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Fig. 1 Ankara Train Station

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The Art Déco Influence in the Modern Turkish Architecture of the Early Republican Period

Art Déco
Atatürk
Early Republican period
Modern Turkish architecture
Republican ideology

With the proclamation of the Republic, Atatürk, the founder of Modern Turkey, wanted a new model of politics that would bring about the establishment of the "nation state", also symbolized by architecture. Having decided to make a transition to modern architecture in Turkey, Atatürk invited academics from Germany and Vienna to achieve this. Consequently, by the 1930s, architecture followed a functionalist-rationalist path in both public buildings and in residences. Another architectural style that wielded a lot of influence on the trends in the Modern Movement in this period was Art Déco. The plastic effect of mass in Art Déco was accompanied by purism.

The purpose of this article is to explore the characteristics of the Art Déco style in modern Turkish architecture, tracing it back to the 1930s, the time when a culture of architecture first began to form in Turkey, as Art Déco, in combination with rationalism, proved to be an influential force in Republican Turkey. The effect of this style on the composition of structural masses shall be described through examples of public and residential buildings. At the same time, an attempt shall be made to explore the connotations of contemporaneity, progress, technology, and industry as expressed in the vocabulary of the Republican ideology that embraced the mass aesthetic of the formal style that was Art Déco.

INTRODUCTION

With the proclamation of the Republic (29 October 1923) by the founder of modern Turkey, Mustafa Kemal Atatürk, the people of Turkey went through various social, cultural and economic changes. The Kemalist regime, named after the founder, leaned toward modernization and was established on progressive premises that reflected a highly modernist ideology that Atatürk wished would penetrate all segments of society. Accordingly, Atatürk sought to symbolize the new political model and the establishment of the "nation state" in the country's architecture. Upon the establishment of the nation state, goals were set in the way of renewing the image of the government and symbolizing the successful formation of the Republic. The architectural style that prevailed in the past evolved into a highly modernist perspective with the emergence of the new political ideology (Uluğ, 2004). Consequently, in the period of the institutionalization of the Republic, Atatürk aimed to apply the slogan of bringing the country "up to the level of contemporary civilization" to the physical environment as much as it was possible. In establishing the nation state, he looked for some kind of a symbolic movement that would emphasize the country's liberation and exult in the independence of its people. He chose contemporary architecture as the symbol of the new nation state and the new regime, a force that would replace the styles of the past (Batur, 1994).

In the first years of the Republic, the dominant architectural concept was a reflection of the "First National Architecture" launched by the architect Kemalettin and his colleagues. Ataturk, the founder of the Republic, however, was more interested in opposing national historicism to make way for the modern architectural style that was emerging in Europe. The modern architecture of the times was imported into Turkey as a visible symbol of the desired separation from the country's Ottoman-Islamic past and the adoption of a westernized program that was modern and secular, ready to create a brand new nation (Bozdoğan, 2001). Modern architectural concepts were only just beginning in Europe and there was no group of architects in Turkey that was prepared to defend this movement. Atatürk rejected the idea of a "national architecture" and instead supported the potential of modern architecture in terms of representing the new Republic. This decision was of revolutionary dimensions in that era. In his attempts to build a new nation, Atatürk's rejection of national architecture can be explained by his own interpretation of nationalism. His view was that national unity should be established not through historical continuity but through efforts to project Turkey into the future and surpass levels of contemporary civilization (Tekeli, 2011). Atatürk made the decision to make a transition to modern architecture in Turkey and in order to realize this, extended official invitations to numerous architects from abroad (Nicolai, 2011; Holod, Evin, Özkan, 2005). This group that was expected to reflect the progressive ideals of Kemalism in public spaces was led by German, Austrian and Swiss architects and professors. It was in this way that with the advent of the 1930s, a rationalist and functionalist concept of design was born (Batur, 1986). The project of modernist architecture in the 1930s soon began to dominate the new regime's construction program, at first applied in the case of public buildings that symbolized the state. The signatures of foreign architects thus began to be seen in the architectural culture of the early Republican period in Ankara, the capital of the new Republic. Among the European masters, Clemens Holzmeister (1886-1983) appears before us as one of the most powerful architects of the period. Known as "Atatürk's architect," Holzmeister created monumental specimens of functional modern architecture in the major public buildings of the new capital (Balamir, 2010). The new idealized architectural style created became a prominent representative of the architectural applications and narrative of the period. The style was used on a large scale in public buildings, replacing the Ottoman-Seljuk Revivalism that signified the National Architectural Renaissance.

Identifying with the new political order and ideology, the Modern Movement, among its other goals, aspired to modernize education. This ideal became a part of the Republic's official architectural narrative that espoused the "new" as opposed to the "old" pedagogy of architectural education. In this context, a young university academic from Vienna, the architect Ernst Egli (1893-1974) was appointed by Atatürk to head the Fine Arts Academy (Batur, 1986). Among his other accomplishments, Egli achieved deep-rooted changes in the university curriculum, provided successful students of architecture with the opportunity to study on scholarship in Europe, contributing to the modernization of design on the part of Turkish architects. In this aspect, Egli made a profound impact on the development of architectural professionalism in Turkey. In 1936, Egli passed on his duties to Bruno Taut (1880-1938). Taut reorganized the school curriculum, focusing on the principles of rationalist functionalism in European modernism (Bozdoğan, 2001). The modernist changes at the Academy formed the profile of the Republic's first generation of architects.

The 1930's thus constituted the first stage of modern architectural thought and as such, encompassed the various styles of German National Socialist architecture, Vienna purism, and the cubism of Le Corbusier. The International Style became dominant in the works of this period (Batur, 1986). Another architectural style that wielded an influence on the trends in the Modern Movement in this period was Art Déco. Some Art Déco forms and plastic elements of form were accompanied by purism in Art Déco.

The purpose of this article is to explore the characteristics of the Art Déco style in modern Turkish architecture, tracing it back to the 1930s, the time when a culture of architecture first began to form in Turkey, as Art Deco, in combination with rationalism, proved to be an influential force in Republican Turkey. The effect of this style on the composition of structural masses shall be described through examples of public and residential buildings. At the same time, an attempt shall be made to explore the connotations of contemporaneity, progress, technology, and industry as expressed in the vocabulary of the Republican ideology that embraced the mass aesthetic of the formal style that was Art Déco.

