



Spatial transformation of traditional Ayvalık houses: A comparative analysis of two houses

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Abstract

Ayvalık, located in the Aegean region of Turkey, is one of the historical settlements that preserves its original identity owing to its 19th-century traditional housing texture. The traditional houses of Ayvalık have a unique ethnic structure shaped by Greek-Turkish identity. The current research covers a comparative spatial analysis of two traditional Ayvalık houses, built adjacently, one restored and the other not restored, selected as a case study, and aims to read the transformation through the analysis of these two houses, according to the spatial characteristics of the traditional Ayvalık house defined by literature review. Photographic documentation, interviews, and on-site observation are used to collect data. As a result, it is determined that the houses have partially preserved their original spatial characteristics due to individual interventions and that the spatial characteristics of the traditional Ayvalık house are shaped in line with the needs of the residents depending on the period it belongs to.

Keywords: Ayvalık houses; spatial analysis; spatial transformation; traditional dwelling; traditional house.

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1. INTRODUCTION

The characteristics of traditional houses vary according to culture and geography. Traditional houses reflect the history, historical traces, social and cultural texture of the environment. Geophysical features are very important for humans and organisms (Sahmurova & Babayeva, 2008). Traditional houses reflect the past, historical traces, and social and cultural texture of their surroundings (Formolly & Saraei 2024). The residential areas of Ayvalık (Figure 2), which is a district of Balıkesir (Figure 1) province that has partially preserved its traditional authentic texture since the 19th century, are concentrated in the plains and coastal areas with low slopes (Akbüber, 2020). The traditional houses of Ayvalık are the Greek houses that were vacated during the population exchange process. A different ethnic structure emerged with the Turkish house identity added to the Greek culture with the settlement of the Turks in the empty houses after the exchange.

Currently, Ayvalık is an important district serving the tourism sector with its cultural and historical architectural heritage. Considering the tourism potential of the region, the increase in the environmental value of traditional houses also changes the use of these buildings. Urbanization in the 1950s, tourism pressure in the 1960s, and the need for housing due to the increasing population in the 1980s brought new constructions to the agenda, therefore, the High Council of Real Estate and Antiquities and Monuments declared Ayvalık a historical and natural protected area in 1976 (Vakfi, 2014). It is necessary to integrate the traditional buildings, which are of great historical, cultural, and social importance, into the present, to transfer the original architectural integrity from the past to the present and to preserve their continuity (Çakır Kiasif, 2018; Ho, 2024; Peng et al., 2024; Zeng et al., 2023). However, Homes spatially change over time due to climatic, social, cultural, and economic conditions, and some values are preserved to retain cultural identity (Seo, 2023; Nadoomi et al., 2022). Generally, the spatial characteristics of individual housing are affected by the nation, region, or culture of the people (Lai et al., 2023). The traditional Ayvalık house is gradually disappearing due to reasons such as constant handovers, lack of maintenance, and the use of new materials. Various studies are being carried out to preserve the original texture of the traditional house and to sustain it for future generations, but tourism and the increase in the spatial requirements of new users, along with tourism, spoil the original texture of the Ayvalık house.

1.1. Literature review

In the historical process, events such as migration, war, and uprising in the Ayvalık region have affected the buildings visually and formally by revealing new, cheap, easy-to-produce materials in the construction sector. In this way, Ayvalık architecture has had architectural examples shaped by Greek and Turkish community life. Greek architecture in which masonry is used in the coastal region, and traditional Turkish house architecture in which wooden masonry and stone are used as materials, with bay windows towards the hill regions are seen (Asimgil & Erdoğan, 2013). In the construction of traditional houses, building materials that are easily available and processed in the region were used. Sarımsak stone, obtained from the Sarımsaklı region of Ayvalık, is an easily workable, rose-colored stone formed from lava flows (Akıncıtürk, 2002). Houses, cafes, taverns, factories, and shops in Ayvalık and Cunda are generally built of Sarımsak stone. Building materials used in residences and social common spaces have created a common architectural language by providing visual integrity in the city. The houses were built adjacently, with wide-span windows, without balconies, without front yards, and generally with side or rear courtyards, and this structure formed the general characteristics of the residential architecture of the Aegean coasts and islands (Levi, 1999). Grossman (2004) states that the imitation of the past, which has survived from Ancient Greek architecture, is still used and that this architectural approach, which includes lifestyle, social structure, and society, was developed to serve a mixed culture, and that the three elements of architectural practice are “plan, construction method, and ornamentation” helps to analyze the character of Greek architecture. The architectural style is defined not only by specific forms and designs but also by the process of combining and adapting practices and forms (Grossman, 2004). For this reason, the historical and cultural traces from the past

