management supported the establishment of cooperatives on behalf of the employees and allocated a place for this service from its own land, Keykubat Hill (Figure 4).



**Figure 4.** Kayseri Sugar Factory and Keykubat Hill. (Google earth image, 2022).

For the Kayseri Sugar Factory campus, the lands belonging to “Şükrü İbabay, Adem Cilsal and Ölü Nuh” heirs were expropriated in the Keykubat State Farm area. The foundations of cooperative houses were laid on the slopes of the Keykubat Hill to the east of this land. Building cooperatives established for Sugar Factory employees pioneered the establishment of modern neighborhoods in the western periphery of the city, and became a campus for the working class in Kayseri, where modern house planning and cooperative planning in the style of garden-houses were taken as an example.

Building cooperatives established in Kayseri Sugar Factory and their establishment dates are as follows:

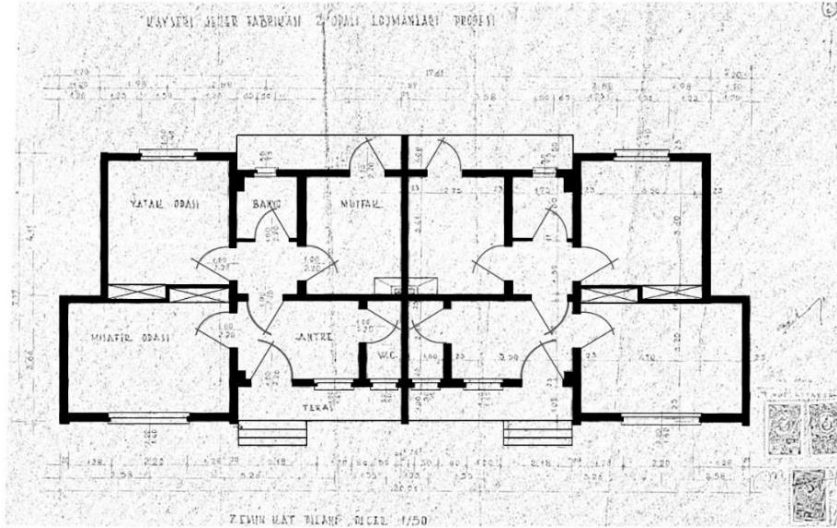
- Kayseri Şeker Yapı Koop. Ort. (Kayseri Sugar Building Coop) 08.03.1954-12.01.1962
- Şeker Fabrikası Mensupları Yapı Koop. (Sugar Factory Members Building Coop) 30.11.1957-27.04.1963
- Kayseri Şeker Yapı Koop. (Kayseri Sugar Building Coop.) 24.12.1959- 11.08.1991
- Kayseri Şeker Fabrikası İşçi Yapı Koop. (Kayseri Sugar Factory Laborer Building Coop) 22.12.1964 (70 members)
- Emel Yapı Koop. (Emel Building Coop., Kayseri) 03.01.1967 (57 members)
- Güven Yapı Koop. (Güven Building Coop., Kayseri) 16.05.1968 (32 members)
- Hür İşçi Yapı Koop. (Hür laborer Building Coop., Kayseri) 06.01.1970 (51 members)

According to Özüekren (1996), the practices of housing cooperatives in Turkey are examined in three different periods. The first period is the garden house applications, the second period is the apartment applications, and the third period is the mass housing applications. Housing and building cooperatives in Kayseri have developed in line with this view. As a matter of fact, ninety percent of the cooperative structures established by the employees of Kayseri Sugar Factory between 1954-70, which exemplifies the first two periods, were built as houses with gardens and the last stage, which was made in the early 1970s, was built as a 3-storey (Ground+2 floor) apartment.

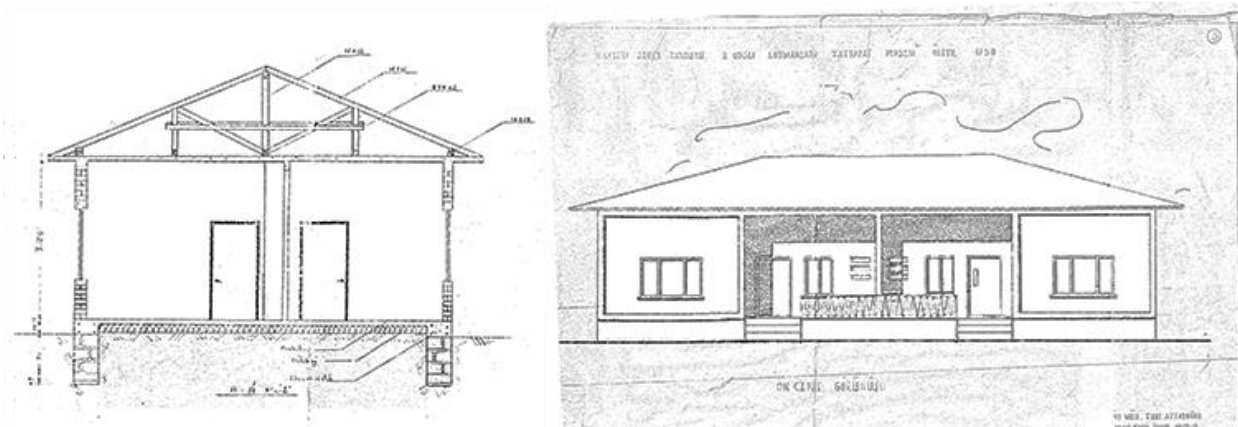
Since the working class who migrated to the center of Kayseri in the 1950s were peasants coming from the countryside with ties to the land and garden, it is no wonder this class adopted the first-period house practices with a garden. While it was desired that the peasant class evolve into the working class and become modernized through the Kayseri Sugar Factory cooperatives, garden city-style planning was envisaged in the western fringes of the city where they could continue their rural life. İhsan Bilgin (2002) stated about this approach of the period, “Both housing and cooperative settlements are included in the garden-city tradition with their low-rise and low-density settlement forms;

