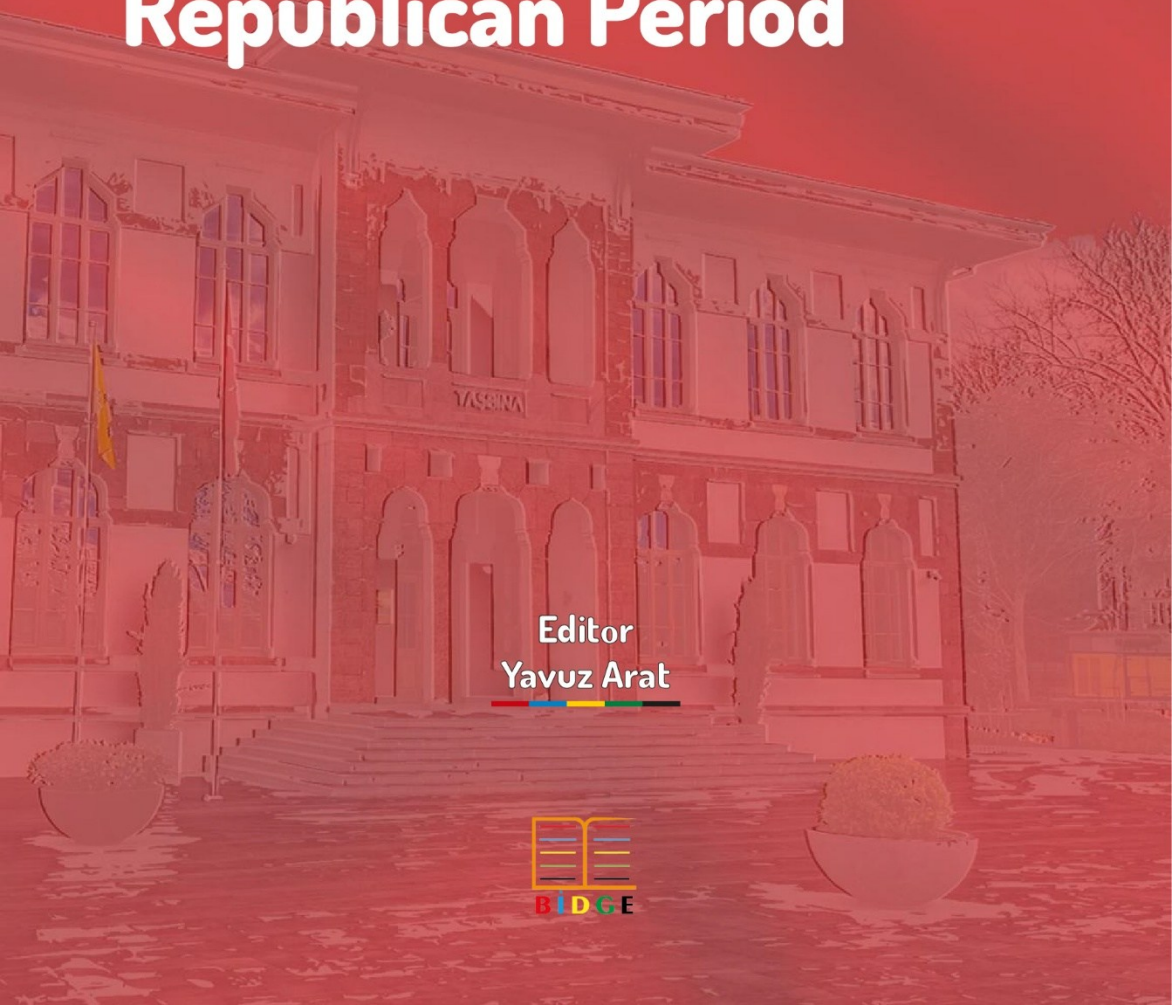
TÜRKİYE CUMHURİYETİ'NİN YÜZÜNCÜ YILI

A Current Perspectives on Architecture of the Republican Period



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Content

CHAPTER I

Disabled Accessibility in Restoration Projects: Konya Taş Building

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Introduction

The World Health Organization (WHO) defines disability in terms of health with the concepts of Impairment, Disability, and Handicap, while the United Nations defines disability as "those who are unable to do the work that a normal person should do on their own in their personal or social life as a result of any inherited or acquired deficiency in their physical or mental abilities" (Koca, 2010). According to the World Health Organization's report published in 2022, the number of disabled people in the world is approximately 1.3 billion. This number corresponds to approximately 16% of the world population. (Global Report on Health Equity for Persons with Disabilities, 2022). According to the results of the Population and Housing Survey conducted in Turkey in 2011, the ratio of the population with at least one disability to the total population was 6.9% with 4.9 million. As of 2021, the number

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of people with disabilities registered in the National Disability Data System was announced as approximately 2.5 million (Disability and Elderly Statistics Bulletin, 2021).

Individuals who have various disabilities due to accidents, physical or mental illnesses, or congenital or inherited characteristics are forced to live a different life compared to other individuals. Today, the difficulties caused by disability can be reduced with several medical equipment, assistive devices and various instruments. In addition to people with disabilities, the needs of healthy individuals may change, and their abilities may be limited at various stages of life. At this point, it has become necessary to consider handicapped groups such as the elderly, the disabled and children, and to address users with different dimensions in the design process. The idea of designing the built environment and design products in a way that allows the use of all kinds of individuals has been put forward with different names such as "attainability", "accessibility", "universal design", "design for all" since the 1980s (Dostoğlu et al., 2009).

In our country, the rights of disabled people to adapt to social life and to have easy access to the environment and products have been protected by various legal regulations. In addition to the Law No. 5378 on Persons with Disabilities, TS 9111 was put into force in 1991 under the name of "Rules for the Arrangement of Buildings to be inhabited by People with Disabilities" and TS 12576 was put into force in 1999 under the name of "Design Rules for Structural Measures and Markings for Accessibility on Urban Roads-Sidewalks and Pedestrian Crossings". As of 2013, the term "disabled" has been replaced by the term "handicapped". With the last amendment made in 2023, TS 9111 is still in force under the name of "Accessibility Requirements in Buildings for Persons with Disabilities and Mobility Restrictions" in the Planned Areas Zoning Regulation (Law on Disabilities, 2005; Accessibility Requirements in Buildings for Persons with Disabilities and Mobility Restrictions, 2023; Planned Areas Zoning Regulation, 2017).

Accessibility is as much an issue for historic monuments included in conservation programs as it is for modern buildings. The

preservation of historical monuments, which are part of the cultural heritage of societies, and their transfer to future generations is important in many ways. These monuments are restored and protected through techniques such as consolidation, integration, renovation-reuse, contemporary addition, reconstruction, cleaning, transportation, archaeological restoration. Structures that have become unusable with their original functions because of changing conditions and lifestyles are given new functions within the scope of the restoration program (Ahunbay, 1996). Especially in historical monuments with public functions, the issue of accessibility should be evaluated within the scope of restoration programs. (Gülser, 2022)

There are many academic studies in the literature on the problems of individuals with disabilities and their solutions. Some of the studies in the literature utilized in this study are as follows:

(Çınar et al., 2011) examined the suitability of the nursing home for these handicaps in terms of the quality of life of elderly and physically disabled individuals staying in nursing homes.

(Durgun Şahin & Dikmen, 2023), the study examined the disabled elevators added to the educational buildings through the example of Çukurova University in terms of their effect on the building and its surroundings, and suggestions on accessibility were presented.

(Gülser, 2022), in the study, brought a restoration proposal for disabled people to the traditional house in Niğde province.

(Güngör et al., 2011) examined the accessibility of the university campus in terms of disabled people with the Analytic Hierarchy Process (AHP) method and scored on the criteria.

(Özkeskin, 2000) examined the suitability of spaces in terms of accessibility for the rehabilitation of physically disabled individuals at home through TSE standards and made recommendations.

Material and Method

In the study, criteria were determined through TS 9111, TS 12576 and literature sources to evaluate disabled accessibility in the building. The determined criteria are discussed on the example of Konya Taş Building, which is in Konya central Karatay District and whose restoration works have been completed.

Konya Taş Building

The construction of the building located on Ankara Street, Şemsi Tebrizi Neighborhood, Karatay District, Konya, was completed in 1924 by Falih Ülkü upon the death of Architect Muzaffer Bey, who started the project. The building, whose original function was Darül Muallimat (Girls' Teacher Training School), was later used as the Girls' Art Higher Teacher Training School and the rectorate building (Bozkurt, 2013). Today, the building is used as Konya Metropolitan Municipality service building (Photo 1 and 2).

[1] *Photo 1: Konya Taş Building*
[2] *Source: Taş Bina, 2023*
[3]

[4] *Photo 2: Girls' Teacher Training School*

[5] *Source: Konya-Kız Muallim Mektebi*

While the building had a plan in the east-west direction, the additions on the west façade were removed after the restoration. In the original state of the building, which consisted of a basement, ground floor, first floor and attic, there was a dining hall, pantry and warehouse in the basement, classrooms and administrative units on the ground floor, a library on the first floor and a dormitory on the attic floor. After the restoration, the building has an exhibition hall in the basement, exhibition halls on the ground floor, the presidential office room and related units on the first floor, and a dining hall on the attic floor. The original floors of the building, which was built as masonry, were converted from wood to reinforced concrete after the repairs and the reinforced concrete floors were preserved in the last restoration application of the building. Sille stone and Gödene stone were used with lime mortar in the bearing walls of the building. In general terms, the effects of the First National Architecture Movement are seen in the design (Bozkurt, 2013).

Accessibility Criteria

Accessibility criteria were determined as a result of the literature review of TSE standards and analyzed under 4 headings:

1. Suitability of the building entrance and surroundings
2. Horizontal movement suitability within the building
3. Vertical movement suitability within the building
4. Suitability of toilets and sinks (Güngör et al., 2011)

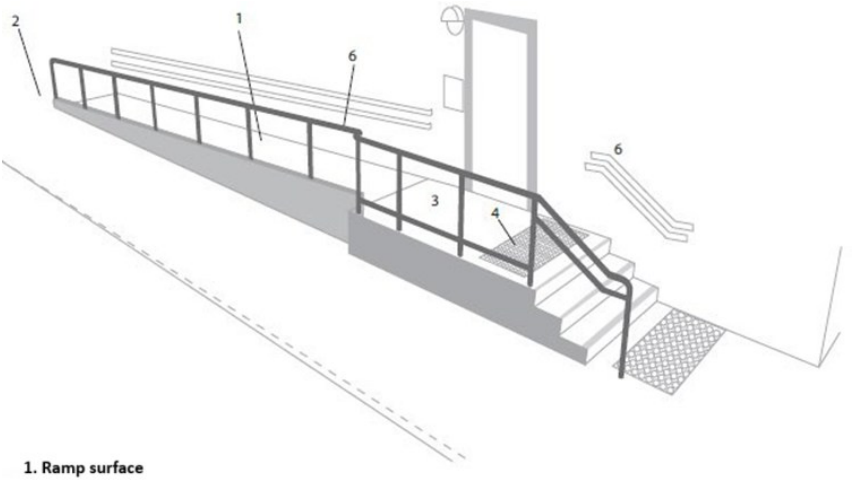
Suitability of Building Entrances

The building entrance and its surroundings should be organized in accordance with disabled access and the maneuvering space for wheelchairs should be taken into consideration. Sensory surfaces should facilitate the disabled, auditory guides and visual expressions should be used. Coating materials should be preferred from non-slip, fixed, hard materials (Gülser, 2022) (Photo 3).

