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Analysis of the facade and spatial quality of educational buildings of the first national architecture period: The case of Konya

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Abstract

In the last years of the 19th century, architects who were under the influence of the nationalist ideas that developed in the last years of the 19th century and were strengthened with the declaration of the constitutional monarchy, led to the emergence of the First National Architectural Period as a reaction. They also considered this period as an eclectic architectural style in which they reinterpreted the facade, plan and ornamental elements of Ottoman and Seljuk architecture with Western construction techniques. In this architectural process, many public buildings, hotels, bank buildings, ministry buildings, educational buildings and residences were built. Educational buildings are an important group among the new types of buildings constructed in Konya, which has maintained its political and cultural importance throughout history. In this study, the facade and spatial quality analyses of the Sanayi Mektebi, Male Teachers' High School (Dârü-l Muallimin), Girl Teachers' School (Dârü-l Muallimat) and Gazi Mustafa Kemal, Hakimiyet-i Milliye and İsmet Paşa Primary Schools, which are among the educational buildings built during the First National Architectural Period and which contributed to the identity of the city of Konya, were examined. The authenticity and conservation values of the selected educational buildings were determined and compared with each other. According to the results obtained from the facade and spatial analyses of these samples; authenticity values are determined depending on the rate of having the characteristics of the period and conservation criteria. The fact that no previous study has been carried out in this period and group of buildings using the method defined increases the originality value of the subject.

Keywords: educational buildings, facade quality analysis, I. national architecture period, Konya, spatial quality analysis

1. Introduction

Turkish architecture, which developed systematically and regularly from the Seljuks, reached its strongest expression in the 16th century and then gradually began to lose its identity with the periods of stagnation and decline of the Ottoman Empire. The empire exhibited some arrangements in order to get rid of falling behind the western states (Hasol, 2017). However, the Union and Progress Party was established after the declaration of the Constitutional Monarchy II in the empire that entered the period of collapse. In this community, instead of a common religion with a nationalist perspective, a common historical, cultural and linguistic heritage was defended and the formation of a common architectural style was supported (Alpagut, 2005; Yaldız & Parlak, 2018). As a result of these studies, the I. National Architecture Period emerged.

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The I. National Architecture Period draws attention as a process in which the first serious reactions to the westernisation tendency in the last period of the Ottoman Empire emerged, and efforts were made to purify architecture from foreign influences and foreign architects. It is important to understand that under the influence of nationalist ideas, architects used the facade, plan and ornamental elements of Turkish-Ottoman architecture in the buildings constructed during this period. The period, which began with the proclamation of the Second Constitutional Monarchy in 1908 and continued until the 1930s, did not lose its influence with the establishment of the Republic and expanded its areas of application within the newly established state. At that time, the movement was called National Architecture, National Architectural Renaissance, National Architectural Style or Neoclassical Style; today it is called National Architecture, National Architecture, Turkish Neoclassicism and Ottoman Neoclassicism (Sözen, 1984).

The architects who worked during the first period of National Architecture, especially Kemalettin and Vedat Bey, Muzaffer Bey, Arif Hikmet Koyunoğlu, Ahmet Kemal, Tahsin Sermet, Ali Talat, Falih Ülkü, Hafi, Necmeddin Emre and the Italian Giulio Mongeri also produced important works in this style.

Many public buildings, hotels, bank buildings, ministry buildings, educational buildings and residences were built during the First National Architecture Period. In Konya, which is located in the centre of Central Anatolia, was the capital of the Seljuks and was inhabited in all periods, there is no intensive construction activity in the early years of the Ottoman Empire. However, since the second half of the 19th century, educational buildings constitute a large part of the buildings serving the renewal movements (Öner, 2016).

In this study, the authenticity, the degree of preservation and the architectural characteristics of the period of the high-quality educational buildings selected from the city centre of Konya were determined by studying the facade and spatial characteristics of the educational buildings of the First National Architectural Period. At the same time, the schools were compared with each other. In this selected period and group of buildings, no previous study has been carried out with the determined method, which is important for the evaluation of the period. The fact that such a study has been carried out increases the originality of the study.

2. Material and Method

The aim of this study is to determine the architectural characteristics of the educational buildings constructed during the First National Architectural Period and to evaluate their characteristics in terms of their authenticity value within the period. For this reason, the architectural features of the educational buildings constructed in the First National Architectural Period have been analysed and it has been shown to what extent the selected educational buildings in Konya have these features with different values and whether they can preserve their authenticity today.

Sanayi Mektebi, Male Teachers' High School, Girl Teachers' School, Gazi Mustafa Kemal, Hakimiyet-i Milliye and İsmet Paşa Primary Schools, which were built as high schools in Konya during the First National Architectural Period, were selected for the study. The selection of these high representative buildings as samples was influenced by the fact that they were built in the years when the First National Architectural Period was adopted, they have the characteristics of the period, their stylistic similarities and they are all educational buildings.

While all the selected samples were evaluated by facade quality analysis, the primary schools were evaluated by spatial quality analysis together with the high school buildings under the common title, since their interior features and planning approaches were the same. During the analysis, information and documents related to the subject were searched through literature review, drawings, historical and current photographs of the buildings were examined in detail. The images and drawings were analysed and compared with the theoretical knowledge.

The data obtained from the field study were evaluated with a scoring systematic. This method is derived from the method proposed by İpekoğlu (2006) for the evaluation of the architectural features of traditional houses in her study. Facade and spatial analysis criteria were created within the framework of the general architectural features of the educational buildings of the I. National Architecture Period. Among these features, the originality value of each of the determinants of the period was accepted as 3 points, and the others were evaluated as 2 or 1 point according to their condition in the building. Whether the determined criteria are within the six selected samples and the authenticity value of these criteria within the period (3,2,1 points) were calculated by scoring. While creating the evaluation formula, the criteria were summed within their own categories, and the factor obtained was taken as a multiplier since the impact value of the factor obtained was high on the structure. Thus, with the score obtained, the degree to which the buildings carry these features, their originality value within their own period and their comparison with each other were made.

3. Architectural Characteristics of The Educational Buildings of The First National Architectural Period

The First National Architectural Period, which covers a short period of our architectural history (1908-1930), attempted to find the original in the field of architecture in the first years of the establishment of the Republic of Turkey. The First National Architectural Period is defined as an eclectic architectural style in which the plan, facade and ornamental elements (arches, motifs, ornaments, etc.) of Seljuk and Ottoman buildings were reinterpreted with Western construction techniques under the influence of nationalist ideas. This architectural style shows an attitude that combines the eclecticism of the Neo-Baroque movement with the characteristics of Art Nouveau. The use of Ottoman and Seljuk motifs in most of the buildings, especially on the facades, supports the formation of a national consciousness (Yaldız & Parlak, 2018).