are influential on the identities of the buildings, but the characteristic of civil architecture becomes an important feature of traditional architecture in terms of reflecting the cultural values of the past (Murakami & Ikaga, 2008).

In the traditional Ayvalık houses, the Turkish-Greek ethnic structure was effective especially in the interior spaces, while the structural changes were not much in question, and the original textures of the buildings were generally preserved on the exterior. Especially the use of thick stone walls and the doors of houses that can be climbed with a few steps and opened directly to the street have not been changed (Eriç, 1989), and have continued to exist until today. Worn, neglected, and abandoned buildings were repaired with different and cheap building materials, thus the buildings began to move away from their old traditional appearance (Asimgil & Erdoğan, 2013). It is important to examine the aesthetic understanding and architectural design principles that are effective in the design of a building, to determine the art movements of the period in which it was built, to define the type of building it belongs to, and to evaluate it typologically, in terms of revealing the artistic value of the work (Ahunbay, 1996). The character of a historical building; It explains in detail the historical values of exterior materials such as roofs, windows, and metal works, interior materials such as wood, decoration, plaster, and paint, their properties, architectural elements such as stairs and space relations, their structural and mechanical systems, the location, and location of the buildings (Weeks & Grimmer, 1995). In this way, it is seen that "plan, construction method and decoration" are three important elements in the examination of Greek houses (Grossman, 2004), and "space, facade and construction" factors (Özker, 2021) are important in determining the characteristics of the traditional Ayvalık house.

1.1.1. Space characteristics

Location: The traditional Ayvalık House is generally located in a square or rectangular parcel. It is the "corner" or "intermediate" residence adjacent to the other building and is in Neoclassical style. It has two or three floors. **Space Arrangement:** Distribution is made according to the sofa layout. Sofa types are "outer sofa; in front of the room, interior sofa; between the rooms, the middle sofa; it is symmetrical concerning the location of the rooms" (Eldem, 1954). The sofa has a variable structure between the rooms, which determines the plan type of the house, while the rooms are similar to each other (Kuban, 1995). "Side courtyard, courtyard or inner garden with high walls, storage, sitting area with fireplace, kitchen, sofa" are located on the ground floors; "sleeping, living areas" are planned on the upper floors and some houses have closed balconies (Erdem et al., 2007). In the Ottoman period, the courtyard and garden, architectural elements that developed around privacy, were separated from the outside world, and surrounded by high and thick walls to enable the family to run their daily work (Doğan, 2002).

1.1.2. Facade characteristics

The front facade generally faces the street. Some houses have a single entrance, while others have two entrance doors. There is a wooden and high main entrance door and monumental door knockers. A second entrance door on the front facade is generally used as a warehouse. Other characteristics of the front façade; are overhangs and windows (Erdem et al., 2007).

1.1.3. Construction characteristics

Building materials are "rubble stone, cut stone, and Sarımsak stone" in the exteriors and "wooden beam, wood veneer, and brick" in the interiors. Brick-arched or rectangular-shaped windows are made of wooden wings, and the overhangs are made of metal or stone consoles (Erdem et al., 2007).

Accordingly, the original characteristics of the traditional Ayvalık house are demonstrated in Table 1.