[6] *Photo 3: Sensible Surface*

[7] *Source: Hissedilebilir Yüzey Nedir?,2024*

Ramps with a slope of 8% for ramps up to 10 meters in length and a slope of no more than 6% for ramps over 10 meters in length should be arranged between spaces with a level difference. Ramp width should be at least 90 cm for one-way ramps and 1.8 m for two-way ramps.



[8] *Figure 1: Sample Ramp*

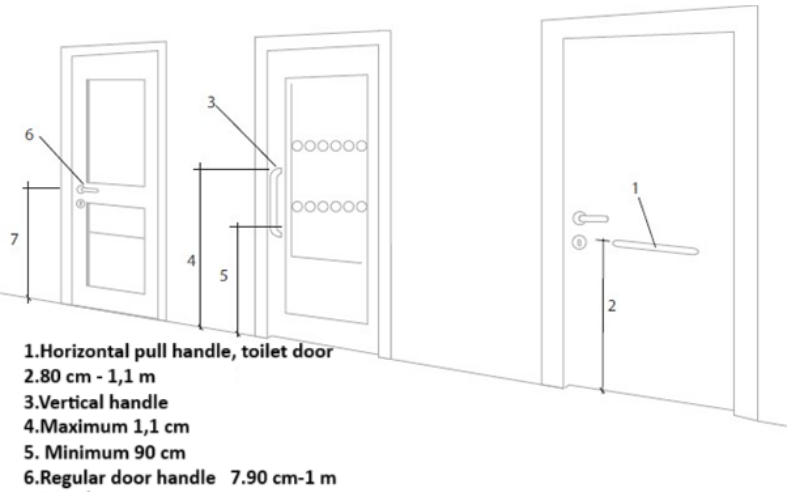
[9] *Source: Öztürk et al., 2011*

For ramps longer than 10 meters, a 2.5 m landing should be arranged at the transition to another ramp. If it is necessary to apply the ramps by changing direction, a landing of at least 1.5 m X 1.5 m should be made. Railings should be built on both sides of the ramps. A flat area of at least 1 m X 1.2 m should be left at the beginning and end of the ramps. Ramp covering materials should be rough (maximum 2 cm high roughness), non-slip and hard (Özkeskin, 2000; Öztürk et al., 2011) (Figure 1).

Horizontal Movement Suitability within the Building

The clear width of the circulation areas for disabled access inside the building should be at least 815 mm and the space required for maneuvering should be provided. Unnecessary recesses, protrusions and elevation differences should not be included in the indoor circulation, the corners of the protrusions should be chamfered when necessary, and appropriate ramp arrangements should be made. There should be fixed grab bars on the wall and a head rescue distance (203 cm) should be provided. Floor coverings

should be fixed, non-slip, and if necessary, sound reflective coatings should be used for the visually impaired (Özkeskin, 2000; Öztürk et al., 2011).

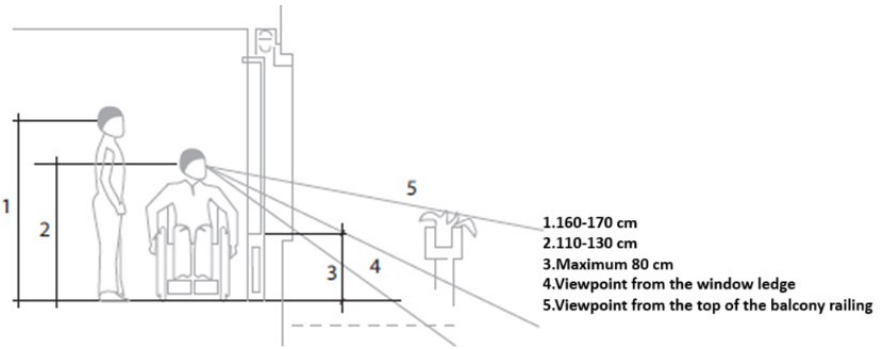


[10] *Figure 2: Door handle heights*

[11] *Source: Öztürk et al., 2011*

Doors should not have thresholds if possible, and rubber thresholds not exceeding 1.3 cm in height should be preferred in cases of necessity. Doors should be opened perpendicular to the corridor as much as possible. Door handles should be designed so that they can be used without grasping for individuals who cannot use their hands or have limited use. Door handle height should be kept between 90-110 cm (Öztürk et al., 2011) (Figure 2).

Window designs and glass selections used in windows should be designed with individuals with visual impairment in mind, and windows should be raised at least 15-20 cm and at most 80 cm above the floor. Spagnet sets should be a maximum of 90 cm above the floor (Özkeskin, 2000; Öztürk et al., 2011) (Figure 3).

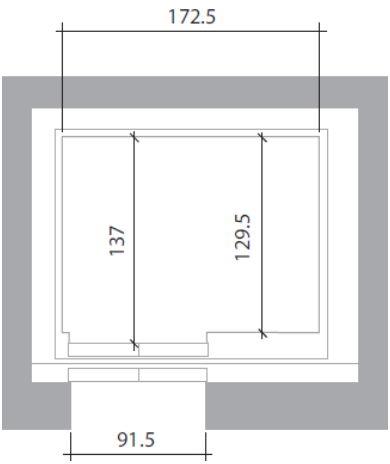


[12] *Figure 3: Window heights*

[13] *Source: Öztürk et al., 2011*

Vertical Movement Suitability within the Building

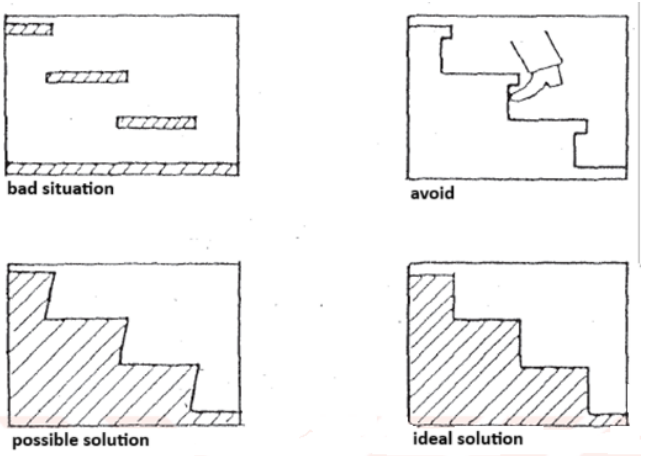
Elevators should be designed for wheelchair maneuvering and there should be grab bars at a height of 85-90 cm in the cabin. Embossing should be used on the elevator buttons and the height of the buttons should be placed considering wheelchair users. Auditory guides should be used inside the elevator. Elevator doors should be at least 915 mm, and the elevator should be able to stop at floor level with a margin of error of 13 mm (Öztürk et al., 2011) (Figure 4).



[14] *Figure 4: Elevator cabin dimensions*

[15] *Source: Öztürk et al., 2011*

Stair risers should be standardized and should not exceed 15 cm. Handrails should have a maximum height of 85 cm from the step. Stair treads should be at least 30 cm and protrusions at the ends of the steps should be avoided. Sensible surfaces should be used at the beginning and end of the stairs. In cases where the stair height exceeds 1.8 meters, a landing should be left and the landing should be at least 2 m long (Özkeskin, 2000; Öztürk et al., 2011) (Figure 5).

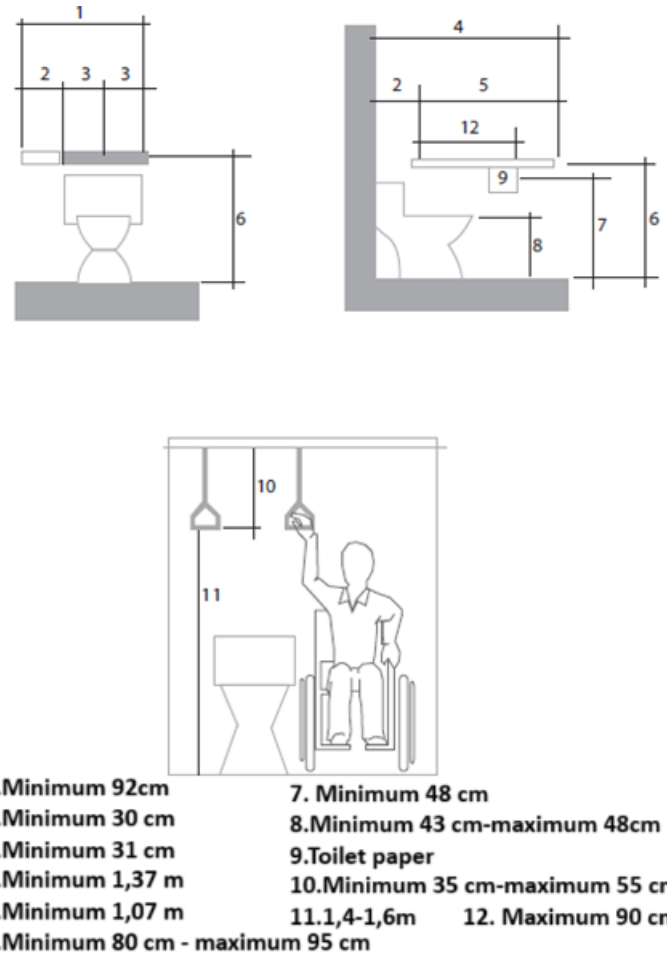


[16] *Figure 5: Stair steps*

[17] *Source: Özkeskin, 2000*

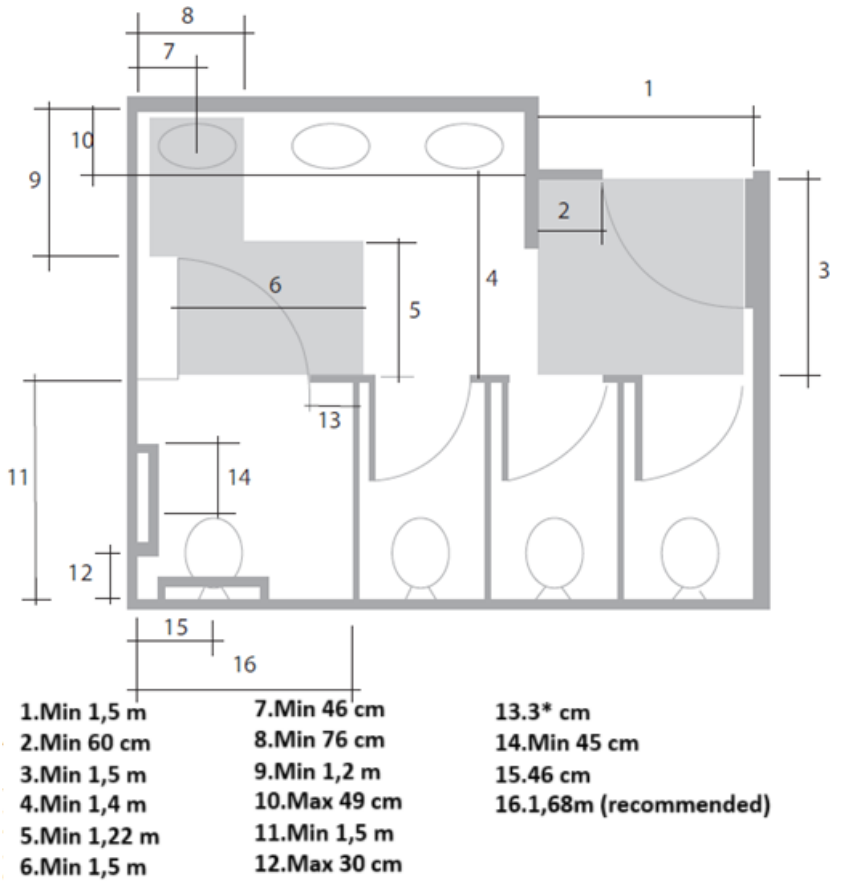
Suitability of Toilets and Sinks

Toilets should be located on accessible routes and designed in sufficient number considering the number of users. Grab bars should be placed in disabled toilets. The ideal dimensions of grab bars are shown in Figure 6 and the ideal dimensions for toilet cubicles are shown in Figure 7 (Öztürk et al., 2011).