The educational buildings of the first national architectural period have the plan, facade and ornamental features of the movement in general; they resemble each other and other types of public buildings. Primary school buildings, in particular, are the most frequently constructed educational buildings among other public buildings in order to ensure the spread and development of the idea of the Republic. Although different designs were made, the type projects prepared by the Ministry of Education were constructed after 1926 due to the small number or absence of architects in all provinces (Kul, 2011; Koçak, 2019).

The architectural characteristics of the educational buildings of the first national architectural period are listed below:

- When examining the plan characteristics of educational structures, it can be observed that the majority are arranged in a symmetrical, rectangular or U-shaped layout. The horizontal circulation is designed in an I or U shape perpendicular to the symmetry axis, while the vertical circulation is designed perpendicular to the symmetry axis.
- Symmetry is generally observed in the design of the facades. The front facades of the buildings are accentuated with more ornaments and projections than the other facades. The floors are divided by horizontal mouldings.
- In order to emphasise the entrance in the buildings, the entrance is provided from the raised floor and the entrance axes on the upper floors are supported by building elements such as balconies, overhangs or domes (Parlak, 2018).
- The windows are treated with different arches on each floor and the facades are animated with arch types such as pointed, flattened and bursa.
- Tile panels, rosettes, cabaras, column capitals with diamonds or muqarnas belonging to Seljuk and Ottoman art are commonly found as ornamental elements in the window pediments and facade arrangement in this period (Sözen, 1984).

- Hipped roofs, Marseille tiles and wide eaves were used in the roofing system. The undersides of the wide eaves, which are supported by pillars, are decorated with geometric and floral patterns similar to the under eaves and ceiling decorations of old Turkish architecture.
- The balcony balustrades, which are often seen, are either simple masonry balustrades placed vertically or Ottoman marble netting with Seljuk patterns formed by the intertwining of geometric shapes.
- Entrances and corners are enlivened with domes to give the facades a monumental angle (Ertuğrul, 2007).
- The design of the buildings, which are usually located in a large garden, includes classrooms, administrative departments (principal's room, vice-principal's room, teacher's room), servants' rooms, storage rooms, wet rooms; in those that provide practical education, there are places such as workshops and laboratories.
- Most of the classrooms have a rectangular plan, while the administrative rooms are smaller than the classrooms with square or rectangular plans (Koçak, 2019).
- In educational buildings, interior decoration and decorative elements that are found in other public buildings are not very common. This situation has been caused by different users and financial shortcomings.
- There are no special construction techniques and materials in this period. Buildings of the period were constructed with brick or stone materials, masonry or reinforced concrete. Volta or beam-supported floor technique was used for flooring (Koçak, 2019).

4. Historical and Architectural Characteristics of Educational Buildings of The First National Architectural Period Selected from Konya Province

Konya was an important centre for Turkey in the Republican period, as well as in the Seljuk and Ottoman periods. For reasons such as its location at the centre of the transport network and rapid population growth, it has developed as a city with a single-centre and 'radial road system' plan (Parlak, 2018).

In 1923, with the proclamation of the Republic, innovations occurred in areas such as architecture, education, life and the economy. In particular, the reforms carried out in the last periods of the Ottoman Empire began in the military field and continued in education. The need for new educational institutions arising from the changes in the education system was met by schools built in accordance with the characteristics of the First National Architectural Period, which became the architectural trend of the period. This construction process, which continued with the establishment of the Republic, continued throughout Turkey.

In Konya, there are many educational buildings from the First National Architectural Period that were built between 1915 and 1929. The educational buildings of the period selected in the context of the study are located around Alaeddin, the old city centre, especially in residential areas. The locations of the analysed educational buildings in the city are shown in Figure 1.

Figure 1 Study area and selected educational buildings (schematised from Google Earth)

4.1. Sanayi Mektebi

Located in the Şems neighbourhood of the Karatay district, the building, which is an early application of the period in Konya, was completed in 1901 by the provincial engineer Şefik Bey during the reign of Governor Avlonyalı Ferit Pasha (Figure 2) (Fırat, 2005). At that time, it was planned to build an industrial complex called 'Sanâyihane' in the city and open a school to teach tailoring, shoemaking, saddlery, leatherwork, carpentry and blacksmithing. The architectural identity of the Sanayi Mektebi is shown in Table 1.

Table 1 Sanayi Mektebi Building Identity

Building Identity	
Name	*Konya Sanayi Mektebi*
Year of production	*1900-1901*
Type	*Education Structure*
Architect	*Provincial Engineer Şefik Bey*
Constructor (Banisi)	*Governor Avlonyalı Mehmet Ferit Pasha*
Location	*Konya / Karatay / Mevlâna Cad.*
Original function	*School of Art and Industry*
Present Function	*Provincial Police Headquarters Building (Public Building)*
Status	*Good*
Qualification	*Masonry technique, rubble stone and brick*

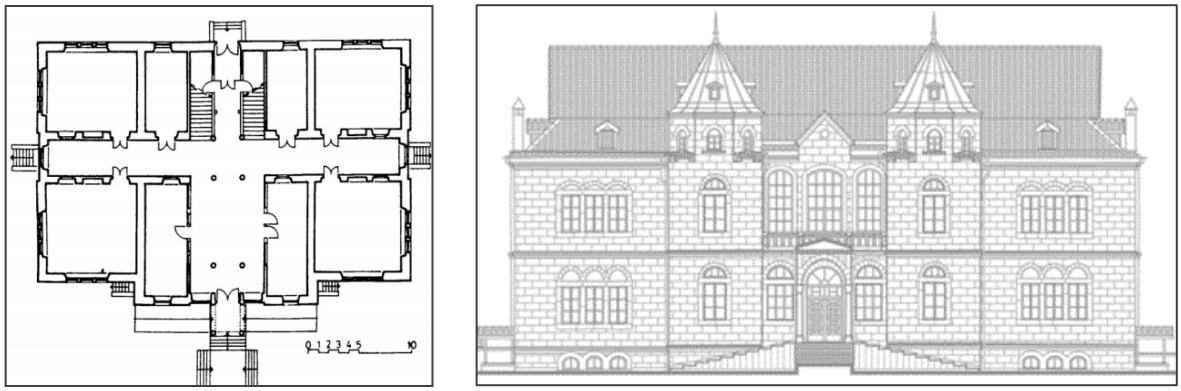
(a) **(b)**

Figure 2 a) Sanayi Mektebi in the early 20th century (Baykara, 2002) **b)** Sanayi Mektebi today (Tuna Sayın, 2021)

The building consists of a single rectangular block measuring 20.50m x 32.50m, which extends in an east-west direction. It has four storeys: basement, ground floor, first floor and attic. There is a symmetrical design in the plan scheme and facade views (Duran et al., 2006). The basement floor of the rectangular building consists of an east-west corridor and the rooms around it. Entrances to this floor are provided by a door located on the same axis in the middle of the two side facades and two doors on the side facades on the projections, independent of the other floors (Öner, 2016). The basement was used as a storeroom, dining room and boiler room (Fırat, 2005).