Table 1
Original characteristics of traditional Ayvalık house

Year of Construction	1800's/ begin of 1900's
Style	Neoclassical
First Use	Housing
Last Use	Housing
Housing Placement	The residences are located mainly in the middle sections and parallel to the sea.
Housing Plan and Location	The houses are square or rectangular in plan, adjacent to the corner or in the intermediate parcel on narrow streets running perpendicular or parallel to the sea.
Front of Housing	The residence faces the street.
Housing Outdoor Use	The residences have a backyard, side courtyard, or closed backyard surrounded by high walls.
Main Entrance	The house is entered in a high niche, with one, two, or three steps.
Sofa Usage	The sofa, which provides the transition between residential living spaces, has different plan types as "interior sofa, exterior sofa, corner sofa, central sofa" (Erdem et al., 2007).
Number of Floors	The residences have two or three floors.
Window Usage	There are thin-long, wide-span, high, and rectangular windows in the living areas of the residence. Generally, there are windows on the upper floors.
Balcony Usage	The residences do not have the use of open balconies. Some houses have closed balconies on the rear facades.
Housing main entrance	The houses have monumental wooden, arched, or flat lintels, high entrances, and long doors. Pediments and monumental door knockers indicate the date of construction on the doors.
Housing entrance (in secondary two-entry buildings)	At the secondary entrance of the residences, there is a warehouse for laundry, cistern, and olive storage.
Ethnic identity	It has Greek and Turkish ethnicity.
Location Planning	On the ground floor of single-entry residences; toilets in the living room, kitchen, side courtyard or garden, and courtyard, or garden, on the upper floors; There are sitting and sleeping areas located around the sofa. On the ground floor of the two-entrance residences; There are storage and main entrance, sofa, sitting, kitchen and sleeping areas located around the sofa on the upper floors, toilets in the courtyard or garden.
Outdoor Materials	Stone, cast iron console cantilevered, pediments and eaves are wrought iron, exterior shutters are usually wood, the carrier system is mainly wood and masonry, filled with wood, adobe-stone, brick or cut stone on the upper floors, ground floor stone, Sarımsak stone, original plaster are available.
Interior Materials	Ground floor interior walls are brick and lime plaster, floor and ceiling floors are wooden beams and wood veneer, partition walls are baghdadi plastered on the wooden carrier, all doors are wooden, glass is used on the upper part of some doors, stair railings, wall and ceiling pediments are wooden, bed and ceiling pediments are made of wood. In the living quarters, there are only cabinets with wooden doors in the brick wall niche, a stone kitchen counter in the storage area, a stove area, and lighting niches.

(Madran, et al., 1985; Asimgil & Erdoğan, 2013; Çobanoğlu & Cantimur, 2007; Erdem et al., 2007; Özker, 2021).

1.2. Purpose of study

The paper aims to read the spatial transformation that occurred by changing user interventions by identifying the characteristics of the traditional Ayvalık house and contributing to the cultural assets documentation system.

2. METHOD AND MATERIALS

2.1. Method

The scope of the research is to read the spatial transformation of traditional houses of Ayvalık and covers a comparative spatial analysis of two traditional Ayvalık houses, selected as a case study, reflecting the 19th-century historical urban texture, built adjacently, one restored and the other not restored.

The reasons why these two houses have been determined as case studies are:

- The houses are traditional Ayvalık Houses,
- The First House is not restored and does not have a housing project,
- The Second House is restored and has a housing project,
- The two buildings are adjacent and easily accessible by researchers.

Although these issues are in question in a few traditional buildings in Ayvalık, it is very difficult to find all of these sought-after characteristics in one building. The number of sources analyzing the architecture of traditional Ayvalık houses is very limited, and inventory studies of residential buildings are almost non-existent. Although the first house is located on the historical site, the fact that its project has not been created is one of the important factors in case selection. As a result, the spatial characteristics of the traditional Ayvalık house are analyzed in these two houses selected as case studies and it is determined that the first house preserves its original structure, and the second house is renovated by its original structure. In this direction, the existing housing project of the second house is revised; the housing project of the first house is drawn since it is not a housing project and a housing inventory of both houses is created.