[18] *Figure 6: Dimensions of Grab Bars*

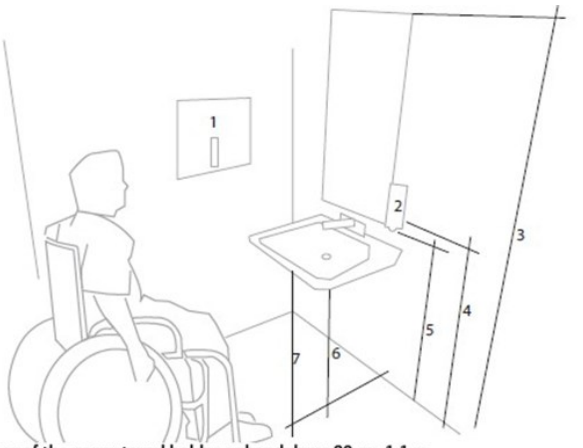
[19] *Source: Öztürk et al., 2011*



[20] *Figure 7: Toilet Cabin Dimensions*

[21] *Source: Öztürk et al., 2011*

Pedestal type washbasins should be avoided in washbasins and should not be covered with elements such as cabinets under the washbasin. The corners of the sinks should be beveled. The ideal dimensions of the washbasin are shown in Figure 8.



1.Height from the floor of the paper towel holder or hand dryer 80 cm-1,1 m
2.Liquid soap dispenser
3.top point of the mirror up to 1.9m
4.Height of the liquid soap dispenser from the floor 80 cm - 1.1 m
5.The height of the mirror from the floor is maximum 90 cm
6.At least 68.5 cm from floor to pipe section
7.At least 75 cm from the floor to the underside of the sink

[22] *Figure 8: Washbasin Dimensions*

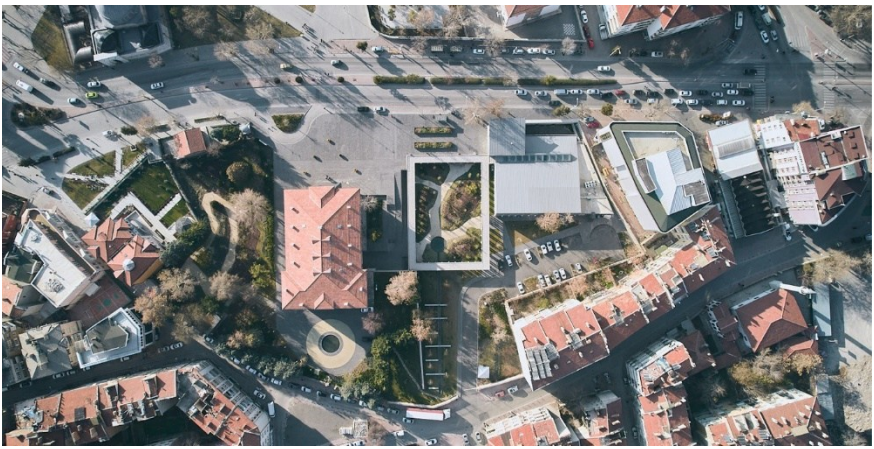
[23] *Source: Öztürk et al., 2011*

Research Findings

Konya Taş Building was evaluated in the light of the criteria determined as a result of literature review and TSE standards.

Taş Building Entrance Suitability

While the stone building perimeter has wheelchair access and maneuvering space, no sensory surfaces are used on the ground. As seen in the site plan, there is a parking area around the building, but the elevation differences and the distance to the building entrance are not suitable for accessibility. Granite natural stone is used on the floor. There are not enough directional signs and audio-visual guides around the building. As seen in the plans, a ramp for wheelchair access to the ground floor has not been organized (Photo 4).



[24] *Photo 4: Taş Building and surroundings*

[25] *Source: Taş Bina, 2023*

Horizontal Movement Suitability in Taş Building

It can be said that the circulation areas, which are covered with stone building tile cladding, are accessible in terms of width and linearity in terms of the plan scheme. There are no grab bars, sensory surfaces and audiovisual guides in the corridors (Photo 5).

[26] *Photo 5: Taş Building corridor*

[27] *Source: Taş Bina, 2023*

While there are no thresholds on the doors, the door opening directions are generally perpendicular to the corridor. Door handle heights of 90 cm comply with accessibility criteria.

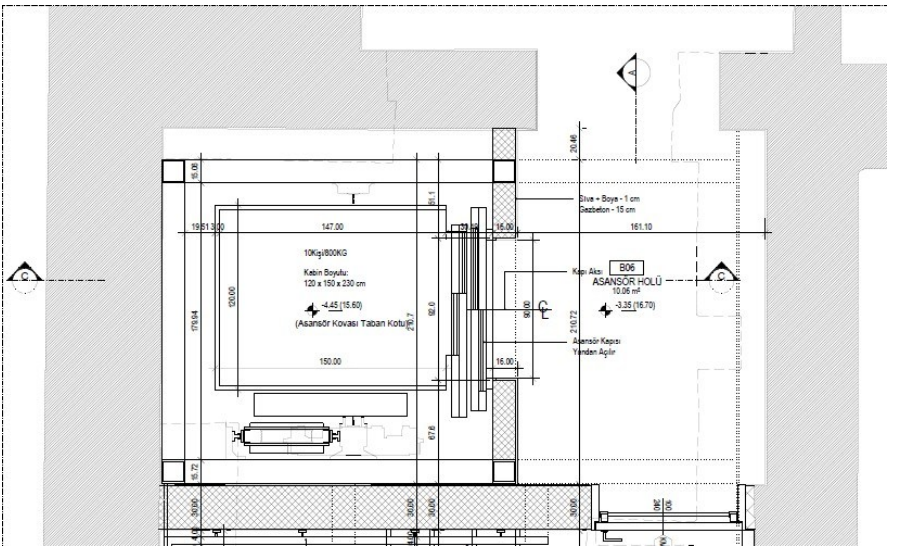
The height of the windows from the floor is 50 cm, which complies with the accessibility criteria, while the espagnolette sets do not comply with the accessibility criteria of 150 cm (Photo 6).

[28] *Photo 6: Taş Building windows*

[29] *Source: Taş Bina, 2023*

Vertical Movement Suitability in Taş Building

There is an elevator for 10 people and 2 stairs in the Taş Building to ensure vertical circulation. The elevator dimensions comply with the disabled accessibility criteria according to the shared detail. Grab bars are not provided in the elevator. According to the detail, the height of 15 cm is exceeded on the stair rails and the handrails are positioned above the height of 90 cm. While the widths of the steps are appropriate in terms of accessibility, the steps are protruding in a way that is not recommended.

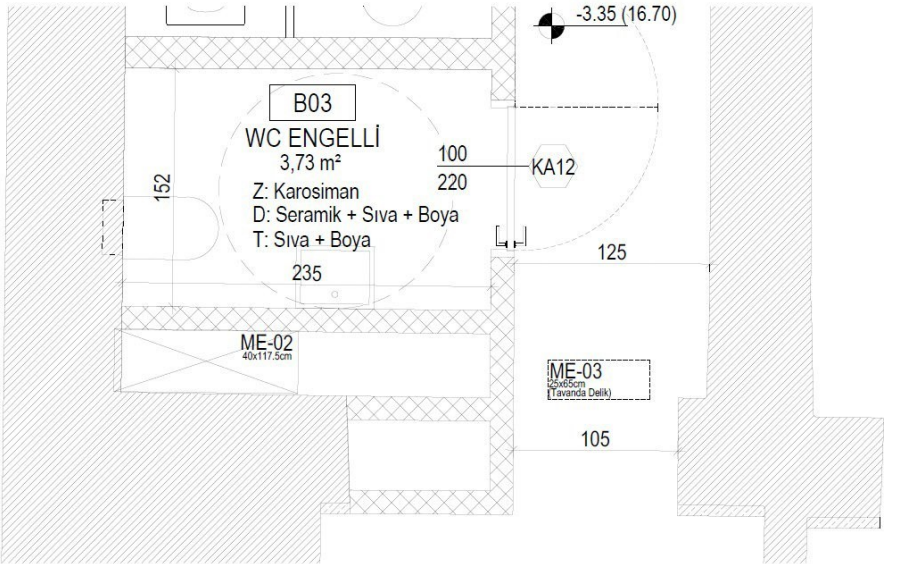


[30] *Figure 9: Taş Building elevator detail*

[31] *Source: Konya Administration Complex | Teğet Mimarlık,2023*

Suitability of Toilets and Washbasins in the Taş Building

In the basement of the Taş Building, men's, women's and disabled toilets are designed separately. According to the shared drawings, the corridor grab bars that provide access to the disabled toilet are not suitable according to the accessibility criteria in terms of recesses. The dimensions of the disabled toilet are within the recommended dimensions, but no details are given about the grab bars and sink heights.



[32] *Figure 9: Taş Building elevator disabled wc detail*

[33] *Source: Konya Administration Complex | Teğet Mimarlık,2023*

Conclusion and Recommendations

In the world and in our country, individuals with physical disabilities or limitations occupy a significant area in the total population. Individuals with physical handicaps for various reasons experience many problems in terms of accessibility and their quality of life is negatively affected. Buildings and their surroundings also cause individuals with physical disabilities to experience these problems. Although their rights are protected by laws and standards, the work carried out on buildings within the scope of accessibility is still insufficient. In addition to new buildings, it can be observed that historical buildings, which are one of the parts of cultural heritage, have problems in terms of accessibility, especially after re-functioning within the scope of the conservation program.

In this context, accessibility criteria are examined in this study through the example of Konya Taş Building. First, evaluation criteria were determined based on the literature and TSE standards,

and then these criteria were evaluated on the example of Konya Taş Building restoration.

As a result of the evaluation, it was seen that there are not enough studies on accessibility in restoration applications in Konya Stone Building. Accessibility activities to be carried out in the restoration of old monuments, where protection is essential, should be evaluated considering that they may damage the originality, quality and aesthetic value of the building. The issue of restoration and accessibility should be discussed and examined by expert restorers, architects, interior architects and civil engineers. While considering the original function, plan design, building environment, conservation-use balance of historic buildings that are re-used, the issue of accessibility should also be included in the criteria, and re-use should be evaluated according to accessibility criteria.

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CHAPTER II

Space Syntax Analysis of Three Museums in Ankara: Ethnography Museum, Painting And Sculpture Museum, Ptt Stamp Museum

Elif TAMAY DURMAZ[1]
Süheyla BÜYÜKŞAHİN[2]

Introduction

Museums are the places where human-space interaction is most intense. Museum spaces establish a direct relationship with their users through their functions such as exhibition and information transfer. The space configuration in a museum has a great impact on the user experience and the perception of the exhibited artifacts. Therefore, it is possible to say that museums where users can visit with less effort, without having to worry about orientation or confusion, are preferable.

In a museum, the exhibition area can be referred to as the main space. This space is supported by service and auxiliary spaces that host ancillary functions. According to Molajoli (1967), the

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coming together of the exhibition halls determines the characteristics of the plan scheme in a museum and this organization also forms the circulation route of the visitors. Since it is of great importance for visitors to find their way without difficulty, it should be aimed to create a spacious environment (Molajoli, 1967). Kırcı (2010) mentioned that although the movement of visitors in the museum varies according to the artifacts exhibited or the purpose of the exhibition, the exploration of the building where the artifacts are placed is also part of the visitor experience (Kırcı, 2010).