Methodology

This article presents the characteristics of the mass construct of the public and residential buildings erected in the Art Déco architectural style at a time when this form, together with the concept of rationalism, begun to influence Turkish architecture. It is the period from the early 1930's onward. The research has yielded a typology based upon the mass organization of selected major structures that were built in the period that is identified as the Art Déco Period in literature. Another aim of the paper is to explore the connotations of contemporaneity, progress, technology, and industry, as expressed in the vocabulary of the Republican ideology that embraced the mass aesthetic of the formal style that was Art Déco. In that, the paper relies on the contributions to the literature of key authors who have studied the architecture of the period (Sözen, 1984; Aslanoğlu, 2001; Bozdoğan, 2001; Hasol, 2017; Alpagut, 2010) in creating a typology of the major structures of the period, based on a historical approach to architecture. While there have been studies that have provided a general analysis of the buildings of the period, this article discusses the mass constructs of these buildings within a defined typology. Today, it is disheartening to witness the dismal state of the architectural legacy of the 1930's Turkey and to know that most of the buildings that were clearly the cultural icons of the Republic have been demolished. This is why the author has had to refer to visual archives and to the publications of the main authors mentioned above as references.

Art Déco architecture

Art Déco was introduced to the world at the "International Exposition of Modern Decorative and Industrial Arts" that opened in Paris in 1925 (Messler, 1996), appearing at first sight to be a popular and decorative style that embraced a variety of crafts, from furniture to objects for daily use, graphic arts, painting, sculpture and even clothing. It also evolved into an exciting architectural style that made its entrance at the beginning of the twentieth century. With its decorative, industrial and architectural dynamics, the style created a "Déco aesthetic" that became a part of the modern architectural movement (Klein, McClelland, Haslam, 1991). Déco architecture offered a new perspective on the rationalism and functionalism that had resulted from the purely stylistic and abstract concepts of mass and space that the modern architectural movement had introduced. Art Déco became a dominant force in architecture from the 1930s onwards.

The Art Déco movement styled the exterior plastic form of buildings, incorporating local arts in architectural decoration. The native arts of the French colonies of Africa, the decorative motifs and architecture of Egypt and of the natives of North America, especially the Mayas, were part of the repertory of the Art Déco style (Hillier, Escritt, 1997). Another resource the movement drew from was Cub-

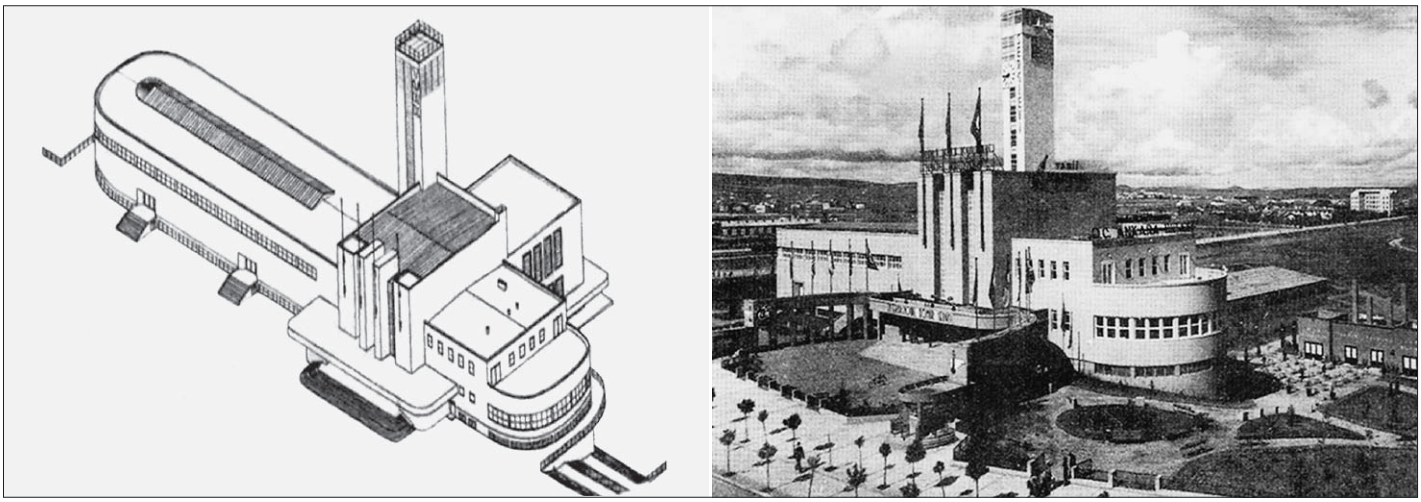


FIG. 2 ANKARA EXHIBITION HALL BUILDING: AXONOMETRIC PERSPECTIVE (LEFT)

ism. Art Déco's cubist, geometrical, graduated and pyramidal and zig-zagging forms catch the eye in the general organization of structures.

The Déco style began to change as the Great Depression drew nearer. As the world entered the age of machinery, every kind of design took on an industrial form – from automobiles to trains, from commercial and residential buildings to even home appliances. The Streamline Moderne style of design that emerged assumed an aesthetic quality with its horizontal lines and curved accents, radiating an aerodynamic flair. The Streamline Moderne version of Art Déco, which also used local motifs amid a modernist decorative outlook, points to a unique aesthetic rhetoric that came to be known as Streamlining Déco (Polatkan, Özer, 2006: 93). Streamlining softened the sharp contours of Art Déco. Rounded wall surfaces lent a new aesthetic style to the plasticity of the Déco form. The style brought about an aerodynamic emphasis that introduced curved surfaces and softened corners (Hillier, Escritt, 1997). Buildings were influenced by streamlined transatlantic liners. Bayer defines streamlining design as "Streamline Moderne" (Bayer, 1999).

The 1930s saw the spread of Art Déco architecture to all parts of the world. Both the classic Art Déco and its streamlined modern version came to be widely popular in Turkish society (Batur, 1984). From the 1930s onwards, the plasticity of Art Déco forms was a dominant part of modern Turkish architecture. Block form compositions were made up of both horizontal and vertical lines, patterns that were widely employed in both public and residential buildings. Rounded corners and entrances accompanying prismatic masses and vertically composed asymmetrical designs were reflections of the conceptual designs of the era.