they were able to prioritize various emphases within the wide spectrum of the garden-city tradition from picturesque/rural fiction to fordist/rational fiction... .”

The factory, which started to build lodging in 1954 to meet the housing needs of the workers, continued this mission in the 1960s. The lodgings selected within the factory area were built in two blocks next to the Şeker Mosque. (Figures 5 and 6). The lodging blocks, which are single storey, are positioned side by side in the garden to receive two separate entrances from a single facade. These 77 square meters of residences have two rooms (Asiliskender, 2008, p.122).



**Figure 5.** Kayseri Sugar Factory two-room lodgings project, ground floor plan, 1960, Design: Cons. Eng. Fuat Attaroğlu (Kayseri Kocasinan Municipality Archive)



**Figure 6.** Section and view of the Kayseri Sugar Factory two-room lodgings project (Kayseri Kocasinan Municipality Archive)

The first cooperative opened under the auspices of the factory was the Kayseri Şeker Yapı Kooperatifi Ortaklığı (Kayseri Sugar Housing Cooperative Cooperation) in 1954. The full name of the cooperative is “Kayseri Sugar Housing Cooperative Cooperation” and the duration of the cooperative is thirty years. Its main purpose is to make its members a sanitary and inexpensive abode. It was compulsory to build houses in cities and towns with a population of at least 5000 and within the municipality.

News about other building cooperatives opened under the auspices of Kayseri Sugar Factory were also featured in different local newspapers of the period. “Sugar Laborers Build New Houses: Laborers working in our city's sugar factory started to operate in order to build new workers' dwellings with a cooperative they established. According to the



information given, after the workers' representatives completed all the necessary procedures for the cooperative they established, they obtained a loan and started working. With the houses whose foundations are announced to be laid tomorrow, almost all workers working in Şeker will have found a home" (Hâkimiyet Newspaper, 1959).

According to the news of the Hakimiyet Newspaper on April 29, 1959, "The foundation of 72 houses to be built by the Sugar Factory Housing Cooperative was laid yesterday: Between the years 1953-1959, loans were opened for 493 houses in Kayseri, and 401 of these houses were built. Noting the importance that the country attaches to the housing policy, it is a goal to have all Turkish workers, who have a great role in the industry and economy of the country, and that there are workers' dwellings built in various parts of the country until now, and that it is a goal to have a dwelling, and in order to reach this target as soon as possible, the Workers' Insurance Institution. It was written in the news that an attempt was made by the General Directorate for a bank facility." In addition, the fact that "Sugar Factory Manager Hicri Baysal started his speech by explaining the welfare that the building of workers' houses will provide in the social life of our workers" at the ceremony contains clues that the social life of workers will also change along with modern houses.

Sugar Factory management supported the establishment of building cooperatives even when the factory was under construction in 1954. The factory provided cheap land to the cooperatives. He helped solve the housing problem of his workers by selling some of his own land to the building cooperative for 30 cents per square meter. The founding members of the cooperative are Nihat Attaroğlu, Akif Cansezer, Ömer Alan, Tahir Yüksel and Hikmet Kütahneçioğlu (interview with Nihat Attaroğlu). The land of the building cooperatives established on Keykubat Hill was seen as a part of the Factory area, and the entrance and exit to the cooperative area were controlled (Figure 7).



**Figure 7.** Kayseri Sugar Factory Cooperative Houses, (Şekertepe Evler Mahallesi), early 2000s. (URL 2).



**Figure 8.** Şekertepe Evler Mahallesi (Şekertepe Houses Neighbourhood). (Google earth, 2021)

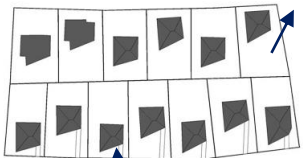
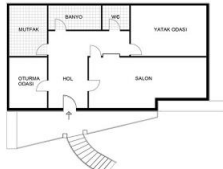

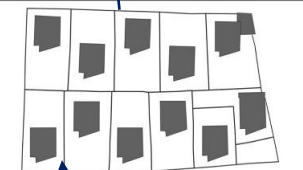
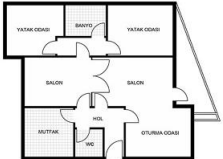

