

## How Traditional Ottoman Houses Affect Contemporary Architecture in Turkey\*

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### Abstract

In the twentieth century after the advent of republicanism in Turkey, nationalistic and regional approaches were at odds with approaches influenced by the West in search of Turkish identity in architectural works. For this reason, this interested Turkish architectures to pay attention to their native architecture and urbanism during Ottoman era. In this context, traditional houses came to the fore as the key to achieving Turkish identity in architecture in the course of the second nationalist movement in modern times, and thereafter it was developed by following generation of Turkish architectures. The acclaimed modern features lying in the architecture of the houses and customs representing the Turkish civil identity have turned them into a symbol of contemporary Turkish identity in this course of action.

Ottoman tradition of house construction and its effect on Turks' architecture in the course of the second nationalist movement in Turkey's contemporary architecture have made the study of Turkish architectures' transition from tradition to modernity a significant issue, which is addressed in this paper. The results of the seminal works by the second nationalist leaders as to Turkey's architecture were here approached in terms of how they were impressed by the architecture of Ottoman traditional houses, which were divided into three categories and the architectural characteristics of each of them were analyzed and compared.

### Keywords

Traditional Ottoman houses, Contemporary Architecture, Turkey, Nationalist movement.

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## Introduction

Turkey is considered as Eurasian country because of its unique geographical situation which during the history has had dichotomy between a European and Asian heritage. A major part of the country Anatolia or Asia Minor is located in Southeast Asia and Middle East and a small part Thrace is located in Balkans and Southeast Europe. This made Turkey inherently the source of many dualities with a confusion between Asian, Anatolian, Ottoman and recently Republican heritages. One of the most important dualities raised in Turkey's contemporary architecture is the duality between tradition and modernity. The tradition from Ottoman architecture is strongly rooted in Islamic and Asian identity of Turkey while modernity is a western phenomenon which has been entered to Turkey in modern times. Despite of considerable contrast between the modernity imported from west and the tradition related to powerful Ottoman architecture and local architecture scattered in Anatolia, Turkey contemporary architects have been seeking for a Turkey identity rooted in old traditions of the land as a value. . Hence this research aims at searching how this architecture affect contemporary architecture in Turkey and especially "Ernest Egly", "Bruno Taot", "Sedad Hakki Eldem" as leaders of second Turkish national movement. This research addresses how the artworks made by the mentioned architects are affected from traditional Ottoman houses and the recognition of traditional architecture specifications which are reflected in the artworks of these architects. Therefore, first the architecture of traditional Ottoman houses are studied with the documents and the utilized index traditions are investigated. Second, the reflection of the mentioned traditions in these artworks is investigated with the study of contemporary architecture artworks in Turkey during the second national movement. The results of this research categorized the mentioned artworks into three categories in terms of how they are influenced by the architecture of traditional ottoman houses and have addressed the investigation and comparison of architectural characteristics of the artworks from each of the three mentioned categories.

## The Theoretical Framework

Paying attention to the past was one of necessary characteristics for architects in the end of modern period. "Giedion" says "life in each period is aimless and is continuing from one day to another if the

relation of this period to the past and the connection to the future is not recognized" (Giedion, 1986: 47). While the attention to the issues such as identity, culture and tradition became important after modernism, in Turkey as in Iran, during republic period, tradition and modernity were the most important challenge of architects. "The question of identity continued to revolve around dualities such as East-West, religious-secular, national-universal, and so on. Caught within a problem of tradition versus modernity, the subject occupied political and cultural agendas alike." (Balamir, 2003: 20). Thus in contrast to modernist currents which are supported from higher categories (the novelty seeking government and newfangled people), national movements that were forming the main discourse of cultural circles including architecture, aimed at preserving national identity during fast procedure of the modernization. "Ziya Gokalp" from the thinkers in these events believes that "Turks have to eliminate the limitations from the influence of foreign cultures via discovering their traditions and their history" (Soheili & Diba, 2010:30). While most historians of Turkey's contemporary architecture including "Bozdogan" believe in bending modern architecture system with national architecture in these movements, some critics including "Ayhan Akman" are seeking higher goals for these architecture movements. "On the whole, the specific articulation of modernity and nationalism found in the Turkish case suggests not just modernization in the service of nationalism ... The project of nation building in Turkey involved the creation of a new, modern society at the level of "contemporary civilization"" (Akman, 2004: 104). While the first nationalist movement in architecture became famous by imitating the architecture values of Ottoman palaces and constructions in the second national movement of architecture, Ottoman traditional houses were raised as the key to reach Turkish identity. Bozdogan believes that during this movement "the most important and original contribution of early republican scholarship to the "secularization" of Ottoman architecture was the focus on houses and other non-religious/utilitarian programs." (Bozdogan, 2007: 212). Historians hold different reasons for formation of the second nationalism movement in Turkey architecture including "Ustun Alsac" who proposes the pressures from second world war in terms of economic crisis and the disconnection of importing building materials and the occurrence of

new policies in ordering government projects after Atatürk; some other such as “Afife Batur” and “Ilhan Tekeli” propose establishing national architecture seminars by Sedad Eldem and Ernest Egli. The second national architecture movement was open to different interpretations despite public interest to the centrality of Ottoman houses and according to experts, different approaches are definable in the artworks of this period including monumental architecture, “contextualist” architecture, “local-modern” architecture, regional architecture and “revisionist” architecture. Hence this research aims at seeking how Ottoman traditional houses architecture affect Turkey’s contemporary architecture to investigate artworks of pioneer architects of the second national movement in Turkey’s contemporary architecture and categorizing the above mentioned artworks with identification of the implications raised in Ottoman traditional houses architecture.

### Research Method

In terms of content, this research is considered as qualitative research which will be based on historical-interpretative research which will be performed in two sections. In the first section documentary study about Anatolia’s traditional houses during Ottoman period is discussed and in the second section with the study of pioneer architects of Turkey’s modern architecture as field and documentary study, the influence of traditional houses architecture on these architects is investigated. The houses constructed in Ottoman era around Anatolia area are considered to select the samples for traditional architecture and in the study of Turkey’s contemporary architecture, artworks of Ernest Egli, Bruno Taot and Sedad Eldem as the leaders of this movement are addressed.