ART DÉCO IN THE EARLY REPUBLICAN PERIOD

Art Déco started to have an impact on Turkish architecture as an addition to the rationalist architectural style from the 1930s, an era in which a culture of modern architecture that would be known as Modern Turkish Architecture began to be created in the Early Republican Period. Public and residential buildings that represented the modern aesthetic of the Early Republican Period revealed seven kinds of block forms in Déco. Since examples of public buildings are so few, each type will be described with one example.

1 – LONG AND SHORT DÉCO FORMS PERPENDICULAR TO EACH OTHER

The first construct in this group brings together two masses perpendicularly, one long and the other short. In this scheme, the main mass is long and lies parallel to the street or avenue, and either one or both sides of the block form an end in circular fashion, creating a modern, streamlined effect. The short mass cuts through the long form asymmetrically on the short axis. This short block forms the entrance façade of the building, which is emphasized by means of vertical elements. The structure thus appears as an asymmetrical composition of both horizontal and vertical forms.

A major structure which exemplifies this construct is the Ankara Exhibition House built in 1933-34 and designed by the architect Şevki Balmumcu. First used as an exhibition hall, the building was later converted into an opera house that was designed by Paul Bonatz. The design was the winning entry in a competition that was organized in 1933 by the National Economy and Savings Society. The specifications for the competition required a

Fig. 3 Florya Atatürk Kiosk: land side (left), seafront with its rounded corner (right)

design in the modern style. A total of 62 candidates from in and outside of the country participated and since the project entered by one of the two semi-finalist architects, Paolo Vietti Violia, was found to be too expensive, the decision was taken to implement the project of the other finalist, Şevki Balmumcu (Sözen, 1984). This was a period in which the major public buildings of the newly established Republic of Turkey were designed by foreign architects, so the decision to realize the project by a Turkish architect was met with great excitement.

The building consists of two block forms cutting into each other perpendicularly and stretching out in parallel to the street (Fig. 2). Situated on Ankara Boulevard, the structure's long, horizontal main mass finishes in circular form on both ends. This long mass is cut into asymmetrically on the short axis by a shorter mass that forms the entrance side of the building (Aslanoğlu, 2001). The short block form constituting the facade has three vertical elements that contain the components of various installations (water tanks, heating and air conditioning; Bozdoğan, 2001). Behind these is again a square-planned, high tower that accentuates verticality. The row of long and narrow windows on the long and horizontal mass strengthens the horizontal effect and also emphasizes the opposition of horizontal and vertical in the whole of the building. The building, with its horizontal lines made up of asymmetrical and simple geometrical forms, reveals corner ovals that reflect the character of Streamlined Déco. Thus, the building's composition of horizontal and vertical masses presents an asymmetrical balance. The entrance and main hall have rounded corners and are made up of cylindrical forms. Şevki Balmumcu has used these rounded forms in the rooms of the building as well (Ergut, 2011). Constructed in reinforced concrete, the building's front facade is covered in "Ankara stone", as in other public structures (Sözen, 1984). The other sides of the building are covered in ivory-colored plastering. The structure is an icon of Kemalist architecture and cultural ideology and has been the subject of many postcards, photographs and posters representing the Republican Period (Bozdoğan, 2001). Conceived on the scale of a large public building, the structure boasts a modernist aesthetic. The first photography exhibition on the premises was held in 1936.

Another well-known example of the same kind of mass construct is the Florya Atatürk Kiosk designed by Seyfi Arkan. A graduate of *Sanay-i Nefise Mektebi* (School of Fine Arts), Arkan worked for his first five years after graduation in the office of the architect Peolzig (Batur, 1994). Known as the first real Turkish modernist, Arkan was assigned the design of the Florya Atatürk Kiosk by Atatürk himself. In adjacent location to the Florya Public Beach, the building, rising on pillars set in the sea, was erected in 1936. The single-story structure is in rectangular form and is modeled on an L-plan. Its flat terrace roof displays a simple, geometrical, rationalist style in which the architect has made use of a mass composition of two rectangular forms cutting each other perpendicularly (Batur, 1994). The first long and rectangular form has been placed parallel to the sea and contains offices, a salon, guest rooms and bedrooms. The rooms in this section of the house face the scenery and have spacious terraces with metal handrails in front. One end of the rectangular form has been rounded and is where the salon is located (Fig. 3, right). The salon facade is made completely of glass. The shorter mass of the structure, perpendicular to the long form and the shore, comprises the entrance (Fig. 3). This is where personnel and service areas are situated. A verticality ema-

FIG. 4 ANKARA TRAIN STATION MUSIC HALL: VERTICAL BANDS OF ORNAMENTATION AND METAL RAILINGS (LEFT)

nating from the main mass of the building dominates the shoreside of the short form. The building is joined to the shore with a 90 m bridge, giving the impression of a transatlantic ship floating on the ocean. The long and open corridors on the land side of the building resemble a ship's deck, and the single row of circular windows are like portholes, the image of a transatlantic vessel being completed with white metal handrails on the "deck". Described by the well-known Turkish architectural historian, Sibel Bozdoğan, as the "ship building", the structure is a small example of modernist, rationalist understanding. Its horizontal and vertical lines exude an asymmetrical mass organization (Bozdoğan, 2001).

2 – A DÉCO FORM WITH A VERTICAL CONNER ANNEX

As seen in the second Déco style of form organization in public buildings, one corner of the main rectangular mass situated parallel to the street or avenue has been designed in circular fashion. This time a vertical tower or clock tower has been added to the side of the main mass in an effort to disrupt the horizontality of the building and give it a vertical emphasis. The Ankara Train Station Music Hall is yet another important example of how vertical and horizontal masses can achieve geometrical balance. This building was constructed at the command of Ataturk from 1935-1937 as a place to host foreign guests at the Ankara Train Station in the new and invigorating social atmosphere of the country. It was designed by Şekip Akalın. The structure adjacent to the Ankara Train Station remained a center of recreation for business travelers and tourists in the capital city up until the 1960s. The music hall was one of Ankara's most exclusive entertainment venues and hosted many international orchestras and revues. There is a large music hall on the ground floor of this building, which comprises two stories over a basement floor. With one of its corners being a circular and horizontal mass, adjacent to it is a vertical clock tower set upon a square plan that is 32 m high (Fig. 4, right). The sub-basement and the entrance staircase are covered in Ankara stone; the upper floors are plastered with EdelPutz, a characteristic material of the times. With a flat roof, the top floor of the structure projects outward. The horizontal bank of windows on the ground floor have been decorated with colorful bands of horizontal ornamentation unique to the Deco style, a technique used to relieve horizontal monotony (Fig. 4, left). On top of the clock tower are vertical grooves to further emphasize verticality, another technique characterizing the period (Hasol, 2017). The metal railings of the entrance terrace of the building are again reminiscent of the aesthetics of transatlantic machinery (Fig. 4, left; Bozdoğan, 2001).