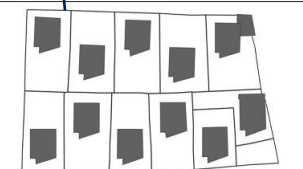


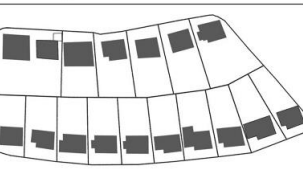
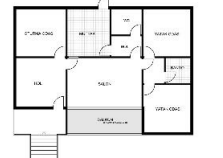

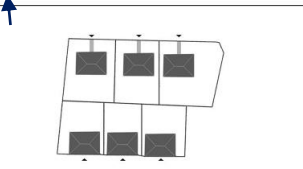


The fact that the houses were built on a sloping land is due to the preference of a close environment with the encouragement of the factory management of the period. As can be seen in Figure 8, the first phase residences located on the sloping land according to the grid plan system started at the end of 1958 and finished in 1960. A total of 72 cooperative houses were built, including 24 three-bedroom, 26 four-room, and 22 two-room houses. The second phase of the cooperative houses with 4 rooms, called 60 houses, started in 1960 and finished in 1962. Sugar Factory Mosque (1958) and Sugar Primary School (1958) were built in the immediate vicinity of the cooperative houses, together with the lodgings and the first stage cooperative houses.

According to Asiliskender (2008, p.120), "... The first stage, which started in 1958, began to be used after 1960. Similarly, when the houses built in the first stage were not sufficient, the production of the second stage was started in 1960 and the houses were completed in 1962. Ownership rights of the residences were transferred to their users after 1965." In the 1970s, the building of 24 apartment-type cooperative housing started. There are 96 houses in total with 4 flats in each of the 24 blocks, which were started to be used in 1974.

### **3.1.1 Spatial Analysis of Cooperative Houses**

Sugar building cooperative houses were designed in accordance with the modern architectural understanding between 1950-70. These houses, which were built in five different plan types (two-room, three-room and four-room), were designed as one-storey houses with a basement and a garden and two-storey apartments, depending on the condition of the sloping land (Figure 9). Every house has a front and back garden. The houses, where the owners of the houses also produce fruits and vegetables for their personal needs in their gardens, are special structures where the relationship with nature is present in modern planning.

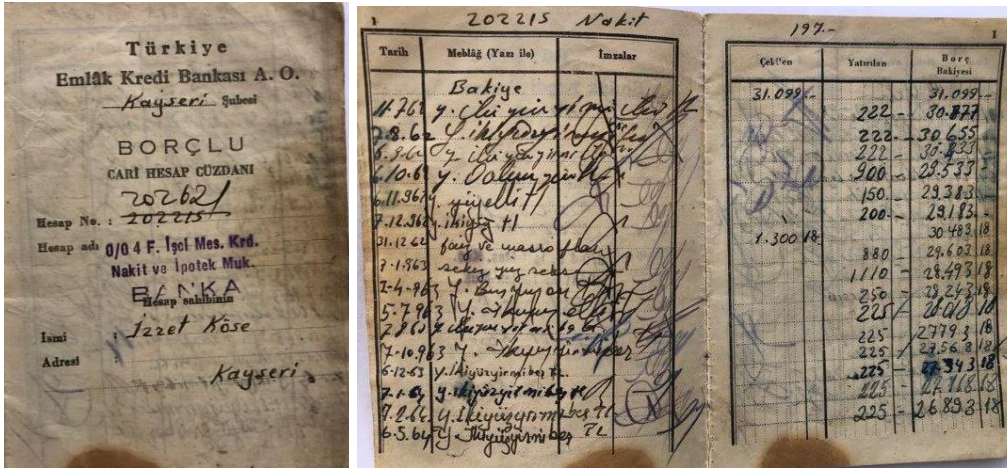
The slope of the land has caused the houses to be shaped according to the elevation difference. While the ground floor of some houses can be reached by stairs, it has allowed the formation of basements in some of them. The houses in the first three stages are positioned in a zig-zag manner so that they do not block each other. The fourth stage houses and the fifth stage apartment blocks are lined up side by side. As can be seen in Figure 9, a new space organization has been designed for families that have moved away from the traditional form of housing in the design of the houses and turned from rural to urban working class.

ŞEKER FABRİKASI İŞÇİ YAPI KOOPERATİFLERİ, 1954-1970			
E 1 ÜÇ ODALI TİP 24 Adet			
E 2 DÖRT ODALI TİP 26 Adet			
E 3 İKİ ODALI TİP 22 Adet			
E 4 DÖRT ODALI TİP 60 Adet			
E 5 APARTMAN TİPİ 96 Adet			

**Figure 9.** Cooperative house types identified in Şekertepe Evler Mahallesi. 18.05.2022.  
(Plan schemes were created by the author.)

