BACKGROUND

NAME
Hagia Sophia

LOCATION
Fatih, Istanbul, Turkey

YEAR
357, Period of Justinian (527-565)

ARCHITECT
Isidoro (Milet) and Anthemios (Tralles)

OWNER
After the conquest of Istanbul (1453), Mehmed II established Hagia Sophia as a foundation.

ORIGINAL FUNCTION
Church
Converted into a mosque in 1453, used as the main mosque of Istanbul until 1935.

BACKGROUND
Hagia Sophia, means divine wisdom, built on the area of the previous two churches. The building has rectangular plan scheme, entered from western narthex with a vaulted ceiling to a central nave. Central dome with a span of 31 meters, surrounded by windows at the base, supported by lateral arches, open in the east and west, partly filled with three rows of windows in north and south. The dome is carried by four main pillars with additional columns in north and south where two floor galleries are located. Dome is flanked by two semi-domes in east and west, supported by two additional columns other than the main pillars. Semi-domes are flanked by two smaller semi-domes and barrel vaults. The gallery surrounds the whole building except for the apse. The main materials used in the building are stone, brick and mortar (structure), marble (decoration and structure) and lead (roof covering). The main decoration during Byzantine period was the mosaics that cover most of the space, done over the centuries when the building was a church.

PREVIOUS INTERVENTIONS
The building has many additions and repairs during its life of 1,482 years. Located on an earthquake zone, the dome collapsed 20 years after the inauguration to rebuild again in 538-63 (Okyar, 2010). Overtime the dome and the supports of it partially collapsed several times. To be able to support the structure the four buttresses on the outer narthex (Basilios I Period, 867-886) is followed by additional buttresses in 1317 (Doğan, 2009). During the Latin invasion of Constantinople (1204-1261), the building was damaged, and the decorations carried away (Okyar, 2010). During the last years of the Byzantine Empire, the building became neglected. After the conquest of Istanbul in 1453, Hagia Sophia transformed in to a mosque. Mehmed II created a foundation for the maintenance of the building and built a madrasah (1466). In this period there were some additions to the church that shows the new function such as marble minbar and niches, Muslim inscriptions and two minarets (Nechipoglu, 1992). According to Nechipoglu, starting from the period of Selim II (1566-1574), the first large scale repair of the building started. Done in the period when Architect Sinan was the chief imperial architect, after the architect responsible for the maintenance of the Hagia Sophia (Architect Ahmed) reported the need for extensive repair, Sinan built new buttresses, built new minarets and demolished the buildings around the mosque (1992). Starting from 1576, there were several manuscripts built for the Sultans next to the Hagia Sophia. Other extensive restoration started after 1608, included the replacement of the lead on the domes, new ceramic tile revetments and painted decorations, removal of inscriptions and glass panses, and whitewashing the exterior and interior walls including the existing figurative mosaics that is in the view of the main prayer area (Nechipoglu, 1992). After this intervention the mosaics started to be covered by plaster and by the 18th century only mosaics visible was the Seraphim on the pendentives. In the 18th century some additions are built such as a new library (1738), school (1742), fountain (1742) and Imaret (1743) (Doğan, 2009).

RESTORATION

RESTORATION DATE
1847-1849

REASON FOR RESTORATION
In the 19th century the building was in a bad condition and in a need of extensive restoration.

NEW FUNCTION
No function change during the restoration.

PEOPLE RESPONSIBLE FOR RESTORATION
Gaspare Fossati was the responsible architect.
Sultan Abdulmecid I ordered the restoration.

LAWS RELATED TO RESTORATION PROCESS
There was not any law related to restoration in this period.

ORGANIZATIONS RELATED TO RESTORATION PROCESS
Imperial Foundations Ministry

INSCRIPTION
Not inscribed during restoration process.

CASE STUDY 1 (1)
HAGIA SOPHIA RESTORATION (1847 – 1849)

In the 19th century the building was in a bad condition and in a need of extensive repair, Sinan built new buttresses, built new minarets and demolished the buildings around the mosque (1992). Starting from Selim II (1566-1574), the first large scale repair of the building started. Done in the period when Architect Sinan was the chief imperial architect, after the architect responsible for the maintenance of the Hagia Sophia (Architect Ahmed) reported the need for extensive repair, Sinan built new buttresses, built new minarets and demolished the buildings around the mosque (1992). Starting from 1576, there were several manuscripts built for the Sultans next to the Hagia Sophia. Other extensive restoration started after 1608, included the replacement of the lead on the domes, new ceramic tile revetments and painted decorations, removal of inscriptions and glass panses, and whitewashing the exterior and interior walls including the existing figurative mosaics that is in the view of the main prayer area (Nechipoglu, 1992). After this intervention the mosaics started to be covered by plaster and by the 18th century only mosaics visible was the Seraphim on the pendentives. In the 18th century some additions are built such as a new library (1738), school (1742), fountain (1742) and Imaret (1743) (Doğan, 2009).
INTERVENTIONS

Restoration of the Hagia Sophia, made by Gaspare Fossati, can be explained in six categories: Structural, decorative, exterior, addition, renovation and documentation.

1- Structural Interventions:
- Removal of the heavy buttresses orders to decrease the load on the dome and addition of a ceiling around the base of the dome to counterbalance (Lethaby & Swainson, 2012)
- Filling of the cracks in the dome (Doğan, 2009)
- Straightening of the columns in the galleries that inclined (Hoffmann, 1999) and replacement the original bases of the columns with a new design (Doğan, 2009)

2- Decorative Interventions:
- Reintegration of mosaic marble panels with “stucco lustro” painting technique, where stucco painted to look like marble (Doğan, 2009).
- Liberation of the mosaics from the linewash that covered them (Lethaby & Swainson, 2012)
- Repairing and reintegration of mantles respecting the original (Doğan, 2009)
- Addition of new Sultan’s tribune and removal of the previous (as Fossati mentions in “Byzantine Style” (Lethaby & Swainson, 2012)
- Connection with a new passage from the Sultan’s tribune to the rooms for the Sultan which decorated by an Italian artist with views of Mecca and Medina (Doğan, 2009)

3- Exterior Interventions:
- Repair of the lead roofs (Lethaby & Swainson, 2012)
- Repair of the exterior walls and painting of red horizontal stripes to the façade (Lethaby & Swainson, 2012)
- Southeast minaret leveled with the other three minarets with an additional marble frieze decorated with garlands (Doğan, 2009).