Another building that exhibits the same mass construct is the Ankara Çubuk Dam Water Filtering Station that represents a major example of the new industrial and technological advances taken by the new Republic's waterworks and energy power plants. It was built in 1935 and was a symbol of the Republic's intention to establish robust cities with modern infrastructure. The Çubuk Dam was constructed to provide Ankara with clean water, becoming an important technological icon of the modernity of the Republic and an indicator of its technological progress. The architectural features of the water filtering station of the Republic's first dam were modern. As in the Train Station Music Hall Building, one corner of this structure too is rounded and the simple geometrical horizontal mass stands adjacent to a vertical clock tower (Fig. 5). In both structures, the vertical clock tower renders an asymmetry that balances the oval-cornered purist horizontal forms. Comprising in this way a horizontal mass with a rounded corner and a vertical tower, the composition

of the filtering station has a reinforced concrete frame that is covered with EdelPutz plaster; the windows are covered with Ankara stone above and below.

3 – A Déco mass with two oval forms at the corners

Employing a modern style in line with Kemalist architectural ideology in the Early Republican Period, the third Art Déco mass construction technique applied to public buildings featured horizontally oriented prismatic buildings with rounded corners. The most grandiose of this type is perhaps the main entrance gate to the Ankara Train Station, designed and built from 1935-37 by the Turkish architect Şekip Akalın to greet visitors to the capital (Fig. 1). The railroads were among the most important state enterprises in the Early Republican Period, having a symbolic status as the roads that were taking the Kemalist Revolution to all parts of the country. The railroad policies were the means by which the new regime would be moving on towards achieving its goals (Bozdoğan, 2001). The new train station buildings built at the beginning of the 1930's reflected the standards of modernist aesthetics. All of the station buildings of the period displayed symmetrical, flat-roofed geometrical mass compositions with simple, purist, vertical and horizontal forms (Bozdoğan, 2001).

Built in the spirit of this concept, the most famous of the train station buildings is the Ankara Train Station. This was designed by the architect Akalın, who had been inspired by the Stuttgart Railroad Station on one of his trips to Europe (Hasol, 2017). With its facade looking onto the Station Square and stretching out in a northwest-southeast direction, this horizontally lined structure was built to replace the old station and was designed with a rationalist approach that reflected the volumetric composition of Déco. The train station exhibits a symmetrical and horizontal mass that has been situated in parallel to the railway. The rhetoric of the mass reflects the new Déco aesthetic, as defined by the two stairway towers on two sides of the colonnaded entrance, projecting outward in the form of a semi-circle, standing higher than the main mass and situated on a vertical plane (Fig. 1). The colonnade is in the front of the structure's entrance hall, is 12 m high and 23×33 m wide. The horizontally lined station building's windows are aligned on a horizontal line while the windows on the high, vertical stairway towers on the two sides of the entrance are long and in vertical form so as to increase the vertical effect (Fig. 1). The vertical concrete bands between the windows are also designed to produce the same effect.

Fig. 5 Çubuk Dam Water Filtering Station

Fig. 6 The Liquor Factory Monopoly Building: the entrance pavilion to the factory

Another application of the plastic horizontal-vertical mass composition can be seen in the windows of the colonnaded entrance, which are rendered in vertical form to further the same concept. The same desire to add a vertical effect to a horizontal mass with colonnades is reflected here. As an extension of the nation-state ideology that was on the rise in parallel to political developments in Europe, the structure was built to create a monumental effect that reflected the power of the state. The statues of eagles are demonstrations of this intention (Hasol, 2017). The building, constructed in reinforced concrete, is covered in Ankara stone, a characteristic element of decoration of the era.

Another structure of the era that uses the same mass construct is the Liquor Factory Monopoly, one stronger symbol of the visual and spatial objectification of Republican modernity. The building is a technological icon of the Kemalist transformation and a prominent example of the image of industry and advanced technology in the Republic. Designed in simplicity, the building is undecorated, purist and its geometrical spaces portray the ideals of the national industrialization movement of the 1930s. Together with its annexed complexes, the site stands out as a small-scale factory town. Located in Istanbul, the factory is one of the fifteen that were included in the Republic's 5-year industrialization plan. It was built in 1931 by the French architect Robert Mallet-Stevens on the request of Atatürk and is an example of the industrial structures of the Early Republican Period. Fully built on the frame of reinforced concrete, the structure carries the lines of Art Déco and was designed with a purist approach. The main production building is symmetrical in relation to the building's central axis. There is a central section that, together with its two side wings, offers a horizontal dominance to the building. The entrance pavilion features horizontal lines and rounded guardhouses, arranged symmetrically, on

FIG. 7 ANKARA HIFZISIHHA INSTITUTE CHEMISTRY-BACTERIOLOGY LABORATORY BUILDING (LEFT); TÜRKKUŞU SCHOOL (IN THE MIDDLE); ISTANBUL UNIVERSITY OBSERVATORY (RIGHT)

each of the two sides of the entrance (Fig 6). The design is functional and the flat roof-terraces of the guardhouses have metal railings in front as a reference to the modernist architectural culture that favored the aesthetic of the features of transatlantic machinery (Bozdoğan, 2001). The main entrance block to which the guardhouses are joined are also flat-roofed and in horizontal rectangular, prismatic form. Above the prismatic mass are high, vertical chimneys of concrete on each side, accentuating the horizontal-vertical emphasis. Déco lines are concentrated in the inside of the factory building.