Sugar Factory provided technical and material support for the building of the houses. Nihat Attaroğlu, one of the founders of the cooperative, said the following on this subject: "The Sugar Factory has provided great support in the establishment of building cooperatives. First of all, the factory sold the land on which the houses will be built to the cooperative with an installment payment of 30 or 40 kuruş per square meter, and a loan was obtained from the Workers Insurance. He also gave the materials left over from the building of the factory to the cooperative for the building of the houses. The red stone, which we call Derevenk stone, was used as a coating on the facades of the two-room houses. My Brother, building engineer Fuat Attaroğlu, prepared the architectural projects of the cooperative houses and worked as the contractor for two separate cooperatives, first 72 houses and then 60 houses. Fuat Attaroğlu worked on behalf of the cooperative for 90,000 liras as the site manager in the first 72 houses. Cooperative building began between 1958-59, but workers moved into their homes in the 1960s. The houses were allocated to the workers by lottery. The residences, built as houses with gardens, are around 700-900 square meters with their gardens. In the planning, attention was paid to the protection of the landscape, and it was taken as a basis that the houses do not close each other in the settlement. Families initially built the basement in their home as a warehouse, shop, etc., used for such purposes. Some equipment of the cooperative is provided with the facilities provided by the factory, for example, even the water needs of the houses are met by the factory, and the trees planted in the gardens consist of seedlings brought from Turhal. The landscape architect of the factory, İsmail Bey, made suggestions to the workers living in the residences about planting

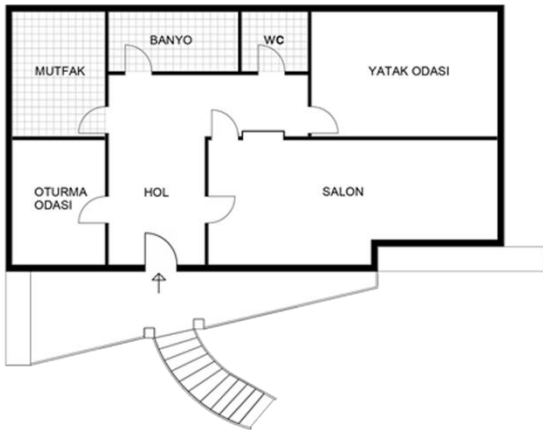
and growing trees. The houses in the lowest row close to the mosque were built with three rooms, the houses in the middle part with four rooms, and the houses with two and four rooms in the upper row. Later, in the early 1970s, two-storey new houses were built in apartment type, with two flats on each floor. Workers became homeowners by paying loan installments to Emlak Kredi Bank in 10-15 years" (Figure 10). In fact, as Abidin Mortaş stated (1944), one of the main aims of cooperatives, "to make the houses cheaper with installments that they can pay without any trouble by putting less burden on the partners" has been realized here as well (Mortaş, 1944, p.90).



**Figure 10.** Sample passbook showing that the workers paid the loan installments to Emlak Kredi Bank (Talip Köse Archive)

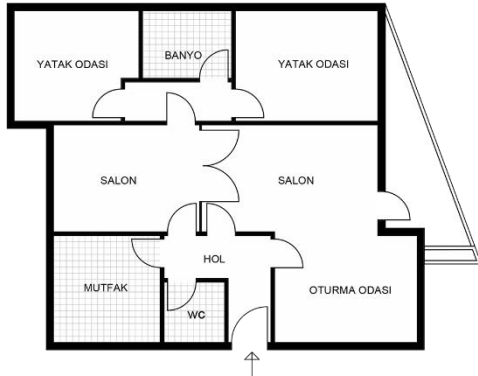
The first residences of the cooperative, built in 1958, are single-storey and three-room houses located in three rows across the Şeker Mosque. These houses are generally located on 700 to 900 square meters of land and are built with building materials such as concrete, brick, glass, wood, and stone.

The cooperative houses, which differ from the traditional Kayseri house with its architectural plan understanding and carrier system, and the use of materials, suggested a "new lifestyle in contemporary housing." As can be seen in Figure 11, the use of the reinforced concrete system on the balcony and the design of the section covered with *Derevenk* stone as a fireplace in the interior and its privatization on the façade gave the opportunity to observe the change in the usual housing design and sheltering styles in the 1960s.



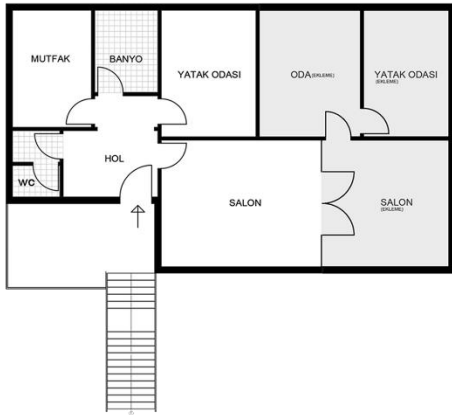
**Figure 11.** One of the first cooperative houses owned by worker families in 1960. (Filiz Sönmez Archive, 2022)

In the four-room houses, the entrances are from the side, instead of the balcony, according to the level differences (Figure 12).