4- Additions:
- Addition of new Sultan’s tribune and removal of the previous (as Fossati mentions in “Byzantine Style” (Lethaby & Swainson, 2012)
- Connection with a new passage from the Sultan’s tribune to the rooms for the Sultan which decorated by an Italian artist with views of Mecca and Medina (Doğan, 2009)

5- Renovation:
- Renewal of the marble cornices, lightening elements (in 19th century Victorian style), carpets, timber railings and timber doors (Doğan, 2009)

6- Documentation:
- Fossati documents all his work including the previous condition of the building with drawings, watercolors and written reports (Hoffmann, 1999)
- He published an album in 1852, which consists of twenty-five lithographs of Hagia Sophia and its surroundings.

CONCLUSION

Being a foundation, after the centralization, Hagia Sophia became under the responsibility of Directorate of Imperial Foundations which means, in the year 1947, the repairs should be done by the Foundations Repair Directorate (1938) and controlled by Directorate of Imperial Buildings. According to Diker, there were several documents where discussion of the repair on Hagia Sophia can be followed. Correspondences between several institutions such as Directorate of Imperial buildings and Council of Judicial Ordinances (Medîni Vakıf) includes discussion about the appointment of Director of the Imperial Buildings or someone qualified for the control of the repairs and necessity of drawing estimation before the repairs which shows the government understands the importance of by who and how the building will be repaired (2015). The selection of the Gaspare Fossati, instead of an Ottoman citizen such as an architect from Balyan family (not - Muslim Ottoman) who are active in architecture in this period has several possibilities. The reason why the Sultan chose Fossati could be; Fossati’s experience on restoration projects, the effect of the restoration by a European architect of a symbolic building such as Hagia Sophia on the westernization policy and Europe’s interest in the restoration of Hagia Sophia. Everthough, Gaspare Fossati studied architecture in Ibero Academia di Belle Arti di Milano, worked in Rome (1827-1833) during the years new restoration principles were discussed and his successful projects in Istanbul, the decision for him to become the architect responsible for the Hagia Sophia is more related to his being a European with a connection to Russian Imperial Family (Hoffmann, 1999). When we consider the political attitude, we see that the choice of restoration architect is consistent with the period.

Fossati’s first approach in the restoration was ensuring the structural integrity of the building. However, his most striking interventions are related to decorations. In the restoration of the Hagia Sophia, Fossati had a different approach than the Arch of Titus and the Colosseum, which were restored just before the time he spent in Rome (1927-1933). He was familiar with the new principles such as the distinction of the new additions in Arch of Titus, conservation all parts of the monument as a document and partial reconstruction of the monument in Colosseum (Zakreita, 1986). Fossati’s did not have consistent approach. The different approaches can be identified as: respecting the original and completion of the same material or similar look such as the fake marble surfaces and the corniches, additions that reflects the contemporary look such as the addition to the minaret and new lighting elements and so called “byzantine” style Sultan’s tribune. If we consider the whole interventions, instead of strengthening Byzantine character of the building, Fossati gave Hagia Sophia more orientalist look with new Islamic decorations and new additions such as Sultan Lodge’s with religious paintings. Commissioning the Sultan Abdülaziz for covering the mosaics after cleaning even though the Sultan’s liberal approach to keep them open (Hoffmann, 1999) shows deliberate choice. Of course, it can be because of the possibility of destruction of the mosaics by soot (Hoffmann, 1999). However, even in his published album (except the plan of the building) did not have the look of architectural and byzantine celebration of the Hagia Sophia as it is in Salzenberg who visited the building during restoration but looks like oriental paintings.

Overall, the restoration was successful and did not change the main architectural characteristics of the buildings.
TILED PAVILION RESTORATION (1873 –1880)

BACKGROUND

NAME
Tiled Pavilion (Çinili Köşk)

LOCATION
Fatih, Istanbul, Turkey

YEAR
1472-73

ARCHITECT
Unknown

OWNER
The ownership transferred from personal treasury of Sultan’s (Hazine-i Hassa) to Ministry of Education (Hatırız Nezaret) in 1873 for the new function (Shaw, 2003).

ORIGINAL FUNCTION

Mainly used as a guesthouse but has different functions in different periods.

BACKGROUND

Tiled pavilion is located inside the fortification walling Topkapı Palace and built in 1472-73. The name of the building comes from the tiles in the facade and interior spaces. It is a masonry building, with a main floor and basement, where you can reach the main floor by the main underneath the 2-story portico in the front. From portico, it opens to the hall (sofa) which is the traditional space where household interacts. The hall is surrounded by the rooms and gets light from the iwans in two sides. Eldem describes the Tiled Pavilion in his book Turkish House Plan Types as “the type of plan with central hall (arts sofalı plan tipi)” which has derived from the traditional architecture of Central Asia and Iran and used the first time in Ottoman in this building.

• The interior which is the first example of a traditional plan scheme cannot be explained by the entrance to the main floor by the main underneath the 2-story portico in the front. From portico, it opens to the hall (sofa) which is the traditional space where household interacts. The hall is surrounded by the rooms and gets light from the iwans in two sides. Eldem describes the Tiled Pavilion in his book Turkish House Plan Types as “the type of plan with central hall (arts sofalı plan tipi)” which has derived from the traditional architecture of Central Asia and Iran and used the first time in Ottoman in this building.

INTERVENTIONS

In 1737 building was damaged in a fire and restored mainly on the exterior without respecting its characteristics (Eyice, 1993).

NEW FUNCTION

Museum

PEOPLE RESPONSIBLE FOR RESTORATION

Ministry of Education (Maarif Nezareti) in 1873 for the new function (Shaw, 2003).

LAWS RELATED TO RESTORATION PROCESS

1874 Antiquities Law

ORGANIZATIONS RELATED TO RESTORATION PROCESS

Ottoman Imperial Museum Ministry of Education.

PREVIOUS INTERVENTIONS

In 1757 building was damaged in a fire and restored mainly on the exterior without respecting its characteristics (Eyice, 1993).

INSCRIPTION

Not inscribed during restoration process.

