CONSERVATION PROPOSAL OF AN EARLY REPUBLIC PERIOD BUILDING: ATATÜRK ORMAN ÇİFTLİĞİ HAMAMI

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ABSTRACT

CONSERVATION PROPOSAL OF AN EARLY REPUBLIC PERIOD BUILDING: ATATÜRK ORMAN ÇİFTLİĞİ HAMAMI

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Today, the loss of many qualified twentieth century buildings and the scarcity of studies for conservation of these buildings indicates the need for researches on this topic. In that respect the subject of the thesis study is to prepare a conservation proposal for the case Atatürk Orman Çiftliği Hamamı, which was designed by an important architect of the Republic period buildings architect Ernst Egli in 1937s a part of a complex with Beer Factory and its mass housing. The building couldn't keep up within the transformation of the site and lost its function. Today the building is away from attention and under danger of destruction due to several material and structural problems.

As a milestone project of modernization of a nation, Atatürk Orman Çiftliği's important role on the community, with its recreation areas and industrialization of agriculture has also been evaluated in the study and the building is studied as a whole with its close environment. In that respect a new function is proposed that will help the transformation of site in a positive manner together with considering the

problems and the values of the building. By this way the building existing situation is documented, the values and problems are revealed out by systematic methods; and with proposed new function a conservation project that fore seen to reveal the importance of the building, preserve it by using and pass inheritence to next generations.

Keywords: AOÇ Hamam, Hamam, AOÇ, Republic Period Buildings, Ernst Egli, Conservation, Ankara

ÖZ

BİR ERKEN CUMHURİYET DÖNEMİ YAPISININ KORUMA ÖNERİSİ:
ATATÜRK ORMAN ÇİFTLİĞİ HAMAMI

Kul, Büşra

Yüksek Lisans, Restorasyon Bölümü

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Bugün, birçok nitelikli 20. Yüzyıl yapılarının yok olması ve bu yapılar üzerinde yapılan çalışmaların sayıca azlığı, bu konuda yapılacak araştırmaların gerekliliğini ortaya koymaktadır. Tez çalışmasının konusu, Atatürk Orman Çiftliği Hamamı için koruma projesinin hazırlanmasıdır. Yapı cumhuriyet dönemi yapılarının önemli mimarlarından Ernst Egli tarafından 1937 yılında tasarlanmış; bira fabrikası, AOÇ çalışan lojmanları ve yönetim binalarının oluşturduğu kompleks içerisinde inşa edilmiştir. Yapı bugün kentsel dönüşüme ayak uyduramayarak işlevini kaybetmiş olup, çeşitli malzeme bozulmaları ve strüktürel sorunlarla nedeniyle yok olma tehlikesiyle karşı karşıyadır.

Koruma projesi kapsamında yapısal değer, sorun ve potansiyellerin yanı sıra; bir ulusun modernleşme projesinde önemli kilometre taşlarından olan Atatürk Orman Çiftliğinin toplum üzerindeki rolü üzerinde durularak, bina yakın çevresiyle birlikte ele alınmıştır. Bu kapsamda alanın kentsel dönüşümüne katkı sağlayacak bir işlevle birlikte yapının değerleri ve tespit edilen sorunları çerçevesinde koruma projesi önerilmiştir. Böylece AOÇ gibi kent belleğinde önemli yeri olan bir alan üzerindeki metruk kalan bu yapının belgelendirilmesi, sorun ve değerlerinin sistematik ve metotlarla ortaya çıkartılması sağlanmış, önerilen yeni işlev ve koruma yaklaşımıyla

zaman içerisinde önemi göz ardı edilen yapının uygun görülen işlevle yeniden kullanılması ve değerlerinin korunarak gelecek nesillerine aktarılmasını öngören bir koruma önerisi geliştirilmiştir.

Anahtar Kelimeler: Atatürk Orman Çiftliği Hamamı, Hamam, Atatürk Orman Çiftliği, AOÇ, Cumhuriyet Dönemi Yapıları, Ernst Egli, Koruma, Ankara

To My Family

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TABLE OF CONTENTS

LIST OF TABLES

TABLES

LIST OF FIGURES

FIGURES

LIST OF SYMBOLS AND ABBREVIATIONS

AOÇ : Atatürk Orman Çiftliği

TTA : Tütün, Tütün Mamulleri Tuz ve Alkol İşletmeleri A.Ş.

CHAPTER 1

INTRODUCTION

Today conservation of twentieth century architecture faces difficulties due to related laws and the lack of awareness in the community. The loss of many qualified twentieth century building and the scarcity of studies for conservation of these buildings indicates the need for researches on this topic.

For these period buildings that are at the threshold of the new building technologies and different design approaches, special conservation policies should be developed considering the different value and problem hierarchy. Considerable studies are done for protecting the modern movement buildings by committees like DOCOMOMO . Another important thing is the legislations towards protecting these buildings. The number code 2863 law in force in Turkey defines the buildings to be conserved in the article6 part. The immovables constructed till the end of the 19th century are seem as the presence of culture to be conserved . Some additional definitions are brought such as the ones that are deemed to be protected for their specific features, or the buildings that have been witnessed great historical events in the establishment of Turkish Republic; to conserve buildings that are constructed after that period. Beside all the legislation and various organizations, it shouldn't be forget that the success towards conserving these buildings can be achieved by increasing the consciousness level of the public toward this subject. In that respect the way the buildings either protected with their original function or re-adaptive usage gains important towards sustaining an integration of these buildings into daily life.

For the situation in Turkey, the buildings constructed in early 20 th century comprise of a historic period of the collapse of Ottoman Empire and the establishment of the Republic. As it is known, the revolutionary steps of the republic mostly reflected itself in production of modern cities with new public buildings and dissemination of industrial buildings. Within the building stock constructed in that period it is possible to find out buildings that has symbolic meaning that correspond with the revolutions wanted to be achieved with the republic and the life tried to be created. For these period buildings, the different design approaches and trials of new building technologies can be seen together. Nevertheless, it is regrettable that most of these buildings are under danger of destruction due to disinterest and not being used. Many of the republic period buildings that cant't take step with the transformation of cities today face the similar problems. The approaches towards conserving these buildings should focus on to reveal out the architectural values and other social values that take place in the public consciousness should be revealed out.

In that framework of aforementioned situation for the 20th century inheritance, Atatürk Orman Çiftliği (AOÇ) becomes an important case for Ankara and Turkey considering the importance and the problems of the site. As a project of modernization of a nation, AOÇ has an important role on the community, with its recreation areas and industrialization of agriculture. In public memory AOÇ stands out with its green areas and natural values. Besides all the natural values, on the site there are many Republic Period buildings such as Gazi Station, factory buildings, institutions, embassy building and Hamam building. Today these buildings, which are important for AOÇ's identity and republic period architecture, are far away from attention, abandoned to their destiny and under danger of destruction in the urban transformation of the city. In the scope of the master study this problem will be investigated over the case "Atatürk Orman Çiftliği Hamamı" , which was designed by Ernst Egli in 1937 as a part of a complex of Beer Factory and its mass housing. For the thesis study it is aimed to prepare the conservation project of the Hamam.

The Hamam building take place in the boundaries of the mass housing of AOÇ. Around the hamam building there are restaurants, beer factory, station building, embassy building, AOÇ administrative building and houses. The registered Hamam building was designed by Ernst Egli and constructed between years 1937

and 1939. When compared with other buildings of the Ernst Egli, the building differentiate from others with the function and its architectural solutions.In that respect the building also gains importance not just being designed by one of the important architect of the republic era but also being a different designed project of this architect. The building today is empty and in a bad condition. General problem of the Hamam is similar with the other buildings' problem in AOÇ site. The building had lost its function and in danger of destruction due to the deterioration, losses and serious structural problems.

In republic period there are few newly constructed Hamam building and "Atatürk Orman Çiftliği Hamamı" is one of them. As a twentieth century building, different water, heating and illumination systems were used. The construction technique, building technology, design approaches, plan organization and facade character differentiate the building from other traditional hamams. The building can be seem unique in several aspects. The building conserves its unity in spite of the losses and deteriorations. There are traces and remains that give information about the original feature of the Hamam. In that respect "Atatürk Orman Çiftliği Hamamı", building becomes an important case to study for developing a conservation proposal that aim to protect building with its values, reveal out its importance within the site and ensure its reusability.

1.1 AIM and SCOPE OF THE STUDY

In the scope of this thesis work "Atatürk Orman Çiftliği Hamamı" is chosen among the other Republic era buildings and among the buildings in Atatürk Orman Çiftliği as a case. The Hamam building becomes a specific case in terms of reflecting the era's approach in many ways while on the other hand also have different qualities among period and previously same functioned buildings.

Aforementioned the Hamam building is chosen as a case, as it is "unique" in terms of its special construction techniques and systems such as different heating and water systems, as well as newly tested construction techniques. It is also a case to be investigated as it is a work of the architect Ernst Egli, who has an important role on

construction of the republic period era buildings. The building also represents an interpretation of traditional functioned building design by a foreign architect that is one of the agent of modern movements in architecture in Turkey. The building location in AOÇ context, is another item that should be studied in the light of the idea of foundation such a farm, the characteristics of created environment and buildings qualities constructed in the site. All these topics and the building in the AOÇ context make it a specific case to be investigated in a wide spectrum.

Buildings that are constructed with their special systems and architectural characteristics may not supply their sustainability in time as they become non-functional due to changes of the community's needs. In that respect buildings that lost their function should keep up with change either by new functions or with the solutions that enable the original function sustainability. Hamam building and some of the buildings in AOÇ that lost their function face problems due to not being used. The problems that Hamam building face with and the deadlock situation of the building against these problems becomes one of reason for choosing the case. Due to not being used for a long time, AOÇ Hamam have serious structural problems as well as deterioration and material loss problems related to disinterest and depletion.

From another point of view, the lack of studies related with AOÇ Hamam, makes this qualified building a case for researches. Source studies revealed that there hasn't been made a detailed research about the Hamam in building scale[1]. Also there isn't any approved documentation study of the building's daily situation as well as there isn't any conservation study . In this respect preparing a detailed study that put the Hamam building in the core, and investigate it all with its qualities, values and problems becomes important.

In thesis study, it is aimed to prepare a conservation proposal of the Hamam building considering the building values and problems together with the site that the

[1] The article, "*Atatürk Orman Çiftliği'nde Ernst Egli'nin İzleri: Planlama, Bira Fabrikası, Konutlar ve Geleneksel Bir Hamam"* of Leyla Alpagut can be told as a study related with AOÇ Hamam building, that gives general description about Hamam and evaluate Hamam within the AOÇ contex and as a work of Ernst Egli .

building constructed. The studies of documentation of the building's daily situation comprised of survey drawings, analyses about construction technique, material usage, architectural elements, structural problems, material loss and deterioration , evaluation of remain and traces in AOÇ Hamam. In the light of these analysis, evaluation of the visual and written sources, ,knowledge obtained from the buildings designed by Egli and Hamam buildings of the era, the original situation of the building ise investigated and restitution proposal is prepared. Using these information ,finally a conservation proposal is made that solve the current problems of the building and its close environment , with a new function that reveal the value and potentials.

1.2 METHODOLOGY AND STRUCTURE OF THE THESIS

The aim of the thesis is to prepare a conservation proposal for the building. For this reason a serious of studies are made.

Firstly the design approaches of Ernst Egli are investigated in the second chapter. In the conducted studies the buildings designed by modernist architect Ernst Egli who came from abroad during that era are studied in order to understand the building technologies of the era and architectural similarities with hamam . Additionally two hamam buildings constructed in Ankara at same time period has also been analysed.

The third chapter is focused on the studies about the case AOÇ Hamam and the site. Before the building oriented studies the historical background of AOÇ, the idea behind the foundation, physical, socio- economic status of the era are studied. Law arrangements and legal status of AOÇ is investigated and current problems of the AOÇ site face is clearly defined. Afterwards a brief information is given about the buildings constructed at the center of AOÇ, on the close environment of the lands where administrative units, beer factory and Hamam take place. Afterwards studies are made about the chosen case, AOÇ Hamam. Actually, the study phases are

composed of three parts, documentation the current statue of the Hamam with drawings and analyses, restitution and conservation proposals.

At the following parts of the third chapter, it is aimed to gather every necessary visual and quantitative measurement of the current condition of the building and representing it in an accurate way using drawing and writing. In this scope, survey drawings are created in digital media, using the measurements that are taken with respect to the preliminary sketches and the photos of the building. Based on the gathered data, analyses of building construction technique, material usage, architectural elements structural problems, material loss and deterioration, remain and traces evaluation studies are done. The analyses are done with datas collected by visual observation; they are not based on laboratory researches.

In the fourth chapter, the restitution proposal takes place. In that part the gathered knowledge from building itself, investigation of Egli's buildings and hamam buildings of the era, visual and written resources are evaluated in order to reveal out the original features of the Hamam Building. The restitution drawings are made based on the gathered data about the building's original condition. The reliability of the restitution study is questioned considering the used source quality.

In the fifth chapter the proposals about the proper usage and conservation of the building taking into account of the determined possible problems, potentials and opportunities during the revival of the structure are described.

1.3 SOURCES

In order to investigate the Hamam building, AOÇ complex and the period its constructed, visual and written sources are collected. The data are collected from written sources such as; researches, articles and thesis studies about varied topics and symposium reviews. A detailed list of written sources can be found in bibliography part. There are also visual sources such as maps, photographs and original drawings of the Hamam building and drawings of the chosen buildings of the era for the thesis study.

The collected data is used to investigate historical background of the AOÇ foundation, to determinecurrent condition of the Hamam building and as well as they are used to understand the era's approach, by revealing out the social and principle apprehensions, opportunities of a newly established republic.

In adition to the historical study, the sources are also used to reveal out the original feature of the Hamam building and its close environment. In this context, primary sources that are directly related with the Hamam building are scarce. The most important source is original drawings(Figure 137 toFigure 149) obtained from Tütün, Tütün Mamulleri Tuz ve Alkol İşletmeleri A.Ş. (TTA) Archive. There are detailed drawings, partial plans and related elevation and section drawings with template inscriptions of drawings place in building, drawing date "1937" and the name Prof.Ernst Egli. Also two different archive code, probably given by Tekel Archive, take place at the right top corner of the drawings. In the drawings used material, details, architectural elements place can be seen.(Figure 137 to Figure 149)

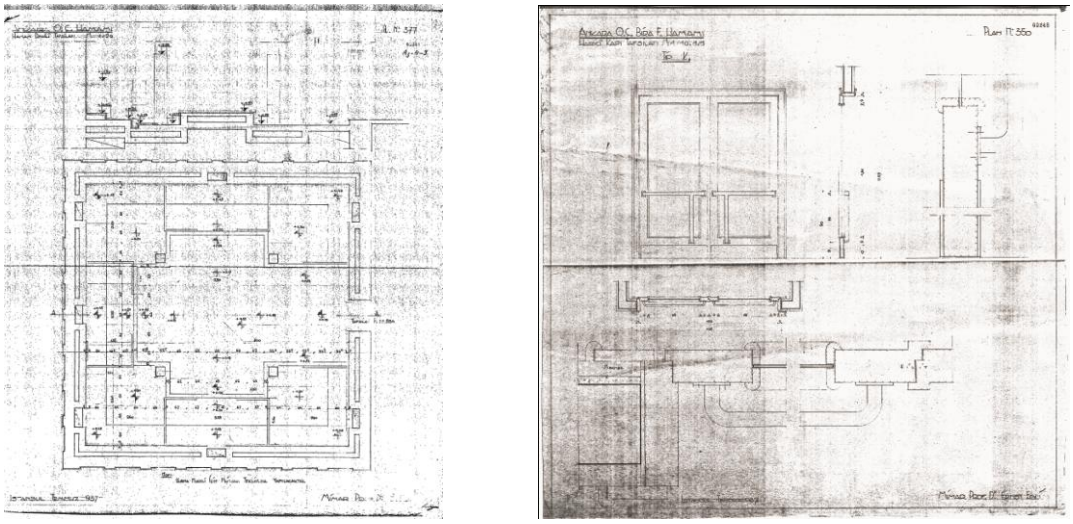


Figure 1- Original drawings; Partial Plan of Space G-03 and Detail Drawings of main entrance door (TTA Archieve)

It should be said that the information taken from visual and written sources, change according to their reliability and content. The study of sources reliability can be seen in the following 3.3.7 chapter part, as a result of this study it can be briefly said that the original drawings are mostly coherent with the application.

Drawings about Beer Factory and settlement gives information about other buildings in site, their functions and give clues about the relations between buildings and the occupiers and workers. The relations are investigated in detail in the 3rd chapter.

Other important sources about Hamam building are photographs that are taken in 1939 and the documents about the Hamam taken from "Ankara Koruma Bölge Kurulu". Though there are mistakes on the document sheet about the building construction date and the functions of the spaces and their descriptions especially in basement floor, it gives information about the building condition with photographs taken in 1988.

There are also other visual and written sources that are taken from Leyla Alpagut's article. In the article there are drawings that taken from The archive in Zurich University, in which the basement, ground and first floor plans and long section through north and south direction and view through east direction can be seen. (Figure 2)

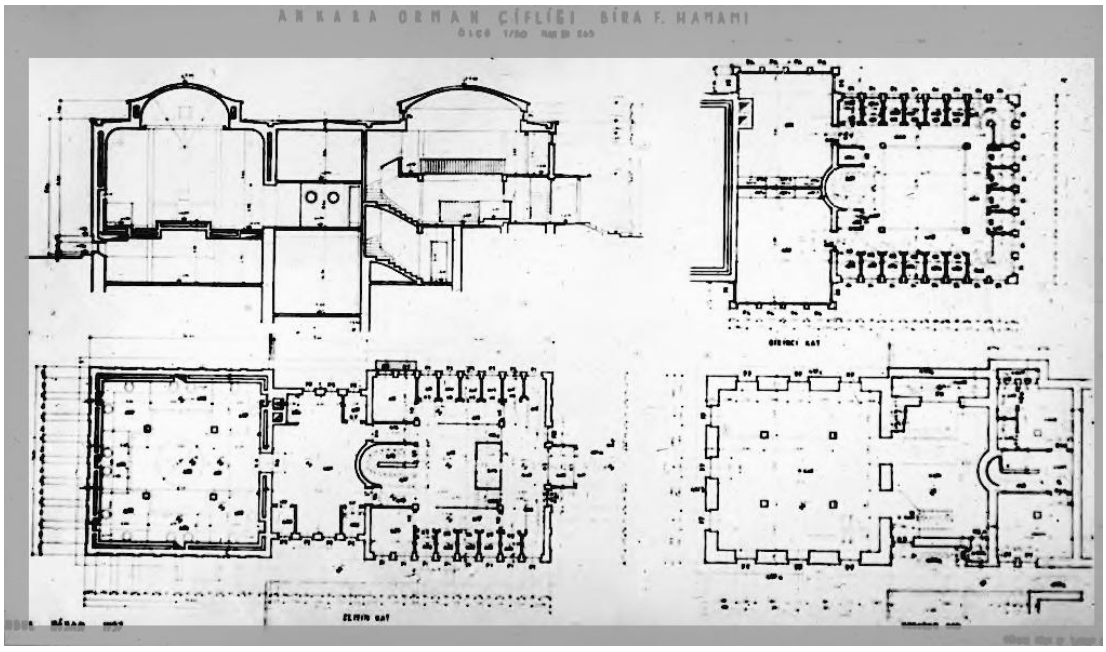


Figure 2 - Basement, ground and first floor plans and long section ,original drawings (ALPAGUT,2010)

CHAPTER 2

EVALUATION OF THE ARCHITECTURAL APPROACHES OF ERNST EGLI WITHIN THE CONTEXT OF EARLY REPUBLIC ERA

In this chapter, a brief information is given about architectural approaches in Turkey between the time interval of 1923 and 1938. Afterward, as the architect of the AOÇ Hamam, Ernst Egli's works and design approaches are studied in order to understand the interpretation of a foreign architect towards designing a traditional functioned Hamam building in the context of early republic era.

2.1 AN OVERVIEW OF ARCHITECTURAL APPROACHES IN TURKEY and ANKARA, BETWEEN YEARS 1923 AND 1938

After the fall of Ottoman Emperor and the wars, the newly established republic had to eliminate the demolition and rectify the cities in the light of tendencies towards creating a modern community and country. Of course in early periods the priority was given to construct public buildings, create a capital city and construct houses due to increase demand and necessities.

As defined by many architecture historians, firstly the architectural approaches are shaped with the characteristics of national architecture movement. This period can be related with the rising nationalism, after the losts in Balkan wars.(ASLANOĞLU,2001:29-31, SÖZEN,1996:13-15) Actually, the evolution was started for Ottoman in 18 and 19th century towards in terms of chasing the innovations in west. The changes had been densed after 1908 with the declaration of

constitutionalism. In architecture, the west had been fallowed towards the developed building technology. On the other hand, rising nationalism was reflecting itself in architecture as purification from west oriented elements. In that respect classical Ottoman architectural elements became indispensable for the designers. In the early periods of Republic these architectural approaches subsit its existence with the architects Vedat Tek, Ahmet Kemalettin Bey, Arif Hikmet Koyunoğlu, Ahmet Kemal, Necmeddin Emre, Fatih Ülkü, Tahsin Sermet, Ali Talat Bey, Guilio Mongeri.(SÖZEN,1996:21)

At the beginning these approaches were supported by the government.(ASLANOĞLU, 2001:30) These approaches were reflected in designs as use of classic Ottoman architecture elements such as domes, arched openings, ornamentation and portal design. These design elements were mostly affecting the facades. There was not significant differences in terms of facade designs, since their designs were unrelient from the function of the building and the logic of facade designs were based on combining those classical architectural elements together. On the other hand, the buildings were constructed either with reinforce concrete system or together with masonry and reinforce concrete system just like the coeval buildings at abroad. However, the facades were cladded with stone and decorated with ornamentation.

These architectural approaches started to change at early 1930's with the foreign architects. One of the circumstances that lead to the change can be seen as the economic crisis that embraced the world. The newly established republic was in an economical shortage against all the renovations, wanted to be accomplished. As İnci Aslonoğlu implies, at the recession periods in world economy after World War I, problems were standing in front of the republic government, the debts inherited from Ottoman Empire, the expenses started with nationalizing, problems fronted due to the immigrations, the employment problem, the necessities for infrastructure and desire to create a modern capital city.(ASLANOĞLU, 2001,p:20) · First economic policy embraces was to support private sector for investments, and the government would be integrated in investments of which the private sector could not achieve. However, the predicted exploit of the private sector was not enough. Especially the economical

crisis in 1929 forced government to develop a new economy policy.(ASLANOĞLU, 2001:18-19)

After 1930's the constructions in Turkey, especially in Ankara had been accelerated. The specialists and public critiques were pointing out the unplanned urbanization. In Ankara, after the competitions with the Jansen plan, acceleration towards a planned urbanization reflected itself. (ASLANOĞLU, 2001:29) The buildings that are constructed with national style did not respond the ideals of the government. On the other hand buildings that are constructed at national style was not representing the revolutions sufficiently that the government wanted to accomplish. The image wanted to be created was the modern; however the buildings constructed were more relevant with Ottoman style especially with an understanding that is pretending to be seem like Ottoman on facades with the architectural elements used. The government was making up a new region with strict changes almost on everything from agriculture to industry, education to health issues. All these revolutions must also reflect itself in architecture. The architecture approach should improve parallel to the revolutions of Ataturk,and also consider other problems other than monumental and symbolic requirements.This idea would lead Turkish architecture to reach a level of modern western architecture. (ALSAÇ,1976:20)

The acceleration of developing cities and the economic crisis in world and Turkey force to construct buildings cheap and fast as much as possible. The buildings constructed in 1920's was expensive due to the stone cladding, special ornamentations. It is known that the concrete and iron bars were also expensive since they were imported from western countries. However they were still cheap and give opportunity for faster construction time when compared with the national style buildings. (ALSAÇ,1976:21-22, SARIASLAN.,2005:70)In that respect, modern movement approaches were corresponding the government desire. Though the construction of buildings designed both with criteria of national approach and international interactions can be seen together in late 1920's, the strict breakpoint in the government support can be seen as "Gazi Lisesi" of whose project were taken

from Kemalettin Bey and given to Ernst Egli. It is also a result of the position of Egli in "Maarif Vekaleti".[2] Like the other sectors there was a need for foreign specialist.

To facilitate foreign specialist working in Turkey " Teşvik-i Sanayi Yasası" in 1927 has been legislated. Foreign architects had been invited to Turkey between 1927-1940. Guilio Mongeri, Ernst Arnold Egli, Theodor Jost, Clemens Holzmeister, Jansen, Gustav Oelsner, Bruno Taut, Paul Bonatz, Hans Poelzig, Martin Elsaesser, Martin Wagner, Hermann Elgötz, Robert Orley, Henri Prost were some of them.(SARIASLAN,2005:76) They played important roles from designing especially the puplic and education buildings and bringing innovations to Architecture education as well. Ernst Egli is one of the architect that has a remarkable place on constructed buildings in Ankara, as well as the innovation he brought on architectural education in Turkey. In the fallowing parts the works of Ernst Egli and his design approach will be investigated.

2.2 ERNST EGLI and HIS WORKS

Ernst Egli (1893- 1974), graduated from Vienna Technical University, worked as instructor and private affairs. He had studied in Turkey between years 1927-1940 and 1953-1955. He had been assigned to "Maarif Vekaleti" as consultant architect, work as head of the construction office for Ministry of The Public Works. He continued in "Güzel Sanatlar Akademisi" as an instructor between years 1930-1936. Previous education approach was much more built on the national architectural movement on the trail of instructors Guilio Mongeri and Vedat Tek, but it has been changed with Ernst Egli.(SÖZEN,1984:168) Metin Sözen remarks, Behçet Ünsal words about Egli as fallows "He was a young instructor who understands what is modern architecture. Egli was estimating the functional architecture, he was a good planner and not interested in styles. He organized the local architecture, he find it

[2] Ministry of Education

essential to make a scientific investigation about Turkish architecture He was the one to cause national architecture symposium" (SÖZEN, 1984:168) He brought a coeval understanding to architecture education. He also established the urban institute in Turkey.

In that respect Egli had a journey on Anatolia. The book of Erns't Egli about Sinan represents his interest towards Ottoman architecture especially on Sinan Works. In this book, life in Ottoman, Turkish impact on Islamic architecture, Sinan's life and his works are investigated, considering building types such as mausoleum, mosque, palaces, "hamam"s, "medrese", "imaret" and "şifahaneler". (EGLI in ATAÇ:2009)

He also worked as chief architect at "Maarif Vekaleti" for eight years. The mission was construction, application, control of buildings and preparing tender. The legislations was allowing education buildings, libraries and museums construction could only be done by the projects preapered by "Maarif Vekaleti". (SARIASLAN cited in SORGUÇ,2005:128)He continued his works till 1936. Afterwards, he continued working as chief architect of Turkish Aeronautical Association. He left Turkey in 1940 and he returned back between years 1953-56, he gave lessons at "Siyasal Bilgiler Fakültesi" and "Ortadoğu Amme İdaresi Enstitüsü" about urban planning. He returned to Sweeden and worked in Zurich Technical University.

Through years he stayed in Ankara, Turkey. He designed many buildings from public to education, house buildings to the buildings in AOÇ. He designed the buildings that are shown in Table 1. There is a possibility for 1934 dated "Onuncu Yıl Yatı Mektebi"in AOÇ site, was designed by Egli, considering the closed terrace, window and entrance arrangement and architectural design approaches. Egli had also made planning studies of the cities Edirne, Balıkesir and Niğde. (SÖZEN,1984:172)

Table 1 - Buildings designed by Egli in Turkey 3

Building	Construction Year	Place
Musiki Muallim Mektebi (Mamak Cultural Centre)	1927-1928	Ankara
Ticaret Lisesi (Ankara Altındağ Gazi Anadolu Lisesi)	1928-1930	Ankara
Divan-ı Muhasebat – Sayıştay (The building is used by Ministry of Culture and Tourism)(facade arrangement)	1928-1930	Ankara
Yüksek Ziraat Enstitüsü (Ziraat ve Veteriner Fakültesi)	1928-1933	Ankara
Marmara Köşkü	1929	Ankara
İsmet Paşa Kız Enstitüsü (Zübeyde Hanım Kız Meslek Lisesi)	1930	Ankara
Ragıp Devres Villası	1932	İstanbul
Mülkiye Mektebi (Ankara Üniversitesi Siyasal Bilgiler Fakültesi)	1935-1936	Ankara
Embassy of Iraq	1936-1938	Ankara
Embassy of Switzerland	-	Ankara
Türk Hava Kurumu İdari Binası	1936-1940	Ankara
Etimesgut Hava Alanı,shed, ateliers	-	Ankara
AOÇ Beer Factory (The building is used by TTA)	1937	Ankara
AOÇ Hamam	1937	Ankara
AOÇ worker houses	1937	Ankara

In the following parts some of the buildings designed by Egli has been studied and a general evaluation about his architectural design approaches is made. The case of

[3] The knowledge about buildings are taken from sources of ASLANOĞLU, İ.,1980, Erken Cumhuriyet Dönemi Mimarlığı 1923-1938 , ODTÜ Mimarlık Fakültesi Yayınları; SÖZEN, M., 1984, Cumhuriyet dönemi Türk Mimarlığı (1923-1983) , Türkiye İş Bankası, Ankara ; Alpagut, L. 2010, "Modernleşme Projesinin Temsilinde Önemli Bir Yapı: İsviçreli Mimar Ernst Arnold Egli Ve Ankara Siyasal Bilgiler Okulu *",Alternatif Politika, Cilt. 2, Sayı. P.p.2, 126-150,*

AOÇ Hamam can be seen unique from various subjects. The building can not be evaluated within a building typology since there are only a few buildings constructed as Hamam. However in order to understand design approaches and building technologies an evaluation should be made over the period buildings. In that terms some of the buildings designed by Egli has been studied to obtain knowledge about the Hamam's authentic feature. The Musiki Muallim Mektebi has been studied to understand both special details and materials together with Egli's interpretation for design considering the local architectural values. The Ankara Ticaret Lisesi has been studied to examine similarities of the special heating and ventilation system that has been used in AOÇ Hamam. The beer factory and the worker house are investigated in order to investigate material usages and building technologies, due to their close orientation and the period they were constructed.

-Musiki Muaalim Mektebi

Figure 3 – Musiki Muallim Mektebi front facade (author,2011)

Figure 4 – View from inner court (author,2011)

Egli had designed Musiki Muallim Mektebi in Ankara. "Musiki Muallim Mektebi" was important for Turkey as it was the first step towards training music teachers and performers for Presidential Symphony Orchestra. For such an significant cultural role of the school, important musicians of the time such as Paul Hindemit, Karl Elbert, Osman Zeki Üngör, Adnan Saygun were chosen as academics of the school. (SARIASLAN, 2005:139-140) Actually the school had been founded in 1924 and continued its function at different buildings from 1924 to 1927. However, the building of the "Musiki Muallim Mektebi" that take place in Cebeci had been designed by Ernst Egli and the foundation layed down at 1927. In the memories of Cevad Memduh Altar, he says that a memorial writing has been left to a box like place over the concrete foundation.

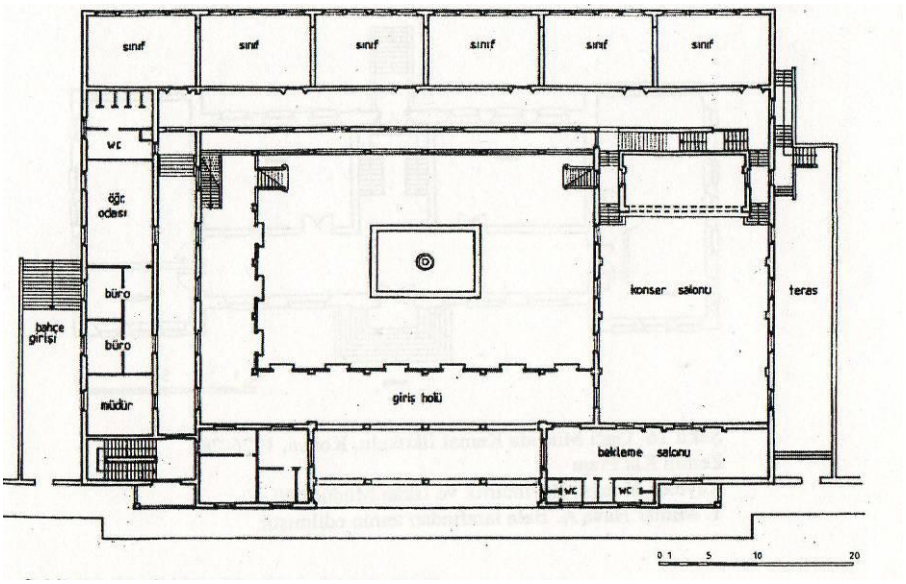


Figure 5 - Plan drawings of Musiki Muallim Mektebi (ASLANOĞLU, 2001)

The building is two storey from north and three storey form south. The plan scheme has been designed with a rectangular inner court with a fountain element at the middle and corridors surround the court from three side. In building, there are classes, offices and other units take place. The concert hall takes place at the short side of the building. İnci Aslanoğlu says that usage of an inner court with a water element resembles a madrasah scheme from Ottoman architecture. The design on the other hand consists of modern elements such as flat roof and a terrace. The facade is designed with pure geometric elements. The facade has a symmetrical design, the entrance is emphasized with columns, and it is elevated from ground level with stairs. There are special ironworks of railings like some of the other buildings designed by Egli. There had been additional constructions in 1953 and 1957. The terrace turned into a balcony with additional spaces at first floor. The building has lost its function and devolved to Mamak Municipality. After 2005, the building is used as Mamak Cultural Centre. There are changes due to later added floor and the curb roof. As it will be implied in Ticaret Lisesi, the building might have a special air conditioning system, considering the number of chimneys. (Figure 7) However, it is not certain since the traces can not be read due to later interventions.


Figure 6 – Special iron works of Musiki Muallim Mektebi (author,2011)

Figure 7 - Chimneys of the building (author,2011)

-Ticaret Lisesi(Ankara Altındağ Gazi Anadolu Lisesi)

The building was constructed between years 1928 and 1930. The building was constructed at the east side of Gençlik Park and Hergelen Square. It is composed of two blocks that are oriented like an L shape. The block is two storey while the block at the south side has four storey. Like at the other buildings of Egli, the building entrance has been emphasized with a single and high colonnaded design. The flagpole has been placed elegantly at the left side of entrance.

Figure 8 – Front facade of Ticaret Lisesi (author,2011)

There are classes, cafeteria, a multipurpose hall, and sport hall take place in building. At the south side of the block, there are, art and music ateliere, teatre hall, library teachers room, laboratories take place. At the basemet floor, a sport hall and storages take place. The window frames. and facades are covered with Ankara stone

till sub basement level. In basement floor, there are circular windows. Other parts have plastered surfaces. The building constructed with masonry and reinforced concrete system.

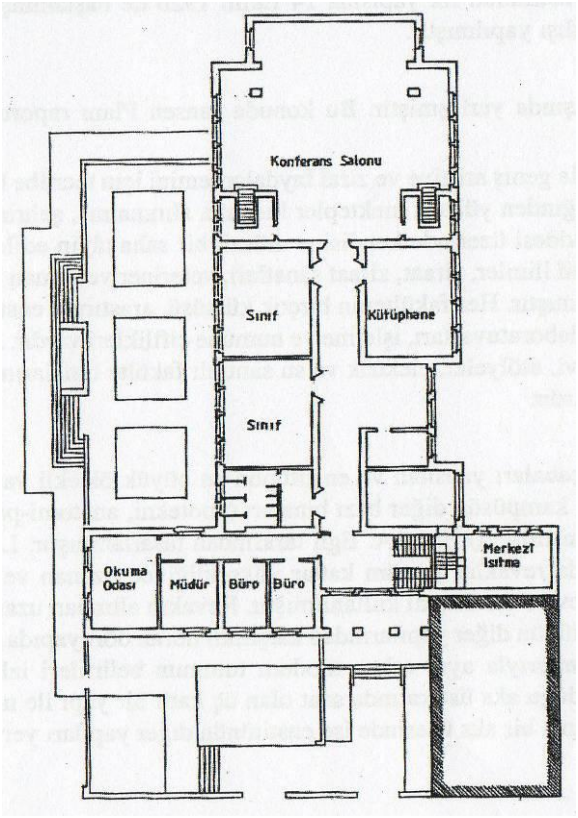


Figure 9 – Plan drawing of Ticaret Lisesi (ASLANOĞLU, 2001:169)

The circular columns can be seen in corridors. There are concrete waffle slabs at the sport hall while slab with beams is preferred at other floors. Like other buildings of Egli an elegant design of ironworks can be seen in railings. The circular

patterns in terracotta floor coverings and original window frames in corridors can be seen in floors.

An important detail in this building is the special ventilation system. The system is designed like in the Hamam with a little difference in configuration of vertical shafts. The vertical canals open to classes with a big opening at top and a smaller one at the bottom. (Figure 10) It is also seen above this vertical air shaft axe there is a stovepipe opening. Actually, the chimney has two separate shafts. These two openings are connected with separate shafts. In that terms the system reflects that the small openings was used to enable chimney cleaning. On the other hand, the big opening with a metal lattice over was sustaining fresh air to classes. In the mechanical room, a similar system like in the Hamam is determined. There is main chimney that is connected with mechanical system. (Figure 11)

Figure 10 - Vertical air shafts (author,2011)

Figure 11 – Main chimney and Heating System (author,2011)

- **İsmetpaşa Kız Enstitüsü(Zübeyde Hanım Kız Meslek Lisesi)**

Egli had design many buildings that have symbolic meanings for a newly founded republic. İsmetpaşa Kız Enstitüsü is one of them. Since the institute itself aimed to reveal out the value for education of women and their modernization. The architecture of the building itself is correspond with the institute objection. İnci Aslanoğlu defines the building as one of the most consistent sample of international forms application considering the construction years. (ASLANOĞLU, 2001:172)

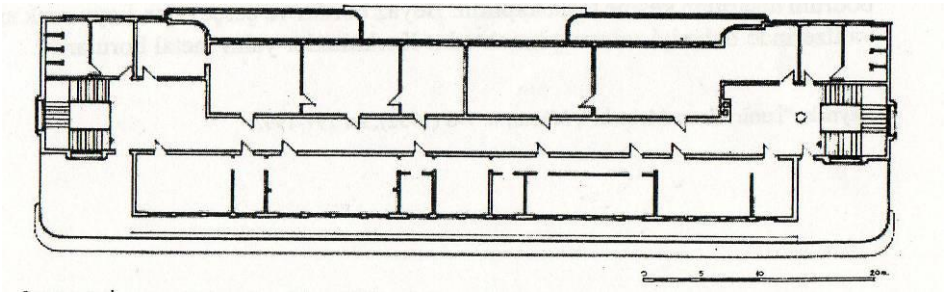


Figure 12 - The plan of İsmetpaşa Kız Enstitüsü (ASLANOĞLU, 2001:173)

The building has four storey and has a bare design with cubic masses . At north and south sides the main block is connected with two other blocks where there are service units and staircases take place. The main block is designed with a corridor in between and the classes and ateliers takes place at east and west sides of it. There are later additions to building where meeting halls and mess halls take place. There are special iron works in building. Today the building is used as Zübeyde Hanım Kız Meslek Lisesi.

-Worker Houses in AOÇ

It is known that Egli had designed buildings in AOÇ. These are beer factory, worker houses and Ülkü Evi. These buildings were also constructed at the same years with Hamam. In that part these buildings will be investigated under the topics of construction technique, used materials and determined building technologies.

In that respect it is important to investigate the worker houses. The AOÇ Hamam is oriented in the boundaries of the mass housing of AOÇ workers. These buildings were composed of ground floor and roof floor. (Figure 13) The buildings had a pitched roof and oriented inside private courts. There was a bare facade design

with big window openings and circular windows at roof floor. The buildings had a high pitched roof with a slope in one direction.

The buildings were constructed with reinforce concrete system. There were two rooms bigger in size than the room that take place at the middle, bathroom and a kitchen. Today, the buildings are still being used by AOÇ workers. In time due to the interventions, the building had been changed. Today the buildings are two storey, their facade arrangement and roof type has been changed.

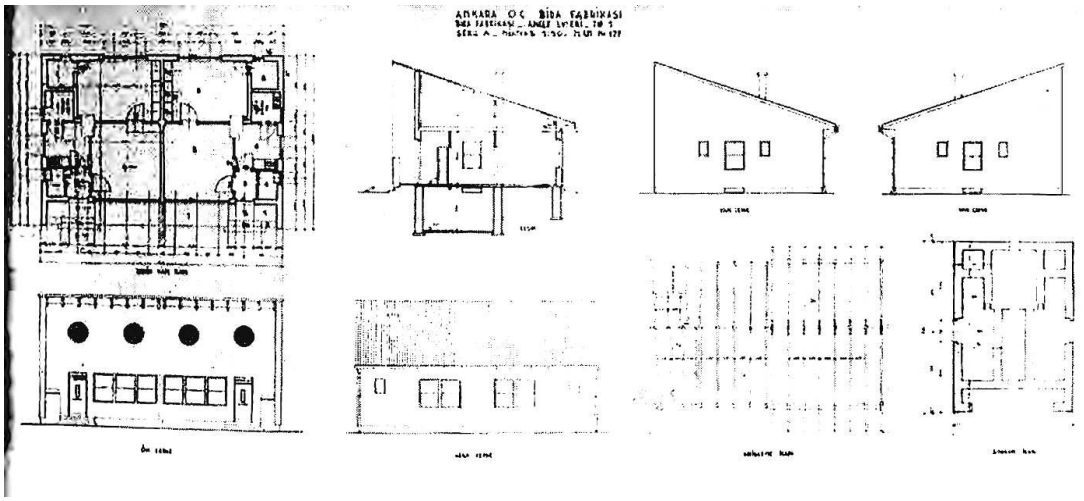


Figure 13 The drawings of the worker house (ALPAGUT,2010:252)

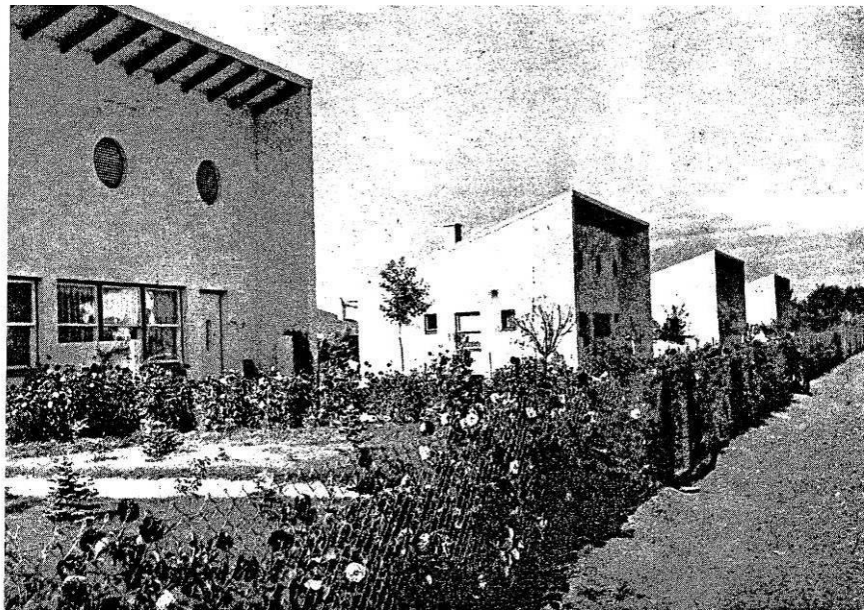


Figure 14 - The phographs of the worker houses (Anonim,1939)

- Beer Factory

-The beer factory is one of the other buildings designed by Egli. The later additions can be seen in site. There are blocks with different function. The factory campus was composed of three parts. Officer house at west, their social units, labour "hamam" and their words at the middle and factory building at east. However today the original arrangement is not legislable due to later additions. However use of same building technologies, finishings as ceramic tiles, terracotta floor coverings, metal frameworks can be observed. Today many of the buildings had lost their function, and some of the blocks are no longer in use.

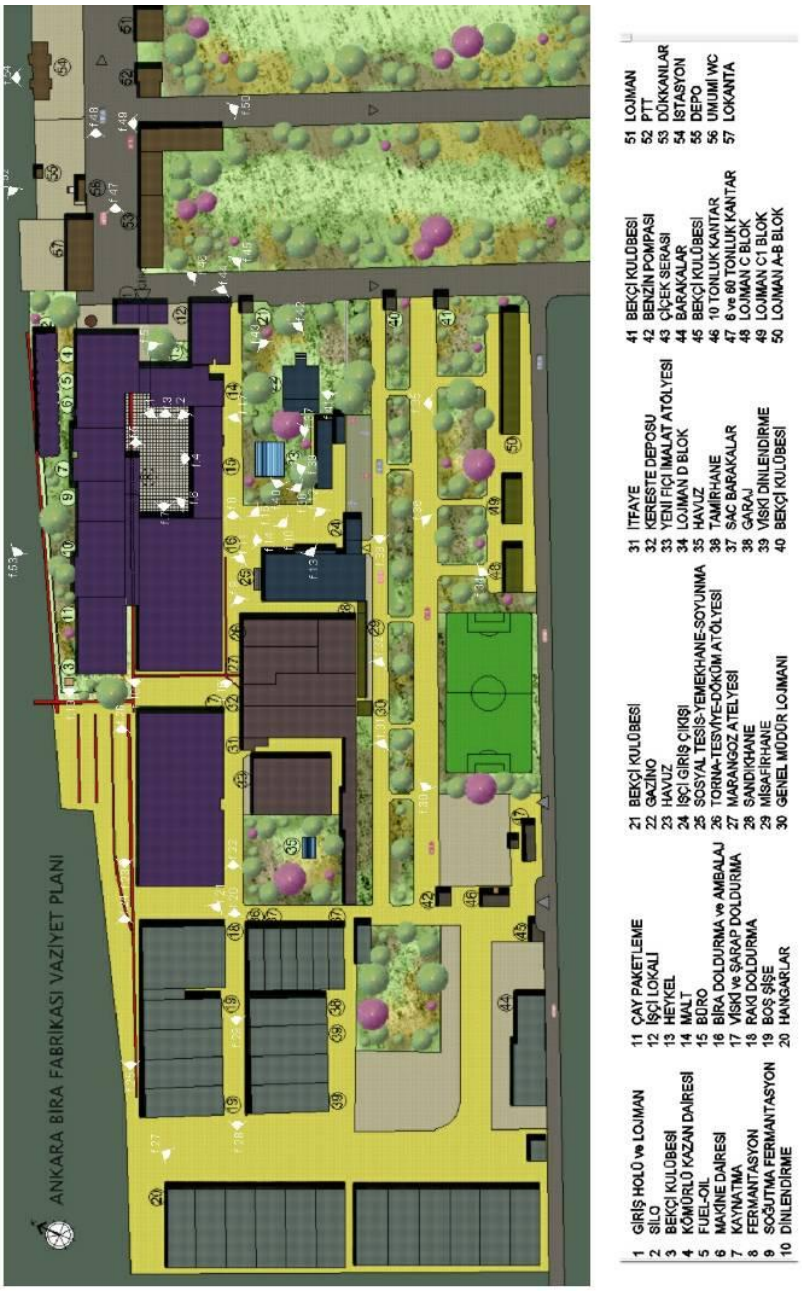


Figure 15 - AOÇ site plan (FEROĞLU,2008)

By looking the works of Egli, an idea can be obtained about his design approaches, the technological innovations he had used in his buildings, materials and special details. As a result of these evaluations we can say that Egli had designed a special heating and ventilation system for Hamam as in the case Ankara Ticaret

Lisesi. It is thought that a similar system might have been used in Musiki Muallim Mektebi from looking the chimney arrangements, but since the traces can not be read due to interventions, an exact deduction can not be made. The construction system shows similarities with Hamam. From the buildings Egli designed, we can obtain knowledge about the materials used, similar details of architectural elements. Egli's design approaches towards local architectural values can also be revealed. It is known that Egli has studied traditional Turkish houses and Ottoman architecture especially Sinan's building. (EGLI,by ATAÇ) The Musiki Muallim Mektebi is one of the outstanding design of Egli with his reference to a traditional architectural elements and plan scheme within his modern design approaches. However it is obvious that Egli has used traditional and modern elements most densely in AOÇ Hamam building. It can be said that the AOÇ Hamam building reveals out as a unique design considering the innovations of the building and interpretation of a bath function building within his design approaches. [4]

2.3 EGLI'S DESIGN APPROACHES

In the fallowing parts, it is aimed to reveal out Egli's design approaches for an analysis of revealing out AOÇ Hamam architectural values in the following parts.

As mentioned above, Egli designed several buildings, which have symbolic importance for newly founded republic that is taking steps on the road of modernization. Egli come out as a major representative architect of the era. He designed many buildings, of which are mostly constructed in Ankara and were mainly for educational purposes. In the article of Oya Atalay Franck the expressions of Egli about this situation is given as fallows"... by seeing miserable situation of the schools, its history traces of pain... I realized directly the size of the task waiting for me, foundation of an educational system, and entails of the establishment of infrastructure and superstructure ... This impression directed me to design series of

[4] The evaluations about Hamam can be seen in 3rd and 5th chapters.

typical elementary school in an economical way with local materials, simple construction techniques and the local workforce..." (ERGUT&İMAMOĞLU,2010:256)Beside the Type buildings, in his designs each building has been considered with special details and differently, from each other.

One of the important thing to consider in Egli's design is the reflection of the conjuncture in Turkey. It was the aim of the republic to modernize the country and people and in order to achieve this goal many innovations should be made. It was important to sustain Turkish people acceptance of all there reforms to make the innovations permanent. The expression of this situation reflected itself in architecture by monumental buildings. In Egli's building, the monumental view is provided with elevated and colonnaded entrances and symmetrical design of the façade. On the other hand, the monumental effect is not oppressive in terms of building scale, the proportions are tolerable.

The facades are elevated with projections, and window stone covered frames. The buildings are generally covered with Ankara stone till sub basement level and the rest of the buildings are plastered with edulputz He used architectural elements of the flat roof, terraces, circular windows, emphasized entrances. He use different designs on each side of the facade.

Criteria such as economic construction costs, local materials, simple construction techniques and local labor were asserted in Egli's buildings, adequate with the modern movements ideas. Today many of the buildings designed by Egli, are still being used due to his functionalist approaches and successful space relations. Many of the buildings were constructed with reinforced concrete and together use of reinforce concrete and masonry systems. In general it can be said that he simplify his design, with pure geometric forms. The cubical effect is emphasized with the terrace roofs or hided pitched roofs behind rised parapets. He relates this cubical architecture with Turkish architecture as follows" ...The design of Turks isn't intuitive or functionalist; contrarily it is abstract and stereometric. This can be call as cubic. For a smooth perception, Turks use classical appliances of division, framing and infilling... " (SARIASLAN,2005:78)Egli thought that the architecture of time should also consider the national values of the county. It is known that Egli has

investigated Anatolian houses and Sinan's Works, during his trips in Anatolia and studies in İstanbul. Considering this character of Egli, it can be said that the design of "Musiki Muallim Mektebi" with a plan scheme resembling a madrasah and a water element at the inner court was a conscious preference. In that terms, it is obvious that the AOÇ Hamam is the building in which he densely used Ottoman architectural elements. This issue will be investigated in details at the following parts.

2.4 HAMAM BUILDINS CONSTRUCTED AT THE SAME TIME PERIOD WITH AOÇ HAMAM

The Hamam function buildings are rare for the period buildings that were constructed in early republic era. In that part two Hamam building, constructed in Ankara at the same time period with AOÇ Hamam, will be studied in order to analyse the building technology of that period and reveal out the similarities between AOÇ Hamam.

-The Hamam building inside Beer Factory

Today the building don't exist. The only information about this Hamam is obtained from the 1941 dated drawings taken from TTA archive. In site plan, the building take place at the east site of the worker houses and west side of the factory. The single storey building had a pitched roof and have arched windows and doors. The building was arranged in three section hamam, storage units and laundry. As implied in drawings the hamam was for the headsman working in factory.(Figure 16, Figure 17) Also there is another bathing space for labourer. The hamam has a small "soğukluk and a "sıcaklık" " space. The heating system was designed like traditional heating systems with a külhan and heating under floor. There was a " külhan " and in sections it can be observed that a canal was passing inside the slab where hot air was passing through. There were also" tüteklik", vertical canals in wall section that were connected with the canal inside the slab. Though the Hamam had a pitched roof, the "sıcaklık" space was covered with a dome inside and it seems there was a

flat lantern at the top. The “kurna”, “göbektaşı” and “ seki” elements can be seen in drawings. It can also be observed that marble was used as cladding material on walls and floor surfaces.

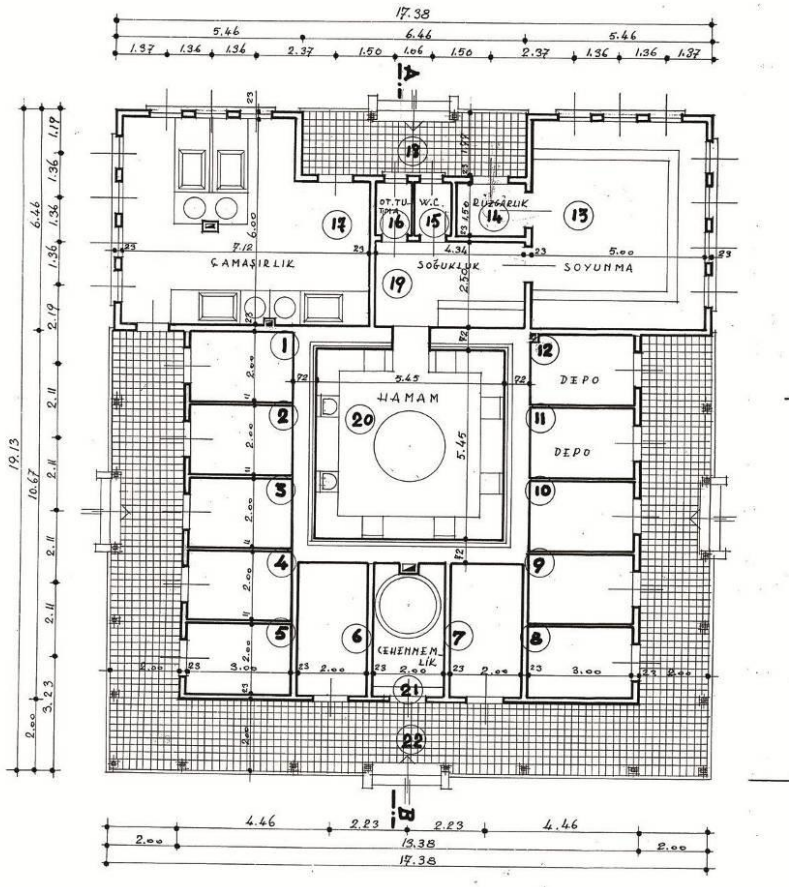


Figure 16 – The plan drawings of the Hamam in beer factory (TTA archieve)

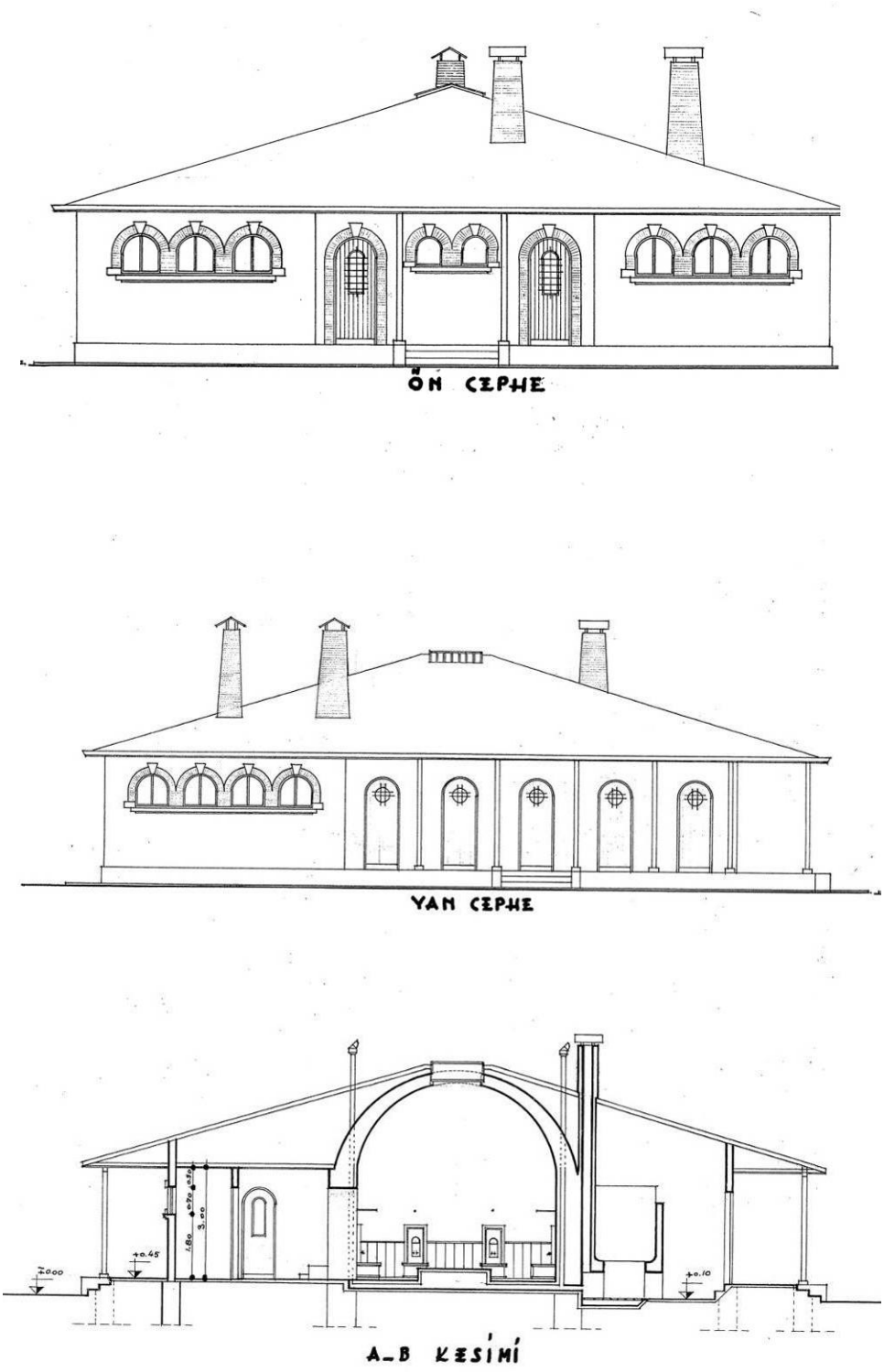


Figure 17 - Facade and section drawings of the Hamam in beer factory (TTA archieve)

-The Hamam building in Hasanoğlan

The Hamam building in Hasanoğlan was designed by Mualla Eyüboğlu in 1940's. The building has "soğukluk", "ılıklık" and "sıcaklık" spaces. Today the building lost its function and not being used. The building has a masonry and reinforced concrete system. Like in the AOÇ Hamam, the walls are constructed by masonry system while the slabs and domes are constructed with reinforced concrete system. The heating system is like the ones in traditional Hamam as in the hamam inside the factory site.

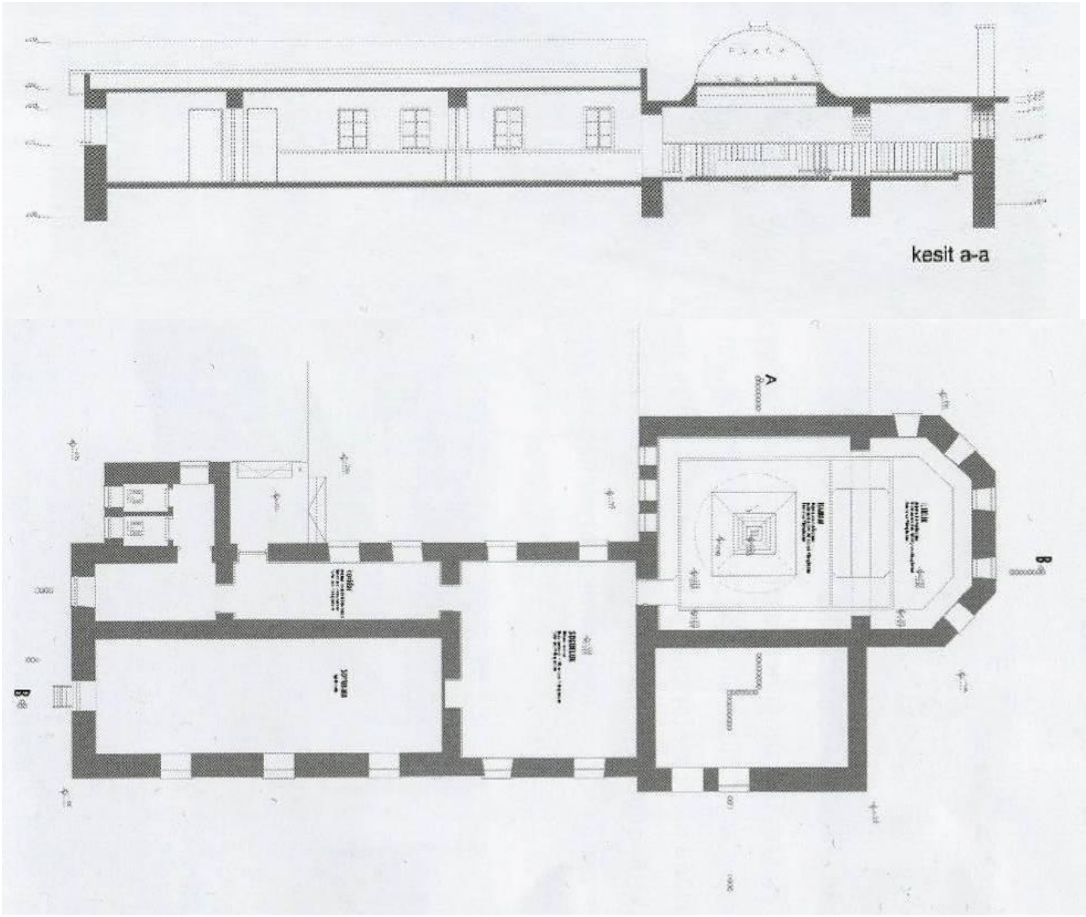


Figure 18 - Plan and section drawing of the Hamam in Hasanoğlan
(TMMOB Mimarlar Odası Ankara Şubesi Bülten,2010)

It’s seen that the space next to “sıcaklık” was designed to place heating and water system mechanism. The place of the water tank can be observed today. Also it can be seen that there is a canal embedded in slab in which hot air is transferred. On the other hand, a radiator type heating system can also be observed by traces on wall surfaces. In that respect, it can be said that these two system were being used together.