4 – A SHORT DÉCO FORM PROJECTING TOWARD THE FRONT FAÇADE IN A SEMI-CIRCLE

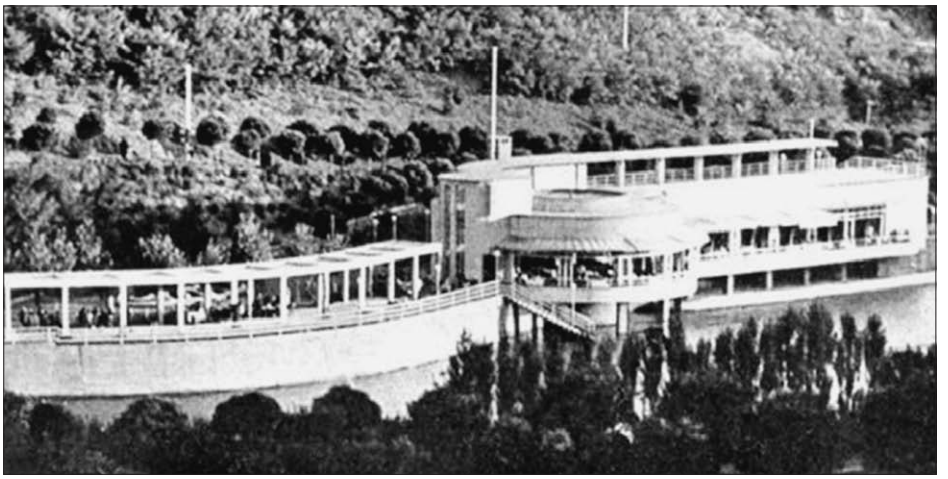
In still another mass plastic construct of the era that features Déco lines, a short form was placed at the symmetrical axis of the main mass that consisted of a horizontal, long rectangular prism. This short form projected toward the front in a semi-circle, but straight out toward the back. In the resulting asymmetrical effect, the short mass on the symmetrical axis is higher than the main form.

One of the powerful examples of this technique is the Türkkuşu Building, built as a center for glider and parachute training. The structure is a product of Atatürk's desire for the country to progress in the area of aviation; it was designed in 1936 by Ernst Egli. A photograph of the building is featured in numerous postcards of the day and the structure was built in parallel to Atatürk Boulevard in Ankara. Consisting of a two-story rectangular prism on top of a basement floor, the building has a flat roof in the center from which a short mass rises and projects toward the front in the form of a semi-circle as from the second floor (Fig. 7, in the middle). This semi-circular projection breaks the structure's horizontality; the projected mass is higher that the main mass of the building. While the usual application was to place a semi-circular form on the symmetrical axis of the main mass, having it project outward as from the first floor, Egli instead added his own signature interpretation to the construct by letting the semi-circular shorter mass project towards the front, beginning on the second floor.

Another building in which the same mass construct is used is the Ankara Hıfzısıhha (Public Hygiene) Institute Chemistry-Bacteriology Laboratory Building. This institute was built in 1928 to promote public health and the building was used in the manufacture of vaccines. It was built in 1930 by the Austrian architect Theodor Jost. The architect designed the building in the Déco aesthetic in parallel to the street and in the form of two masses perpendicularly traversing each other asymmetrically. The short mass of the horizontal long rectangular form is situated on the symmetrical axis of the prism. It projects outward toward the front in a semi-circle fashion while it projects in a straight line toward the back of the building. This mass is also higher than the main structure in order to break the horizontality. Standing on top of this block is a relief of Hygenia, the daughter of the Greek god of medicine, Asklepios, created by the Austrian sculptor, Wilhelm Frass (Sözen, 1984).

A variation that is similar in mass formation is the Istanbul University Observatory that was designed by Hikmet Holtay from 1934-1936.

FIG. 8 ANKARA ÇUBUK DAM RESTAURANT-MUSIC HALL



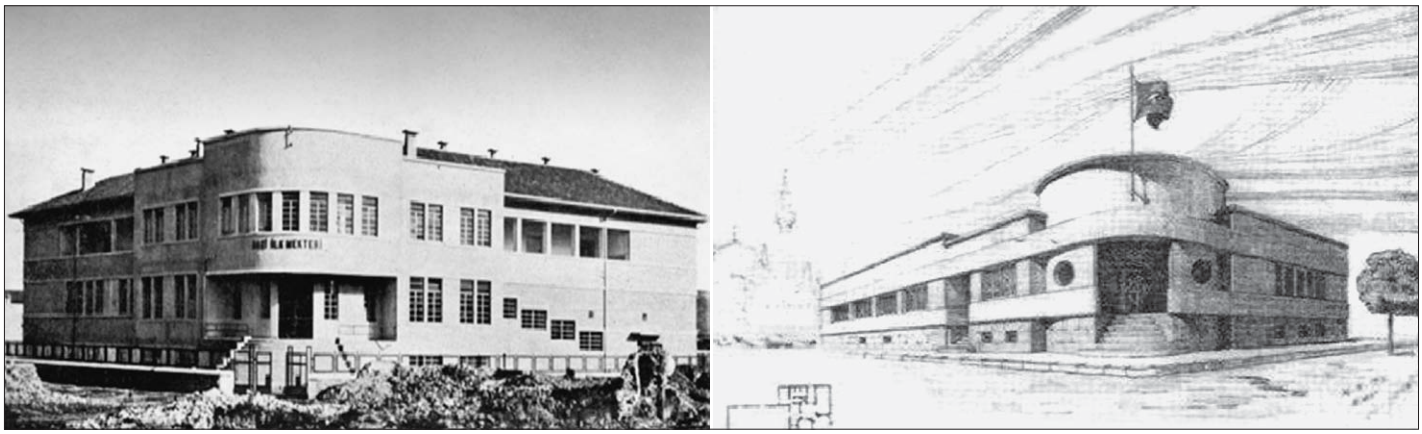


Fig. 9 Izmir Gazi School (left); Yalova Community Center (*halkevi*; right)

The building, designed for astronomical observations and research, is an indicator of the importance given to science in the period of the Republic. The short mass of the structure has been placed on a symmetrical axis and its circular observatory tower looking toward the front projects outward (Fig. 7, right). There are stairs at the edge of the back facade that projects straight outward. In this example, the short mass projects outward from the rectangular prism that forms the main mass. The terrace railings of the flat-roofed structure are of wrought-iron, in keeping with the trend of the times.