CONCLUSION

During the period of restoration, 2 organizations has been officially working on the repairs and maintenance of buildings, Imperial Buildings Administration, which was responsible for the Imperial buildings and Ministry of Foundations’ Construction and Repair Directorate, which was just for foundations. Due to the change of ownership before the restoration, Tiled Pavilion did not come under the jurisdiction of them. It was a part of Imperial Museum. Despite the Imperial Museum’s accomplishments regarding cultural heritage, both practices and laws were limited to movable cultural properties and excavations. 1874 Antiquities Law was not adequate for the direction of the restoration.

After superposing the plans of Gurliit (plan after conversion to the museum) and Eldem (shows restitution plan), the changes become obvious. There are many additions and replacements that changes the circulation of the building. The back-facade’s windows are covered except in the middle room. The riches in the main hall were filled (or covered), the entrance to the main hall enlarged, walls looking to the iwans demolished and replaced with columns. To harm the tiles that gives the name to a building, changing the interior which is the first example of a traditional plan scheme cannot be explained by the entrance to the main floor by the main underneath the 2-story portico in the front. From portico, it opens to the hall (sofa) which is the traditional space where household interacts. The hall is surrounded by the rooms and gets light from the iwans in two sides. Eldem describes the Tiled Pavilion in his book Turkish House Plan Types as “the type of plan with central hall (arts sofalı plan tipi)” which has derived from the traditional architecture of Central Asia and Iran and used the first time in Ottoman in this building.
background

name
Colossus or Ashlar Obelisk (örme dikilitas)

location
Hippodrome of Constantinople (today Sultanahmet Square), Fatih, Istanbul, Turkey

Year
Unknown, earlier than 10th century

Architect
Unknown

Owner
Located in a public area, belongs to the State.

original function
Obelisk

background
Colossus is one of the three obelisks located in the Hippodrome of Constantinople from Byzantine period. Built from ashlar stone of different dimensioned sandstone and marble with a three-level marble base it is 33 meters tall. According to the inscription it was covered with bronze plates which is rumored to pillaged during Latin Invasion. The holes where the bronze plates were attached are still visible.

previous interventions
According to the inscription at the base it was restored in 10th century. In the early 19th century, the base of the monument covered with earth due to the organization of the square. In 1856, C. Newton, with the permission from the government, exposed the base and built a fence around the monument (Yazıcı, 2010).

intructions
Not inscribed during restoration process.

restoration

restoration date
1889 – 1895

reason for restoration
According to a correspondence from Ministry of Commerce and Public Works to the Ministry of Education in March 1889, the monument was in bad condition with top third of it is at risk of collapse and heart third of it is dating in the west direction (Ulutürk, 2010; Yazıcı, 2010).

new function
No function change during the restoration.

people responsible for restoration
Osman Hamdi Bey

laws related to restoration process

organizations related to restoration process
Children Imperial Museum, Ministry of Education

institutions involved
Ministry of War (Seraskerlik), Municipality and Ministry of War about the use of the stones for repair. It was decided that the one-third of the monument is in restorable condition; however, some of the rows down below have fallen over years which was the reason for the inclination and advised to build a scaffolding around to reinforce the monument to number each stone, disassemble it and rebuild the missing parts.

interventions
The restoration process explained by Yazıcı from the correspondence between the institutions of that period. In the first correspondence (1889), Ministry of Commerce and Public Works tells the top of the Colossus should be pulled down by the Ministry of Education as it is danger its surroundings. After four years of no intervention, in March 1893 is a letter to Imperial Museum, Municipality depicts the bad condition of the monument, tells that it must be repaired immediately and that it is the duty of the Imperial Museum. This prompted Imperial Museum to commission Alexandre Vallauri, architect and teacher in the School of Fine Arts in Istanbul, for its inspection and assessment of the monument. The result of the examination was reported to the Municipality by a letter from the Ministry of Education, where it was said that the one-third of the monument is in restorable condition; however, some of the rows down below have fallen over years which was the reason for the inclination and advised to build a scaffolding around to reinforce the monument to number each stone, disassemble it and rebuild the missing parts.

conclusion
The restoration of the Colossus gives us many hints about how the restoration process works at the end of 19th century. After the first correspondence (1889), in the following four years there was not any initiative for starting the restoration. However, referring the restoration work to the Ministry of Education shows that the Decree of Imperial Museum (1893) was known and accepted by other institutions of the period where the responsibility for antiquities gives to the Imperial Museum that affiliated to the Ministry of Education. On the other hand, not doing anything to initiate the restoration is curious. It might be related to the lack of adequate staff, economic conditions or giving priority to archeologic excavations and the construction of new museum building.

another thought-provoking thing is the interest of multiple organizations in restoration process. It shows on one hand the State’s understanding of the importance of a monument, on the other hand the lack of engineer/architect in Ministry of Education. While Ministry of Education is responsible, it did not have infrastructure for this task. The long process for the estimation and examination shows lack of coordination between institutions and shows there is not any protocol dedicated to making decisions for restoration of antiquities. During the correspondence the budget estimation seems as the most discussed topic and the several agreements between institutions show there is lack of coordination between institutions and shows there is lack of coordination between institutions.

view of the Hippodrome of Constantinople is 16th century, Colossus on the left (The Penfild Album, 1874).

case study 3 Colossus Restoration (1889 – 1895)

view of the Hippodrome of Constantinople is 16th century, Colossus on the left (The Penfild Album, 1874).

in the early 19th century, the base of the monument covered with earth due to the organization of the square. (Fréres, n.d.)

Colossus in 16th century (The Penfild Album, 1874).


Bad condition of the Colossus before restoration (Fréres, n.d.).

Beginning of restoration, around 1894 (“Örme Sütun”, n.d.).

Colossus during restoration, ca. 1894-95 (“Örme Sütun – amanı”), n.d.}

Colossus during restoration, ca. 1894-95 (“Örme Sütun – amanı”), n.d.

Colossus before C. Newton’s intervention, leaning to one side, around 1853-6 (Robertson, 1853-1880).

Dismantled Colossus during restoration, ca. 1894-95 (“Örme Sütun - Restorasyonu”), n.d.

condition of the Colossus in 1868, before the restoration (Sebök, 1868).

Colossus during restoration, ca. 1894-95 (“Örme Sütun - amanı”), n.d.


Colossus before C. Newton’s intervention, leaning to one side, around 1853-6 (Robertson, 1853-1880).

Dismantled Colossus during restoration, ca. 1894-95 (“Örme Sütun - Restorasyonu”), n.d.