Though there are, many losts in hamam the places of “kurna”, cladding materials and other architectural elements traces can still be observed. There are rectangular windows and arched windows on facade.

Figure 19 - Heating system, canals going through the slab of “sıcaklık” space (author,2011)

Figure 20 - The seats (author,2011)

Figure 21 - The “sıcaklık” space (author,2011)

Figure 22 - The facade view from the courtyard (author,2011)

CHAPTER 3

CASE STUDY

3.1 GENERAL

In this chapter firstly the AOÇ site will be investigated in terms of the historical background of the site, legal status and other republic periods in the close environment of the Hamam will be revealed out. Afterwards a detailed study will be made about the building with documentation drawings and analysis about the construction technique, material usage, architectural elements structural problems, material loss and deterioration, remain and traces evaluation.

3.1.1 ATATÜRK ORMAN ÇIFTLIĞI - HISTORICAL BACKGROUND OF THE FOUNDATION

Atatürk Orman Çiftliği is one of the mile stones in the foundation of the ideology of a newly established republic. The aim was to create a symbol for community in the way of modernization and industrialization in agriculture. Addiction to agriculture in economy and intensity of farmer population were the factors of improvement actions in cultivation. In this respect, Gazi Orman Çiftliği was established in May 25, 1925. The land in Ankara was chosen in spite of the poor , barren quality soil ,bad climate conditions and negative reports of the specialists.

By establishing the farm in a land like this, Atatürk wanted to prove how technology and resolution can reverse the disadvantages of the area into advantage. Another reason was to embellish Ankara and creating open areas for the citizens in between the debates on declaration of Ankara as capital city.

Some of the goals of Gazi Orman Çiftliği can be summarized as follow: using technology and industrialization of agriculture, supplying good quality seeds and their distribution, encouraging animal husbandry, raising animal breeds and their distribution to community, breading appropriate fruit types in Ankara climate and emphasize viticulture as a good economic income source, creating artificial forests by using scientific methods and by this way encouraging forestation in whole country, foundation of a factory plant to produce agricultural implements , organizing workshops to give practical agricultural education, marketing farm products directly to community and creating a sample agricultural institution with the correlated units of the farm (*Ziraat Mühendisleri Odası,1993*, p.p.31,32)

In addition to all the agricultural works and industrial developments due to constructed factories, in time the farm became a centre of attraction for the citizens that they could spend their times together especially at weekends. The connection point of the Farm and city centre was the Gazi station. Beer park, restaurants, zoo, recreation areas and the artificial beach of Karadeniz pool and Marmara Pool were the entertainment spaces of a capital city that has limited alternatives in terms of entertainment.

To achieve these goals the lands of AOÇ were bought personally by Atatürk between years 1925 and 1930. The Gazi Orman Çiftliği (AOÇ after 1950's) was granted to the Turkish people by Atatürk with a letter (Figure 107), in 1937, in which he defines the goals and future expectations of the farm. After Atatürk granted the farm , the "Devlet Ziraat İşletmeleri Kurumu" was founded with the law 3308 in the year 1938 for administration of the Farm. The farm used the name "Gazi Orman Çiftliği" till 1950. By the law 5659"Atatürk Orman Çiftliği Kuruluş Kanunu" the farm continued its operations under the name "Atatürk Orman Çiftliği"

In time the farm land size raised to 102.000.000 m^2 However with special law arrangements, protocols, hiring and by other reasons AOÇ lost its lands and today the remain site size has an approximate value of 33.487.000m^2. (TMM0B Ankara İl Koordinasyon Kurulu,2005) (Figure 23)Today remained AOÇ lands are elongated inside the city in east and west direction. At the north side of the site dwelling regions like Batıkent,Yenimahalle and Demetevler take place, while at the south side university campuses of ODTÜ, Hacettepe and Bilkent and Çayyolu, Balgat take place.

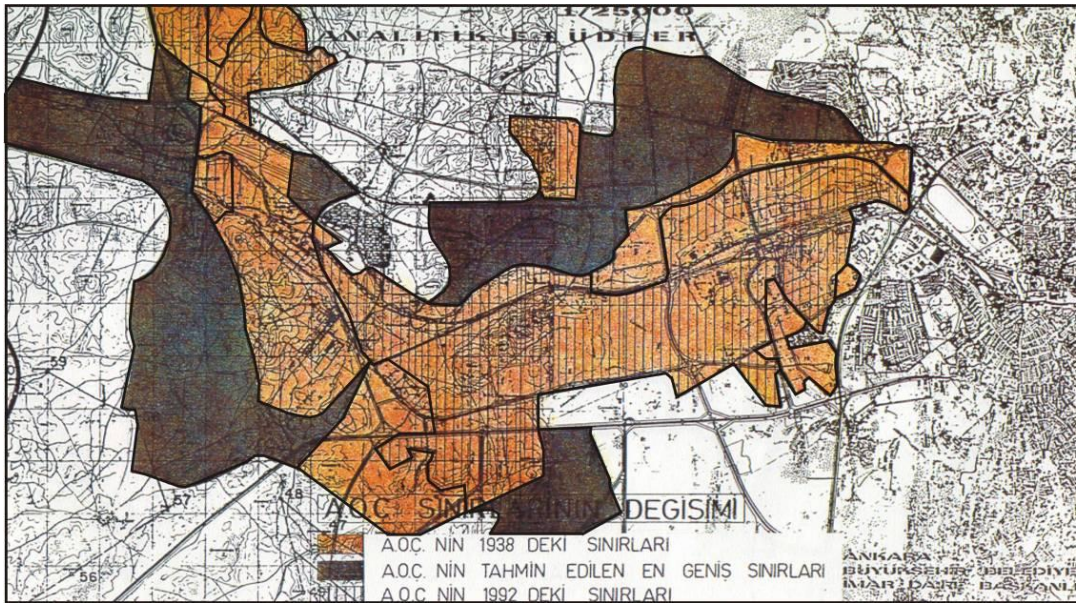


Figure 23 – Changes in AOÇ site borders through years

3.1.2 LAW ARRANGEMENTS AND LEGAL STATUS OF AOÇ

After 1938, law study directly related with AOÇ hasn't been made till 1950. In 1950,"Atatürk Orman Çiftliği Kuruluş Kanunu" was establish by the law number

5659 to clarify the legal status of AOÇ. This law brought a legal entity to AOÇ under the Ministry of Agriculture. The law defines the administrative status of the AOÇ, capital amount, capital spending procedure, selling, renting authority, accommodation of workers and their families. Also relations between local authorities and AOÇ is defined with this law. Moreover articles number 9 and 10 brings a kind of protection in terms of the usage of the site and brings some provisions that obstruct land transfer. In that terms all the assets of the AOÇ administration are equivalent to Goverment assets. Anyone who commits a penalty against the assets of the AOÇ administration are punished as commiting a penalty against goverment assets. Immovables belonging to the AOÇ administry are registered in the Land Registry to the name of AOÇ administry. Transfer to the real or legal personality or expropration of the immovables of AOÇ administry, which belong to the administry at the publication date of this law, depend on getting a permission with a special law. (Table 3)

Though there are items in the law to protect lands of the farm, many lands were transferred to other institutes by special law arrangements, protocols, hiring and by other reasons.(TMM0B Ankara İl Koordinasyon Kurulu,2005) Today total area of AOÇ lands decreased from 102.000.000 m² to 33.487.000 m² . (YILDIRIM, D,2004)

With the 02/06/1992 dated and 2436 number no assize AOÇ site determined as Natural and Historical Protected Site Area and its borders are determined with the 27/07/1993 dated and 3097 number no assize.

With 07/05/1998 and 5742 number no assize AOÇ lands were determined as 1st degree Historical and Natural site district. By these assizes AOÇ lands are also under protection with the provisions of the law number 2863.With changes in2006 at the law 5659, Ankara metropolitan municipality was given the authority to make conservation plans of AOÇ. By this authority the municipality prepared plans of AOÇ in the year 2007; Sites and Natural Protected Area on the scale 1 \ 25.000 Master Development Plan and the 1 \ 10.000 scale Conservation Master Plan and

Master Development Plans. These plans were given to the court by chambers and other associations and the plans are cancelled by the court order.[5]

To prevent the pressures and the losses of the AOÇ, proper plan studies should be made as soon as possible in consideration of the Site qualities, foundation criteria, its symbolic meanings and its importance both in history and the in the life of citizens.

3.1.3 LAND USE IN AOÇ AND BUILDINGS CONSTRUCTED ON THE SITE

After the foundation of AOÇ in 1925, the construction work had been accelerated as the land area had widen. The farm had spread a wide area, but the centre remain at Gazi Station and its close surrounding as a meeting point of the city , administration centre, entertainment space and recreation area. The AOÇ had been developed without a plan and generally single storey buildings were constructed in the first years; but after 1930s the farm continued its development with regular intersecting streets and buildings ,later without any radical changes on main settlement AOÇ developed by addition of new buildings.(ALPAGUT,2010:240)

As the studies continued towards creating a modern farm, buildings were constructed to respond to the new facilities. The construction work was given to the Philipp Holzman Company in August 1925. It should be also said that, there are planning studies made by Jansen and Ernst Egli. In the article of Leyla Alpagut "Atatürk Orman Çiftliği'nde Ernst Egli'nin İzleri: Planlama, Bira Fabrikası, Konutlar

[5] The court expert Doç. Dr. Çağatay KESKİNOK, Doç. Dr. Baykan GÜNAY and Yrd. Doç. Dr. Adnan BARLAS 's views are taken from the court order . The experts of the subject reported to the court, the inconvenience of the plans prepared due to the reasons such as not being obeyed to Protected Site rules, plans not reflect the natural and historical character of site; new functioning like zoo would bring new infrastructure as well as permanent building that contradict with site character and as a result would dispose things that makes AOÇ a protected site. Primary function of the site should be agricultural enterprise and to exploration delivered in the site (http://www.mimarlarodasiankara.org/dosya/AOCYD.pdf last accessed in 17.11.2011)

ve Geleneksel Bir Hamam", it is told that, Jansen has made planning study of the site where Beer Factory and workers house take place. Later Egli has involved in this study in terms of the planning of site as well as construction work of the buildings as the architect of most of the buildings in the site. The planning study of the site where Atatürk Orman Çiftliği Hamam, workers house and administrative units are positioned can be seen in Figure 104Figure 105.The detailed investigation of the buildings and arrangements in their close environment will be explained in following chapters.

There are also studies that are not applied. Ernst Egli prepared a report and prepared a drawing and send it to Hasan Rıza at 19/09/1934 to the clerk of the presidency.(Figure 24) (ÖZTOPRAK,2006:58-61) According to the report Ernst Egli first defines the AOÇ farm. He says that,the trees covers the roads and buildings, from abroad only a little view of bricks can be observed. The aim of creating a model farm was founded with human efforts on the arid lands of Anatolia has been succeeded. He also defines what should be the qualities of a park and explains it as neat lines, geometric shapes, dividing the natural shapes to vertical and horizontal lines, various space arrangements, their entrance and exit doors, canals, terraces and pools. (ÖZTOPRAK,2006:163-165)

Figure 24- Ernst Egli drawing about AOÇ (ALPAGUT, L. 2010:242)

He says that a park that is close to nature should have an axe; and after deciding such an axe a point should be determined on the axe and from this point there should be an arrival to another point. So that the axe should have a starting point, than should be raised gradually and should have an end and continuation. In that respect he defines points on the drawings and draws a route and give details about how someone will perceive the road and how the arrangements will be. Between A-C point there should be trees, pergolas, Hitit or Lion sculpture placed; between point C-D a wide circular and elegant bridge take place above station; between D-E point an entrance door of wrought iron that is ornamented with sculpture; between E-F point a green area will be arranged which has a pool that is ornamented with tree take place. Most important route is defined between F-B .This route rises gradually and there may be obelisk or flag poles. Also he defines the most dominant point of the route with a sculpture that is put on 12 columns which reflect the human can go against to nature and the sculpture will be the symbol of great human mission and ideal. He defines the 1a and 1b areas on drawings and says the existing buildings shoul be preserved and they should be separated to each other with trees and pergolas and should't be made unnecessarily planting. (ÖZTOPRAK,2006:59-61)The spaces are defined as:

Table 2 - The buildings in AOÇ (ÖZTOPRAK,2006:60)

1a	İdare, Mektep
1b	Halkbahçesi, lokanta, otel
2a	Memurin evleri
2b	Birahane ve küçük sanayi mıntıkaası
3a	Nebatat Bahçesi olarak düşünülmüştür
3b	Halkbahçesi arkasında bir hayvanat bahçesi
4a	Yüzme mahalli, spaor, s
4b	Marmara kısmı
4c	Yeni tesis edilecek bir kısım
5	Gezinti yolları, ağaçlık
6a-6b	Ziraat ve Sanayi
7	Bu mahal büyüklerimizin ve şehitlerimizin ebedi şerei yatağı olarak düşünülmüştür.

As mentioned above, The construction works were given to the Philipp Holzman company in 1925. In the contract, defined construction works are“ Kuleli Köşk”, Marmara Köşkü, an administration building, 10 house for labours ,one house for the minister ,service buildings cellar, bakery, kitchen, laundry, iron room, house

for the machinist, an atelier to produce agricultural implements, stalls, dairy, storehouse for seed, electric and water pump institutions, water storage tank of Marmara pool, plantation building and Etimesgut administration building. Construction of industrial buildings were other significant progress. As a modern farm, the products should be processed and by this way a self sustained economy model was created for AOÇ . Beer factory, iron factory, wine, milk, ice and leather factory were constructed. In 1926 a dairy with its cold storage was constructed. With modernizations, it started to work as a factory in 1930. Viticulture was another income source for AOÇ. The wine production started in 1930's and in 1939 a new winery constructed to correspond increasing demands. (ÖZTOPRAK,2006:85) Ateliers in farm was important for manufacturing agricultural implements and other iron works. There were ateliers for turnery, iron and foundry works, carpentry works in 1930. A factory founded to enlarge ateliers and correspond increased workload in 1939. Beer factory was constructed in 1934 and in 1937 the second factory was constructed. Ankara was chosen place of the beer factory due to its advantage in railway transportation, intensity of barley cultivation in middle east Anatolia, good quality water sources of the farm , benefits of barley residue to milk cows .(Devlet Ziraat İşletmeleri Kurumu,1939:65-66)

Another important building of the farm is the Gazi Station building which was constructed to connect city centre to the newly developing farm area. The station building reflects the character of First National Architecture Period. It was designed by Ahmed Burhaneddin Tamcı and constructed in 1928.

There is also an old embassy building in the boundaries of AOÇ lands. The embassy building of Federal Republic of Germany was constructed, in 1924. The building reconstructed in 1928 by Philipp Holzman company , to be used as house and embassy .The building construction system is timber frame in ground and first floor and the basement is stone masonry. The building has a high pitched roof different from the character of Ankara houses. Eaves of the roof are projected and the high chimneys are made of brick.

The Marmara Hotel is oriented on a hill, in the boundaries of AOÇ land. The construction couldn't be completed since 1980's and abandoned to its destiny. The

land was rented for 20 years to a company in 1984 but the company couldn't finish the construction. AOÇ directorate refer to its legal right and the state is still in court.

Atatürk house was constructed in 1981 for the memory of the hundredth birth year of Atatürk. The building is similar with the house of Atatürk in Selanik and is used as a museum

Beside construction work in farm, throughout the foundation , planned recreation areas were created for citizens. Open green areas and parks were designed . "Marmara Köşkü" was constructed. Beside this building, a swimming pool and an artificial beach were constructed in order to correspond the swimming activities of the people. Later Karadeniz pool was constructed. A miniature zoo was built, in order to demonstrate people with dangerous animal species. As a result of intense demand, in October,29, 1940 currently used zoo opened. Another important area was the Beer park near the Beer factory. It was started to be used in 1934. (DZİK,1939; ÖZTOPRAK:2006)This park was an entertainment area that people gather together. After death of Atatürk, in 1939 the park was closed. AOÇ attracted many people living in Ankara and with increasing demand of the people restaurants were opened in time, but their settlement didn't progress throughout a plan.

The area contains many republic period buildings of different scales and function.Many of these buildings today face with similar problems like Hamam. Many of them are not used or partially used, some of them has lost their function. There is also a legibility problem of the site since the open areas has also remained functionless. In this part a brief information is given in order to understand the close texture where the Hamam building elongates.

Figure 25- Beer Factory (author,2009)

Figure 26 - Gazi Station Building(author,11.2009)

Figure 27 - Administration Building
(* www.r10.net/off-topic/533407-ataturk-evler-fotograf-sergisi.html, last accessed in 2010)

Figure 28 - Embassy building (author,11. 2009)

3.2 ATATÜRK ORMAN ÇIFTLIĞI HAMAMI

In this part the current condition of the building will be represented with drawings and writings. Afterwards the analyses will be given about the building construction technique, material usage, architectural elements structural problems, material loss and deterioration, remain and traces evaluation studies. Finally the data obtained from analysis will be compared with the obtained visual and written sources.

3.2.1 GRAPHIC DOCUMANTATION

The site study and measurements in building are done at the site, between dates 19 December 2009 – 12 May 2010. The Hamam building and the surrounding area is documented with a two weeks study using optic, electronic devices and other traditional measuring elements.

Before the measurement studies, sketch drawings of plans are prepared. (Figure 29) For façade and section measurements photographs are taken that cover whole surfaces. The collected data during survey study is transferred to these sketches and photographs, afterwards they are proceeded in digital media.

Digital photography data and the points are measured by using digital photogrametry technique. The collected 3d digital photography data are evaluated for preparing the plan, facade and section drawings. Documentation drawings are created in digital media by using Autocad, ROLLEI Metric MSR 4.0 computer software, Google SketchUp and Img2CAD programmes.

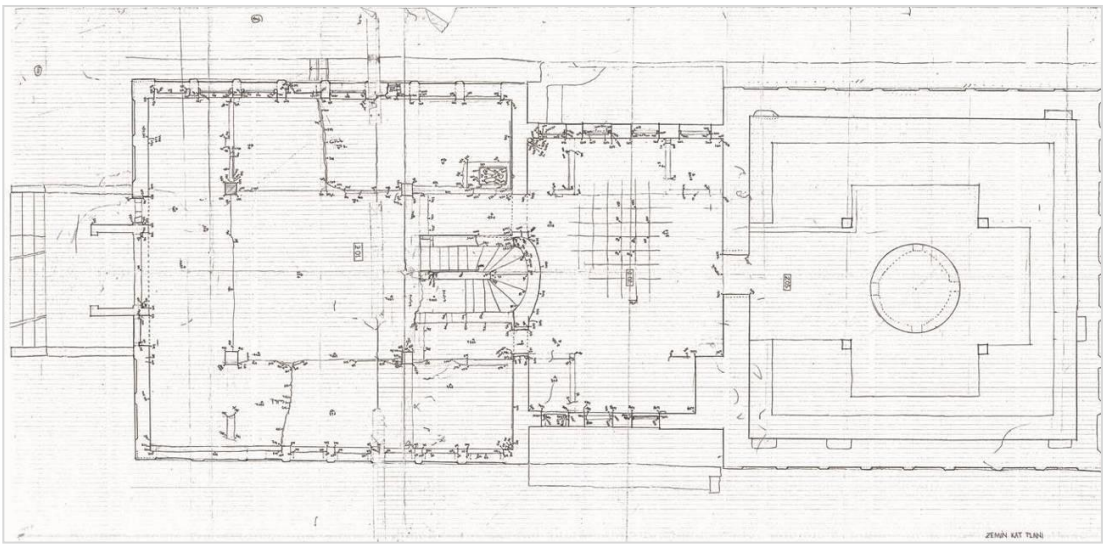


Figure 29 – Sketch drawings used for documentation (author,2011)

Plans, Facades and Sections are measured by using total station.[6] The photogrammetric documentation measurements by using independent polygon system cannot be connected to local coordinate points. In places where optic and electronic devices cannot be used, the measurements are done using simple tools (e.g. meter rule) In addition to these the site and the surrounding area is documented photographically using Nikon 8800 digital camera.

[6] The points measured are like as follows: The Hamam close surrounding has 39, The roof has 10, the surrounding area has 24, which makes a total of 73, polygon point. With regard to this the hamam site has 7466 pass, 1 fixed landmark points; the roof has 1167 pass, 1 fixed land landmark; the surrounding area has 3554 pass, 1 fixed landmark point. In total 12187 pass, 3 landmark points are used to document current situation of the Hamam building and the surround area.. 455 target point papers are sticked to the inner and outer surfaces and facades of the building in order to be used at the façade and section drawings.

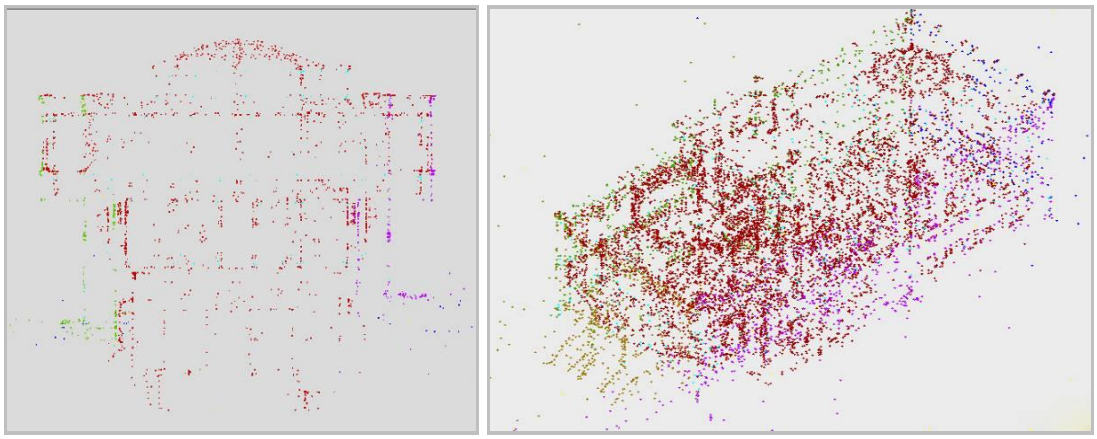


Figure 30 – 3D view of measured points

Figure 31 - Total Station – Sokkia 530 R

The points and target points are measured with TOTAL STATION – SOKKIA 530 R optoelectronic device and documented photographically with

NIKON 8800 digital camera. After this all the measured points are evaluated with digital photogrametry technique by using ROLLEI Metric MSR 4.0 computer software. By using these measurement points and scaled photography, the site plan and the AOÇ Hamam drawings are created in digital media by using AutoCAD.

In the 1/200, 1/100,1/50 and 1/20 scaled drawings, The P1 point's ,which is the starting point of the documentation, "Z" part, is assumed as "200.000", of coordinate. This point cannot be connected to the local coordinate frame since information regarding this point cannot be found. Documentation (RLV) ±0.00 level at different levels is defined due to the slope and level differences at the area. In this respect a determined point at the entrance of the building is defined as new documentation (RLV) ±0.00 level at the new level system taking into account of the building and surrounding area levels.

3.2.2 SURVEY DRAWINGS

Aforementioned 1/200, 1/100,1/50 and 1/20 scaled drawings are prepared with the collected data in site and Hamam building. The digital drawings are created by using AutoCAD and Google Sketch up. In this respect 1/200 scale site plan, 1/50 scale basement, ground, first floor and roof plans are prepared. Eight section produced at 1/50 scale that pass in north-south and east –west direction from spaces. 1/50 scale elevation drawings and 1/20 scale detail drawings are produced. The survey drawings can be seen in Appendix part. The survey drawings are 2d drawings made by lines. For the analysis maps the rectified photographs have been used as base together with these drawings.

3d model is created according to produced drawings in order to understand the construction, heating system and represent the space relations in 3 dimension schematically. Every detail is not determined on model such as deformations, break outs, etc. The model is created with using AutoCAD and Google SketchUp programs.

3.2.3 GENERAL DESCRIPTION

In this part general inscription about plan,facade organization are given and the spaces are defined with reference photos in the fallowing Figures.

3.2.1 CLOSE ENVIRONMENT

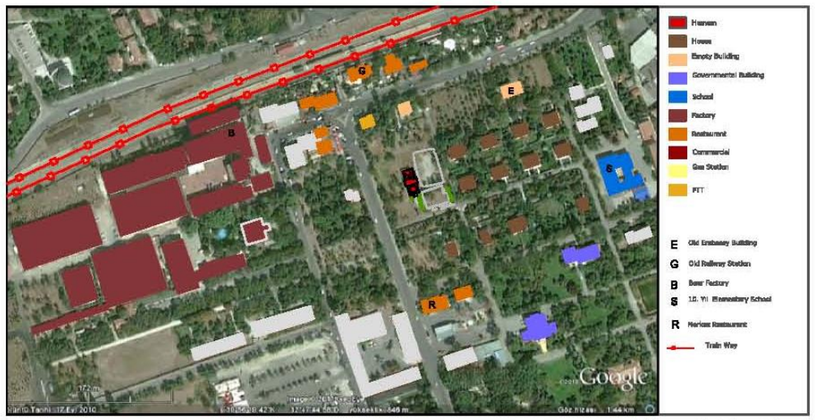


Figure 1- Site Plan 1

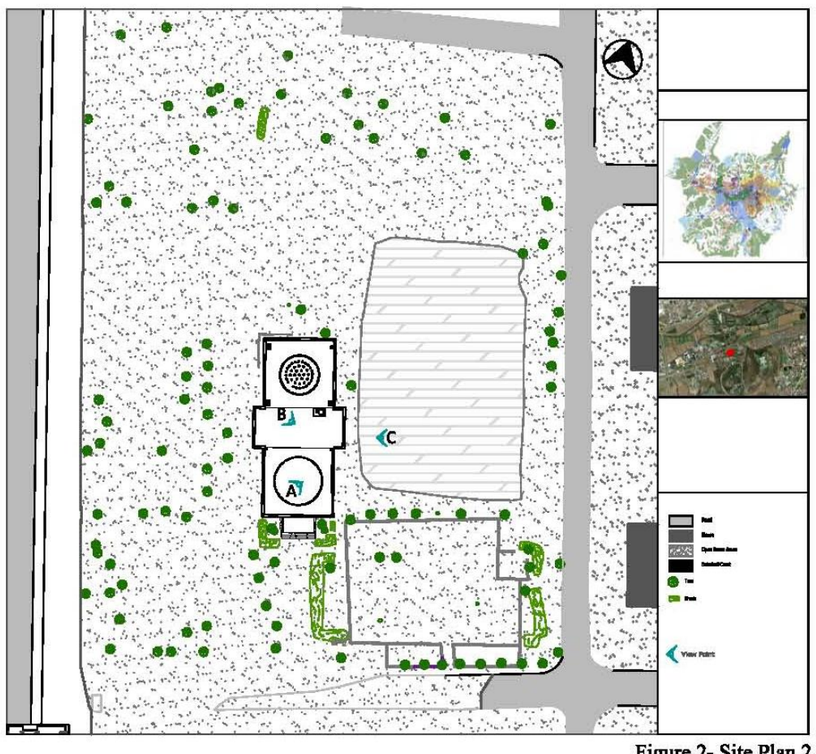


Figure 2- Site Plan 2

It can be said that daily situation of the Hamam building is introverted, elongates on a big green area as a single building. It take place inside from the road and separated from main axe with green area at surrounding as well as the fencing of the AOÇ administrative units and dig boundaries. Inside this boundary the Hamam has also an autonomous statue as it is naturally separated from workers house with the road passing in between, the trees and bushes. (Figure 4, 5)

The Hamam building elongates on an open green area of 6453 m2 (Figure 2). In close surrounding workers house take place at the east side, while the AOÇ administrative units take place at the south east side. At the north side the PTT building and another worker house are placed. The old embassy building oriented in the north east side. Across the roads on west side there are AOÇ maintenance units , plantation and restaurants take place. At the south side the "Merkez Restoran" and a gas station can be seen.

A hard ground covered basketball field is placed next to the building at east side while a playground take place at the south east side. (Figure 2)

There are traces of side pavement at east and west side. Also a pavement can be seen at north side. A road trace in front of the main entrance can be seen at south while there is another road trace observed at the north. (Figure 3)

Figure 3- South View , View point A

Figure 4 - North West View,View point B

Figure 5 - East View ,View point C

Figure 32 –Definition for Close Environment

AOÇ HAMAM SPACE ORGANIZATION

The Hamam building elongates through north- south direction. The building sits on an a base area of approximately 242 m2. The building is composed of three floors and geometrically in three piece, two cubes with domes at top at north and south side and a rectangle at the middle. Each space designed in these geometric shapes with little division inside. The plan is symmetrical in scheme. At ground floor three space, at first floor two space are observed. In basement floor there are seven space.

Main entrance elevated from ground with five stair and take place at the south side. Main circulation between floors are supplied from the u form stair. Due to the traces of water system and space characteristics, it can be said that, the ground floor is designed composition of three space which is thought to be used for bathing facilities and preparation area. The first floor is thought to be used for preparation area and gathering area as well. Today, two space can be observed F-01, F-02 but it can be said that there were two space in the place of F02.

The entrance space is G-01. This space has visual connection with space F-01 with the gallery opening. This space connected to space F-01 and B-02 with the U form stair at the north side, and this space is adjacent to space G-02 from north side. The space is designed to get nature light with window openings at three side and with the windows take place at the drum. There are also traces of illumination system on ceiling meaning the space either used at nights or with division in space ,that are lost today,they are used to sustain enough light for the space.

Entrance to space G-02 is supplied with the door openings at east and west side of the space. This space is small in size and thought to be the passage area between space G-03 at north and G-01 at south side. There are traces of division walls at corners of the space. The light in space is less as a result of small circular windows. On the other hand there are traces of illumination system.

G-03 is the main space that bathing facilities take place. This space has also many traditional elements such as göbektaşı at the centre, seki at sides, dome cover as superstructure and the oculus. The space is also the biggest volume in Hamam building. The natural light is taken from the oculus on dome.

Space F01 has a L shape opening at south east and west corners of space and a gallery opening at the middle. The space is adjacent to space F-02 at north side.

The entrance to space F-02 is supplied from the door openings at the sides of the u form stair. Today F-02 is observed as a single space, however, traces of division at the middle can be seen. The space has 12 rectangular window opening. This space is the most lighted space at Hamam, as well as the space has close relation with the environment due to the projection and space character.

The basement floor is arranged in two part. The spaces beneath G-01 is designed for the Hamam users. There is wc and another space take place at the south side of the basement floor. On the other hand spaces under G-02 and G-03 are technical spaces where heating and water system centre take place.

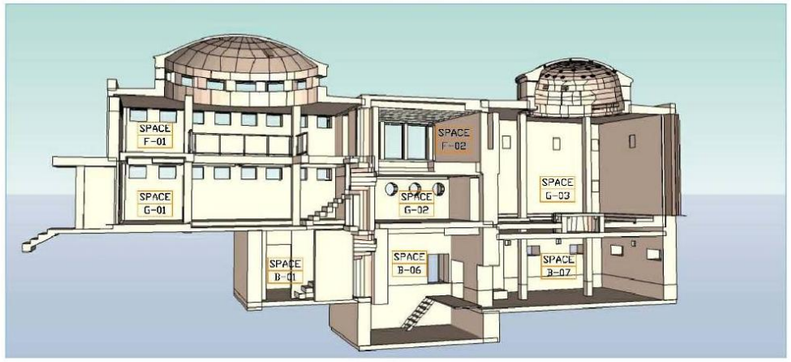


Figure 3

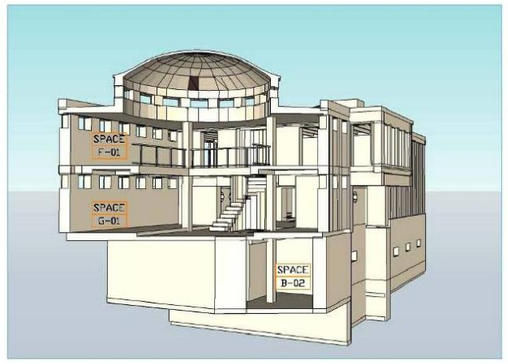


Figure 4

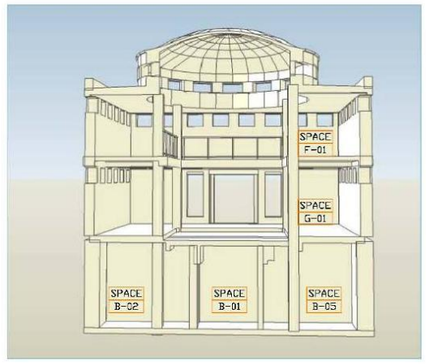


Figure 5

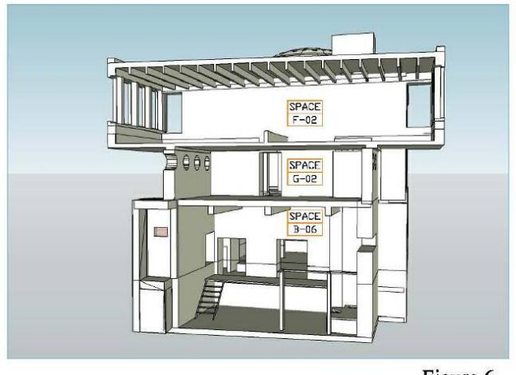


Figure 6

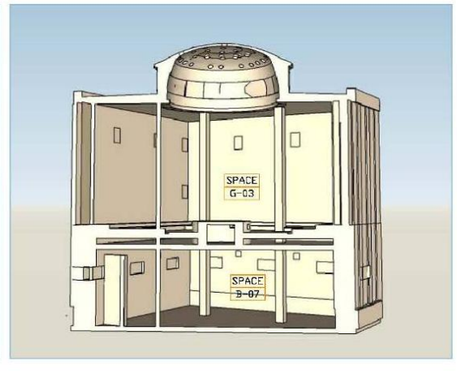


Figure 7

Figure 33 Definition for plan organization

GROUND FLOOR SPACE G-01

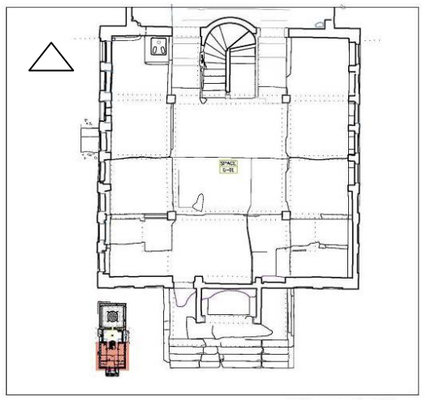


Figure 1- Plan

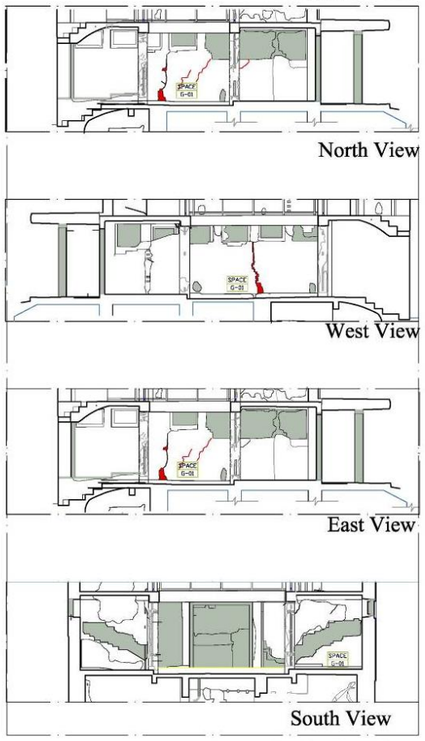


Figure 2- Section Views

Structural Problems

Traces & Remains

G-01 space is the entrance space and oriented at the south side of the building, and also adjacent to space G-02 from north side. (Figure 1,2) The space almost have a square scheme with sizes of 9.20 at north, 9.42 m at south,9.26 at east, and 9.31 at west side. The space has an approximate height of 2.40 m and there are four columns at the middle of space (33x33 cm). The space has a visual connection with space F-01 through the gallery at the middle. (Figure 3) Stairs in the north side connects this space with first and basement floors. (Figure 4)

Floor is elevated approximately 15 cm from ground at east, west and south sides with "seki"s that surround three side of the space. (Figure5)

On east and west walls of the space there are eight windows, some of which are infilled with briquette and hallow brick at later periods.(Figure 6) There are two openings at sides of main entrance at the south wall, as well as two door opening at north wall, both side of the stair.(Figure 4, 5)

The dome carried by four columns at the middle, and it covers the spaces G-01 and F-01, and enable light passage with the 16 windows on the drum. (Figure 7)

Today there isn't any finishing material on the ground but traces of marble coverings can be observed . In the space, traces of partitions which were probably used as dressing cabinets can be seen. Also remains of walls that are destructed can be seen around the sides of the toilet at north-west corner of the space. (Figure 8) Traces of water system, electricity installation can also be observed on walls and ceiling. There are holes in wall section in east and west at +0.70 m level. (Figure 6)

There is a structural crack that continues on floor , east and west walls due to different settlement of basement. Micro cracks and structural cracks can also be seen on south wall. (Figure 2, 6)

Figure 3

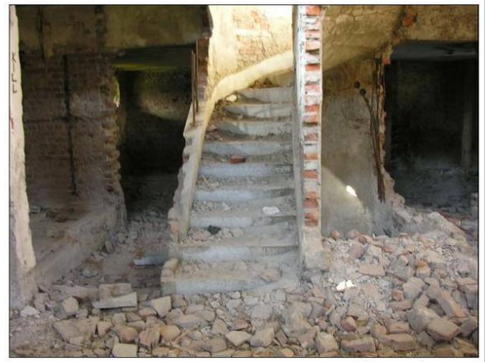


Figure 4

Figure 5

Figure 6

Figure 7

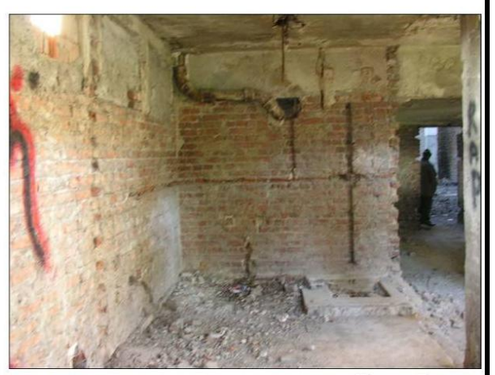


Figure 7

Figure 34 Definition for Space G-01

GROUND FLOOR SPACE G-02

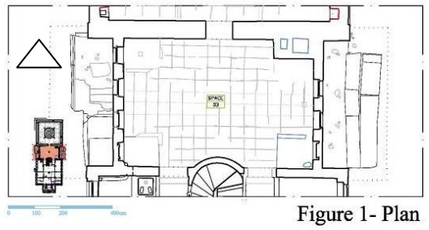


Figure 1- Plan

Figure 2- Section Views

Traces & Remains

Space G-02 take place at the middle of the building, adjacent to space G-01 at south and G-03 at north side(Figure 1). This space has a rectangular scheme with sizes of 7,27m at south and north, 4,95 m at east and west side. The space has a height of 2,27m.

There are seven circular windows (D:58cm), four at west wall and three at east wall(Figure 2, 3,6). There are door openings leading to space G-03 and G-01. Two doors opening take place at the south and one door opening take place at the north side.(Figure 2, 7)The chimney has a projection in space at north west corner.(Figure 4)

There are traces of demolished walls at corners of the space, are thought to be "halvet" walls . (Figure 6, 8) There are metal water drains on ground. (Figure 5) There are also traces of floor finishing at size of approximately 45x45cm.(Figure 9) Also traces of water system can be seen on east and west walls. (Figure2, 6, 9)There is a hole connected with the chimney at the north - east corner. For the heating system it may reflect existence of a stove. (Figure 4) On east and west wall traces of two line pipe shows that hot and cold water has been brought this space and this space has a bathing function.

Figure 3

Figure 4

Figure 5

Figure 6

Figure 7

Figure 8

Figure 9

Figure 35 Definition for Space G-02

GROUND FLOOR SPACE G-03

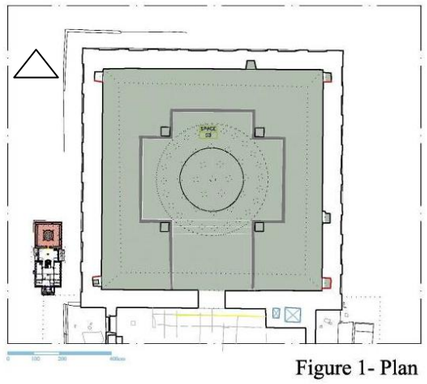


Figure 1- Plan

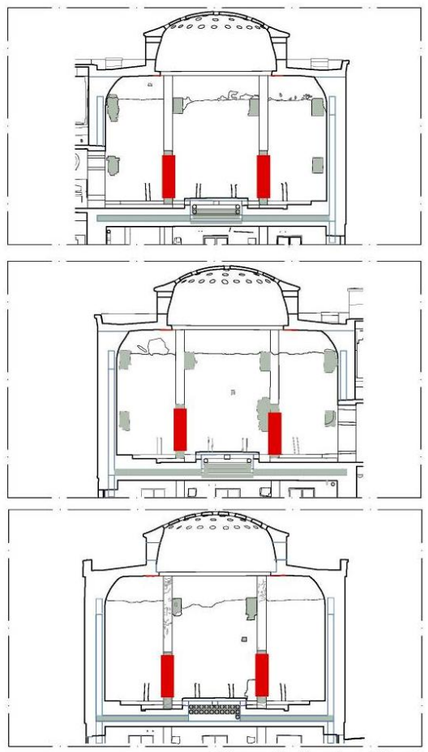


Figure 2- Section Views

Structural Problems

Traces & Remains

Space G- 03 take place at the north side of the building. Space has almost square scheme with of sizes of 8,50 m at north,8,52m at west, 8,53m at east, 8,52m at south. (Figure 1) The space is covered with a dome(inner D:4,68, Outer D: 5,45m) that are carried by four columns(34x34cm) in the middle.(Figure 3) The space has a height of 5,12 m and dome has a top level of +7,50m. The single opening is the door (2,21m x 1,03m)connecting this space to G-02 in south.(Figure 4) There isn't any window, but there are 44 oculus on dome to sustain light. In east, west and north walls there are niches. These niches(approximate height 65cm, width: 40cm) are placed at two different levels.(Figure 5,6) The upper niches has a top level of +4,25m while the lower ones has a +2,24 m level. The upper niches are connected to chimney and basement floor to sustain air ventilation and vapour transfusion. In the middle of the space "göbektaşı" take place(R: 4,31m). The top slab of "göbektaşı" is made up concrete and has openings (height:18cm, width: 22cm) on four sides. (Figure 8) In the ground, floor tile traces can be seen. The seki surrounding the space is arranged in two level. The first level has a height of 14 cm and the second level has a height of 16 cm. The water canals surrounds the space and has a slope through north south direction. In walls , traces of water system and "kurna" can be seen. Also there are traces of covering elements. It is thought that there is a heating system of pipes passing through a canal, like the system in the "göbektaşı", as the space has a slab height of 67cm. (Figure 9) There are canals going through in wall section. (Figure 7) Fragmantetion of the columns and metal corassion and loss of protection concrete over them are the structural problems observed in Space G-03.(Figure 2)

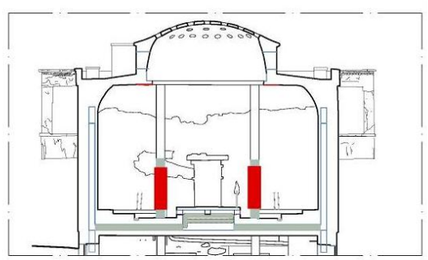


Figure 3

Figure 4

Figure 5

Figure 6

Figure 7

Figure 8

Figure 9

Figure 36 Definition for Space G-03

FIRST FLOOR SPACE F-01

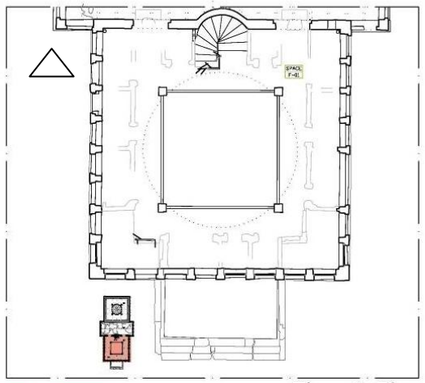


Figure 1- Plan

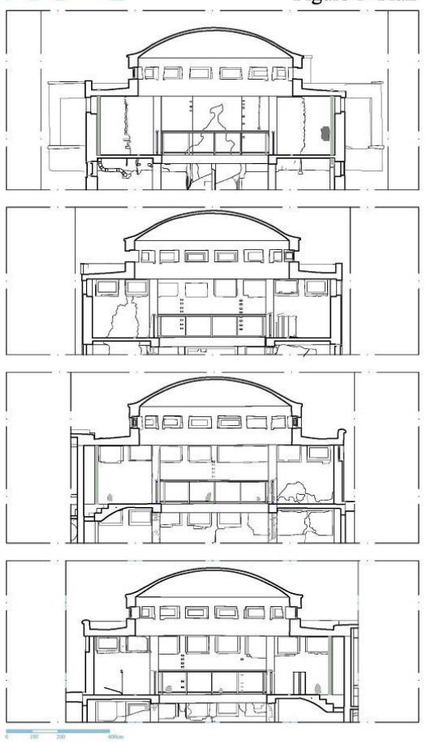


Figure 2- Section Views

Traces & Remains

SPACE F-01

F-01 space take place in first floor at the south side of the building. The space has almost a square scheme with sizes of 9,19m at north size; 9,25m at east ; 9,21m at south; 9,29m at west side. The space has a height of 2,27 m. (Figure 1-2) The space has an gallery opening at the middle with sizes of 4,40 x 4,40 m. The space is covered with a dome with inner diameter of 6 m.(Figure 2,3,4)

The space is connected with ground and basement floor by the u form stair that take place at the north wall.(Figure 1, 5) There are eight window openings at south, east and west walls. In north wall there are two door openings that connects this space to space F-02. There are 16 windows at the drum of the dome.(Figure 6) L shape openings of demolished stairs can be observed at south-east and south-west corner of the space.(Figure 7) There are remains of handrails around the L shape openings, stair and gallery.

There are also traces of 15 cm width canals on the floor, which are remains of the division walls of the cabinets.(Figure 8) Also there are traces of illumination system on North side walls. (Figure 2) There are also holes on east and west wall, close to the ground level at + 3,12-3,22 m level. A water pipe can be seen on south -east side adjacent to L shape openings at corner. This water pipe may be a trace for heating system in this space. (Figure 2,9)

Main problem of the space is fragmentation of concrete. The dome's iron structure has revealed out due to fragmentation of concrete. The same problem can be observed on columns. (Figure 5,6)

Figure 3

Figure 4

Figure 5

Figure 6

Figure 7

Figure 8

Figure 9

Figure 37 Definition for Space F-01

FIRST FLOOR SPACE F-02

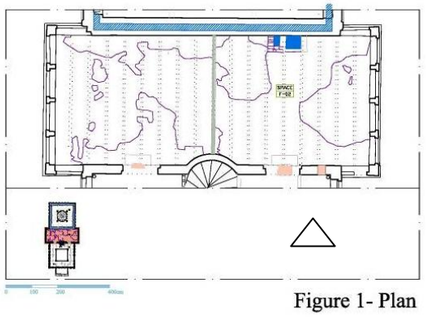
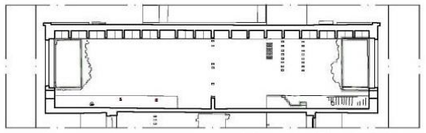
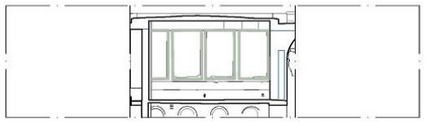


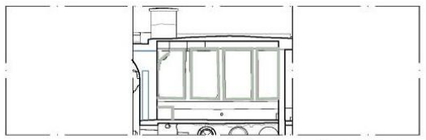
Figure 1- Plan



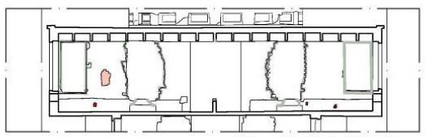
Section- North View



Section- West View



Section- East View



Section- South View

Figure 2- Section Views

Traces & Remains

SPACE F-02

Space F-02 take place in the first floor at the projected part of the building. There are four window openings at the east and west walls while two windows take place at north and south side. (Figure 3-4) At the middle of the space there is a concrete division at a height of 38-40 cm . (Figure 3, 5)There are also remains of brick wall division at the middle of space.

The ground level of this space is 45 cm below the ground level of F-01.(Figure 2) The ceiling is composed of one way joist slab with a width of 7, 8cm and a depth of 29 cm. (Figure 5) Ceiling is covered with partially demolished suspended ceiling that is tied to ceiling with iron bars. The surface of this "suspended ceiling" is formed by pebble aggregated mortar and metal hexagon gauze.(Figure 3-5-6)

Though this space is observed like a single space, originally it is composed of two spaces. The space was divided into two part at the middle aforementioned. There are two door openings and stairs at south side connecting the space to Space F-01. (Figure 2)

Metal hooks can be observed at + 2,68 level beneath the window openings.The remains of the chimney take place at the north-east corner of the space. (Figure 3-4)

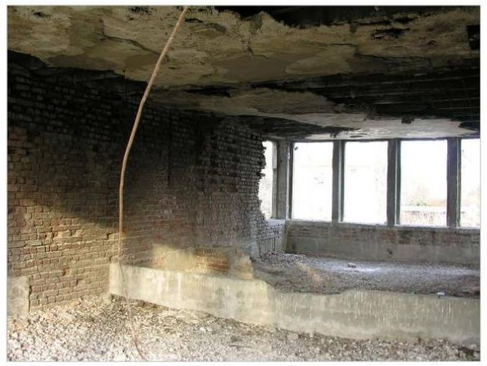


Figure 3

Figure 4

Figure 5

Figure 6

Figure 7

Figure 8

Figure 9

Figure 38 Definition for Space F-02

BASEMENT FLOOR SPACE B-01 , B-05

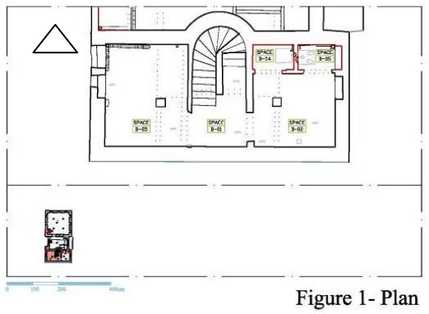
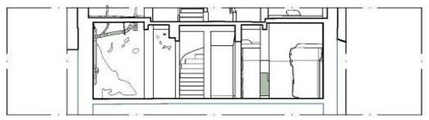
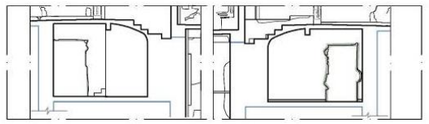


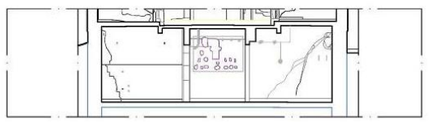
Figure 1- Plan



Section- North View



Section- West View Section- East View



Section- South View

Figure 2- Section Views

Traces & Remains

SPACE B-05

B-01space has a rectangular scheme with sizes of 3,17m north, 3,93m In east, 3,17m in south and 3,94 m in west.(Figure 1)Height of the ceiling decrease in east part due to "seki " arrangement in G-01.

The space floor is covered with terracotta floor finishing and the plastered wall surfaces are painted of straw yellow colour. (Figure 3,4) Traces of electric circuit cables can be seen on south wall and on ceiling. The door opening(approximate height:2,19m , width:1,28m) take place at the east wall and there are two metal framework window(height:50cm:, width:87cm) at the west wall. (Figure 3). Two beam at different level take place at east side of space.(Figure 5) There are no trace about any other architectural elements except the metal hangers on the south wall.

SPACE B-01

B-02 Space is a hall in front of the main stair. It has sizes of 2,09m in north, 2,02 m In east 2,11m in south and 1,60 m in west. The space has a height of 2,81m.(Figure 1,2) The space continues under u form stair and the height decrease to 2,03m. (Figure 6)There are door openings on east and west walls.

The space floor is covered with terracotta floor finishing and the plastered wall surfaces are painted with straw yellow colour.(Figure 5) 11cm height baseboard surrounds the wall edges. Traces of an electric panel can be seen on the south wall. (Figure 8) A 6 cm diameter pipe sink into south wall. (Figure 7,8)

Figure 3

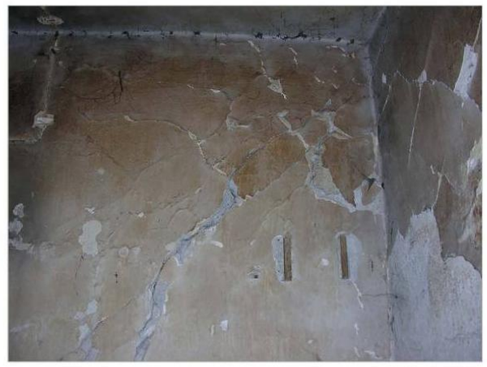


Figure 4

Figure 5

Figure 6

Figure 7

Figure 8

Figure 39 Definition for Space B-01 &B-05

BASEMENT FLOOR SPACE B-06

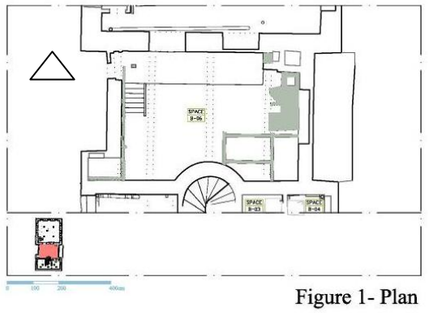
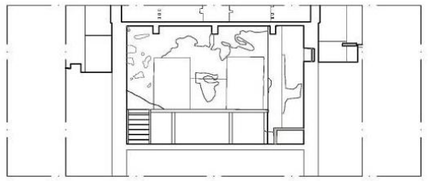
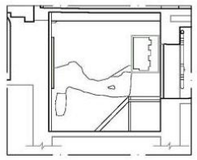


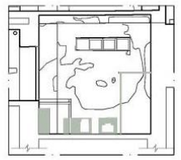
Figure 1- Plan



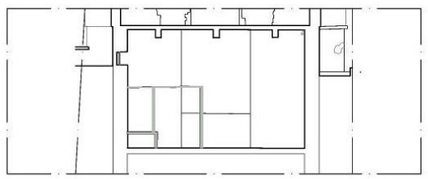
Section - North View



Section - West View



Section - East View



Section - South View

Figure 2- Section Views

Traces & Remains

B-06

B-06 has a rectangular scheme, and the space has a height of 4,57m . (Figure 1)There is a chimney at north east corner. (Figure 1,2) A metal platform with a width of 1,24m take place at north side of the space. (Figure 3)This platform is elevated from ground 1,33m and there is a metal stair connecting this platform to ground.

There are metal framework window (width: 2,09m, height:0, 50m) at -1,52m level. (Figure 4) There is also a separated area at South west corner of the space, which is connected outside with the metal frame worked window (width:58cm, height:50cm) . (Figure 5)There is a door opening at west side. (Figure 8)

The space is thought to be the centre space for heating and water system. The fireplace take place next to the chimney at north east corner. There is an opening at the bottom of the chimney that is opening to the space. (Figure 6,7)

There are metal bracelets that holded water pipes.(Figure 4,8) Also traces of water pipes can be seen spreading to spaces in Hamam. There is a metal frame where the water tank was placed.(Figure 4)

In the light of architectural element traces and remains, there should be a heating mechanism to get the hot water as well as a pump to distribute the water inside the Hamam. It seems that solid material for burning wasis used due to the separated area in south west side and fireplace at north-east corner. Also it can be said that a controlled burning is done and heat is holded inside. Otherwise with openings in space and the windows its hard to hold heat in the system. A detailed analyses can be seen in the heating and water system part.

Figure 3

Figure 4

Figure 5

Figure 6

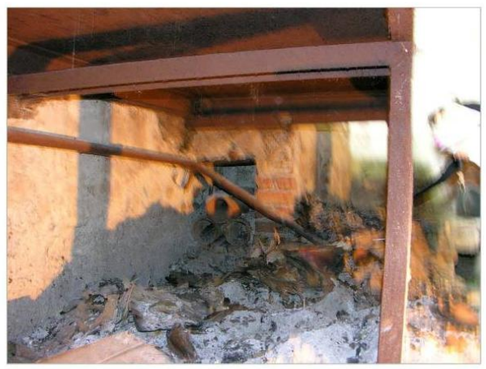
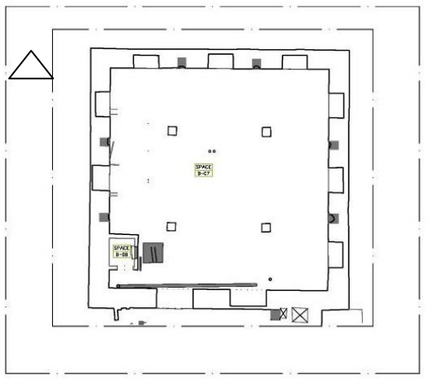


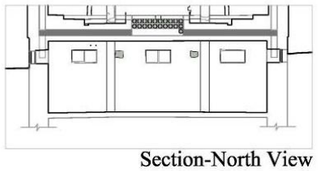
Figure 7

Figure 8

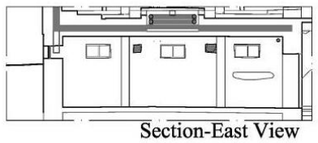
Figure 40 Definition for Space B-06

BASEMENT FLOOR SPACE B-07

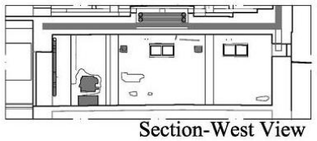




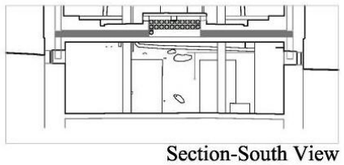
Section-North View



Section-East View



Section-West View



Section-South View

Figure 1- Plan

Traces & Remains

SPACE B-07

B -07 has a square like scheme with sizes of 8,44m at North, 8,52 m at east, 8,44m at south and 8,45m at west side. The space has a height of 2,25m.(Figure 1,2)

There are four column (approximate 33x33cm)in the middle of the space. (Figure 3) Metal bracelets that holded water pipes can be observed on ceiling and column surfaces . (Figure 4) The remained water pipes in the space continue in space G-03. (Figure 5,6)

Three metal frame windows (height: 50cm, width: 96cm) take place on each North, east and west walls. (Figure 6)There are also small openings (25x30cm) connected with the vertical canals inside the wall.(Figure 6)

There is a concrete box in south west side. A separated area take place adjacent to west wall.(Figure 7) The space is connected outside with the window opening. There are also two door openings at the south side. (width: 1, 42m, height : 2,08m) (Figure 8)

Figure 3

Figure 4

Figure 5

Figure 6

Figure 7

Figure 8

Figure 41 Definition for Space B-07

ROOF

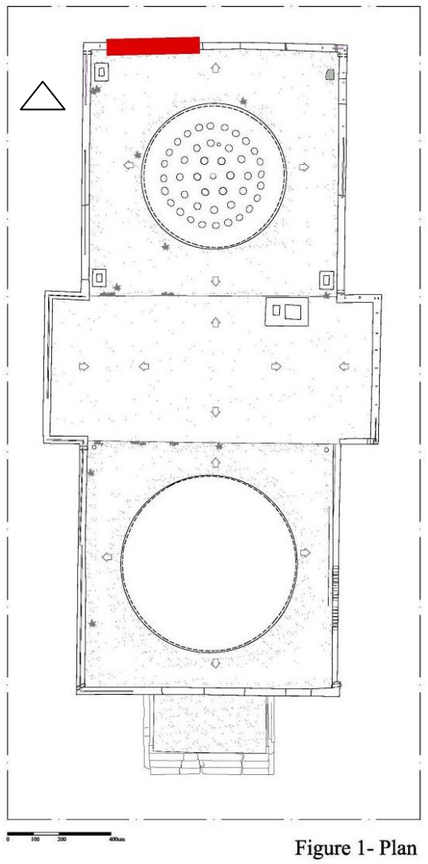


Figure 1- Plan

Structural Problems
Traces & Remains

ROOF
The roof is composed of three parts. At the middle flat roof take place while at the north and south part dome and flat surfaces take place.

30 cm width parapet surrounds the roof . The parapet is made of brick and a concrete top, slope is given with the plaster over this concrete top. At some parts the parapet courses are demolishes and top cover is lost. There is a structural deformation at the north parapet.

Gutter traces, water drain pipes an can be observed. Eight zinc spout takes at the corners of the north and south part of the roof.