When the studies on museum buildings that use space syntax as a method are reviewed, it is seen that Akgün (2011) examined the factors affecting wayfinding in museums with the space syntax method through the example of Istanbul Archaeology Museum. As a result of the study, it was argued that the layout plan defined by elements such as form, organization and circulation is effective in wayfinding (Akgün, 2011). Altıparmakoğlu Sakarya and Gürani (2021) evaluated the interaction between the space and the visitor through the French Museum of Architecture and National Heritage and concluded that the permeability and visible space structures of the museum space overlap to a great extent and that the spatial organization has an impact on the behavior of visitors (Altıparmakoğlu Sakarya & Gürani, 2021). Kırcı (2010) conducted syntactic and formal analysis with access graphics in selected museum buildings, and as a result of the analysis, it was determined that formal principles were not effective in syntax evaluation (Kırcı, 2010).

As a result of the literature review, it is seen that examinations of museum buildings are generally based on the relationship between architectural form and user movement, circulation and the effect of space organization on circulation. In this type of building, the intensive physical interaction of users with space in order to experience the artifacts and the great effect of the spatial organization in determining a circulation route guided the selection of the research topic. The fact that the spatial syntax method enables this kind of morphological analysis also played a decisive role in the choice of the study method.

The study aims to examine the spatial organization of the Ethnography Museum, Painting and Sculpture Museum and Ptt Stamp Museum in Ulus, Ankara. Spatial syntax analysis method was chosen as the method, and the analysis was carried out using Syntax 2D program. The plan schemes on the floors where the exhibitions are held in these museums were transferred to the Syntax 2D program and evaluated on the parameters of integration, depth and connectivity. The results of the analysis were interpreted by considering the effect of the spatial organization of the museum buildings on these results. The importance of the study can be defined as obtaining comparative information about the spatial organization of three buildings built in Ankara during the Early Republican period.

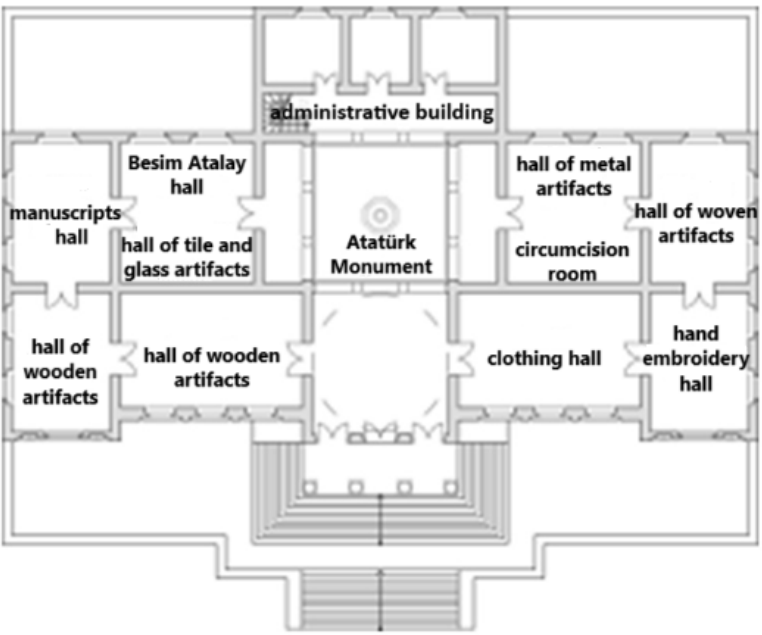
Material and Method

Designed between 1925 and 1935, during the Early Republican period, the 3 museums (Ethnography Museum, Painting and Sculpture Museum, Ptt Stamp Museum) can be characterized as products of the same period. The museums are in Ulus, one of the historical locations of Ankara. Their proximity to each other in terms of location and period prepares a suitable infrastructure for their comparison. The Early Republican years are characterized as a period in which a new architecture and urban silhouette was created for the capital city, and in which elaborate structures were put forward. Although the dominant architecture of the city has changed with the new buildings built today, it can be said that the Ulus district remains a place where the architecture of the Early Republican period is still felt and continues its existence as a museum on a city scale. All these factors make the selected museum buildings worth analyzing.

Material

The construction of the Ankara Ethnographic Museum, an important cultural institution in the field of museology in Turkey, began in 1925. Located in Opera/Ulus, the museum was built on a foundation land that was located at a visible point for the new Ankara

silhouette that was being designed after the republic. The architect of the museum, which was completed in 1927, was Hikmet Koyunoğlu, one of the architects of the first national architectural movement. Today, the museum exhibits traditional art products such as clothing, ornaments, miniature and weaving collections from various periods. The Ethnography Museum also served as Mustafa Kemal Atatürk's temporary tomb for fifteen years after his death.

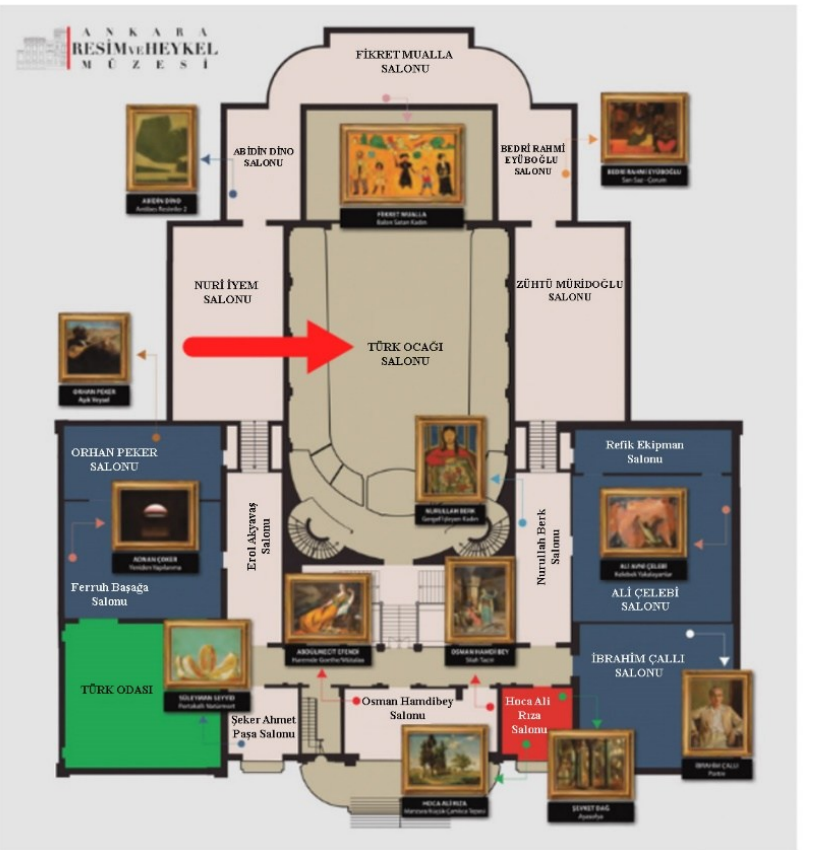


[34] *Figure 1: Ethnography Museum plan diagram*

[35] *Source: Web 1*

The museum building is single storey and has a rectangular and symmetrical plan. It consists of ten exhibition halls connected by a hall and an administrative section. The entrance leads to the hall under the dome structure and the hall is connected to the inner courtyard. Koç (1991) states that while this courtyard was open at the beginning of the construction of the building, it was closed

during its use as a mausoleum. The restoration and maintenance work that the museum has undergone over time have not caused any changes in the main plan scheme and space partitioning.

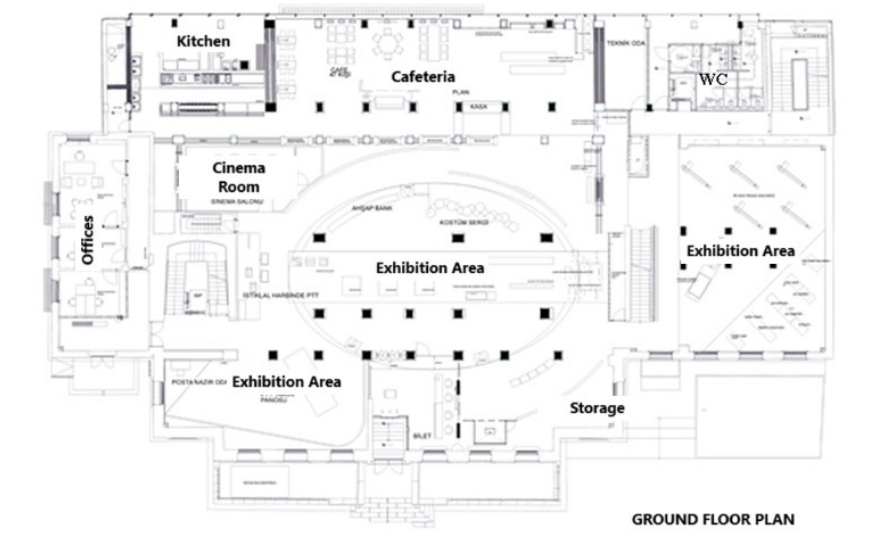


[36] *Figure 2: Second floor plan diagram of the Museum of Painting and Sculpture*

[37] *Source: Web 4*

Designed and realized by Arif Hikmet Koyunoğlu in 1927-1930 as the Headquarters of the Turkish Quarry in Ulus, the building was transformed into the Ankara Museum of Painting and Sculpture in 1980. Consisting of a basement and two floors above it, the Turkish Quarries Building has a symmetrical and rectangular plan.

On the second floor of the building, which was examined within the scope of the study, there are the Turkish Hall, the Hall and offices of the Scientific and Artistic Committee, the hall and offices of the Central Committee, bedrooms for guests, bathrooms and a tearoom, as well as artist rooms. Like the Ethnography Museum, the Museum of Painting and Sculpture is also in line with the works of the first national architecture movement. The building, which has undergone some changes in function over time, has taken its current form after a comprehensive restoration in 2019 (Web-2). The museum collection consists of sculpture, painting, ceramics, photography, Turkish decorative arts and ethnographic works (Web-3).



[38] *Figure 2: Ptt Stamp Museum ground floor plan diagram*

[39] *Source: Web 5*

The building, which is currently used as the Ptt Stamp Museum, was designed in 1934 by Austrian architect Clemans Holzmeister for the Real Estate and Eytam Bank and is in Ulus. The building was recently acquired by the Ptt and underwent restoration to turn it into a museum. The building has expanded over the years with masses added to its side and rear façades while maintaining its

axis of symmetry, and the ground floor, formerly the bank hall, has been organized as a wide-open space where museum visitors are welcomed. In this area, users are given an overview of the museum content and the history of postal communication with a short and effective exhibition. On the upper floors, information on philately (stamping) is condensed and conveyed.

Method

Through research based on the literature review conducted within the scope of the study, the plan diagrams of the examples were accessed and transferred to the Syntax 2D program. In the selected museum examples, space syntax analysis was carried out on the plan diagrams of the functional floors (preferably the ground floor) where the exhibition is made. The syntactic parameters to be addressed within the scope of the research are Integration value (integration), Depth (mean - depth), Connectivity values.

Integrated places are places that are likely to pass through to get to another place. When this value is high, it means that people in space have the highest potential to come together. Shallow spaces with a low depth value have more movement, while deep spaces have less movement. The connectivity value, on the other hand, refers to the access to different spaces from within a space and the high number of spaces to which the space is connected.

Space Syntax theory was first proposed by Bill Hillier and Julianne Hanson in their book “The Social Logic of Space”. Based on the theory of human movement, networks of social relations and space, this method generates information about spatial organization at different scales. The main purpose of the method can be defined as analyzing and visually expressing the relationship between spatial organization and user movement and field of view.