BACKGROUND

NAME
Topkapı Palace Museum

A. Gate of Salutation (Middle Gate, Babüsselam)

B. Imperial Kitchens

LOCATION
Paşabahçe, Istanbul, Turkey

YEAR
The main palace built in 15th century (c. 1460-78). With every Sultan new additions are added until the Sultan moved to the Dolmabahçe Palace in 19th century.

A. Gate of Salutation: It was built in the 15th century.

B. Palace Kitchens: First built in Sultan Mehmed II (r. 1451-81) period and expanded in Sultan Selim I (r. 1512-66) period.

ARCHITECT
Unknown

OWNER
According to low No.431 in 1924, the palaces belong to the nation “which means they were under the jurisdiction of Grand National Assembly of Turkey. However, as a museum, Topkapı Palace was subjected to Istanbul Museums Directorate. In 1939, Ministry of Education separated the Topkapı Palace from the Istanbul Museums Directorate to be the administration of the palace directly to Ministry.

ORIGINAL FUNCTION
Topkapı Palace was the second Ottoman palace built in Istanbul. It was built on the previous Byzantine acropolis, on the edge of historical peninsula called Sarayburnu, looking to Golden Horn and Bosphorus. It consists of two main parts called Outer Palace (Beyazit) and Inner Palace (Edirne) in an area of approx. 700,000 square meters. Most of the area was the Royal Gardens (Hasbahçe) which converted into public park in 1912. Today the Palace is approx. 80,000 square meters with buildings surrounding four courtyards corresponding to different functions and Harem.

A. Gate of Salutation: Gate of Salutation, also known as Middle Door, has two octagonal towers with a passage in the middle. It has two iron doors connected by vaulted passage opens to the name and to a portal in the front. The rooms were used as quarters for Ağa of the Gate and other gate keepers, waiting area for eatimissaries and as a jail for traitors.

B. Palace Kitchens: Palace kitchens are located behind the south-east portico of the second courtyard. They are reached through three portals from the portico to different functioned areas which are called Imperial Pantry, Royal Kitchens and Confectionery House. The main part of the kitchen has 10 domes and 10 spires on the facade of the second courtyard.

PREVIOUS INTERVENTIONS
A. Gate of Salutation: According to inscriptions on the gate, it was repaired 16th and 17th centuries. It was redecorated during 19th century. In 1916, new windows are opened on the facade looking to the second courtyard to solve moisture problem (Çoğun, 2012).

B. Palace Kitchens: Palace Kitchens damaged by fire in 1574 and some part of it was rebuilt during Sultan Abdülhamid II (r. 1876-1909) Period, cost iron ovens were added to the building which pierce pierced the roof (Öz, 1948). The dome windows were closed, some windows were enlarged and new windows were opened (Öz, 1948).

inscription
Not inscribed during restoration process.

RESTORATION
RESTORATION DATE
1939 – 1944

REASON FOR RESTORATION
After the Sultan’s change of main residence, Topkapı Palace became less important and deteriorated from extensive repairs. According to Öz, despite being repaired during World War I, it was in a bad condition when it become museum in 1924. After becoming a museum, due to the lack of funds, there was limited and little repairs to prolong the life of the monument. After given enough funds, more intensive repairs were done during 1940-44.

B. Palace Kitchens: The roofs of the kitchens were covered with weeds and let water inside which caused serious damage to the building.

NEW FUNCTION
Topkapı Palace converted into a museum on 3rd April 1924.

PEOPLE RESPONSIBLE FOR RESTORATION
Takah Oz (Museum Director)

The experts consulted were: Arif Hikmet Holtay, Kemal Altan, Macit Kural, Nihat Nikizberg, Saim Tahsin Öz (Museum Director)

LAWs RELATED TO RESTORATION PROCEss
1915 Regulation for Protection of Topkapı Palace (Topkapı Sarayı’ne ait mahallsel barakalar doari) (N o:1944)

1926 Antiquities Law

1931 Athens Charter (it was not officially recognized)
CASE STUDY 4 (2)
TOPKAPI PALACE RESTORATION (1939 – 1944)

INTERVENTIONS

A. Sets of Solutions:
The interventions were:

- changing the cone shaped dome to what perceived as the original form which is without eaves,
- removal of the plaster and decorations from the facade to show original stone, repair of the masonry between the stones,
- removal of the paintings from the iron doors, which shows earlier decorations and replacing them with stone covering the decoration that is found,
- removal of the timber Rococo style roof from the space between two doors to show vaulted ceiling,
- structural repair of the roof and eaves on the facade looking to the second courtyard, (during the repair of the roof, decorations from earlier period was found),
- removal of the paintings from later period (landscape paintings) and baroque decorations,
- reintroduction of the decorations found out after removing the previous additions such as the circular religious decorations near the inscription plates (Öz, 1948; Coskun, 2012),

- its roof and windows were repaired.
- Apart from this, additions built in later period in front of the

8. Palace Kitchens:
The interventions for the main kitchen areas were:

- cleansing of the domes and spires of the kitchen from the veeds,
- repair of the domes and covering with lead,
- repair of the chimneys as their last form (the Director of the Museum, Tahsin Öz, said that there was an opportunity to repair them like intact chimneys, however, since they did not do enough research and survey they repaired it as is),
- changing the flooring of the lower kitchens with tilestone and confectionary house with mosaic,
- cleaning of the plaster from the inside of the domes and repairing them with klitosrous mortar (Tahsin Öz mentions that originally the domes were covered with plaster but the restorer architect insisted that they will not covered with plaster),

The interventions for the Confectionary Mosque, which was damaged in a fire, were:

- removal of the rubble stone sets in the corner of the walls that built in later periods (Öz, 1948; Altınbıçak, 2012),

- new opening between Confectiory Mosque and Sublime to create connection and have three domed uninterrupted building (Öz, 1948; Altınbıçak, 2012).

Apart from this, additions built in later period in front of the Topkapi was demolished, its roof and windows were repaired.