The ground floor layout is largely parallel to the basement layout. The narrow east-west corridor is interrupted by a steep corridor with a north-south entrance. Access to the upper floors is provided by a wide staircase facing north, opposite the main entrance (Figure 3a) (Öner, 2016). The spaces on this floor were used as classrooms, headmaster's rooms and teachers' rooms (Fırat, 2005). On the first floor, the square cells on the ground floor were expanded to form large rectangular volumes.

The main entrance to the building is a single porticoed entrance located in the centre of the south facade on a high rectangular platform accessed by a staircase. The portico is formed by column-like legs with pointed arches connecting them and a triangular pediment on the arch. On the first floor, a balcony was formed above the entrance portico by setting back the facade, and the balcony railings are made of stone (Figure 3b) (Fırat, 2005).



(a) **(b)**

Figure 3 a) Sanayi Mektebi ground floor plan (Sözen, 1984) **b)** Sanayi Mektebi entrance facade (Çağlar, 2018)

On either side of the entrance to the building there are tower-like projections that are square up to the top of the facade and become octagonal at the eaves. These projections end in a leaded pyramidal cone and are the most striking elements of the facade (Duran et al., 2006).

The east and west side facades are symmetrical to each other, while the north and south entrance facades are symmetrical to each other. On the north and south facades there are groups of three windows with arched pediments that open onto the corner rooms. These triple windows are juxtaposed and have pointed arches on the ground floor and flat arches on the upper floor. At the same time, the tile panels on the arch pediments are designed in a style reminiscent of 16th century Ottoman tiles, multi-coloured and glazed (Figure 4) (Fırat, 2005).

On all the facades of the building, the basement, ground floor and first floor are separated by a simple horizontal moulding. These eaves mouldings were not only used on the towers. The building is covered with a hipped roof of Marseille tiles, and long, thin chimneys were used in keeping with its characteristics. As for the building materials, rubble stone was used in the basement, joints were made on plaster in the upper floors and mouldings were arranged with brick inside and plaster outside to give the appearance of cut stone (Öner, 2016).

In the early years of the building's construction, the inscription on the triangular pediment of the entrance with portico and one of the inscriptions on the tiled pediment of the triple windows on the ground floor of the front facade were lost. The building was most severely damaged by a fire

in 1979, and its original plan was modified several times before and after the fire. The Sanayi Mektebi , which was used as a school for many years, is now used by the Provincial Police.

(a) **(b)**

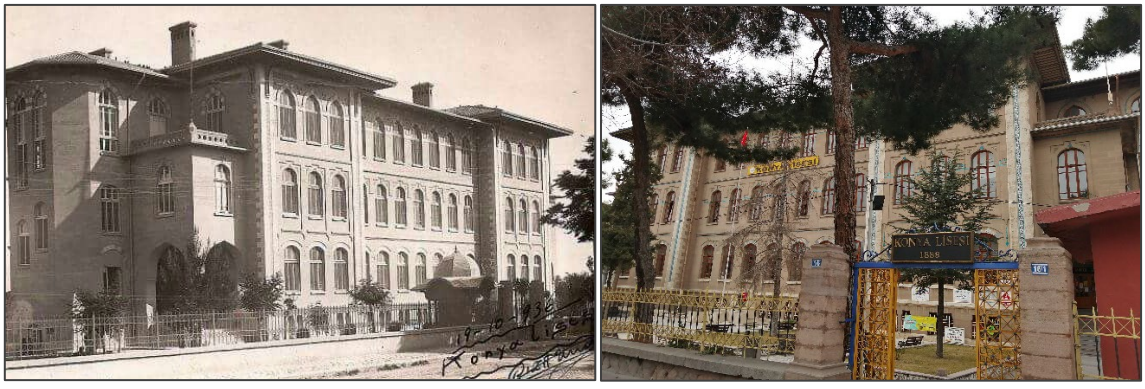
Figure 4 a) Triangular pediment on the entrance portico **b)** Decorations on the arch pediments of the windows (Tuna Sayın, 2021)

4.2. Male Teacher High School (Dârü-l Muallimin)

Located in the Meram district, the building was designed and constructed by the architect Muzaffer Bey between 1914 and 1917 (Figure 5). The building identity of the Male Teacher High School (Dârü-l Muallimin) is shown in Table 2.

Table 2 Male Teacher High School Building Identity

Building Identity	
Name	*Male Teacher High School (Dârü-l Muallimin)*
Year of production	*1914-1917*
Type	*Education Structure*
Architect	*Architect Muzaffer Bey*
Constructor (Banisi)	*Governor of Konya Hüsnü Bey*
Location	*Meram / Abdülaziz Mah. / Atatürk Cad.*
Original function	*Male Teacher High School*
Present Function	*Konya High School*
Status	*Good*
Qualification	*Sille and Gödene stone in masonry technique*



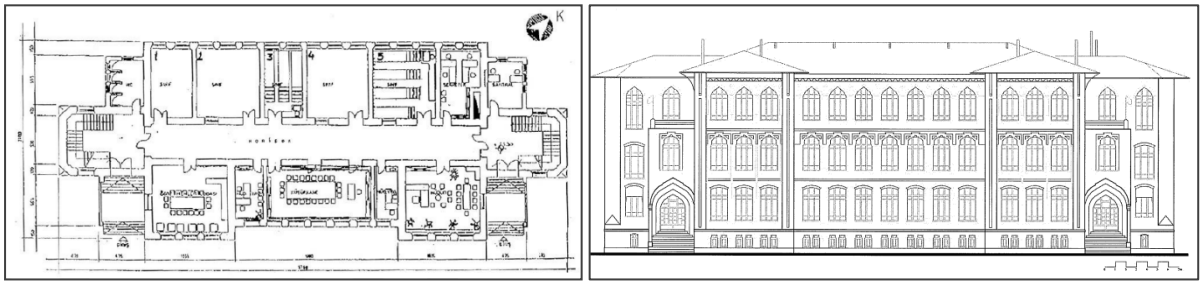
(a) **(b)**

Figure 5 a) Male Teacher High School-1936 (Konya Lisesi 1936 | Fotoğraf, Tarih, Eski evler, n.d.) **b)** Male Teacher High School today (Tuna Sayın, 2021)

The building consists of a single rectangular block measuring 21.8 m x 57.6 m, which is laid out longitudinally in a northeast-southwest direction within a rather large garden. It has a total of four floors, one of which has a basement (Çiftçi, 2001).