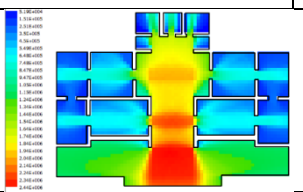
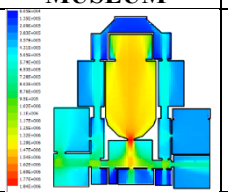
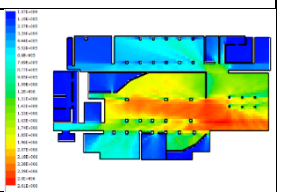
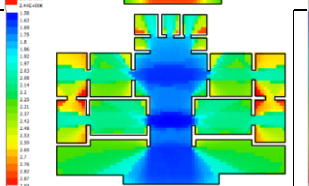
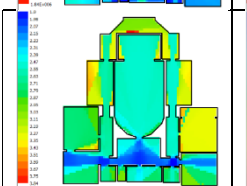
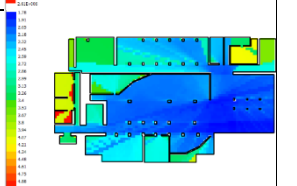
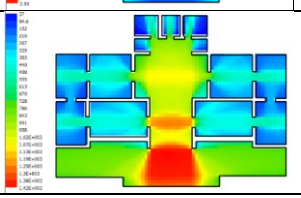
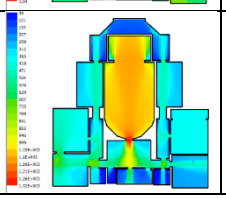
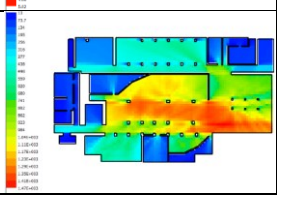
According to Seamon (2007), what makes this method preferable is that the techniques used to describe space focus directly on human spatial experiences. According to Altıparmakoğlu Sakarya and Gürani (2021), the holistic consideration of formal features and human movements in the study of space shows that space and social

structure are in direct interaction. In this case, it can be said that physical factors such as the form, configuration and volumetric boundaries of space play an important role in the perception of space.

Findings

The ground floor plan diagrams of the Ethnography Museum and the Ptt Stamp Museum and the second floor plan diagrams of the Painting and Sculpture Museum were analyzed using the Syntax 2D program and integration, connectivity and depth graphs were obtained. The data obtained were tabulated (Table 1).

[40] *Table 1. Comparison of integration, connectivity and depth graphs of Ethnography Museum, Painting and Sculpture Museum, Ptt Stamp Museum.*

	ETHNOGRAPHY MUSEUM	PAINTING AND SCULPTURE MUSEUM	PTT STAMP MUSEUM
INTEGRATION			
DEPTH			
CONNECTIVITY			

When the syntactic parameters of the Ethnography Museum, Painting and Sculpture Museum and Ptt Stamp Museum were evaluated comparatively, the following results were obtained:

- In the Ethnography Museum, the exhibition halls placed in a symmetrical arrangement are similar to each other and have a low integration value, while the hall, which provides access to the building, is the most integrated space.

- The depth graph of the Ethnography Museum shows that the depth increases in the exhibition halls. Based on this situation, it can be interpreted that the depth value increases in spaces with low integration value. The depth value is at the lowest levels in the main corridor where the entrance of the building and the exhibition halls open.

- The connectivity graph of the Ethnography Museum shows that the exhibition halls, which are interpreted as the deepest and least integrated spaces, are also at the lowest levels in terms of connectivity value. The hall at the entrance of the museum has the highest connectivity value as it is the main point of access to all other spaces.

- In the integration graph of the Painting and Sculpture Museum, the entrance to the exhibition area in the center (the Turkish Quarry Hall) is the circulation point with the highest integration value, followed by the Turkish Quarry Hall. The exhibition rooms at the edges of the plan, which has a centripetal scheme, were observed as less integrated spaces that do not give access to other spaces.

- When the depth graph of the Painting and Sculpture Museum is analyzed in general, it is seen that there is almost no red area. This means that it does not contain spaces where the depth level is very high. The point where the circulation elements are located is expressed in dark blue as the shallowest area.

- In the connectivity graph of the Museum of Painting and Sculpture, the connectivity value of the exhibition halls, which are on the edges and do not have a transition relationship with other spaces, is low, while the connectivity value is high in the main hall and the hall used to enter the hall.

- The integration graph of the Ptt Stamp Museum indicates that the integration value is low in spaces such as office, technical volume and WC, while the exhibition areas are defined as integrated spaces.

- In the depth graph of the Ptt Stamp Museum, no red color was observed except for a limited area in the office spaces. This shows that it does not contain spaces with high depth level. In particular, the dark blue color of the exhibition areas indicates that they are shallow spaces and contain more moving actions compared to deep spaces.

- The connectivity graph of the Ptt Stamp Museum symbolizes that the exhibition areas are spaces with high connectivity value and therefore connected to other spaces. The spaces with low connectivity value are service spaces such as storage, technical volume, office and kitchen.

Conclusion And Evaluation

It can be said that the integration, which is the first of the parameters used in the analysis of the spatial arrangement of museum buildings, is high in dynamic spaces such as entrance halls, corridors and intermediate areas allocated for free circulation, and low in static areas where users spend more time in static areas where users spend fixed time by performing actions such as watching or reading, which is appropriate in terms of the design criteria of a museum building. When the integration graphs of the three selected museum buildings are interpreted and evaluated separately, the common result is that the points where the circulation elements are located, and the entrance halls are the most integrated areas. When the buildings are compared with each other in terms of integration values, it can be said that the Ethnography Museum and the Ptt Stamp Museum have a larger integrated area.

If a comment is made about the depth parameter, it can be said that spaces with high depth are not inviting spaces and do not attract the user. In a museum, the shallowness of the spaces, especially those where exhibitions are held and where users are

aimed to establish a relationship by experiencing them, positively supports this purpose. As a result of the comparison of the depth graphs, it was seen that the Ptt Stamp Museum has the deepest spaces compared to the other two museums. It is thought that this situation is caused by the fact that the Ptt Stamp Museum is the re-use of a building with a bank function.

Similar to integration, the connectivity value is expected to be higher in the entrance halls, corridors and intermediate spaces reserved for free circulation. These spaces are rich in terms of physical access as they provide access to other spaces. When the connectivity values are compared, it is seen that all three museum buildings present scenarios that can be considered close to each other. Since the Ethnography Museum and the Museum of Painting and Sculpture are symmetrical buildings, it is possible to interpret that all three parameter values are closer to each other than the Ptt Stamp Museum.

[41] *Table 2. Space evaluations related to the space arrangement analysis of the plan diagrams of the museums.*

	Most integrated space	**Least integrated space**	**Deepest space**	**Least deep space**	**Most connected space**	**Least connected space**
Ethnography Museum	Entrance	Exhibition Halls	Exhibition Halls	Entrance Hall/Atatürk Monument	Entrance	Exhibition Halls
Painting and Sculpture Museum	Entrance and Turkish Quarry Hall	Fikret Mualla Hall	Ali Çelebi Hall	Entrance Hall	Entrance Hall	Fikret Mualla Hall
Ptt Stamp Museum	Exhibition Area	Offices and WC	Offices	Exhibition Area	Exhibition Area	Offices and WC

In Table 2, the integration, depth and connectedness of the spaces of the museums are evaluated. Accordingly, the least integrated, deepest and least connected space for the Ethnography Museum is the exhibition halls, while the most integrated, least deep and most connected space is the entrance. In this case, exhibition halls can be interpreted as isolated spaces located in the background. In the Painting and Sculpture Museum, the most integrated space is

the entrance and the Turkish Quarry Hall, while the least deep and most connected space is the entrance. Fikret Mualla Hall, as the least integrated and least connected space, is located further back and not on the circulation route. The deepest space is the Ali Çelebi Hall. In the Ptt Stamp Museum, the exhibition area is the most integrated, least deep and most connected space. This shows that the hall is at a point where visitors have easy access. Service spaces such as offices and WC volumes are the least integrated, deepest and least connected spaces.

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CHAPTER III

Bekir Bey House Designed by Sırrı Bilen: The First Modern Building of the Turkish Republic

H. Abullah ERDOĞAN[1]

Architect Sırrı (Bilen) Bey: Early Life and Education

Sırrı (Bilen) Bey was born in 1894 as the eldest child of Arif Bey, a member of one of Gaziantep's prominent families. Arif Bey, recognized for his interest in literature and philosophy, relocated with his family to Istanbul, seeking a more intellectually stimulating environment. Sırrı Bilen exhibited an early inclination towards craftsmanship, playing with tools such as saws and hammers during his childhood, which led his father to foresee a future in architecture for his son. According to Bilen, his father played a significant role in guiding him towards the architectural profession (Ünsal, 1973).

Bilen began his education at the Istanbul Numune-i Terakki İdadisi and later enrolled in the Sanayi-i Nefise Mektebi in 1908 after completing his primary studies. At this prestigious institution, he joined a diverse cohort of eleven students of Turkish, Armenian, Greek, and Jewish descent. The students were taught in the iconic building, now recognized as the Istanbul Archaeology Museum,

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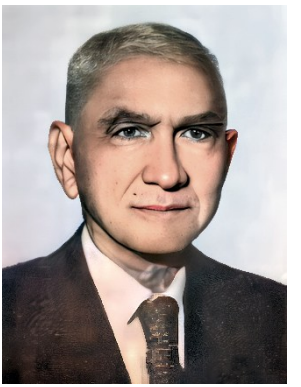
which had been designed by the architect Alexandre Vallaury for use as the Sanayi-i Nefise Mektebi.

During the first preparatory year, the curriculum focused on foundational artistic skills. Students practiced drawing with charcoal (fusain) or graphite, inspired by gypsum relief models displayed on the walls. In his early training, Bilen studied painting under Joseph Warnia-Zarzecki for one year, which helped hone his artistic sensibilities (Ünsal, 1973).



[42] *Figure 1: Architect Sırrı Arif Bilen*

[43] *Source: (Arkitekt, 1973-03, s.135)*

In his second year, Bilen transitioned to atelier training but, like his peers, found it challenging to adapt to the school's intensive artistic atmosphere. During this time, Alexandre Vallaury, Bilen's initial project instructor, left the institution, and teaching responsibilities in architectural project ateliers were taken over by Director Osgan Efendi and Monsieur Mongeri.

In the atelier, Bilen worked alongside notable contemporaries, including Torkum (Çubukçiyan), Hidayet, Kalfa Ali Râsim, Jan Tülbentçiyan, Haydar, Necmettin (Emre), Kemal, and Mazhar (Altan). This era marked a significant increase in the number of Turkish students within the institution. Prominent figures contributing to theoretical courses included Engineer Mahmut Şükrü (construction and materials), Engineer Ferit (descriptive geometry),

Engineer Yusuf Razi (geometric drawing), Engineer Selahattin (methods and architectural estimates), Vahit Bey (art history), and Architect Kemalettin Bey (architectural theory and history). Practical project courses were conducted in tandem with theoretical lessons.

The pedagogical framework of the era was supported by key texts, including *Architecture Ottoman* and photographs of Italian buildings brought in by Mongeri. The curriculum covered detailed studies of columns and arches, as well as small-scale projects like fountains and bridge kiosks during the initial years. By the final year, larger projects, such as pavilions and villas, were introduced. Successful students in these projects were granted diploma projects.

Project drawings began with rough sketches on coarse paper, followed by refined renderings on Canson paper. The process involved starting with pencil outlines, tracing with ink, and finishing with colored detailing (Ünsal, 1973, p. 137).