CONCLUSION

One of the first things the new government done after proclamation of Turkish Republic was the give new functions to the Imperial Buildings. As one of the oldest monumental building of the Ottoman Empire, Topkapı Palace converted into a museum in 1924. From the beginning of the 20th century, during Ottoman Empire Period, there was an idea of transforming the Topkapı Palace to a museum. This shown from the 1915 Regulation for Protection of Topkapı Palace where some parameters were imposed for the preservation of the complex. After the conversion to a museum, due to the lack of funding and previous poor condition of the complex, it was not possible for Topkapı Palace to function genuinely as a museum. The restorations done during the Directorate of Tahsin Öz (from 1928 to 1953) might be thought as the first intervention of the complex with the idea of giving it a new function. Öz published an article about the repairs done from 1929 to 1944 in different parts of the Topkapı Palace. For the case study: The Gate of Salutation and the Imperial Kitchens are chosen to describe the approach of the period.

Tahsin Öz was one of the influential people about the cultural preservation during his career. He did not come from a background related to masonry but studied law (he did not finish) and worked as an accountant in the Topkapı Palace (Coskun, 2018). However, his publications show his interest in heritage and knowledge of the practices of the period. Öz emphasizes in his article that when the monuments in the World was being demolished, Topkapı Palace was repaired to shine as an important part of our architecture. His restorations criticized during and after the restoration. Coskun explains Öz approach as stylistic restoration where he preferred to remove the additions from later periods (2018). There are some similarities to Villaret de Dau’s elemtary style, where de Dau examines a building to determine the order it belongs to and with intensive restoration and by removing the layers of addition, he brings the monument back to its ‘original style’.

Öz explains that the restoration in Topkapı Palace was the first major restoration in Turkey in that scale. He says that it is better to prepare necessary surveys and restoration plans for the intervention, however, there was enough experts and technical personnel, and also the conditions of the buildings are really bad for long period (1948). However, while he did not prepare necessary documents, his comments in his article shows that he made historical research before the restoration process.

While his first idea was to make the style as the original style, in the kitchens he mentions that he was able to change the domes of the Imperial Kitchens, they should do survey and research, which can be done in a later period (1948). Also, he consults the experts of that period related to restoration to make decisions. This shows in his statement in the kitchens where he explains the decision not to plaster the domes in interior as the restorer architect’s idea. This shows that even he did not agree to an intervention, he is listening to the opinions of the architects.

Öz believes that waiting for funds to repair all the building might lead to the destruction of the building. He suggested that repairing building enough to protect it from environmental conditions (with repair of the roof and windows) will help it to prolong its life and provide enough time for more intensive restoration (1948). This shown in the restoration of the Imperial Kitchens where the roof was the first to repaired.

Öz also has the awareness for importance of documenting the interventions. He mentions in an article that writing about the restoration is important for the history of the monument and can be used as a source for later restorations (1948).

On’s preference for removing the later additions is clearer in Gate of Salutation. His removal of the late period decorations on the façade looking to the Second Courtyard without leaving any evidence if it does not match with the idea of respecting the all period of building as an historical evidence.

While Öz’s approach has ideas like de Dau, his justifications are coherent and not without a proof. In that sense his approach to restoration has also similarities to Bellarodi’s historical restoration where restoration is based on historical evidence. Also, Öz’s different approach in Imperial Kitchens and Gate of Salutation shows that his interventions depended on the case, but Bellarodi idea of case by case.
**BACKGROUND**

**NAME**
Tiled Pavilion

**LOCATION**
Fatih, Istanbul, Turkey

**YEAR**
1472-73

**ARCHITECT**
Unknown

**OWNER**
It is owned by State. In 1939, Tiled Pavilion’s management was transferred to the Topkapı Palace Museum.

**ORIGINAL FUNCTION**
Originally used as a guesthouse but has different functions in different periods. It was transformed into a museum in 19th century.

**BACKGROUND**
Refer to ‘Case Study 2’.

**PREVIOUS INTERVENTIONS**
Refer to ‘Case Study 2’.

After the construction of the Istanbul Archeology Museum, the collection moved to the new building and Tiled Pavilion used for exhibiting Turkish - Islamic works.

**INSCRIPTION**
Not inscribed during restoration process.

**RESTORATION**

**RESTORATION DATE**
1942 – 1953

**REASON FOR RESTORATION**
Tiled Pavilion was decided, by Ministry of Education, to arranged as ‘Fatih (Conqueror) Pavilion’ due to the 500th anniversary of conquest of Istanbul by Mehmet II the Conqueror and exhibit objects from that period.

**NEW FUNCTION**
No function change during the restoration.

**PEOPLE RESPONSIBLE FOR RESTORATION**
Tahsin Öz (Museum Director)

**LAWS RELATED TO RESTORATION PROCESS**
- Conservation of Monuments Law (1912)
- 1906 Antiquities Law
- 1926 Antiquities Law
- 1931 Athens Charter (it was not officially recognized)

**ORGANIZATIONS RELATED TO RESTORATION PROCESS**
- Topkapı Palace Museum Directorate
- Ministry of Education

**INTERVENTIONS**
The main approach to restoration was not to repair it indiscriminately and for shortterm, but remove the recent addition and give back the building its original characteristics (Orgun, 1941/42). The restoration took place in two stages.

In first stage (1942), the main idea was to remove the obvious changes done during transformation to the museum and to determine the original characteristics of the Tiled Pavilion.

The first stage of restoration included:
- removal of the staircase that built during conversion to museum in 19th century,
- opening of the original staircases which were filled with rubble and used as coal cellar,
- liberation of the ground floor portico’s marble pillars which were underground (caused water damage in the basement) and opening of the windows in the side facades,
- removal of the niches which were added to the original tile decorations,
- shifting of the existing flooring to determine the original material which was determined as hexagonal brick (Orgun, 1941/42, Öz, 1948).

Apart from the restoration interventions, during the restoration in 1942, traces of tiles found in dome (Ugraş, 2010).

Second stage of restoration done from 1948 to 1951 and started with the survey, detailed investigation and research of the building. The restoration included:
- opening of the furnace, which were closed and transformed into niches and covered in the upper part with false tiles, and rebuilding them as it was originally,
- opening of original doors,
- determining the location of the chimneys connecting the furnace and rebuilding them,
- rebuilding the walls which opened to the iwans in two sides, which was replaced by two pillars in previous restorations,
- repair of the roof, rewinding of the dome, and changing the dome windows to their original forms,
- -removal of the rolling surrounding the roof,
- -determining the plaster from the side facades to expose the original bricks,
- -repairing the window guards with new design

(İÇ. Kültür ve Turizm Bakanlığı ..., 2018; Ugraş, 2010).