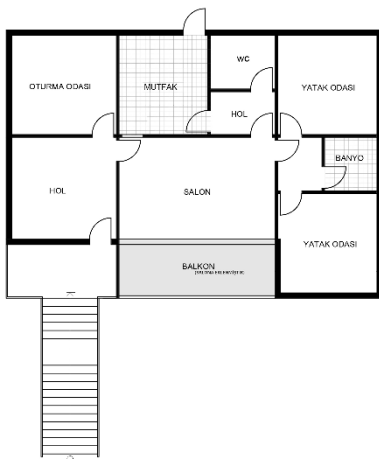


**Figure 12.** The house with a four-room plan from Şekertepe houses building cooperative houses (Filiz Sönmez Archive, 2022)

As can be seen in the architectural plan diagram in Figure 13 and Figure 14, it is understood that the new room additions needed by the owners of the houses were made over time and the original plan was changed.



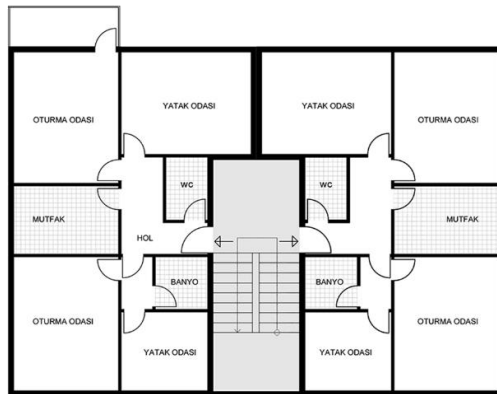
**Figure 13.** Two-room plan type from the Şekertepe building cooperative houses. Three rooms were added to the structure later. (Filiz Sönmez Archive, 2022).



**Figure 14.** Plan scheme and front view of 60 houses with four rooms. (Filiz Sönmez Archive, 2022)

The transition of Şeker Yapı Cooperative houses from the garden house model to the

apartment type in the early 1970s can be shown as one of the first examples of this transformation (Figure 15).

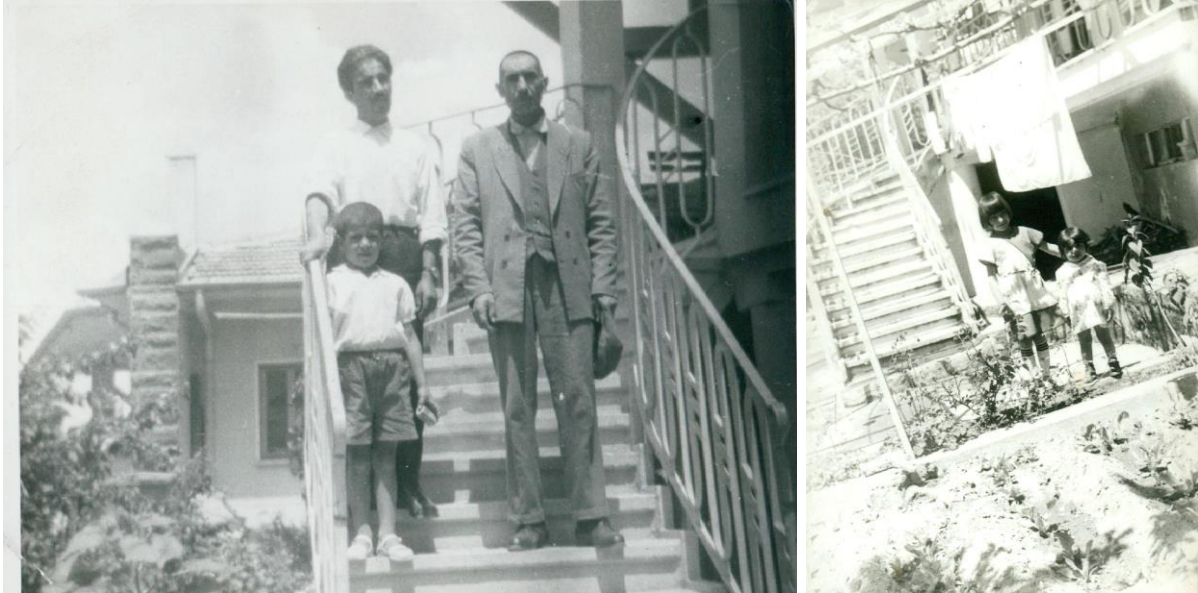


**Figure 15.** Plan scheme of apartment type cooperative houses built in the early 1970s. (Ground+2 floors), (Filiz Sönmez Archive, 2022)



**Figure 16.** The houses are positioned on the land so that they do not block each other's view (Filiz Sönmez Archive, 2022).