Inside the building, each floor consists of functional departments and classrooms arranged around a long corridor. The vertical circulation between the floors is provided by the staircases, which are symmetrically arranged in a northeast-southwest direction and project outwards. Although the internal organisation of the building was later modified, the basement floor consists of service rooms such as storage, dining room, pantry; the ground floor consists of five classrooms, library, teachers' room; the first floor consists of 10 classrooms and administrative rooms; and the second floor consists of a dormitory with seven sections in its original use. Floor heights vary on each floor (Figure 6a) (Duran et al., 2006).

The main entrances to the building are arranged as raised, single-volume portico units with stair buckets projecting to the northeast and southwest (Öner, 2016). The entrance portico on the ground floor is evaluated as a stone console on the first floor, and as a balcony with a stone balustrade on the second floor. At the same time, there is an Ottoman inscription on the entrance located at the eastern end. In general, it can be seen that a certain symmetry dominates in the layout and facade design of the building (Figure 6b).



(a) **(b)**

Figure 6 a) Male Teacher High School ground floor plan **b)** Male Teacher High School entrance facade (Sözen, 1984)

The facades use different arch forms typical of Turkish architecture, with flattened windows on the basement and ground floors, mirrored windows on the first floor and pointed tangent arched windows on the second floor. The tile decoration of the entrance facade, the shape of the arches, the stone ornaments and the ornamental motifs are based on the ornamental art of the 16th century Ottoman and Seljuk periods. The protruding parts are made of light-coloured Gödene stone, and a single row of tile borders is placed in these areas. Turquoise tile decorations are also found around the window arches as borders and cabriolets. Horizontal division on the facades is provided by mouldings on the ground floors. There is no ornamentation on the east and west elevations, or on the north elevation, except for floor mouldings and arches. The facade surface is completed with a single row of triangular muqarnas borders above and wooden ornaments with geometric motifs below the wide eaves (Figure 7) (Bozkurt, 2014).

The building was constructed using the masonry technique, with Sille and Gödene stone as the materials and lime mortar as the binding material. The upper part of the building is covered with a hipped roof, and Marseille tiles and projecting eaves are used on each facade (Duran et al., 2006). Dârü-l Muallimin, which has been used as an educational building for many years, continues its original function today and serves as the Konya Anatolian High School.

(a) (b)

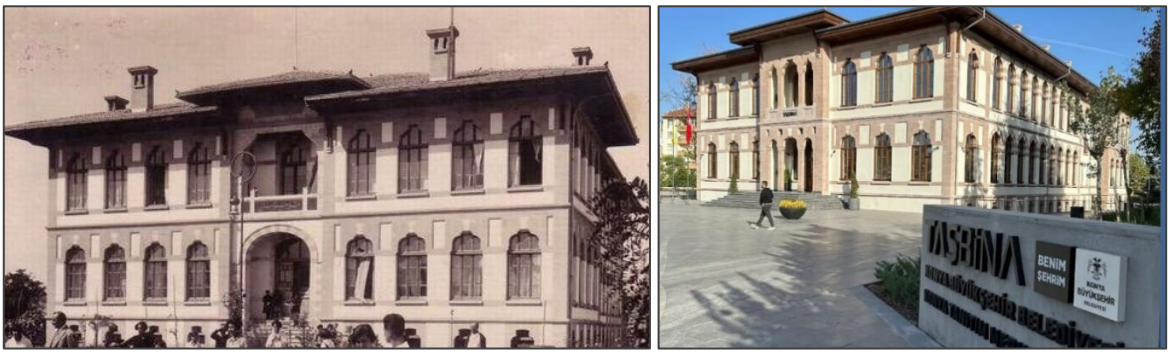
Figure 7 a) Decorations of the entrance facade of the Male Teacher's High School **b)** Column carrying the entrance portico (Tuna Sayın, 2021)

4.3. Girls' Teacher Training School (Dârü'l Muallimat)

Located on Ankara Street to the east of the Karatay Madrasah, the building was begun in 1917 by architect Muzaffer Bey and completed in 1924 after his death by architect Falih Ülkü (Figure 8).

Table 3 Girls' Teacher Training School Building Identity

Building Identity	
Name	*Girls' Teacher Training School (Dârü'l Muallimat)*
Year of production	*1917-1924*
Type	*Education Structure*
Archİtect	*Architect Muzaffer Bey/ Architect Falih Ülkü*
Constructor (Banisi)	*Governorship of Konya*
Location	*Karatay /Ankara Cad./ East of Karatay Madrasah*
Original function	*Girls' Teacher Training School*
Present Function	*Municipality-owned public building*
Status	*Good*
Qualification	*Sille and Gödene stone in masonry technique*



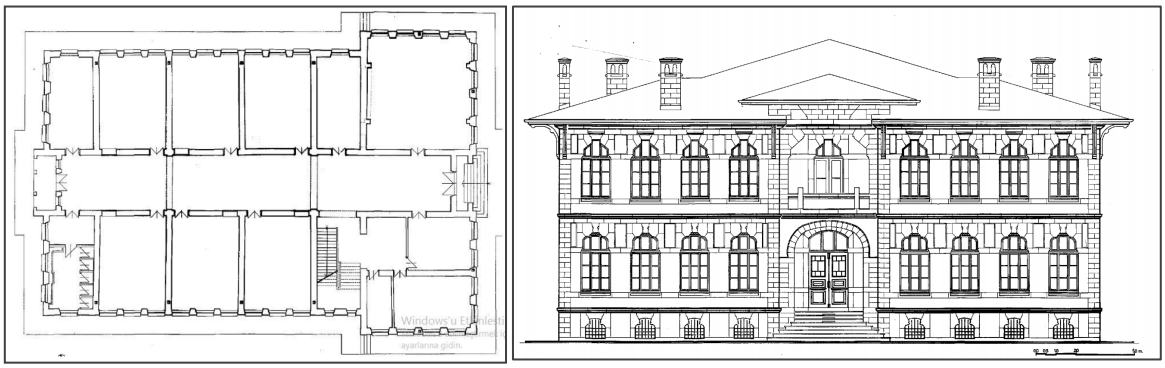
(a) (b)

Figure 8 a) Girls' Teacher Training School in the past (Kız öğretmen okulu | Tarihi evler, Fotoğraf, Bina, n.d.) **b)** Girls' Teacher Training School today (Tuna Sayın, 2021)

The building is set in a large garden and has a T-plan layout. The building, which consists of ground and first floors above the basement, was constructed with three storeys and a hipped roof. After the 1930s, reinforced concrete units were added to the west elevation to extend the building. The building has a symmetrical approach in terms of plan and facade layout (Duran et al., 2006).