**CONCLUSION**

After Tiled Pavilion became part of the Topkapı Palace Museum, the restoration was done with similar principles. The restoration in Tiled Pavilion is more similar to Viollet le Duc’s stylistic restoration. However, restoration approach is more related to the Turkish Nationalism and the period’s interest in Turkish Cultural Heritage. Tiled Pavilion was a part of the Turkish History in Istanbul being one of the first buildings built after the conquest. So, restoring it to the original style, before the transformation to the museum, is in a way giving the building its national origin. The new function of the museum shows the approach more clearly.

However, some of the decisions do not match with the photos before the transformation to the museum. The addition of the chimneys and removal of the railing around the roof is not based on an evidence. Since the laws of the period was inadequate, the decisions are based on the authorized people’s restoration approach. However, there are some positive aspects such as detailed investigations and surveys before the restoration.
BACKGROUND

NAME
Galata Tower

LOCATION
Beşiktaş, Istanbul, Turkey

YEAR
For the first Galata Tower estimated built date is 6th century. The Tower today is built in 14th century.

ARCHITECT
Unknown

OWNER
The Municipality of Istanbul

ORIGINAL FUNCTION
It is thought to be built as a lighthouse. It was used in different function one of which was as a fire tower.

BACKGROUND
Galata Tower is located on a hill overlooking the Bosphorus and Golden Horn. It was a part of the city wall system built by Genoese. Built with rubble stone with outer diameter of 16 m 45cm, it does not have external decoration, just some windows and three brick bands located at the level of 1.3m, 2.3m and 6th floor (Eyice, 1965). Until fifth floor there are only small windows that allow light to the staircase. In the fifth floor there are seven big windows with seven cannon gangways between them. In the sixth floor there are fourteen windows with pointed arches in typical Turkish style (Eyice, 1969). The seventh floor today has fourteen large windows built in 1832 (Eyice, 1969). In 18th century the seventh floor has projecting gallery with seven windows and four projected balconies. After the seventh floor the Tower ends with a wide cornice. The eighth floor has fourteen windows and a narrow balcony surrounding it. The roof shape changed in different periods. Today’s shape is based on the restoration from 1832 during the reign of Mahmut II.

PREVIOUS INTERVENTIONS
Eyice mentions that the style of the second brick band on the third floor, change in the thickness of the tower and style of the staircase shows that it was damaged in the 1509 and rebuilt partially (1969). This can also be seen from the window styles in upper floors. During the reign of Selim II (1566 - 1574) it was damaged during fires and repaired extensively (Anadol, 1964). During a fire in 1794, the timber roof, two rooms and staircase burned to be rebuilt. It was burned again 1832 and rebuilt in a new style during Mahmut II Period (r. 1808 - 1839). The cone shaped roof built in this restoration drifted away due to the strong winds in 1875 and new wood floors were built that stayed until the restoration in 1964.

INSCRIPTION
It was registered with the decision No. 1923 of 30.0.1962 and with the decision No. 2464 of 26.07.1964.

RESTORATION

RESTORATION DATE
1964 – 1968

REASON FOR RESTORATION
There were some cracks on the roof structure. Also, the Municipality decided to arrange the surroundings of the Tower from the touristic point of view in accordance with the development program (Anadol, 1964).

NEW FUNCTION
The project named as Galata Tower Touristic Arrangement Project. It has different functions: entrance, oriental cafe, shops, offices, Genoese pub, kitchen, foyer, restaurant, nightclub.

PEOPLE RESPONSIBLE FOR RESTORATION
M. Arch Kibat Anadolu (Survey and Project), M. Civil Eng. Ermin Argalo (Structural Project), M. Mechanical Eng. Zähle Kemkel (Mechanical Project), M. Electrical Engineer lso Iliu (Electrical Project), YAPİAŞ Construction Company (Contractor).

LAWS RELATED TO RESTORATION PROCESS
1905 Antiquities Law
Conservation of Monuments Law (1913)
1931 Athens Charter (it was not officially recognized)
1954 Hague Convention
1964 Venice Charter

ORGANIZATIONS RELATED TO RESTORATION PROCESS

Municipality of Istanbul
High Council of Real Estate Antiquities and Monuments

INTERVENTIONS
Galata Tower Touristic Arrangement Project started with Municipality’s appeal to the High Council of Real Estate Antiquities and Monuments in 21.09.1962 (1886/1684 Soyuk Basar), From 1962 to 1965 the project for Galata Tower was discussed in High Council of Real Estate Antiquities and Monuments. Before the restoration all preliminary projects, survey and restoration projects were prepared. During the High Council of Real Estate Antiquities and Monuments’ meeting(123 – 24.07.1964), the following decisions have been made by taking the opinion of the experts:
1. The silhouette and outer character of the Tower are not to be changed,
2. Structure of the building should not be damaged, there should be as few changes as possible and only minor changes in the internal volume,
3. If possible, only the upper two floors should be used as public private facilities,
4. Service parts such as kitchen should be minimum size,
5. The return of old character and the richness of Cihannüma room,
6. The elevator should end below the Cihannüma floor and after that use of a spiral staircase located on the side to connect upper floors,
7. Use of best and modern window frame type and using large glasses,
8. Preservation of historical parts and Imperial character,
9. Considering the exit safety, keeping in mind the single door,
The intervention explained by the Project Architect Kêkûlî Arasal on an article in the architecture magazine Edekişet.

The interventions are:
- proposal for new parking area near the site for public buses to bring people to the site,
- addition of a new iron railing in simple style with marble footing to the front of the tower,
- the entrance door’s 10 cm horizontal bands, which has become very deformed, is will be replaced wedge door window,
- new roof foundation,
- addition of new floors and the dome with reinforced concrete,
- addition of a new heating system (It was decided to be hidden),
- addition of two elevators until 6th floor,
- use of the original staircase until 4th floor which will connect with a timber staircase,
- replacement of the windows with new modern aluminum framed ones,
- addition of services such as new elevator to the -3.80 level (they did a drilling first to determine there is no flooring there),
- exposing the reinforced concrete in the entrance floor,
- replacement of the flooring of mezzanine floor in +4.45 level with reinforced concrete respecting the original proportions of the floor,
- arrangement of +24.75 level (fifteenth floor) as a kitchen,
- arrangement of +28.10 level (sixth floor) as a foyer, addition of new natural stone and ceramic tile flooring, gypsum board suspending ceiling and tile wall decoration,
- arrangement of + 32.85 level (seventeenth floor, Called Çıhan maté) as restaurant with respecting its imperial character,
- arrangement of the + 40.04 level (eight floor) as night club with an exit to the panoramic terrace,
- removal of the other levels to replace them with a cone shaped roof as it was in Mehmed II period (Anadol, 1965).