Figure 3

Figure 4

Figure 5

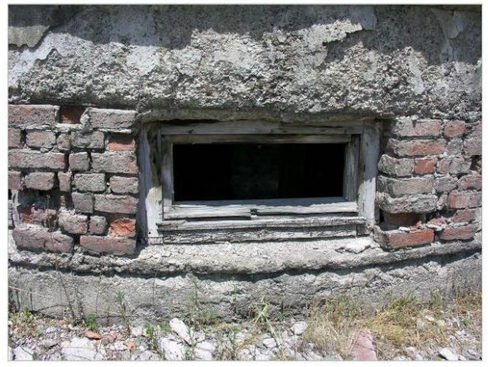


Figure 6

Figure 7

Figure 8

Figure 42 Definition for Roof

FACADE ORGANIZATION

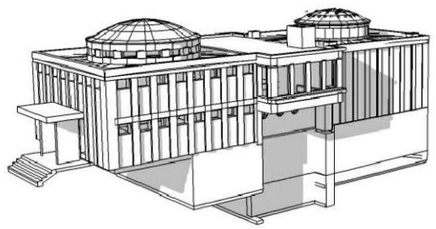


Figure 1- South east view

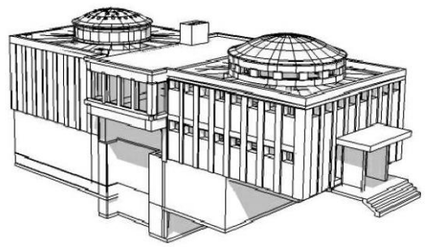


Figure 2 - South west view

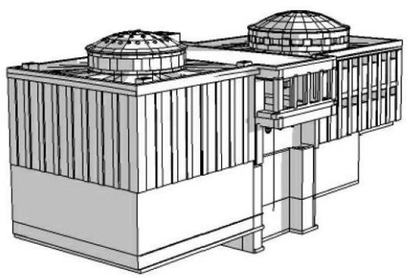


Figure 3- North west view

The building is elongated through north- south direction. Symmetrical design of the plan is reflected on facades. Geometry of the building can be defined basically as combination of two cubes at north and south with recesses on surface and domes at the top and a projected rectangle at the middle. (Figure 1,2 and 3)East and west facades are longer facades with length of 25m, while north and south facades are the shorter facades with length of 10m.

Facades are plastered but the brick courses can be seen where there are plaster lost. (Figure 4,5,6 and 7) Different from general characteristic of facade, the projected part at the middle is made of reinforced concrete and brick . It is possible to see two layers of plaster, of which the layer at the below is thought to be original , and the layer above is a later application. It can be said that the building had a straw yellow colour, from the remains of paint observed on surface . (Figure 5,6).

Structural crack in space G-01 can be seen at east and west facades. Deformation of the G-03 north wall and brick course deformations on paraphet can be observed on facades. Other determined problems are material loss and infilled openings. More detailed descriptions about facades are explained in following parts.

Figure 4

Figure 5

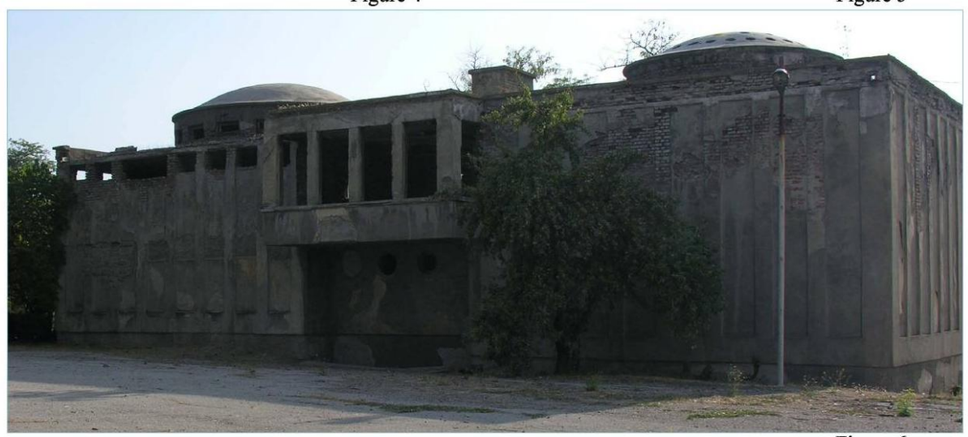


Figure 6

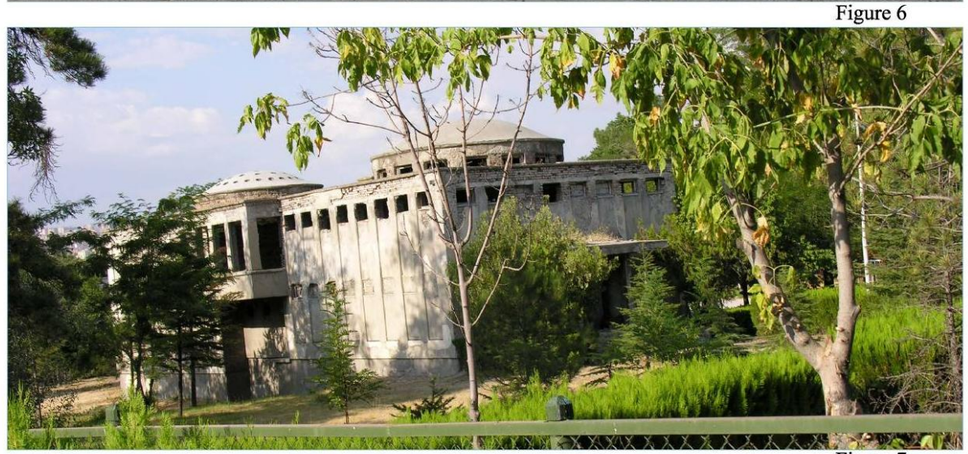


Figure 7

Figure 43 Definition for facade organization

SOUTH FACADE

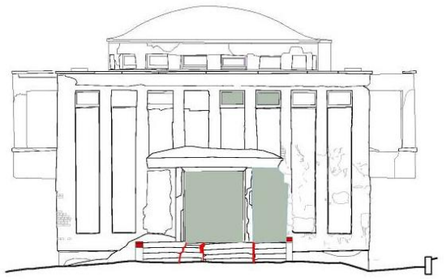


Figure 1

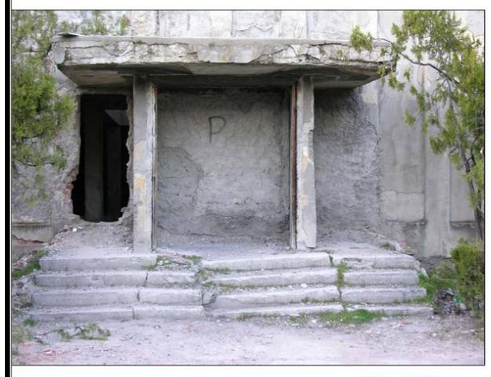


Figure 2

Figure 3

Structural Problems
Traces & Remains

Main entrance of the building is from south side. The entrance is elevated from ground with four stairs.(Figure 1) The entrance is designed with two opening under the projected eave. Two window openings (height: 2, 05 m ; width : 0,77 m) take place at both side of the main entrance (height:2,38 ; width:2,13). (Figure 2) The rectangular recesses on surface bring a dynamism to naive design of the facade. The south facade has a width of 10 m and height of 6.41m

Basement floor is intruded inside at -0, 04 m level. In first floor eight window openings with approximate base level of +4,50m(height: 0,56 m ; width : 0,70 m) are placed inside the recessed surfaces.(Figure 3) The parapet take place above these windows. The dome above G-01 and F-01 has a pick point at +7,80m.

There are structural problems, material loss and deterioration on surface. The stair in front of the entrance is broken from three part and the covering terracotta finishing is detached from several parts(Figure 2). Also the side walls of the entrance stair are partially collapsed from upper courses. Infilling of the openings, plaster loss, window and door frame loss and loss of some brick courses are the types of material losses that are determined on this facade.(Figure 1,2,3) Detachment of plaster layers can also be seen especially on surfaces at first floor level. At the south side of the projected part, concrete window sills are deformed and broken at some parts.

NORTH FACADE

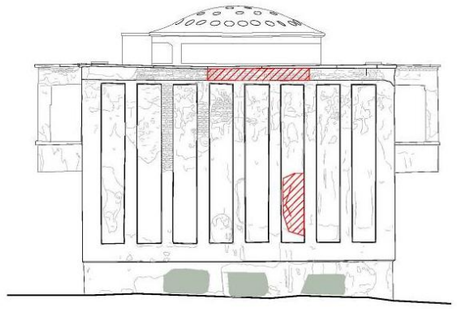


Figure 4

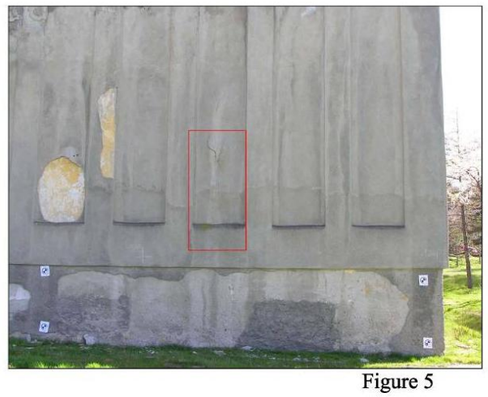


Figure 5

Figure 6

Figure 7

Structural Problems
Traces & Remains

Today the north facade wall is blind. The north facade has a bare design with eight recess. (Figure 4) The observed facade height is 7,40 and the facade has a width of 10m. The parapet take place above recesses and the dome above space G-02 has a pick point at +7.60 m.

Basement floor is intruded inside from -0,06m level. (Figure 4) Three window openings at basement floor are infilled and plastered.(Figure 4-5) Main structural problem determined in space is brick course deformation on parapet at west side and deformation on G-03 wall on the third recession from west side.

Loss of plaster and detachment of plaster are the problems that are expanded on whole surface. At the north side of the projected part concrete window sills are deformed and broken at some parts. Also a brick course of parapet is lost above projected parapet and loss of plaster above paraphet can be observed.

Figure 44 Definition for south&north facade

EAST FACADE

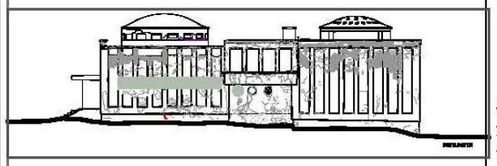


Figure 1

Figure 2

Figure 3

Figure 4

Structural Problems

Traces & Remains

East facade has a width of approximately 25m. The blind surface at the north side, projected part at the middle and the surface with windows in ground and first floor at the south side. Like the other facades, recesses bring a movement to surfaces .

There are single differences between the symmetrically designed east and west facades Window openings that are infilled take place in the ground floor level, while there are 7 window opening at first floor level. Due to the brick loss between two windows, the opening is observed as single opening. The window openings in basement floor are infilled and they can't be observed from facade. In the middle part there are three circular window (R: 58cm). The parapet above the openings is demolished at some parts. The north side part has a barrel design with recessed surfaces.

The structural crack that can be observed in Space G-01 continues in east facade starting from -0,68 m level and continues at the basement. Loss of window frames and brick course and concrete losses are observed around openings. Loss of plaster and detachment of plaster are the problems that are expanded on whole surface. Window sills are deformed and broken at some parts on projection. Also a brick course of parapet is lost above projection

WEST FACADE

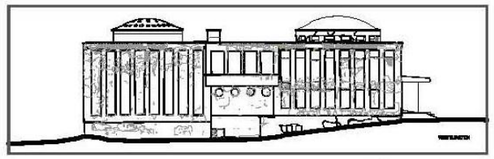


Figure 5

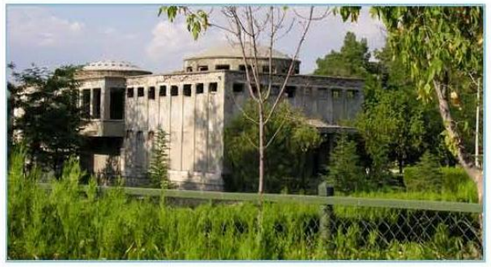


Figure 6

Figure 7

Structural Problems

Traces & Remains

West facade has a width of 25m. Basically facade is composed of three parts. The blind surface at the north side, projected part at the middle and the surface with windows in ground and first floor. Like the other facades, recesses bring a movement to surfaces and the projected space brings a dynamism.

Both first floor and ground floor, there are 8 windows (height: 0,56 m ; width : 0,70 m) that are placed inside the recessed surfaces. Two windows opening can be observed in basement level, at a top level of -0,82 m. In the middle part there are four circular window (R: 58cm). 2,5 m projection from G-02 space and 1,45 m from side walls is made. There are four window opening (height: 1,82m, width:1,01 m). The parapet above the openings is demolished. The side walls of Space G-02 is intruded inside and there is a door opening(height:1,42m ; width:1,04m) at a top level of -1,09 m. There is also a projected part that has a connection with space B-06 with a window at the north side. The north side part of the east facade has a barrel design with recessed surfaces.

The structural crack that can be observed in Space G-01 continues in east facade starting from +2.20 level and continues through the basement. Loss of window frames and brick course and concrete losses are observed around openings. Loss of plaster and detachment of plaster are the problems that are expanded on whole surface. At the north side of the projection, concrete window sills are deformed and broken at some parts. Also a brick course of parapet is lost above projection.

Figure 45 Definition for east&west facade

3.3 ANALYSES

Analyses related with Hamam Building are done under topics construction system; material usage; architectural elements; structural problems, material loss and deterioration; evaluation of remain and traces. These studies are prepared with information obtained by visual survey and don't comprise any laboratory work. Analyzed data are mapped on collected photographs, drawings or 3D models for some topics schematically. At the end of this chapter the coherence of the visual sources are evaluated by comparison of this data with analysis.

3.3.1 CONSTRUCTION TECHNIQUE

AOÇ Hamam building was constructed in 1937-1939. Like the other buildings constructed in the same period reinforce concrete system is used. To basically explain, a combined system of reinforced concrete system and masonry system used together in the building. (Figure 126, Figure 127) The columns, slabs and superstructure are constructed with reinforced concrete system, while masonry system is used as complementary of the system and used in outer load bearing walls and main division walls at inner space.(Figure 46) Main construction materials of masonry system are brick and mortar above -0.50 m level, while stone and brick used together below that level at outer walls.

There isn't enough knowledge about foundation; however it can be said that basements are arranged in four different levels due to the ground level differences of G-01, B-01, 02,03, B-06 and B-07 spaces. These level difference might be related with the space functions and their necessities. It is thought that the foundation continues under load bearing masonry walls and column base.

The construction system is investigated under two topics, masonry system (brick, brick and stone masonry walls) and reinforced concrete system(columns and slabs).

In the whole construction system, the walls join the system as load bearing masonry walls. These walls are either exterior walls or inner division walls. In that respect the walls are examined according to their thicknesses, their relation with the construction system in order to reveal out whether it is load bearing or division wall. In the second part the bonding types are investigated.

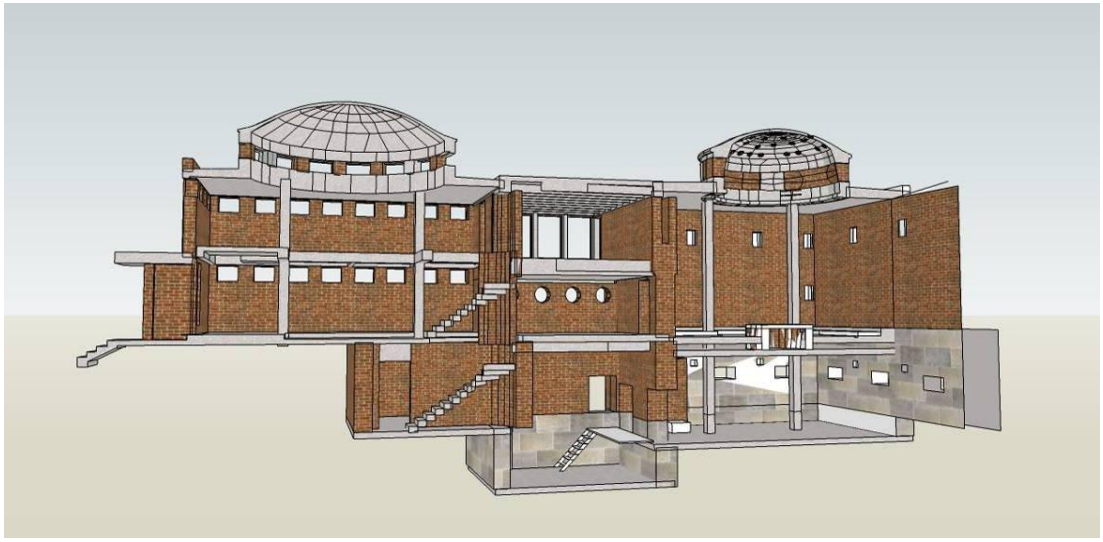


Figure 46 – 3D Section Model

The wall thicknesses has been determined from the survey drawings. [7]As a result of this study three different interval of thicknesses have been determined. These are 68-80 cm , 34-50 cm and 12- 26 cm. Thickness distribution in Hamam can be seen in Figure 47 at below. The infilled wall thicknesses change between 12-26

[7] As some surfaces are plastered and not a selective study made for the place selecting the thicknesses, the plastered surface also included. In that respect thickness intervals show differences about 5-6 cm.

cm. The outer wall, space G-02 and F-02's north and south walls have 34-50 cm thicknesses. The walls of space G-03 has a thickness of 68-80 cm due to the air canals inside wall section. On the other hand the inner division walls in basement floor have a thickness of 22-26 cm .

From this study, considering the walls thicknesses and their place in the construction system, it can be said that 68-80 cm, 34-50 cm thick walls are load bearing wall. The reinforced concrete system and masonry walls are integrated to each other that slabs overlaps on load bearing brick walls.

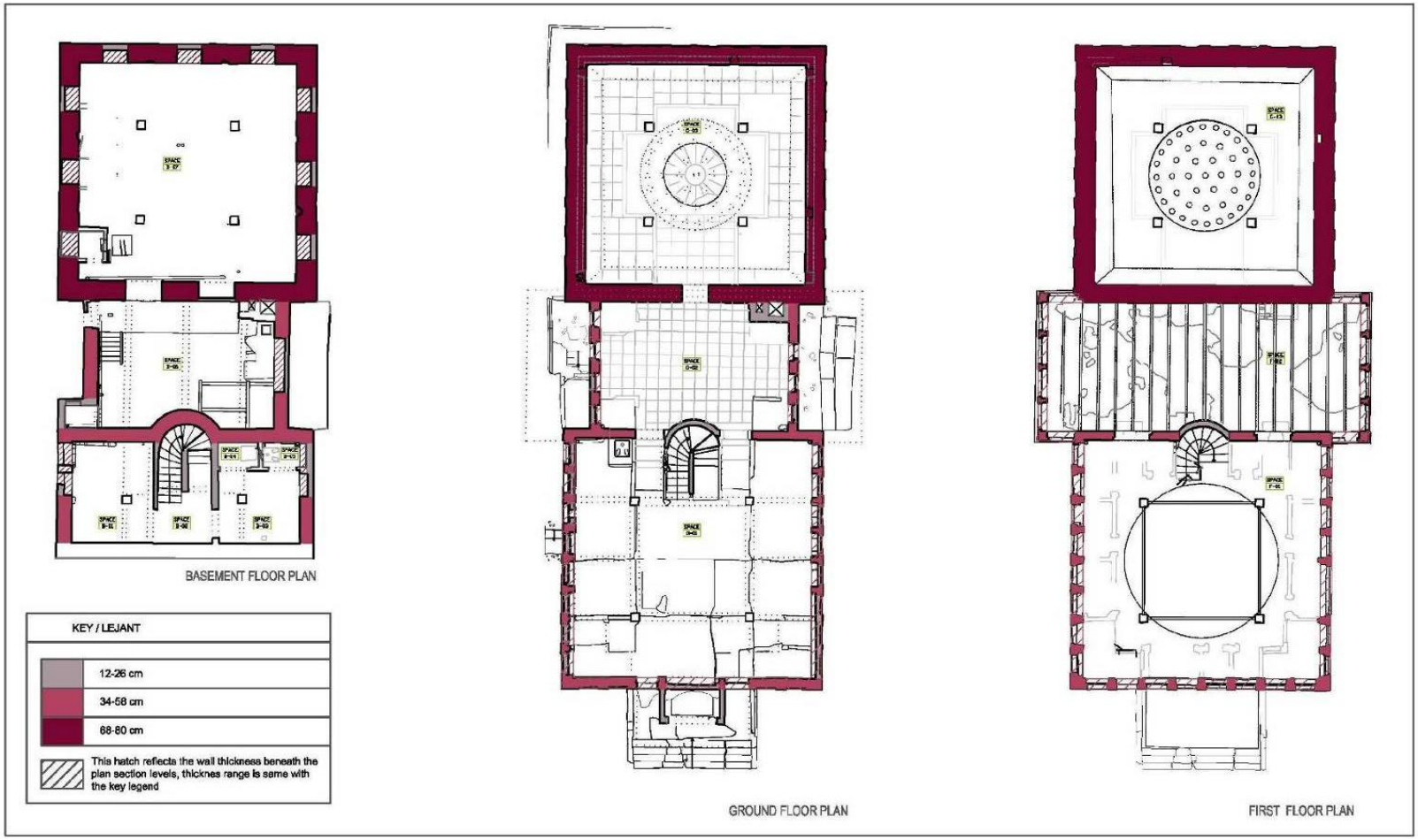


Figure 47 – Wall thicknesses analysis

In Hamam it's seen that the bonding type changes at the front wall of vertical canals surface. Because of this variety, a detailed research is made in order to reveal the vertical canals in system in space G-03, as well as to determine differences in wall junctions as traces of demolished parts today . The analyse of bonding types in Hamam showed that there are seven different type of bonding. (Figure 48)

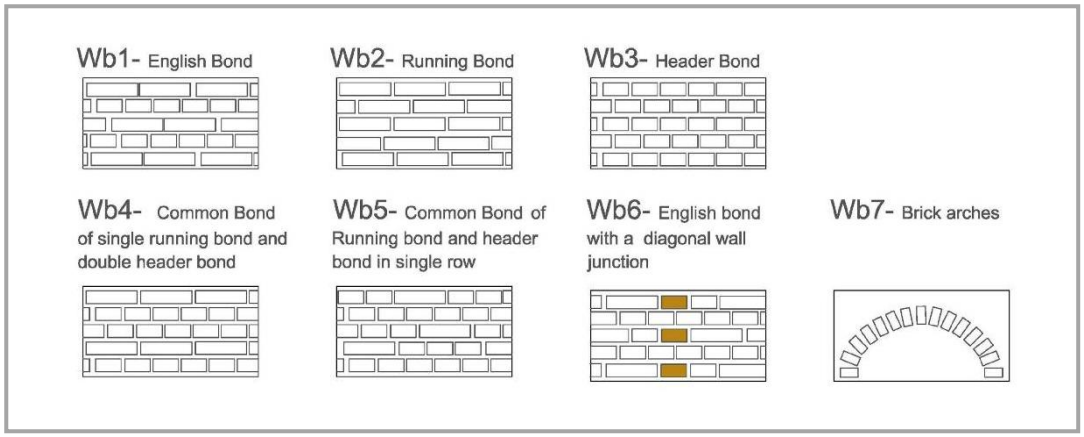


Figure 48 – Wall bonding types used in Hamam

Between these seven types, it can be said that Wb 1, Wb2 and Wb3 types are the mostly used ones. Distribution of bonding types used in Hamam can be seen in Figure 53, Figure 54. Wb1 type bonding forms the whole load bearing walls. The bonding type turns into Wb3 type, where the type is used for creating curvilinear surfaces such as main stair at the north wall and at drums. We see Wb2 type in space G-03 over the vertical canals front surface. In that respect it can be said that there isn't any vertical canals at south wall of the space G-0,3 since these Wb-2 brick

course and niches don't exist on that wall. Other bonding types are mainly used for architectural elements like Wb-4 Chimney, Wb-5 in "göbektaşı". We see Wb-6 type bonding where there is a trace of wall junctions. Wb-7 type circular arch bonding can be observed in Space G-02 , above circular windows.

On the other hand the wall characteristic show difference at basement floor. Stone and brick are used together. From observed surfaces it can be said that the stone is used in outer surfaces ; while at inner division walls brick is used. But it is also observed that levels that are close to ground level, stone has been used both at inner and outer surfaces.

In time some openings are infilled in Hamam. The used material for these infill, original brick material , hollow brick and briquette have been used. Due to the material variety for infills, it can be said that the openings might be infilled in different times, but these interventions don't belong to a period that the buildings original bathing function was in process. These infilled materials distribution can also be seen in Figure 53 and Figure 54.

As aforementioned columns, slabs and superstructure are the reinforced concrete elements in the system. (Figure 55) Actually the system has innovations in itself. It is known that, in 1920's and 1930's it was a problem to find qualified and experienced labourer for these newly used construction technologies. However in Hamam we see the construction system was created with a proficiency. For instance the slabs has a thickness of 10-14 cm , which can also be seen as an optimum thickness today. Also slabs and beam arrangement shows a competent designer work. The projection can be exemplify in that respect. The upstand beams that take place at east and west sides of projection works like a buttress. The beams used for domes and their integration with the system can be seen as an example. The columns and slab- beams will be examined in detail at fallowing parts.

Columns are the vertical members of the reinforced concrete system in Hamam. Their use in system is mainly to support the domes, that are covering Space G-01 , F-01 and G-03. They connect with superstructure, by its junction with the reinforcing bar surrounding the dome perimeter.(Figure 49)They unite with the reinforce concrete slabs with beams or the flat plates of the basement floors. (Figure 50, Figure 51)

Figure 49 – Columns and dome relation in space G-03 (author,2010)

Figure 50- Columns and flat plate relation in space B-07(author,2010)

Main problem of the columns today is fragmentation and as a result corrosion of reinforcing bars. (Figure 51,52)

Figure 51 - Columns and beams relation

Figure 52 - Fragmantation and corrasion problem of the column (author,2010)

Slabs and beams are the horizontal elements of the reinforce concrete system in Hamam. Some terminologies are taken from the book "Building Construction Illustrated" by Ching, F.D.K.In building five type slab have been determined. Slab with beams is used in Space B-01,B-02, B-05, B-06 and G-01. In G-03, G-02 and B-07 flat plate is used. One way joist slab is used in F-02 space. “Lowered ceiling” is used in basement floor where there are wet service spaces take place.

It can be said that flat plate is preferred in system because of two criteria. The first reason is to create a clean opening for the Spaces G-01 and G-03.Second reason

can be seen as heat system integration in slab at B-07 space ceiling . The approach for creating clean opening can also be seen in space F-02 as there is a suspended ceiling with Pebble Aggregated Mortar and Metal hexagon gauze arrangement. These layer is hanged to ceiling with metal bars and a smooth surface had been created.

The superstructure is composed of domes at north and south sides and flat roof . Dome is rised with a drum. The drum at the south side has four reinforced concrete and brick support in-between dome and the slab, and also in between these supports 16 window opening can be observed.(Figure 56) The dome at the north has a similar design. The dome is rised over a drum and there are three reinforced concrete support between dome and slab. Between these supports circular brick infill take place. (Figure 57) The dome at the north has a diameter of 4,70 m while the dome at the south has a diameter of 6 m. The domes don't have a spherical form, they get lower at top and the drum at north gets narrower from bottom to top. There are 44 oculus on the dome at north. Transition element is used in G-03 space and flat plate is placed above it.

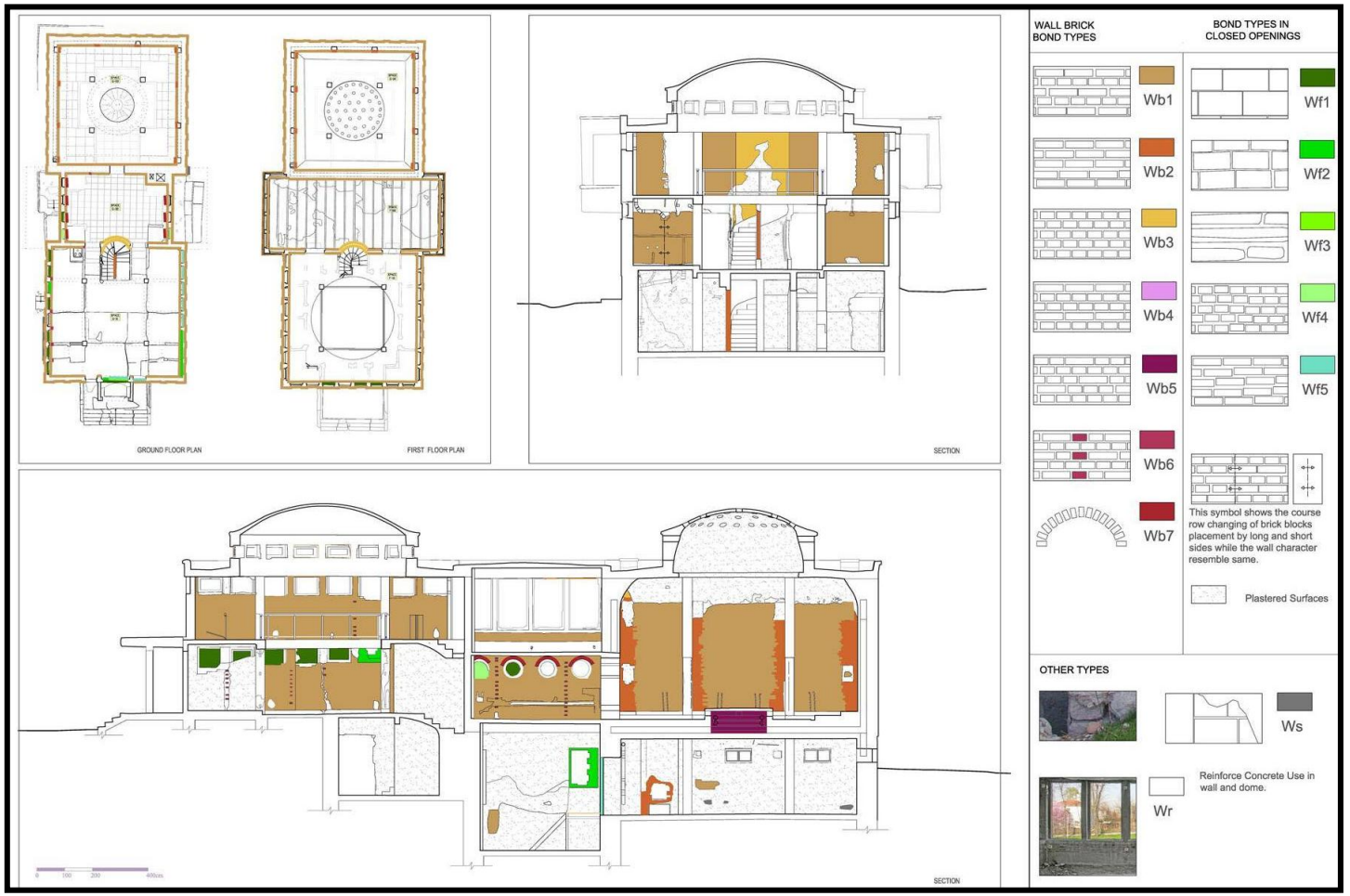


Figure 53- Brick Wall Bonding Types

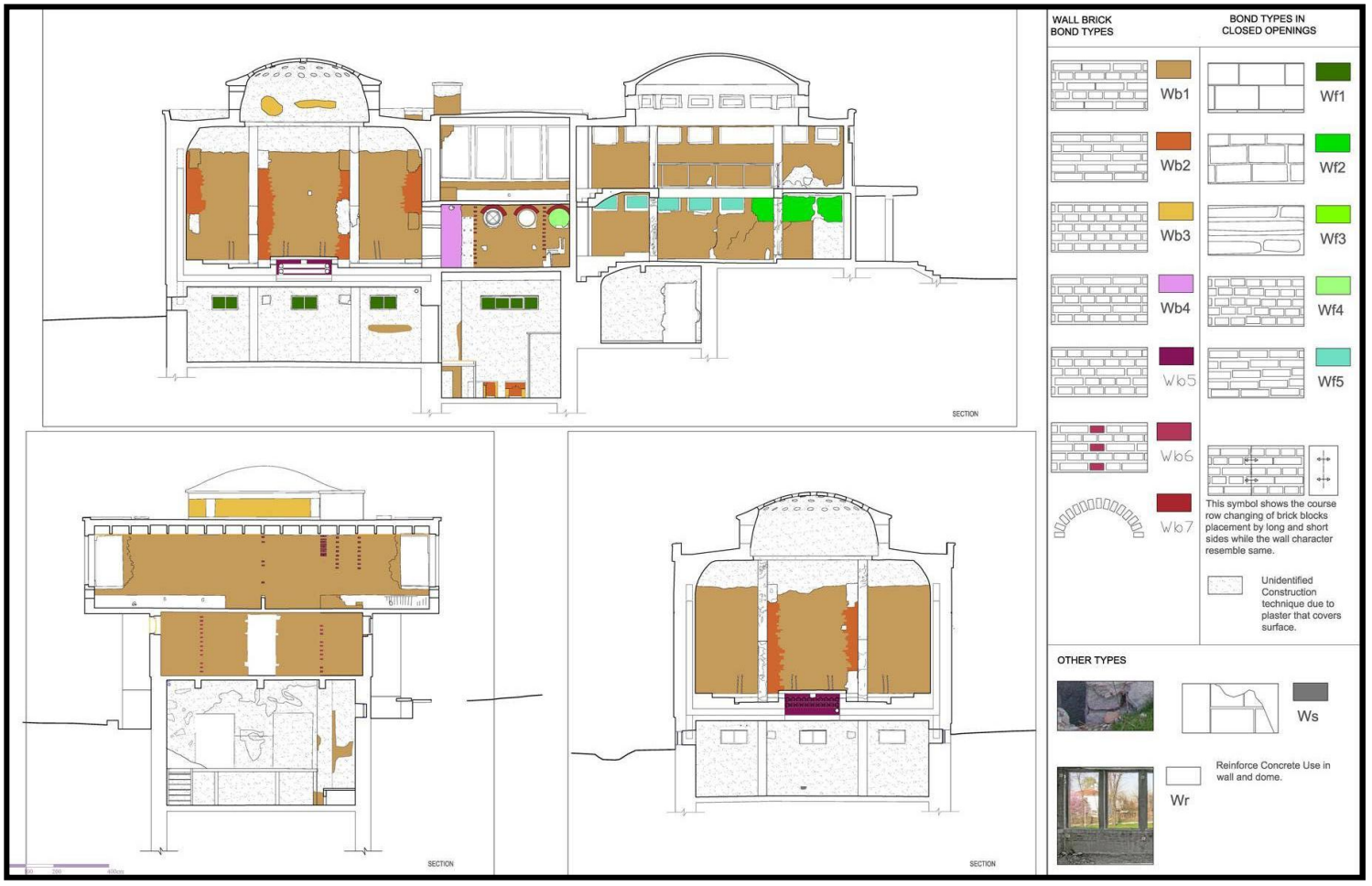


Figure 54- Brick Wall Bonding Types

Figure 55- Reinforce Concrete System in AOÇ Hamam

Figure 56 - The dome at south side(author,2010)

Figure 57 - The dome at north side(author,2010)

3.3.2 MATERIAL USAGE

The analyses about materials used in Hamam are prepared in the light of collected data by visual observation and don't include any laboratory research.

The materials can be investigated under three topics: construction materials, finishing materials and other elements such as timber, metal (Figure 58). In Hamam construction materials are also used to form architectural elements such as "göbektaşı" and fireplace. Distribution of materials in Hamam can be seen in Figure 61 to Figure 64.

The construction materials are brick (20x20x10 cm), mortar, concrete and iron. Stone is used as construction material in basement floor below -0.02 m level in south side of the building and –0.50 m at north side. In basement stone is used at outer surfaces while brick is used at inner surface of walls above level -3.10 m. Below this level stone is used both at inner and outer surfaces. Basically it can be said that brick is used at division walls, as well as outer walls in ground and first floors. On the other hand concrete is used for slabs, columns and super structure. In Hamam the masonry and reinforce concrete system are integrated together. Brick and concrete materials either are complementary of creating the vertical and horizontal structural elements, or they can either be used together for vertical structural elements like at the drum of the dome that is covering space G-01 and G-03, while the supporter frame is made of concrete. We also see materials such as hallow brick and briquette was used for infilling openings as later interventions. Mortar has been used like a plaster over infilled openings in south, east and west facades of the building.

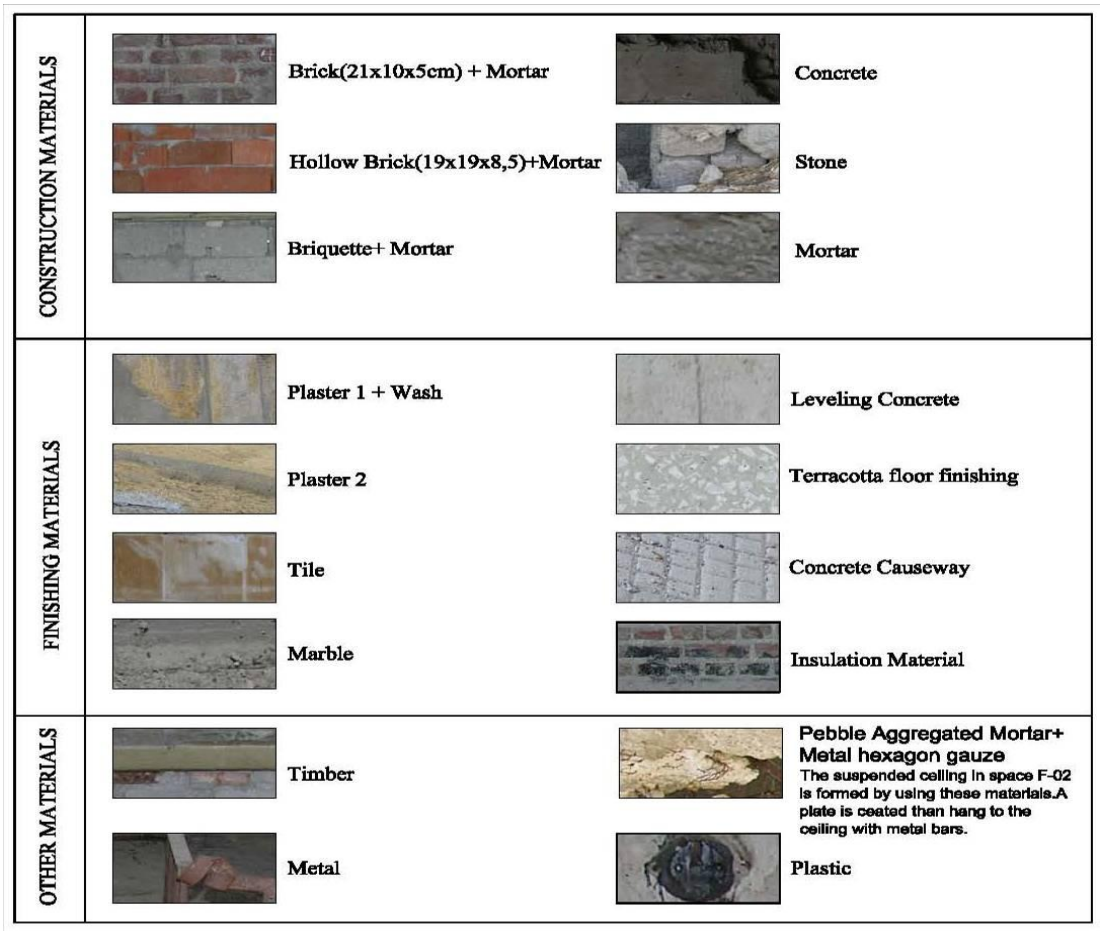


Figure 58 - Materials used in Hamam Building

Figure 59 - Original colour used in Hamam at outer and inner surfaces. (author,2010)

For wall finishing plaster, paint, ceramic tiles (15x15cm) and marble are used. The spaces that have a function related with water, as bathing spaces and toilets are covered with ceramic tiles and marble; other spaces have plastered and painted surfaces. In Space G-01, in front of the door opening of Space G-02, ceramic tiles are used over seki's side surfaces. Also from the original drawings taken from TTA archive, it can be said that the walls were covered with ceramic tiles in space G-02. In space B-03, B-04 and B-05, the walls are also covered with tiles below -1.30m level. In space G-03 from remains it can be said that the original colour used was straw-yellow colour both in facades and inner spaces.(Figure 59) Use of this colour is observed in spaces G-01, F-01, B-05, B-06 and B-07. Different from all spaces there is a band of blue colour below -2.20 m level in space B-06. In the light of traces and knowledge obtained from original drawings taken from TTA archive, it can be said that Marble was used as wall finishing only in space G-03.Also in space G-03 a 20cm band of fluid insulation material application observed under +0.50 m level .

For floor finishing materials, terracotta flooring, marble, levelling concrete floor finishing are used. The terracotta flooring can be seen on stair and "seki", at space G-01, and at basement floor. Marble is used at the middle recessed surface in space G-01 and from traces it can be said that, it is also used in Space G-02 and G-03. Levelling concrete floor finishing is preferred in space F-01 and F-02. Roof has a slope plastered surface to get rid of rain water. Concrete causeway can be observed in north west side of the building.

For architectural elements, timber metal brick, concrete and plastic has been used. In Hamam window frames are either made of timber or metal. In basement, metal frames are preferred while in ground and first floor timber window frames are used. The material change may be related with humidity problem in basement as well as durability of metal against heat. The use of metal platform and metal stairs in space B-06 may be explained by metal durability against heat. Metal usage can also be seen in balusters, pipes with various diameter metal bracelets and gutters. Aforementioned timber is used in window frames and for handrail in Space F-01. Stairs and "seki" are made of concrete, while elements like "göbektaşı", fire place,

parapet are made of brick with a concrete cap at top. Electric buttons are made of plastic.

Figure 60 –Suspended ceiling in space F-02(author,2010)

The suspended ceiling in space F-02 is formed by using pebble aggregated mortar over a metal hexagon gauze and hanged on ceiling with wire mesh reinforcement and metal bars. (Figure 60)This can be seen as an early application of a suspended ceiling and an innovation considering the time period that Hamam was constructed.

MATERIAL USAGE / PLANS

MATERIAL USAGE KEY

Construction Materials

- Bb — Brick(21x10x5cm) + Mortar
- Bh — Hollow Brick(19x19x8,5)+ Mortar
- Br — Briquette+ Mortar
- C — Concrete
- Stone
- SB — Stone&Brick Usage

Stone is used as construction material in basement floor below -0.02 cm level in south side of the building and -0.50 cm at north side. In basement stone is used at outer surfaces while brick is used at inner surface of walls above level -3.10m, below this level stone is used both in inner and outer surface.

- H — Mortar

Finishing Materials

- PO-1 / PI-1 — Original plaster layer at below+ Paint
- PO-2 / PI-2 — Later application of plaster layer above

* PO- plaster applied on facade, PI- plaster applied on inner spaces

- Wi — Insulation Material
- Wt — Tile
- Fm — Marble
- Fl — Leveling Concrete
- Ft — Terracotta floor finishing
- Fc — Concrete Causeway

Other Materials

- T — Timber
- M — Metal
- Ag — Pebble Aggregated Mortar+ Metal hexagon gauze

The suspended ceiling in space F-02 is formed by using these materials.A plate is ceated than hang to the ceiling with metal bars.

Figure 61 – Material Usage, Plans

MATERIAL USAGE / FACADE

SOUTH ELEVATION

NORTH ELEVATION

WEST ELEVATION

0 100 200 400cm

MATERIAL USAGE KEY

Construction Materials

- Bb — Brick(21x10x5cm) + Mortar
- Bh — Hollow Brick(19x19x8,5)+ Mortar
- Br — Briquette+ Mortar
- C — Concrete
- Stone
- SB — Stone&Brick Usage

Stone is used as construction material in basement floor below -0.02 cm level in south side of the building and -0.50 cm at north side. In basement stone is used at outer surfaces while brick is used at inner surface of walls above level -3.10m, below this level stone is used both in inner and outer surface.

- H — Mortar

Finishing Materials

- PO-1 / PI-1 — Original plaster layer at below+ Paint
- PO-2 / PI-2 — Later application of plaster layer above

* PO- plaster applied on facade, PI- plaster applied on inner spaces

- Wi — Insulation Material
- Wt — Tile
- Fm — Marble
- Fl — Leveling Concrete
- Ft — Terracotta floor finishing
- Fc — Concrete Causeway

Other Materials

- T — Timber
- M — Metal
- Ag — Pebble Aggregated Mortar+ Metal hexagon gauze

The suspended ceiling in space F-02 is formed by using these materials.A plate is ceated than hang to the ceiling with metal bars.

Figure 62 – Material Usage- Facades

MATERIAL USAGE /SECTIONS

* The photographs used in sections are rectified by using ROLLEI Metric MSR 4.0 computer software, while the Photograph at basement floor are rectified with photoshop with reference to measured points.

MATERIAL USAGE KEY

Construction Materials

- Bb — Brick(21x10x5cm) + Mortar
- Bh — Hollow Brick(19x19x8,5)+ Mortar
- Br — Briquette+ Mortar
- C — Concrete
- Stone
- SB — Stone&Brick Usage

Stone is used as construction material in basement floor below -0.02 cm level in south side of the building and -0.50 cm at north side. In basement stone is used at outer surfaces while brick is used at inner surface of walls above level -3.10m, below this level stone is used both in inner and outer surface.

- H — Mortar

Finishing Materials

- PO-1 / PI-1 — Original plaster layer at below+ Paint
- PO-2 / PI-2 — Later application of plaster layer above

* PO- plaster applied on facade, PI- plaster applied on inner spaces

- Wi — Insulation Material
- Wt — Tile
- Fm — Marble
- Fl — Leveling Concrete
- Ft — Terracotta floor finishing
- Fc — Concrete Causeway

Other Materials

- T — Timber
- M — Metal
- Ag — Pebble Aggregated Mortar+ Metal hexagon gauze

The suspended ceiling in space F-02 is formed by using these materials.A plate is ceated than hang to the ceiling with metal bars.

Figure 63- Material Usage, Section

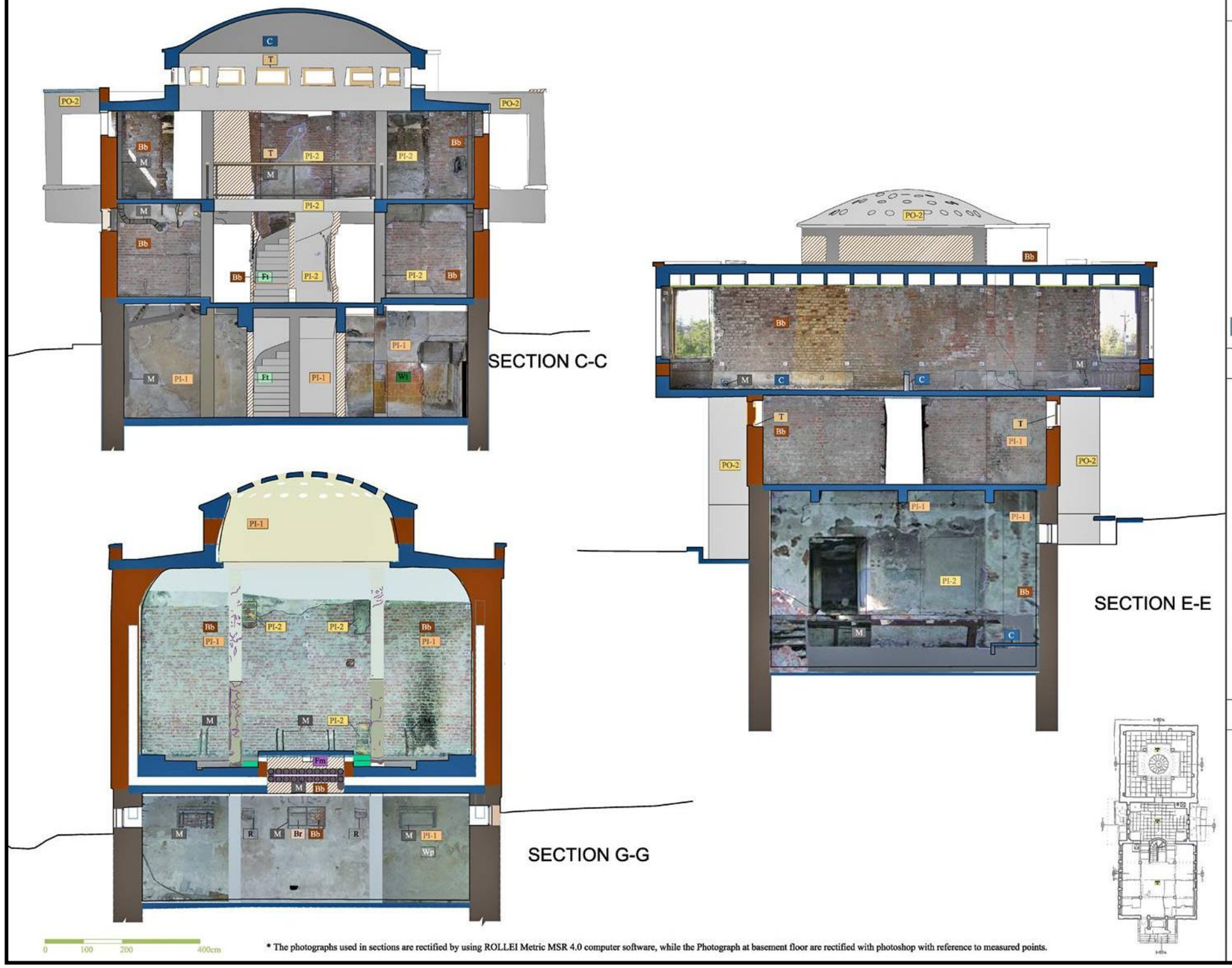


Figure 64- Material Usage, Section

3.3.3 ARCHITECTURAL ELEMENTS

Today, many of the architectural elements are lost, especially the ones that are related with heating and water system . There are also demolished element, which can be seen in Evaluation of Remain and Traces analysis. In AOÇ Hamam the remain architectural elements are mainly the ones that are constant. Distribution of the architectural elements in Hamam can be seen in Figure 74. Detailed information about the architectural elements are explained as fallows.

Figure 65- "Seki "in space G-01, G03(author,2010)

"Seki" take place in spaces G-01 and G-03.(Figure 65) Seki in Space G-01 surrounds three side of the space, has a width of 120 cm and height of 12-14cm. It is elevated from ground with single level. It is made of concrete and covered with terracotta floor finishing. "Seki" in Space G-03 surrounds four sides of the space, but

it doesn't continue in front of the entrance that take place at the south side. It is arranged in two levels, the top level has a width of about 30 cm while the lower level has a width of 41-47 cm at sides, and 100cm at corners. There are traces of floor covering on the levelling concrete. Water channel surrounds the “seki“ and the seki has a height of 11 cm at first level and 8 cm at the second level.

“Göbektaşı “ take at the middle of the space G-03.(Figure 66) There are 17 x21cm sized openings on north, south, east and west sides of the “göbektaşı”. These openings are connected with the space where a special heating system composed of two line of ten metal pipe and a continuing third line inside the slab. The outer walls of the göbektaşı is made of brick while the top slab is made out of concrete. The diagonal traces of marble finishing can be observed over this concrete slab.

Figure 66- “Göbektaşı” in Space G-03; front and inside views(author,2010)

Figure 67 –Stairs in Space G-01 and B-06(author,2010)

Stairs in building take place at the entrance, in Space G-01 (supply the circulation between floors) , in basement floor Space B-06 and outside at west side of the building.(Figure 67) The stairs differentiate according to their construction technique ,material used and their plan types. The stairs in building are mainly made of concrete with terra cotta floor finishing , while the stair in Space B-06, is made out of steel. The u form stair in space G-01 has a width of 0, 85 m, while the stair at the entrance has a width of 4,60 m , the stair adjacent to west side of the building has a width of 0,70 m and stair at Space B-06 has a width 0,80m.

Handrails take place at the west side of the stair in G-01, around the gallery and the openings at south east and west side of space F-01.(Figure 68) They differentiate according to used materials and design. The handrail around gallery has 4,4 x 4,4 cm metal rails and 4 cm timber banister rail at the top. It has a height of 0,92m. The handrails around the main stair in Space G-01, and around the openings in F-01 space at east and west corner of space, has 2cm radius metal bars. There are traces of banister rail connection over the metal frame of the railing at top.

Figure 68 – Handrails in space F-01(author,2010)

The toilet take place in spaces G-01, B-04 and B-05. It has a size of 59x66 cm. (Figure 69)On walls there are traces of water pipes and timber cleats, that give clues of other elements such as trap.

Figure 69- Toilets in space G-01 and B-04(author,2010)

Figure 70- Chimneys, A and B types(author,2010)

The chimneys take place above spaces G-03 and F-02. They are connected to spaces B-06, B-07 and G-02. (Figure 70) There are five chimneys in two different types. The Chimney above space F-02 (A Type) has a size of 165x 113 cm and two shaft(25x37 cm, 59x 57 cm) . The chimney connected with space B-06, opens to the space with an 39x98 cm sized opening. This chimney is thought to be main chimney which is used for smoke and heat transfer. The chimneys that take place at corners of spaces G-03 and B-07 (B type) have a size of 52x69 cm (inner size 20x31 cm) and they are placed inside the wall section. The chimneys are bonded by brick which is main construction material of the Hamam, and they are plastered from outside.

Figure 71 - Gutter(author,2010)

The gutters are used in Hamam to get the rain water away.(Figure 71) They are placed at four corners of the lower roof mass that take place at south and north side. There are 8 gutter in roof which are made of zinc plate. The water is directed through gutter with a slope. The gutter canal's sizes are 11x11 cm.

Parapet continuous through roof (Figure 72). It is made of brick and there is a concrete block at top. Above these blocks there are 3,5x6,5 cm sized moulding where wood pieces are placed. Above these wood piece, there is a timber lath and a slope is given with-plaster in two direction. Zinc plates are observed above concrete. The parapet has a width of 25-30 cm with plaster and height of 36-40 cm in south, 41 cm at north and 7 cm above projected part. The parapet has collapsed in several places and structural deformation is observed in north side. Concrete eaves can be seen around dome and parapets. (Figure 73)

Figure 72 - Parapet(author,2010)

Figure 73- Eave (author,2010)

The openings in Hamam are door, window openings, niches in space G-03, lantern on dome. They are analyzed in tems of their sizes and materials used for frames. Analyzes can be seen in Figure 128 to Figure 136.

The window openings can be categorized according to their forms and material of the frame. In that respect Windows in space G-01, F-01, B-02, B-05, B-06 has a rectangular form while Windows in space G-02 has a circular form. Metal window frames are used in basement while in ground and first floor timber frames are preferred. At the sides of the main entrance and on east and west side of the projection, and space G-01 there are openings.

Door openings at the building can be classified according to width, opening height and wall thicknesses. Three width has been determined as 210-203 cm for the door openings at the main entrance; 140-103 cm for the inner space and 97-61 cm of the spaces that are thought to be service spaces. The entrance spaces have a height of 240-226 cm and inner space door openings have an height between 222-193 cm. The doors that are opening to service spaces have an height of 142-124 cm. Another criteria is wall thickness.

There are 44 oculus on the dome covering space G-03. The coverings of the oculus don’t exist today. In space G-03 there are niches at +1.35 m and +3.50 m level on east, west and north walls. The niches that take place at the middle are connected to the 25x30 cm sized openings that take place at space B-07.

75

Figure 74 –Architectural Elements

86

3.3.4 STRUCTURAL PROBLEMS, MATERIAL LOSS AND DETERIORATION

The material problems encountered in AOÇ Hamam building arise from being neglected for years due to building remain empty, physical damages originated from human depredation, removing out some architectural elements and material, and deteriorations related with weather conditions. On the other hand structural problems in building is related with different settlement due to ground level differences in basement floor and structural deformations related with material loss.

To determine these material and structural problems in building , the problem types are grouped according to the material types used and structural problem types encountered in building. During the field work in the site, the problems are systematically determined by stating the deterioration types and other structural problems and documented on the photographs taken from spaces and facades. After the field work, these findings are documented on the survey drawings .(Figure 81 to Figure 84)

The problems determined in building can be categorized under four topics - structural crack and deformation; demolishment and infill; loss in material; colour change and deposition. The main titles branch out into sub-titles according to deterioration and problem types.

Most serious problem of the Hamam is the structural problems. There are structural cracks in space G-01 starting from basement and continues through +2.00 m level at east and west walls. (Figure 76)The crack also continues on ground, through axis of the cracks on walls. It is probably caused by different settlement due to ground level differences in basement floor. The building also forced in South side and structural crack and micro cracks can be seen in South wall of space G-01. Deformation of brick courses can be seen in parapet at the North side and upper niches in space G-03.

Figure 76 - Structural Crack on east wall both at outer and inner surfaces(author, 2010)

Demolishment and infill problems are observed at places where there is a big loss of an architectural element and reflect itself as big material losses or later infill in place of lost materials. Demolishment can be seen in space G-01 south wall, where there existed two stair and their traces elongates diagonally through the first floor. In space F-02, the chimney has demolished and traces can be seen in North wall (Figure 77). In space G-01, G-02 and B-01 demolished separation wall traces can be seen on wall surfaces. In later periods window openings and doors are filled with brick, hallow brick and briquette.

For material loss, each material and its problem are studied under their topic. In that respect the problems are categorized for brick, concrete and floor finishes as loss of units or material and loss in small scales such as break off for brick and tile units or fragmentation for concrete. For plaster, determined problems are detachments and material losses while for metal element, buckling and corrosion are determined. Also glass losses are determined in maps.

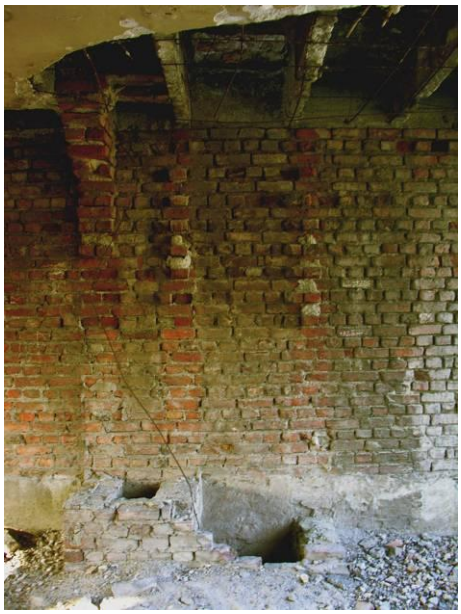


Figure 77- Demolished chimney in space F-02(author, 2010)

As defined above break of brick units and brick losses can be seen in different ratios almost at all spaces in Hamam building. For concrete main problem is fragmentation and especially seen at columns and at big ratios on domes. (Figure 78, Figure 79) The flaking reached at a ratio in some places that the iron bars emerged surface and as a result metal corrosion problem revealed. It may be related with the concrete quality used in that period ,or being open to weather conditions as well as the Hamam is not used more than 40 years.

For finishing materials; plaster lost can be seen in all spaces in ground and first floor while in basement floor the plaster is preserved with paint on it but detachment problem reveals out in that places as well. In facades two level of plaster can be seen, the original layer beneath and later applications at the top. Material loss of finishing materials at wall and floor is one of the other problem determined in the Hamam.

Figure 78 - Concrete fragmentation on dome over space G-01 and F-01(author, 2010)

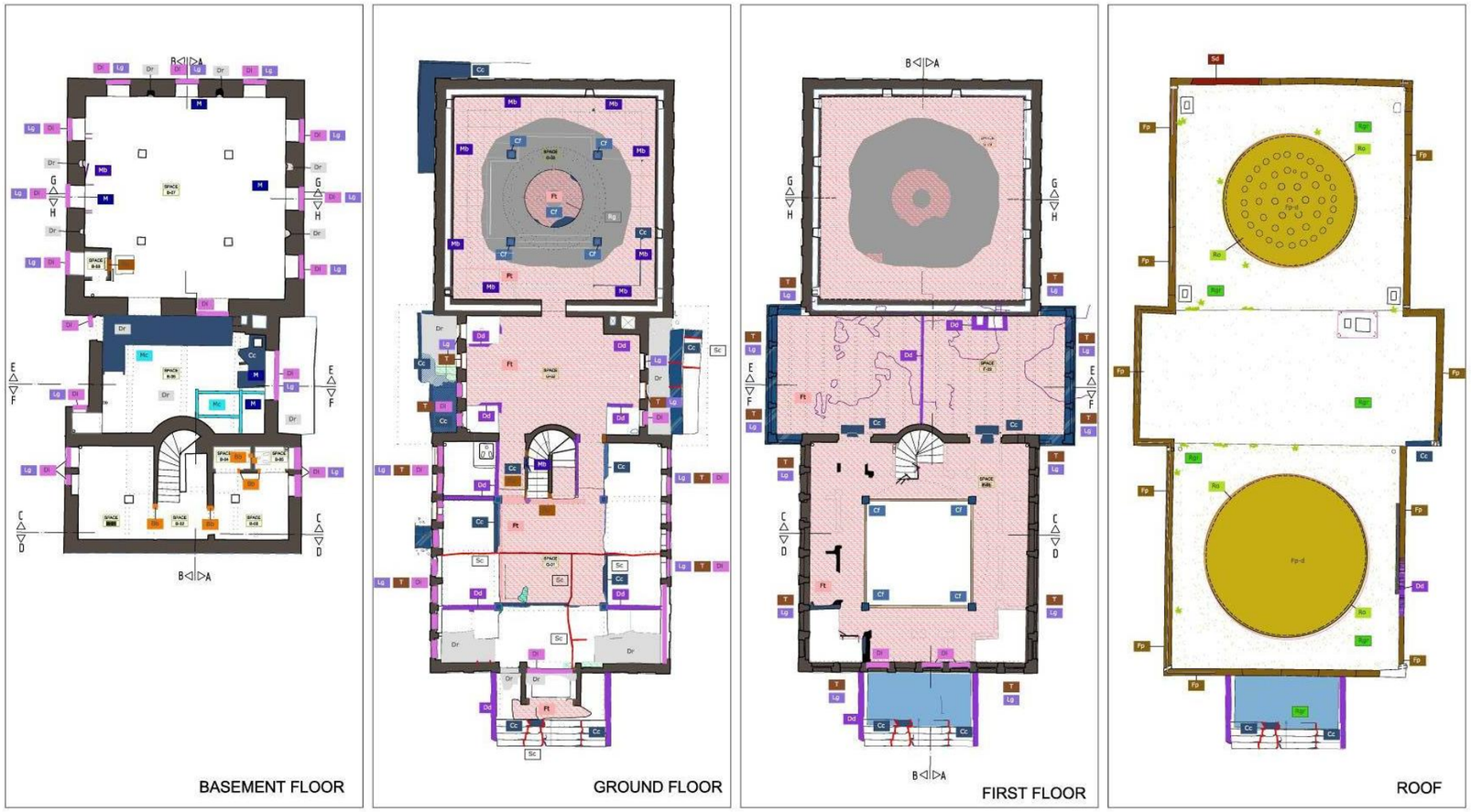
Figure 79 Concrete fragmentation problem in columns(author, 2010)

For windows and doors, timber frames and glass lost is determined. (Figure 80) The iron bars in reinforced concrete columns, domes and the railings are corroded .Metal buckling can be seen in railings

Figure 80 - Plaster lost, later infills, timber frame work and glass losses(author, 2010)

Colour change and deposition depending on various reasons are observed in some parts of Hamam. Blackening is seen as smoke remains due to the fire made by outside users. Biological growths (alg and fungi) depend on dampness; whitening and graying which may depend on calcification, salt deposition or biological growth, are observed in Hamam as well. Another problem is the salt deposition that was detected in surfaces. Soiling and vegetation is determined on roof surface.