[44] *Figure 2: S. Bilen's Final School Project, Hünkâr Pavillion in The Park*

[45] *Source: (Ünsal, 1973, p.138)*

The outbreak of war in Italy in 1911 caused Mongeri to return to Turkey, and Architect Vedat Bey subsequently assumed a teaching position at Sanayi-i Nefise. During this period, Mongeri's assistant Terziyan predominantly focused on Italian architectural styles. However, Vedat Bey introduced the principles of the National Architectural Style, which greatly influenced Bilen. For his graduation project, Bilen designed the *Padişah Dinlenme Köşkü* ("Sultan's Resting Pavilion"), a work that earned him first place (Ünsal, 1973).

Bilen's diploma project, designed in the same stylistic vein, was a proposed mausoleum for Sultan Reşat. Once again, his design secured first place. Bilen graduated in late 1913, receiving his diploma from Mongeri, who had returned to the school by then. Reflecting on this period, Bilen acknowledged the profound influence Mongeri had on his education and architectural philosophy (Ünsal, 1973).

[46] *Figure 3: Bilen's Final School Project, Sultan's Resting Pavilion in a Park*

[47] *Source: (Arkitekt, 1973-03, p.135.)*

Having graduated with top honors in architecture, Sırrı Bilen was sent to Italy in 1914 by the Ministry of Education (Maarif Nezareti) for advanced studies in finance and architecture. Prior to his departure, Mongeri introduced him to the captain of the ship bound for Italy and provided him with a letter of recommendation addressed to a professor at the *Scola Della Bella Arti* in Rome, where Bilen was to continue his education (Ünsal, 1973, p. 137).

Upon his arrival in Naples, Bilen met Ressam Vahdi Bey, a Turkish customs officer who was also a painter. During his time in Italy, Bilen began learning Italian and spent much of his free time sketching the city's parks and ancient forums, an effort to broaden his artistic and architectural sensibilities. However, his stay in Italy was abruptly cut short when the Ottoman Empire entered World War I. After only five or six months of study, Bilen was forced to return to Istanbul (Mutlu, Asım, 1995, p. 50; Ünsal, 1973, p. 137).

Upon his return, Bilen was immediately sent to Tophane, a district in Istanbul, where he was drafted into military service. Over the next four years, he served at various frontlines, including İzmir, Çanakkale, the Caucasus, and Mosul. Following the end of the war, he was finally able to return to Istanbul. This wartime experience not only interrupted his formal education but also exposed him to the varied landscapes and cultural contexts of the Ottoman Empire, which would later influence his architectural perspective.

Sırrı Arif Bilen's Professional Career

As Sırrı Arif Bilen pondered the beginning of his architectural career, Vedat Bey suggested that he gain experience by working with the prominent Greek architect Kiryakidis in the Kalyoncukulluk district. Bilen accepted the offer and began working there, but after only two or three months, he left to join the Evkaf Directorate (the Ottoman General Directorate of Pious Foundations), where Mimar Alâeddin Bey served as the construction chief. One of Bilen's first notable tasks in this role was repairing the cornices of

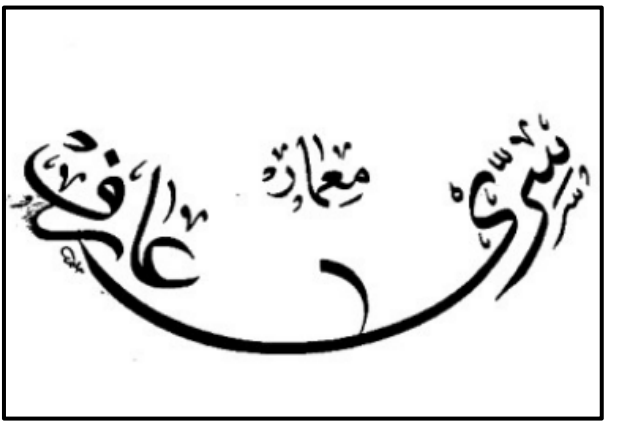
the Sultanahmet Fountain, a project that showcased his emerging architectural skill.

In late 1918, Bilen was invited by Mongeri to join his architectural firm as one of its resident architects. When the firm later faced financial difficulties, Mongeri brought Bilen into Sanayi-i Nefise Mektebi (School of Fine Arts) as his assistant. This mentorship provided Bilen with a solid foundation in architectural theory and practice (Demir & Ataman, 2010).

By 1928, Mongeri had retired from both the academy and his architectural practice. The year prior, in 1927, the academy had welcomed Egli, a Swiss architect, who established a modernist atelier within the school (Mimarlığımız 1923–1950, *Cevaplar*). During this time, Bilen transitioned from traditional Ottoman architectural styles to modernist principles, working closely with Egli. When Egli was absent, Bilen took on the responsibility of managing the atelier (Cumhuriyet Gazetesi, 1928; Özgüven, 2009).

In 1927, Bilen, along with architect Muzaffer and bricklayer Emin, co-founded the architectural firm İmar Yurdu. This firm marked Bilen's full embrace of modern architecture. The partners subscribed to several European architectural journals, which introduced them to the emerging cubist architectural styles, often referred to as "kübik" in Turkey. Through these publications, Bilen aligned his practice with contemporary architectural trends (Özkan, 1973). His work was also heavily influenced by the writings and philosophies of Le Corbusier, whose ideas shaped much of Bilen's architectural vision (Sırrı Arif, 1931).

Interestingly, despite Bilen's strong leanings toward modernist architecture, a business card designed for him by the calligrapher Halim Efendi during this period reflects a blend of traditional and modern aesthetics. This design highlights the transitional nature of his career, which was rooted in Ottoman traditions but increasingly driven by modernist principles (Taşçıoğlu & Acar, 2014).



[48] *Figure 4: Business Card Designed by Calligrapher Halim Efendi for Architect Sırrı Arif Bilen*

[49] *Source: (Taşçıoğlu & Acar, 2014)*

In 1930, Sırrı Arif Bilen began teaching surveying at the Sanayi-i Nefise Mektebi, further solidifying his position as a key figure in Turkish architecture (Ünsal, 1973). Simultaneously, the architectural firm İmar Yurdu, which Bilen co-founded, operated out of Hüdavendigar Han, a prominent building located on Karaköy Rıhtım Caddesi. The firm, comprising a small group of architects, was housed in Room 61. Among its notable members were Sırrı Bilen, a 1913 graduate of Sanayi-i Nefise Mektebi, and Muzaffer Tolun, a 1920 graduate of the same institution (Sırrı Arif, 1931; Arkitekt, 1943/5-6:141; Akay & Ardıçoğlu, 2012; Ersoy & Anadol, 2000).

[50] *Figure 5: Sırrı Bilen and his Colleagues*

[51] *Source: (Ünsal, 1973, p.136)*

The late 1920s and early 1930s witnessed significant social transformations in Turkey, particularly the establishment of girls' institutes, which marked the inclusion of women in education and professional life beyond the domestic sphere. This period also saw the emergence of educational buildings designed to meet modern pedagogical requirements. Architects like Sırrı Arif Bilen and Asım Mutlu, who were pioneers of Turkish modernism, played a pivotal role in designing these rational and functional structures. International architects such as Robert Vorhoelzer and Bruno Taut also contributed as consultants, further influencing the architectural landscape of educational facilities in Turkey (Kul, 2011; Tulum Okur & Ekenyazıcı Güney, 2023).

In 1930, Bilen and renowned architect Vedat Tek served as jury members for Turkey's Beauty Queen Contest, reflecting their engagement in cultural events that shaped modern Turkish identity ("Herkes Merak Ediyor," 1930). After a prolific career spanning several decades, Sırrı Arif Bilen retired in July 1959 at the age of 65,

leaving behind a rich legacy in architectural education and practice.

Significant Works of Sırrı Bilen

The architectural oeuvre of Sırrı Arif (Bilen) Bey spans the transitional phase from the First National Architecture Period to the era of Modern Turkish Architecture. Among his seminal works, the Bomonti Zermayer House stands out as Istanbul's first cubist building, while the Bekir Bey House in Maçka holds the distinction of being the first modern residential structure in Turkish architectural literature. These projects are complemented by his other notable contributions, including Seza Apartment in Mühürdar, Tahir Kavala Mansion in Çatalçeşme, a couple of mansions near Suadiye, the Kavala Mosque in Darıca, and the modernization of Valde Mektebi (Pertevniyal High School) in Aksaray (Ünsal, 1973).

[52] *Figure 6: Valide Mektebi (1931)*

[53] *Source: (tr.m.wikipedia.org)*

The architectural output of Turkish architects during the 1930–1940 period was shaped by a confluence of factors: the infrastructural needs of the new Republic, the professional and educational influence of foreign architects, and the deliberate adoption of Western architectural ideologies. It was during this transformative era that Sırrı Arif designed Turkey's first modern building, the Bekir Bey House in Istanbul. Additionally, his work on

the Nazire Hanım Mansion in Maçka demonstrates a mastery of Art Deco motifs interwoven with modernist elements (Batur, 1983). These designs reflect the influence of Viennese purists and the early cubist principles of Le Corbusier.

[54] *Figure 7: Nazire Hanım Mansion, Maçka, 1932*

[55] *Source: (Mimar, 1932- 1, p.73)*

Sırrı Arif's designs during this period predominantly focused on residential architecture. His plans were defined by geometric forms, with spatial configurations adapted to the nature and functions of individual volumes. Residences often included dining rooms, living areas, terraces, or staircase voids as integral components. Structural elements such as horizontal strip windows, corner windows, reinforced concrete frames, and Edelputz plaster finishes became hallmarks of his approach (Mimar, 1932, Issue 1, p.73).

The Valde Mektebi-Aksaray

Valde Mektebi is a noteworthy example of façade modernization in early Republican architecture. While the typological plan applied to various buildings across Istanbul during the 1920s was employed at Valde

Mektebi in 1930, the building's façades were redesigned with a modern approach by Mimar Sırrı Arif. Despite these updates, the architect was not permitted to make any changes to the original floor plans. Constructed using reinforced concrete technology, Valde Mektebi was modernized based on the plan scheme of Kadıköy 35th School, a project typical of the First National Architectural Movement. Through his redesign, Sırrı Arif successfully imparted a modernist character to a structure rooted in a national style (Kul, 2011).

The construction management of Valde Mektebi was undertaken by İmar Yurdu, a company founded by Sırrı Bilen and his colleagues. According to Bilen, the façade design was exclusively their contribution. While multiple attempts were made to revise the building's overall design based on site conditions and contemporary school construction techniques, these proposals were only partially approved. Permission was granted solely for façade modifications, provided that the original plan and orientation remained unchanged. Nevertheless, Valde Mektebi stands as a testament to modern architecture, blending nationalistic themes with contemporary techniques (M. Vedat, 1931; Gümüş, 2018).