The garden city planning of the "Ankara Bahçelievler Housing Cooperative" in 1935 set an example for the cooperative house planning designed as a "house with a garden" in many provinces in Turkey until the end of the 1960s. Kayseri Sugar Factory worker building cooperative houses are similar to the "modern house in the garden" planning (Figures 11, 12, 13, 14, 15). However, Ankara Bahçelievler, designed by H. Jansen, has additional structures such as a bazaar, PTT and police station due to the difference in scale; also street, avenue and park designs are also available. The example of Ankara draws attention as it has a structuring style that keeps the social life alive and meets certain needs. However, Kayseri Şeker Housing Cooperative was able to meet its social and cultural needs only from the equipment left in the factory land. The common aspects of both cooperatives are that they are based on garden city planning, create a modern workers' campus and offer a "contemporary," "safe," and "comfortable" neighborhood life (Figure 17).



**Figure 17.** A slice of life in Şekertepe Evler Neighbourhood (Talip Köse Photograph Archive, 1980).

The aim of the worker-civil servant cooperatives throughout the country is not only to find an answer to the housing problem in the cities, but also to determine the development direction of the city physically and socially. As Burak Peri states, "These important buildings, which can be called workers' residences, emerged primarily as a practical need and secondarily as a part of the targeted social change" (Peri, 2006, p.26).

### **5. Evaluation and Conclusion**

In this study, Kayseri Sugar Factory Laborer Housing Cooperative houses, which are still called Şekertepe Evler Mahallesi, (Şekertepe Houses Neighbourhood) were examined and evaluated in the context of modern neighborhood and housing production.

The building cooperatives established by the workers with the factories, lodgings, and guesthouses established far from the city center determined the growth direction of the city and were proposed as a solution to the housing problems of the period. Modern lodging and building cooperative planning, which started with Sümerbank Cloth Factory (1935) in Kayseri, was continued with newly established factories in the 1950s and continued to grow towards the city periphery.

Sugar Factory worker cooperative houses are a term campus with the rational structure representing the building production methods/technology of the 1960s, as well as the application of the "house with garden" design concept and the families of workers who have adopted the new form of housing.

Şekertepe Evler Mahallesi is one of the first examples of building cooperative neighborhoods associated with factories in Kayseri in the 1950s, and it reflects the architectural planning understanding of the period, newly produced house plan types from garden house type to apartment house type, reinforced concrete building technique and modern material features in the modernization process.

The first cooperative houses, which were started in 1958, were completed in stages, and the last was completed in 1970 with the 5th type apartments. The settlement style of the houses in the neighborhood on the sloping land, the relationship it establishes with the garden and the street is unique, and it also symbolizes a period in which new housing typologies began to emerge in Kayseri for the middle class.



Sugar Factory worker building cooperative, which is a modern guide for the cooperative houses built after it in Kayseri, has been among the privileged neighborhoods of the city in this respect.

In addition, this cooperative neighborhood has a sociological and cultural memory importance as it reflects the socio-economic status and lifestyle of the working class working in the industrial sector of the period. In this context, it is important to preserve the cooperative houses, which were planned as a part of the garden workers' campus and are still in use, as authentic local examples of Turkish modern architecture.

Although the original plans of some houses have changed with the repairs and additions they have undergone since the period they were built, all the houses in the neighborhood should be protected. The plan decisions to be taken by the local administrations regarding the development of the neighborhood should be based on the protection of the settlement. A planning and conservation approach should be developed to ensure that the houses in the neighborhood continue to exist, not individually, but at the neighborhood scale, with a holistic conservation approach, both physically and socio-culturally.

## REFERENCES

- Anonymous (1937). "Zoning Plan of Ankara".
- Akın, İ. (1966). "Yapı Kooperatifleri", (Housing Cooperatives) Türkiye Mühendislik Haberleri, (Turkey Engineering News), p.8-9.
- Alkışer Y., Yürekli H., (2004). "Past, present and future of "State Residence" in Turkey" ", İTÜ Mimarlık Fakültesi Dergisi/A Mimarlık, Planlama, Tasarım (ITU A|Z), 3 (1), pp. 63-74. (in Turkish)
- Asiliskender, B. (2008). "Modernleşme ve Konut; Cumhuriyet'in Sanayi Yatırımları ile Kayseri'de Mekânsal ve Toplumsal Değişim". (Modernization and Housing; Spatial and Social Change in Kayseri with the Industrial Investments of the Republic). PhD Thesis, Istanbul Technical University. (in Turkish)
- Bakır Doğru, H. (2020). "Cumhuriyet Dönemi Konut Mimarisinde İdeal Bir Mekân (Okuması) Örneği: Yapı Kooperatifleri".( An Example of an Ideal Space (Reading) in the Housing Architecture of the Republican Period: Housing Cooperatives) Uluslararası Sosyal Araştırmalar Dergisi, 13(71), pp. 359-366. (in Turkish)
- Bilgin, İ. (2002). "Anadolu'da Konut ve Yerleşmenin Modernleşme Süreci"(The Modernization Process of Housing and Settlement in Anatolia). <https://v3.arkitera.com/diyalog.php?action=displaySession&ID=62&year=&aID=652>
- Cengizkan, A. (2006). "İstanbul Silahtarağa Elektrik Santrali Türkiye'de Fabrika ve İşçi Konutları" (Istanbul Silahtarağa Power Plant Factory and Workers' Housing in Turkey), Mimarlık Dergisi. pp.14-18. (in Turkish)
- Davis, J. E., editor. (1993). The Affordable City: Toward a Third Sector Housing Policy. Philadelphia: Temple University Press
- Demirkan, Ö., Salbacak, S. (2019). "Modernin Yereldeki İzleri: Giresun Fiskobirlik Yapı Kooperatifi "Birlik Evleri" (Local Traces of Modernity: Giresun Fiskobirlik Housing Cooperative "Birlik Houses), Mimarlık, p. 408, Ankara, Turkey (in Turkish)
- Doğusan-Alexander, N. G. (2013). "Bir Modernleşme Pratiği Olarak Kooperatifçilik ve Bahçeli Konut Yerleşimleri" (Cooperatives as a Modernization Practice and Bahçeli Housing Settlements).PhD Thesis, Istanbul Technical University. (in Turkish) .
- Erkiletlioğlu, H. (2006). "Geniş Kayseri Tarihi"(Extensive Kayseri History), Can Matbaa, Kayseri, Turkey. (in Turkish)
- International Labor Office. (1964) Housing Cooperatives, Studies and Reports, New Series , No. 66. Geneva: La Tribune de Geneve.
- Kalaç, A. H. (1946). "Kayseri'nin Bayındırlık Hamleleri" (Kayseri's Public Works Moves)., Kayseri Vilayet Gazetesi, 11 November 1946.Kansu, A. (2009). "Jansen'in Ankara'sı İçin Örnek Bir 'Bahçe Şehir' ya da Siedlung: Bahçeli Evler Yapı Kooperatifi 1934-1939"( An Exemplary 'Garden City' or Siedlung for Jansen's