STRUCTURAL PROBLEMS, MATERIAL LOSS AND DETERIORATION / PLANS



STRUCTURAL PROBLEMS, MATERIAL LOSS AND DETERIORATION KEY

PROBLEMS OF CONCRETE, BRICK, MORTAR AND FINISHING MATERIALS

1- STRUCTURAL CRACK & DEFORMATION

- Sc — Structural Crack
- Sm — Micro Crack
- Sd — Structural Deformation
- Sb — Deformation of Brick Course

2- DEMOLISHMENT&INFILL

- Dd — Demolishment
- Di — Infill
- Dr — Ruin

3- LOSS IN MATERIAL

BRICK UNITS

- Bu — Loss of Brick Units
- Bb — Break Off Brick Unit

CONCRETE

- Cc — Loss of concrete
- Cf — Flaking of Concrete

FINISHING MATERIAL

- Fm — Loss of Mortar
- Fp — Loss of plaster
- Fp-d — Detachment Plaster
- Ft — Loss of tile,wall and floor covering
- Ft-b — Break of tile or floorcovering

PROBLEMS OF TIMBER ,METAL, GLASS ELEMENTS

A- PROBLEMS OF TIMBER ELEMENTS

- T — Loss of timber

B- PROBLEMS OF METAL ELEMENTS

- M — Loss of metal element
- Mb — Metal buckling
- Mc — Metal Corossion

C- PROBLEMS OF GLASS

- Lg — Loss of Glass

COLOR CHANGE & DEPOSITION

- Rw — Whitening
- Rg — Graying
- Rb — Blackening
- Rs — Salt Deposition
- Ro — Biological Growth
- Rm — Moss
- Rgr — Grass
- Rt — Shrub & Tree

Figure 81- Structural Problems, Material Loss and Deterioration; Plans

Figure 82 - Structural Problems, Material Loss and Deterioration; Facades

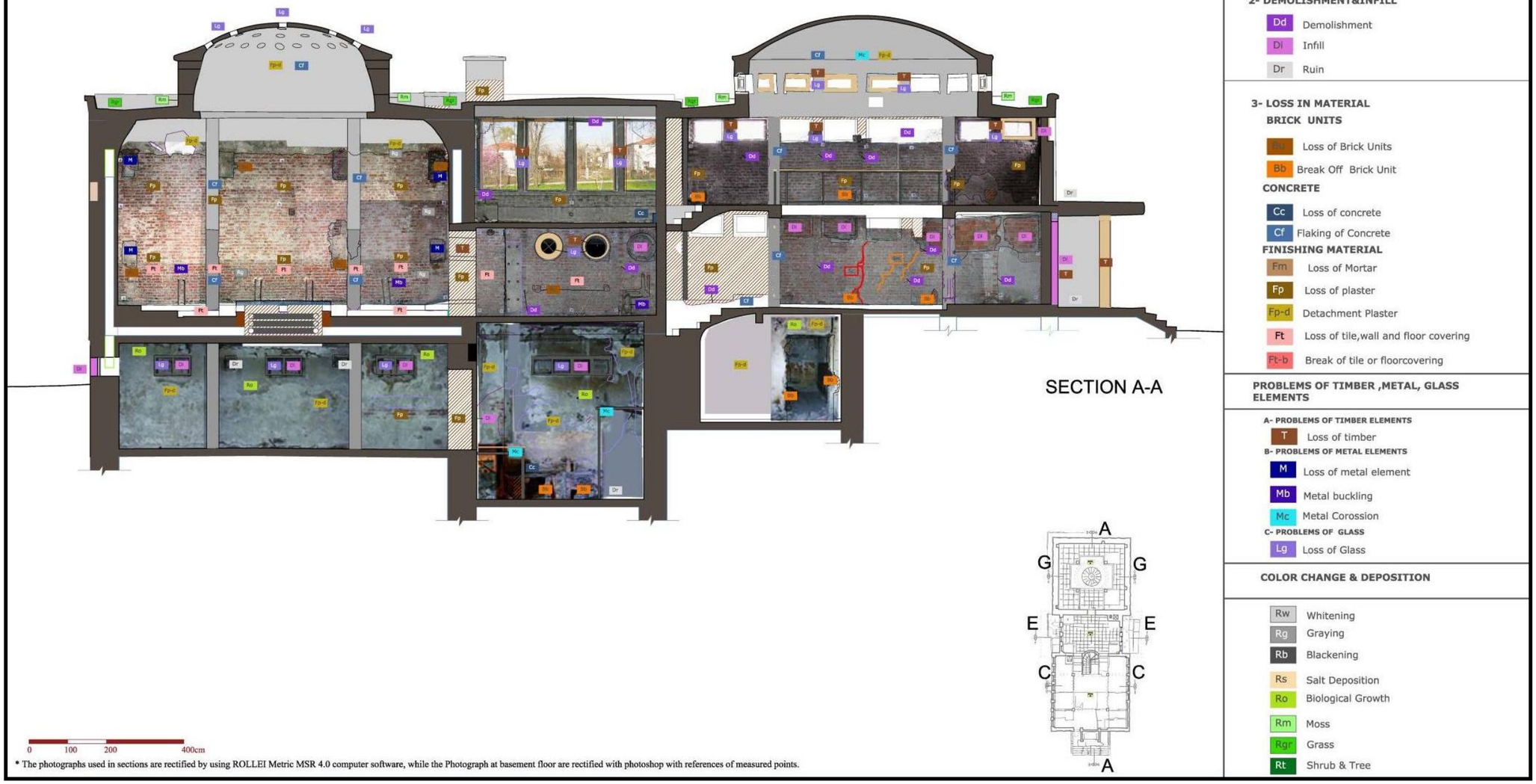
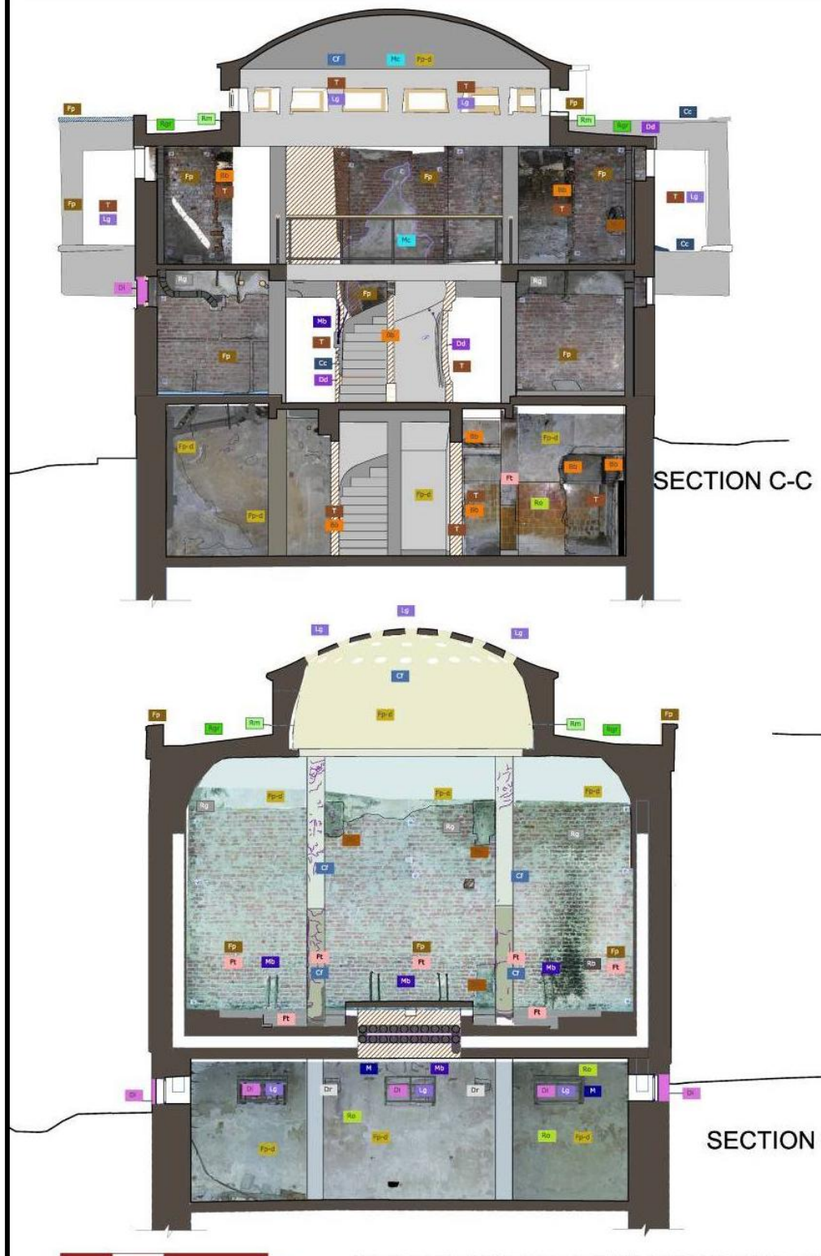


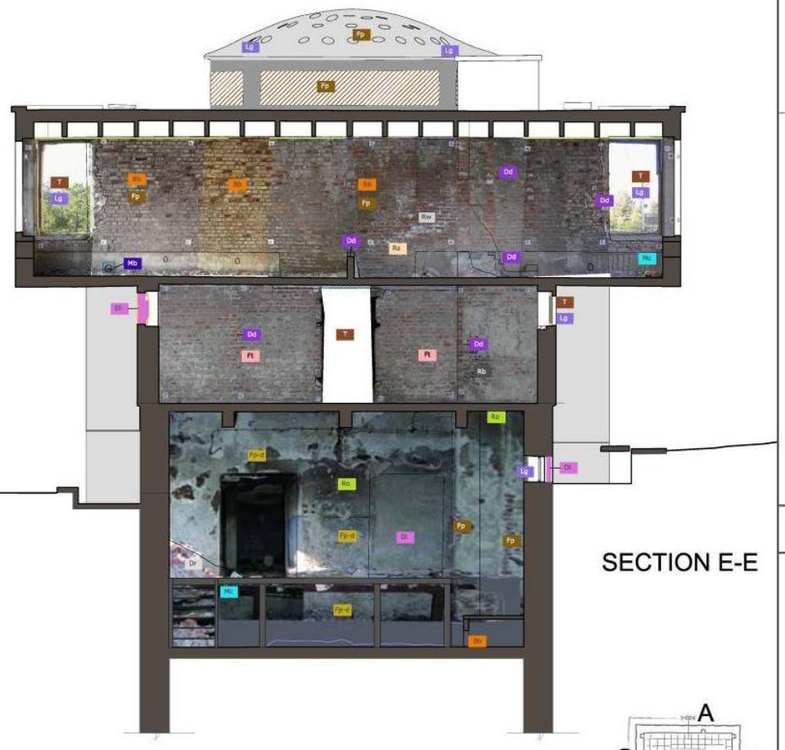
Figure 83- Structural Problems, Material Loss and Deterioration; Sections

STRUCTURAL PROBLEMS, MATERIAL LOSS AND DETERIORATION /SECTIONS

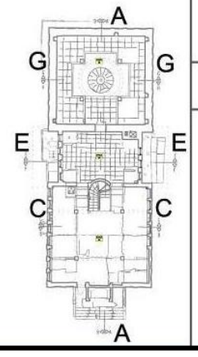


SECTION C-C

SECTION G-G



SECTION E-E



0 100 200 400cm

* The photographs used in sections are rectified by using ROLLEI Metric MSR 4.0 computer software, while the Photograph at basement floor are rectified with photoshop with references of measured points.

STRUCTURAL PROBLEMS, MATERIAL LOSS AND DETERIORATION KEY

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- Cf — Flaking of Concrete

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- Fm — Loss of Mortar
- Fp — Loss of plaster
- Fp-d — Detachment Plaster
- Ft — Loss of tile,wall and floor covering
- Ft-b — Break of tile or floorcovering

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A- PROBLEMS OF TIMBER ELEMENTS

- T — Loss of timber

B- PROBLEMS OF METAL ELEMENTS

- M — Loss of metal element
- Mb — Metal buckling
- Mc — Metal Corossion

C- PROBLEMS OF GLASS

- Lg — Loss of Glass

COLOR CHANGE & DEPOSITION

- Rw — Whitening
- Rg — Graying
- Rb — Blackening
- Rs — Salt Deposition
- Ro — Biological Growth
- Rm — Moss
- Rgr — Grass
- Rt — Shrub & Tree

Figure 84- Structural Problems, Material Loss and Deterioration; Sections

3.3.5 HEATING, WATER AND VENTILATION SYSTEM

Heating and water system in AOÇ Hamam is one of the most destroyed part and we could only have information from the remains of the system. Today water pipes, heating pipes, canals in wall and slab section, fireplace are directly related elements with system, while metal swivel rings and other elements that are described. Their distribution can be seen from Figure 89 to Figure 94. Keys give information about how these systems were designed and distributed to spaces.

For heating system the remains give clues about the lost elements and in this study an assumption could be made about how the system had worked. In the AOÇ Hamam a modern technology had been used, and it can be said that the building had a central heating system. The most important clues about heating system are obtained from the pipes inside the "Göbektaşı" at Space-G03. (Figure 85) The system inside "göbektaşı" is made of three level of pipes in which there are ten pipes of each level and openings on four side of "göbektaşı" that enable hot air passage to space. Due to the slab thickness of 69 cm height and the continuous pipe through slab section, it is thought that a similar heating system is embedded in concrete slab and the space is heated by this way. (Figure 86)

Figure 85– The heating system inside "göbektaşı" (author, 2010)

Figure 86 Three line of pipes of the heating system inside "göbektaşı" (author, 2010)

Since the slab thicknesses are inappropriate, for other spaces its hard to say that they are heated with the heating units installation inside concrete slabs. On the other hand in consideration of space functions and the temperature required for functions, there is no need to arrange a special heating system as in space G-03. However it can be said from the remains, other spaces were heated with a system related with the central heating. Most important clue of this assumptions are the pipes in Space G-01 and F-01 and regular hallows at east, west and south sides at the same vertical and horizontal axes. (Figure 87) The space G-01 and F-01 are the entrance spaces and used as "soğukluk," space. The spaces don't have a water related function. These remains of pipes and hallows in that respect can be seen as traces of a heating either with radiator or convectors.

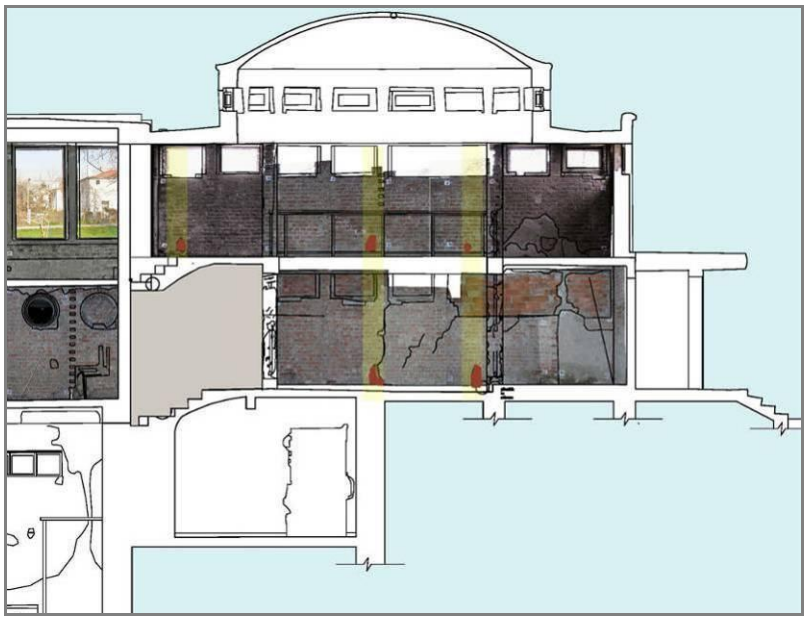


Figure 87 Hallows at the east side in Space G-01 and F-01 at same vertical axis

From the metal swivel rings, pipes and water canals orientation, and architectural elements in space B-06, it can be said that the heating system centre and water tanks were placed in space B-06. As we have less elements remain, the exact method of heating can't be revealed. However in consideration of the technology of the 1930's- 1940's its known the heating system could be embedded in slab during construction like in AOÇ Hamam. In that respect radiator or convecter systems could be used either with steam heating systems and hot water heating systems.

It is not clear either steam heating systems or hot water heating type was preferred in Hamam but its obvious that there should be a heater mechanism which was probably placed over the fireplace and a water tank over the metal frame work in space B-06. (Figure 88)There should be also a pump near that mechanism to distribute water to up floors. Electric usage in Hamam supports the idea of such kind of mechanisms could be used. Another subject is the type of combustible used. Use of coal is the most preponderant possibility considering the fire place at ground,

chimney opening at below and the projection , like an unloading space, that is connecting space B-06 to outside with a window. On the other hand it could differentiate to prefered heating machine. A schematic system of heating can be seen on 3D Model in Figure 94.

Figure 88 - Space B-06, fireplace and metal frame work(author, 2010)

The water system in Hamam can be investigated with the pipes of different diameter, pipe canals over wall surface and water drain elements. Like heating system a modern technology used and water is distributed to related spaces from space B-06 and B-07. Probably the heating mechanism was also used to sustain hot water and the cold water was supplied from water tank.

In hamam 5 different diameter observed. 12 cm diameter water was used for waste water. The 2 and 2,5 cm diameter pipes were used to sustain hot and cold water. 6 cm diameter pipe is thought to be used as a part of heating system. There are pipes with a diameter of approximately 15 cm, which were used inside "göbektaşı". There is also a 12 cm pipe with a close end. Their distribution can be seen from Figure 89 to Figure 94.

From water canals and pipes it can be said that G-02 and G-03 are the spaces that has bathing facilities as there are double row water canal and two pipes showing hot and cold water usage. On the other hand in space G-01 the water canals on north wall is the trace of the touilet, while the the pipes on north wall and north east corner; the hallows in G-01 and F-01 are thought to be traces of radiator or convector type heating as aforementioned. The water pipes and metal swivel rings in basement floor can be observed in space B-03,04 and 05 where there are two touilets. The metal svivel rings in space B-07 shows the water pipes are hang to ceiling.

In hamam windows are used for natural ventilation. On the other hand there is a special configuration in spaces B07 and G-03. In space G-03 there are niches at+ 2.02 m level and +4.07 m level at east,west and north sides. The niches that take place at corners are connected with chimneys, while the niches at the middle are connected with space B-07 with the vertical canals in wall section. Considering the number of windows in space G-07 and the chimney connections with vertical canals at corners, it can be talked about an air circulation from different levels as fresh air taken below and the air of the space is thrown with chimneys. Beside these vertical canals there are also canals going through wall section horizontally. These horizontal canals are thought to be designed for insulation of the space. Information of whether these horizontal canals are connected with the void left inside slab can not be obtained, however if there are connections there might be hot air movement in these canals. The function of the niches in system are thought to sustain air ventilation and vapour transfusion.

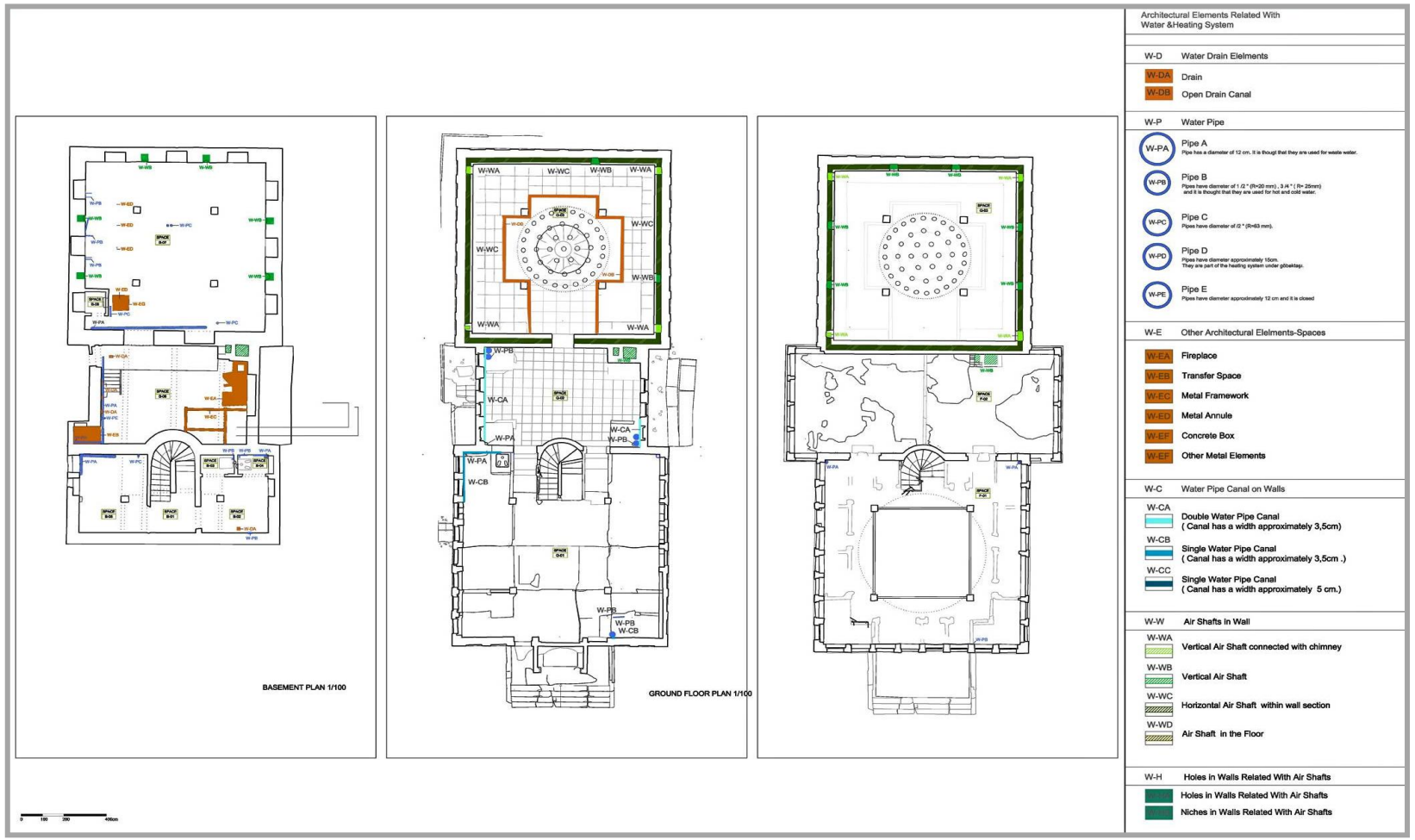


Figure 89- Heating, Water and Ventilation Systems

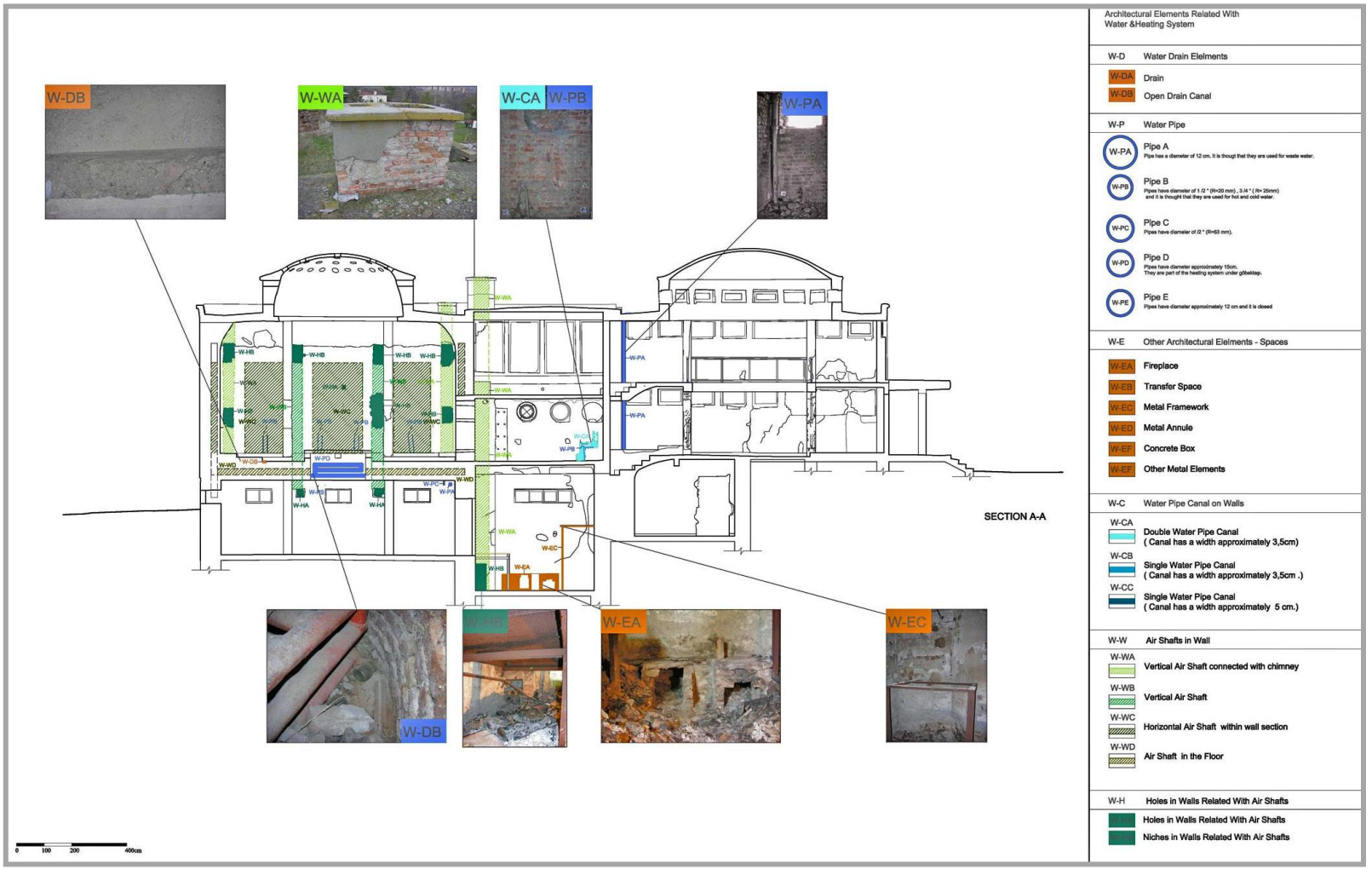


Figure 90- Heating, Water and Ventilation Systems

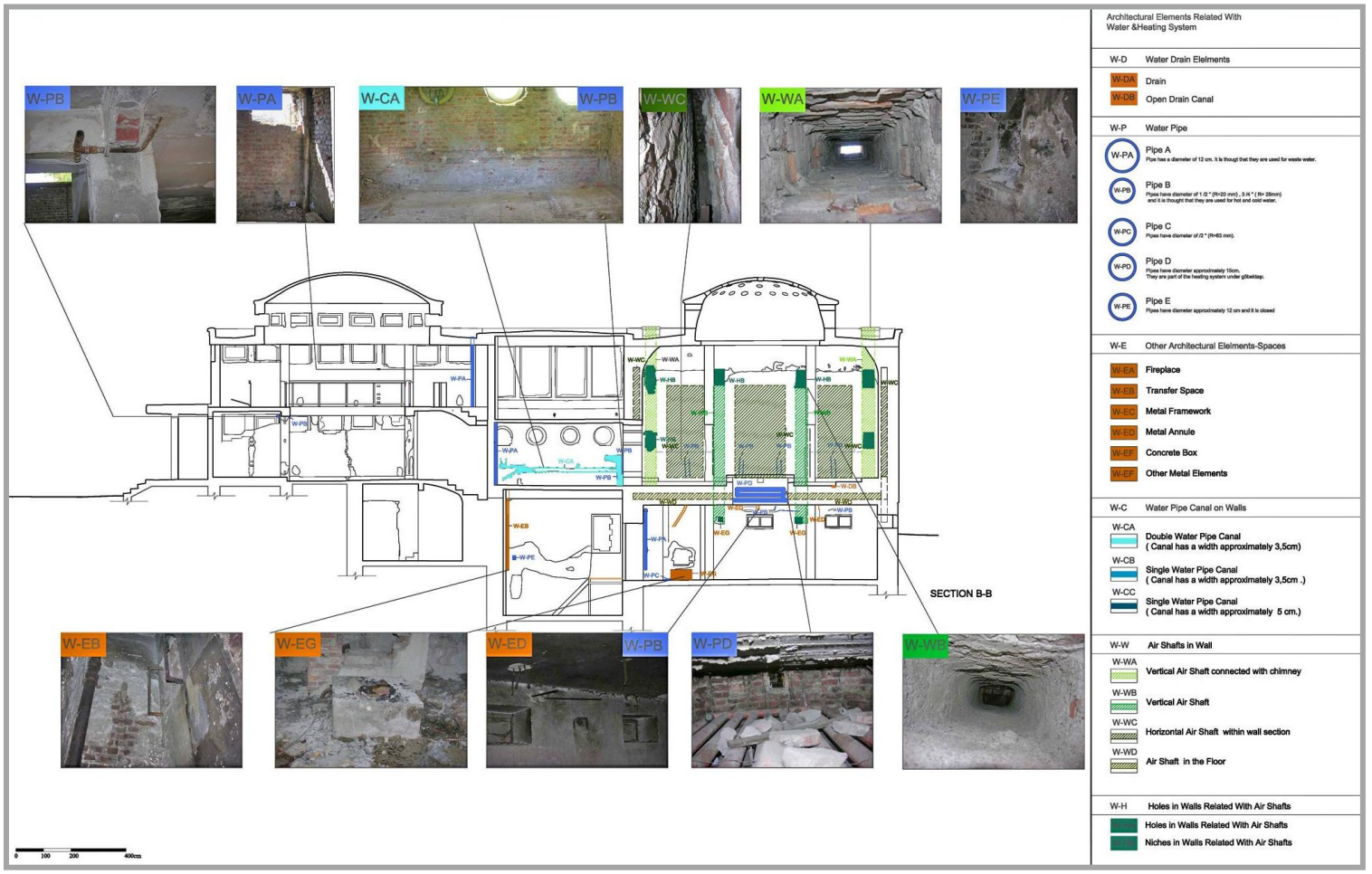


Figure 91-- Heating, Water and Ventilation Systems

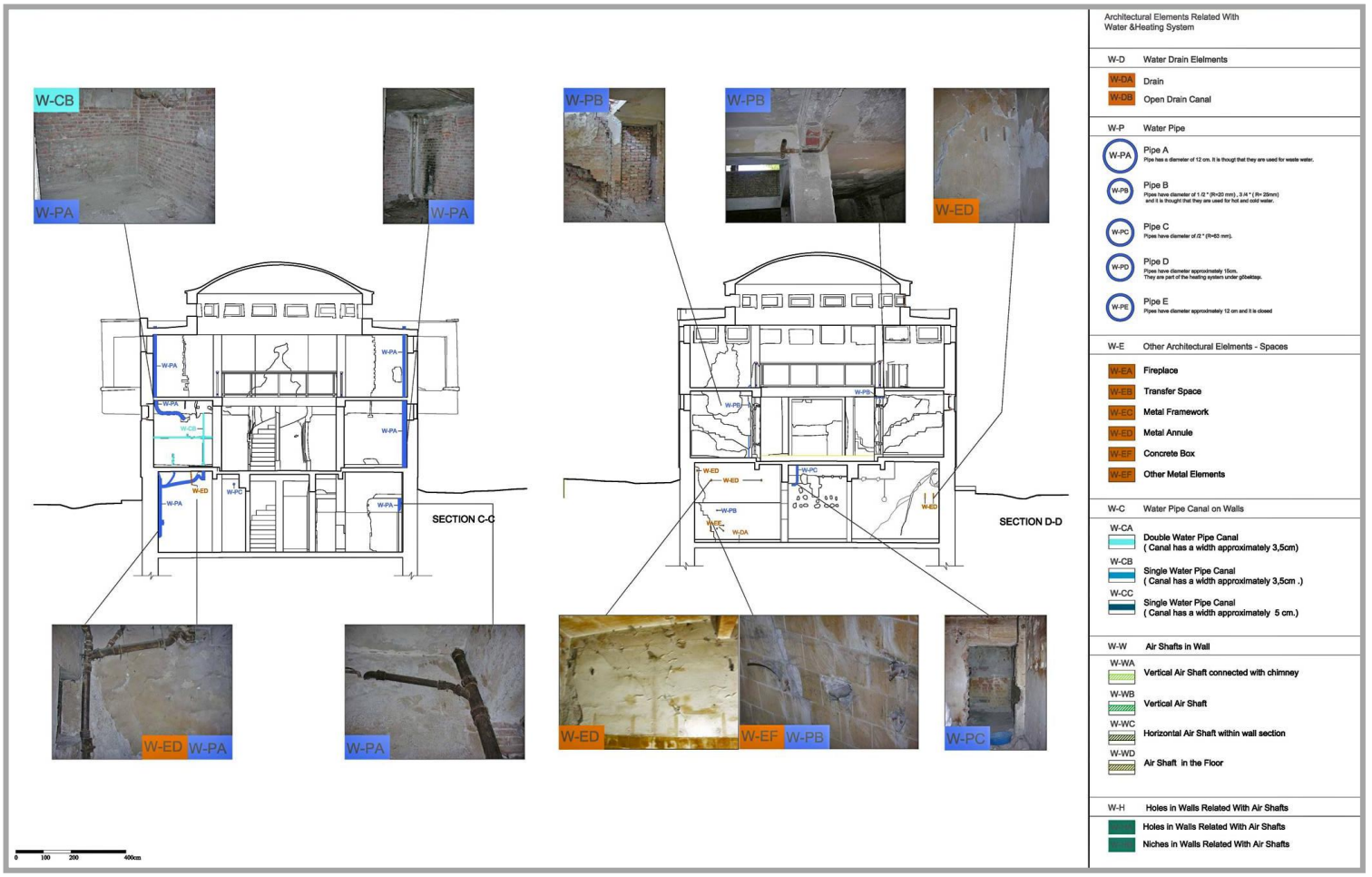


Figure 92-- Heating, Water and Ventilation Systems

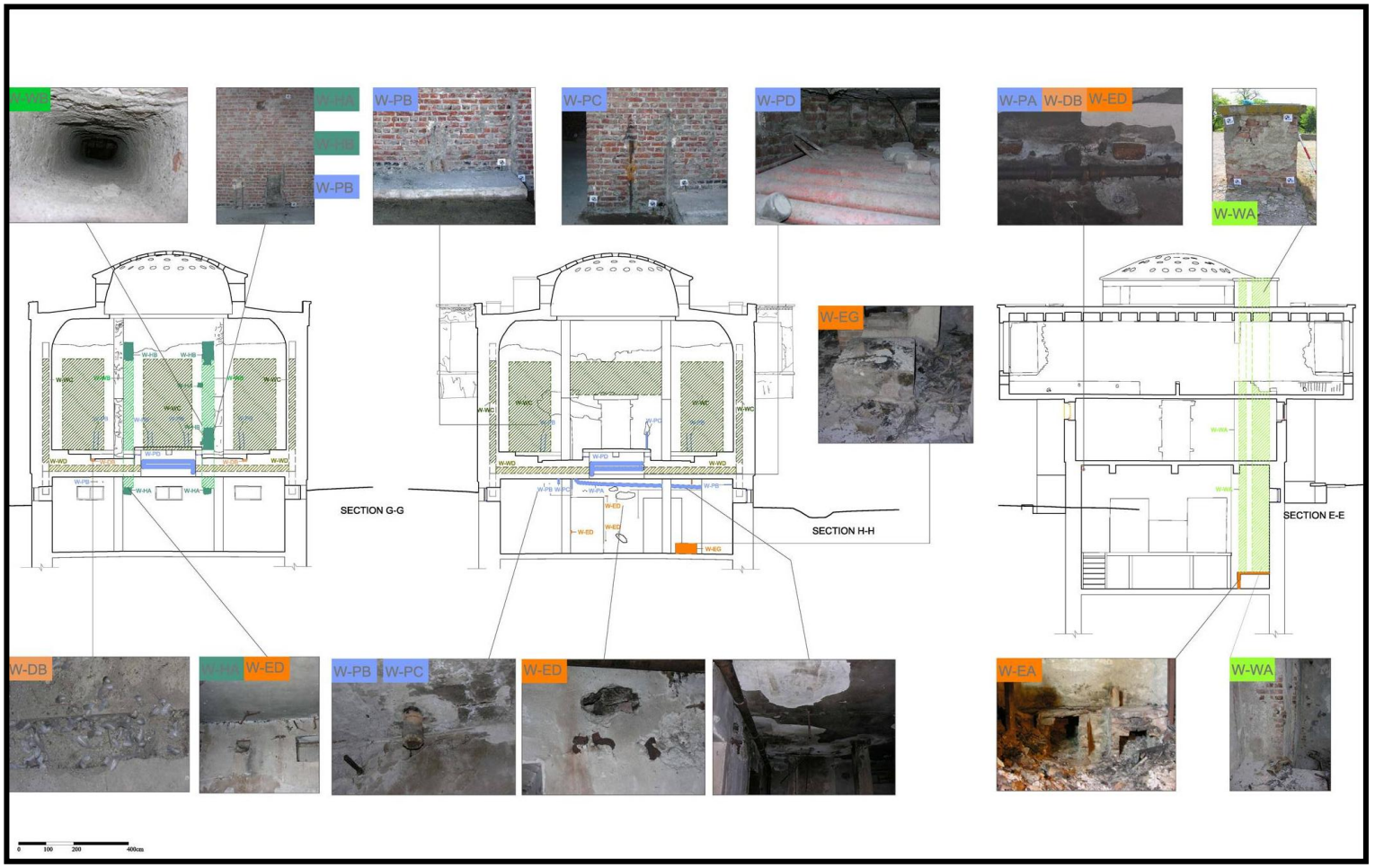


Figure 93- Heating, Water and Ventilation Systems

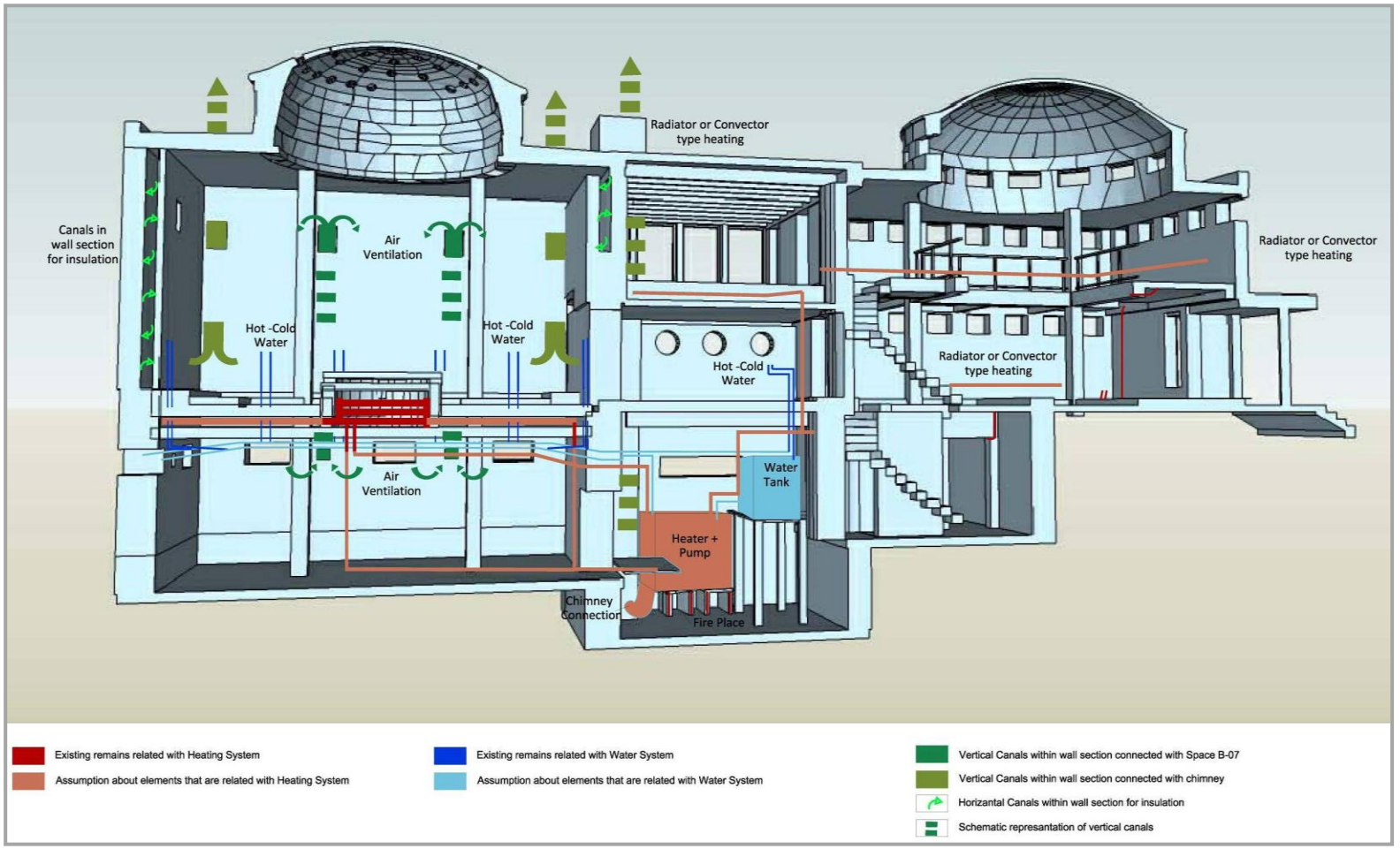


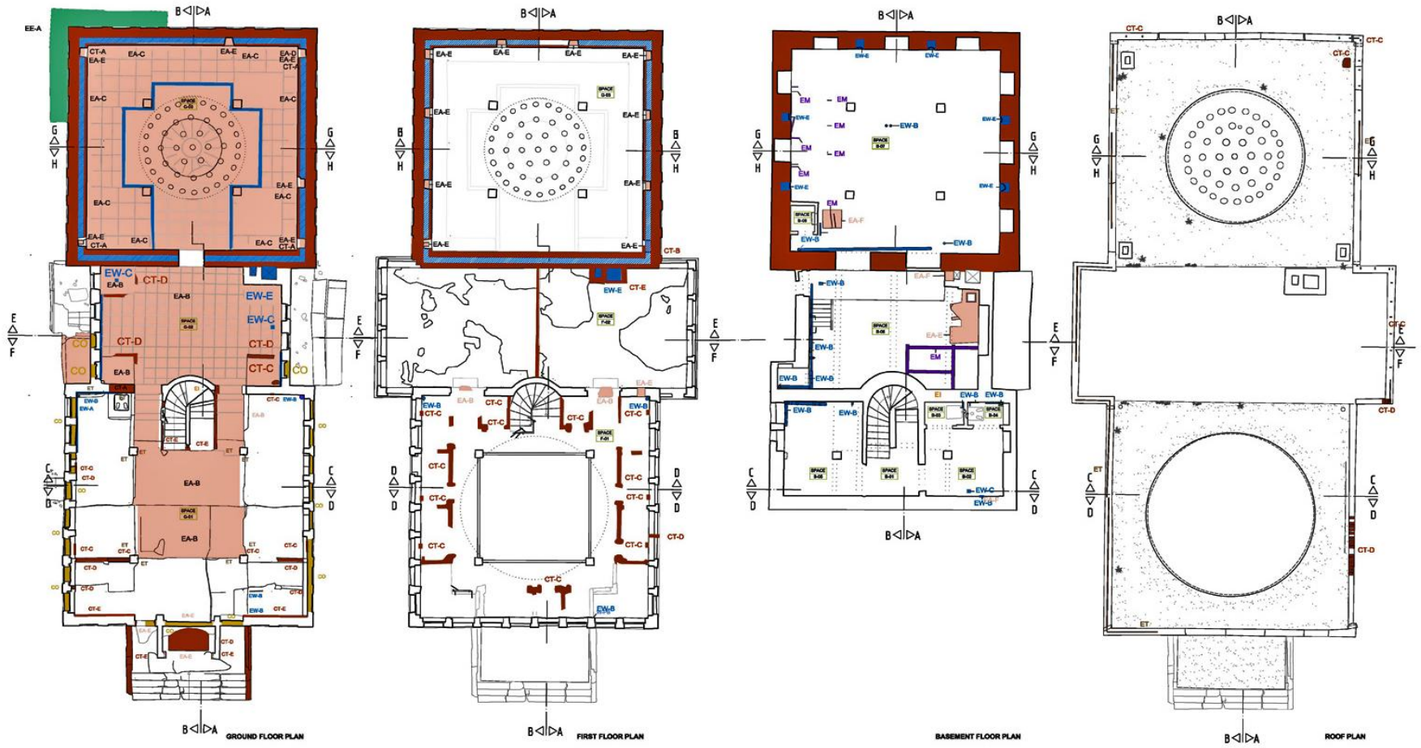
Figure 94 Heating, Water and Ventilation Systems

3.3.6 EVALUATION OF REMAIN AND TRACES IN AOÇ HAMAM

The AOÇ Hamam building preserve its unity as a building itself. However,most of the architectural elements, finisishing materials, heating ,water and illustration system elements, division elements in spaces are lost. Today remains or traces of the elements can be observed, and these give information about Hamam's original situation.

The analyses about traces and remains are done under 7 title. These are Traces - Remains Regarding differences and Changes in / of Construction System, Traces of Architectural Elements , Traces- Remains Heating and Water System, Traces- Remains Illumination&Electirical System, Metal and Timber Elements on Wall Surface, Closed Openning, Traces- Remains of Close Environment Elements. Each title are sub- divided into other related items. On the other hand the traces and remains in the Hamam can be seen from the maps at (Figure 95, Figure 103)

EVALUATION OF REMAIN AND TRACES IN AOÇ HAMAM / PLANS



TRACES AND REMAINS KEY

CT — Traces - Remains Regarding differences and Changes in / of Construction System

- CT-A Changes in Brick Courses
- CT-B Wall Thickness
- CT-C Holes in Wall Section or floor
- CT-D Projection in Wall Section - Wall Remains
- CT-E Partial Collapse in Wall Section

EA — Traces of Architectural Elements

- EA-A "Kurna "
- EA-B Traces for finishing material
- EA-C Seperation Element
- EA-D Shutter
- EA-E Opening
- EA-F Other architectural elemets

EW — Traces- Remains Heating and Water System

- EW-A Water Pipe Canals in Wall
- EW-B Water Pipe
- EW-C Water Drains
- EW-D Fire Place
- EW-E Air Canals
- EW-F Concrete Box

EI — Traces- Remains Illumination&Electirical System(Cables, buttons)

EM — Metal Elements on Wall Surface

ET — Timber Elements on Wall Surface

CO — Closed Openning

EE — Traces- Remains of Close Environment Elements

- EE-A Pavement
- EE-B Road

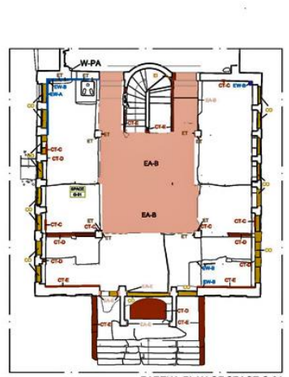
METU - FACULTY of ARCHITECTURE
RESTORATION MASTER PROGRAM

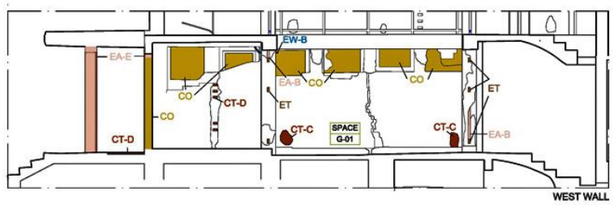
Supervisor: Dr Fuat GÖKÇE
Thesis Study Prepared by Büşra KUL

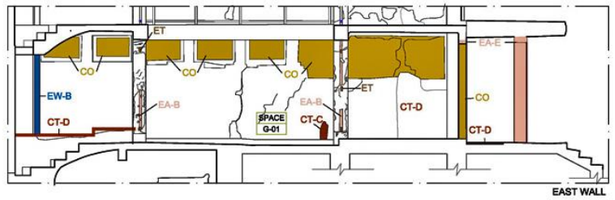
TRACES AND REMAINS / PLANS
SHEET NO: 1 of 9

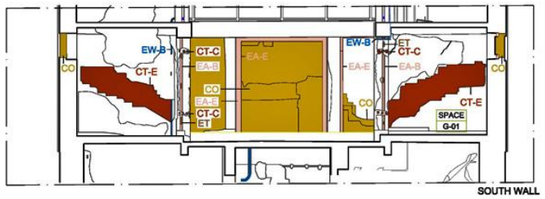
Figure 95- Evaluation of Remain and Traces in AOÇ Hamam

EVALUATION OF REMAIN AND TRACES IN AOÇ HAMAM /SPACE G-01









The remains in space G-01 shows that there were dressing cabinets at east and west sides while the space at the middle is separated from these dressing units. There are also traces of stairs going F-01 that take place at south east and south west corner of the space. Remains show that at the north west side there was a toilet and the middle recessed part is covered with marble finishing.

There are closed openings in east, west and south walls. The pipes and the hallows at east and west wall are thought to be traces of a radiator or convector type of heating. Also traces of illumination system van be obserced on ceiling as well as at north side.

TRACES AND REMAINS KEY

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Thesis Study Prepared by Büşra KUL

TRACES AND REMAINS / SPACE G-01
SHEET NO: 2 of 9

Figure 96- Evaluation of Remain and Traces in AOÇ Hamam

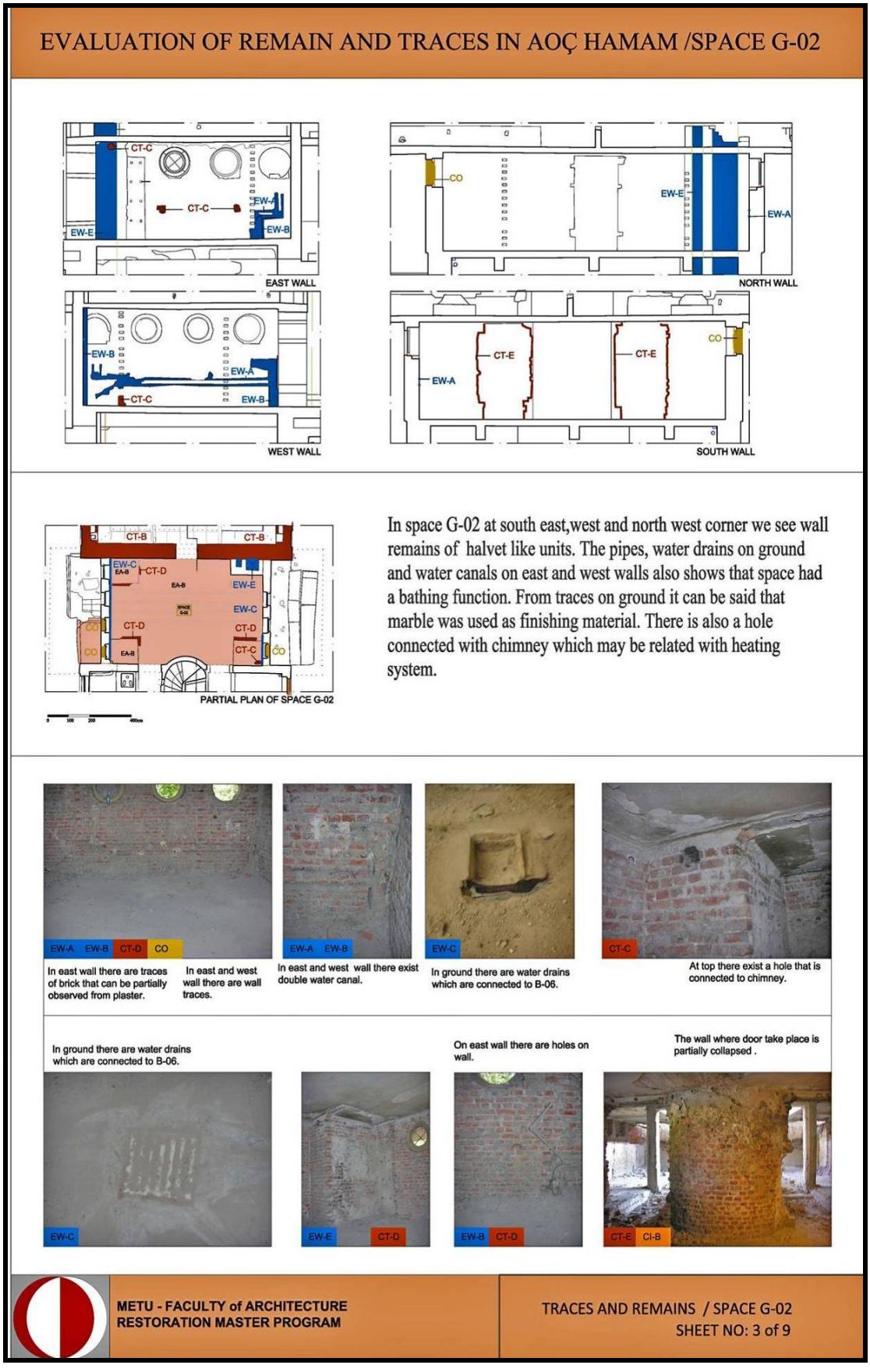
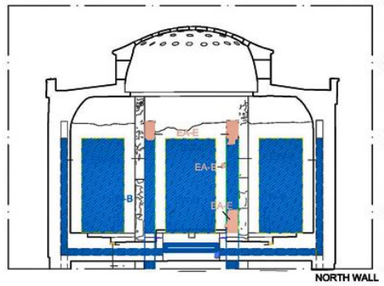
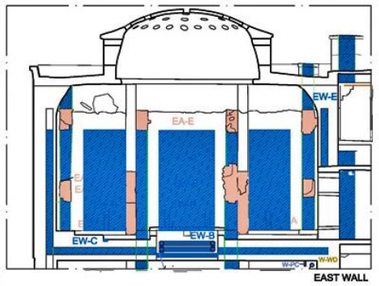
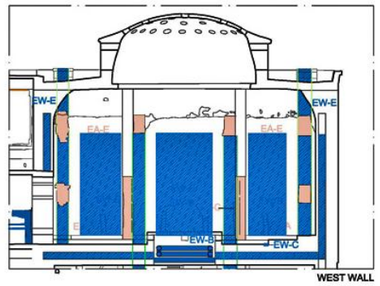


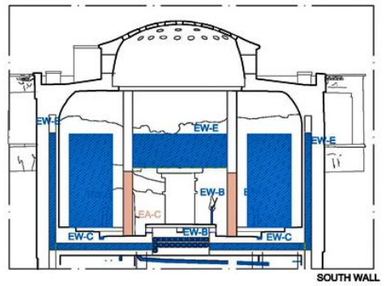
Figure 97 - Evaluation of Remain and Traces in AOÇ Hamam

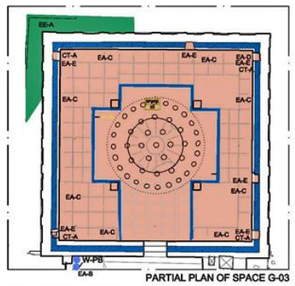
EVALUATION OF REMAIN AND TRACES IN AOÇ HAMAM / SPACE G-03



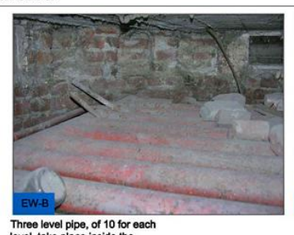








In space G-03 the water pipes at walls and the traces on ground reflect the place of "kurna"s. Also marble separator traces can be seen on "seki" surface. There are traces of shutter over the niches opening to chimney. The niches connected with vertical canals and chimneys show that a special system was designed to supply air transfer and vapour transfusion. The pipes inside "göbektaşı" give clues about the system used for heating. The wall and ground finishing is thought to be marble from traces.



Three level pipe, of 10 for each level, take place inside the göbektaşı.

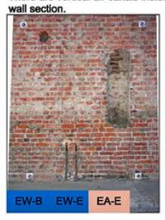
In floor there are canals .

Over column surfaces there are traces of previous finishing materials.

In ground there are traces of previous finishing materials.

There are pipes at +0.95 cm level.
There are traces of seperator in wall next to pipes.

The brick bond type changes below and above the niches in wall.
There are vertical air canals inside wall section.



There are niches in wall which are connected to air canals in wall.

There are openings in level. + 2.60

The air canals surrounds space G-03 in different levels.

TRACES AND REMAINS KEY

CT **Traces - Remains Regarding differences and Changes in / of Construction System**

- CT-A Changes in Brick Courses
- CT-B Wall Thickness
- CT-C Holes in Wall Section or floor
- CT-D Projection in Wall Section - Wall Remains
- CT-E Partial Collapse in Wall Section

EA **Traces of Architectural Elements**

- EA-A "Kurna "
- EA-B Traces for finishing material
- EA-C Seperation Element
- EA-D Shutter
- EA-E Opening
- EA-F Other architectural elemets

EW **Traces- Remains Heating and Water System**

- EW-A Water Pipe Canals in Wall
- EW-B Water Pipe
- EW-C Water Drains
- EW-D Fire Place
- EW-E Air Canals
- EW-F Concrete Box

EI **Traces- Remains Illumination&Electirical System(Cables, buttons)**

EM **Metal Elements on Wall Surface**

Timber Elements on Wall Surface

CO **Closed Openning**

EE **Traces- Remains of Close Environment Elements**

- EE-A Pavement
- EE-B Road

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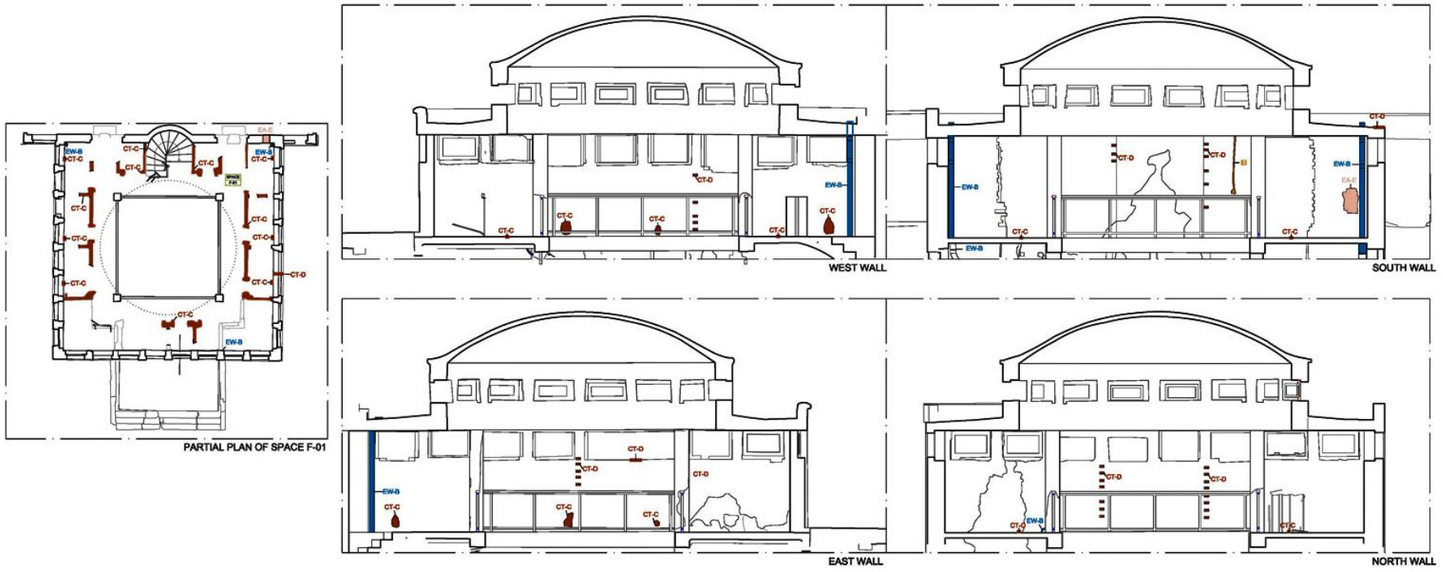
TRACES AND REMAINS / SPACE G-03
SHEET NO: 4 of 9

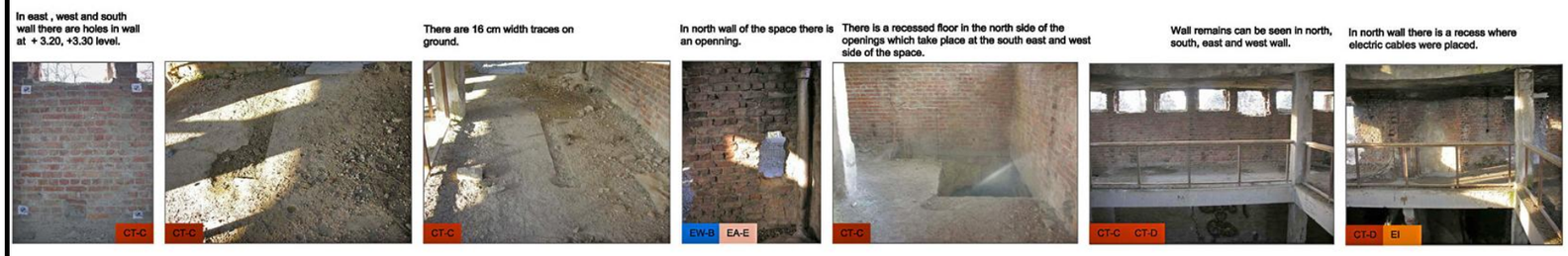
Figure 98- Evaluation of Remain and Traces in AOÇ Hamam

EVALUATION OF REMAIN AND TRACES IN AOÇ HAMAM /SPACE F-01



From remains it can be said that in space F-01 there were dressing cabinets like in space G-01. The hallows in east,west and south wall and pipes are thought to traces of radiator or convector type heating.