### Historical Background of House-making in Asia Minor

The Ottoman Empire had powerful religious and cultural roots and knew itself as the representative of Islamic world and was benefiting from architecture in this regard as an appropriate tool. Turks were highly interested to work and live in open space and natural environment, and living at tents satisfied this desire properly. “Sultan’s real house was his tent: a string of tents special for day and night which were enclosed by textiles and the same was for ministers and lower level people” (Goodwin, 2009: 587). This living style was propelling sedentary Turks towards

palaces and Pergola buildings. Pergola Buildings were commonly established by light wooden structures which had mesh wooden openings that protects inside against light and wind (Fig.1).

In later times, the Kiosks were constructed mostly by stone which its clear example is “Cinili”<sup>14</sup> Kiosk in “Tupqapi” Saray in Istanbul which was established in 1473. “Cinili Kiosk in Istanbul has a plan which is more affected by Iranian Kiosks. Cross shaped central space which is heightened by a short dome and the end of the arms which is ended by exterior columnar porches and tiled balconies. The space among these arms which completes square plan provides perfect and luxurious rooms” (Fletcher, 1996: 611); (Fig.2). More perfect types of Ottoman traditional houses were shaped during 18 and 19 centuries that its index samples are remained in Bursa, Safranbolu, Edirne, Istanbul etc. “Ottoman aristocratic building map is captured from Cinili Kiosk map. Four corner

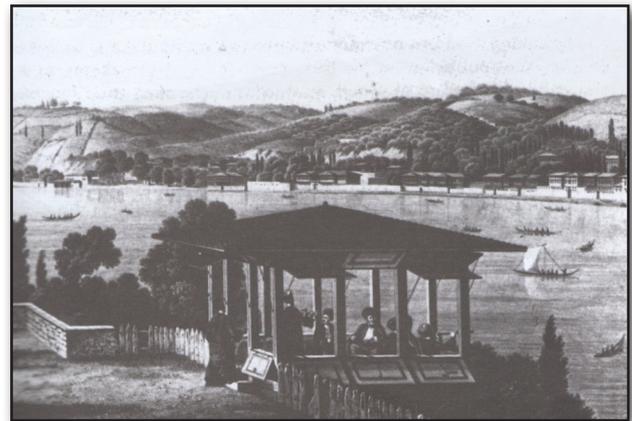


Fig. 1. Ghandili, Bosphorus, Pergola against Babak building. Source: Goodwin, 2009: 612.



Fig. 2. Cinili Kiosk in Istanbul. Photo: Naser Hassanpour, 2014.

spaces at Chalipa arms bend has been converted to rear sitting rooms while the four porches are turned to antechambers or sometimes to additional rooms which can be said the mentioned symbolism has preserved its importance despite all these issues.” (Goodwin, 2009: 591); (Fig.3).

### Tradition in Ottoman houses Architecture

In this research, Turkish traditional houses are defined as “the Turkish house or the traditional Turkish house is a timber-framed house found mainly in Istanbul, Anatolia, Greece, and the Balkans. Although these houses varied according to local building materials, as well as according to the wealth and size of the families they housed, they all shared a basic architectural vocabulary” (Bertram, 2008: 21).

### The Structure and General form of Building

In the case of Ottoman traditional houses architecture “Although substantial variations in size, configuration and regional characteristics have occurred, certain basic and constant features establish the Turkish house as a distinct type, fixed by convention and tested through centuries. One of these is its timber frame and infill construction, with the infill material ranging from bricks to wood (bagdadi), plastered over in lesser examples and finished in wood in the more elaborate ones. Another feature is the solidity of the ground floor (reserved for hay storage, animals, carriages and services, etc.), above which a much lighter and projecting living floor is raised on stilts (direklik). Other characteristic features include rows of modular windows, derived from the logic of the timber frame, and a pitched roof covered with round tiles” (Bozdogan, 1996: 9). The architecture of Turks aristocratic houses had usually two or three floors and it was mainly because of good perspective and view the upper floors had. In this regard, lower floors were made by stone and sometimes brick while the upper floors were made by wood. The juts in upper floors were resulted through wooden beams which were relied on wooden clamps. The distance between wooden frames was filled by brick or adobe and the pores were covered by surface plaster and then were painted. The final color was different from red in Istanbul to white in “Safranbolu” and was recolored in temporal eras. However building houses with stone and adobe was spread in the late Ottoman era but there was no change in construction pattern and general view of the houses (Figs.4 & 5). The row of stretched vertical windows which are formed as modular because of wooden framing and have

wooden opening frame in addition to main grate window are other specifications of Ottoman houses. With regard to the number and location arrangement