2.2. Analysis

The analysis of the houses is made according to the spatial characteristics of the traditional Ayvalık house defined by the literature review. Photographic documentation, interviews with house owners, and on-site observation are used to collect data.

3. RESULTS

3.1. Case Study: Comparative analysis of two traditional Ayvalık houses

The first house, which is not restored, and the second house, which is restored, are selected as case studies because they are adjacent and easily accessible by researchers. Although the number of houses in the historical site, which allows a comparative analysis of whether the traditional texture is damaged or not, the adjacent order, restored and unrestored, is limited, the adjacent arrangement of the two buildings has also eliminated the study limitation. The houses located in İsmet Pasha district/Ayvalık, which have the original characteristics of traditional residential architecture, have been examined according to the spatial characteristics defined by the literature review. First and Second Houses are examined with on-site observation, interviews with the owners, photographic documentation, and their projects are drawn.

3.2. General information about the houses

3.2.1. The first house

The building was built in 1871 in a neoclassical style, 2.5 story, intermediate parcel, adjacent layout, masonry structure. This House consists of a ground floor, mezzanine, and first floor. The building is a

second-degree historical monument and has been used as a residence since the day it was first built (Köseoğlu, 2021) (Figures 1-4).

3.2.2. The second house

The building was built in begin of the 1900s as a neoclassical 2-story, corner plot, adjacent layout, masonry structure. This House consists of the ground floor and the first floor. The building is a second-degree historical monument and has been used as a residence since the day it was first built (Köseoğlu, 2021) (Figures 5-8).

The first-period structure of Ayvalık, a Greek region at the end of the 16th and the beginning of the 17th century, developed around the Taksiyarhis Church, the first church of Ayvalık (Taksiyarhis anıt müzesi, n.d.). Both houses discussed in the study are located in the first-period area built around the Taksiyarhis Church. These houses have the typological characteristics of the traditional Ayvalık house but also bear traces of the historical and ethnic texture to a substantial extent. In this respect, it preserves its original structural characteristics with its texture value and character.

3.3. Analysis of the first and second houses

3.3.1. The first house

In a square plot, the street was built in the Neoclassical style, adjoining, surrounded by a high-walled side courtyard and a high-walled open backyard. There is a direct entrance to the sofa (central sofa) with a double-winged wooden door, there is a bathroom/WC, a kitchen, and a sitting area with a fireplace, and there is a closed side courtyard made of a high stone wall opposite the kitchen area. Access to the upper floors is provided by a wooden staircase on the ground floor, there is a sleeping area on the mezzanine, and sleeping and living areas on the first floor. In the first planning of the building, the ground floor; side courtyard, and sitting area, upper floor; It was built as a living space. In this context, the historical texture of the interior is preserved with interior elements such as closets, cabinets, and shelves, which are built adjacent to the walls of the rooms, which have the characteristics of a traditional house in the first house.

Due to the concept of personal space and privacy, the courtyard wall was made high to prevent them from having a visual connection with neighboring buildings. There is an original pediment on the outer door with the inscription "1871" made of cast iron material. Between the ground floor and the first floor, two 30 cm thick wooden studs are provided in the middle of the space. The old toilet of the original building, located in the side courtyard, was demolished, and a bathroom/WC in an area close to the residence entrance area and the kitchen next to it were positioned. The dividers on the ground floor are made of brick, and the ceiling on the ground floor is made of wood. The ground floor is open-plan and has high ceilings and addresses the entire space. The presence of a fireplace in a niche inside the sleeping area on the mezzanine indicates that this area was used as a kitchen when it was first built. The interior doors on the first floor still adhere to the original structure and preserve the old door characteristics. It is seen that the doors of the brick wall cabinets adjacent to the wall surface are made of wood and preserve their original feature. There are original niches on the wall surfaces made for lighting and heating purposes. The rear balcony, which was originally a closed balcony of the building, was combined with the interior to create a large area and its windows were renewed as metal joinery.