A different variation of this mass construct can be found in the Çubuk Dam Restaurant-Music Hall at the Ankara Çubuk Dam. The capital of the New Republic, Ankara, enjoyed the construction of many parks, sports facilities, sports fields and public recreation areas. These played an important role in the building of the new nation and they reflected the concepts of "youth" and "vigor" that had come to symbolize the culture of the Early Republican Period. These areas also represented the new societal ideology and the end of the traditional oppressive separation of men and women in a westernized Republic (Bozdoğan, 2001). The Çubuk Dam and its modernist composition is a major example of this. The Çubuk Dam Restaurant-Music Hall facility, located at the water's edge of this overpowering dam, is covered in Ankara stone and was designed by the French architect Theo Leveau in 1938. With its finely sculptured landscape, the structure is situated inside a park and its terrace stretches out on a curvilinear plane parallel to the dam, consisting of horizontal forms on both sides (Fig. 8). A shorter mass was placed on a symmetrical axis exactly in the middle. On one end of this form, there is the music hall, which projects over the water in a semi-circle. Here too the transatlantic aesthetic of the art déco style is evident. Once again it reflects the progressive narrative of the modernist leaning of Republican architecture.

5 – A Déco form with a circular section at the center

This new architectural concept that defines the aesthetic norms of modern public buildings in the Republican period can also be frequently seen in the school buildings and the community centers *(halkevi)* of the era. The scheme used in these structures consists of horizontal lines, flat roofs, and a circular section in the middle of two purist prismatic forms. This section can be an entrance hall or in some cases, a conference room or library.

The mass aesthetic of rounded corners at the entrance is displayed in the community center *(halkevi)* buildings, which were an important group of structures that represented the cultural institutions of the Republic. These buildings were at the same time ideological symbols of the Republic and a representation of an important theme of architectural culture in the 1930s. This was why these structures were designed with the new aesthetic tectonic of modernism. That the first two female architects of the Republic, Leman Tomsu and Münevver Belen, were credited with their *halkevi* projects further emphasizes how much these facilities epitomized the secularism of the Republic. Their focus was on education and they functioned as centers for meetings and socializing (Bozdoğan, 2001). The two most well-known community centers of the period, in which architectural archetypes of the modern Republic are evident, were the Yalova Halkevi building designed by Sedad Çetintaş in 1937 and the Sivas Halkevi project created by Emin Necip Uzman and Nazif Asal (Fig. 9, right). In both buildings, there is a circular section in the middle of two horizontal forms. This section was an entrance in the Yalova Halkevi building and a library in the Sivas Halkevi building.

FIG. 10 IZMIR FAIR THRACE PAVILION (LEFT); MAIN ENTRANCE TO THE FAIR (IN THE MIDDLE); MINISTRY OF EDUCATION CULTURE PAVILION (RIGHT)

The same use of mass was also used in some school buildings of the era. In 1934, Necmettin Emre designed the Izmir Gazi Elementary School and Erhan Çamlıbel the Izmir Bornova Agricultural School. The rounded corners and the mass plasticity of the rounded entrances to the buildings are typical examples of the period (Fig. 9, left).

6 – A DÉCO FORM WITH A VERTICAL EMPHASIS ON THE ENTRANCE

Another typology in the Art Déco modernist stylistic mass repertory encompasses a vertical emphasis on a streamlined horizontally-oriented long form. The vertical emphasis can be seen in the ziggurat-like or zig-zag compositions on the entrance axis. This emphasis exhibited in the entrance mass of the long horizontal block is a composition that breaks the horizontality of the structure. The vertical composition of the building is accentuated by the zig-zag and ziggurat-like lines, an element that was particularly seen in the buildings of the Izmir International Fair in 1938. This fair, a Republican venue, exhibited technological and economic progress in terms of the modernist architectural environment (Bozdoğan, 2001). The fair symbolized the spectacular progress brought about by the Turkish Reforms initiated by Atatürk and the determination and tenacity with which a new nation was created from scratch. In the words of Atatürk, "However big political and military victories may be, if they are not crowned by economic victories, they cannot be sustained and will wither away with time." This declaration is the proclamation of the goal of "full independence" by the founder of the modern Turkish Republic (Sözen, 1984).

All the modernist pavilions and stands of the international fair were designed by the leading local and foreign architects of the period (Orel, Çeçen, 1939). The structures in the fair exhibited the Déco mass concept of vertical emphasis. Among the most well-known ones was the Ministry of Education Culture Pavilion designed by Bruno Taut. The mass organization in this building features a zig-zag vertical emphasis (Fig. 10, right). The Trakya Pavilion by an anonymous architect also features a Déco form with parallel lines and vertical zig-zags that project over the main form with its rounded corners and long, horizontal main mass (Fig. 10, left). The fair architect, Ferruh Örel, designed the main entrance gate in which the Déco construct of vertical emphasis was also used (Fig 10, in the middle). On the ground level, an open colonnaded entrance with horizontal lines and vertical columns made of metal (flag posts) give the structure a modern aesthetic that reveals the vertical Déco effect.

7 – BALCONIES WITH ROUNDED CORNERS

Another form of the Déco mass architectonic used in modern Turkish architecture is the design where a horizontal or vertical rectangular prism constitutes the main structure, which has balconies that are rounded at the corners. In line with the conceptual understanding of the age, this arrangement of mass, simply designed, has a flat roof and the rectangular form reveals balconies that are rounded at one end.

The most advanced of this construct can be seen in the İsmet Pasha Girls' Institute designed by Ernst Egli in 1928-1930. Education for girls was one of the most important subjects of the advanced policies adopted in the Republican Period. Accordingly, many girls'

FIG. 11 İSMET PASHA GIRLS' INSTITUTE

high schools and girls' institutes were constructed in this period, all designed to become the visual showcase of the country's modernization movement and a symbol of the contemporary woman (Alpagut, 2010). This was the first girls' institute established as part of this aspiration. The structure represented the two powerful symbols of Kemalist reforms – architecture and women – integrating the aesthetic and paradigmatic individuality of the two concepts in a single building (Bozdoğan, 2001). The four floors built over a basement run horizontally in parallel to Atatürk Boulevard; on two sides of the main mass are vertical blocks on each side that balance out the visual effect. These vertical blocks are five stories high and they contain stairs, storage facilities and toilets (Alpagut, 2010). Flat-roofed and with continuous exterior sills, the building's balconies reflect the Déco mass form (Fig. 11). The first-floor balcony stretches out from side to side and has rounded corners, strengthening the horizontal effect of the main mass. The vertical service blocks on either side of the structure have long and narrow windows that accentuate the vertical effect of the service tower. The flagpole, which Egli deliberately placed on top of the building, enhances the vertical effect (Alpagut, 2010). The vertical stairway towers on the sides create a balanced composition with their symmetrical arrangement on the front and back facades. The building points to a modernist aesthetic with its functional, undecorated and simple conceptualization.