- Ankara: Bahçeli Evler Building Cooperative 1934-1939). *Toplumsal Tarih Dergisi*, 187, pp.54-65.
- Keleş, R. (1979). "Devlet ve Konut Kooperatifçiliği". TMMOB III. Yapı Üretim Kongresi, 22-23 Aralık, İzmir, ss.31-40.
- Keleş, R. (2016). "Kentleşme Politikası"( Urbanization Policy). *İmge Kitabevi Yayınları*, p.15, Ankara, Turkey.
- Miceli, T., Gerald Sazama, and C. F. Sirmans. (1994). Role of limited equity cooperatives in providing affordable housing, *Housing Policy Debate*, 5 (4) pp.469-490.
- Mortaş, A. (1944). "Az Para İle Ev Yapmak ve Bizde Kooperatifçilik" (Building a House with Little Money and Cooperatives with Us), *Arkitekt*, pp. 03-04,90-92. In; Bayraktar, N.. (2014). "Ankara'da Yerleşim Ölçeğinde Modern Konut Uygulamaları", *Başkent Oluşunun 90. Yılında Ankara: 1923-2013, (Modern Housing Applications at the Scale of Settlement in Ankara"*, Ankara on the 90th Anniversary of Its Capital: 1923-2013). Ed. Koroğlu, A. Ankara Üniversitesi Yayını, Ankara, Turkey, pp. 137-156.
- Onur, B., Duggan, B. (2017). "Kayseri'de Sosyal Sigortalar Kurumu (SSK) Tarafından Üretilen Konut Kooperatiflerinin Nicel Gelişimi (1950-1980)"(Quantitative Development of Housing Cooperatives Produced by the Social Insurance Institution (SSK) in Kayseri (1950-1980). *Journal of History Culture and Art Research*,6 (3), ss. 696-712. doi:http://dx.doi.org/10.7596/taksad.v6i3.842.
- Onur, B. (2011). "Kayseri'de 1950-1980 Yılları Arasında Modern Yapı Üretme Geleneğinin Kuruluşu" (Establishment of Modern Building Tradition in Kayseri Between 1950-1980)., Erciyes University , MSc Thesis, Kayseri, Turkey.
- Onur, B. (2021). "Karabük'te Modernleşme Süreci ve Çamkent Yapı Kooperatifi" (Modernization Process in Karabük and Çamkent Housing Cooperative). *Journal of Awareness*, 6, 2, pp. 185-198.
- Özüekren, Ş. (1996). "Kooperatifler ve Konut Üretimi, Tarihten Günümüze Anadolu'da Konut ve Yerleşme" (Cooperatives and Housing Production, Housing and Settlement in Anatolia from History to the Present). *Türkiye Ekonomik ve Toplumsal Tarih Vakfı Yayınları*, İstanbul, Turkey. (in Turkish)
- Peri, B. (2006). "Cumhuriyet Dönemi Endüstri Yapıları ve Yerleşkeleri Kayseri ve Nazilli Sümerbank Fabrikaları" (Republican Era Industrial Buildings and Campuses Kayseri and Nazilli Sümerbank Factories). *Mimarlık Dergisi*, pp.24-28.
- Sazama, G. (1996). "A Brief History of Affordable Housing Cooperatives in the United States", *Economics Working Papers*. 199609. [https://opencommons.uconn.edu/econ\\_wpapers/199609](https://opencommons.uconn.edu/econ_wpapers/199609)
- Sazama, G. W. and Roger Willcox. (1995) "An Evaluation of Limited Equity Cooperatives in the United States" Working paper series, Department of Economics, University of Connecticut, Storrs.
- Sey, Y. (1998). "Cumhuriyet Döneminde Konut" (Housing in the Republican Period), 75 Yılda Değişen Kent ve Mimarlık, (Changing City and Architecture in 75 Years). (ed.) Yıldız Sey, *Tarih Vakfı Yayınları*, İstanbul, pp.273-300
- Sönmez, F. (2012). "Kayseri Barınma Kültüründe Değişim: 1930-1970" (Change in Kayseri Shelter Culture: 1930-1970), YTÜ, PhD Thesis,. İstanbul.
- Sözen, M; Mete, Tapan, (1984). "50 Yılın Türk Mimarisi" (50 Years of Turkish Architecture), *Türkiye İş Bankası Yayınları*, Ankara.
- Tekeli, İ. (2009). "Konut Sorununu Konut Sunum Biçimleriyle Düşünmek" (Thinking of the Housing Issue in Housing Presentation Formats). *Tarih Vakfı Yurt Yayınlar*, İstanbul, Turkey.
- Uysal, Y. Yeşim, (2013). "Tarihin İktidarının Yok Saydıkları: Yapılar ve Mimarlar / Kooperatif Evleri" (Ignored by the Power of History: Buildings and Architects / Cooperative Houses), *Bellek ve Kültür Sempozyumu'nda sunulmuş bildiri*, (Paper presented at the Memory and Culture Symposium) 5-7 Eylül 2013, Bilkent University, Ankara, Turkey
- Uzgören, N. (1955). "Tanınmış Kooperatifçimiz Nusret Uzgören diyor ki: 1928-1955" (Our Renowned Cooperative Nusret Uzgören says: 1928-1955). Ankara: Türk Kooperatifçilik Kurumu Yayınları.