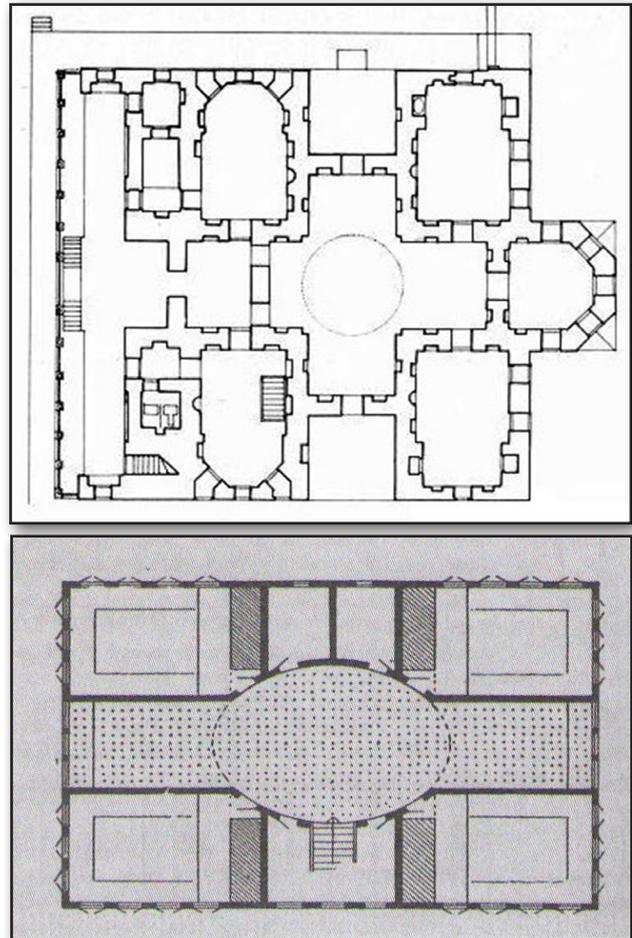


Fig.3.The effectiveness of Ottoman houses plan from Cinili kiosk plan. Up: Cinili kiosk plan. Down: a sample of Turkish traditional house with central sofa. Source: Bozdogan&Akcan, 2012: 98.



.Fig. 4.Wooden framin gand filler materials Source: Midilisari, 2011: 785

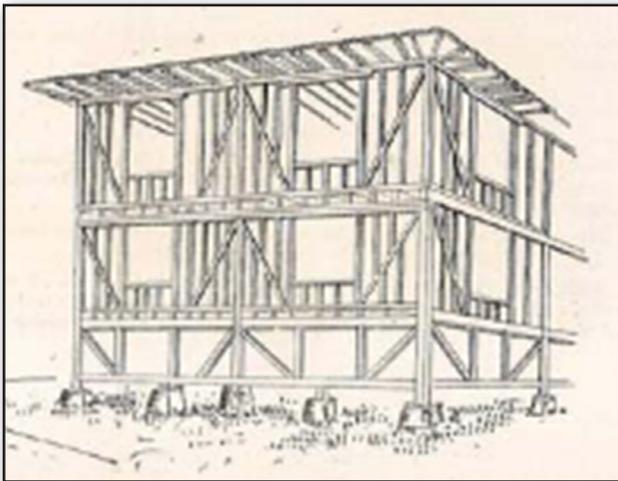


Fig. 5. Wooden framing of Ottoman houses structure. Source: Celebioglu, 2007: 6.

of these windows, we can be aware of dimensions and performance of their rear space. Another constant specification is sloping roof with uniform and wide eave (Rokhbam) which was with juts if possible on all sides.

### The Overall Combination of Spaces

The interest to live and work at open surroundings and also building cities in foothill and mountain areas made open and semi-open spaces important in Ottoman houses architecture. Hence special general combination of traditional Ottoman houses can be categorized into three categories of open, semi-open and confined.

### Open Space (yard)

Turks mainly built their houses within gardens and therefore the yard or small garden of the house was an important part of the house. "The courtyard, which meets us when we enter from the main door, is the heart of the house and is the main indicator of an introverted way of living. The courtyard is used for a variety of purposes such as cooking, washing, dishwashing, etc." (Midilisari, 2011: 782). In urban textures" This lower floor area, windowless to the street, was often completely open to the garden, as a sheltered place either for animals or for household activities such as food preparation. Its floor was paved with polished river stones or pebbles and was therefore called the TASLIK " (Bertram, 2008: 22). Despite of locating houses within yards and following from a pattern like urban garden, building mass is

constructed in a corner of the yard and in the vicinity of neighboring passage. This issue causes the formation of appropriate body-making in urban space in addition to creating a good view for public area (Fig.6).

### Semi-Open Space (Sofa)

Semi-open space or Sofa in Ottoman houses is rooted in "middle space" implication in traditional Ottoman houses which is retrieved from nomadic life. "In the period before Anatolia, due to the unsuitable natural conditions of Asian steppes for living and the need for continuous replacement resulted in the development of the notions of 'space independent of land' and 'abstract environment'. With the separation of the living space from the nature, these notions turned into "Introversion" or 'closure to the outside', and appeared in the traditional house as 'middle space' together with the notion of extended family, which was one of the most important characteristics of the Middle Asian way of living" (Midilisari, 2011: 784). Tents as living space were established together in

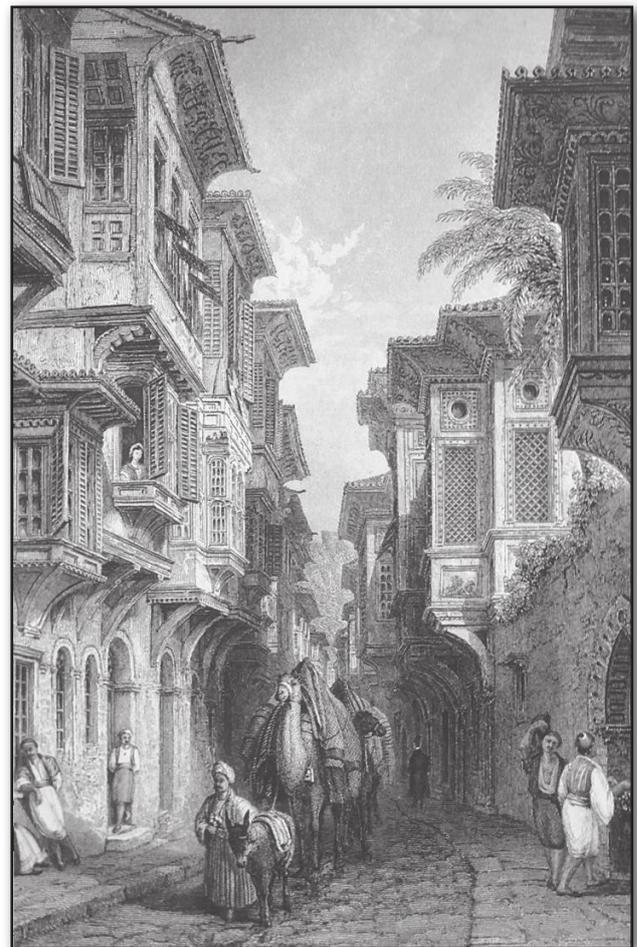


Fig. 6. A street in Izmir, painted by T. Allom, 1838. Source: Bertram, 2008: 23.

nomadic life and the space within several tents which was related to a family is indeed another space which connects different tents to each other. By settling sedentary Turks used a method similar to the past for combination of their house spaces (Fig.7).