Traces of illumination system can be seen on ceiling as well as on north wall. The openings at south east and west corners may be traces of stairs. The holes over metal framework of railings may be trace of lost railings in between.



TRACES AND REMAINS KEY

CT — Traces - Remains Regarding differences and Changes in / of Construction System

- CT-A Changes in Brick Courses
- CT-B Wall Thickness
- CT-C Holes in Wall Section or floor
- CT-D Projection in Wall Section - Wall Remains
- CT-E Partial Collapse in Wall Section

EA — Traces of Architectural Elements

- EA-A "Kurna "
- EA-B Traces for finishing material
- EA-C Seperation Element
- EA-D Shutter
- EA-E Opening
- EA-F Other architectural elemets

EW — Traces- Remains Heating and Water System

- EW-A Water Pipe Canals in Wall
- EW-B Water Pipe
- EW-C Water Drains
- EW-D Fire Place
- EW-E Air Canals
- EW-F Concrete Box

EI — Traces- Remains Illumination&Electirical System(Cables, buttons)

EM — Metal Elements on Wall Surface

ET — Timber Elements on Wall Surface

CO — Closed Openning

EE — Traces- Remains of Close Environment Elements

- EE-A Pavement
- EE-B Road

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TRACES AND REMAINS / SPACE F-01
SHEET NO: 5 of 9

Figure 99 - Evaluation of Remain and Traces in AOÇ Hamam

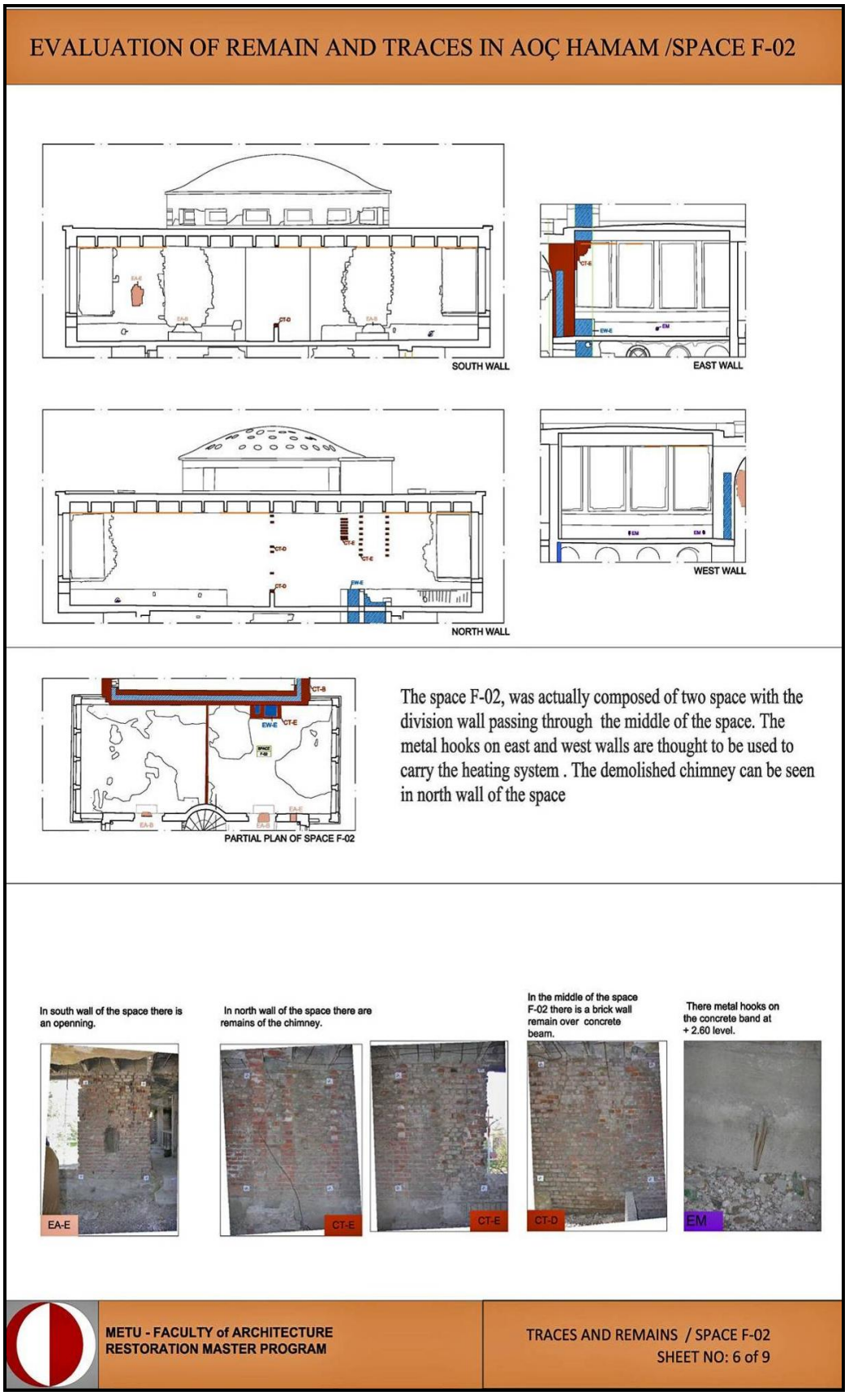


Figure 100- Evaluation of Remain and Traces in AOÇ Hamam

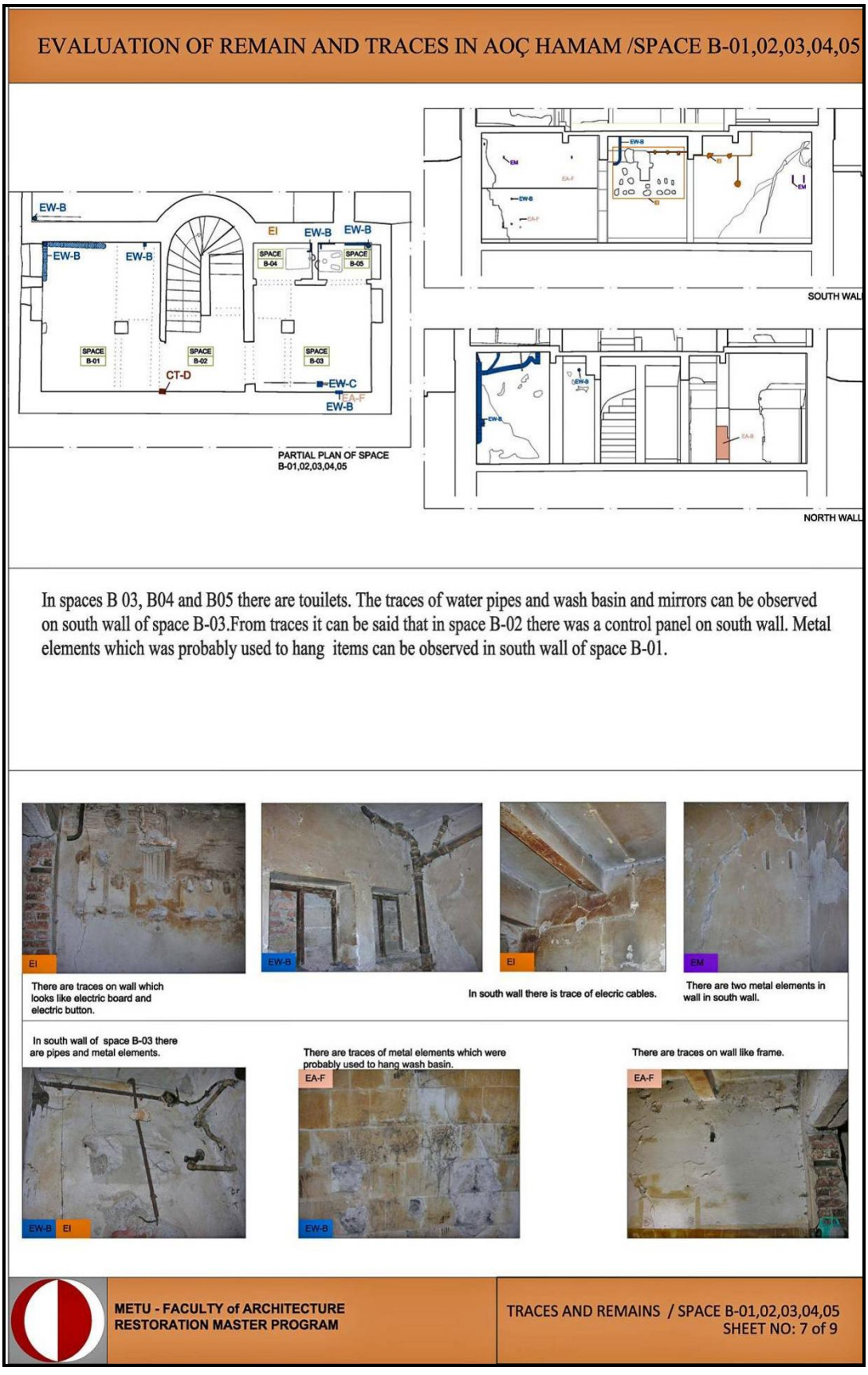


Figure 101- Evaluation of Remain and Traces in AOÇ Hamam

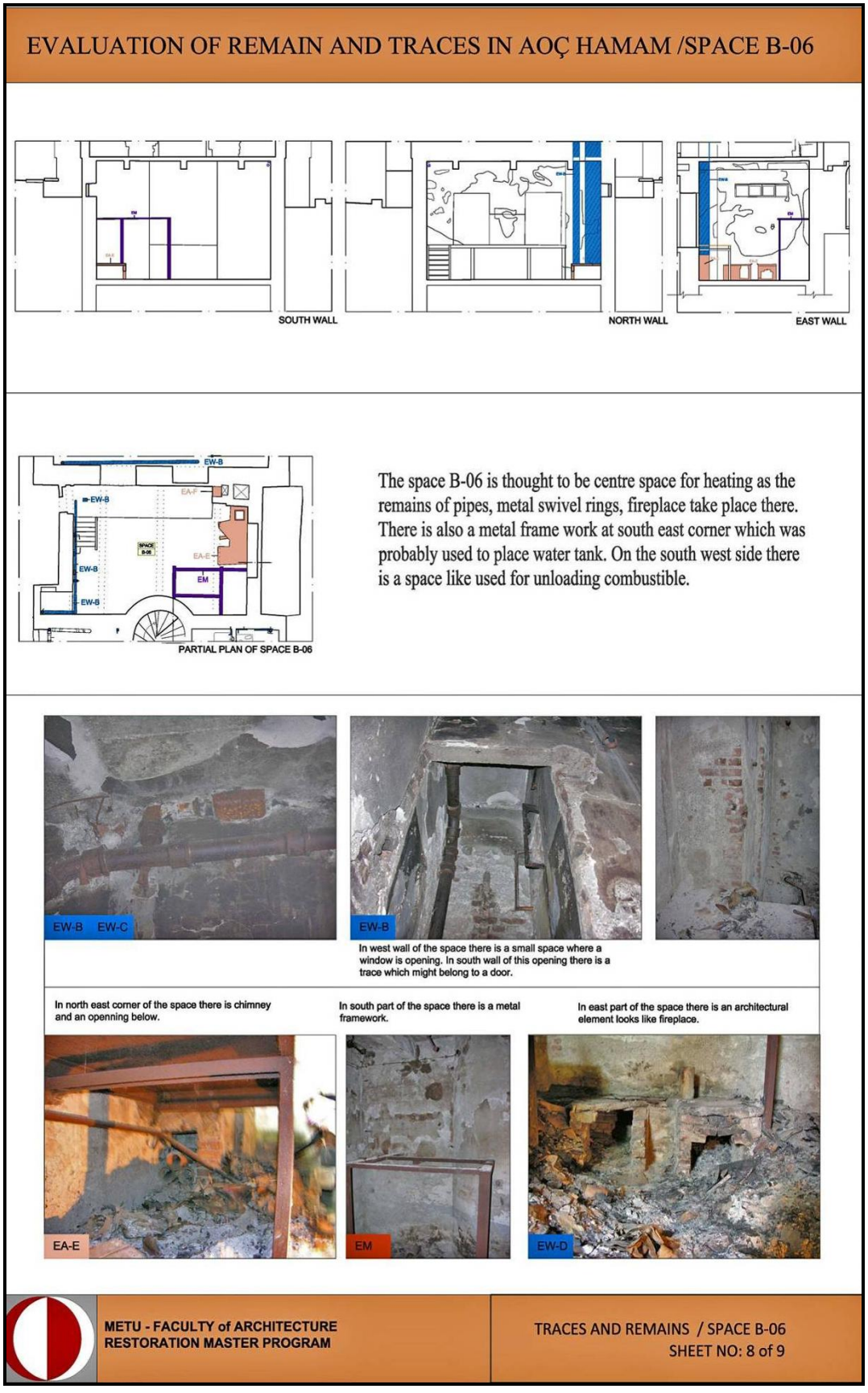


Figure 102- Evaluation of Remain and Traces in AOÇ Hamam

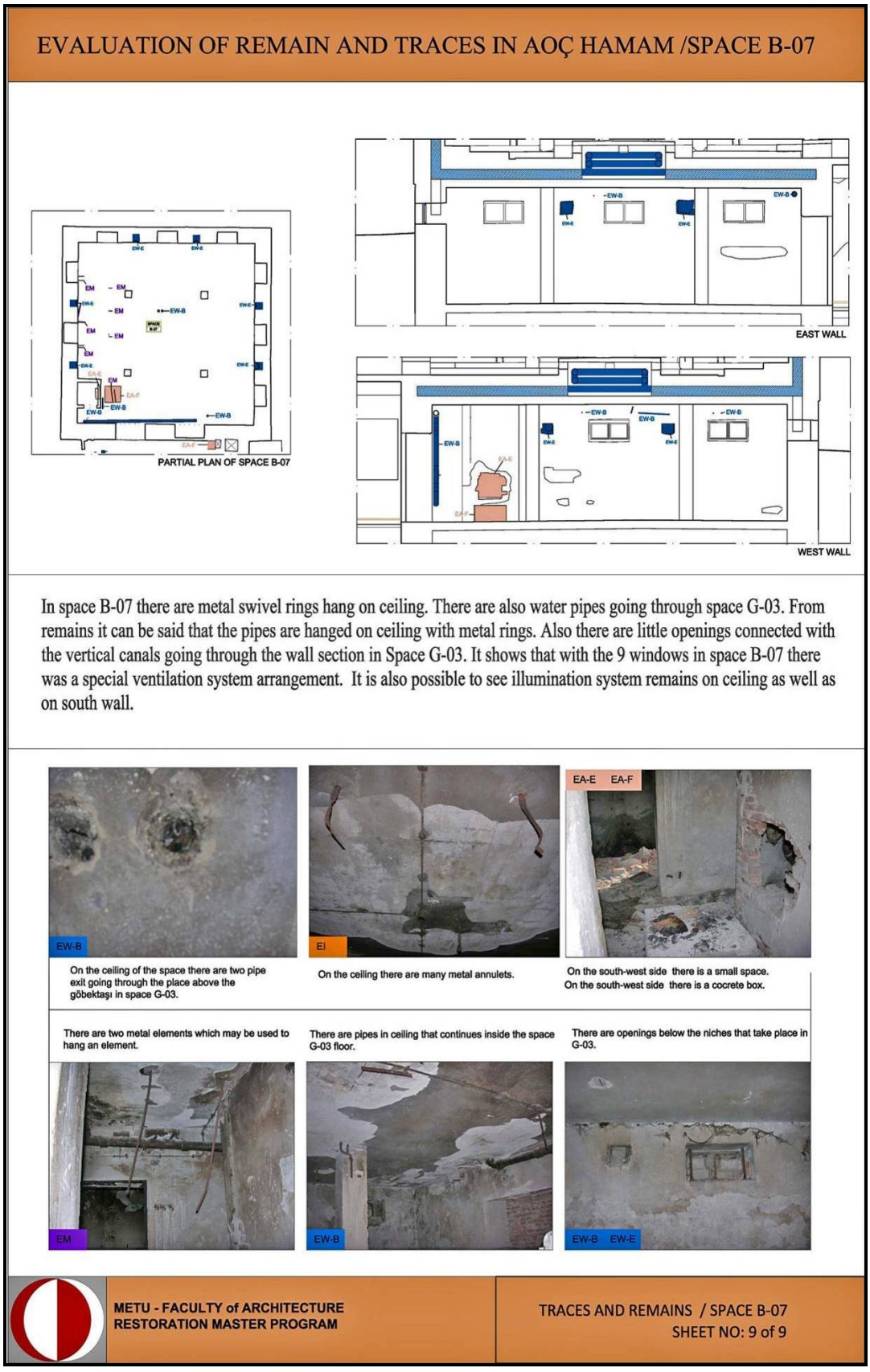


Figure 103- Evaluation of Remain and Traces in AOÇ Hamam

3.3.7 AN ANALYSIS INVESTIGATING THE COHERENCE OF WRITTEN AND VISUAL SOURCES WITH CONSTRUCTED AOÇ HAMAM BUILDING

The analyses made up to this part reveal out the current statue of the Hamam. In the remains and traces part, the foreknowledge about Hamam's original feature is obtained. In this study other written and visual sources such as original drawings, photographs and documents are investigated. The aim of this study is to reveal out the coherence of constructed building with written and visual sources. The obtained data from this study and other analyses will be the base studies of the restitution proposal.

The original drawings that are taken from TTA archieve contains details of doors, windows and stairs.(Figure 137 to Figure 149) From these drawings we obtain detailed information about materials and some of the architectural elements. In some drawings, partial plan can be seen. Space arrangements of Hamam's original feature can be seen in the plan and long section drawing.The written and visual sources are listed as fallows, TTA archieve drawings, the drawings taken from Leyla Alpagut's article(Figure 150, Figure 152 and Figure 153), documents taken from Ankara Kültür Ve Tabiat Varlıklarını Koruma Bölge Kurulu (Figure 154 to Figure 160) , and photographs (Figure 154Figure 164,Figure 165).

In order to evaluate drawings coherence with constructed building, each building and architectural elements that take place in drawings are investigated and examined under two topics. In first topic, the drawings are evaluated according to the information they have about elements such as place, existence, size, form, detail and material and they are documented in a chart. Later the coherence of the drawings and the constructed building has been investigated. The architectural elements are represented in terms of their existence situation. The elements which don't exist and don't have any trace today are defined as lost elements and represented with (-) sign. The elements that are coherent with drawings are

represented with (+) and elements and partially lost ones represented with (⊥) sign. The incoherent information are represented with (●) sign. (Figure 166 to Figure 167)

In this study, it is seen that the drawings are mostly coherent with the constructed Hamam building. It can be understood that the original drawings are reliable source that give mostly right information about the Hamam. Only some of the elements such as main stair and finishing elements in Space F-01 show differences with application. It is thought that problems during construction might caused such differences . On the other hand the elements that have traces in building such as stairs at south wall in space G-01, halvets in space G-02, dressing cabinets in space G-01 and F-01, division wall at the centre of space F-02 are evaluated as right information and they are graded with higher points in restitution reliability study. Apart from these, totally lost elements have been evaluated in a different category as it will be mentioned in fallowing parts.

CHAPTER 4

RESTITUTION PROPOSAL of AOÇ HAMAM

In the following parts the methodology of restitution, the restitution proposal and the evaluation of restitution proposals will be investigated.

4.1 EVALUATION OF SOURCES USED for RESTITUTION PROPOSAL

The restitution proposal is prepared in the light of the knowledge obtained from building itself, the original drawings and other visual sources, similarities in building technology found at Egli's other buildings and the hamam buildings constructed at the same time era and the required architectural necessities.

No doubt the building itself is the primarily important source. As the building conserves its unity as whole in many aspects; space organizations can be observed clearly . However some of the architectural elements, finishing materials and space division walls are lost. In that terms the analyses in third chapter, especially the evaluation of remain and traces analyse give us information about the Hamam's original feature.

Beside the building itself, the written and visual sources are the other important sources used for preparing the restitution drawings. In that terms it was a chance to obtain the original drawings of Egli. The analyse in part 3.3.7, the

evaluation of the coherence of original drawings with construction and visual sources revealed out that, the building was constructed mainly coherent with original drawings. In that terms the drawings are one of the important source that give clues about Hamam's original feature especially the details of lost architectural elements are given on these drawings. Photographs and site plans also give information about facade and site arrangement.

The study done over the buildings designed by Ernst Egli in Chapter 2 reveal out that Egli has used similar building technologies in his other buildings like in the Hamam in terms of heating and special ventilation systems in the Ticaret Lisesi. The lost members with connections of vertical canals, the used materials and details in window framework systems are the similarities encountered in Eglis's buildings. The hamam buildings constructed at the same time period with AOÇ Hamam in chapter 2.4 part, were actually designed with traditional type heating. But from the remains and traces in the Hasanoğlan Hamam it can be said that heating with radiator was used just like in the case AOÇ Hamam, reflecting the idea that the technology was available for the day. On the other hand knowledge obtained about the used materials such as marble, tiles, timber furnitures.

In fact there are items that are drawn according to architectural necessities. The knowledge obtained about the architectural elements according to their sources is given in Table 4 to Table 6. As a result of evaluation of all these information the restitution proposal is made with plan, facade and section drawings. A schematic 3D model is created to see the space arrangements as well as space relations. At last restitution proposal study is evaluated in terms of its reliability. The details about this study can be seen in fallowing parts.

4.2 RESTITUTION PROPOSAL

The restitution proposal study is prepared in the light of the information obtained from the Hamam building itself, written and visual sources, the knowledge obtained from era buildings designed by Egli and Hamam functioned buildings. Plans, facade and section drawings are prepared. The schematic 3D model is created

in which details are not implied since the aim is to give a general view of the space arrangements and function relations.

From collected information it can be said that the building was constructed between years 1937-1939. It is known that the original drawings has date inscription as July 1937 (Figure 137) , and constructed building photo can be seen in 1939 dated published book (Figure 164) , however the starting and finishing dates are not clear.

From the building itself and the traces observed, it can be said that the building wasn't used for other purposes or the temporarily usage didn't cause changes that can be defined as a period through building life. In the article of Leyla Alpagut it is said that the Hamam has lost its function in 1960's according to the information obtained from an officer families lived in these years. The family implied that a part of the Hamam has been used as house by officer family due to the housing shortage in site. (ALPAGUT,2010:255) In AOÇ Hamam there isn't any trace that shows the building had been used as a dwelling with intervention to compartmentalise it and change the space arrangement for a dwelling function. The only trace can be seen circular hole resembling a hole used for stovepipe out on chimney at space G-02 considering the heating system of either radiator or convector type in building. This trace may be the only trace that Hamam has been used temporarily for other purposes, yet this trace is not enough to define another period. The 1988 photographs(Figure 154 to Figure 160)shows that Hamam had lost its function and the openings were infilled due to security reasons.

The original Hamam feature will be investigated under two parts, firstly the close surrounding and its user will be investigated later the building itself will be studied in detail. In order to determine the buildings orientation and the function relations, the site plan of Beer factory is evaluated.

In order to reveal out a site map, that is covering the factory dwellings administration and AOÇ Hamam buildings two drawings are merged. These are the ones of 1943 dated beer factory site plan and 1936 dated drawing of Ernst Egli. (Figure 104 , Figure 105)

The resulted site plan shows that the site had been envisioned in four part. The first part is the beer factory buildings, together with complementary factory units such as chest storage, penthouse for chests, packaging. The Labour ward and dining hall Hamam,etude and garage were placed a bit far away from factory but the function relations are complementary. Second part is the worker houses, greenhouse, tenis courts, hamam and storage units are thought together and they were set aside from beer factory. The third one is the beer park next to the main road. It was designed as a big open area, as an entertainment place where citizens gather. At the east side the administration building, worker house, AOÇ Hamam building were oriented together. Inside these east side land Ptt, school building, restaurant and embassy building can be seen.

From this analyse, two important result has been determined. The first one is that AOÇ hamam isn't the only Hamam building on the site. There are two more bathing functioned building inside the borders of the lands of beer factory. All of these buildings were thought with accommodation units. In west we see the headsman worker house just next to a Hamam building(Figure 104); at the south side Labour ward and dining hall a etude building with bathing spaces at ground floor was oriented. At east side we again see administration building and worker house who were probably at top positions of AOÇ administration. Beside the houses AOÇ Hamam is oriented. In a way, this orientations reflect that the Hamam culture was preserved even at that period on community. This thought can be supported by the worker houses plans that are oriented in east side of the land. It was preferred to construct a Hamam buildings though there was bathroom spaces inside dwellings. In that respect the traditional elements in AOÇ Hamam gains importance as it is the product of a demand to continue this hamam culture.

The second important result is obtained from Hamam buildings orientation and green areas arrangement, as it can be seen in Figure 105. It can be observed that the Hamam buildings were surrounded by green areas, they were separated from surrounding with bushes. In that terms we can say that the AOÇ Hamam building was considered together with worker house and administrative unit complex and the main user profile was the occupiers of these dwellings.

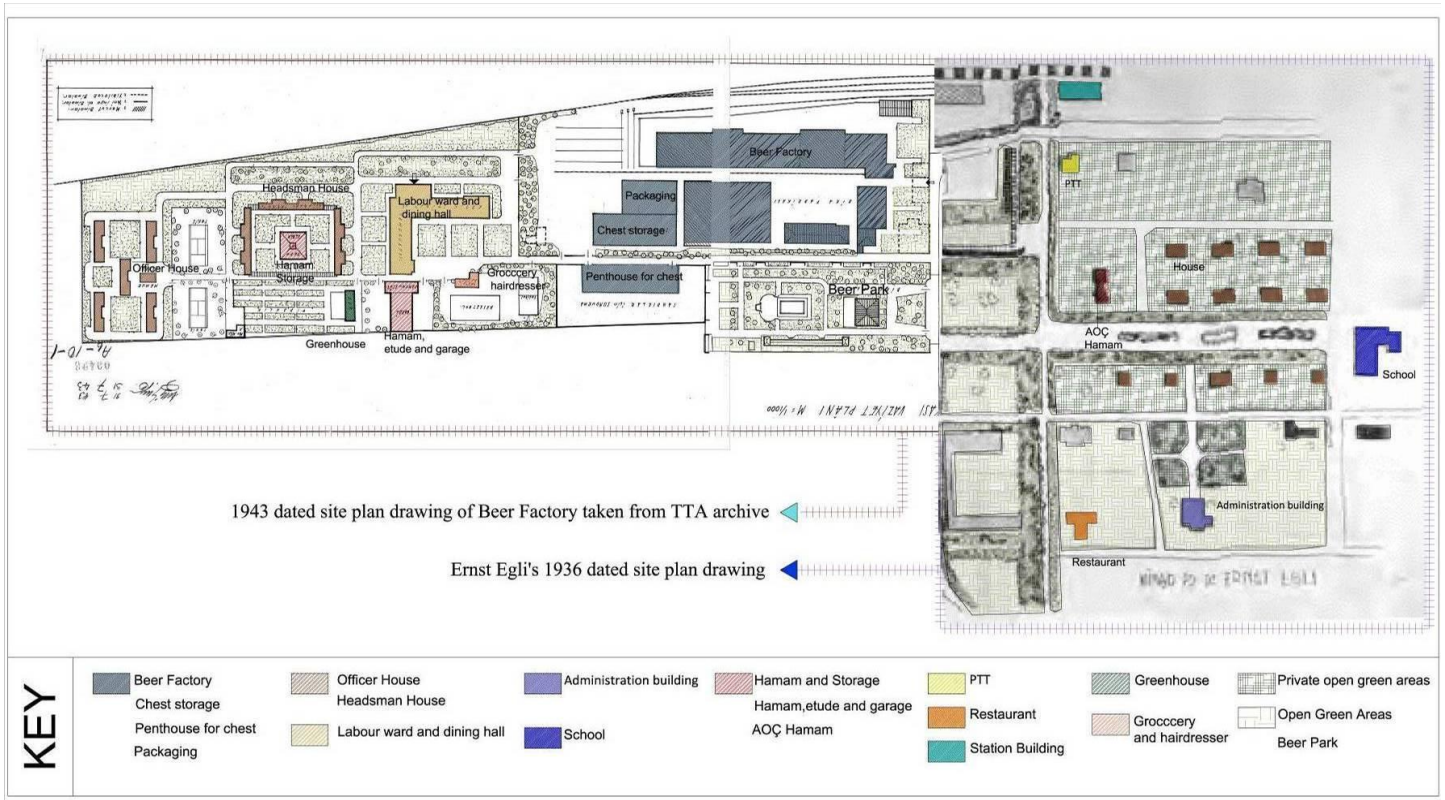


Figure 104- Site plan (1936-1943 dated maps)(TTA Archieve)

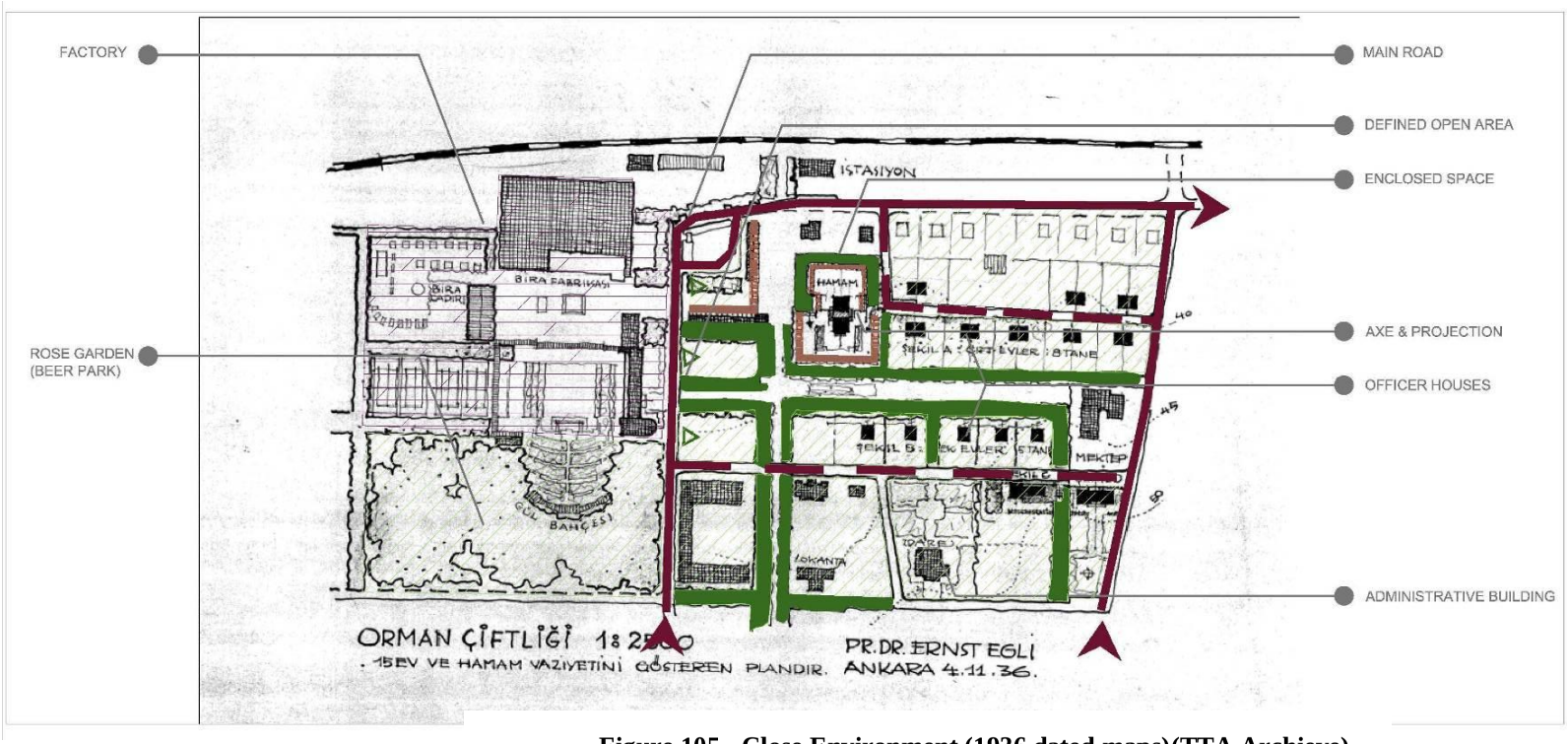


Figure 105 - Close Environment (1936 dated maps)(TTA Archieve)

The original feature of the AOÇ Hamam is reflected with the prepared restitution drawings and 3D model.(Figure 168 to Figure 181)

Space functions and their relation can be summarized as follows. People could prepare for bathing in the dressing cabinets, at spaces F-01 and G-01. The space G-02 and G-03 were being used for bathing. In space G-01, B-04 and B-05, there were toilets. The space F-02' and F-02'' are thought to be used for gathering and resting spaces. Space B-06 and B-07 functions were related with heating and water system mechanism. These spaces were separated from Hamam, with single service entrance from west side.

The entrance is located at the south side of the building. A windshield is created with a projected mass , the entrance is placed inside this windshield with big openings at both sides. At the entrance of space G-01 , a wood lattice with a stuff cabinet were placed, while stairs leading upstairs were located at east and west sides. Passage to the dressing units was supplied with the doors at east and west side of the wood lattice. By this way this entrance hall was divided from dressing cabinets and other spaces. The dressing cabinets were placed at east and west side and there was also a wood lattice design that supply a privacy to these areas. There was a toilet at the northwest side. The ground is covered with terracotta floor finishing while the space at the middle is covered with marble. The natural light was supplied to space with the high windows at both side of main entrance and 16 windows at the dome drum. The side windows was sustaining light to cabinets. There was also an illumination system, at the corridors ceilings between wood lattice and dressing cabinets.

The passage to space G-02 was supplied with the doors at the sides of main stair. There were three "halvet" like units at the corners of space. It is thought that there were shower like units, considering the sizes and the water drains at ground floor. In front of the chimney there might be a cupboard to dry out the "peştamal", towels used in Hamam. The ground is covered with almost 45x45 cm sized marble and it is thought that the walls were covered with ceramic tile. The natural light is sustained from the circular windows at east and west side and it is thought that there was also a lamp at ceiling. The space G-03 was the main bathing space. 14 "kurna"

were placed on four sides, places that are defined with marble separators. The "göbektaşı" take place at the middle. The ground was covered with marble. The walls and the column surfaces were also covered with marble till a level. The space was the hottest space in building because of the special heating system embedded in slab. The light was obtained from the oculuses on dome.

The F-01 was another space where dressing cabinets were placed. The transition from other spaces were supplied with the main stair at the north wall and the side stairs at east and west side. There were also passages to spaces F'02 and F''02.

The space F-02' and F-02'' were thought to be designed as gathering and resting spaces. In the article of Leyla Alpagut the space is defined as café with reference to the original drawings. The spaces were surrounded by high sliding windows, and it is thought that "sedir" like sitting units were designed in front of them. The arrangement in sides of division wall is not clear, but from the original drawings it is thought that cupboards were placed in both sides of the division which might be a small kitchen like unit. Dividing space F-02 with the wall in between might be related with the different user profiles in terms of the workers, but indeed a certain thing can not be told about the reason for separation. It is also thought that there were a heating mechanism passing at +2.62 m level, carried by metal hooks. Today these hooks can be observed on wall surfaces at east and west side.

The space B-03, B-04 and B-05 were the main wet spaces where toilets took place. There were mirrors and two washbasins at south wall and the toilets took place at north side. The ventilation and natural light were obtained from the windows at east side. But from traces we can say that the space was enlightened with an artificial system. The ground is covered with terracotta flooring and the walls are covered with 15x15cm tiles till +1.30 m level. The space function of space B-02 is not clear. The space may be used by Hamam staff.

The space B-06 and B-07 functions were related with heating and water system. As defined in heating and water system analysis previously, it is thought that in B-06 there was a water tank on south east corner, and a heater mechanism which

was probably placed over the fireplace at the east side with a pump. The space is connected with space B-07. Space B-07 might be used as a storage. Another important thing in space B-07 is the ventilation system of vertical canals in wall section. The pipe system for water and heating were carried with bracelets close to ceiling level.

4.3 EVALUATION OF RESTITUTION PROPOSAL

The evaluation of the restitution proposal investigate the reliability of sources and their reflection on drawings with in a grade system. (Figure 188, Figure 193)

Aforementioned, restitution drawings are prepared with the information obtained from studies of traces and remains, original drawings, investigated Egli's building and Hamam functioned buildings constructed at the same time period with AOÇ Hamam and architectural necessity. This study is prepared in four steps. First each architectural elements are documented. In the second part the data that are obtained from the evaluation of studies of traces and remains in Hamam Building, original drawings, comparative study and architectural elements are investigated under the topics of existence, place, size, form, material and detail. In the third step, a grading system is prepared. By this way the highest point is given to the most reliable information. In that respect numbers are chosen starting from 2 to 12. Architectural Necessity in that respect took the lowest point two, Comparative case studies took 4 point as the building is unique in some respects and the buildings chosen that are constructed at the same era gave only information about building technologies. The original drawing sources are evaluated in two different ways . The first type is the information that are primarily related with the architectural elements in Hamam building of which the information can also be confirmed by traces, remains or by the architectural element itself. The second type information obtained from the original drawing is determined according to the unverified knowledge with the constructed building or the elements that are lost and left no traces and remains on building. In that respect 6 point is given to the original drawings that has

secondary type of information; and 10 point is given to the original drawings that has primarily reliable information about the architectural elements.10 point is given to the information obtained either by comparison study within the building itself or partially existing architectural element and traces. 12 point is given to the information that are gathered from the object itself. These objects either have remains or preserved itself at a rate that we have enough data about the six investigated topic.

In the fourth part the configurations are documented and they are grouped according to the total grade and as a result reliability classes are defined. They are as 1A, 1B, 2, 3 and 4. The reliability level are detailly defined as below. But clearly it can be said that reliability Level 1 objects can be completed regarding the knowledge obtained. Other reliability levels decrease by one by and there is limited knowledge about the objects.

1A category is used for elements that the information about its existence, position, size, form, material and detail can be obtained from the ruins or the element itself. The grade interval is 68-72.

The 1B category is used for elements that the information about its existence, position, size, form, material and detail can be obtained from the ruins and traces and coherent information obtained from written and visual sources. The grade interval is 52-60.

The 2 category is used for the elements for whose information about existance is obtained from traces and remains or secondary type visual and written information; and elements that are thought to exist due to secondary written and visual sources and architectural necessity and indefinite information about size, form, material information. The grade interval is 36-44.

The 3 category is used for the elements of whose information is obtained only from secondary written and visual sources, comparative study and architectural necessity. The grade interval is 22-24.

The 4 category is used for the elements whose information are obtained only from architectural necessity. The grade is 8.

As a result of this study it can be said that within the framework of criteria defined for the restitution proposal, the drawn elements are mostly in 1B category. The 1A and 2 category follows this while 3 type and 4 type category architectural elements are the least in number.

CHAPTER 5

CONSERVATION PROPOSAL

This chapter aims to make a conservation proposal by evaluation of the building and its close environment values, problems and potentials. In that respect approaches towards conservation proposal, general principles and decisions, proposal for new function are defined. At last an intervention map is prepared together with the drawings of the proposal. Since the study don't include any laboratory work , for this step preliminary approaches for conservation are defined. For this reason conservation methods are not investigated in detail as it is a topic of special analyses and researches.

5.1 EVALUATION

The building and its close environment have been analysed from several aspects up to this part. In the fallowing part a general evaluation will be made about the environmental and building values, problems and potentials. In the first part the environmental values, problems and potentials will be evaluated. In the second part the building will be investigated with its values, problems and potentials from different perspectives.

5.1.1 EVALUATION OF AOÇ HAMAM CLOSE ENVIRONMENT

AOÇ Hamam is oriented on a site which can be assumed as the hearth of the founded AOÇ. By this study its aimed to evaluate the site values, problems and potentials. Since this master study is focused on AOÇ Hamam this evaluation include only the close environment that can be seen in Figure 106, and general values, problems and potentials are investigated. The related detections with building will be evaluated in detail in following parts.And from this evaluation decisions are made about the building and the open area that it is oriented.

The defined close area host many important republic period buildings of different scale and different functions. Beside the constructed buildings, the open green areas are another significant character of the site. Of course as a whole this area has its own potentials and problems to be considered.

Aforementioned republic period buildings such as Gazi Station, Beer factory, administration buildings, old embassy building and the AOÇ Hamam buildings can be seen as the representative of different function buildings carrying the design concerns of the period they were constructed. Different design approaches can be seen at the same time such as first national architecture period approaches in Gazi Station Building, while most of the other buildings were designed by modern movement approaches, as impacts from other countries

1.	-Republic period buildings -Gazi Station, Beer factory, administration buildings, old embassy building and the AOÇ Hamam -Different function buildings carrying the design concerns of the period they were constructed -Different design approaches can be seen at the same time -Sgnificant building that is important for the AOÇ foundation history.	- Today the buildings lost their function - Structural problems , deterioration, material losses. -Legibility problem in terms of revealing out the site values.	-A big potential for revitalization of site by re-functioning - The variety scales of building and designs give chance to create different attraction points - Oriented in different parts of the site and accessible by main roads from various directions
2.	-Open green areas	-Inadequate relation with open areas -Areas can't be used by citizens	-Potential of the areas can be used by right relations with constructed areas and open areas arrangements -Gathering spaces and recreation areaas can be created
3.	-Attractive eating and drinking points	- Constructed by unqualified material, big signboards and have limited space for customers - Don't have parking areas	- Harmony of the units can be sustained
4.	- Connection with city by main roads and rail road - Special cars, public transport vehicles and train ways can be used	- Limited parking areas and traffic	- Easy accesibility -The study area will be kept alive
5.	- Most of the lands belong to AOÇ	- The borders of mass housing and administrative units prevent citizens to use open green areas, and empty buildings	- Easy accesibility -The study area will be kept alive

Figure 106 – Close environment evaluation

can also be seen as in the case of in old embassy building. Considering the lands of AOÇ today it can be said that this site include significant buildings that are important for the AOÇ foundation history. Most of these buildings are today lost their function and front with structural problems , deterioration, material losses. There is also a legibility problem in terms of revealing out the site values. By this way a great potential of these buildings can't be used.

In a way there is a big potential for transforming site in a positive manner by re-functioning these building . They are oriented in different parts of the site and accessible by main roads from various directions. A comprehensive approach towards this issue would bring a great acceleration to region transformation in a good way.

Another significant character of the site is the open green areas of which can't be used by people. Considering the open green areas are much bigger than constructed area, this inadequate relation can be seen as one of the big problem of the site. This open areas can turn into a potential by right relations with constructed areas and open areas arrangements.

Today the site is an attraction point with the fast food units. These units are mostly constructed by unqualified material, use big signboards and have limited space. Because of that there is a parking and traffic problem. Of course there are restaurants such as Merkez Lokantası, Gazi Station Building which give the opportunity to spend time in open areas as a part of the given service. The land is connected to city with main roads and rail road. For transportation special cars, public transport vehicles and train ways can be used. Studies towards healing the facades of these units and solutions for parking areas and traffic can bring a qualified outlook for the area.

As a result there is great potential for the site in order to create qualified gathering spaces for citizens. The beer factory in that terms can be used as an accumulator with its large unused spaces. For a large scale transformation beer factory is an efficient building to be studied. This structure give chance for large accession activities. Other buildings can become other attraction points with new functions and restoration studies. On the other hand the open green areas should be accessible for citizens and arrangements should be done for this purpose. Traffic

problem can be solved by defined parking areas. A facade healing study can be done for small scale eating units. Beside these partial area, the problem of AOÇ requires solutions to be made in city scale.

5.1.2 EVALUATION OF THE BUILDING

The value assessment is an important topic for conservation. It is a fact that each case is special with its own values. But for the buildings that are constructed at same periods, and similar design approaches, value assessments can be made under common topics such as historical value, aesthetic value, social value and etc. For the buildings constructed in 20th century the value hierarchy can show varieties when compared with the buildings constructed before that period. Reversely the novelty value might take place the historical value, or technological , integrity values can be more significant. DOCOMOMO International in that respect defines guidelines for the documentation of the building and preparation of the fiches in order to supply uniformity. This attempt is important interms of defining an international framework for the conservation of the modern building. The evaluations can be made with minumum fiches and full fiches. The major values in that respect are defined as technical, social and aesthetic merits. These values are followed either by historical values and general assessments or canonic status and reference value according to used fiche type. canonic status" and "reference value" can be used for the buildings that introduce new models. On the other hand Docomomo US has defined criterias, "selection qualifiers", "that can be applied to a building or landscape to evaluate its significance". These six criterias are technolgical merit, social merit, artistic and aesthetic merit, cannonic merit, referential value and integrity. [8]For AOÇ Hamam a"minimum fiche" has been prepared "by DOCOMOMO Turkey.(Figure 194 to Figure 196) Considering the Hamam building, these criteria seems feasible to

[8]http://www.docomomo-us.org/register/how_to_evaluate and http://www.docomomo-us.org/register/fiches_and_guidelines last accessed in 10.09.2011

evaluate the building values. In that respect the values are investigated under the topics given at below:

1. **Technological merit:**

   "Does the work employ innovative modern technology to solve structural, programmatic, or aesthetic challenges"[9]

The building has been constructed together with reinforced concrete system and brick masonry system like the coeval buildings of the period. But from different point of view the innovations in system can be seen such as the projection part in the middle, domes at north and south side of the building, the precast like partial concrete wall in space F-02. The use of concrete slab section at a height of 10-14 cm is still an optimum rate and it is a success for the period considering the lack of experience for these type construction systems. On the other hand there are also innovations such as an early example of the suspended ceiling in space F-02. Usage of variety of slab types together in system also an affluence for the building. It might be related with the space character wanted to be created and also might be a reflection for an experimental use of reinforced concrete. Besides it can be said modern technologies has been used in Hamam in terms of heating, water and ventilation as well. The heating and water system are different from other traditional Hamam and its seen that the used system also differentiate from other coeval hamam buildings. As aforementioned a vapour or hot water heating system had been used and the heating is supplied either with radiator or convector type heating. The water system is settled in building with metal pipes. The special ventilation and heat control system can be seen one of the other innovation in building. As explained in the case of "Ticaret Lisesi" the air circulation has been supplied with openings from different level and vertical canals in wall section. The horizontal canals are thought to be used for heat insulation of the space G-03. All these building technologies and innovations make the building significant considering the other buildings of the

[9] http://www.docomomo-us.org/register/how_to_evaluate and http://www.docomomo-us.org/register/fiches_and_guidelines last accessed in 10.09.2011

period. In that terms the modern technology has been used to solve structural system as well as the programmatic necessities of the building special function.

2. **Social merit:**

"Does the design reflect the changing social patterns of 20th century life?"

Did the designer attempt to improve either living or working conditions, or human behaviors through the work's form or function? "[10]

Actually the building stand at a different point considering other buildings of the period. One of the reason for this can be seen as the function and design approaches relation. It is known that the officer houses close to the hamam had their own bathrooms however still the "hamam" function had seen as a necessity as a part of a culture for bathing considering two other bath buildings in that close environment of the AOÇ site and beer factory complex. The resulting building in that respect become significant with its modern design approaches of Egli and traditional referenced architectural elements together use within a harmony. It reflects a pattern of the period in Turkey, a traditional trace within a search for a modern outlook country. In that respect the complex that the building oriented gain importance as AOÇ lands figures out with its place in republic history as a symbol for community in the way of modernization and industrialization in agriculture.

3. **Artistic and Aesthetic merit:**

"Does the work exhibit skill at composition, handling of proportion, scale and material and detail?" [10]

The building reflects the design approaches of the period in Turkey. This approaches contains some of modern referenced items such as bare designs with

[10] http://www.docomomo-us.org/register/how_to_evaluate and http://www.docomomo-us.org/register/fiches_and_guidelines last accessed in 10.09.2011

emphasized geometric forms, flat roofs, non-ornamented surfaces and pure surfaces, sharp edges, relations between spaces and etc.

In building facades the cubical effect is emphasized with the bare geometric forms in an aesthetic manner. The building is basically composed of two cubes with a dome cover at north and south side, a rectangular projected part at the middle. The facades are elevated with rectangular niches on cubes and the vertical lines created by those elements. The inner spaces were designed according to the required necessities of the spaces.

The architect designed a building with his modern approach which is a part of a traditional building typology that has strict rules in terms of space hierarchy, used architectural elements, special heating, water and air conditioning system , special designed illumination system. Egli mostly regarded these strict necessities of the function but he differentiate his design with the technological innovations, sanitary partition, plain circulation scheme, bounded and fluent space relations, and his special design on light. Without doubt his artistic merit reveal it self in the harmony how he united the " traditional" architectural elements of an hamam building with his design approaches towords "modern movement".The fallowing evaluations investigate this harmonic integrity.

The AOÇ Hamam building stands by at a different point when compared with the other buildings of Egli. One of the reason for that can be shown the building typology. Aforementioned necessities that belong to a culture of bathing rituals has been blended within his design approaches.

The Hamam functioned building has an identity in Ottoman architecture as aforementioned. In AOÇ Hamam Egli has preferred to use some traditional architectural elements directly in his building, while in some parts he reference the traditional items elegantly. On the other hand he used different water and heating system, construction technique and material convenient to its period.

The building design corresponds with Egli's general design criteria with geometric forms and arrangements in facade, construction technique, the modern technology for heating and water system and materials usage.

Like other buildings of Egli the cubical effect is emphasized with the bare geometric forms. , the facades are plastered. Like other buildings of Egli, he used

circular windows in AOÇ Hamam. Terracotta floorings, concrete, ceramic tiles are the materials used in period buildings. The suspended ceiling in Hamam can be seen an innovation.

Beside the period technology and materials, some traditional elements are also used in AOÇ Hamam. The plan scheme, "göbektaşı","seki", "kurna" , domes and lanterns can be seem as traditional architectural elements belong to Hamam type. In fact Egli's design approaches don't reject the local architecture. Its known that he has used traditional architectural elements like a pool and plan scheme similar with medrese in "Musiki Muallim Mektebi". He didn't reject the local values of the country, instead he tried to combine the traditional elements with the assessments of his design approaches.

The plan scheme show similarities considering the "soğukluk", "ılıklık" and "sıcaklık" parts. The scheme show varieties only with the space F-02 which is thought to be used as a gathering and resting space. Egli implied in his book where he investigated traditional city houses as "..in time , it was found necessary to increase the number of space as well as service units. While placing Hamam on one section, on the other hand especially coherent with the traditional Turkish room character, a projected space with large "sedir" surrounding three sides and and large multi-windowed living spaces are placed. " (EGLI , byATAÇ:2009)If the projected spaces F-02 is considered with its space quality, elongation through the visual axes of east and west side, it can be said that the architect may certify the space quality of Turkish room character as he defines to AOÇ Hamam building. The idea of creating a gathering and resting space don't contradict in terms of space function relations And at the ılıklık space at space G-02, he interpret the "halvet" units and he designed shower like units.

One of the significant architectural elements of the building is the dome over space G-01 and G-03. The domes also reveal out a sensitivity of lightening as a design approach. The dome diameter and profile change though the space sizes remain almost the same. This change might have related with the space character that Egli wanted to design. The wider dome covering the space G-01 is "soğukluk" space for the hamam and as it is known soğukluk spaces are mainly the wider spaces in traditional Hamams. Since he designed a symmetric building he don't change the

space sizes but supplies a wider appearance with dome arrangements and also with the gallery.While so Egli referenced a vault like transition element in space G-03. Comparing the structural system in space G-01 and G-03 it can be said that this element has minimum structural requirements on the other hand it can be said that it is one of the important architectural elements for the space character that Egli wanted to create in order to bring many traditional architectural elements together in harmony. Also the arrangements results with a different character in lightening. In that respect the light level decreased due to the space function. G-01, F-01 and F-02 are the spaces that have the high level of light due to openings size or number. In space G-01 and F-01 we have a controlled light in terms of the windows height. It supply natural light while at the same time a privacy considering the height of windows and the dressing cabinets place in the original feature of the building. On the dome drum covering space G-01, side windows are used, like in the drums of many of the Ottoman Mosques. These are used to enlighten the whole space with the windows at the sides of the opening. In space F02 the windows gain another function. The visual connection with outside and the rate of light becomes significant with the opening size, windows distribution in space and their place. Like in space G-01 we have a controlled light by the circular windows that are common for the period, in space G-02 which sustain a light level that is enough for the bathing function and at the same time give a privacy that prevents the visual connection from outside due to the place of the windows. In space G-03 we see oculus type lightening like in the traditional "hamam"s.

From traces in space G-01 and F-01, it can be said that there were dressing cabinets and in space G-02 there were halvet like units at corners. Without doubt the traditional elements are densely used in space G-03. At sides there are seki,göbektaşı at the middle and from traces we see the places of kurna and marble separators. From original drawings we also obtain the knowledge of specially designed architectural elements such as the timber lattice at the entrance space G-01 that supply a kind of privacy hierarchy between floors.

A modern heating technology was used for heating and water system that can be seen an innovation for this building.The heating of space G-03 resembles with traditional hamams in particular ways Instead of" cehennemlik" the space is heated

from ground with water or vapour pipes embedded inside ground and there is a special system is designed inside göbektaşı. Though there is not a design as "tüteklik", the vertical canals that supply air ventilation from different levels resemble in terms of inserting a system related with heating and ventilation inside wall section. Due to the limited information whether the horizontal canals are connected with the canals in ground, a certain definition can't be made about heating in wall section. Beside these system another remarkable architectural element that Egli referenced is the vault like transition element in space G-03. Comparing the structural system in space G-01 and G-03 it can be said that this element has minimum structural requirements on the other hand it can be said that it is one of the important architectural element for the space character that Egli wanted to create in order to bring many traditional architectural elements together in harmony.

Aforementioned architectural elements show that the AOÇ Hamam had been considered in every detail and coeval and traditional elements are used together. In the article of Leyla Alpagut, the inscriptions of Egli is given saying that Atatürk has fallowed the building place and the construction process ; and he visited a completed Hamam building together with Ataturk. He says that the detailed question that Ataturk asked about Hamam was amazing. In that perspective it can be thought that Ataturk or the desicion makers for the site may wanted Egli to design a hamam building that shelter traditional elements together with modern design approaches. The idea might be supported with the desire to continue the "hamam culture" with regarding three bath functioned buildings constructed in AOÇ sides as previously mentioned. To conclude the resulting building of Egli reveals out as a work where traditional and modern design approaches of Egli united together in harmony with new building technologies of the period.

4. Cannonic merit:

"Is the work and/or architect famous or influential? Is it exemplary work?" [11]

[11] http://www.docomomo-us.org/register/how_to_evaluate and http://www.docomomo-us.org/register/fiches_and_guidelines last accessed in 10.09.2011

The building was design by the architect Ernst Egli who has an important role on the early republic period buildings. He had designed several buildings which have symbolic importance for newly founded republic that is taking steps on the road of modernization. The majority of his design was composed of education buildings. He considered special details for the buildings and gave importance to the values of the country. It is possible to see references to the traditional architecture elements elegant usage at some of the works of Egli like in the "Musiki Muallim Mektebi". The hamam that he design reveals out as a unique building with its function and building technology in the context of early republic era.

5. Referential Value:

> "Did this work exert an influence on subsequent designers as a result of one or more of its attributes?"[12]

This value investigate the environmental values in terms of " relationships (technical, functional or formal) between the building or site under consideration and others which were built or established before, in the same region or in foreign countries . In that respect this value type doesn't exactly correspond by hamam building. The building didn't directly affected the later constructed building by the innovations used. However in a big framework, the hamam building is a part of a whole considering the AOÇ sites, the buildings constructed on it and a reflection about the life wanted to be created with production, housing, administration and complementary social units and recreation areas. In the whole the building is one of the example of the modern approaches in Turkey and the buildings designed by this approach. It might not influence any other building but when considered with other values, the uniqueness value becomes more significant. And the building also has a

[12] http://www.docomomo-us.org/register/how_to_evaluate and http://www.docomomo-us.org/register/fiches_and_guidelines last accessed in 10.09.2011

historical value as it is the only hamam building designed by Egli and the building role in AOÇ context.

6.Integrity Value:

"Is the original design intent apparent? Have material changes been made which compromise the architectural integrity of the structure or site?"[13]

Its hard to say the integrity of the building has been preserved from all aspects. However the building is mostly preserved that enables to understand how the space relations were designed, heating, water and ventilation systems were placed and in which sensitivity the building was constructed due to the architectural element losses. On the other hand the building can not be observed with all design elements but traces in the building and the original drawings of the Egli gives clues about the authentic feature of the Hamam. For the current situation of the building it can be said that there is an integrity towards facade organization, observation of space relation and plan scheme.

5.1.3 AN OVERALL EVALUATION OF PROBLEMS IN AOÇ HAMAM

The AOÇ Hamam has been analysed from various aspects up to this part. The studies showed that AOÇ Hamam is one of the important building that reflects its period characteristics as well as it is also separated from other buildings with its architectural values. In this part an overall evaluation will be made about the problems of the building in order to prepare a base study for conservation proposal .

Currrent Situation of the Hamam: Today Hamam has lost its function within the transformation of the site. As a result Hamam face with problems some of which are related with not being used , lack of maintenance, serious structural deterioration

[13] http://www.docomomo-us.org/register/how_to_evaluate and http://www.docomomo-us.org/register/fiches_and_guidelines last accessed in 10.09.2011

and material loss problems related to disinterest and depletion. In that respect buildings that lost their function should survive either by new functions or with the solutions that enable the original function sustainability. In conservation studies the new function proposal will be investigated in detail.

Another problem can be seen as legibility problem of the plan scheme due to big architectural element lost. On the other hand the lost architectural elements decrease the perception level about the original feature of the building. Also the limited relation of the Hamam with surrounding open green areas can be seen one of the problem. As the land ,that building elongates, separated from road with barriers there is a problem in terms of perception and usage. The administrative problem can be seen as lack of interest neglecting monitoring and maintanence.

Structural Problems: As mentioned in chapter 3.2.4 part in detail the biggest problem of the Hamam is the structural problems. Structural problems in building is related with different settlement due to ground level differences in basement floor. The other structural problem is the reinforced concrete system's fragmentation problem. The brick course deformations in space G-03 outer wall and on North side of the parapet can be seen the problems of the masonry system .

Material Related Problems: The material loss , infills, deformations and Colour change and deposition can be seen as material related problems. Briefly they can be summerized as :Building is affected by weather conditions due to window and door loss, glass loss,Demolished parts like stair side wall in space G-01, F-02 chimney wall and door-window openings side,Infill window openings in space G-01 ,Ruins on ground in space G-01, B-06, B-07,Loss of brick units and broken bricks in spaces, Reinforce related problems , loss of concrete on ground in space G-01, G-03 and F-02. ,Finishing material loss, loss of floor finishing and wall finishing, broken tiles and tile lost, Plaster detachments in space G-01, G-03, B-01, B-06 and B-07; Metal buckling problem of the railings, metal corrosion ; Blackening problem on walls in space G-01,G-03 and F-01; Whitening and greying problem on facade, space G-01,F-02; Biological growth, grass,moss, shrub existence on roof, space B-01, B-02, B-03, B-04, B-05, B-06 and B-07.

5.1.4 POTENTIALS OF THE BUILDING

Environmental Potentials

The building elongates inside 6453m2 open green area and surrounded by many republic period buildings from different scale and function. All these values brings the potential in terms of creating an attraction point that people can gather together. The limited relation in the site with open areas also increase the need to create designed spaces. There are indoor and outdoor spaces that can be evaluated for different purposes. The location of the Hamam is another potential as it elongates parallel to main road ,easily accessible and with right interventions it can be easily perceived and become a landmark for the site.

Refunctioning

The building today lost its function and not being used. In that terms it is important that building should be usable again either with its original function or a proper function that will bring sustainability to building life. In that terms its a potential that building is empty and mostly preserved. Its also important to use the existing building stocks in terms of economical aspects, as well as integrate the existing building with new functions.

Space Characters

The existing building have a fluent relation between spaces. Beside the volumetric potentials of the space there are also other values to be considered such as lightening, space relations, service and circulation areas, visual connections with outside, acoustic character. Of course some of this evaluations require special measurements however the evaluation made in that part include data collected by visual observation and metric measurements.

5.2 APPROACHES TO CONSERVATION PROPOSAL

Different conservation approaches had been developed for the 20th century buildings, considering their design criteria, construction technologies brings a different hierarchy of values and special problems. The conservation proposals

should be thought in the framework of the values, problems and potentials of the building. In that respect the building has been evaluated in chapter 5.1 part.