The entrance to the building is provided by a raised staircase of nine steps located in the centre of the east facade, and the interior space is symmetrically divided in two by a corridor running east-west. Thus, on all three floors, rectangular rooms are arranged on either side of the corridor, with only minor differences. The basement consists of a dining room, kitchen, pantry, storage room around the corridor; classrooms and administrative rooms on the ground floor; library, classrooms and units with various functions on the first floor. Vertical circulation is provided by the stairwell in the south-east corner. There is also another staircase used for service purposes (Figure 9a) (Duran et al., 2006).

The entrance door, reached by the stairs, is located behind an iwan-like volume with a flat arch that is recessed inwards. There is also a balcony above the door with a small depth and a stone balustrade, which is also drawn inwards from the facade (Öner, 2016). At the ground floor level of the entrance facade, there is an entrance landing in the centre and Bursa-type window arches in groups of four on both sides. The side facades facing north and south have ogival arches on the ground floor and round horseshoe arches on the first floor. Horizontal division on the facades is provided by mouldings on the ground floor levels (Figure 9b) (Bozkurt, 2015).



(a) **(b)**

Figure 9 a) Girls' Teacher Training School ground floor plan (Kız öğretmen okulu | Tarihi evler, Fotoğraf, Bina, n.d.) **b)** Girls' Teacher Training School entrance facade (Sözen & Dülgerler, 1978)

While all of the building's facades have wide eaves, the eaves on the main entrance axis are kept higher and jut out to emphasise the entrance. Geometrically decorated eaves have not survived to the present day.

Looking at the arrangement of the facades in general, they are enlivened by floor mouldings, arched corners, plinths, consoles and eaves arrangements. There is no complete unity on the facades of the building. In accordance with the understanding of the period, it can be evaluated within the I. National Architecture. Dârü'l Muallimat, which was used as a school building for many years, is no longer used as a school building but as a public building belonging to the municipality.

4.4. Gazi Mustafa Kemal Primary School

It is believed that the building, located in the Karatay district, was built in 1926-1927 by Konya Governor İzzet Bey according to one of the type projects designed by the architect of the time, Mukbil Kemal Taş, for the German company Lenc (Leno) (Eroğlu, 2001). The building identity of Gazi Mustafa Kemal Primary School is shown in Table 4.

Table 4 Gazi Mustafa Kemal Primary School Building Identity

Building Identity	
Name	*Gazi Mustafa Kemal Primary School*
Year of production	*1926-1927*
Type	*Education Structure*
Architect	*Mukbil Kemal Taş/ German company-Lenc (Leno) Company*
Constructor (Banisi)	*Governor of Konya Mr. İzzet*
Location	*Next to Karatay/Alaeddin Hill*

Original function	*Primary School*
Present Function	*It is considered to be a public structure.*
Status	*Good*
Qualification	*Cut stone in masonry technique*

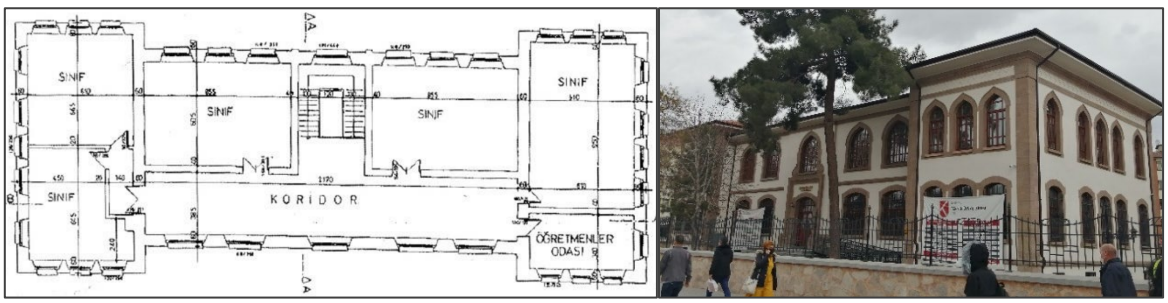
The symmetry axis of the building, which has a rectangular plan and type I corridor schemes, is designed on an east-west axis. The staircase, which provides vertical circulation in the building, is located on the axis of symmetry, directly opposite the main entrance. It consists of two entrances and stairs located in the centre of the building, a corridor extending perpendicular to them, and spaces arranged around the corridor (Yaldız & Parlak, 2017).

In its original state, the building consists of two floors above the basement, with storage and archive spaces in the basement and classrooms and administrative spaces on the ground and first floors (Figure 10a). The symmetry between floors, a characteristic of the period, is also seen in this building. The most striking feature of the interior is the embroidery of the Turkish flag that covers the ceiling of the central axis. At the same time, there is a fresh water fountain in the eastern part of the garden to meet the water needs of the students and the immediate neighbourhood.

The facades have features in common with the primary school buildings of the First Nationalist period, and each facade is identical and generally simple in design. The windows, which continue in the same order on all the facades, are grouped as flat arches on the basement floor, flat arches on the ground floor and pointed arches on the first floor. The horizontal division on the facades is provided by stone mouldings from the ground floors (Öner, 2016).

As it is a small volume educational building, there are no architectural features such as balconies or consoles. In addition, there are not many ornamental and decorative elements. Only rhombic borders were used at the entrance door on the west facade and at the tops of the overhanging sections at both ends of the building, under the eaves (Figure 10b) (Yaldız & Parlak, 2017).

The roof of the building is designed as a hipped roof with Marseille type tiles. In the building with wide eaves, the roof of the corner sections was raised in order to create a monumental appearance. In the building constructed with masonry construction technique, the walls are cut stone and the floors are reinforced concrete (Yaldız & Parlak, 2017). Although the interior of Gazi Mustafa Kemal Primary School has undergone changes that reflect the characteristics of the period, it has largely preserved its facade characteristics. Today, it continues to function as a public building belonging to the university rather than an educational building.



(a) **(b)**

Figure 10 a) Gazi Mustafa Kemal Primary School plan (Eroğlu, 2001) **b)** Gazi Mustafa Kemal Primary School (Tuna Sayın, 2021)

4.5. Hakimiyet-i Milliye Primary School

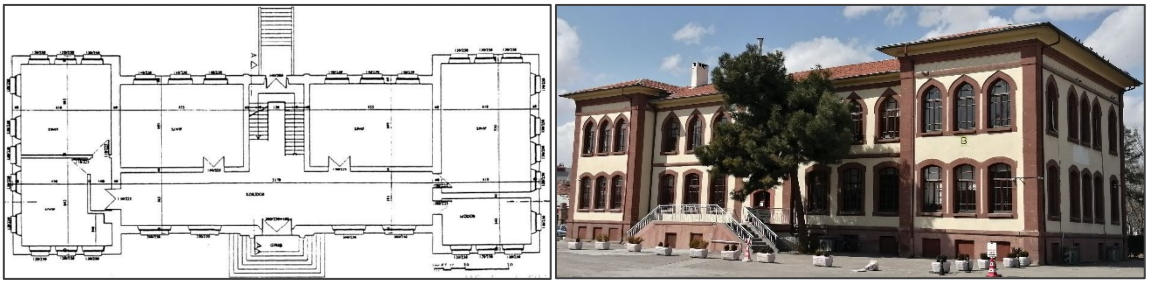
Located on Garaj Street in Karatay district, the building was constructed by the German company Lenc (Leno) Company within the scope of the project prepared by architect Mukbil Kemal Taş in 1926-1927 (Eroğlu, 2001). The building identity of Hakimiyet-i Milliye Primary School is shown in Table 5.