This new central space which was a semi-open space in most Turkish houses with connecting open spaces of yard and closed spaces of rooms or halls was called “Sofa” in Ottoman houses. In 16 and 17 centuries, the exterior view which was towards garden or yard especially in Anatolia central houses both in ground floor (Taslik) and upper floors had an opening towards garden with porch shape mostly called Hayat (Bertram, 2008: 28). Sofa was a space usable for multiple functions in life (Fig.8). In the areas with cooler climate and/or dense cities like Istanbul, Sofa changes to a hall with closing the view of yard. The patterns with Hayat or exterior Sofa were considered as extroverted pattern and the patterns with central Sofa as introverted pattern.

### Confined Spaces (rooms)

Room or “Oda” in the traditional houses of Ottoman era is recognized as the main component of house

which remains firm on its own. “Turgat” has described a room as a house inside a house because it contains most of the functions occurring in daily life and inside one house. “In addition to the ‘middle space’, another characteristic of the nomadic way of living that is directly reflected in the inner designs of the rooms in Turkish houses is the concept of “flexibility”. Such portable ground covers as carpets, kilims, felt; such inner space elements as beds, divans, chests; and the ability to use the same space for different purposes during the day are the reflections of this concept in Turkish houses” (Midilisari, 2011: 785). Hence room is defined as settled tent of central Asia (Figs.9 &10). “The components of interior space in Turkish houses and the specific rooms therein consist of spatial components which contribute to form and enrich

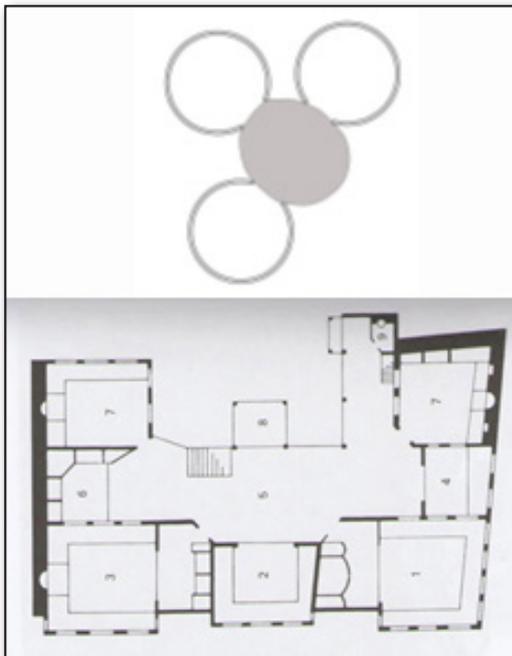


Fig.7. Comparison of middle space in nomadic life and first floor plan of Chaker Agha building in Bursa.Source: Midilisari,2011:784/ Goodwin, 2009: 599.



Figure 8: A sample of exterior Sofa or Hayat in traditional Turkish houses.Source: Bertram,2008:27

it's functionally. These components give the room in which they exist the rich functional variety while supporting the clarity of the room as fixed on the wall and ceiling” (Arat 2012: 887).

Another shaping point in the architecture of rooms in Ottoman houses is patriarchy system in Turkish family culture so that each house or aristocratic mansion in Turkish culture related to a wide family included family father and the families of male children each one living in one of the rooms or halls and the main room was for family father. For this reason, each room has to contain all requirements of an independent life for a small family. In order to preserve the privacy inside rooms, wooden grate windows sometimes with elegant decoration were utilized. These windows prevented the neighbors view into the house in addition to controlling light and windflow; therefore the women at house were provided to look the streets from wooden grate. In the other hand, irregular plans of Ottoman houses in labyrinth alleys were amended by consoling room floors on wooden beams and special stiffeners (Fig.11).

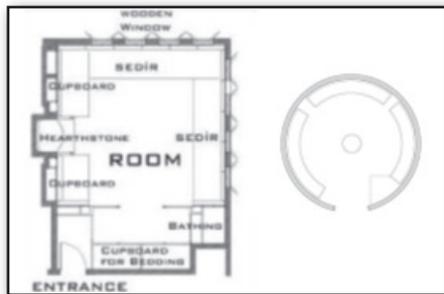
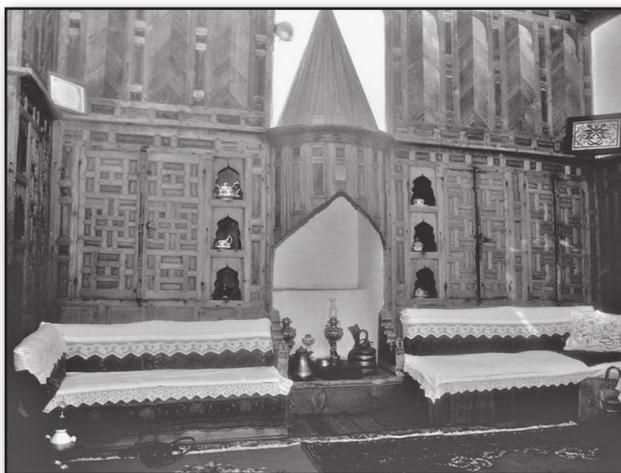


Fig. 9. Comparison of furniture in a room between Ottoman houses and tents of nomads. Source:Midilisari, 2011:784/Arat, 2012:888.