The bricks, paint, and plasters on the wall surfaces, ceiling tiles, flooring, and window joinery were left by the original structure. The windows are rectangular, with wooden shutters, and wide jambs, but the louvers of some windows have been refurbished in metal. Floor and ceiling floors are made of wooden beams and wood veneer, and the partition walls are made of plaster on a wooden carrier system. Lime plaster, which deteriorated over time, was renewed with cement baghdadi plaster on its exterior facades, and the original plaster of the upper floor interior facades was preserved. Panels that continue along the wall surface between the wooden doors on the first floor are also used on the ceiling with the same material. In general, the building has provided a suitable integration with the

original with its old texture, material, form, and color use, its architectural features have not changed much, natural materials and fixed reinforcement elements have been preserved and the originality of the building has not been broken. It has been determined that the first house has preserved its traditional texture and originality to a great extent from the day it was first built and has the original characteristics of the traditional Ayvalık house (Table 2), (Figures 1-4).

Figure 1
Front view



Figure 2
Ground floor



Figure 3
First floor pic 1



Figure 4
First floor pic 2



Table 2
Characteristics of the first house

Year of Construction	1871
Style	Neoclassical
First Use	Housing
Last Use	Housing
Housing Placement	It is positioned in the center and parallel to the sea.
Housing Plan and Location	The adjacent order is square planned in an intermediate parcel in a narrow street that runs parallel to the sea.
Front of Housing	The front is facing the street.
Housing Outdoor Use	It has a side courtyard surrounded by high walls.
Main Entrance	The dwelling is entered in a high niche, with a main entrance with two steps of stone staircase.
Sofa Usage	Central sofa
Number of Floors	2.5 floors
Window Usage	Rectangular windows are located on the front and rear front floors above. The front-floor bathroom window was constructed later. There are no windows on the rear floor.
Balcony Usage	The rear front is equipped with a closed balcony with glass.

Housing main entrance		It has a monumental value with double wings, wood, flat lens, high input, and single-entry door. The door also has a forehead and a monumental doorknob that indicates the date of construction.
Housing entrance (in buildings)	secondary two-entry	There is no second entrance.
Ethnic identity		Greek and Turkish have an ethnic structure.
Location Planning		Ground floor; High wall side courtyard, sofa, kitchen, lounge, bathroom/WC. (The toilet was added to the construction afterward. The original structure states that the toilet is in the side courtyard.) The bathroom and kitchen are overhauled in the building. Intermediate floor; bedroom. First Floor; 3 rooms, 1 closed balcony (The balcony is included in the interior.)
Outdoor materials		Pediment, wrought iron, outer facade shutters are usually wood, masonry and wood carcass structural system, wood, adobe-stone padding, brick or cutting stone, ground floor stone, and Sarimsak stone on the upper floors. On the outside, the original plaster has been carved into stone tissue, and the wooden blinds on the upper floor back of the structure have been replaced with metal.
Interior materials		The Ground Floor's interior walls with brick and limestone, floors and head floors with wooden beams and wood finish, bulkhead walls on wood carcass structural system with baghdadi plaster, all doors are wood, and some doors have glass at the top of some doors, ladder rails, wall, and ceiling headers wood, in the surrounding areas of sleep and living, the brick wall niche contains only cabinets with wooden covers.
Front Facade Characteristics	Other	There is no exit on the front line. The original plaster of the structure on the ground floor exterior has deteriorated over time, revealing stone tissue. The top floor is refined.
Current State of Tissue	Traditional	The structure partially retains its original texture due to partial renovations in the interior, minor touches on the outside, and changes to the front.