Table 5 Hakimiyet-i Milliye Primary School Building Identity

Building Identity	
Name	*Hakimiyet-i Milliye Primary School*
Year of production	*1926-1927*
Type	*Education Structure*
Architect	*Mukbil Kemal Taş/ German company-Lenc (Leno) Company*
Constructor (Banisi)	*Governor of Konya Mr. İzzet*
Location	*Near Karatay/Mevlâna Tomb*
Original function	*Primary School*
Present Function	*Provincial Directorate of National Education*
Status	*Good*
Qualification	*Cut stone in masonry technique*

The building, which has a rectangular layout, has the same layout and material features as Gazi Mustafa Kemal Primary School. There are two entrances on the central axis on the north and south sides of the building and a staircase on the entrance axis providing access to the other floors. In its original state, the building consists of two floors above the basement with storage and archive spaces in the basement and classrooms and administrative spaces on the ground and first floors (Figure 11a) (Öner, 2016).

With all its architectural elements, such as the symmetrical planning of the facade, the protruding corners on both sides of the volume, the wide eaves and the arrangement of the windows, it has features in common with other primary school buildings from this period. A simple understanding was adopted as the ornamentation of the building, and only the equilateral borders were wrapped under the eaves (Figure 11b) (Yaldız & Parlak, 2017). Today, the facade of the building, which serves as the Provincial Directorate of National Education, has not undergone any significant changes.



(a) **(b)**

Figure 11 a) Hakimiyet-i Milliye Primary School ground floor plan (Eroğlu, 2001) **b)** Today Hakimiyet-i Milliye Primary School (Tuna Sayın, 2021)

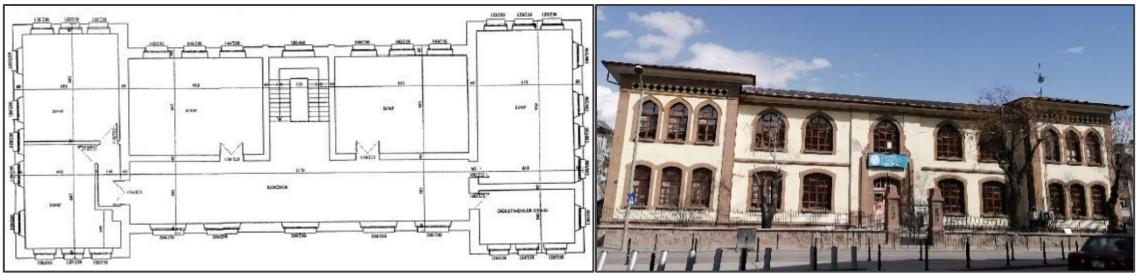
4.6. İsmet Paşa Primary School

İsmet Paşa Primary School, located on İstanbul Street in Karatay district, was built in 1926-1927 by the German company Lenc (Leno) Company, just like Gazi Mustafa Kemal Primary School and Hakimiyet-i Milliye Primary School (Eroğlu, 2001). The building identity of İsmet Paşa Primary School is shown in Table 6.

Table 6 İsmet Paşa Primary School Building Identity

Building Identity	
Name	*İsmet Paşa Primary Schools*
Year of production	*1926-1927*
Type	*Education Structure*
Architect	*Mukbil Kemal Taş/ German company-Lenc (Leno) Company*
Constructor (Banisi)	*Governor of Konya Mr. İzzet*
Location	*Near Karatay/Mevlâna Tomb*
Original function	*Primary School*
Present Function	*Primary School*
Status	*Good*
Qualification	*Cut stone in masonry technique*

The building, which has a rectangular plan extending in an east-west direction, was designed as two storeys above the basement. In its original state, storage and archive spaces are located in the basement, while classrooms and administrative spaces are located on the ground and first floors (Figure 12a) (Öner, 2016). The windows of the building, designed with period features, are grouped as flat arches on the basement floor, flat arches on the ground floor and pointed arches on the first floor. The overall architectural design of the building, which is symmetrical in both layout and facade arrangement, has the same features as Gazi Mustafa Kemal Primary School and Hakimiyet-i Milliye Schools. Among the primary school buildings surveyed, it differs from the others in terms of facade decoration in that the rhombic border reliefs between the raised roof and the windows on the corner axes are now painted in a different colour (Figure 12b). Although the interior of the building, which is still used as a primary school, has been completely altered, the original features of the facade have been retained.



(a) **(b)**

Figure 12 a) İsmet Paşa Primary School ground floor plan (Eroğlu, 2001) **b)** İsmet Paşa Primary School today (Tuna Sayın, 2021)

5. Field Study

In this section, the facade and spatial evaluation of the educational buildings of the First National Architectural Period selected from the city centre of Konya were carried out. Sanayi Mektebi, Male Teacher High School and Girl Teacher Training School high schools and Gazi Mustafa Kemal, Hakimiyet-i Milliye and İsmet Paşa primary schools were selected for the study. The facade quality analysis was carried out on the selected high school and primary school buildings, and the spatial quality analysis was carried out as a group due to the same interior characteristics of the high school and primary school buildings.

5.1. Facade Quality Analysis

The analysis of the quality of the facades of the selected educational buildings will ensure the holistic authenticity level of the buildings by analysing the conservation analysis, the facade elements and the physical condition. The aim is to determine the authenticity value of the facades

of the educational buildings of the first national architectural period within their own period and the extent to which they preserve their architectural facades. The characteristics of the selected buildings were grouped in a table (Table 7) and analysed comparatively. In the study, both the present-day facades and the original architectural facades of the educational buildings were analysed visually. During the assessments, the buildings were categorised as follows: holistic authenticity analysis, conservation analysis of facade features, analysis of facade elements and physical condition.

The Authenticity Analysis (AA) refers to the holistic condition of the architectural facades of the building and their change over time. Buildings that have retained the original value of the facade are awarded 3 points, buildings with little change in the original facade are awarded 2 points, and buildings with severe changes in the facade are awarded 1 point.

The Conservation Analysis (CA) refers to the degree to which the original character of the facade is preserved today. Repaired facades in good condition were awarded 3 points and those in need of repair were awarded 2 or 1 points depending on the degree of repair.