### Decorations and Details

Because of introverted vision of Turks from life in contrast with outside simplicity, the attention is focused on inside and most of decorations are inside of house and related to walls and roof. Wooden decoration on roof has separated the roof from walls and floor and the decorations mostly reminiscent of sky. Other decorations utilized inside the building are framings with patterns of landscapes imitated from Europeans (Fig.12). “In Anatolia aristocratic mansions and the villas of “Yali” and “Bosphorus”, the sloping edges of some roofs show the relation with Chinese architecture and also Chinese decorations”. (Goodwin, 2009: 609);(Table1).

### Turkey’s Modern Architecture (in the republican era)

In the contemporary era, national and global developments in Turkey and the change of the government from an Empire related to religious principles to secular republic caused general changes and meantime the trends expressed in culture and art of modern Turkey were formed by two main thoughts. Nationalism mainly was raised

Fig.11. Forming consoles to exterior volume. Source: Goodwin, 2009: 605.

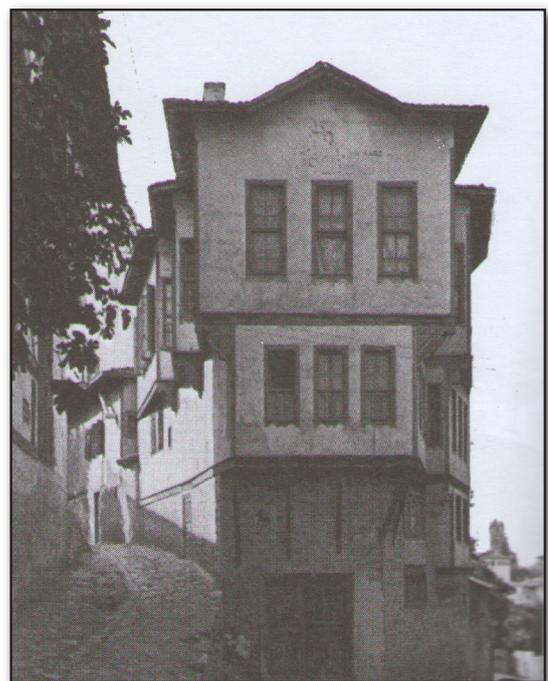


Fig. 10. Furniture of a room in Ottoman houses. Source:Midilisari, 2011: 786.

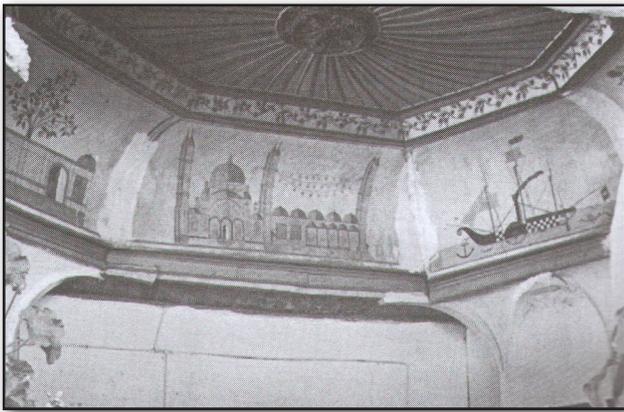


Fig.12. Decorations with patterns of pictures by imitation from Europeans. Source: Goodwin, 1388: 597.

from Turks discontent of chaotic situations in late Ottoman Empire and the era of the promotion of the land in early Ottoman Empire. “Intellectual formation of Turkish nationalism as a cohesive force was established during the first two decades of twentieth century. External pressures, lack of internal solidarity and welfare of the nation which was under destruction in Ottoman Empire era created an environment that needed to a new integration ideology” (Soheili & Diba, 2010: 30). Another trend was expressed by individuals that introduced themselves as modernity pioneers and was seeking to disconnect the cooperation and political and cultural ties of republic era from Islamic-Ottoman history. The effect of mentioned trends caused the formation of different architecture currents in Turkey’s contemporary era and Batur Afife introduces these events in six general periods. The first nationalism

Table1. The traditions raised in Ottoman houses and their formation reasons. Source: Authors.