The formal mass form emerging from the vertical or horizontal rectangular prisms with their round-cornered balconies is a style that is widely used in residential buildings as well. The concept of the family that was living a modern life was one of the other elements of the Republican ideal. Turkish architecture came under the influence of modern architectural styles in the Republican period, starting to exhibit functionalist trends in residential buildings. Beginning in the 1930s, the traditional Turkish house, which was made of nondescript rooms, was converted into a structure composed of spaces individually styled according to their order of importance in the house, and with particular characteristics that served a specific function (Batur, 1983). The differentiation between the rooms of the house was now founded on functionality instead of the traditional system of basing differences on the hierarchical ranking of individuals using the room. The living room, sitting room, bedrooms, maid's room, kitchen, bath and toilet were treated as independent spaces that began to be arranged to serve different needs. The traditional interiors made way for modern and western styled elements of comfort characterized by furniture, lamps and electrical apparatus (Alsaç, 1973).

It was due to this trend that westernized elite members of society chose to build a host of houses and apartment buildings constructed in the modernist style to symbolize the new lifestyle of the modern Turkish family. The houses, villas, apartment buildings and rental blocks popping up in Istanbul's Taksim, Cihangir and Maçka districts were seen to display a streamlined Déco form of design, sometimes with rounded balcony corners and sometimes with rounded entrances. The most well-known examples of the streamlined aesthetic with its rounded corners that were built in the 1930s were the Tüten Apartment and Ayhan Apartment buildings in Istanbul as well as the Sönmez Apartment Building and the Rental Apartments of the Children's Welfare Agency (Sözen, 1984).

The owner of Tüten Apartment in Taksim/Istanbul was the tobacco merchant Sabri Tüten. It was designed in 1936 by Adil Denktaş as an 8-floor reinforced concrete structure in the form of a vertically rectangular prism. On one corner of the structure is a semicircular salon that has a semicircular balcony in front with a continuous sill (Fig 12, down). The row of widows on the front of the salon finishes in the corner in semicircular form. The circular windows of the wet spaces and service areas looking toward the front of the building reference the portholes of streamlined ships. The rounded balconies and rounded windows of the vertical mass create a horizontal effect while the vertical windows form a horizontal-vertical asymmetry.

A handsome example of the mass plasticity of rounded balconies can be seen in the Children's Welfare Agency Rental Apartments (Fig. 12, in the middle), built by the architect H. Hüsnü in 1934 on Ankara Yenişehir Avenue (Sözen, 1984). The structure's balconies project outward toward the front from the main mass and have rounded corners.

This period saw the design of a large number of villas that had the same rounded corners and balconies constructed in the repertory of the modernist style. The best example in this vein is the villa in Bebek, Istanbul designed by Edip Erbilen in 1937. Revealing a mass composition of rounded circular corners and balconies on a horizontal mass, the structure is flat-roofed and has a large terrace with continuous sills (Fig. 12, up). The metal railings of the balconies are again a reference to the aesthetic of transatlantic ships.

Discussion

Modernism, or the Modern movement, is accepted as the official historical origin of modern architecture in the West, recognized as a revolutionary canon of aesthetics that represents a defined stylistic discipline. Cubic forms

Fig. 12 A Déco Villa in Bebek (up); Children's Welfare Agency Rental Apartments (in the middle); Tüten Apartment Building (down)

and geometrical shapes of reinforced concrete, steel and glass contributed to a new understanding of architecture that was accompanied by a lack of.

In the 1920s/30s, the first stage of the Modern movement, the world witnessed a variety of different forms of architectural expression, such as German National Socialist architecture, Viennese purism, Le Corbusier's cubism and Art Déco. Although features that were considered concise statements of the modernist aesthetic emerged in modern Turkish architecture almost at the same time as in the rest of the world, Déco was the overpowering style that made its imprint on the Republican Period. Besides its own distinct elements, Art Déco was also accompanied in this period by purism, especially in mass plasticity. Art Déco architecture emerged in Turkey as a definitive preference for a westernized, modern and secular new state and was first applied in the 1930's by German and Central European architects who were invited to Turkey for this purpose. These structures, which refer to the technology of the industrial age and its machinery, reflected the modernist and stylistic compositions as well as the aesthetics of the age of machinery in the culture of architecture in Turkey in the 1930s.

Art Déco appeared in the Early Republican Period as the canonical aesthetic of the modern architecture movement, as manifested in the program of stylistic buildings that took over the architectural scene. Déco-styled buildings provided both the capital of the New Republic and the buildings of its cities with a modern perspective and silhouette that represented one of the best interpretations of modernity in architecture.

The curves and turns of the new architectural style, guided by Kemalist idealism, the rounded corners accompanying prismatic masses, the balanced opposition of the horizontal and vertical, as well as the references to the streamlined beauty of transatlantic carriers, offer dimensions of aesthetic and spatial expression that exemplified the construction program of the Early Republican culture. Reflecting also the aesthetics of the age of machinery, these buildings were not only perceived as modern but also represented the artistic images of the modern architectural movement of the modernist Utopian culture of the Republican period.

The Déco style, with its particular emphasis on mass construct, was widely employed in Turkish architecture in public and residential buildings of the period. In this article, we have analyzed seven types of mass composition that appear in the mass organization of the buildings, which we have classified as: long and short Déco forms perpendicular to each other, the Déco form with a vertical corner annex, the Déco mass with two oval forms at the corners, the short Déco form projecting toward the front façade in a semi-circle, the Déco form with a circular section at the center, the Déco form with a vertical emphasis on the entrance, and balconies with rounded corners. The mass compositions made up of horizontal and vertical elements, the asymmetrical constructs and zig-zags comprised the leitmotifs of the forms that distinguished the Art Déco of this time. Besides these, accompanying the prismatic forms are other Déco characteristics of the period such as rounded corners and entrances, asymmetrical forms consisting of vertical elements, and the concept of the vertical corner annex. The gray and white purism in the facades of modern architecture differed from examples around the world, replacing modern materials such as terra cotta and stucco with local resources such as Ankara stone or enlisting the use of the German technique of EdelPutz in plastering. The characteristic flat roofs or roofs hidden inside parapets and the uninterrupted lines of horizontal sills were other elements of the period's stylistic repertory. The visual effect of architecture and style of the period was homogeneous.