- Yahyabeyoğlu, A. (1952). "Kooperatifleşmenin Nimetleri" (Blessings of Cooperatives), 11 August 1952. *İstiklal Gazetesi*, (Birinci yıl, 3).
- Yerli, Ö. (2016). "Tarih İçerisinde Yok Olan Bir Bahçe Şehir Uygulaması: Ankara Bahçelievler" (A Garden City Application that Disappeared in History: Ankara Bahçelievler). *Türkiye Peyzajları I. Ulusal Konferansı (Ulusal PEMKON Konferansı) Türk Bahçeleri (23-25 Mayıs 2016-İstanbul)*, ss.377-388
- Zeybekoğlu, S. (2009). "Erken Cumhuriyet Döneminde Sanayi Komplekslerinin Mekânsal Analizi: Nazilli, Kayseri, Bursa, Eskişehir", *Fabrika'da Barınmak: Erken Cumhuriyet Dönemi'nde Türkiye'de İşçi Konutları: Yaşam, Mekân ve Kent (Spatial Analysis of Industrial Complexes in the Early Republican Period: Nazilli, Kayseri, Bursa, Eskişehir)*, *Housing in the Factory: Workers' Housing in Turkey in the Early Republican Period: Life, Space and the City*. Ed. A.Cengizkan, Arkadaş Yayınevi, Ankara.
- Zimmer, J. E. (1977). *From Rental to Cooperative: Improving Low and Moderate Income Housing*. Beverly Hills: SAGE Publications
- Willcox, R. (1953). Cooperative techniques and effective reduction in housing costs, *Land Economics* 29(4) 295-302.

URL 1: "Türkiye'de Kooperatifçilik (Cooperatives in Turkey)".

<https://www.goksuevleri.org.tr/kooperatifcilik/turkiyede-kooperatifcilik/> (Access Date: 28.09.2022)

URL 2: "Şekertepe Evler Mahallesi", <http://wowturkey.com/> (Access date: 18.10.2021)

URL 3: "Bahçelievler Yapı Kooperatifinden Günümüze (From Bahcelievler Building Cooperative to Present)". <https://emekbahceli.blogspot.com/2016/03/bahceevler-yapi-kooperatifi.html> (Access Date: 12.05.2022)

#### **Interview:**

Interview with Nihat Attaroğlu on 18.11.2021

#### **Archives:**

Filiz Sönmez. (2022). "Kayseri Şeker Fabrikası İşçi Yapı Kooperatifleri Fotoğraf Arşivi" (Kayseri Sugar Factory Workers' Building Cooperatives Photo Archive).

Talip Köse. (1980). "Kayseri Şeker Fabrikası İşçi Yapı Kooperatifleri Fotoğraf Arşivi" (Kayseri Sugar Factory Workers' Building Cooperatives Photo Archive).

Kayseri Kocasinan Belediyesi. (2022). Plan ve Proje Müdürlüğü Belediyesi Arşivi. (Kayseri Kocasinan Municipality Plan and Project Directorate Municipality Archive).

#### **Newspaper:**

"Şeker Fabrikası Yapı Kooperatifi", *Hâkimiyet Newspaper*, 29 April 1959.

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