The building differentiate from other republic period building from different aspects, it has architectural values to be preserved. In that terms the the authenticity, architectural and artistic values, technological values are outstanding ones. On the other hand the building today face with aforementioned structural and material related problems, as well as not being used for any purposes. Through years AOÇ Hamam preserved its unity mostly as a construction. Furthermore, reliable information about the lost architectural elements obtained by the traces, remains and original drawings obtained from TTA archieve.

In the following part of this thesis study the conservation proposal will be made in the light of collected data mostly by visual observation. As a result the defined interventions might not define an exact method since it is a topic for special studies and laboratory analyses. For this reason an intervention map for problems will be given in order define a path as a primarily step of the conservation project.

The primarily aim is to preserve the original feature and values of the building. The defined problems will be the intervention subject. On the other hand a new function will be proposed for the sustainability of the building which will not overload the building capacity and programme will be proper for adaptation.

5.3 GENERAL PRINCIPLES AND DECISIONS

In the following part general conservation principles will be defined before the intervention proposals. For this preliminary study the main principles will be defined about the conservation proposal.

The AOÇ Hamam is important with its of building technology, being designed by an important architect of the period, and reference its period from different aspects, its architectural values and plan scheme, space relations and organization. As a fact the hamam function has completed its economical and social sustainability within conditions of the day. In that respect in this conservation proposal it is aimed to conserve building by re-adaptive use with a new function.

It is the main criteria to sustain a structurally stabile building while preserving the main design criteria of the building. The intervention topics can be classified as Urgent interventions, conservation of other architectural elements and values of the building, interventions related with re-functioning of the building. In that terms the principles are defined at below:

Urgent Interventions

-The primary priority is to sustain a structurally stable building. It is essential to strengthen the system with its existing values and measures unless the reverse become an structural obligation.

- Appropriate methods for strengthening construction system which won't damage the original materials of AOÇ Hamam should be investigated.

- Analyses will be done about the different settlement problem of the foundation. If required the foundation will be strengthened.

-The factors that cause defined material problems will be eliminated. The used methods for conservation should not damage the authentic feature of the hamam.

- The precautions will be taken in order to prevent the building from adverse climate conditions.

-Drainage system will be constructed to get rid of surface waters. Also the drainage system in the roof will be renewed.

Conservation of existing building fabric, architectural elements and values of the building

- The primarily aim is to preserve the authenticity values of the building. The evaluations and analyses, different hierarchy of values and special problems becomes the topic of the conservation.

-For the case of AOÇ Hamam building, aforementioned values such as cannonic value as being designed by an important foreign architect; its artistic and aesthetic values – the design approaches and the harmony of modern and traditional architectural elements, technologic value - the innovations in building technology can be seen as the outstanding values that makes it significant. Nevertheless the approaches towards "integrity value" can be interrogated if it is evaluated with other sub titles together. For the current situation it can be said that the observed integrity level today is limited with plan and façade organization, construction techniques and building technology. For this case it can not be told about a total integrity due to the lost members in building. The knowledge about the authentic feature of the "Hamam" can be revealed by investigating the traces and remains together with complementary sources. The issue of completing this elements are related with reliability studies and the conservation approaches defined within the framework of value, problem and potential assessments. Even if the approach is assumed to reach a total integrity that reveals whole features of the building, completion of the elements can be interrogated since the used elements and details will be contemporary. Furthermore in this case there is a special item to be considered which is the function. Buildings designed for a special function like hamam, has definite members. For "hamam"s there is a strict space hierarchy,with the used architectural elements, special heating and water system , special designed illumination system that service the bathing rituel. In that respect the building is a whole with all of its design elements. It cannot be talked about total integrity in absence of even one of the conditions. As it will be explained in the refunctioning part, the proposed function is different from the original "hamam" function. In that respect some of the values become more significant. For instance the demolished water and heating system won't be completed to regain their authentic feature. On the other hand the values such as authentic plan scheme and facade organization, construction techniques and special heating, water and ventilation system traces and existing architectural element and lost element traces that reflects the Hamam's original feature will be preserved. These elements and traces will be consolidated and preserved with minimum intervention. Consolidation is the main intervention type.

Reintegration can only be done for the elements that have high level knowledge and only in circumstances defined below.

- Though the building mostly preserved its unity, the problem of perception about the original plan scheme and space relations is weakened due to demolishment and architectural elements loss. The aim is to sustain the legibility of the space organization with the items that reveal out the buildings original feature. In that terms reintegration or the preserving continuity of the design criteria in the light of the knowledge levels will shape the intervention type. The similar material and detail can be used but the intervention should be distinguishable. In order to prevent historical mistakes architectural element that has low or middle level restitution reliability won't be renewed.(2, 3, 4)

-The existing and deteriorated architectural elements should be repaired, only the ones that can't be repaired and lost their physical properties will be replaced with new ones with similar material and detail, after detailed documentation of the architectural elements that will be removed.

*In that purpose demolished parts such as chimney in space F-02 will be completed..

*For floor and wall finishing material losses will be completed with conpetible original material and detail if there is a high level knowledge.

*The architectural elements that directly affects the space relations can be completed if it has high level knowledge such as stair in space G-01 will be completed with original material, detail.

*The traces of architectural elements at low or middle reliability level will not be completed and they will be consolidated and preserved in their places.

-The later period infill will be removed and the completion will be done with original material and detail.

Interventions related with Refunctioning

-The only purpose is not just preserving, but rather preserving by using. For this reason a new function will be considered that will help building to regain it into modern life while preserving the values of the building.

-The interventions that should be done for architectural necessity or for the requirements of new function and reusing will be done by new material and construction technique that is compatible with original material and the intervention will be reversible. It is a design criteria to continue the design line of the building's original feature and sustain the unity in design.

-The new function will require minimum alteration and intervention. The function will not overload the existing situation and potentials of the Hamam

-The building will be thought within its close environment. The outdoor spaces will be designed considering values, problems and potentials of the site. The location and the separation between worker house and other administration units with Hamam will be supplied.

- The original natural illumination system of the building will be preserved. For the artificial illumination new materials and details will be used. The traces of the original illumination system will be used, but if there is not any trace like in space G-03 hidden lightening elements will be used.

- For heating of the building floor heating systems will be used in places where there is finishing lost. For the spaces F-01 and F-02 the heating elements will be hidden. In space G-03 the heating system will be hidden either in canals in wall section or ground. The original heating elements traces will be preserved

-The required infrastructure will be supplied.

-In order to increase sanitary comfort removals can be made in wet spaces.

5.4 PROPOSAL FOR NEW FUNCTION

The building take place in the AOÇ site close to the worker houses. Its a potential that it is oriented inside a separated open green area and close to the main

road. On the other hand in the close environment there are eating units and beer factory. Aforementioned potentials and problems of the site and the buildings potentials shaped the new function. The drawings and 3d models of the conservation proposal can be seen Figure 197 to Figure 232.

It is a fact that continuity of the original function might be easier to maintain for 20th century building when compared with earlier period buildings. However the decision to be made should consider adverse factors such as the sustainability of the original function from social and economical aspects, together with the conjecture of the site. The building today oriented in a living environment. And the question to be asked for the function is how a building that has lost its original function and its role in planned life scenery can continue its life. The location, the AOÇ identity in that respect should also be considered. These questions bring the necessity to evaluate the topic not just in building scale. The issue should be evaluated starting from the role and the contribution of AOÇ to city identity. The policies developed for the AOÇ in city scale should bring the solutions proposed in smaller scales. However as the thesis subject is limited with developing a conservation proposal for the building, the evaluations are limited with the area that building elongates. And as a small model the problems, values and the potentials of the close environment has been considered together with the building.

For the building the only purpose is not just preserving, but rather preserving by using. If the subject is examined from social and economical aspects, it is thought that the original function won't be long lasting inside the conjuncture of the site. It is known that today the hamam culture has been maintained by neighborhood baths and arrangements in tourism industry. However original function wasn't preferred for the building. It was a choice to share the building and its background with people instead of restricting the user profile with limited usages and defined target groups considering the boutique bath like usages. Considering the building history it can be said that the building had continued its original function almost 20 years.(ALPAGUT,2010:255) . This means The building couldn't continue its original function even in a period that the site life cycle hadn't changed. The same scenario can be repeated. In that respect two possible outcomes should be considered. Being exposed to moisture, heat and water conditions and afterwards

losing the function might accelerate deterioration. Another thing to be considered is what will be remained if the building loses its function. Since many of the architectural elements are lost, the intervention program will include additions and integration for a hamam usage. This kind of an intervention might cause loose of many values and traces of the building. These evaluations are made since their realization possibility is high.

It is a fact that the AOÇ image in public conscious is weakened due to the problems derived from lack of usage and sharing with public. Original function within the conjecture of site will cause another sharing problem in a different scale. For the built areas, an approach considering the open spaces together with existing building stock can be developed. These kinds of interventions can help transform the area in a positive manner. Today the area has a limited area where citizens can gather and most of the lands are no longer in use just like the buildings. The bath function will contribute the transformation of the city in a minimum level since the nature of building typology has a strict privacy hierarcy in itself. And from another perspective the close environment that hamam orients, has always been the hearth of the farm. From another perspective it is a fact that today the building takes place in a living environment, so the function should be in harmony with its environment and should be sustainable. For this reason the arrangements in the building and the surrounding should be done in a way that contributes positively to the transformation of the area.

Within framework of all these evaluations a function is determined enabling versatile usage of the building as an exhibition hall and multipurpose usages. With respect to this it is considered that on one hand the building permits various different usage goals with its exhibition halls and multifunctional hall, and the other hand it can serve many people with its position in the arrangement of the surrounding and versatility of its function. If the problems and the potentials of the site is evaluated, it will be seen that there is a need for gathering and open areas arrangement where special meetings and organizations can be made together. This kind of a function also revitalize the building and the close environment.

For the building the values of the building tried to be revealed out with minimum intervention. The design approach is to preserve aesthetic integrity

together with the original feature of the building and requirements of the new function.

The function will not overload the existing situation of the building. For the proposed function, there are exhibition halls and multipurpose hall in the ground floor. The spaces G-01 and G-02 are thought as exhibition halls. For space G-03 a multipurpose usage is thought. The spaces will be used with a flexibility with the advance supplied by the modular furnishing. By this way the advance of the existing spaces can be used for various organizations with the mobility feature of furnishing. Exhibitions can be made in building, together with chamber orchestra concerts, cocktails or small meetings. For the organizations in the ground floor the spaces in first floor F-01 and F-02 is thought as a refreshing and gathering area that serve the main facility as a mini-cafe. In that respect service and technical units are placed in basement floor. B-02,03,04 are used as toilets like in the original function, the space B-05 is designed as a small kitchen, space B-06 is used as technical room for heating and water systems. And the space B-07 is organized for the working staff.

As the building is oriented over a 6453 m^2 green area, the site arrangement should also be considered. With the design of the surrounding it is aimed to create qualified green spaces and gathering areas that can host various organizations. It is considered that this area will become a centre of attention. The hamam building inside the site will aid to this attraction and in time will turn into a landmark. Again the lack of a gathering area for various organizations indicates the shortfall of the relationship between the AOÇ and the public. As is known from the AOÇ history the planned life of beer park was a gathering place presenting an interactive relationship with the public. Today there is a possibility towards creating those kind of interactive spaces. In that terms site is designed with two main entrance, one for the building that supplies a defined entrance with opportunities of outdoor exhibition areas. The second main entrance take place at the north side that is connected with the main organization area, the amphitheatre at north- east side of the site. An activity street is designed that is connecting these two main axis, a place where special organizations and cocktails can be made. The service units, toilets and scene buildings take place behind the wall element that take place between residential units and the site. A memorial bulletin about AOÇ is placed at the visual intersection point

of the axis, together with a water element. The parking area is placed at the west side of the site to sustain a direct connection of green from main street . The fluent relation between spaces is considered. And it was a design criteria to protect all existing trees in the site.

The resulting proposal comprise of the building and the open area that it elongates considering the close environment problems, values and potentials since the thesis subject is limited with AOÇ Hamam. Close area has been studied in thesis subject. It was aimed to conserve building by minimum intervention. With an integrated approach towards the site and the building, decisions are made in different scales. A re-adaptive usage is proposed for the building and site that complement each other. By so, unused building and the environment are regained to public use with created common living spaces. The area is designed to become a centre of attraction and the new usage will help to transform the area in a positive manner and help strengthen the image of the AOÇ in public conscious. But for furthermore studies the problem of AOÇ requires solutions to be made in city scale considering legal regulations, the role and contribution of the farm for the city and developments for operating models.

5.5 INTERVENTIONS

The interventions will be done according to the conservation approaches defined before. The intervention types are categorized under six topic. These are strengthening, consolidation and repair, removal, surface cleaning, reintegration and addition. The intervention tables are prepared separately for each space and the interventions are defined in detail for each architectural elements (Table 7 to Table 15). The interventions are mapped on plans, section and facade drawings.(Figure 198to Figure 199)

Strengthening: These are the interventions to sustain the structural stability of the building. They are also the primarily intervention to be supplied. The issue of the intervention is the structural system elements. It is essential to strengthen the

system with its existing values and measures unless the reverse become an structural obligation.

-Analyses will be done about the different settlement problem of the foundation. If required the foundation will be strengthened with proper methods that civil engineer decide.

-The concrete columns and dome will be strengthened with proper methods that civil engineer will decide.

-The Structural cracks will be stabilized with proper methods that civil engineer will decide.

-Structurally deformed wall will be strengthened with compatible materials and the brick course will be brought to its original axis

-The stairs at the entrance will be strengthened with compatible materials and it will be brought back to its original place.

-The deformed parapet wall will be strengthened with compatible materials and it will be brought back to its original axis.

-Deformed brick courses will be strengthened by compatible materials.

Consolidation and Repair: The consolidation is a method to increase the resistance of the decayed building material and preserve them in their place. Especially the weak areas where there are material problems such as break of brick units, detachment of plaster, broken or loosen tile or floor coverings are the issues of the consolidation.The traces will also be preserved in their place by consolidation. On the other hand repairs should be done to improve the existing conditions.

-The surface voids of decayed brick unit will be consolidated in its place. The irregularities will be filled with compatible mortar. Only the physically damaged brick units that lost their quality will be removed out and replaced by same type brick unit, others will be preserved in their place.

-The original plasters used in AOÇ Hamam, that has detachment problem, will be consolidated in its place and preserved with suitable methods

-The loosen tiles and floor coverings will be consolidated in their place with compatible materials.

- If decay rate of the window framework is low , they will be consolidated in their place.

-The timber railings in space F-02 will be consolidated and they will be varnished.

-If the decay rate is low, the original vertical drainage system will be consolidated.

-The traces in the building will be preserved. In that respect the intervention type is consolidation of this traces of which are defined in detail in the intervention table.

-If the corrosion is below critical level, it will be cleaned out with appropriate methods. Then it will be painted with corrosion inhibitor.

-If possible, the buckled metals in railings will be reshaped to its original form. If it is not possible the buckled metal will be replaced with similar material and detailed railing.

-The surfaces where there is plaster lost, will be plastered with compatible material.

-The wall and floor finishing will be renewed with compatible material with the detail defined in conservation project. For the finishing that are at high reliability level, similar material and detailed materials will be used.

-The parapet wall will be capped with compatible material in right slopes.

-Proper detail glass will be used at the dome oculuses and windows, in order to prevent undesired weather conditions.

Removal: In building some of the window and door openings are infilled. There are also ruins inside building and soil formation in roof to be removed. On the

other hand for increasing sanitary condition of the building, the architectural elements in wet spaces will be removed and replaced by new ones.

-The window and door opening infill will be removed out.

-The ruins will be removed. If the material in the ruins is original, its original place will be investigated and if possible it will be placed to its original place, if it can not be determined than they can be used in appropriate place.

-The soil, shrubs and vegetation will be removed.

- The cement based later period plasters that is incompatible with construction material on facade will be removed out, than the surface will be plastered with compatible material.

Surface Cleaning: Colour change and deposition depending on various reasons are observed in some parts of Hamam. In this type the material surface is cleaned to remove this kind of formations.

-The biological growths, plants will be removed by herbicide, than the surface will be cleaned.

-Graying and Blackening will be cleaned from surface with proper methods.

-Salt deposition will be cleaned with proper methods.

Reintegration : The reintegration is defined by Zeynep Ahunbay as "the process of completing the damaged or destroyed building in order to reveal the integrity of the authentic features either with traditional or contemporary material". (AHUNBAY, 2005) Doğan Kuban implies that "the reintegration doesn't always mean an approach towards bringing back to the original feature of the building. But instead it's a limited intervention type completing the demolished parts if there is enough knowledge, such as completing a lost building unit or a window sash. (KUBAN,2000) In the case of AOÇ Hamam, the reintegration is limited only with the high level of knowledge. The completions will be made only to define the artistic and architectural values of the building and for the well known demolished parts such as edges of window or door opening or the chimney in space F-02. When

considered with the new- use the aim is to preserve the design unity with the values gained from the building itself and the additions done for the new function. The intervention topics are defined at below.

-The demolished parts such as side walls of the stair in space G-01,timber lattice, chimney in space F-02, will be completed with similar material and same detail. These completed elements are belong to high reliability level.

-After removal of the infill the window openings and demolished wall parts, the complete will be made with original detail and material.

-The lost brick units will be replaced with same type of brick and compatible mortar.

-The lost concrete parts will be covered with compatible ingredient concrete.

- If the decay rate is irreversible than the framework will be renewed with similar material and detailed material. The lost window frameworks and doors will be completed with similar material and detailed elements. The material losses in the edges of window and door openings will be completed with similar material and same detail.

-The lost metal elements will be completed with similar material and detailed metal element.

Addition: Additions will be made for the necessities of the new function, for healing the sanitary conditions and drainage system for the building .

-Appropriate drainage system for roof will be added.

-A drainage system will be made to get rid of surface waters, later a side pavements will be constructed.

-Furniture that is in harmony with the original architectural elements and design of the building will be used, with new material.

- For the artificial illumination new materials and details will be used. In space G-03 hidden lightening elements will be used.

- For heating of the building floor heating systems will be used in places where there is finishing lost. For the spaces F-01 and F-02 the heating elements will be hidden. In space G-03 the heating system will be hidden either in niches or ground. The original heating elements traces will be preserved

-The required infrastructure will be supplied.

-For wet spaces new material and detailed architectural elements will be used.

CHAPTER 6

CONCLUSION

The case chosen for the thesis is a part of various other topics. The AOÇ Hamam building is a republic period building designed by Ernst Egli and building was constructed in AOÇ as a part of a complex with Beer Factory and its mass housing.

Each of these topics are large enough to make several studies however in the thesis study examinations are made in required details to prepare a conservation proposal for the building. As a result a conservation proposal is prepared for AOÇ Hamam considering its problems and values together with an evaluation of the AOÇ site context that it is constructed on. By the analyses determined in this study, it can be said that the building is unique with its function in the period, and it stands out with innovations in building technologies, aesthetic and architectural values and with its architect.

It is a fact that the buildings to be conserved can't be thought separately from time and location. For the AOÇ case the value, potential and problem hierarchy are evaluated. The building is documented with a great precision by using more than 12000 total station points. The analysis and their evaluation made by considering the building problems and values. For other sources It was a great advantage to reach the original drawings. A special evaluation was made in order to reveal out the reliability of used sources. As a result a conservation proposal made in the light of obtained data and knowledge about the building. In that part it is important to determine that

the interventions proposed are done within the framework of collected data by visual observation. For this reason an intervention map for problems are to be given in order to define a path as a primarily step of the conservation project. In the conservation proposal information is given about the general architectural approaches towards new function requirements together with the authentic features of the building.

As in the case, the 20th century buildings can be conserved with similar approaches used for conserving historical buildings. The differences reveal in the hierarchy for values design approaches,and encountered problems. As a result different building values reveal out to be protected, and solutions for the encountered problems. The buildings might step out with technological values and the novelty value might take place of the historical value. The change rate will define the integrity level of the building. Debates on developing conservation theories for protecting these period buildings has been continued in academic circles and special organizations like DOCOMOMO, ICOMOS, UNESCO. Defining the values of the building is important to develop a conservation proposal. The guidelines defined by DOCOMOMO has been used for AOÇ with some additional complementary values since developing an international framework is important for evaluation of building values. As a result the values to be conserved are defined.

Defining the problems are another importat step.Indurable materials and experimental techniques for construction cause problems related with concrete in 20th century. Problems in reinforced concrete is one of the biggest problem encountered in Hamam. Patch repairs, Concrete placement, shotcrete or spraying concrete, injections are some of the defined methods for concrete repair and strenghtening.(GEBREGZIABHIER,2008) The intervention method should be defined by the specialists, but in terms of conservation principles it is essential to preserve existing elements, values and measures unless the reverse become an structural obligation. For the further studies it is vital to make laboratory analyses and structural evaluation for the material deterioration and fragmentation problem of the concrete. The structural crack observed in space G-01, due to the different settlement in basement. This crack is not new and its elongation in single direction

might mean that the building is in balance in terms of the loads, and for this reason only foundation strengthening might be required. However further structural analyses should be done considering this crack and whole reinforcement system in building. In that terms monitoring is very important during interventions and also after interventions to sustain building stability.

The location of the building in AOÇ, and the existing situation bring the necessity to evaluate the whole frame work, the AOÇ Hamam is evaluated together with its close environment. For the conservation proposal it was aimed to preserve building by using. Considering the building history and the existing conditions, a re-adaptive use is proposed. The building is refunctioned for exhibition and multipurpose usages. In that respect this function is evaluated in different scales and a flexible design approach is proposed. In building scale, it was aimed to conserve building with minimum intervention, and as the building will not be used with its original function only elements that have high reliability level are integrated and only the elements that are vital for the building's original design are completed. In order to sustain a multifunctional usage a modular furnishing is designed and the changes in spaces are made with the flexible character of modularity without any permanent addition. In site different character spaces are designed that can host various organizations . By this way the site and the AOÇ Hamam itself will become an attraction point and by being reused it will help to transform the site in a positive manner.

The thesis is focused on the AOÇ Hamam, but from another point of view, problems related with AOÇ also needs urgent solutions. Today the problems are handled in small scales and as a result fragmented solutions are produced. However these attemps don't define any solution for what should AOÇ 's role will be in city scale and how it will contribute in the vision of a capital city. Though the law arrangements today bring a kind of protection in terms of the usage of the site and bring some provisions that obstruct land transfer, they are not enough since many of the lands are lost due to protocoles, hirings and special arrangements. Also the current status for duties transfer of Regional Councils and High Council of Cultural and Natural Heritage Protection to Ministry of Environment and Urban

Development. are worrying due to the possible arrangements that can change the Historical and Natural site district status of the AOÇ. For furthermore studies the problem of AOÇ requires solutions to be made in city scale considering legal regulations, the role and contribution of the farm for the city and developments for operating models.

It is a fact that the site contains many republic period buildings that face similar problems with AOÇ Hamam. Disinterest and depletion accelerate the deterioration of these buildings. And from another perspective the AOÇ site problems and its limited relation with citizens is one of the important things that decrease the importance of site in public consciousness. For this thesis study this problem is handled over the case AOÇ Hamam and its close environment for furthermore studies it is vital to develop conservation policy for AOÇ lands in city scale and as a part of these policies its existing building stock and open green areas should also be considered.

BIBLIOGRAPHY

- AÇIKSÖZ ,S, 2001, *Ankara'da Kentsel Tarım Kapsamında Atatürk Orman Çiftliği'nin Günümüz Koşullarında Yeniden Değerlendirilmesi Üzerinde Bir Araştırma,*(Basılmamış Yüksek Lisans Tezi) , Ankara Üniversitesi,Ankara

- AKYÜREK, G,2000, *"Atatürk Orman Çiftliği; Kent ve Kır İçin Bir Uzlaşma Modeli",* Mimarlık; Dosya: Ekobaşkalaşım

- AKYÜREK,G.,, 2000, *"Modernization and spatial practice in early republician Ankara : the Gazi farm and Atatürk boulevard"* , (Basılmamış Yüksek Lisans Tezi), Orta Doğu Teknik Üniversitesi

- ALKAN , İ., 1947, *"Ankara Bira Fabrikası"*, İktisat ve Ticaret Ansiklopedisi, *İ.T.A.*, İstanbul 1;

- ALLEN,J.R. Walker,J,H, James.J.W., ,1946,*Heating and air conditioning*, New York: London: McGraw-Hill

- ALPAGUT, L., 2010, "*Atatürk Orman Çiftliği'nde Ernst Egli'nin İzleri: Planlama, Bira Fabrikası, Konutlar ve Geleneksel Bir Hamam", METU JFA (27:2), ,p.p.239-264, doi.* 10.4305/METU.JFA.2010.2.13 http://jfa.arch.metu.edu.tr/archive/0258-5316/2010/cilt27/sayi_2/239-264.pdf (last accessed in 25.10.2010)

- ALPAGUT, L. 2010, "*Modernleşme Projesinin Temsilinde Önemli Bir Yapı: İsviçreli Mimar Ernst Arnold Egli Ve Ankara Siyasal Bilgiler Okulu ",Alternatif Politika, Cilt. 2, Sayı. p.p.2, 126-150,*

- ALSAC, U., 1976, *Türkiye'deki mimarlık düşüncesinin Cumhuriyet dönemindeki evrimi* , Baski Atelyesi KTÜ, Trabzon

- ALTABAN, Ö, 1998, "*Cumhuriyet'in Kent Planlama Politikaları ve Ankara Deneyimi", 75 Yılda değişen Kent ve Mimarlık,* Türkiye İş Bankası Kültür Yayınları, İstanbul

- ALTINTUĞ, A, 2000, *Atatürk Orman Çiftliği (Kuruluşundan Günümüze),* (Basılmamış Yüksek Lisans Tezi), T.C. İstanbul Üniversitesi,İstanbul

- AMERICAN SOCIETY OF HEATING AND VENTILATING ENGINEERS., 1922 , *Heating, ventilating, air-conditioning guide.,* New York, American Society of Heating and Ventilating Engineers.

- AHUNBAY, Z., 2005, *Tarihi Çevre Koruma ve Restorasyon,* YEM Yayınları

- ALTAN ERGUT, E., İMAMOĞLU B.(Derleyenler),2010, *Cumhuriyet'in Mekanları Zamanları İnsanları,* Dipnot Yayınları, Ankara

- ANIL, S.B. ,1996, *"Gelecekteki Ankara Makroformu için Atatürk Orman Çiftliği Benzeri İşlev Yüklenebilecek Alanların Saptanması Üzerine Bir Araştırma*", (Basılmamış Yüksek Lisans Tezi), Ankara Üniversitesi Fen Bilimleri Enstitüsü, Ankara

- Anonim, 1975, *Ankara Metropoliten alan Nazım Plan Bürosu, "Ankara'da Yeşil Alan Sorunu ve Atatürk Orman Çiftliği Semineri* ,Ankara

- Anonim, 1939,*Atatürk Çiftlikleri,* Ankara : Devlet Ziraat İşletmeleri Kurumu

- Anonim,2005, *Atatürk Orman Çiftliği nasıl korunmalı , Panel, 10 Temmuz 2004* , Ankara : TMM0B Ankara İl Koordinasyon Kurulu, Ankara

- Anonim, 1993, *Atatürk Orman Çiftliği'nin Ankara Kentinin Yeşil Alan Sistemi için İşlevi" Dünü, Bugünü ve Geleceği ile Atatürk Orman Çiftliği"*, Ziraat Mühendisleri Odası 18/6/1993 tarihinde düzenlenen sempozyum bildirileri, Ankara

- ASLANOĞLU, İ.,2001, *Erken Cumhuriyet Dönemi Mimarlığı 1923-1938* , ODTÜ Mimarlık Fakültesi Yayınları,

- ATAÇ, İ.(Derleyen), Prof. Dr. Dr. H.c. Ernst Egli, 2009, *Osmanlı Altın Çağının Mimarı Sinan,* Arkeoloji ve Sanat Yayınları, İstanbul

- ATALAY FRANCK, O., *"Bir Modernlik Arayışı: Ernst Egli ve Türkiye(1927-1940)",* Elvan Altan ERGUT&Bilge İMAMOĞLU (Ed) in Cumhuriyet'in Mekanları Zamanları İnsanları (pp:253-262) Dipnot Yayınları, Ankara

- Atatürk Orman Çiftliği Müdürlüğü Satın Alma- Satma, Yapma – Yaptırma,Kiralama ve Kiraya Verme İşlerine Ait Yönetmelik

- "*Başçifçi Atatürk ve Gazi çiftlikleri",* Atatürk ve Zamanı Semineri , Konya: Selçuk Ünv. Atatürk ve İnkılap Tarihi Araştırma Merkezi, 1989

- BATUR, A. , 2005, *A concise history : architecture in Turkey during the 20th century* , Ankara: Mimarlar Odası Genel Merkezi, Ankara

- BOZDOĞAN S. , 2002, *Modernizm ve Ulusun İnşası Erken Cumhuriyet Türkiye'sinde Mimari Kültür,* Metis Yayınları, İstanbul

- CENGİZKAN A., , 2002, *Modernin Saati,* Mimarlar Derneği Yayınları, Ankara

- Court order for AOÇ, http://www.mimarlarodasiankara.org/ dosya/ AOCYD..pdf, last accessed in 14.09.2011

- DOCOMOMO web site "How To Evaluate Modern Buildings And Sites", http://www.docomomo-us.org/register/how_to_evaluate , last accessed 13.08.2011

- DOCOMOMO web site "Fiches And Guidelines", http://www.docomomo-us.org/register/fiches_and_guidelines , last accessed 13.08.2011

- *"Elli Yıllık Yaşantımız 1923 – 1933 Cilt 1 "* , Milliyet Yayınları , Milliyet Ofset Tesisleri, 1975

- ELMAS, N. , 2005 "*An analysis of the conservation of the twentieth century architectural heritage in Turkey : the case of Ankara" , (*Basılmamış Yüksek Lisans Tezi), Orta Doğu Teknik Üniversitesi

- EREN, E. , 2005, *Geçmişten Günümüze Anadolu'da Bira*, Bilişim Yayınları,İstanbul)

- FEROGLU ,Y, 2008, *"Ankara Bira Fabrikası'nın Günümüz Koşullarında İşlevsel Dönüşümü Üzerine Bir Araştırma"* , (Basılmamış Yüksek Lisans Tezi), Gazi Üniversitesi Fen Bilimleri Enstitüsü, Ankara

- *Francis D.K. Ching , Cassandra A., 1991,Building construction illustrated ,* New York : Van Nostrand Reinhold

- GEBREGZIABHIER,T., 2008,*Durability problems of 20th centuryreinforced concrete heritagestructures and their restorations*, (Advanced Masters In Structural Analysıs Of Monuments And Hıstorıcal Constructıons),,Barcelo , http://upcommons.upc.edu/pfc/bitstream/2099.1/8308/1/01.pdf , (last accessed in 30.10.2011)

- HAMAMCIOĞLU, M., (2001), "*20. Yüzyıl Mimari Mirası Koruma Ölçütlerinin Belirlenmesinde Analitik Yaklaşım", Uluslar arası XIII. Yapı ve Yaşam, 20. Yüzyıl Mimari Mirası*, Bursa

- TÜMER , G.,1998, *Cumhuriyet döneminde yabancı mimarlar sorunu : (1920'lerden 1950'lere)* , Mimarlar Odası İzmir Şubesi Yayınları

- KELEŞ , R, 1991, *Atatürk Orman Çiftliği,* Ankara Dergisi

- KESKİNOK, Ç.,2000, *"Atatürk Orman Çiftliği: Kuruluşu, Sorunları ve Çözüm için Öneriler",* Mimarlık Dergisi

- KÖKSAL, R.,1996, *"Ankara Metropolünde Atatürk Orman Çiftliği ve Geleceği",* (Basılmamış Yüksek Lisans Tezi),Ankara Üniversitesi Sosyal Bilimler Enstitüsü Kamu Yönetimi ve Siyaset Bilimi, Ankara

- KUBAN, D., 2000, *Tarihi Çevre Korumanın Mimarlık Boyutu Kuram ve Uygulama*, YEM Yayınları, İstanbul.

- MACDONALD, S,[ED], *Preserving post-war heritage : the care and conservation of mid-twentieth century architecture* / Shaftesbury, England : Donhead Publishing, 2001

- MADRAN, E. , 2006, *Modern Mimarlık Ürünlerinin Belgelenmesi ve Korunması Süreci İçin Bazı Notlar,* Mimarlık (November, December)

- MUMCU, T. ,2002, *Atatürk Orman Çiftliği,* (Basılmamış Yüksek Lisans Tezi), Ankara Üniversitesi Sosyal Bilimler Enstitüsü,Ankara

- Organising Committee 10th International DOCOMOMO Conference, 2008,*The Challenge of Change: Dealing with the Legacy of the Modern Movement Proceedings of the 10th International DOCOMOMO Conference*, Amsterdam

- ÖZTOPRAK, İ.,2006, *Atatürk Orman Çiftliği'nin Tarihi,* Atatürk Kültür,Dil ve Tarih Yüksek Kurumu Atatürk Araştırma Merkezi , Ankara

- POLAT OMAY, E. ,2008, "*Türkiye'nin Modern Mimarlık Mirasının Korunması Kuram Ve Yöntem Bağlamında Bir Değerlendirme",* (Basılmamış Doktora Tezi), Yıldız Teknik Üniversitesi Fen Bilimleri Enstitüsü ,İstanbul

- PRUDON, THEODORE H. M., 2008, *Preservation of modern architecture*, Hoboken, N.J. : Wiley.

- ROBERT, P.,1989, *Adaptations "New Uses For Old Buildings",* Princeton Architectural Pres, Paris

- SARIASLAN, Ü.,2005, *Cumhuriyetin mimarları : "Kuruluş Ankarası'nda üç mimar Kemalettin - Ernst Arnold Egli - Bruno Taut : olaylar, olgular, okullar"* ,Otopsi, İstanbul

- SÖZEN, M., 1984, *Cumhuriyet dönemi Türk Mimarlığı (1923-1983)* , Türkiye İş Bankası, Ankara

- ŞAHİN Z.,2004, *"Atatürk Orman Çiftliği Nasıl Korunmalı", TMMOB Koordinasyon Kurulu, Sempozyum Bildirileri*, Ankara

- ŞENYAPILI T. (Derleyen) ,*2005, Cumhuriyet'in Ankara'sı*, ODTÜ Geliştirme Vakfı Yayıncılık ve İletişim A.Ş., Ankara

- TANKUT, G.,1990, *Bir Başkentin İmarı Ankara (1929-1939),* ODTÜ Yayınları, Ankara,

- T.C. Cumhurbaşkanlığı Devlet Denetleme Kurulu, Atatürk Orman Çiftliği Taşınmazlarının Yönetilip İşletilmesine İlişkin Araştırma Denetleme Raporu,2003

- TOKER, E,M, 1999, *"Atatürk Orman Çiftliği'nde sanat değeri olan eserler",* (Basılmamış Yüksek Lisans Tezi)

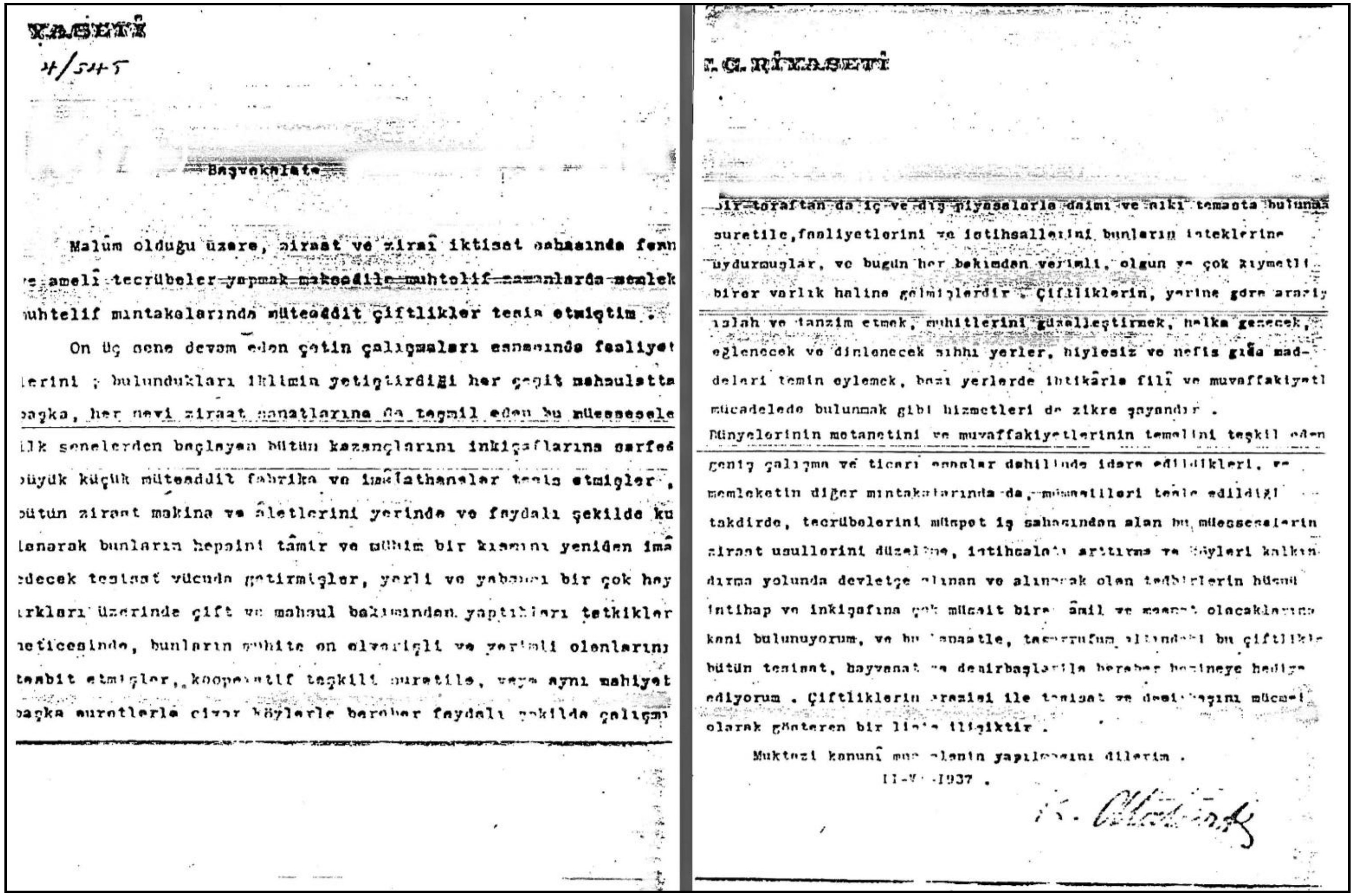
- ULUDAĞ, Z, 1998, "*Cumhuriyet Döneminde Rekreasyon ve Gençlik Parkı Örneği", 75 Yılda Değişen Kent ve Mimarlık*,Türkiye İş Bankası Kültür Yayınları, İstanbul

- YAVUZ T. A. (Derleyen),2000, *Tarih İçinde Ankara Bildirileri,* Ortadoğu Teknik Üniversitesi Ankaralılar Vakfı Yayınları, Ankara

- YILDIRIM, D ,2004, *Kamu Mülkiyeti Olarak AOÇ 'nin Tasarım Problemleri,* (Basılmamış Yüksek Lisans Tezi),Orta Doğu Teknik Üniversitesi

APPENDIX

Relevant figures and tables



YASETİ
4/5445

Başvekalete

Malûm olduğu üzere, ziraat ve ziraî iktisat sahasında fennî ve amelî tecrübeler yapmak maksadile muhtelif zamanlarda memleketin muhtelif mıntakalarında müteaddit çiftlikler tesis etmiştim.

On üç sene devam eden çetin çalışmaları esnasında faaliyetlerini ; bulundukları iklimin yetiştirdiği her çeşit mahsulatta başka, her nevi ziraat sanatlarına da teşmil eden bu müesseseler ilk senelerden başlayan bütün kazançlarını inkişaflarına sarfe büyük küçük müteaddit fabrika ve imalathaneler tesis etmişler, bütün ziraat makina ve âletlerini yerinde ve faydalı şekilde kullanarak bunların hepsini tâmir ve mühim bir kısmını yeniden imal edecek tesisat vücuda getirmişler, yerli ve yabancı bir çok hayvan ırkları üzerinde çift ve mahsul bakımından yaptıkları tetkikler neticesinde, bunların muhite en elverişli ve verimli olanlarını tesbit etmişler, kooperatif teşkili suretile, veya aynı mahiyette başka suretlerle civar köylerle beraber faydalı şekilde çalışıp bir taraftan da iç ve dış piyasalarla daimi ve sıkı temasta bulunmak suretile, faaliyetlerini ve istihsallerini bunların isteklerine uydurmuşlar, ve bugün her bakımdan verimli, olgun ve çok kıymetli birer varlık haline gelmişlerdir. Çiftliklerin, yerine göre arazi ıslah ve tanzim etmek, muhitlerini güzelleştirmek, halka gezecek, eğlenecek ve dinlenecek sıhhi yerler, hiylesiz ve nefis gıda maddeleri temin eylemek, bazı yerlerde ihtikârla fiilî ve muvaffakiyetli mücadelede bulunmak gibi hizmetleri de zikre şayandır.

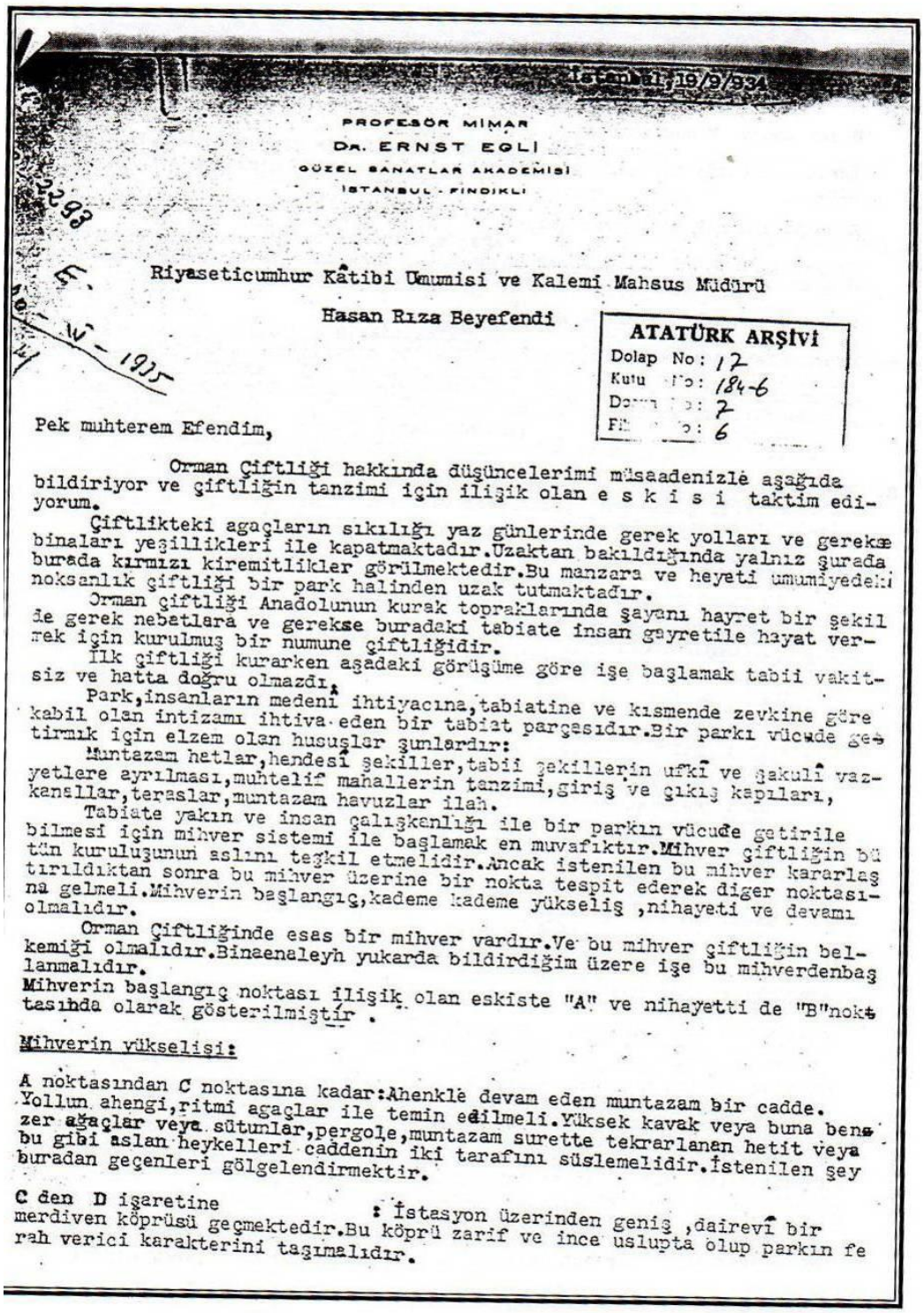
Bünyelerinin metanetini ve muvaffakiyetlerinin temelini teşkil eden geniş çalışma ve ticari esaslar dahilinde idare edildikleri, ve memleketin diğer mıntakalarında da müma[s]illeri tesis edildiği takdirde, tecrübelerini müspet iş sahasından alan bu müesseselerin ziraat usullerini düzeltme, istihsalatı arttırma ve köyleri kalkındırma yolunda devletçe alınan ve alınacak olan tedbirlerin hüsnü intibak ve inkişafına çok müsait birer âmil ve mesnet olacaklarına kani bulunuyorum, ve bu kanaatle, tasarrufum altındaki bu çiftliklerin bütün tesisat, hayvanat ve demirbaşlarile beraber hazineye hediye ediyorum. Çiftliklerin arazisi ile tesisat ve demirbaşını mücmel olarak gösteren bir liste iliştiktir.

Muktezi kanunî muamelenin yapılmasını dilerim.

11-V-1937.

K. Atatürk

Figure 107 – Atatürk's letter about granting AOC (Mumcu, T)



İstanbul, 19/9/934

PROFESÖR MİMAR
DR. ERNST EGLI
GÜZEL SANATLAR AKADEMİSİ
İSTANBUL - FINDIKLI

Riyaseticumhur Kâtibi Umumisi ve Kalemi Mahsus Müdürü

Hasan Rıza Beyefendi

ATATÜRK ARŞİVİ
Dolap No: 17
Kutu No: 184-6
Dosya No: 7
Fihrist No: 6

Pek muhterem Efendim,

Orman Çiftliği hakkında düşüncelerimi müsaadenizle aşağıda bildiriyor ve çiftliğin tanzimi için ilişik olan e s k i s i taktim ediyorum.

Çiftlikteki ağaçların sıkılığı yaz günlerinde gerek yolları ve gerekse binaları yeşillikleri ile kapatmaktadır.Uzaktan bakıldığında yalnız şurada burada kırmızı kiremitlikler görülmektedir.Bu manzara ve heyeti umumiyedeki noksanlık çiftliği bir park halinden uzak tutmaktadır.

Orman çiftliği Anadolunun kurak topraklarında şayanı hayret bir şekilde gerek nebatlara ve gerekse buradaki tabiate insan gayretile hayat vermek için kurulmuş bir numune çiftliğidir.

İlk çiftliği kurarken aşadaki görüşüme göre işe başlamak tabii vakitsiz ve hatta doğru olmazdı.

Park,insanların medeni ihtiyacına,tabiatine ve kısmende zevkine göre kabil olan intizamı ihtiva eden bir tabiat parçasıdır.Bir parkı vücude getirmik için elzem olan hususlar şunlardır:

Muntazam hatlar,hendesi şekiller,tabii şekillerin ufkî ve şakulî vaziyetlere ayrılması,muhtelif mahallerin tanzimi,giriş ve çıkış kapıları, kanallar,teraslar,muntazam havuzlar ilah.

Tabiate yakın ve insan çalışkenlığı ile bir parkın vücude getirilebilmesi için mihver sistemi ile başlamak en muvafıktır.Mihver çiftliğin bütün kuruluşunun aslını teşkil etmelidir.Ancak istenilen bu mihver kararlaştırıldıktan sonra bu mihver üzerine bir nokta tespit ederek diğer noktasına gelmeli.Mihverin başlangıç,kademe kademe yükseliş ,nihayeti ve devamı olmalıdır.

Orman Çiftliğinde esas bir mihver vardır.Ve bu mihver çiftliğin belkemiği olmalıdır.Binaenaleyh yukarda bildirdiğim üzere işe bu mihverdenbaşlanmalıdır.

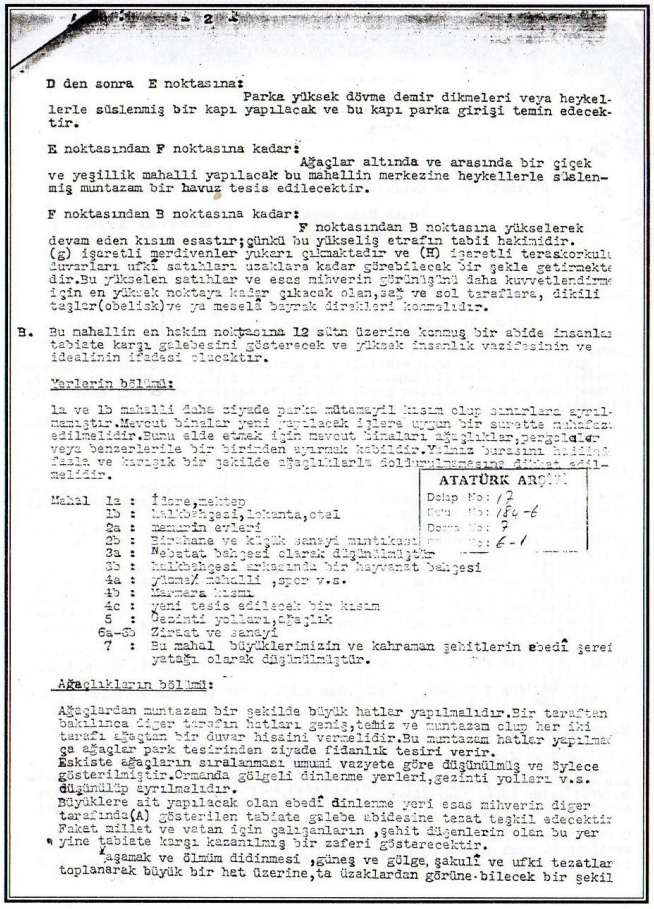
Mihverin başlangıç noktası ilişik olan eskiste "A" ve nihayetti de "B"noktasında olarak gösterilmiştir .

Mihverin yükselişi:

A noktasından C noktasına kadar:Ahenkle devam eden muntazam bir cadde. Yollun ahengi,ritmi ağaçlar ile temin edilmeli.Yüksek kavak veya buna benzer ağaçlar veya sütunlar,pergole,muntazam surette tekrarlanan hetit veya bu gibi aslan heykelleri caddenin iki tarafını süslemelidir.İstenilen şey buradan geçenleri gölgelendirmektir.

C den D işaretine : İstasyon üzerinden geniş ,dairevî bir merdiven köprüsü geçmektedir.Bu köprü zarif ve ince uslupta olup parkın ferah verici karakterini taşımalıdır.

Figure 108- Ernst Egli's report related with AOÇ (ÖZTOPRAK,2006:163-165)



- 2 -

D den sonra E noktasına:

Parka yüksek dövme demir dikmeleri veya heykellerle süslenmiş bir kapı yapılacak ve bu kapı parka girişi temin edecektir.

E noktasından F noktasına kadar:

Ağaçlar altında ve arasında bir çiçek ve yeşillik mahalli yapılacak bu mahallin merkezine heykellerle süslenmiş muntazam bir havuz tesis edilecektir.

F noktasından B noktasına kadar:

F noktasından B noktasına yükselerek devam eden kısım esastır;çünkü bu yükseliş etrafın tabii hakimidir. (g) işaretli merdivenler yukarı çıkmaktadır ve (H) işaretli teraskorkuluk duvarları ufki satıhları uzaklara kadar görebilecek bir şekle getirmektedir.Bu yükselen satıhlar ve esas mihverin görünüşünü daha kuvvetlendirmek için en yüksek noktaya kadar çıkacak olan,sağ ve sol taraflara, dikili taşlar(obelisk)ve ya meselâ bayrak direkleri konmalıdır.

B. Bu mahallin en hakim noktasına 12 sütn üzerine konmuş bir abide insanları tabiate karşı galebesini gösterecek ve yüksek insanlık vazifesinin ve idealinin ifadesi olacaktır.

Yerlerin bölümü:

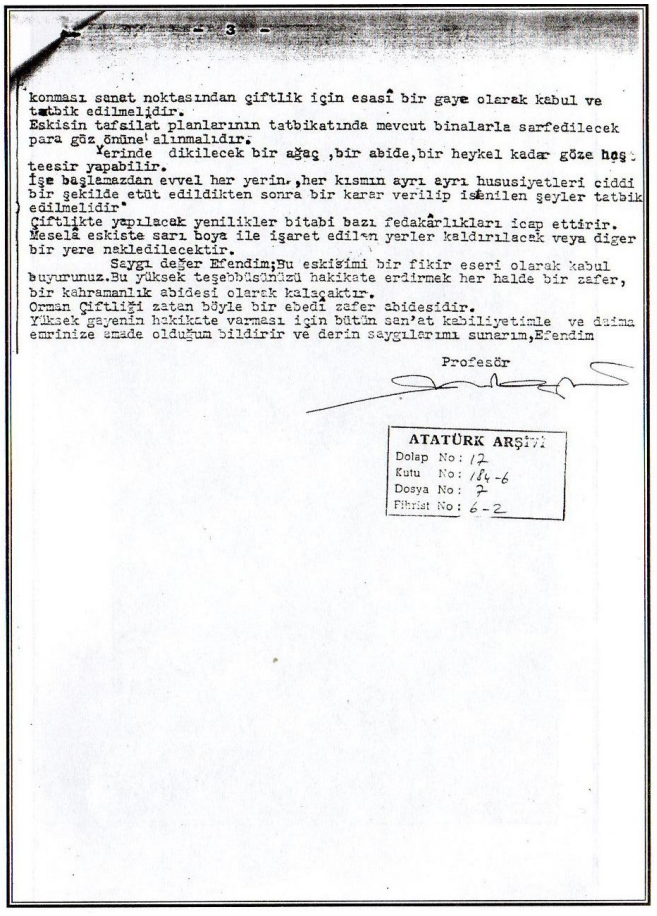
1a ve 1b mahalli daha ziyade parka mütemayil kısım olup sınırlara ayrılmamıştır.Mevcut binalar yeni yapılacak işlere uygun bir surette muhafaza edilmelidir.Bunu elde etmek için mevcut binaları ağaçlıklar,pergolalar veya benzerleriyle bir birinden ayırmak kabildir.Yalnız burasını bilhassa fazla ve karışık bir şekilde ağaçlıklarla doldurulmamasına dikkat edilmelidir.

ATATÜRK ARŞİVİ
Dolap No: 12
Kutu No: 184-6
Dosya No: 7
Fihrist No: 6-1

Mahal 1a : İdare,mektep
1b : Halkbahçesi,lokanta,otel
2a : memurin evleri
2b : Birahane ve küçük sanayi mıntıkası
3a : Nebatat bahçesi olarak düşünülmüştür
3b : halkbahçesi arkasında bir hayvanat bahçesi
4a : yüzme/ mahalli ,spor v.s.
4b : Mevcut kısım
4c : yeni tesis edilecek bir kısım
5 : Gezinti yolları,ağaçlık
6a-6b : Ziraat ve sanayi
7 : Bu mahal büyüklerimizin ve kahraman şehitlerin ebedî şeref yatağı olarak düşünülmüştür.

Ağaçlıkların bölümü:

Ağaçlardan muntazam bir şekilde büyük hatlar yapılmalıdır.Bir taraftan bakılınca diğer tarafın hatları geniş,temiz ve muntazam olup her iki tarafı ağaçtan bir duvar hissini vermelidir.Bu muntazam hatlar yapılmaz ise ağaçlar park tesirinden ziyade fidanlık tesiri verir.
Eskiste ağaçların sıralanması umumi vazyete göre düşünülmüş ve öylece gösterilmiştir.Ormanda gölgeli dinlenme yerleri,gezinti yolları v.s. düşünülüp ayrılmalıdır.
Büyüklere ait yapılacak olan ebedî dinlenme yeri esas mihverin diğer tarafında(A) gösterilen tabiate galebe abidesine tezat teşkil edecektir. Fakat millet ve vetan için çalışanların ,şehit düşenlerin olan bu yer yine tabiate karşı kazanılmış bir zaferi gösterecektir.
Yaşamak ve ölmüm didinmesi ,güneş ve gölge, şakulî ve ufki tezatlar toplanarak büyük bir hat üzerine,ta uzaklardan görüne bilecek bir şekil



- 3 -

konması sanat noktasından çiftlik için esasî bir gaye olarak kabul ve tatbik edilmelidir.
Eskisin tafsilat planlarının tatbikatında mevcut binalarla sarfedilecek para göz önüne alınmalıdır.
Yerinde dikilecek bir ağaç ,bir abide,bir heykel kadar göze hoş teesir yapabilir.
İşe başlamazdan evvel her yerin ,her kısmın ayrı ayrı hususiyetleri ciddi bir şekilde etüt edildikten sonra bir karar verilip işlenilen şeyler tatbik edilmelidir.
Çiftlikte yapılacak yenilikler bitabi bazı fedakârlıkları icap ettirir. Meselâ eskiste sarı boya ile işaret edilen yerler kaldırılacak veya diğer bir yere nakledilecektir.
Saygı değer Efendim;Bu eskizimi bir fikir eseri olarak kabul buyurunuz.Bu yüksek teşebbüsünüzü hakikate erdirmek her halde bir zafer, bir kahramanlık abidesi olarak kalacaktır.
Orman Çiftliği zaten böyle bir ebedî zafer abidesidir.
Yüksek gayenin hakikate varması için bütün san'at kabiliyetimle ve daima emrinize amade olduğum bildirir ve derin saygılarımı sunarım,Efendim

Profesör

ATATÜRK ARŞİVİ
Dolap No: 12
Kutu No: 184-6
Dosya No: 7
Fihrist No: 6-2

Figure 109- Ernst Egli's report related with AOÇ

(ÖZTOPRAK,2006:163-165)

Table 3 - Law Number No 5659

ATATÜRK ORMAN ÇİFTLİĞİ MÜDÜRLÜĞÜ

KURULUŞ KANUNU

Kanun Numarası : 5659

Kabul Tarihi : 24/3/1950

Yayımlandığı R. Gazete : Tarih : 1/4/1950 Sayı : 7472

Yayımlandığı Düstur : Tertip : 3 Cilt : 31 Sayfa : 2025

…

Madde 9 – Müdürlüğün bütün malları Devlet malı hükmündedir. Bu mallar aleyhine suç işleyenler Devlet malları aleyhine suç işliyenler gibi ceza görür.

Müdürlüğe ait gayrimenkuller, Müdürlük adına tapuya tescil edilir.

Madde 10 – Atatürk Orman Çiftliğinin bu kanunun yayımı tarihindeki sınırları içinde bulunan gayrimenkullerin gerçek veya tüzelkişilere devir ve temliki ve kamulaştırılması özel bir kanunla izin alınmasına bağlıdır.

Bu Kanunun yayımı tarihinden önce resmi daire ve teşekküllere, Devlet Ziraat İşletmeleri Kurumu İdare Meclisi kararı ve Tarım Bakanlığının muvafakatiyle satışı takarrür etmiş gayrimenkuller hakkında yukarki fıkra hükmü uygulanmaz.

Çiftlik içinde müteferrik durumda bulunan sahipli arazi parçaları Menafii Umumiye İstimlak Kararnamesi hükümlerine göre kamulaştırılabilir.

Madde 11 – Müdürlüğün memurları hakkında 3/7/1939 tarihli ve 3659 sayılı kanun hükümleri uygulanır.

Madde 12 – Çiftlik memurlariyle aileleri çiftlik hudutları içindeki çiftliğe ait konutlarda müdürlük tarafından mahalli rayice uygun olarak takdiredilecek kira karşılığında barındırılabilirler. Çitlikte ikametleri işletme icabından olan çeşitli hizmetlilerle sürekli işçiler ve bunların aileleri Tarım Bakanlığı tarafından belirtilecek esaslar dairesinde müdürlükçe çiftliğe ait yerlerde parasız oturtulabilirler.

….