Row	The traditions raised in Ottoman houses architecture	Reasons and roots of tradition formation
<b>Structure and general form of the building</b>	<ul style="list-style-type: none"> <li>-Setting the building on wooden frame with framings filled by brick and adobe in two or three floors.</li> <li>- Using rigid materials (stone and brick) in ground floor and light material in upper floors</li> <li>Showing Chikma modular view (exterior view module for each room)</li> <li>- A row of modular windows with vertical proportions.</li> <li>- Console on counterfort wooden beams.</li> </ul>	<ul style="list-style-type: none"> <li>- Availability of wood as material and cheaper than stone and brick.</li> <li>-Taking advantage of good visibility rooted in tradition of nomadic life.</li> <li>- Supplying security and structural strength</li> <li>Following from the principles of structural wooden framing.</li> <li>- Amending irregular plan of ground floor at upper floors.</li> <li>- Creating appropriate and continuous urban view.</li> <li>- Creating regularity in view, showing the extent of house in external view.</li> </ul>
<b>Open space</b>	<ul style="list-style-type: none"> <li>-The importance of Hayat as an important functional space.</li> <li>- Enclosing Hayat with high stony walls and the row of trees in the vicinity of them.</li> <li>-Lack of creating openness from Taslik to passage.</li> <li>-Placing building mass in a corner of the yard and in the vicinity of public passage</li> </ul>	<ul style="list-style-type: none"> <li>- Turks interest to live and work in open space.</li> <li>- Constructing houses on hillsides and the slope of mountains in the heart of nature.</li> <li>-Using Hayat as servicing part by women during days.</li> <li>- Following from Privacy law as a religious principle.</li> <li>- Not-intrusive building mass for the view of neighbors.</li> <li>- Creating an appropriate and continuous view at urban passages bodies.</li> </ul>
<b>Semi-open space</b>	<ul style="list-style-type: none"> <li>- Exploiting external Sofa as open space which relates Hayat to rooms in extroverted pattern.</li> <li>- Exploiting central Sofa as general space between the private spaces of rooms.</li> </ul>	<ul style="list-style-type: none"> <li>-Rooted from central space implication in nomadic life method.</li> <li>-Exploiting surrounding landscapes and using in the format of various operations.</li> <li>-Separating public and private domains in different hierarchy.</li> </ul>
<b>Confined space</b>	<ul style="list-style-type: none"> <li>-Designing a room for responding to most operations of an independent house.</li> <li>-The implication of a house inside a hous Using furniture variable in constant spatial framework.</li> <li>-Exploiting from entrance corridor and angled corridor towards room.</li> <li>-Using wooden grate windows.</li> </ul>	<ul style="list-style-type: none"> <li>- Rooted from flexibility idea in nomadic life</li> <li>- Life method as a wide patriarchy family.</li> <li>-Observing Privacy taken from Islamic believes.</li> <li>-High cost of imported glasses.</li> <li>-Continental reasons and retaining Privacy against neighbor view.</li> <li>-Decorative role.</li> </ul>
<b>Men’s interior and home</b>	<ul style="list-style-type: none"> <li>-Exploiting from interior (Haram) and men home (Salamalik).</li> <li>-More decorations in men’s home.</li> </ul>	<ul style="list-style-type: none"> <li>-Islamic teachings based on preventing women from being in the view of strange men.</li> <li>-Respect to guests rooted in Islamic believes.</li> </ul>
<b>Heram and Selamik</b>	<ul style="list-style-type: none"> <li>-Attention to internal decorations.</li> <li>-Exploiting from Chinese figures and paintings from landscape in interior decorations.</li> <li>-Using inscriptions at entrance door head and top of window.</li> <li>-The importance of entrance door head.</li> </ul>	<ul style="list-style-type: none"> <li>-Introverted lifestyle.</li> <li>-Affectability from Eastern and Western art.</li> <li>-Religious beliefs and some superstitions entered to Turks beliefs.</li> <li>-Respect to guest and distinguishing the houses from each other.</li> </ul>

movement was occurred after the first years of world war one and declaring the republic of Turkey in 1923 while the country was seeking for destruction recovery and stabilization of political situation. Most of constructed buildings in this era followed Ottoman architecture features and for this reason, most of Turkey's architectural historians categorize these buildings in the category of neo-Ottoman architecture. More excellent form of returning to national identity occurred in the second nationalism movement (third era from the mentioned eras) and when traditional Ottoman houses were inspiring architects in responding to the problem of national identity. The factor of triggering architects to attend to traditional Ottoman houses was free hand sketches that the leading architects like "Melling", "Leocorbosier" and "Frank LloydWright" provided from native architecture of old cities. The role of the department of fine arts in Istanbul and its prominent faculties like Ernest Egli, Bruno Taot and Sedad Hakki Eldem as the leaders of second national architecture movement is considerable in these events.

### Ernest Egli

Swiss architect Ernest Egli was responsible for converting academic educational program along modernism lines. "Egli was closer to the aesthetic ideals of high modernism. Eglis educational buildings sought to represent the emancipation of citizens, especially of women, through the spread of literacy and higher education" (Bozdogan & Akcan, 2012: 60). He expressed traditional Turkish houses as rational response to nature. Elegant exploitation of architectural elements of traditional Turkish houses in some of his projects like music school and financial justice department in Ankara took the attention of many architects to take advantage from architectural elements of traditional houses (Fig.13). Egli which was famous as modern training building architect at the end of his career as head of the college of Fine Arts and the ministry of Education in collaboration with Eldem held the first seminar with the focus on traditional Turkish houses.

### Bruno Taot

Bruno Taot was the successor for Egli in ministry of education and the college of fine arts. "The leading architect of German expressionism during the 1910s and of Berlin's social housing programme between 1924 and 1933, Taot fled from Germany as early as 1933 arrived in Turkey in 1936 after spending three years in Japan. Taot built schools in Ankara, Izmir and

"Trabzon", and designed more than twenty buildings, including the technical universities of Ankara and Istanbul , although most remained unbuilt following his untimely death" (Bozdogan & Akcan, 2012: 63). His admiration from Turkey's vernacular architecture and simplicity, validity, originality, usefulness and its benefit, its rational structure has attracted the attention of professional architects and architectural students to Turkish vernacular houses in the present era and most of papers and speeches. He also followed a similar procedure in executive projects. He explicitly stated in one speech in 1938 with the topic of "The houses of Turkey, Senan, Ankara that the Turkish houses will be expressed when cubic architecture as a mode is forbidden by architects and also during that speech introduced the components of traditional Turkish architecture which remains modern forever; in this regard, he admired wide eaves and the tools above windows which make shadow and tradition Turkish composite walls with alternative streaks of stone and brick. Taot avoided from absolute nativism in his executive projects and believed that traditional and native elements must be used together with modern construction methods. He used from alternative streaks of stone and brick (almashik) taken from Seljuk and Ottoman architecture- in the project of language, history and geography college in Ankara (1937-39) which covered the exterior view of the college (Figs. 14 & 15). But in terms of performance, exploiting from this pattern was based on proportionality principles and as a module for integrating other components of the building such as internal stairs, exterior windows and the components of building facade. Vertical proportions of the windows which are taken from



Fig.13. Financial justice, artwork of Ernest Egli, Ankara, 1937. Source: Bozdogan, 1996: 12.

available proportions in traditional Ottoman houses and were repeated in rows on the floors recalls the bodies of Istanbul's native houses and other cities of Anatolia in the body of alleys and streets which are renovated in a modern rational form.