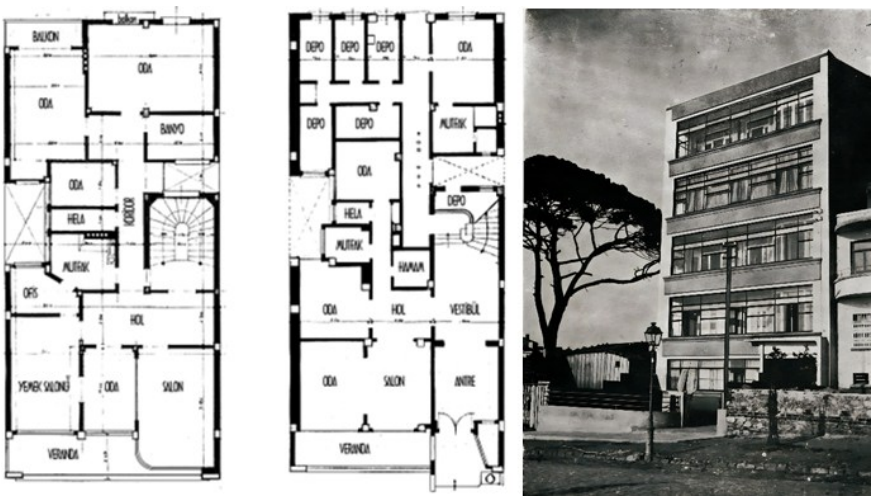
Seza Apartment-Mühürdar

In 1931, the vast estate of Serasker Hasan Rıza Pasha in Kadıköy Mühürdar was subdivided into smaller parcels by the municipality, enabling rapid development of new residential structures. Architects such as Zeki Selah (Dr. Sani Yaver Mansion), Faruk Galip (Sıdıka Haydar Hanım Mansion), and Sırrı Arif (Seza Apartment) were prominent figures shaping this newly developing neighborhood (Salah, 2013).

Among these, the Seza Apartment, designed by Sırrı Arif in 1933, emerged as a distinguished example catering to the social elite of the era. This five-story reinforced concrete structure featured apartments with sea views on every floor. The ground floor housed a four-room apartment, caretaker's quarters, and storage spaces (Sırrı Arif, 1933).

The building introduced significant innovations in the concepts of sofa and hall, redefining spatial organization. The entry hall connected the main living room, dining area, and other spaces, serving as a transitional zone between public and private realms. Departing from the traditional “sofa” concept, Sırrı Bey referred to this space as a “hall,” positioning it as the architectural nucleus of the apartment. Both aesthetically and functionally, this central element harmonized public and private zones, enriching the apartment's architectural legacy (Sezginalp, 2017).

The Seza Apartment stands as a remarkable solution for narrow plots, distinguished by its expansive terraces and glazed façade. The design reflects the principles of international modernism, emphasizing an open plan layout that ensures abundant natural light and ventilation. These features not only set it apart from contemporary apartment buildings but also underscore its alignment with modern architectural ideals (Şumnu, 2020; Tuna, 2021).

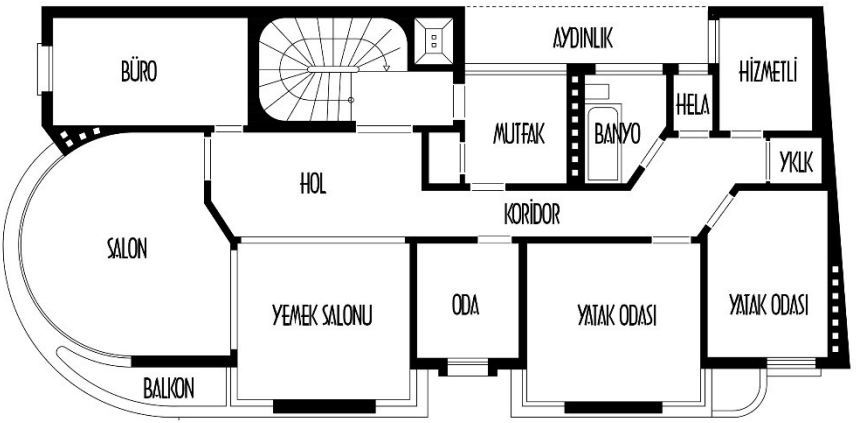


[56] *Figure 8: Seza partment Façade and Floor Plan*

[57] *Source: (Arkitekt, 1933)*

Levent Apartment-Pangaltı

Built in 1932, the Levent Apartment is situated at the intersection of Halaskargazi Süleyman Nazif Street and Zafer Street. It is among the oldest dated apartment buildings from the 1930s in Istanbul (Zeki Selah, 1932; Saraçoğlu Gezer, 2018). The primary entrance of the building is on Zafer Street. Enduring the passage of time, the building's rounded corner balcony and façade originally stood out with a scenic view of the sea (Kültür Envanteri, 2022).



[58] *Figure 9: Floor Plan of Levent Apartment*

[59] *Source: (Arkitekt, 1932, p.35)*

The design plans of this apartment were presented to the architect by the property owner three years prior to construction, with specific instructions to design the building's exterior façade (Anonim, 2011). Notably, a living room was positioned at the corner facing the sea, complemented by a semi-circular private balcony wrapping around the room. The narrow curved façade facing the street exemplifies the period's architectural character, where horizontal parapet strips visually unify floors and window frames. According to Örnek (2020), the extended side façade complies with municipal building regulations by splitting the protrusion in the middle. The topmost terrace floor, prominently featured on the cover of Arkitekt magazine in 1932, was traditionally utilized as a laundry area.

The Levent Apartment exemplifies modernist principles in architecture, particularly its innovative approach to natural lighting and ventilation. Key features include illuminated staircases and service areas through light wells, naturally ventilated wet spaces such as kitchens and bathrooms, access to fresh air through balconies, and optimized sunlight intake via corner windows. These qualities reflect the advanced architectural thinking of the modernist era (Sayâr, 1932; Tuna, 2021).

[60] *Figure 10: Levent Apartment Façade and Entrance*

[61] *Source: (İnan Kenan Olgar, 2022)*

Dr. Süreyya Hidayet Apartmanı-Cağaloğlu

The Dr. Süreyya Hidayet Apartment, consisting of five rooms with ancillary spaces in each unit, features two apartments per floor across a basement, ground floor, and four upper stories. Constructed following the demolition of a pre-existing mansion, the project encountered significant obstacles during its development. Initially, the building's roof was completed by a foreman, and plastering was underway when financial disputes arose between the employer and the foreman, halting the construction and leading to the termination of their contract. The construction was eventually handed over to Sırrı Arif Bey’s İmar Yurdu office, which completed

the building within two months, successfully preserving the structure's exterior appearance under Sırrı Arif Bey's direction (Sırrı Arif, 1931).

This project sheds light on the challenges of construction during the period, particularly the dynamics between foremen (alaylı) and formally trained architects (mektepli), highlighting the growing role of architects in ensuring project completion. Technically and aesthetically, the building remains a significant example in the architectural history of Turkey.

[62] *Figure 10: Dr Süreyya Bey Apartment, Front Façade*

[63] *Souce: (Mimar,1931, s.197)*

Çanakkale Şehitleri Anıtı

The Çanakkale Martyrs' Memorial gained attention through an article titled *"Çanakkale Abidesi Birlik'e Açık Mektup"* (An Open Letter to the Unity for the Çanakkale Monument) published on October 2, 1933, by A. Necdet and Tevfik Cemal. The article advocated for the construction of a monument dedicated to the martyrs of Çanakkale (Vedat Mustafa, 1933). It referenced a proposal from seven years prior, led by Ali Hikmet Pasha, then commander of the Balıkesir Corps, who envisioned the project and entrusted Mimar Sırrı Bey with its design. Sırrı Bey prepared plans for a 28-meter-high monument featuring a victorious eagle motif.

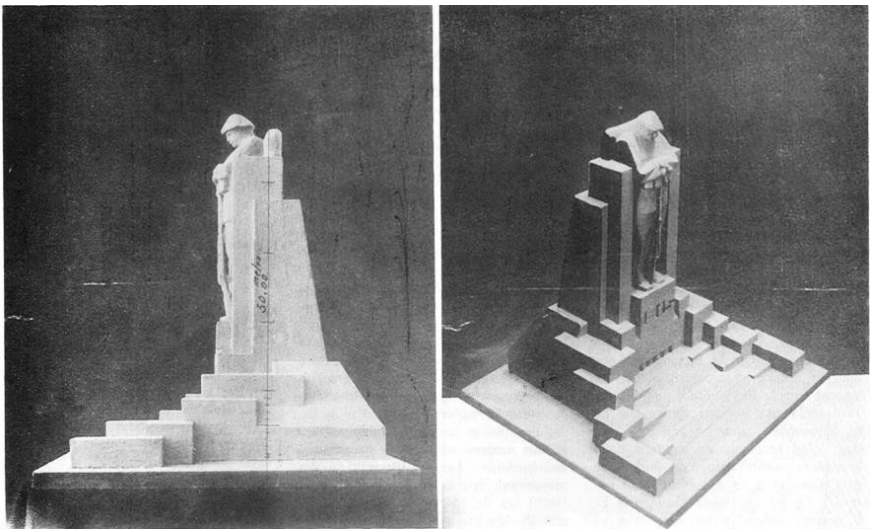
[64] *Figure 11: Management Board of Şehitliklerimiz İmar Cemiyeti*

[65] *Source: (Vakit, 15, p.2)*

Unfortunately, financial constraints allowed for only one-third of the required budget to be secured, leading to the construction of only the marble pedestal, while the remaining work was postponed (Vedat Mustafa, 1933). The design, characterized by the impressive 28-meter-tall "victorious eagle," is recognized as the first reinforced concrete monument of its kind in Turkey.

The idea of constructing a monument as a tribute to the

martyrs gained momentum with efforts by the Çanakkale Şehitliklerini İmar Derneği (Çanakkale Martyrs' Restoration Society) to commission designs. The State Academy of Fine Arts' 1930 design is considered the first step in this process. Sırrı Bey's proposal, incorporating the eagle motif, represents a pivotal milestone in the architectural commemoration of the martyrs.



[66] *Figure 12: Çanakkale Monument Design Study*

[67] *Source: (Ünsal, 1973, p.137)*

Kavala Mosque-Darıca

The Hacı Tahir Kavala Mosque, located in the Darıca district of Kocaeli, stands as a notable example of Turkish architecture from the early Republican Period. Constructed at the initiative of the Kavala family, who settled in Darıca following the population exchange, the mosque was commissioned by Hacı Tahir Kavala and his wife, Nesli Kavala. It was designed by the renowned architect Sırrı Bilen, who is also known for preparing a villa project for this family.

The planning process for the mosque began in 1947, and its construction was completed in 1950, coinciding with the late phase

of the Second National Architectural Movement. This mosque reflects the architectural ethos of its era and holds significant historical and cultural value (Ünsal, 1973; Kolcuoğlu, 2013; Yavuz, 2024).

The mosque features a single minaret and a rectangular plan with a hipped roof and a mirrored vault ceiling. It exemplifies the classical Anatolian mosques typology. The mihrab, created using plaster molding techniques, integrates seamlessly with the overall decorative scheme of the mosque. The mihrab includes a polygonal niche, base panel, and intricately faceted frames, demonstrating the harmonious application of traditional architectural elements.