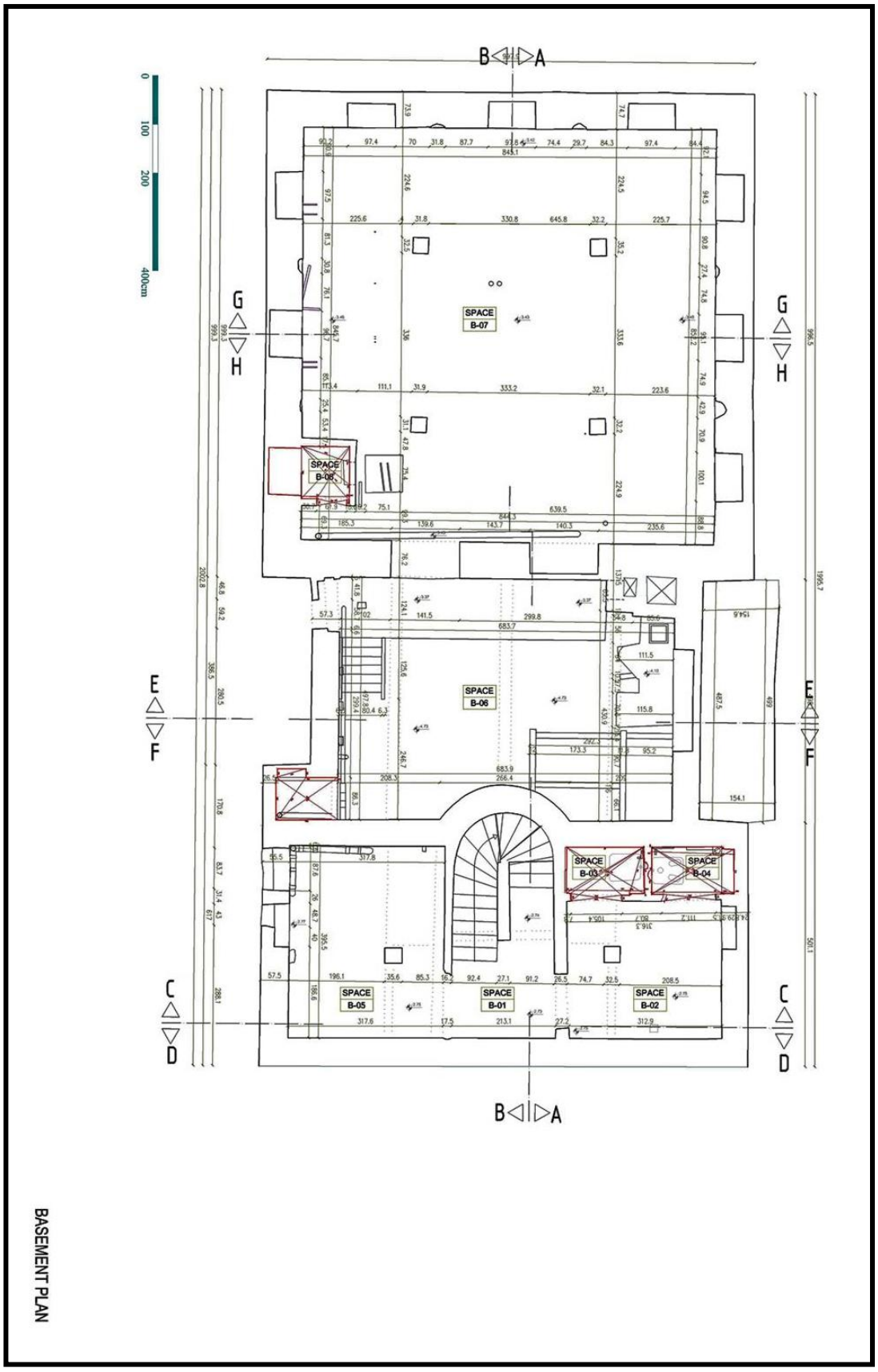


Figure 110 - Survey Drawings, Basement Floor

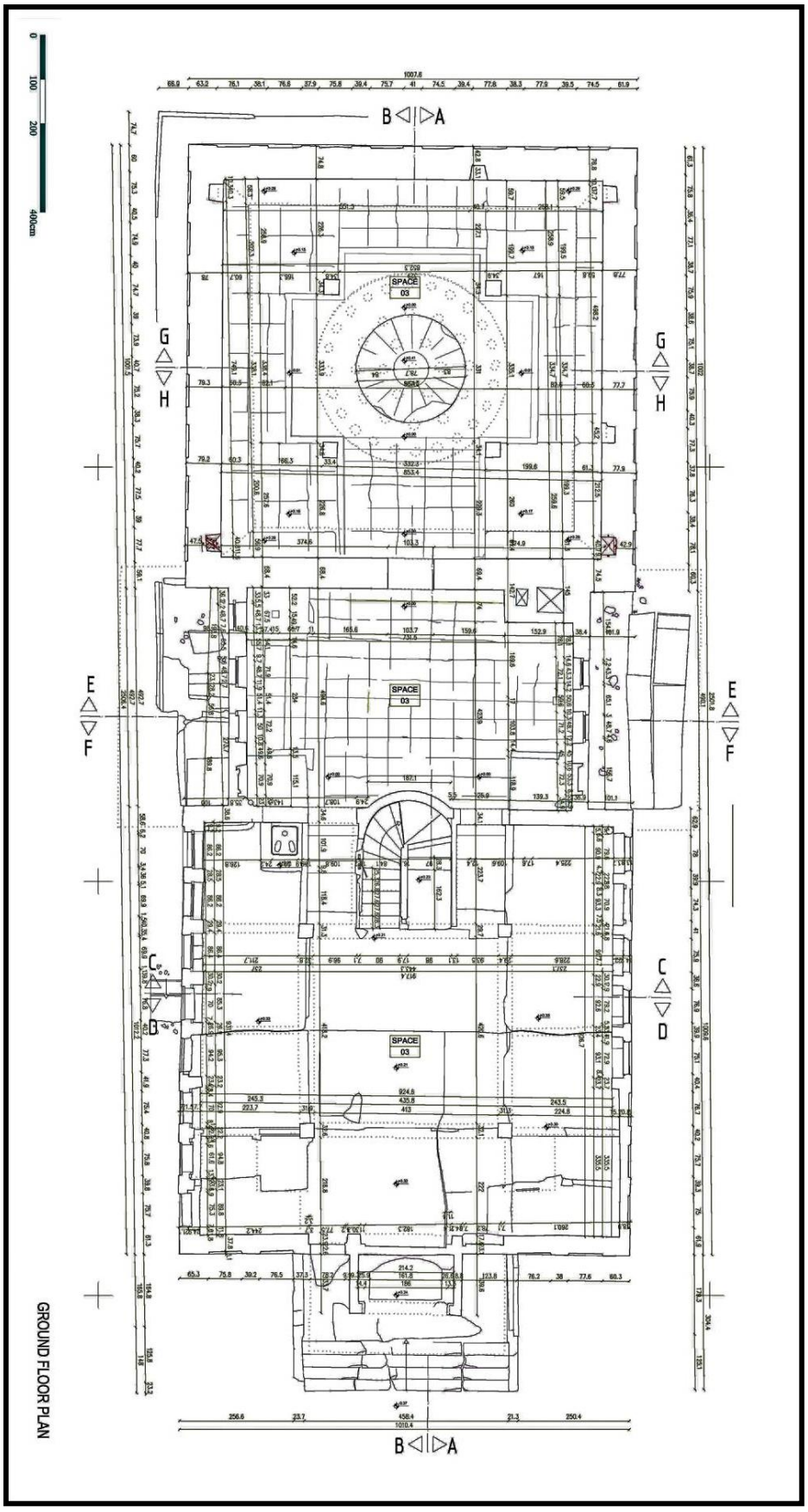


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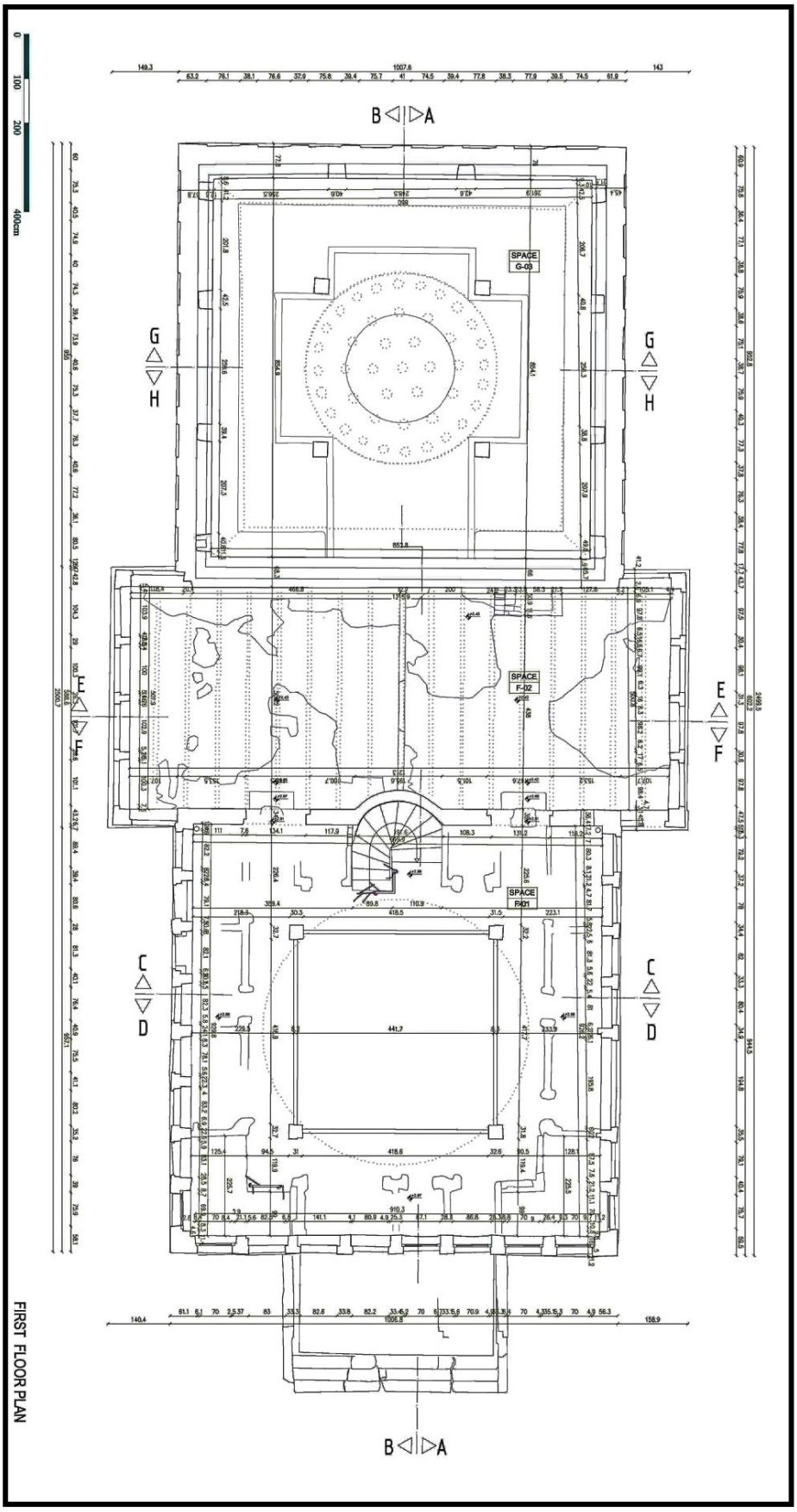
Figure 111 - Survey Drawings, Ground Floor



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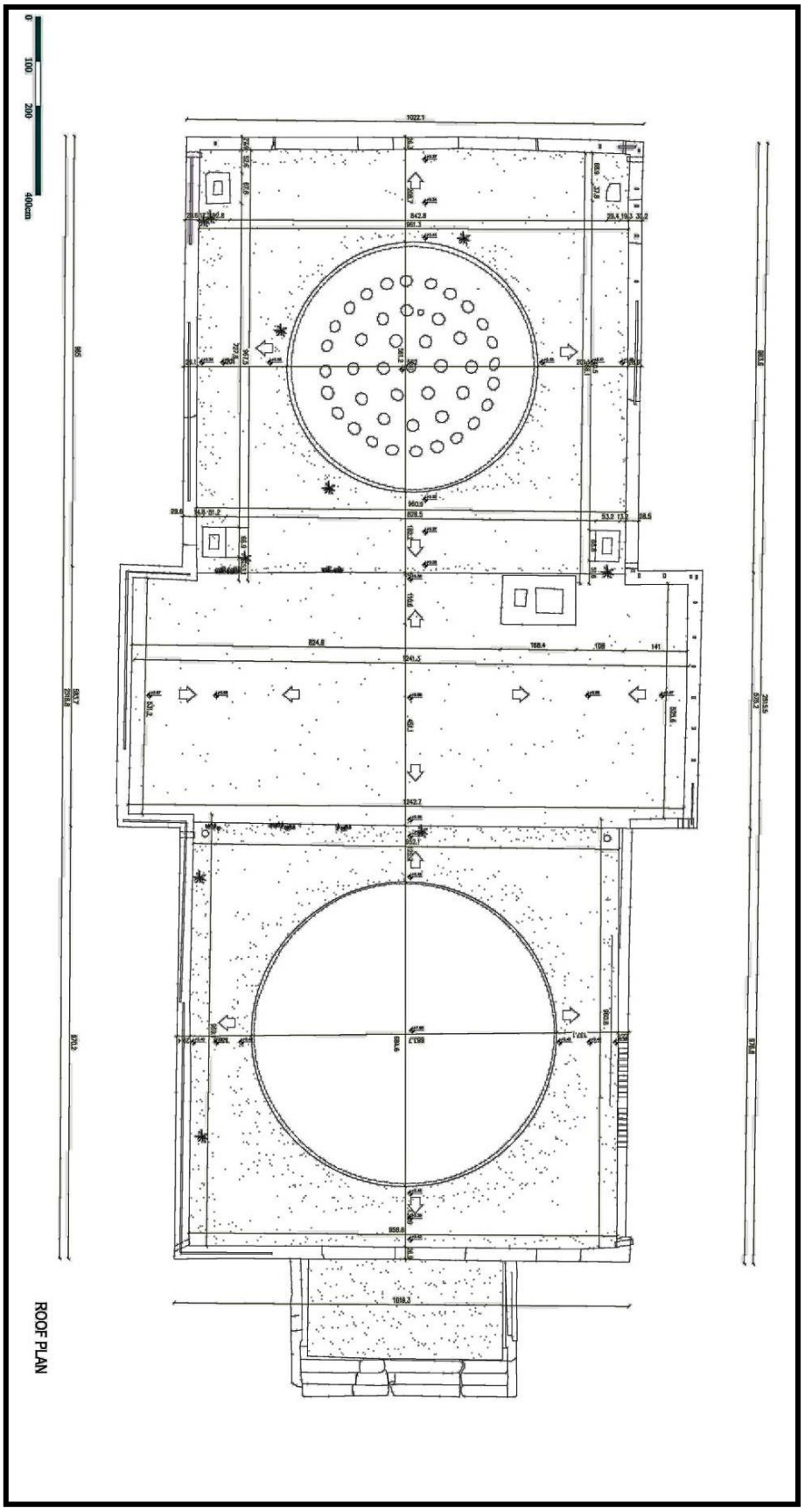
- **Figure 112 - Survey Drawings, First Floor**