In the analysis of the Facade Elements (FE), all the criteria found in the educational buildings of the period have been grouped under the headings of facade elements, decoration, windows and entrances, as well as the facade elements they have, towers, wide eaves, long chimneys, roof and tile type and the symmetry of the facade. In the table, the features that are essential to the educational buildings of the period are highlighted in grey. The authenticity value of these features is given 3 points, while other features are given a coefficient of 2 or 1 points, depending on their importance. The total score was calculated on the basis of 19 main criteria.

The Physical Analysis (FA) was assessed on the basis of the building's suitability to the urban structure, its functional qualities, the suitability of any ancillary buildings, climatic comfort and perception, and was awarded 1, 2 or 3 points according to the degree of compliance with the criteria.

Facade Quality Assessment Score for analysing the facades of educational buildings and determining their original architectural values: ***(AA+CA) x (FE+FA)*** formula has been created. This formula is derived from the method proposed by İpekoğlu (2006) for the evaluation of the architectural features of traditional houses in her study. While forming the evaluation formula, the criteria were summed within their own categories and the factor obtained was taken as a multiplier since it has a high impact value on the structure. In calculating the total score, the holistic authenticity and the conservation coefficient of the building in the best condition are assumed to be 3 points each, and the 19 main criteria in the table are multiplied by 3 points.

As a result of the analysis, in order to compare the facade quality analysis between the selected educational buildings, the ratio of the evaluation score to the total score was calculated as a percentage and a comparison was made.

Table 7 Analysis of the Facade Quality of Selected Educational Buildings of the First Period of National Architecture in Konya

TOTAL			PERCENT	44%	91%	70%	51%	53%	44%	Evaluation Formula = (AA+CA) x (FE+FA) Total Score: (3+3) x (19x3)= 342
			Total Score	342	342	342	342	342	342	
			Evaluation Score	152	312	240	174	180	150	
Physical Analysis			Awareness	•	•	•	•	•	•	
			Climatic comfort	•	•	•	•	•	•	
			Suitability of the additional structure		•	•		•		
			Re-functionalisation	•		•	•	•		
			Continuity of original function		•				•	
			Compatibility with the urban texture	•	•	•	•	•	•	
Analysis of Facade Elements			Long thin chimneys	•	•	•				1
			Hipped roof with Marseille tiles	•	•	•	•	•	•	
			Mouldings separating floors	•	•	•	•	•	•	
			Symmetric front facade	•	•	•	•	•	•	
			Wide eaves		•	•	•	•	•	2
			Tower-like projections for monumental effect	•						
		Entry	Raised entrance			•	•	•	•	3
			Raised, columned (porticoed) entrance	•	•					
		Windows	Simple windows	•			•	•	•	
			Arched windows		•	•	•	•	•	
			Arched windows with tiled pediment decorations	•	•					
		Decorations on the facade	Ottoman inscription / Ottoman tughra coat of arms	•	•					
			Triangular pediment	•						
			Stone relief on arch keystones		•					
			Wooden geometric decorations under the eaves		•	•				
			Stone balcony railing	•		•				
			Ottoman / Seljuk motif stone balcony railing		•					
			Column with muqarnas capitals		•					
			Paint decorated motifs/ Stone engraved motifs			•	•	•	•	
			Tile decorated motifs	•	•					
Conservation Analysis			The level of preservation of facade features	•	•	•	•	•	•	authenticity value score
Authenticity Analysis			Holistic authenticity level of the building	•	•	•	•	•	•	
Facade Quality Analysis				Sanayi Mektebi	Male Teacher High School (Dârü-l Muallimin)	Girls' Teacher Training School (Dârü'l Muallimat)	Gazi Mustafa Kemal Primary School	Hakimiyet-i Milliye Primary School	İsmet Paşa Primary School	

According to the evaluation, the Male Teachers' High School (Dârü-l Muallimin) has a very good level compared to other educational buildings in terms of preserving the holistic authenticity of its facade, having a rich place in the diversification of facade elements reflecting the characteristics of the period and the physical analysis results it contains, and it was calculated as 91%. In addition, the building has undergone restoration work in order to preserve its original state. Compared to

the other selected educational buildings, this educational building reflects the understanding of the I Nationalist architectural period the most.

The Girls' Teacher Training School (Dârü'l Muallimat) also scores 70% in terms of facade quality, thanks to its highly original facade elements and recent restoration. The building, which has changed many functions over the years, is ranked 2nd in terms of meeting the criteria of the period. It has been noted that the facade character of these boarding school buildings has the most original qualities of the period, but they can be differentiated within themselves.

The Sanayi Mektebi, one of the high school buildings, reflects the architecture of the First National Architectural Period with its facade elements and tile decorations, but this building, which continues to function as a public building, has survived to the present day with a 44% authenticity value and has preserved its facade quality less than the Male Teachers' High School, which has preserved its original function, due to the loss of facade elements.

Gazi Mustafa Kemal, Hakimiyet-i Milliye and İsmet Paşa Primary Schools have also preserved their original facades and retain the main features of the period in terms of facade character. However, since they do not reflect the rich ornamentation and decorative features as much as the other high schools, they have received values of 51%, 53% and 44% respectively, and it has been shown that they have a simpler understanding compared to the features of the period.

5.2. Spatial Quality Analysis

In the spatial quality analyses of the secondary schools of the educational buildings selected as a sample, authenticity analysis, plan status and plan elements were analysed. The aim was to understand the authenticity value of the interiors of the educational buildings of the I period within their own period. The selected buildings were classified and compared with each other using the table (Table 8), which was prepared taking into account the spatial characteristics and building materials. While evaluating the spatial quality, the preservation of the holistic original architecture of the buildings, the architectural planning showing the requirements of the period and the architecture of the educational institutions of the period were evaluated in terms of building components.

The Authenticity Analysis (AA) refers to the condition of the original spatial organisation of the building and its change over time. The authenticity score is given 3 points for buildings that have preserved their spatial components, 2 points for buildings with slight changes and 1 point for buildings with major changes.

Situational analysis of the plan type (PA), the schools were analysed according to the plan scheme of the period and the number of storeys. According to the characteristics of the I National Architecture Period, the plan scheme is generally expected to be symmetrical-rectangular and the number of storeys is expected to be 3 storeys. The evaluation was made on the basis of these characteristics and 3 points were awarded to buildings with these characteristics.

Analysis of plan elements (PE), the authenticity of educational buildings was measured according to the presence of balconies, classrooms, administrative departments, teachers' rooms, dining halls, dormitories, libraries, staircases, and building materials such as stone, brick, tile, and local materials commonly used in educational buildings of the I. National Architecture Period. In the evaluation, 1, 2 or 3 points were given according to the quality of the design element.