CONCLUSION

Turkey has demonstrated progress in institutionalization in preservation of cultural heritage after establishment of High Council of Real Estate Antiques and Monuments in 1951. In the restoration process of Galata Tower High Council’s role is evident. At the same time not starting a restoration before necessary documents are prepared is a progression compared to the previous period restorations. In this period Turkey started to have necessary experts related to preservation.

After the establishment of Turkish Republic, the ownership of the city walls was given to the municipalities. Galata Tower’s project was prepared with the direction of Istanbul Municipality. The selection of the new function has several possibilities. The first one is the economic reasons. Even though there was a big expense for the restoration of Galata Tower, after the restoration Municipality leased the monument to the private business. With addition to the entrance cost to the panoramic terrace, Galata Tower became an income source for Municipality. Second thing can be understood from the name of the project Galata Tower Touristic Arrangement Project. It shows that Turkey started to use cultural heritage as a tool for tourism. It is an evidence for start of cultural tourism in Turkey.

One of the important things about this restoration is that it shows the monuments began to be considered together with the environment. The architect responsible for the restoration considers also the surrounding area to make a proposal for the design.

Another aspect of this restoration is the bold choice in new function. The new function is a very progressive project for its period. Giving the Tower a new function can lead to its longevity because the abandoned monuments do not get periodical maintenance. However, the suitability of the new functions are open to question. They led to some changes in the interior of the Galata Tower. While it was used as a coffee-house in Ottoman Period and can be still used in similar function, adding a restaurant which needs a kitchen (even a small kitchen) is not very plausible. For the silhouette of the Tower, the High Council’s idea was to not have any change. However, a new roof was proposed which has the form from Mehmed II period. Choosing this period might be related to aesthetical reasons.

Other important thing about this restoration is selection of material. Using Reinforced Concrete in a building more than 600 years old is such a huge amount is not very acceptable today. It is more related to the Athens Charter where it was said that “Modern techniques and materials may be used in restoration work”. The use of reinforced concrete, modern aluminum windows shows that modern materials are commonly accepted as part of restoration process in Turkey.

In this period there is not any new national preservation laws, just the ones inherited from the Ottoman Empire. However, the Venice Charter has been signed by the Turkey in 1953. Considering all restoration works, the intervention is compatible with Venice Charter. In Article 5 “The conservation of monuments is always facilitated by making use of them for some socially useful purpose. Such use is therefore desirable but it must not change the lay-out or decoration of the building. It is within these limits only that modifications demanded by a change of function should be envisaged and may be permitted.” This shows that it is encouraged for monuments to have socially useful functions such as in Galata Tower. In Article 10 “Where traditional technique prove inadequate, the conservation of a monument can be achieved by the use of any modern technique for conservation and construction, the efficacy of which has been shown by scientific study and prove by experience.” Article 10 can be the justification of use of reinforced concrete in the monument. In Article 11 “The valid contributions of all periods to the building of a monument must be respected, since unity of style is not the aim of a restoration. When a building includes the superimposed work of different periods, the revealing of the underlying state can only be justified in exceptional circumstances and when what is removed is of little interest and the material which is brought to light is of great historical, archaeological or aesthetic value, and its state of preservation good enough to justify the action. Evaluation of the importance of the elements involved and the decision as to what may be destroyed must rest solely on the individual in charge of the work.” With the Article 11, choosing the reorganization of cone shaped roof can be justified. Since later periods wooden additions do not have historical or aesthetic value choosing to reimage the monument with an element from 19th century is possible.
TOPKAPI PALACE RESTORATION (2009 – 2014)

BACKGROUND
NAME
Topkapı Palace Imperial Kitchen

LOCATION
Fatih, İstanbul, Turkey

YEAR
First built in Sultan Mehmed II (r. 1451-81) period and expanded in Sultan Suleiman I (r. 1520-66) period.

ARCHITECT
Unknown

OWNER
It is under the administration of Ministry of Culture and Tourism, Directorate General of Cultural Heritage and Museums, Directorate of Topkapı Palace Museum.

ORIGINAL FUNCTION
Palace Kitchens used to prepare food for royal family, palace workers and the visitors.

BACKGROUND
Refer to ‘Case Study 4’.

PREVIOUS INTERVENTIONS
Refer to ‘Case Study 4’. In 1970, repairs and consolidation work was carried out on the deformed walls looking to the Marmara Sea (Çolakoğlu, 2012). In 1996, the existing cement based plaster on the kitchen chimneys was cleaned from the surface and replaced with Khorasan plaster (Çolakoğlu, 2012). (Some parts of the kitchen system is reconstructed, however, this case study focused on the inns kitchen part and Confectionary House.)

INSCRIPTION
Located on the area inscribed as World Heritage Site, Historic Areas of İstanbul in 1985.

RESTORATION
RESTORATION DATE
2009-2014

REASON FOR RESTORATION
The main aim was to protect the elements that reflect the original architectural features of the structure and to remove the traces of wrong interventions done previously (Altınbıçak, 2012).

NEW FUNCTION
It keeps its function as a museum.

PEOPLE RESPONSIBLE FOR RESTORATION
For the restoration project:
Teget Mimarlık (Design Studio)
Erkş Ugur, Mehmet Kılıçbaşoğlu, Seren Akçay, Tubanlık Altuntaş, Onur Akın, Irem Göçü
Hatice Çagıran (Design Team)
Kronos Mühendislik & Aydınlatma (Lighting Project)
Arko Mühendislik İmpar (Mechanical Project)
Arko Mühendislik İmpar (Electrical Project).

LAWS RELATED TO RESTORATION PROCESS
1972 Convention Concerning the Protection of the World Cultural and Natural Heritage
1985 Protection of Cultural and Natural Property Law No.2863

ORGANIZATIONS RELATED TO RESTORATION PROCESS
Istanbul 2010 European Capital of Culture Agency
Ministry of Culture and Tourism
Directorate of Topkapı Palace Museum
Istanbul Directorate of Surveying and Monuments

INTERVENTIONS
The interventions were done in two phases. The first phase of the of the intervention was the restoration of the building from 2009 to 2011. The second phase of the of the intervention was the restoration of the building between 2010 and 2014. From 2010 to 2012, new permanent exhibition called ‘Kitchen Culture Exhibition’ was designed. From 2012 to 2014 the new design of the space was executed.