### Sedad Hakki Eldem

At the same time with Taot and Egli, the prominent Turkish architect Sedad Hakki Eldem proposed his views about necessity of seeking a national identity at Turkey's architecture. Eldem introduced traditional Turkish houses as a key to national procedure in line with modern architecture during a seminar which was held with the cooperation of Egli in 1934 at college of Istanbul's fine arts. Unlike Taot, Eldem knew himself as regionalist architecture. He saw traditional Turkish houses similar to modern implication from house and admired rational and functional logic available in designing these houses and integrating them with nature and bed of design. After 1940, the study of native residential Turkish vernacular architecture is converted to a custom in architecture education because of nationalist fervor and inflammation in the community and political supports, led by Sedad Eldem. "Eldem proposed Sofa as a key space at traditional Turkish houses and the classification of house plans based on form, composition and situation of Sofa as key element" (Bozdogan, 1996: 9).

According to his categorization, three types of productive plan can be identified with respect to the situation of sofa in the plan of traditional houses, which includes plans with exterior sofa, interior sofa, and central sofa. For the analogy of the composition of interior spaces of the houses and urban system, he described rooms and halls inside a house as a complete house and vault as streets, alleys, and squares providing access to a house. Three classes can be distinguished in the affectability of Eldem from traditional Turkish houses architecture which general features of each one are reflected in his three prominent projects.

### Reflection of Traditional Turkish Houses Architecture in the Artworks of Eldem

The first prominent project of Eldem, Science and literature college of Istanbul was established in 1942. He used a row of parallel windows with proportions similar to what could be found in framing of Turkish house windows in designing this project which recalls free-hand sketches painted by Melling from the landscapes around Istanbul alongside the heavens in sides. The wide and continuous eaves across the



Fig.14. Language, history and geography college, artwork of Bruno Taot, Ankara, 1937-39. Source: Erdim, 1996: 104.



Fig.15. Language, history and geography college, artwork of Bruno Taot, Ankara, 1937-39. Source: Erdim, 1996: 112.

façade, windows framing and dividing the utilized materials in facade into rigid materials in bottom and lighter material in above, all are taken from the structure and external façade of Turkish houses which is utilized in a panel similar to what was expected from the first educational and official buildings in Turkey's neoclassic architecture in early republic era (Fig.16). In his second prominent work, "Tasilik" coffee house, affectability of Eldem from traditional houses was completely clear. The general form of the building recalls Ottoman villas with the form of a kiosk in garden, wooden consoles on wooden horizontal counterforts, triplex windows, wide and continuous eaves alongside a sloping roof which its height in the centers recalls Cinili kiosk, all are taken from



Fig.16. College of science and literature, artwork of Sedad Hakki Eldem, Istanbul, 1942. Photo: Naser Hassanpour, 2014.

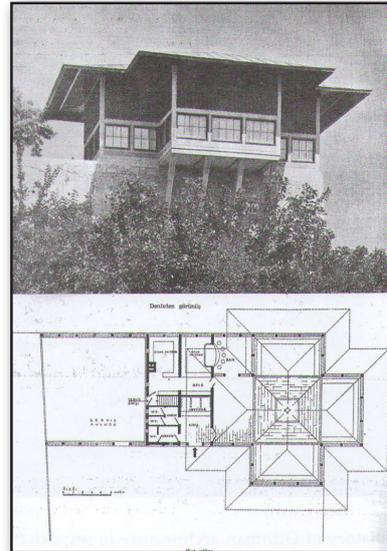


Fig.17. Tasilik coffee house, artwork of Sedad Hakki Eldem, Istanbul, 1947. Source: Bozdogan & Akcan, 2012:101.

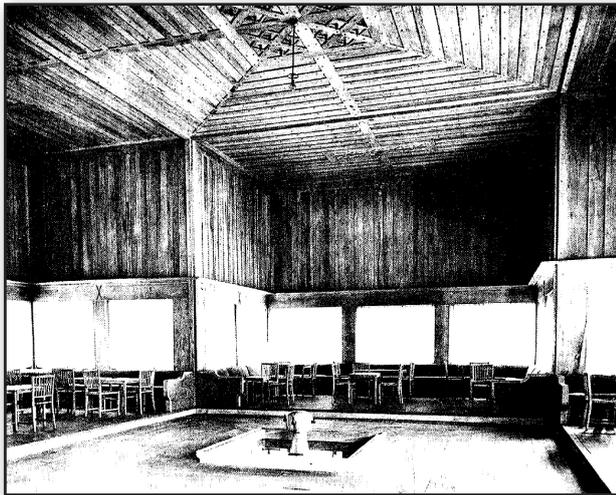


Fig.18. Central Sofa of Tasilik coffee house, artwork of Sedad Hakki Eldem, Istanbul, 1947. Source: Bozdogan, 1996.

traditional Ottoman houses. Sofa space like central and body was completely concrete rigid in ground floor and the light structure of upper floor makes the affectability more clear. This history-oriented building which regional architecture features were obvious in it used modern architecture principles merely for implementation (Figs.17 & 18).

The most prominent project of Eldem, social security complex on the old hill of "Zyrek" in Istanbul which was completed in 1970, again attracted the attention of Turkey's architectural society to traditional houses of Turkey. The site of this project was on a hill and is irregular and almost with triangular shape in terms of geometry. The surrounding of the site was enclosed

by rich texture of traditional wooden houses and all of them led Eldem towards exploiting from an organic native architecture. Eldem says about this project: "in terms of idea, this project is a connection between deep tradition of traditional wooden houses culture and Ataturk Blvd brutalism. The quantities are utilized properly and highly skilled to present what Turkey's contemporary architecture must be in relation with its roots" (Gidemuysal, 2004: 143).

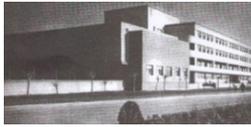
Benefiting from the heritages of traditional Ottoman houses is more elegant and abstract in this project. Benefiting from buildings on different heights with the Hayats which has created distances among volumes follows from Ottoman old rule based on non-inhibition of buildings mass against the view of other neighbor buildings and the general volume of the building is coordinated with the background of traditional residential houses. From the viewpoint of Eldem, this set is a clear statement in opposition to building block as the main feature of modern urban forms (Figs. 19 & 20). Multiple projects of Eldem and his cooperation with other prominent architects like "Emin Onat" and "Paul Bonatz" as colleague and faculty of technical college of Istanbul and also affectability of the students and architects from him caused again the affectability from Ottoman houses architecture as the most excellent identity of Turkish architecture in the late of modern era and postmodern era. The following table investigates the affectability of the artworks of the mentioned architects from the traditions expressed in Ottoman houses architecture (Table 2).