3.3.2. The second house

It was built in a square plot, surrounded by a front street, a side street, and a high-walled open backyard, in the Neoclassical style, adjoining. After entering the building three steps from the main entrance, the left area leads to the kitchen, the right area leads to the garden, and the front area leads to the stairs. There is a direct entrance to the sofa (L sofa) with a single entrance door with two wings, there is a bathroom/WC, a kitchen, a sitting area in the kitchen, and an open seating area at the door that opens to the garden opposite the kitchen. Access from the ground floor to the upper floors is provided by wooden stairs, on the first floor there are bathrooms/WC, an open balcony, and sleeping and living areas. The material of the balcony facing the back garden of the building was renewed and the balcony was expanded outwards. The outer door is made of iron joinery and there is no pediment with the year of construction on the door. Since the concept of personal space and privacy is important, the garden wall was made high to prevent them from having a visual connection with neighboring buildings.

The entrance to the garden is provided by a wooden door from inside the house and an iron garden gate from the street side. The old toilet of the original building in the garden was demolished, and a bathroom/WC was built in an area close to the residential kitchen area. There is a brick-vaulted fireplace section next to the exit door to the garden. The dividers on the ground floor were renewed with cement plaster on wood technique, and the ceiling on the ground floor was renewed with wood. In the previous use of the building, access to the upper floor from the garden was provided by a concrete staircase, and after the renovation, a wide, open balcony was added to the staircase. The bricks, paints, and plasters on the wall surfaces, ceiling tiles, flooring, and window joinery have been renewed by the original structure. The windows are rectangular, with wooden shutters and wide

jamb. Floor and ceiling floors have been renewed with wooden beams and wood cladding, and the partition walls have been renewed with cement plaster on a wooden carrier system.

Exterior and interior plasters were renewed with cement plaster. In general, the building has provided a suitable integration with the original with its old texture, material, form, and color use, its architectural characteristics have not changed much, natural materials and fixed reinforcement elements have been preserved and the originality of the building has not been broken. It has been determined that the second house has been renovated with its traditional texture and originality since the day it was first built, and it has the original characteristics of the traditional Ayvalık (Figures 5-8).

Figure 5
Front View



Figure 6
Ground Floor



Figure 7
Ground floor



Figure 8
First floor



Information about the second house is demonstrated (Table 3) according to “Original Characteristics of Traditional Ayvalık House” in Table 1.

Table 3
Characteristics of the second house

Year of Construction	Begin of 1900s
Style	Neoclassical
First Use	Housing
Last Use	Housing
Housing Placement	It is positioned in the center and parallel to the sea
Housing Plan and Location	The narrow street running parallel to the sea has a square plan, adjoining in the intermediate parcel.
Front of Housing	The front and side facades face the street.
Housing Outdoor Use	It has a large open garden surrounded by high walls.
Main Entrance	The house is entered through a main entrance with a two-step stone staircase in a high niche, and the sofa area is reached again with three steps inside the house.
Sofa Usage	L Sofa
Number of Floors	2 floors

Window Usage	There are rectangular windows on the ground and upper floors on all three facades of the house.	
Balcony Usage	There is an open balcony at the back.	
Housing main entrance	It has double wings, an iron joinery, a flat lintel, a high entrance, and a single entrance door. There is no pediment or monumental doorknob on the door indicating the date of construction.	
Housing entrance (in two-entry buildings)	secondary	There is no second entrance.
Ethnic identity	It has Greek and Turkish ethnicity.	
Location Planning	Ground floor; High-walled open garden, sofa, kitchen, bathroom/wc. (The bathroom/WC was added to the building later). 1st Floor; 3 rooms, 1 bathroom/wc, 1 open balcony.	
Outdoor materials	The entrance door and upper part, ground floor windows are wrought iron, exterior shutters are generally wood, the structural system is mainly wood and masonry, adobe-stone filled, ground floor is stone flooring. The wooden framed Baghdadi construction technique on the upper floor was renewed with cement plaster, and on the ground and upper floors, the exterior facade was renewed with cement plaster on stone.	
Interior materials	Ground floor interior walls are cement plastered, floor and ceiling floors are wooden beams and wood veneer, partition walls are cement plaster on wooden structure, all doors are wooden, glass is used at the top of some doors, there are stair railings, wall and ceiling pediments, wooden cabinets embedded in the wall. There are also interior windows with wooden joinery inside the space.	
Front Facade Characteristics	Other	There is no overhang on the front facade. The original plaster on the exterior of the building deteriorated over time, so the plaster was renewed.
Current State of Traditional Tissue	Interior renovations have been made, and the building preserves its original texture due to minor touches on the exterior and changes on the facade.	