The restoration phases:

In the roof:
- renewed lead cladding
- mechanical cleaning
- repaired cracks

Interventions in the roof of the Imperial Kitchens (Altınbıçak, 2012).

In the northwest facade of the Imperial Kitchens (Altınbıçak, 2012).

Joint filling with Khorasan
Chemical cleaning
Repair of the big crack (Altınbıçak, 2012).

Joint filling with Khorasan (Altınbıçak, 2012).

In the southeast facade of the Imperial Kitchens (Altınbıçak, 2012).

Mechanical and chemical cleaning
Joint filling with Khorasan

Interventions in the interior of the Imperial Kitchens (Altınbıçak, 2012).

Chemical cleaning of the stones in the interior
Treatment of the surfaces after chemical cleaning.


Removal of the cement mortar from the northwest facade (Altınbıçak, 2012).

Removal of the cement mortar from the southeast facade (Altınbıçak, 2012).

Removal of the cement mortar from the northeast facade (Altınbıçak, 2012).

Repairs on the surface with water based solution of Khorasan Mortar in northwest facade (Altınbıçak, 2012).


Joint filling with Khorasan (Altınbıçak, 2012).

Mechanical cleaning
Chemical cleaning
Repaid cracks

Interventions in the roof of the Imperial Kitchens (Altınbıçak, 2012).

In the interior:
- cement based mortars are cleaned,
- detached cracks were repaired with injection,
- chemical and mechanical cleaning of the stones,
- stones with less than 3cm loss of material were reintegrated,
- stones with more than 3cm loss of material were replaced,
- new joint fillings consisting of a mixture of stone dust and lime was used,
- the tiles on a wall were numbered and dismantled, cleaned, re-assembled and grouted, partially lost patterns integrated and covered with transparent protective liner (Altınbıçak, 2012).

In the exterior:
- chemical and mechanical cleaning,
- removal of the cement based mortars,
- repair of the stone like interior,
- plastering with Khorasan mortar,
- renewal of the window frames was done (Altınbıçak, 2012).

The renovation phases
The main idea of the project was to preserve the building with minimum intervention and express the building as an exhibition element (Uçar, 2015). The design is based on a platform separated from the building, not touching the walls and elevated from the floor. The architects created a grid system considering the elements of the building such as domes (Uçar, 2013). From this grid, bases for the exhibition elements rises to end up with transparent display cases. The additions are attached to the platform such as panel, installation poles, lighting elements. Only Confectionary House do not have platforms. In this location, showing the original historical situation was priority. In there the original flooring was preserved. In the use of material contrast between old and new is obvious. For the flooring and the bases aluminum honeycomb floor panel and high strength laminate sheet on reinforced aluminum3 core was used (Uçar, 2015).

CONCLUSION
For the restoration project, the general approach was to remove the harmful additions from the building that were result of previous restorations. In addition to this cleaning and consolidation works were done. Companies who will restore the building was determined by a tender.

During the restoration traditional materials and construction techniques have such as plastering and grouting. According to Altınbıçak, although the correct material was used in the interventions, due to the application errors in some parts, the dehumidification and vegetation problems in the structure was solved and continued after the application. She explains that this is due to incorrect follow-up of the application steps during restoration. She also mentions that due to the limited duration of work specified in the technical specifications of the applications, the data determined in the researches on the floor and walls during the application and the data to be the source of the restitution could not be examined adequately. Therefore, the restoration application has not reached its purpose in terms of examining the data that was searched. In the results of the researches, it is known that the restoration projects made by the companies who were not sufficient due to the time limit for the restoration do not include a period for research to improve the restoration or later interventions.

Since 1983 Protection of Cultural and Natural Property Law No.2863, the principles of the preservation were determined in Turkey. As it can be seen from the case study the principles and methods are modern, scientific and in accordance to international standards. In the 21st century there is enough universities in Turkey to educate necessary expert in areas related to preservation. However, as it can be seen from the application, in the restoration process was not executed just by experts. Workers without necessary traineeship can be part of the restoration process which led to errors during practice.

Also, while tenders are necessary for distributing the work, it does not always have good results. The quality of work can be changed from different companies and the time limit can lead to negative results.

The renovation projects became as important as the restoration process. In the case of Topkapı Palace Imperial Kitchens the restoration and renovation projects done by different firms which caused for design team to not have any input to the restoration work. According to Uçar, no information was given to the design team about the collection which is exhibited. While they preferred to design a museum, which shows the traditional food and kitchen culture of the Ottoman Empire, as the building was originally kitchens of the palace, the authorities did not prefer that approach. That is why their design is made of boxes that can be the element for exhibiting anything (2015). This also has effect of incompatibility with the name of the exhibition. Showing the building as an exhibition object is a positive contribution and the design choices such as the platform where every addition is attached gives this perception. If we consider it, the Kitchen Culture Exhibition’s biggest element is the building itself.

Diagram showing the concept and interventions in Topkapı Palace Imperial Kitchens Restoration (Adopted from Sudog, 2013).

In the interior:
1. Topkapı Palace Imperial Kitchen Restoration Project drawings (Archdaily, 2018; Tamirhane Architects, n.d.)
2. Topkapı Palace Imperial Kitchen Restoration Project drawings (Archdaily, 2018; Tamirhane Architects, n.d.)
3. Topkapı Palace Imperial Kitchen Restoration Project drawings (Archdaily, 2018; Tamirhane Architects, n.d.)
4. Topkapı Palace Imperial Kitchen Restoration Project drawings (Archdaily, 2018; Tamirhane Architects, n.d.)
5. Topkapı Palace Imperial Kitchen Restoration Project drawings (Archdaily, 2018; Tamirhane Architects, n.d.)
6. Topkapı Palace Imperial Kitchen Restoration Project drawings (Archdaily, 2018; Tamirhane Architects, n.d.)
7. Topkapı Palace Imperial Kitchen Restoration Project drawings (Archdaily, 2018; Tamirhane Architects, n.d.)