CONCLUSION

The structures at stake formed the urban fabric of the 1930s and pointed to the ideology that the Republican regime assigned to them. They became the modern city's aesthetic objects and gave shape to the principles and expression of the new concept of architecture. The Déco style represented Modernism in Turkey, as well as rationalism and practical functionality, creating a paradigmatic narrative of the modernist aesthetic that the Republican ideology wanted to dominate the cities and architecture as a whole.

These structures came to be the architectural icons of Republican Modernism and formed the backbone of the modernist perspective in Republican architecture. In buildings where the rationalist-functionalist and modernist approach combined with the Déco mass aesthetic, they were accepted as westernized instruments of stylistic expression. In the ideological climate of the times, the architecture that represented the Republican period of reform rationalized modern formulations, carrying a common aesthetic language that identified these buildings as "Republican". The Déco masses that were used in these prestigious buildings, which were a formal and rationalist interpretation of Republican ideology, also represented an evocative reference to contemporary life, progress, technology and industry.

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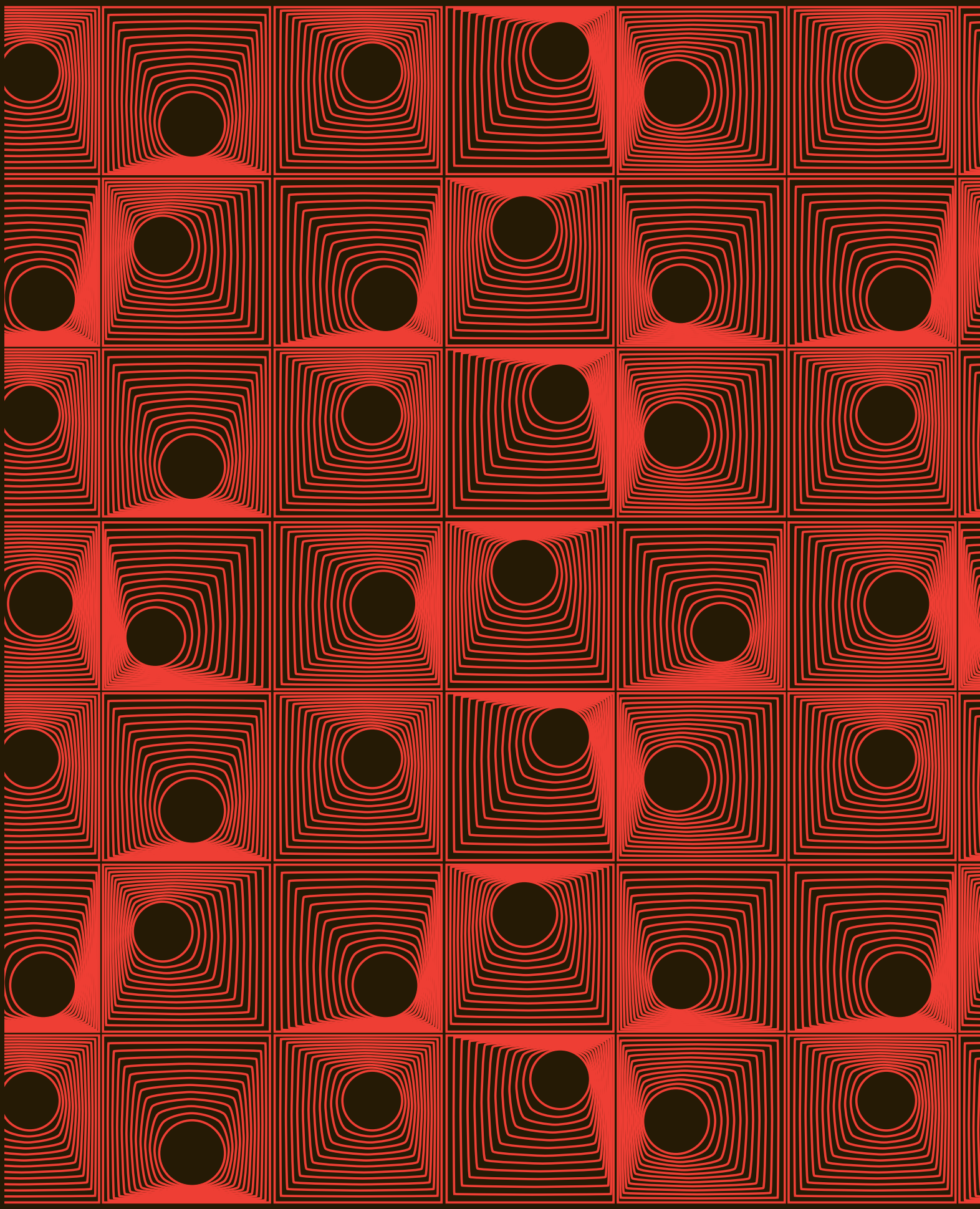
Illustration sources

Figs. 1, 4, 6, 7, 11	Sözen, 1984
Fig. 2	Bozdoğan, 2001 (left); Sözen, 1984 (right)
Fig. 3	Author
Fig. 5	Hasol, 2017
Fig. 8	Bozdoğan, 2001
Fig. 9	Sözen, 1984 (left); Bozdoğan, 2001 (right)
Fig. 10	Bozdoğan, 2001 (left); Orel and Çeçen, 1939 (in the middle); Yılmaz at al., 2015 (right)
Fig. 12	Hasol, 2017 (in the middle and down); Erbilen, 1937 (up)

Biography

Alev Erarslan, Assoc.Prof.Dr., art historian, completed her university education at Istanbul University, Faculty of Letters, Department of Near Eastern Languages and Cultures. She carried out her master degree on Mesopotamian Vernacular Architecture, in the Department of History of Art at Istanbul Technical University. She earned a doctorate degree in the Department of History of Art at Istanbul Technical University on urbanization processes in Anatolia. She has been actively involved in various survey and archeological projects being undertaken by the universities archeological institutes. Erarslan continues to study the rural and vernacular architecture of Anatolia. She is currently an associate professor at the Department of Architecture at Istanbul Aydın University, Faculty of Architecture and Design.

This is a single author study and all contributions were made by the author herself.