Spatial Quality Assessment Score for analysing the interiors of educational buildings and determining their original architectural values: ***AA x (PA+PE)*** formula has been created. This formula is derived from the method proposed by İpekoğlu (2006) for the evaluation of the architectural features of traditional houses in her study. While forming the evaluation formula, the criteria were summed within their own categories and the factor obtained was taken as a multiplier since it has a high impact value on the structure. In the calculation of the total score, the features that are indispensable in educational buildings of the period are highlighted in grey in the table. It is assumed that the holistic authenticity level of the building is the best and is worth 3 points; 19

main criteria in the table are multiplied by 3 points. As a result of the analysis, in order to compare the spatial quality analysis between the selected educational buildings, the ratio of the evaluation score to the total score was calculated as a percentage and compared.

Table 8 Spatial Quality Analysis of Selected Educational Buildings of the First Period of National Architecture in Konya

		PERCENT	23%	65%	25%	42%	Evaluation Formula=AA x (PA+PE) Total Score: 3 x (19x3)= 171	
		Total Score	171	171	171	171		
		Evaluation Score	39	112	42	72		
Analysis of plan elements	Building Materials	Local materials (Sille and Gödene Stone)		*	*			
		Stone, Brick and Tile	*	*				
		Stone and Brick			*	*		
	Tile mosaic with original floral motifs			*		*		
	Original wooden ceiling cladding/ Turkish flag embroidery			*		*		
	Originality of the vertical circulation location		*	*	*	*		
	Service stairs				*			
	Stairs		*	*	*	*		
	Wet Area		*	*	*	*	1	
	Conference Hall		*					
	Library			*	*		2	
	Bed Dormitory			*				
	Service Spaces (kitchen, warehouse, cellar, etc.)			*	*			
	Dining Hall		*	*	*	*	3	
	Servant's room		*	*	*	*		
	Teachers' room		*	*	*	*		
	Administrative Department		*	*	*	*		
	Classrooms		*	*	*	*		
	Balcony		*	*	*			
	Columned portico		*	*				
	Stone console			*				
Situational analysis of the plan type	Number of Floors	Four floors	*	*				
		Three floors			*	*		
	Plan Diagram	Symmetric-T plan diagram			*			
		Symmetrical-rectangular plan diagram	*	*		*		
Authenticity Analysis	Holistic authenticity level of the building		*	*	*	*		
Spatial Quality Analysis			Sanayi Mektebi	Male Teacher High School (Dârü-l Muallimin)	Girls' Teacher Training School (Dârü'l Muallimat)	Primary School Buildings		authenticity value score

According to the results of the evaluation, the Male Teachers' High School (Dârü-l Muallimin) is the educational building that best reflects the spatial characteristics of the period, with an authenticity value of 65%. This is due to the fact that it contains different types of spaces, has not

lost its original function, preserves the originality of the architectural understanding and plan elements of the period, and maintains the understanding of materials specific to the region.

Although the Girls' Teachers' Training School (Dârü'l Muallimat) contains most of the plan schemes and elements of the period, it has a 25% authenticity value because it has long served as a public building rather than for its own function and has been shaped according to the institution. The Sanayi Mektebi has the lowest authenticity value of 23%, due to the fact that the variety of elements is less than in the other educational buildings analysed. In addition, the fire at the Girls' Teachers' Training School and the Sanayi Mektebi also had an impact on the preservation of their original architectural features, and they could not reflect the authenticity of the period in terms of spatial quality.

Gazi Mustafa Kemal, Hakimiyet-i Milliye and İsmet Paşa Primary Schools are analysed under the title of 'Primary School Buildings' because they were built according to the type projects designed in the First Nationalist Architecture Period and have the same spatial organisation. The interiors of primary school buildings are generally simpler, with little use of ornamentation and decorative elements. In addition, although the variety of plan elements is small, the buildings have a good degree of authenticity of 42% due to the preservation of the holistic level of authenticity and the presence of examples that continue their original function.

6. Conclusion

The educational buildings constructed in Konya during the First National Architectural Period are important in terms of evaluating the architecture of the period. Although these educational buildings are few in number, they are important examples of the period as they add to the hundreds of years of architectural accumulation in the city of Konya. In addition, they have stylistic features in common with the buildings constructed in different parts of the country in the same period, but it can be seen that they have an important position among the buildings of the period with their unique features.

Within the framework of the study, the architectural characteristics of the educational buildings of the First National Architectural Period were examined and the originality values of the selected high schools in Konya of this period such as Sanayi Mektebi , Male Teachers' High School (Dârü-l Muallimin), Girls' Teachers' School (Dârü'l Muallimat) and Gazi Mustafa Kemal, Hakimiyet-i Milliye and İsmet Paşa Primary Schools were determined by analysing the facade and spatial quality.

According to the facade quality analysis, physical analyses such as the holistic authenticity levels of the facades of the selected schools, the diversity and functionality of the facade elements were carried out and scored. According to the results of the analysis, the Male Teacher's High School has an authenticity value of 91%, the Female Teacher's School has an authenticity value of 70% and the Sanayi Mektebi has an authenticity value of 44%. Gazi Mustafa Kemal, Hakimiyet-i Milliye and İsmet Paşa Primary Schools received values of 51%, 53% and 44% respectively.

According to the spatial quality analysis, the holistic authenticity level of the spaces of the selected schools, their planning status and the diversity of planning elements were evaluated. As a result of the scoring, the Male Teacher's High School has an authenticity value of 65%, the Female Teacher's School 25%, the Sanayi Mektebi 23% and the Primary School buildings 42%.

In this case, the reason why the Male Teachers' High School, located near the town square, has a high originality value according to the two analysis results is that it has richer facade and plan elements than the other buildings, and these elements have survived to the present day by preserving their original conditions. At the same time, the fact that this building, which has the characteristics of the period, has retained its original function without being abandoned to its fate was also effective. The other high school buildings lost their original function, tried to serve too many public institutions over time as part of the re-functionalisation, and began to lose their originality as a result of disasters such as fire.

The primary school buildings were designed on a smaller scale than the other schools, and due to the financial difficulties of the newly established country, they generally have the facade character of the first national architectural period in terms of facade features. The schools that do not have rich ornamentation and decorative elements have preserved their original facade character to the present day. At the same time, the interiors of the buildings, which were designed as standard projects, are similar to each other and simpler than the understanding of the period.

As a result, according to this study, architectural buildings with historical characteristics should be re-functionalised with their original function if possible, and if not, they should be re-functionalised in a way appropriate to the structure. In this case, they should not be left to the initiative of the private or public institutions that house them, and restoration work should be carried out in accordance with the original. The original architectural conditions of the historic buildings, which constitute their value, should be preserved, their accessibility and visibility at the urban level should be ensured, and their recognition should be increased. In this way they will contribute to the city and the city will have a unique value. In future studies, the evaluation method created and developed in this research can be enriched by adding different criteria and applying different procedures.

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Resume

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