3.3.3. Comparative analysis of two houses according to traditional Ayvalık house characteristics

The First House (not restored), and The Second House (restored), selected as case studies, have been examined according to the literature studies and a comparative analysis of the two buildings has been made according to the characteristics of the traditional Ayvalık house. A project was created with on-site observation and photographic documentation of the houses, and on-site surveying. Although both structures have changed hands constantly since the first day they were built, the residence has continued its purpose of use and has contributed to the traditional housing culture with its unique structural features and historical texture. It has been determined that the first house has preserved its traditional texture and originality to a large extent, the second house has been renovated by its traditional texture and originality, and both houses have the original characteristics of the traditional Ayvalık house defined in the literature.

Accordingly, the characteristics of houses demonstrated in Table 2 and Table 3 were compared and analyzed in Table 4 according to “Original Characteristics of Traditional Ayvalık Houses” in Table 1.

Table 4

Comparative analysis of two houses according to original characteristics of traditional Ayvalık houses

		The House	First	The Second House
Building Name	Residences in the historical site	✓		✓
Year of Construction	1800's	✓		✓
Style	Neoclassical	✓		✓
First Use	House	✓		✓
Last Use	House	✓		✓
Housing Placement	The residences are mainly in the middle sections and parallel to the sea.	✓		✓

Housing Plan and Location	The houses are square or rectangular in plan, adjacent to the corner or in the intermediate parcel on narrow streets running perpendicular or parallel to the sea.	✓	✓
Front of Housing	The residence faces the street.	✓	✓
Housing Outdoor Use	The residences have a backyard, side courtyard, or closed backyard surrounded by high walls.	✓	✓
Main Entrance	The house is entered in a high niche, with one, two, or three steps.	✓	✓
Sofa Usage	The sofa, which provides the transition between residential living spaces, has different plan types as "interior sofa, exterior sofa, corner sofa, central sofa".	✓	✓
Number of Floors	The residences have two or three floors.	✓	✓
Window Usage	In the living areas of the residence, there are thin-long, wide-span, high, and rectangular windows.	✓	✓
Balcony Usage	The residences do not have the use of open balconies.	✓	X
Housing main entrance	The houses have wooden, high entrance doors with monumental value, pediments, and monumental door knockers indicating the date of construction on the doors.	✓	X
Residential secondary entrance (in two-entry buildings)	At the second entrance of the residences, there is a warehouse for laundry, cistern, and olive storage.	X	X
Ethnic identity	It has Greek and Turkish ethnicity.	✓	✓
	On the ground floor of single-entry residences; living, kitchen, and side courtyard or garden, on the upper floors; There are sitting and sleeping areas around the sofa, and toilets in the courtyard or garden.	✓	✓
Location Planning	Stone, cast iron console cantilevered, pediments and eaves are wrought iron, exterior shutters are usually wood, the structural system is mainly wood and masonry, filled with wood, adobe-stone, brick or cut stone on the upper floors, ground floor stone, Sarimsak stone, original plaster exists.	✓	✓
Outdoor materials	Ground floor interior walls are brick and lime plaster, floor and ceiling floors are wooden beams and wood veneer, partition walls are baghdadi plastered on the wooden structure, all doors are wooden, glass is used on the upper part of some doors, stair railings, wall and ceiling pediments are wooden, bed and ceiling pediments are made of wood. There are only cabinets with wooden doors in the brick wall niches in the living environments.	✓	✓
Front Facade Other Characteristics	There is an overhang on the front facade.	X	X
Interior materials	Partial renovations were made in the interior, and the building partially preserves its original texture due to minor touches on the exterior and changes on the facade.	✓	✓
Current State of Traditional Tissue	The structure partially retains its original texture.	✓	✓