Fig. 19. Social security complex, artwork of Sedad Hakki Eldem, Istanbul, 1970. Photo: Naser Hassanpour, 2014.

Fig. 20. Facade of social security complex. Photo: Naser Hassanpour, 2014.

Table2. The traditions utilized in the artworks of pioneer architects in the second national movement of Turkey's contemporary architecture, Source: Authors.

Project architect	Project name		The utilized traditions	Project picture
Ernest Egli	Financial justice 1937	Explicit	- Almaslik -Counterfort consoles	
		Implicit	- Establishing the building on two floors with traditional houses proportions which recalls urban view of Istanbul	
	Girls institute of Ankara 1931	Explicit	A row of modular windows	
Bruno Taot	College of language, history and geography, 1939-1937	Explicit	-Almaslik and benefiting from native construction method. -A row of modular windows. -Windows details Taken from traditional houses. -Art deco decorations in internal space	
Sedad Eldem Frist period	College of science and literature, 1922-1944	Explicit	-A row of modular windows. -Wide and continuous Rokhbam. -Heavy materials at the bottom and light materials at the top.	
	Aiasly Yali 1938	Explicit	- Central Sofa -Wide and continuous eave -A row of modular window with wooden grate cover -Combining the idea of Hayat and house -Benefiting from Chikma idea	

<b>Sedad Eldem Second period</b>	Nurses building of Admiral Bristol hospital 1943	Explicit	-Hayat or external Sofa Explicit windows -Heavy material at the bottom and light material at the top -Wide and continuous eave	
	Tasilik coffee house 1947-1948	Explicit	- Central Sofa and higher height in center -Heavy material at the bottom and light material at the top, counterfort consoles, wide and -continuous eave, the use of wooden grate windows, the importance of Hayat as an operational space, the use of decorations with traditional style	
<b>Sedad Eldem Third period</b>	Integrated Social Security Agency 1962-1964	Explicit	- Wide and continuous eave, Designating Hayats and confined spaces as organic, Heavy materials at the bottom and light materials at the top	
		Implicit	Counterfort consoles, The importance of Hayat as an operational space, A row of modular windows, The use of inscription in entrance door-head	
	Ataturk library 1973 -1975	Explicit	Central Sofa and higher height in its center, Wide and continuous eave	
		Implicit	Counterfort consoles, The use of wooden grate windows	
	The house of the ambassador of Netherlands 1973 - 1977	Explicit	Wide and continuous eave, A row of modular windows	
		Implicit	Counterfort consoles, The use of wooden grate windows, The importance of Hayat as an operational space, Central Sofa and higher height in its center	
Embassy of India 1976 - 1980	Explicit	Wide and continuous eave, Central Sofa and higher height in its center		
	Implicit	Counterfort consoles, The use of wooden grate windows, The importance of Hayat as an operational space, A row of modular windows		

## Conclusion

The architects of Turkey's contemporary era sought the reflection of culture, history and identity of Turkey in the architecture of traditional Ottoman houses during the second national architecture movement of seeking identity. With regard to the shiny history of Ottomans in the architecture of religious buildings and palaces, the attention of these architects to traditional houses showed the special attention to civil architecture of Ottoman era instead of shiny religious architecture of the era which was associated with the importance of preserving the individual urban view of Anatolia. According to the performed investigations in this research regarding the way of applying the traditions raised in Ottoman houses in Turkey's contemporary architecture, three approaches can be identified. The following table addresses the grouping of artworks in these approaches and their features. (Table 3). While nostalgic architecture was following to preserve the values of Turkish traditional architecture in contrast to modern architecture, modern-regional architecture followed nationalization of modern architecture process utilizing local motifs in the framework of modern architecture. By transition from first years of second nationalism movement, local architecture or modern Turkish architecture proposes the Turkish style including its special aesthetic and operating principles in form creation and spatial organizing taken from the architecture of

traditional Turkish houses – such as wide eave, counterfort consoles, spatial organizing taken from Sofa structure, executive details of windows in vertical blade and organic skeletal discipline, and admires the coordination of above principles with functionalism and the needs of Turkish contemporary generation and in the history of Turkey’s architecture pays attention to Turkish civil architecture more than religious and governance architecture.

Table3. The approaches expressed in applying the raised traditions in the architecture of traditional Ottoman houses in Turkey's contemporary architecture. Source: Authors.

Approach	Architectural projects	Architecture features
Nostalgic	The second period of Sedad Eldem	-Explicit benefiting from the traditions expressed in the architecture of traditional Ottoman houses. -Benefiting from traditional construction techniques. -Attempt to objectively rebuilding the traditional houses with regard to form traditions (structure and the general form of the building). -Attempt to recreating operating system (plan) of traditional Ottoman houses in new performances.
Modern Reginal	Bruno Taut The first period of Sedad Eldem	-Utilizing local and regional motifs in order to coordinate the architecture with cultural bed. -Adherence to the operating principles of modern architecture. -Explicit utilization of traditions (mainly the traditions related to structure and the general form of building and executive details). -Attention to the architecture of traditional Ottoman houses along with traditional civil architecture (traditional Ottoman houses).
modern Turkish architecture	Ernest Egli	-Special focus on the architecture of traditional Ottoman houses -Utilization from most of the groupings mentioned in the traditions expressed in Ottoman houses as the manifest of Turkish contemporary architecture taken from modern Ottoman architecture -Applying traditions as explicit and implicit (abstract) Special attention to the coordination of project in the bed of local and regional (special emphasis on homogenous urban landscape)
	Second period of Sedad Eldem	-Avoiding from building vastness and coordination with bed

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