[68] *Figure 13: Front Façade of Hacı Tahir Kavala Mosque*

[69] *Source: (kocaelitarihi.com)*

[70] *Figure 14: Entrance and Façade of Hacı Tahir Kavala Mosque*

[71] *Source: (kocaelitarihi.com)*

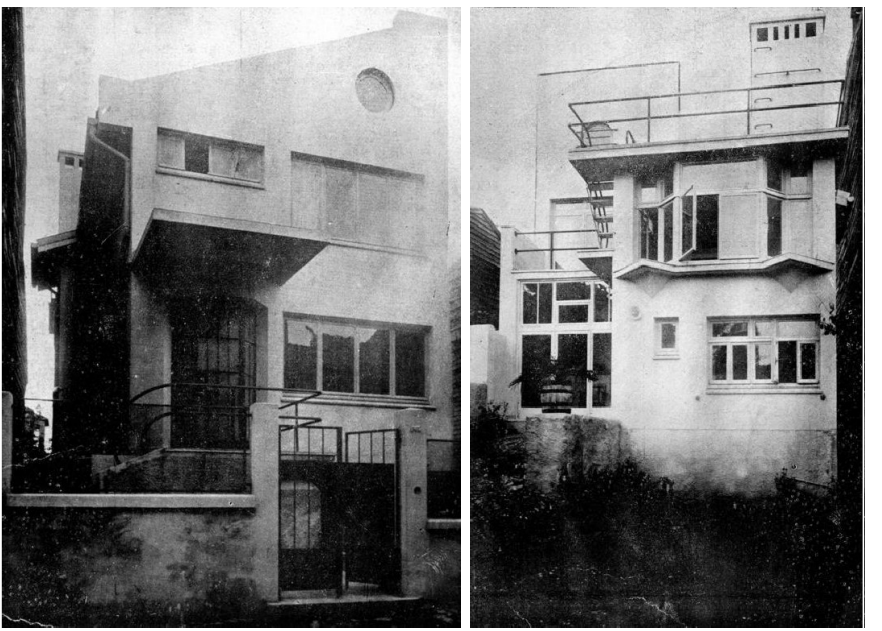
The First Modern House of The Republic: Bekir Bey House

Designed by Architect Sırrı Arif in 1929, the Bekir Bey House is a two-story building that stands as one of the earliest examples of modern residential architecture designed by Turkish architects. This structure, built with a national and contemporary vision, represents an original work in the Art Deco style (Batur, 1983; Sey, 1998). At the time, detached houses like this were considered more in line with Turkish customs and were in greater demand compared to apartments (Sağlam, 2020).

With its minimalist façade and form, the Bekir Bey House exemplifies the modernist and cubic architectural approaches of its time. It was featured in the first issue of Arkitekt magazine in 1931 as the first building designed and built by Turkish architects to embody modernist principles (Batur, 1983). The house recalls Le Corbusier's cubist-purist residences, with elements such as a flat

roof, spacious terraces, cubist massing, rounded corners, asymmetry, large glass surfaces, horizontal strip windows, and metal railings. These features reflect the International Style character that defined Istanbul's modernist villas and apartment houses of the 1930s (Aslanoğlu, 2010; Bozdoğan, 2012; Sahtiyanci, 2018).

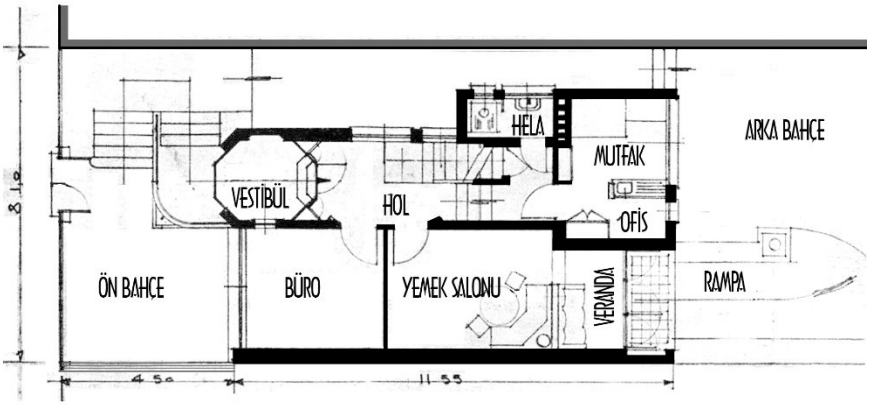
Unlike traditional residential layouts featuring columned entryways or large central halls, the Bekir Bey House adopts a functional and simplistic design approach. This shift marks a departure from rigid traditional rules, aligning with the innovative International Style, which harmonizes form and function while emphasizing cubic forms, terraces, open roofs, and generous light-filled spaces. The rejection of symmetry further solidifies Bekir Bey House as a trailblazing example of modernist architecture (Kuçak Toprak, 1930).



[72] *Figure 15: Front and Back Views of Bekir Bey House*

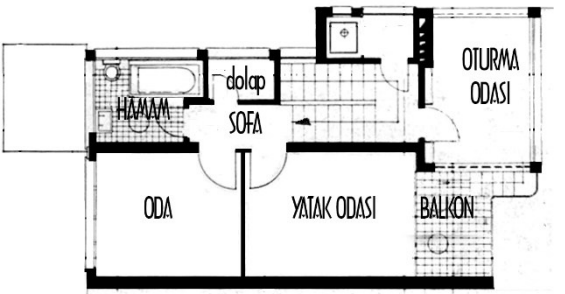
[73] *Source: (Arkitekt, 1931, p. 5)*

The house was constructed on a 72-square-meter plot, comprising a basement, ground floor, first floor, and an attic. Positioned four meters back from the street, the house maximizes its 14-meter garden at the rear, which offers a sea view.



[74] *Figure 16: Ground Floor Plan of Bekir Bey House*

[75] *Source: (Arkitekt, 1931, p.7)*



[76] *Figure 17: First Floor Plan*

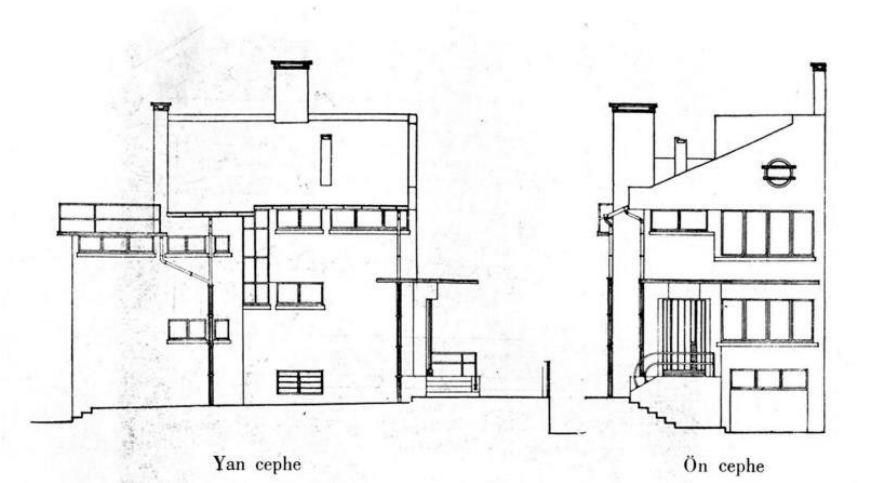
[77] *Source: (Arkitekt, 1931, p.7)*

The basement walls are made of rubble stone, while the upper floors are brick. The floor slabs are reinforced concrete, and the attic ceiling features plaster on a metal frame, with a wooden

roof. The basement level, elevated above street level, has a separate entrance for servants. The basement contains a room, a laundry area, a woodshed, and a coal cellar (Sırrı Arif, 1931).

Between 1930 and 1950, residential design transitioned from traditional sofa plans to functional layouts with day and night zones and secondary halls. Traditional spaces like the selamlık were transformed into mixed-gender living rooms or salons, while kitchens, as seen in Bekir Bey House, were placed near living areas but carefully separated for privacy via secondary halls. This arrangement balanced functionality and privacy while controlling the relationship between social and private spaces (Akın & Ercan, 2022).

In Bekir Bey House, staircases and the main hall stand out as integrated spaces, while the kitchen and bathroom are more secluded. The day zone is the most accessible, while deeper areas house bedrooms, a pantry, and a bathroom. The kitchen, isolated within the layout, connects to the dining room through a secondary hall, emphasizing privacy (Akın & Ercan, 2022).



[78] *Figure 18: Front and Side Elevations of Bekir Bey House*

[79] *Source: (Arkitekt, 1931, p.8)*

Conlusion

In the Early Republican Period, modern architecture expanded from public buildings to civil structures, serving as a spatial manifestation of the Republic's ideology. Modern architecture was adopted as a symbol of the Republican project and utilized as the official executor of the state's cultural policies. However, this also constrained architecture's potential to evolve as a critical and creative force (Bozdoğan, 1999).

An article published in *Hakimiyet-i Milliye* on January 2, 1930, described modern architecture as "breaking away from old mindsets and traditions, advancing toward truth," emphasizing the new constructions in Ankara as exemplary of this ideology (Hakimiyet-i Milliye, 1930; Bozdoğan, 2012; Köse, 2013). Across the nation, functional designs sought to disseminate modernist ideals. However, shortages in materials and technical expertise led to the emergence of localized modernist solutions.

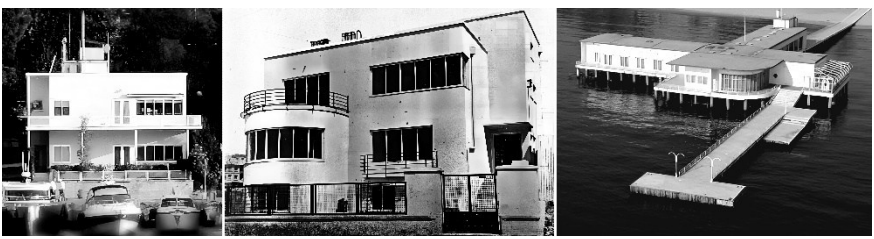
Early modern Turkish architecture between 1927 and 1940 can be divided into three distinct phases. The first phase (1927–1933) featured pioneering works, particularly in the reconstruction of Ankara, led by foreign architects such as Ernst Egli and Holtzmeister. During this time, young Turkish architects like Sırrı Arif, Sedat Hakkı Eldem, and Zeki Sayar began to stand out with their cubist and function-oriented designs (Batur, 2005).

The second phase (1933–1940) marked an era in which Turkish architects produced more work and gravitated toward local values. Notable projects from this period include Seyfettin Arkan's Hariciye Köşkü and the community center and residential designs by female architects such as Leman Tomsu. This phase emphasized functionality and explored diverse planning approaches (Asiliskender, 2008).

The third phase, starting in 1938, saw the emergence of the "Second National Architecture" movement as a reaction to strict modernism, spearheaded by Ernst Egli and Sedat Hakkı Eldem. Eldem, drawing inspiration from traditional Turkish houses, fused local architectural elements with modernist principles to create a

distinctive style. Tekeli (2005) defines this period as characterized by a focus on local identity, a nostalgic appreciation of the past, a populist approach rooted in Anatolian cultural life, and a nationalist inclination toward monumental structures.

By the late 1920s, the influence of the International Style began to appear in Turkey, emphasizing simple geometric forms. Among the earliest examples was the Bekir Bey House, designed by Sırrı Arif Bilen in 1929 and featured in the first issue of *Arkitekt* in 1931. This residence is regarded as the first modern building and the first modern home constructed by a Turkish architect, with design elements influenced by Le Corbusier and Purist principles. Other early examples from this period include the projects shown in the accompanying illustrations.



[80] *Figure 19 a. Ragıp Devres Villa, Ernst A. Egli, 1932, Bebek*

[81] *b. Dr. Sani Yaver Villa, Zeki Selah Sayar, 1932, Kadıköy*

[82] *c. Florya Sea Pavilion, Seyfi Arkan, 1935, Florya*

[83] *Source: (Arkitekt, 1932, p.131) (architectuul.com)(dedeman.com)*

[84]

The houses of this era were characterized by asymmetrical forms, balconies, and terraces designed to maximize sunlight and fresh air. Defining features included flat roofs and expansive window surfaces, which symbolized the modern residential architecture of the time. However, these innovations were often critiqued in caricatures, which highlighted small and impractical spaces or exaggerated window arrangements (Dokgöz, 2012).

People transitioning from traditional homes found it challenging to adapt to this new style, a response that mirrored similar issues encountered in experimental modern architectural practices elsewhere in the 20th century.

Modern homes were typically designed for professionals such as doctors and engineers, reflecting their income levels and cultural backgrounds. Features like servant quarters, piano rooms, and winter gardens underscored a departure from traditional norms. While these homes embodied modern architectural ideals, they also revealed broader societal attitudes and challenges in adapting to modernization.

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