The First and The Second Houses have both Neoclassical style characteristics built in the 1800s, on a corner and intermediate parcel, with a front-facing street, a high-walled side courtyard, a high-walled backyard, adjacent to the side house, as 2 and 2.5 stories, in Ayvalık. It is located in the middle parts of the city, parallel to the sea. The residences are entered through a high entrance, wide-opening, high and rectangular windows, monumental wooden, high entrance doors, on the ground floor; living, kitchen, bathroom/wc, side courtyard or garden, on the upper floors; The living and sleeping areas around the sofa, the structural system is mainly wood and masonry, filled with wood, adobe-stone, brick or cut stone on the upper floors, stone on the ground floor, Sarimsak stone, original plaster (Table 4). The comparative analysis of these two houses shows that the First House has preserved its original structure and no changes have been made except for the obligatory changes, minor maintenance has

been made when necessary, and the Second House has been renovated by adhering to its original structure due to problems such as structural neglect.

Since the day the historical buildings were built, the constant handovers caused the users to gain a different identity in line with their needs, and the residences shaped by various identity buildings over the years have survived to the present day. In time, due to the needs of the residential users, the space organizations have been changed, for example, the toilets in the garden have been built on the ground floor or the upper floor when necessary. The changes made by adhering to the original texture of the traditional house also show that the house sustains its historical value and is tried to be preserved and that it increases the life and use of the building by preventing the destruction of the house with conscious use and minor structural interventions.

Similar changes examined in both Houses are as follows:

- Open spaces have been revealed in the form of living and sleeping environments that take direction around the corridor.
- The toilets in the garden have been demolished over time and have been moved to the ground floor or upper floor of the buildings.
- In line with the requirements, windows have been opened on certain facades.
- The balconies on the upper floors are combined with the living area to obtain large living spaces.
- The Sarimsak stone found on the exterior of the buildings has been either scraped to reveal the stone texture or renewed.

4. CONCLUSION

Traditional buildings have preserved the original texture of the built environment in the process of change in the social environment and social structure over time. The constant handovers of the buildings and the social conditions they are surrounded, by have played a significant role in the maintenance or neglect of the buildings. The long-term neglect of buildings that cannot be renewed economically and cannot be protected socially has led to the destruction of these buildings over time. Timely interventions in the buildings owned by conscious users ensured the preservation of their original texture.

In this sense, it is seen that,

- The First House has received conscious renovations made by the owner of the house and the house partially preserved its original texture in terms of spatial characteristics of Traditional Ayvalık House,
- The Second House reflects its original texture in terms of its spatial characteristics by adhering to the renovations.

In this framework, the general findings determined by this case study, regarding the spatial characteristics of The Traditional Ayvalık house are as follows:

- The original space planning is transformed depending on the number of users and increasing needs.
- New windows and doors are opened depending on the number of users and increasing needs.
- New materials are used depending on material technology.
- Old or deteriorated equipment is removed and replaced.

In this framework, the recommendations determined by this case study, regarding the spatial characteristics of The Traditional Ayvalık house are as follows:

- Providing economic support for the users of the houses with historical value,
- Providing expert support for renovation works,
- Systematic inspection of buildings
- Improving awareness about historical buildings by encouraging cultural tourism,

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As a result, it is determined that the spatial characteristics of the traditional Ayvalık house are shaped in line with the demands and needs of the residents depending on the period it belongs. Renovation of buildings in such a way that they lose their originality, adding new equipment or new structural elements, and making renovations according to user requests, negatively affect the original value of traditional buildings. The expectations and needs of the house users reveal the importance of changing the traditional meaning of the house, and the conscious use of the buildings reveals the importance of the life and sustainability of the building. Conscious use and systematic inspections may prevent the increase of unauthorized renewal and illegal construction. Traditional Ayvalık houses have changed without losing their residential identity over time, depending on their users. The Traditional Ayvalık House is sustained by being protected by individual interventions of conscious users, and some of the buildings have lost their historical texture due to unconscious use and intervention.

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