- **Figure 113 - Survey Drawings, Roof**

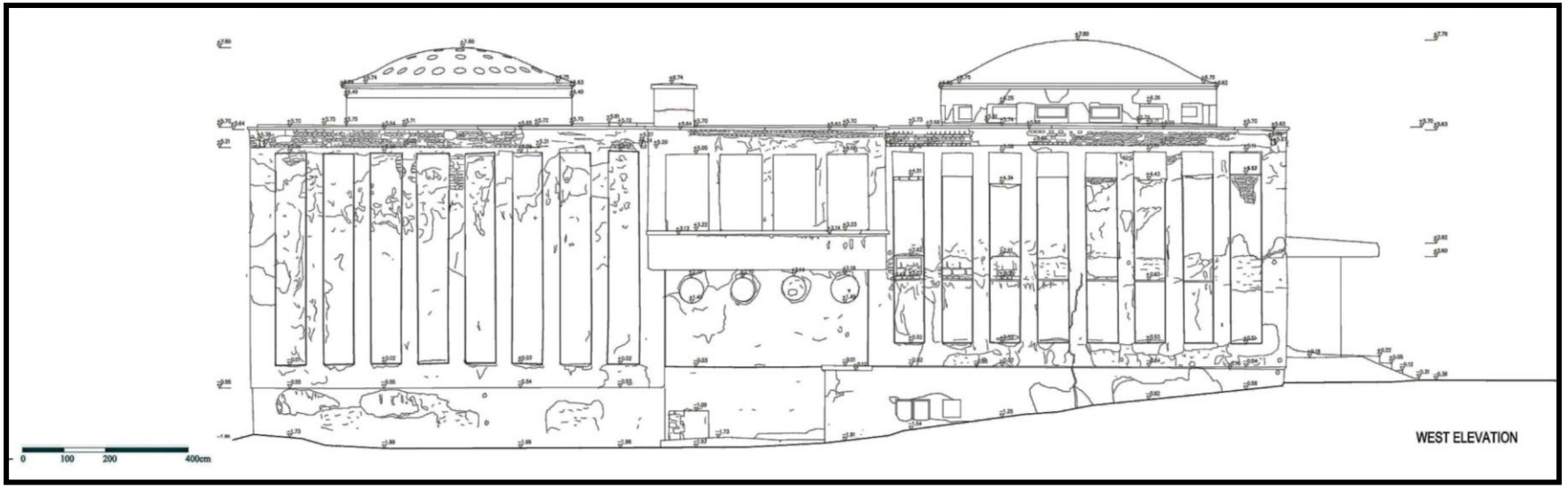


Figure 114 - Survey Drawings, Facades 1

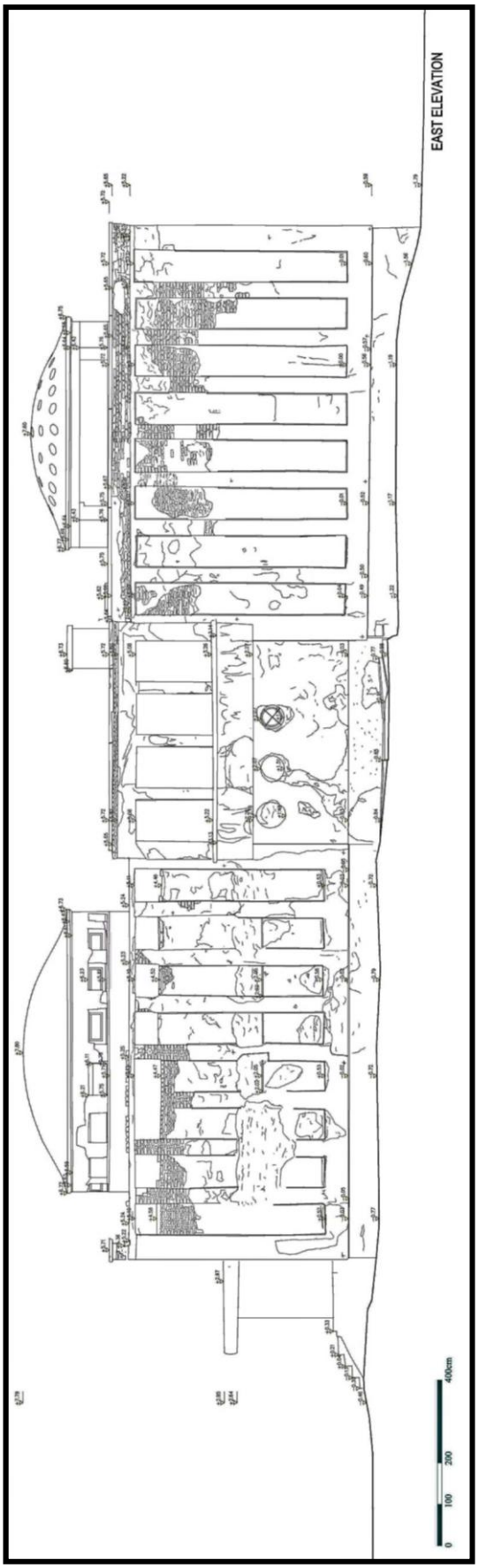


Figure 115- Survey Drawings, Facades 2

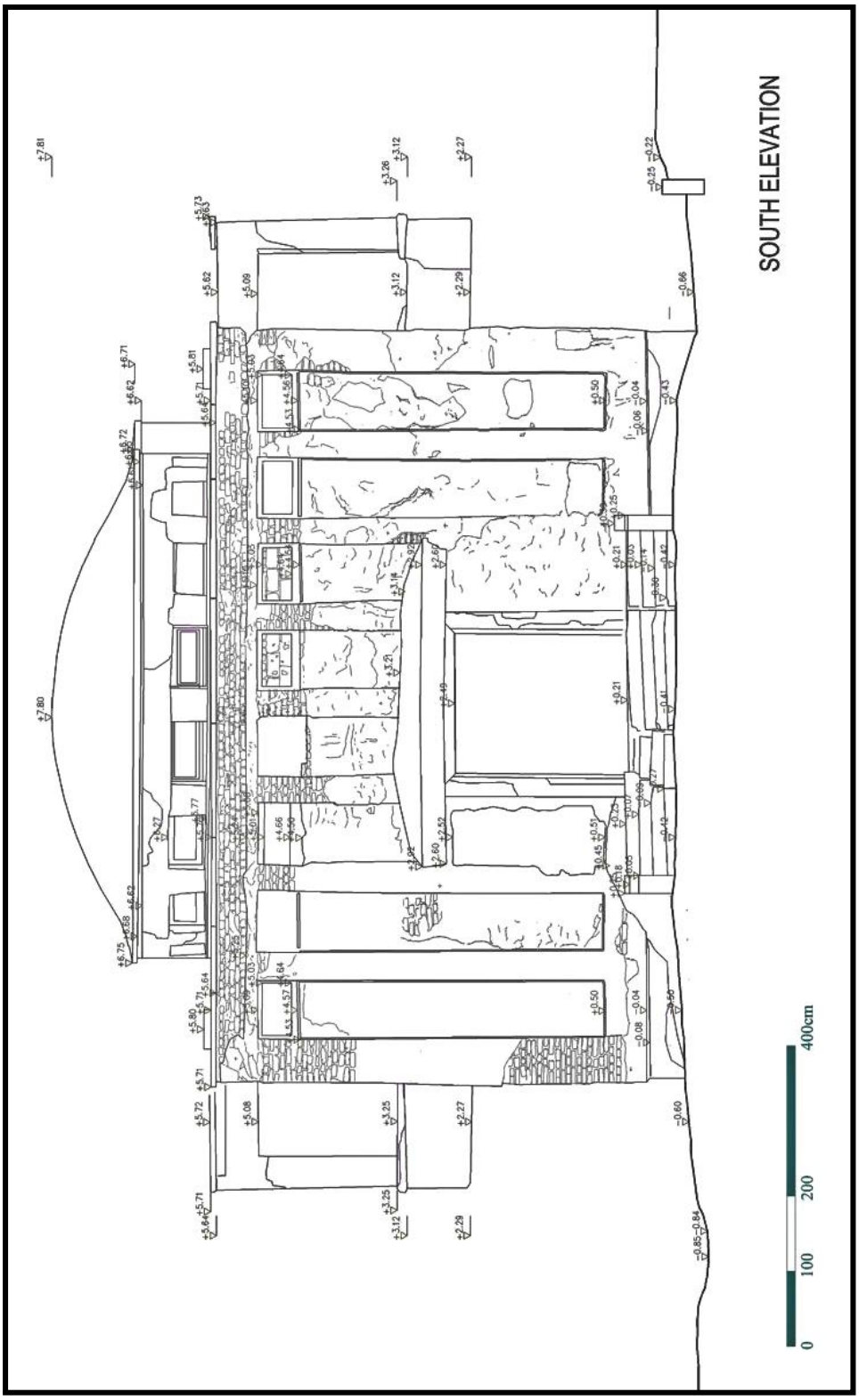


Figure 116-– Survey Drawings- Facade 3

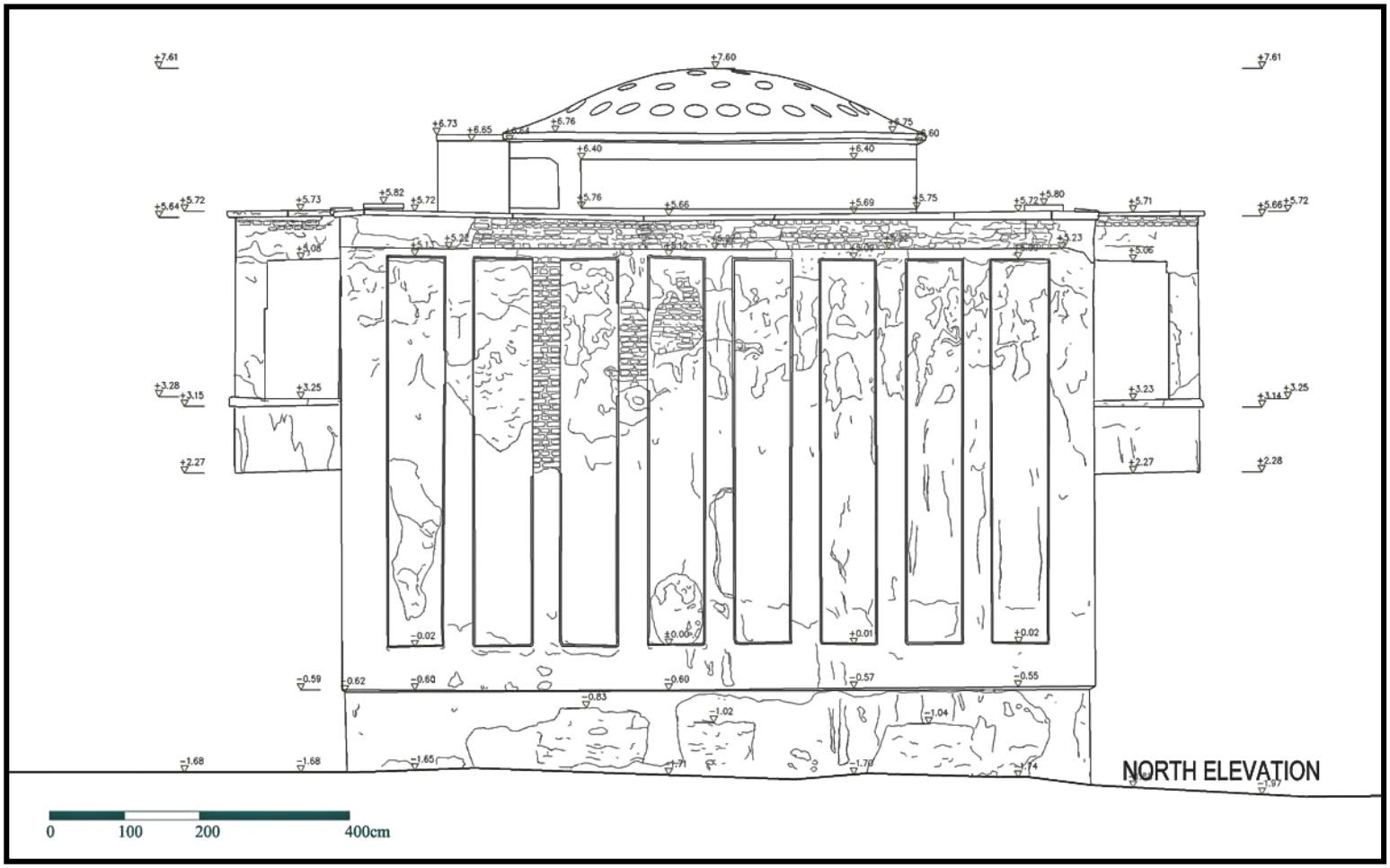


Figure 117 Survey Drawings, Facades 4

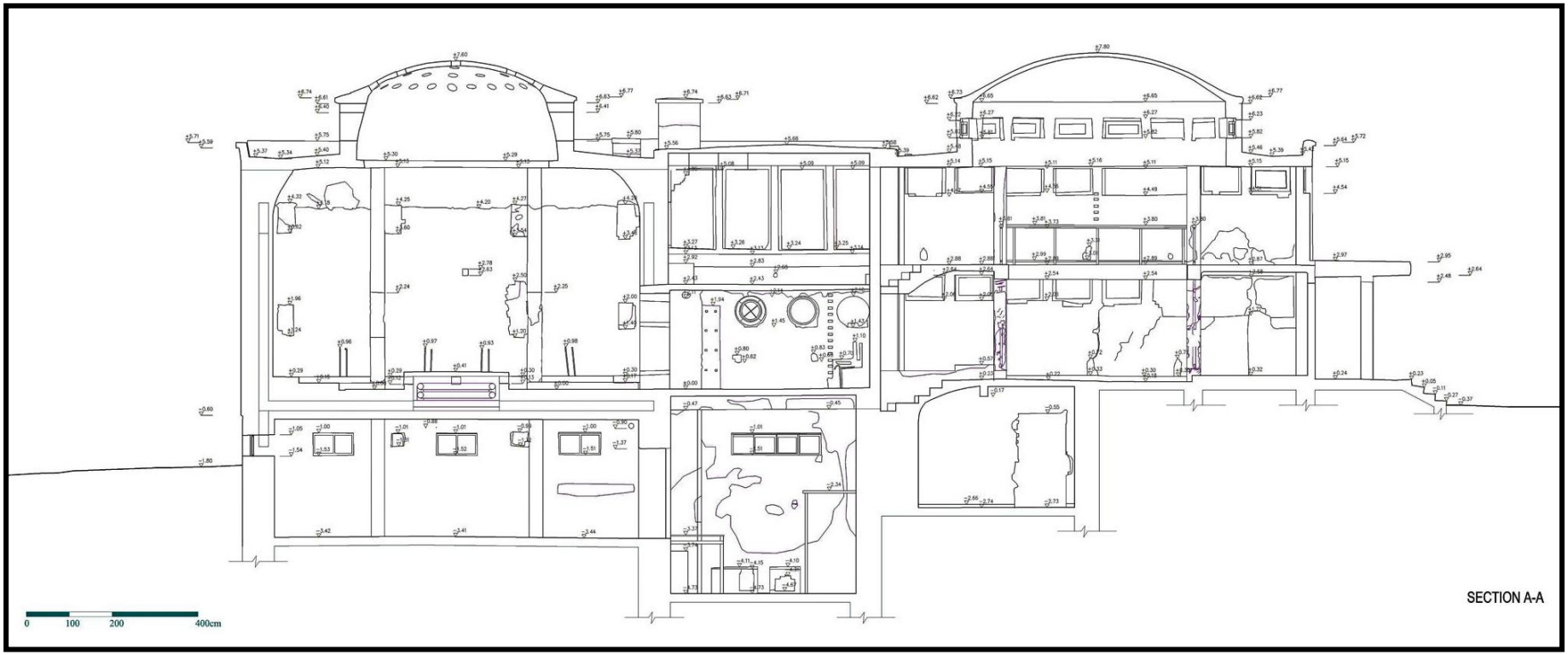


Figure 118- Survey Drawings- Seciton 1

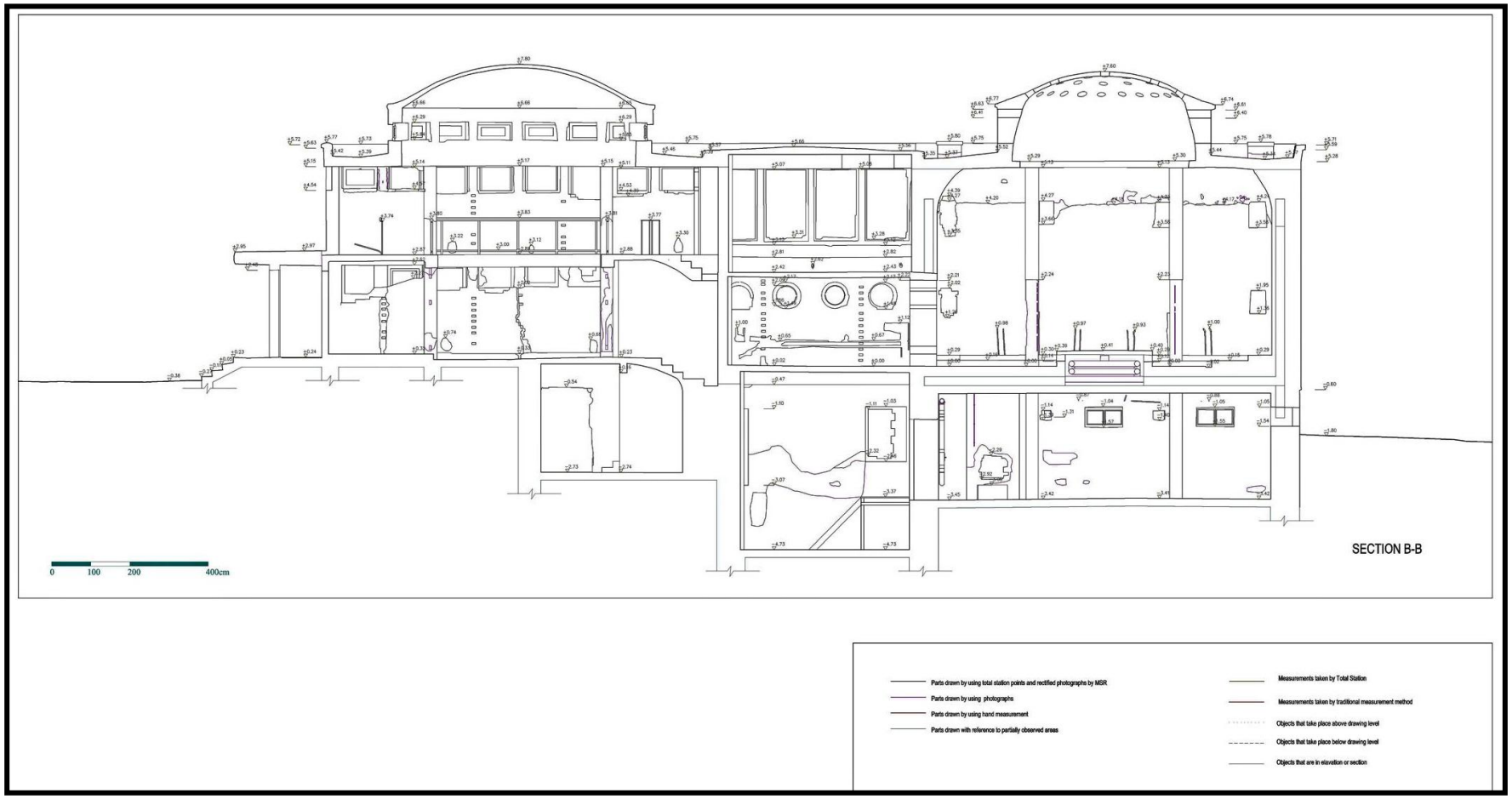


Figure 119- Survey Drawings- Section 2

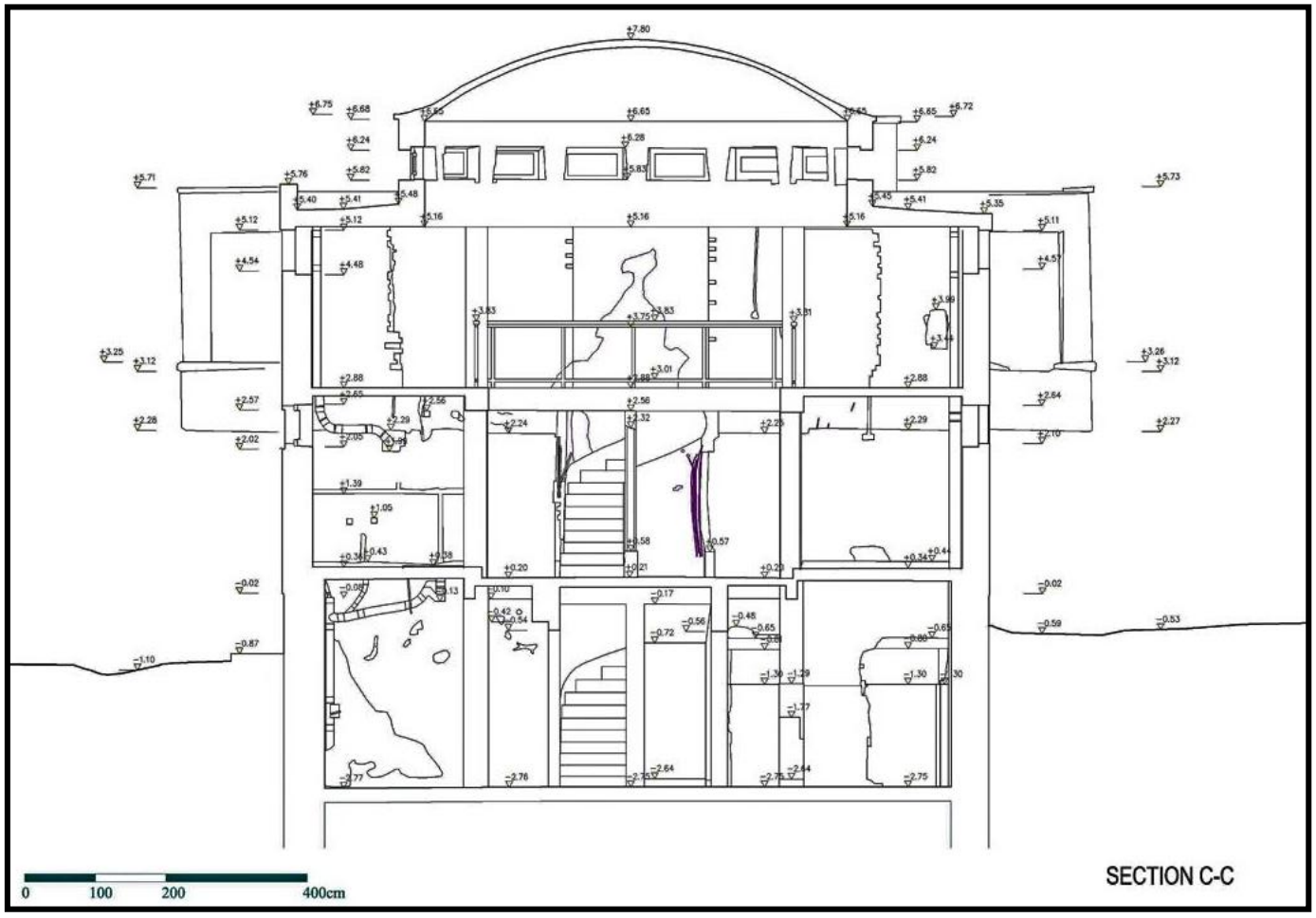


Figure 120- Survey Drawings- Section 3

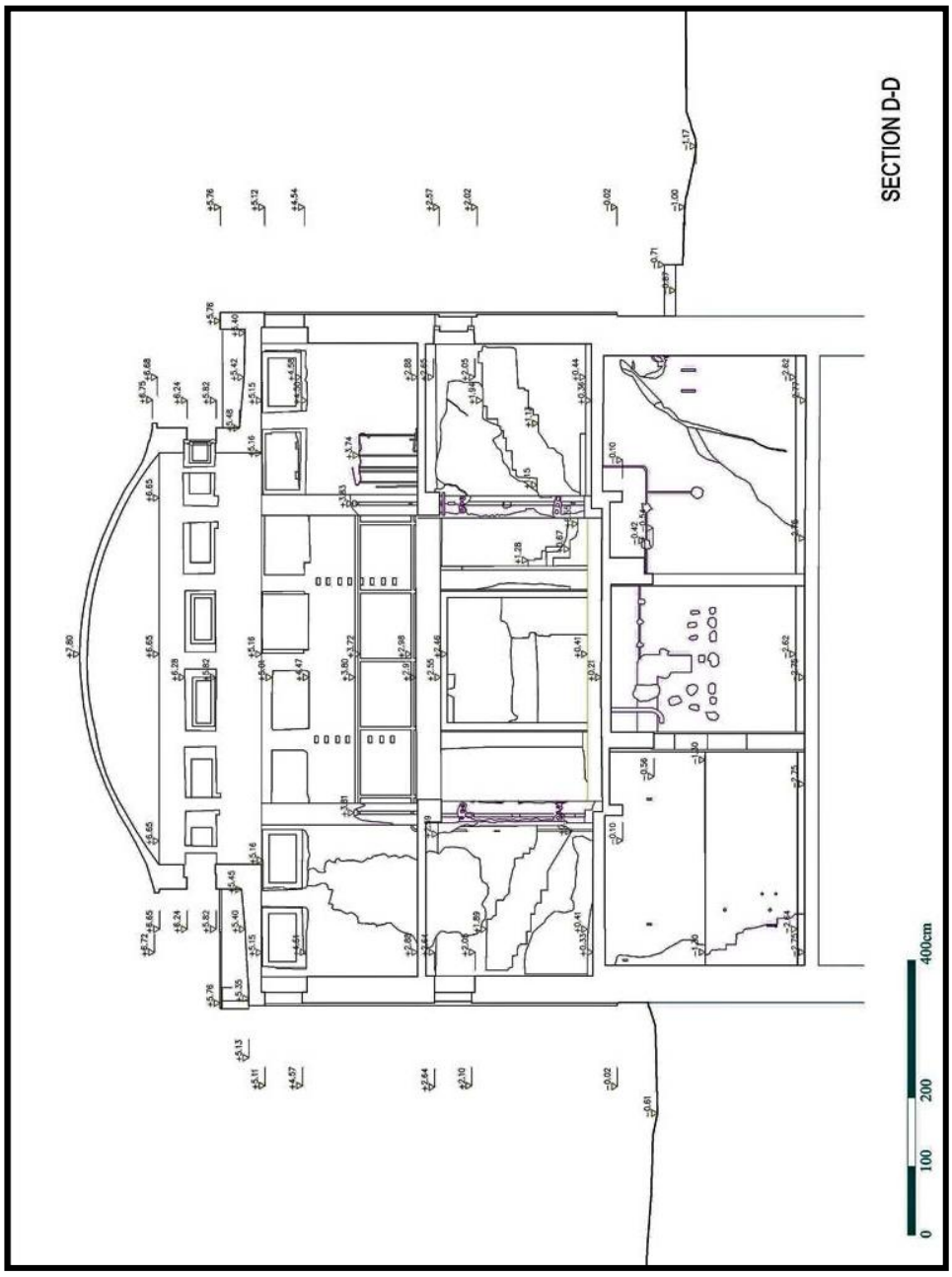


Figure 121- Survey Drawings- Seciton 4

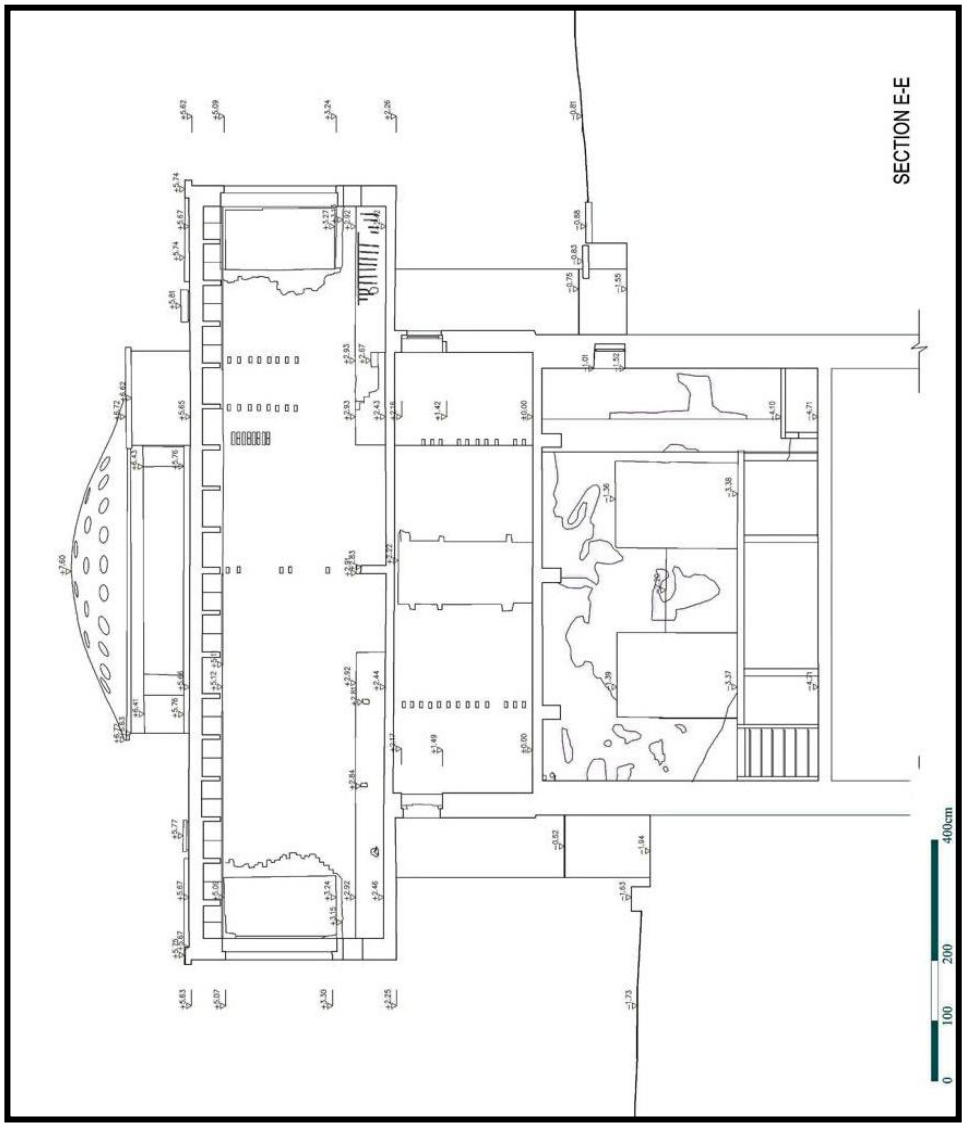


Figure 122 - Survey Drawings- Section 5

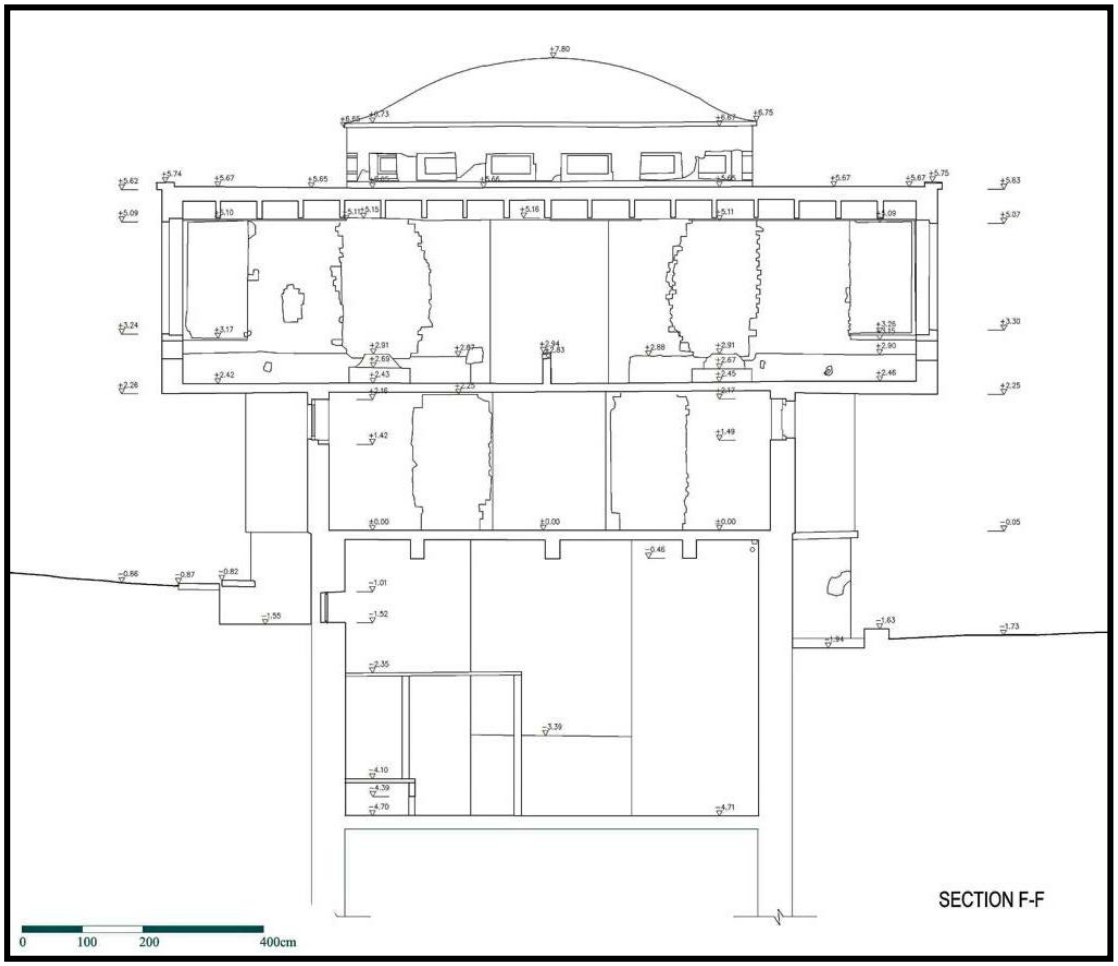


Figure 123- Survey Drawings- Seciton 6

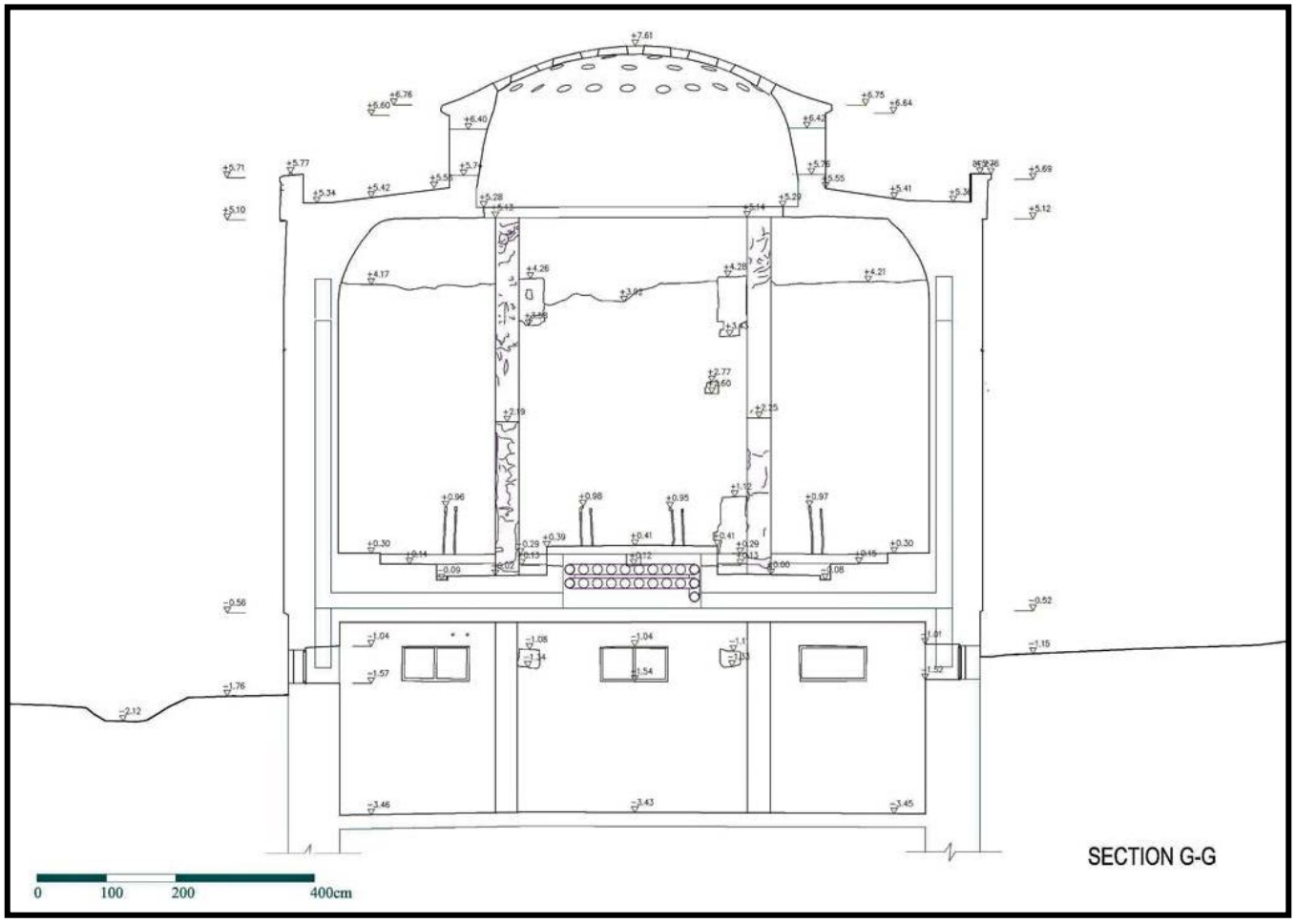


Figure 124- Survey Drawings- Section 7

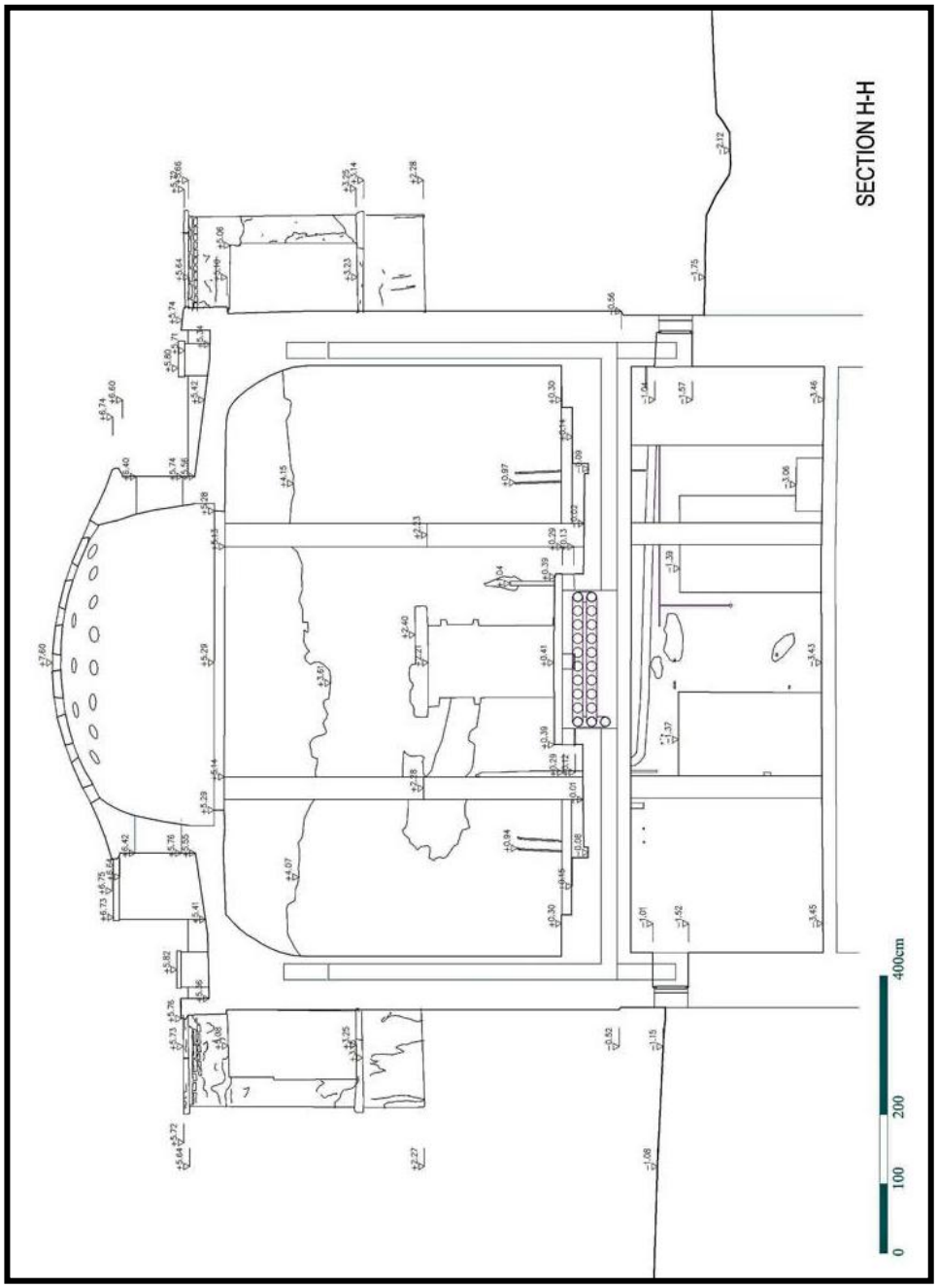


Figure 125 Survey Drawings- Seciton 8

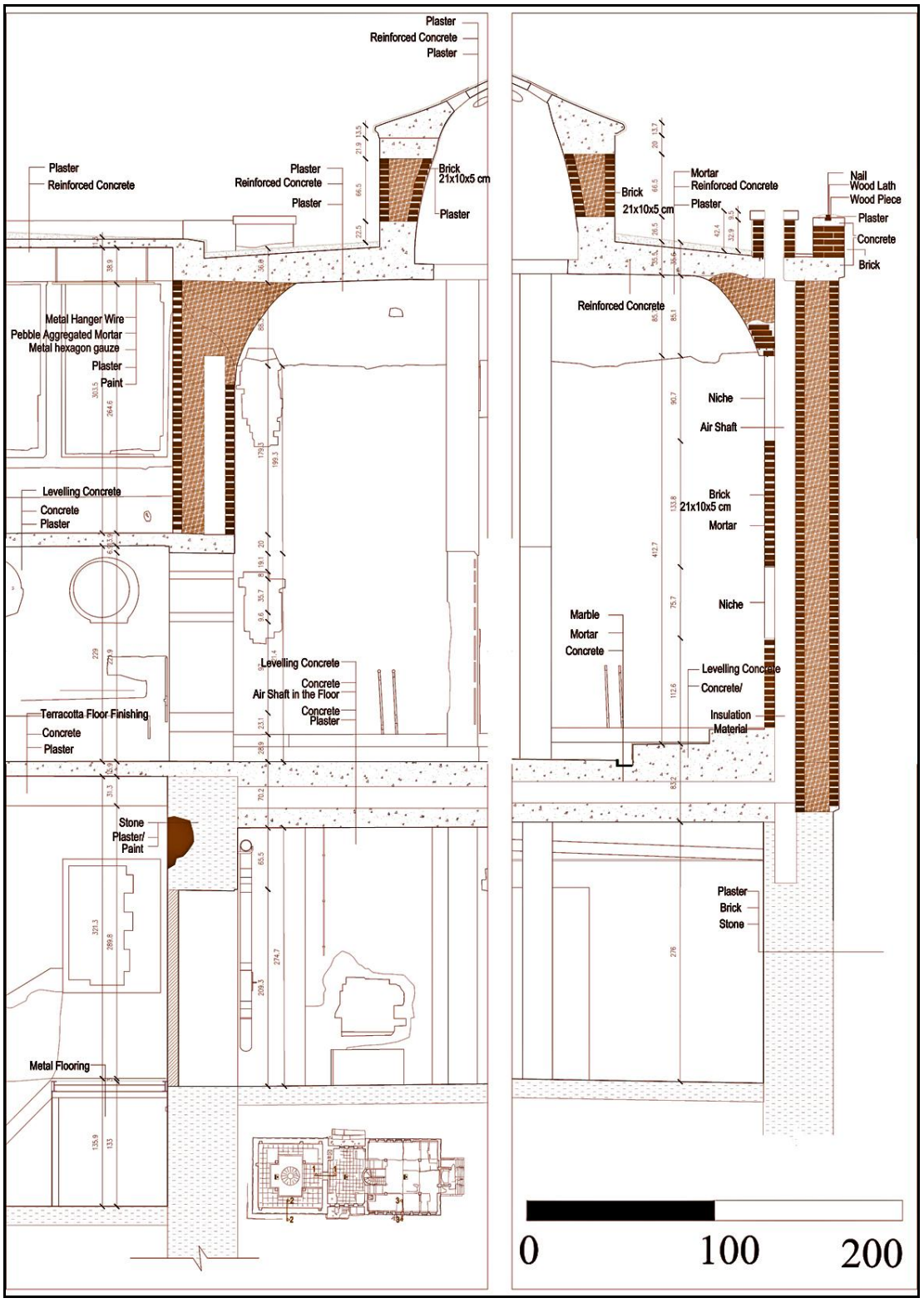


Figure 126 - Construction Technique- Detail Drawing 1-1, 2-2

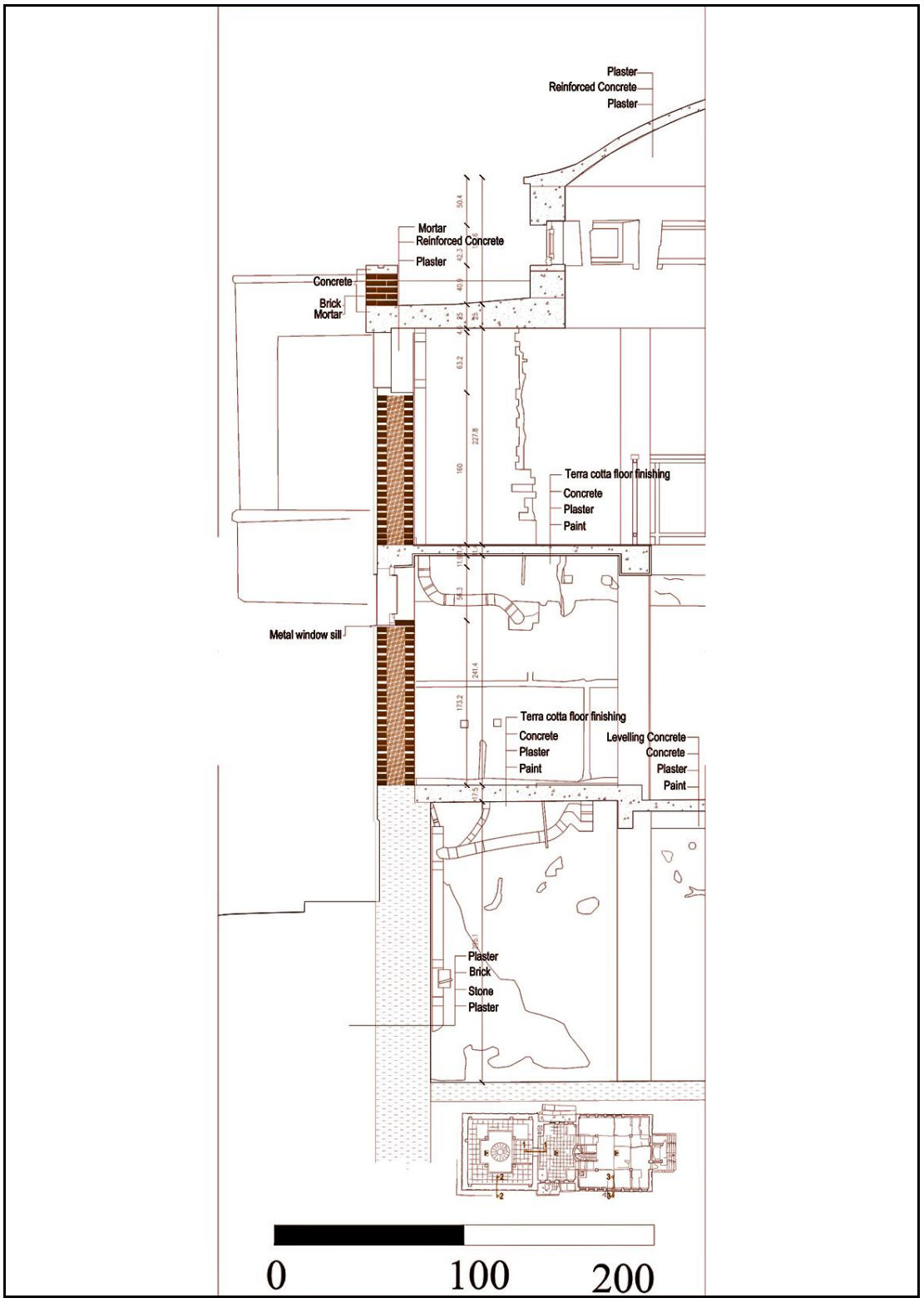


Figure 127 – Construction Technique- Detail Drawing 3-3

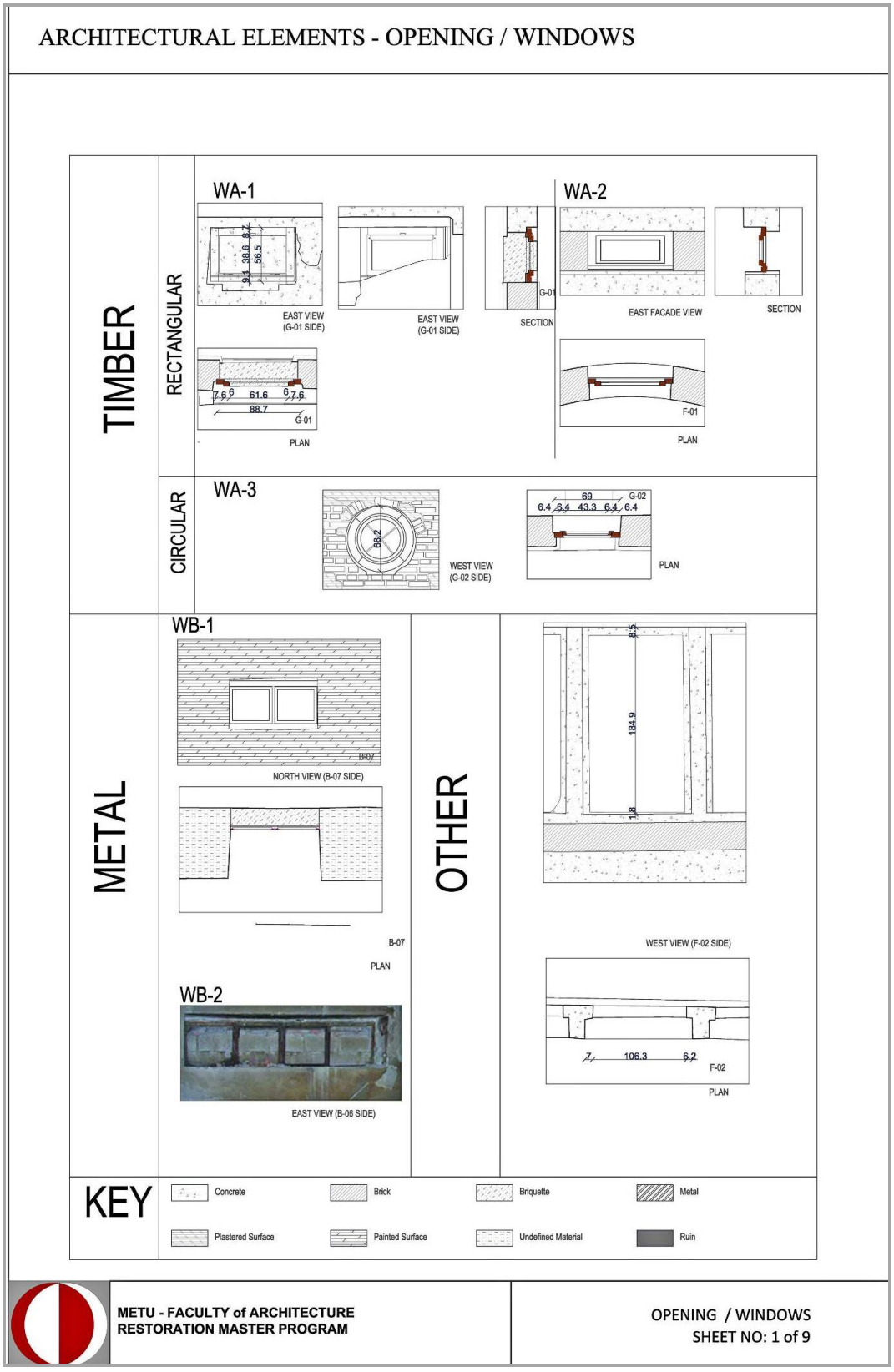


Figure 128 – Openings

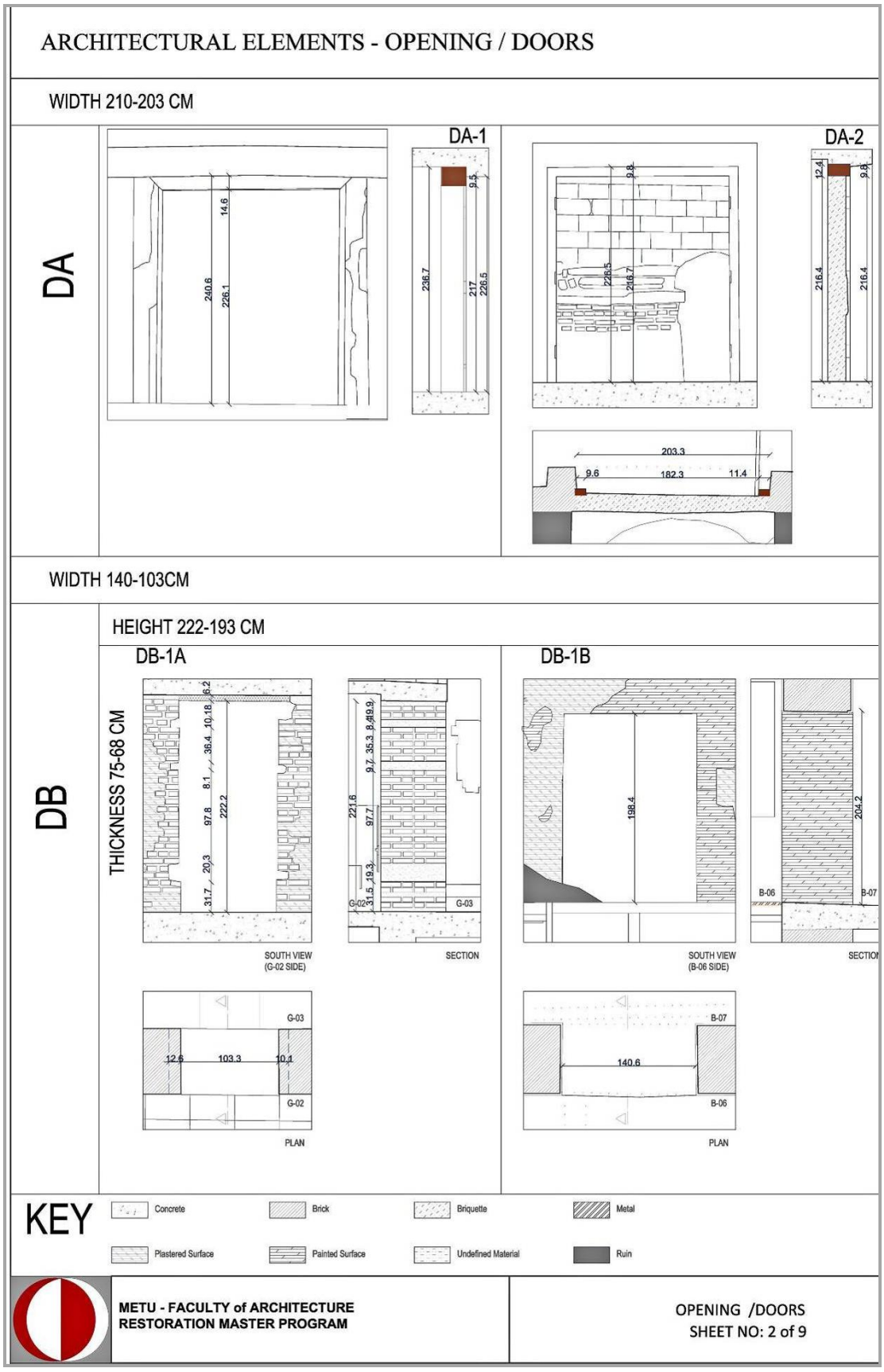


Figure 129 - Openings

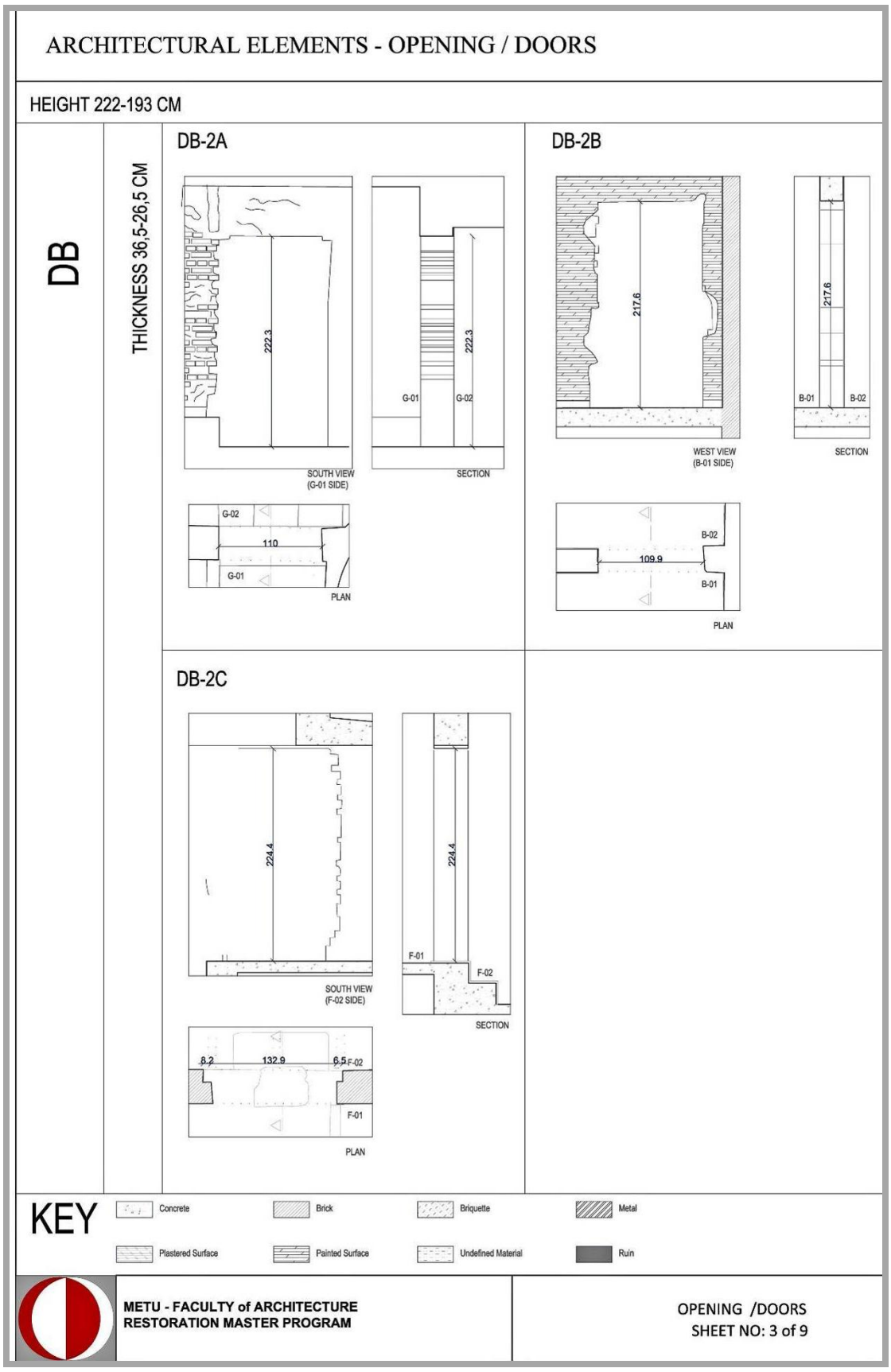


Figure 130 - Openings

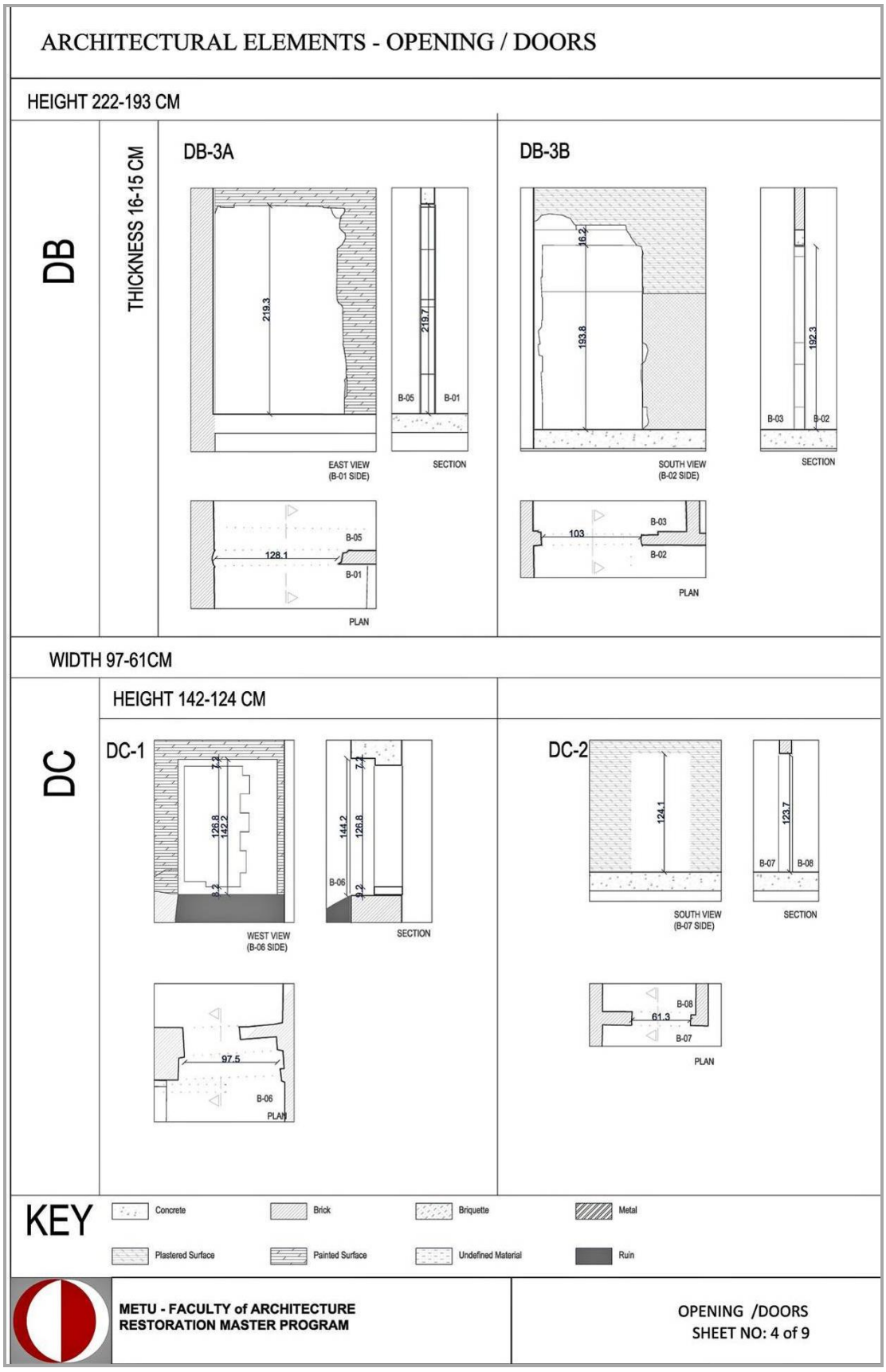


Figure 131 - Openings

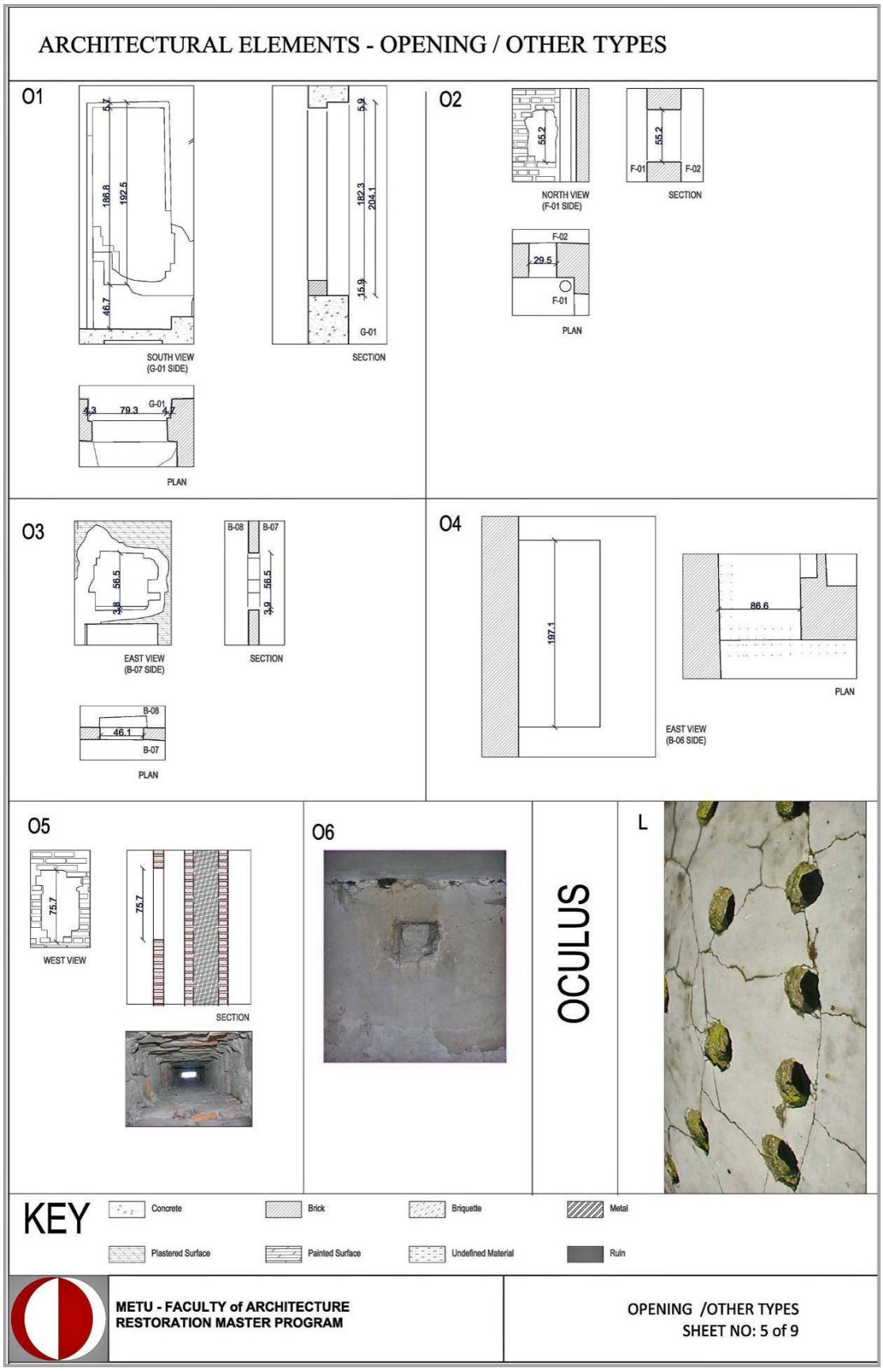


Figure 132 - Openings

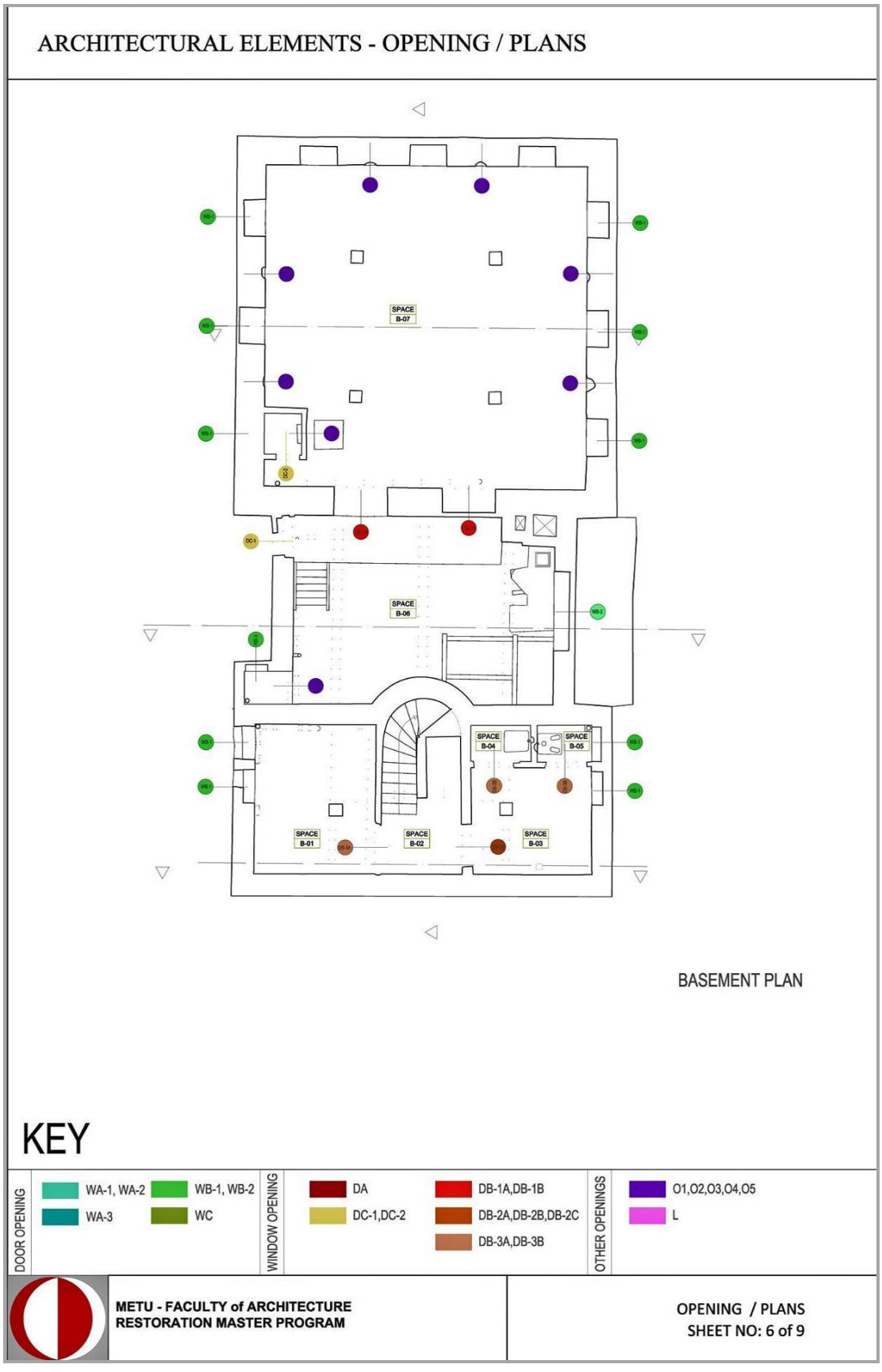


Figure 133 - Openings

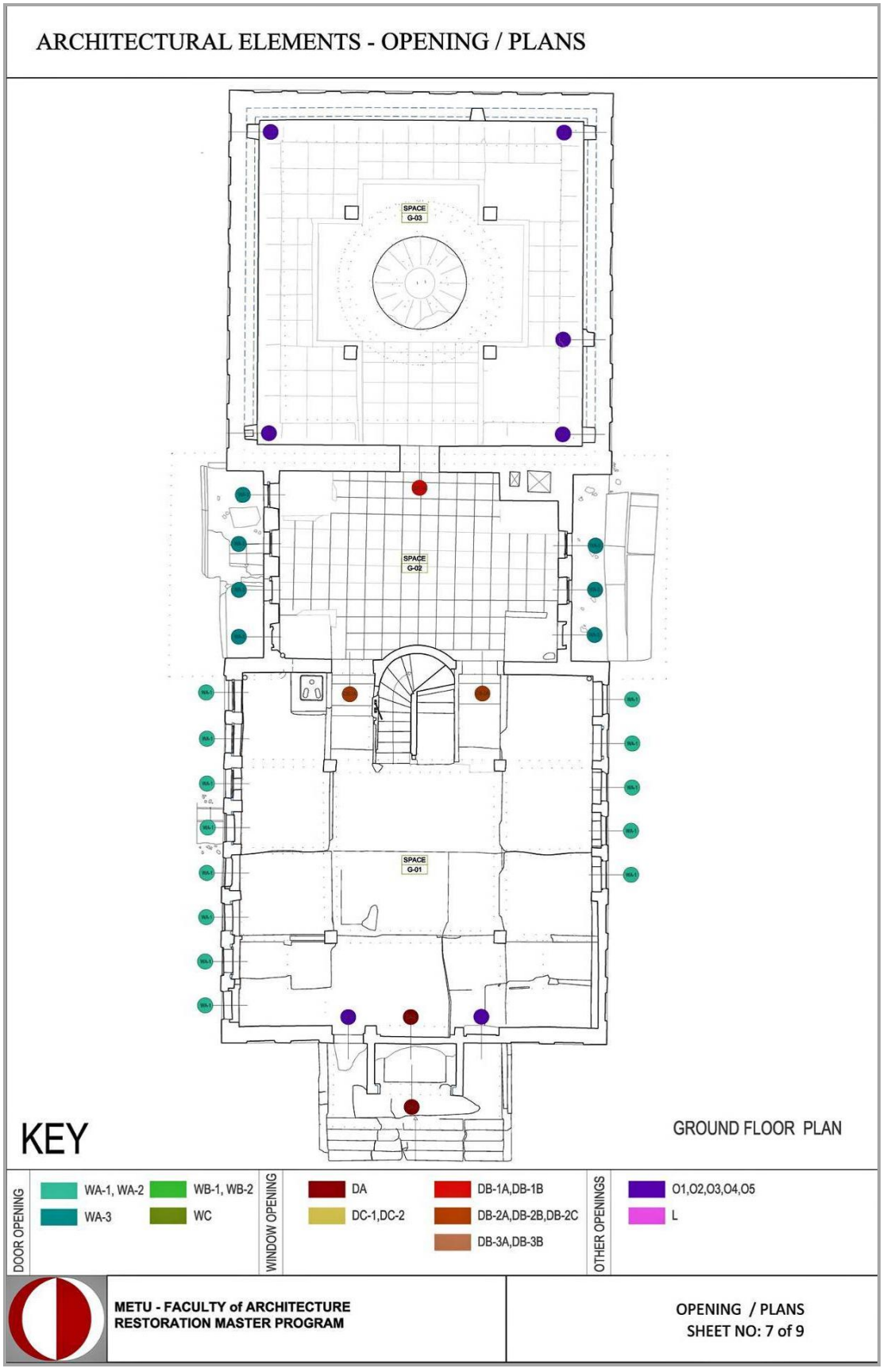


Figure 134 - Openings

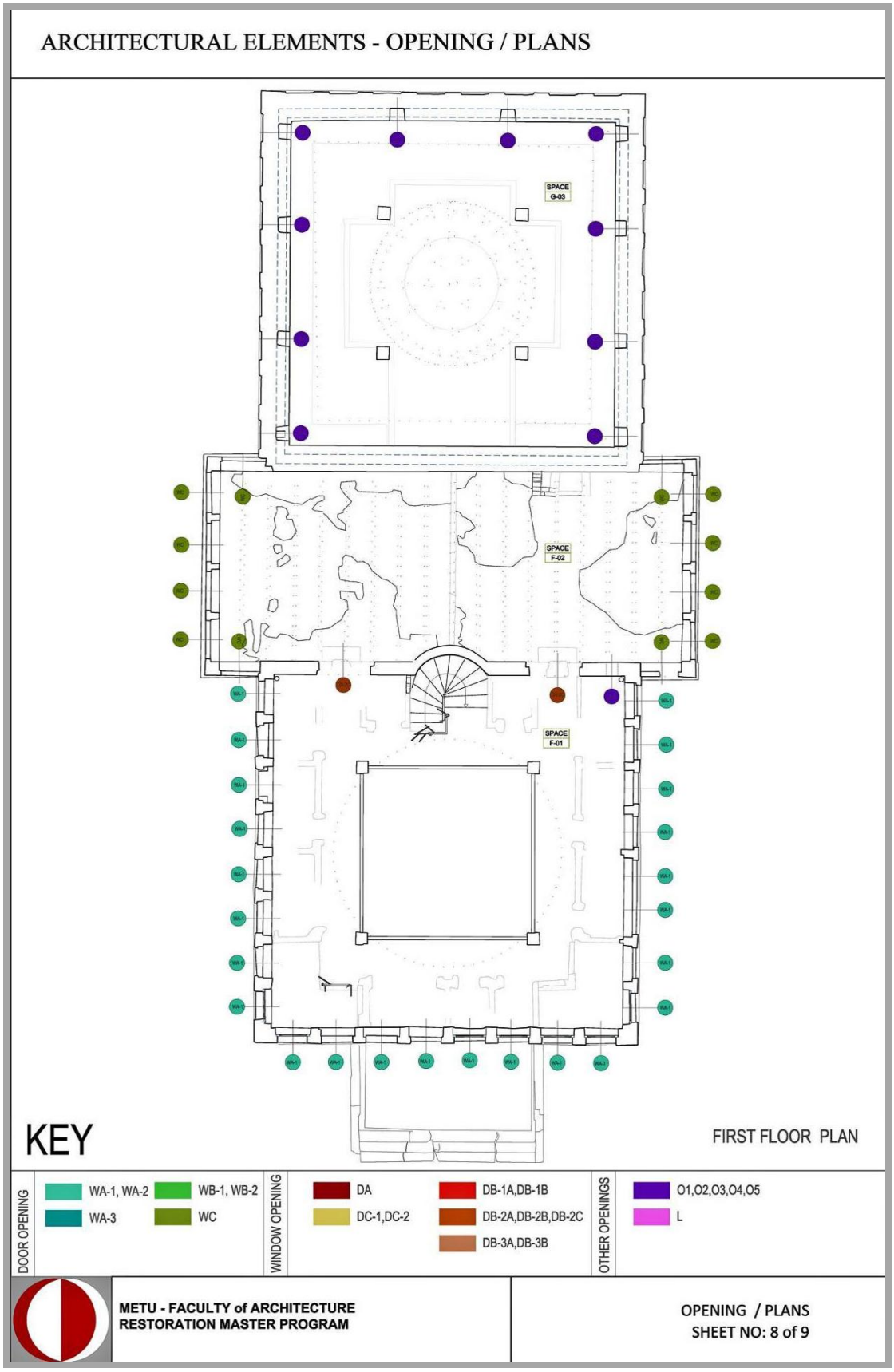


Figure 135 - Openings

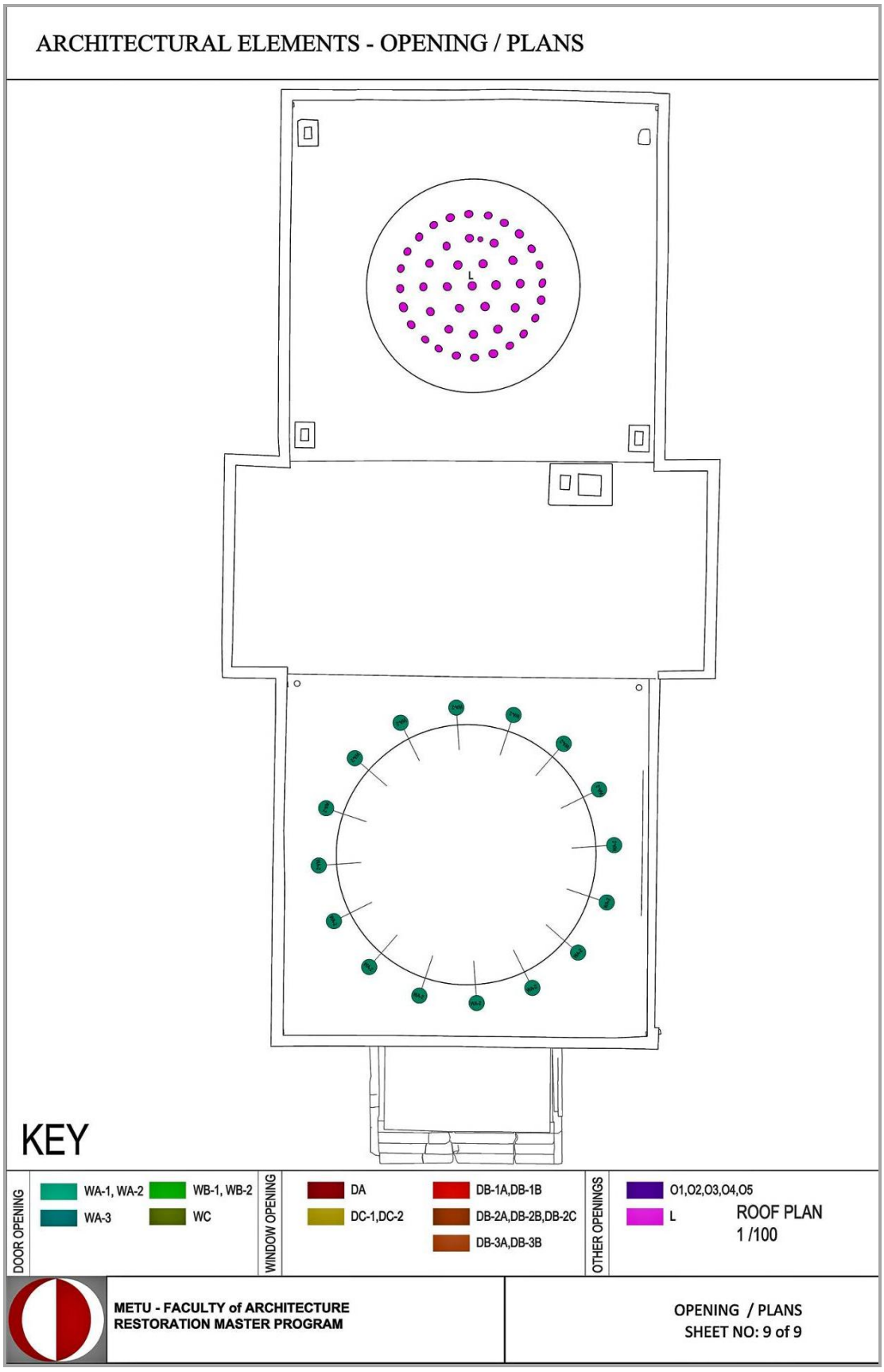


Figure 136 - Openings

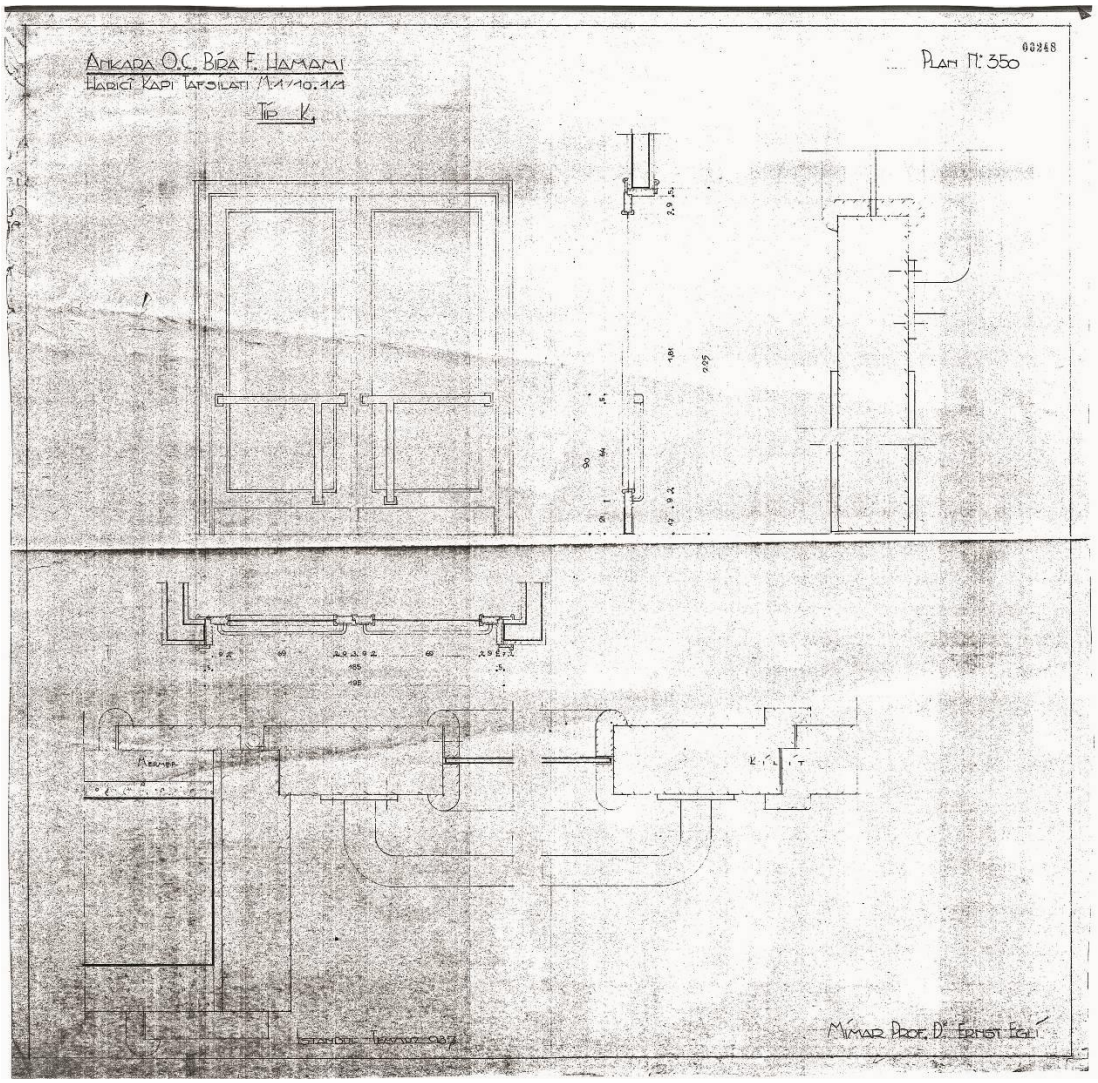


Figure 137 - Original Drawings Taken From TTA archieve

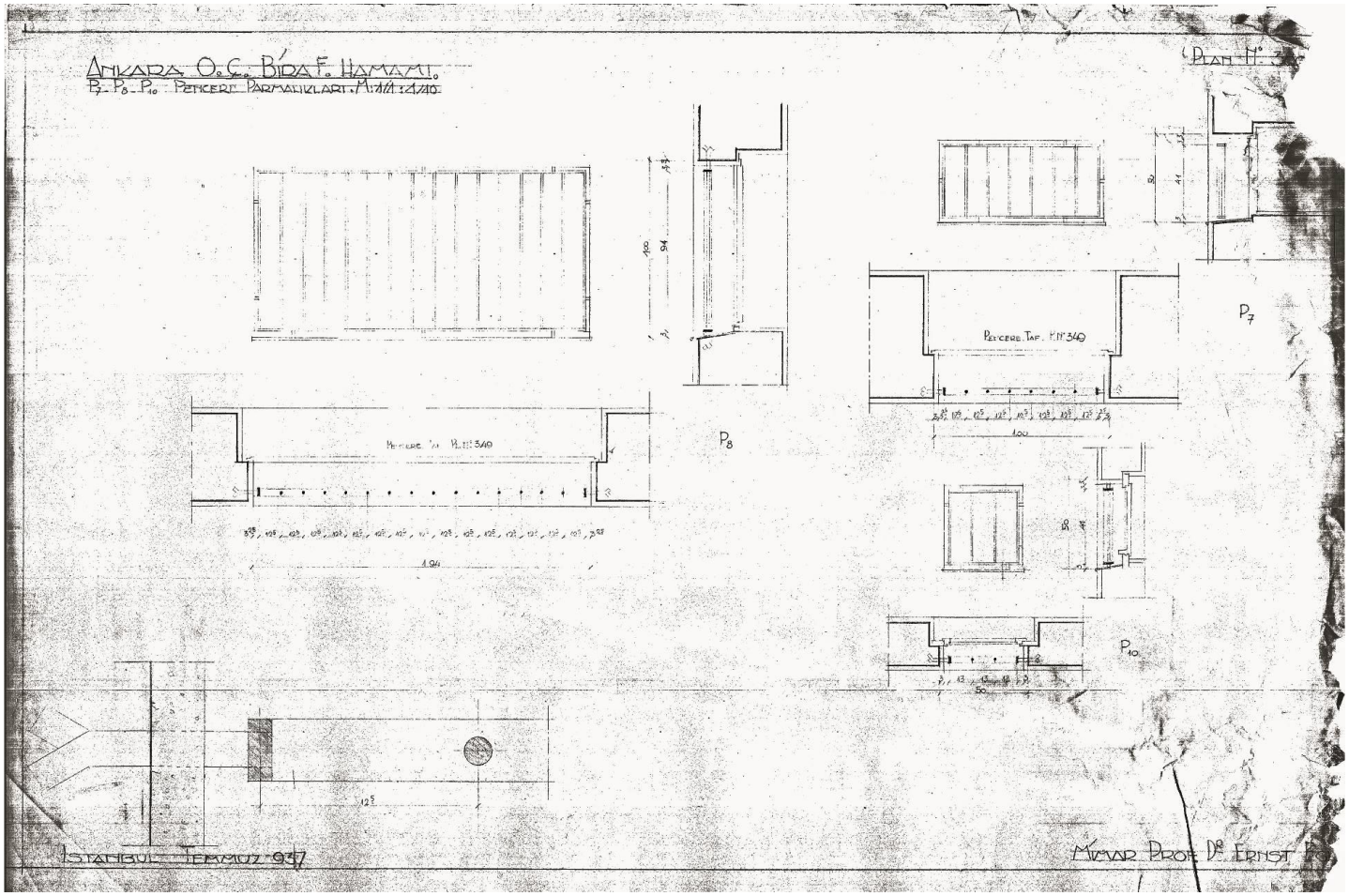


Figure 138 - Original Drawings Taken From TTA archieve

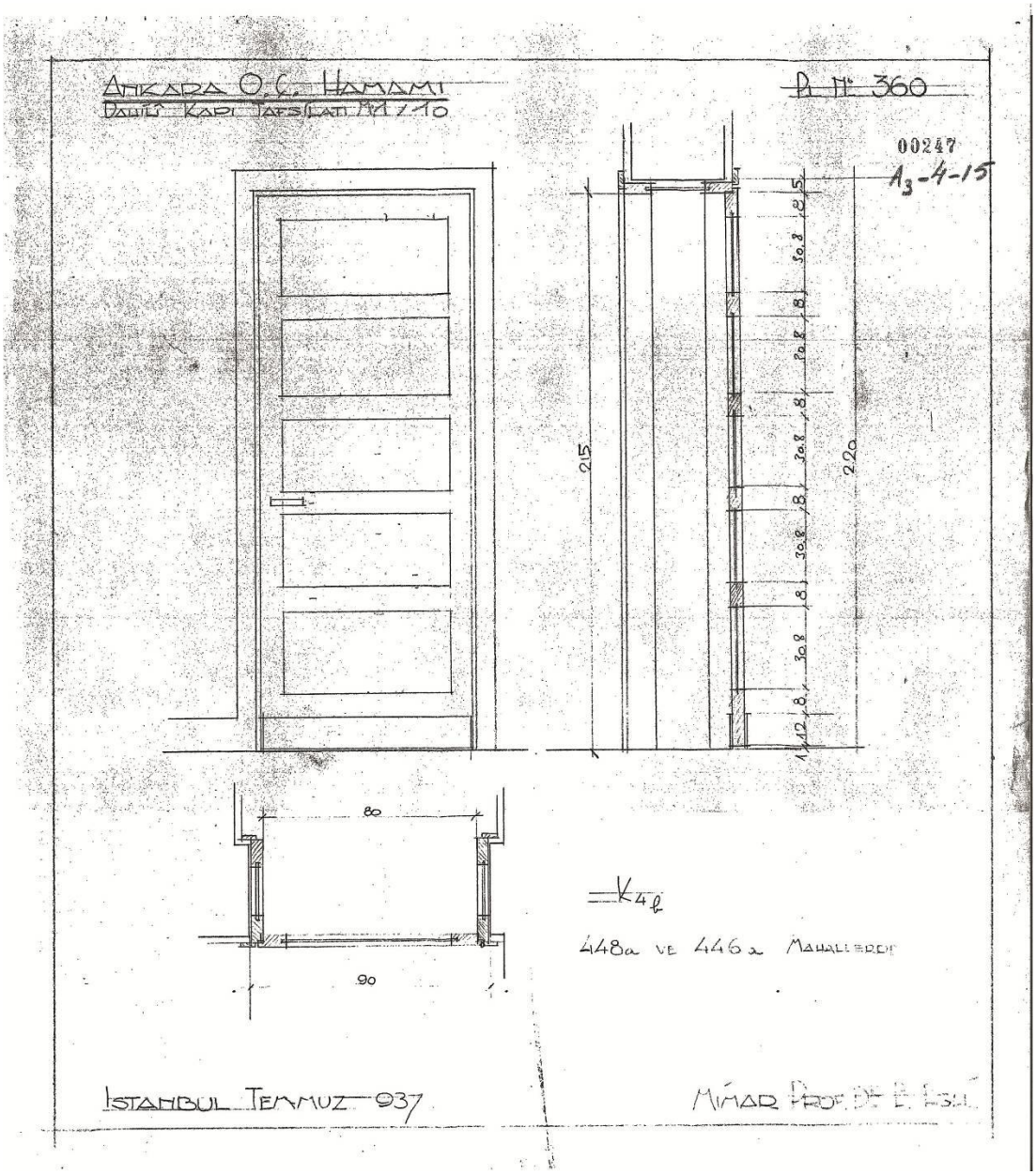


Figure 139 - Original Drawings Taken From TTA archieve

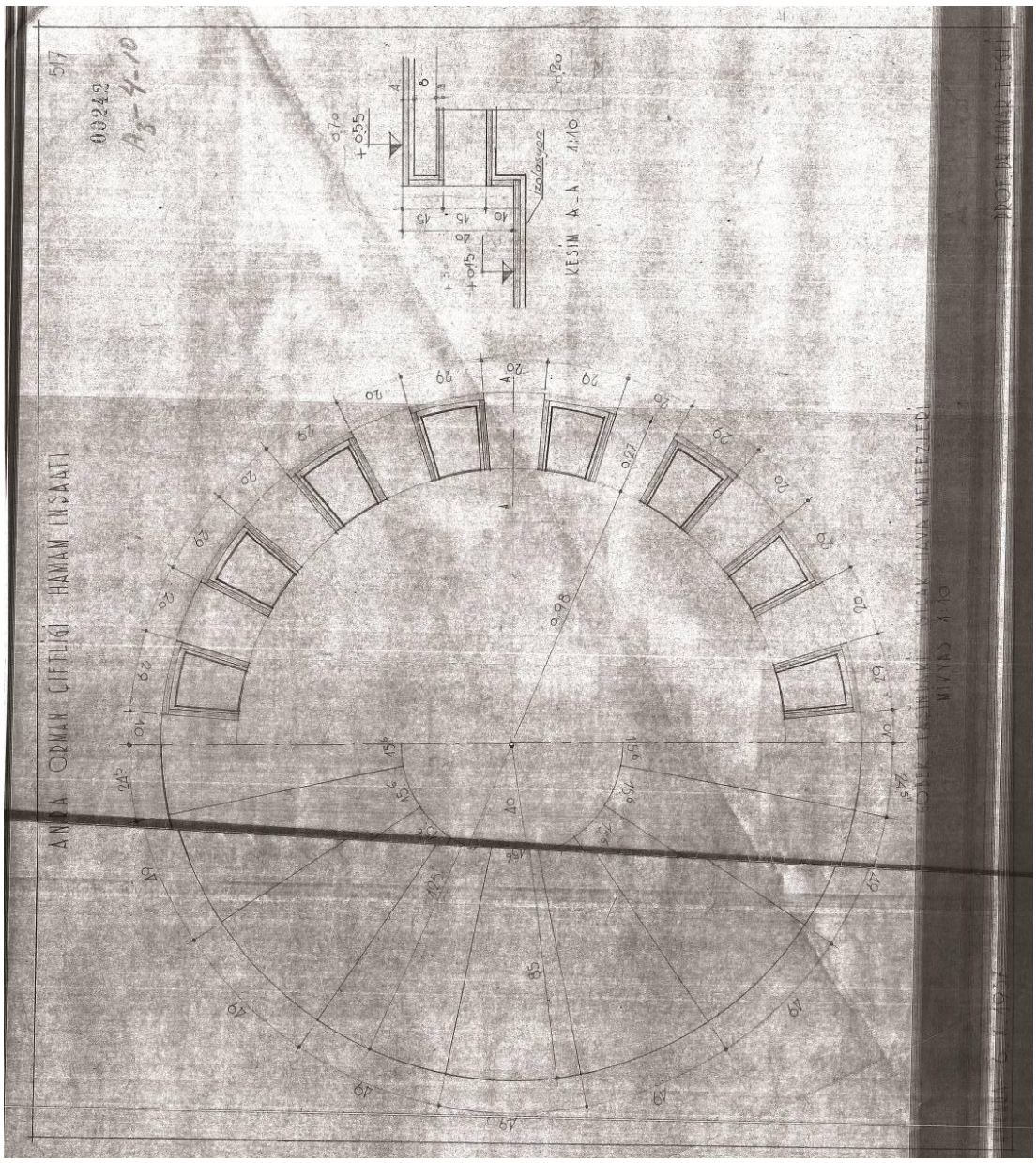


Figure 140 - Original Drawings Taken From TTA archieve

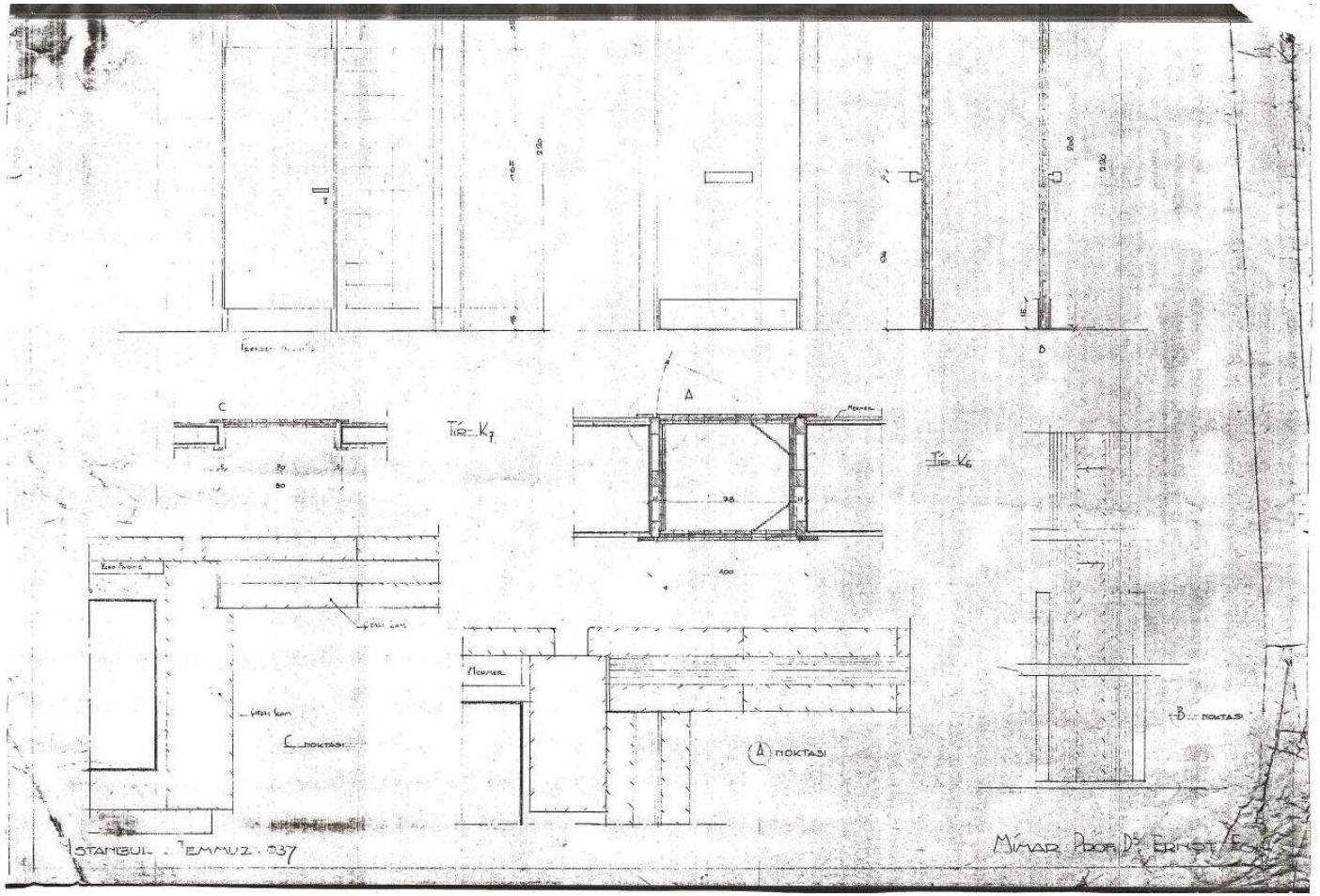


Figure 141 - Original Drawings Taken From TTA archieve

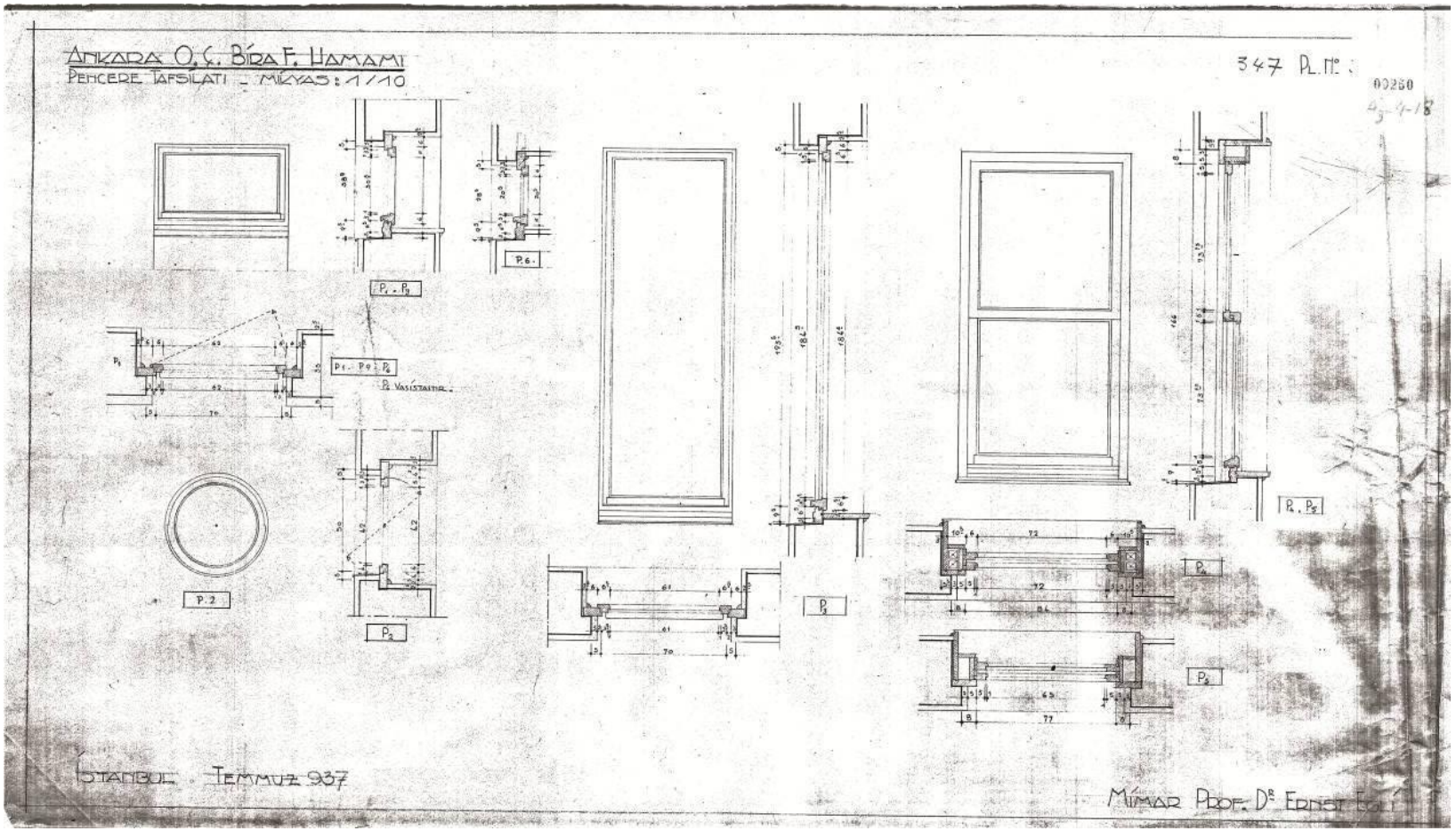


Figure 142 - Original Drawings Taken From TTA archieve

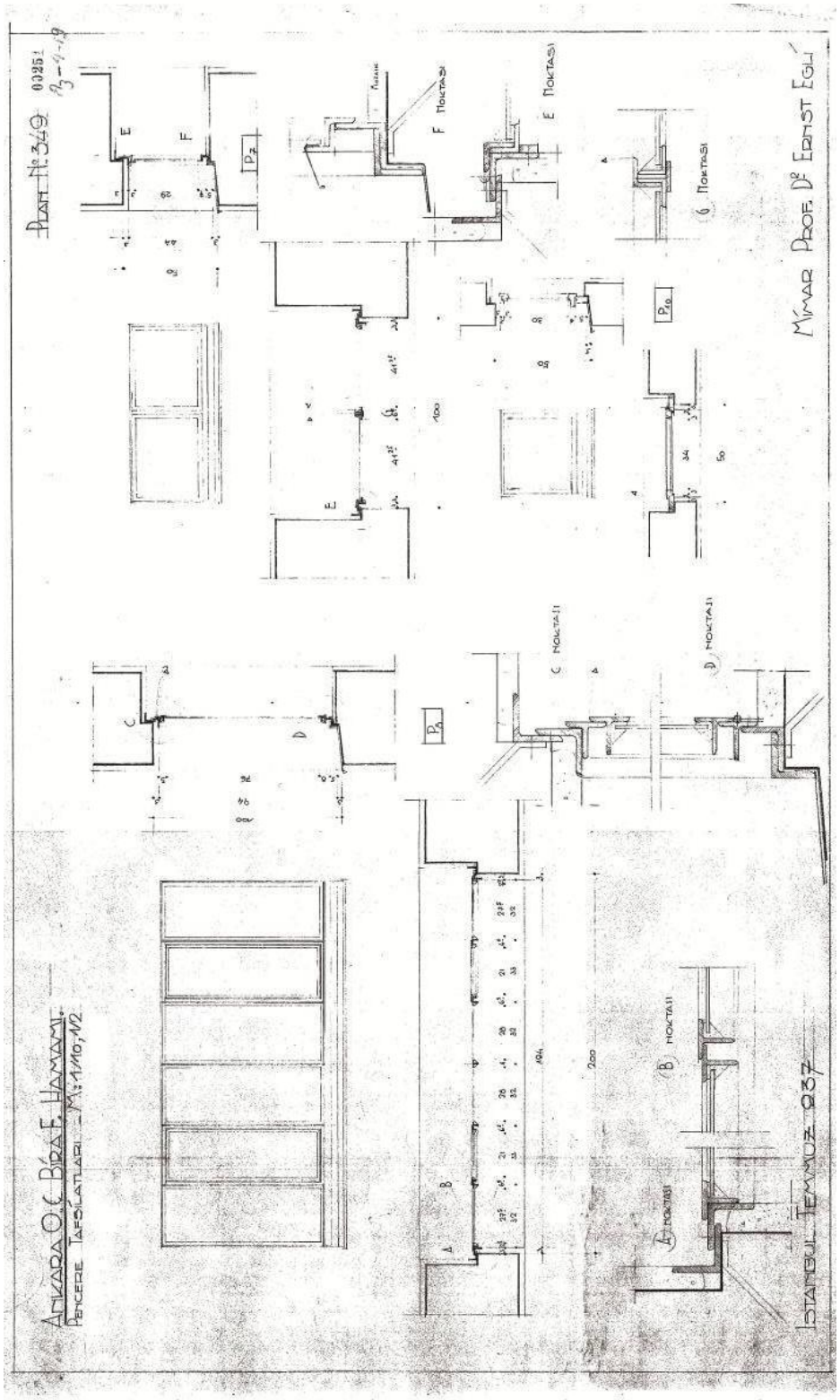


Figure 143 - Original Drawings (TTA archieve)

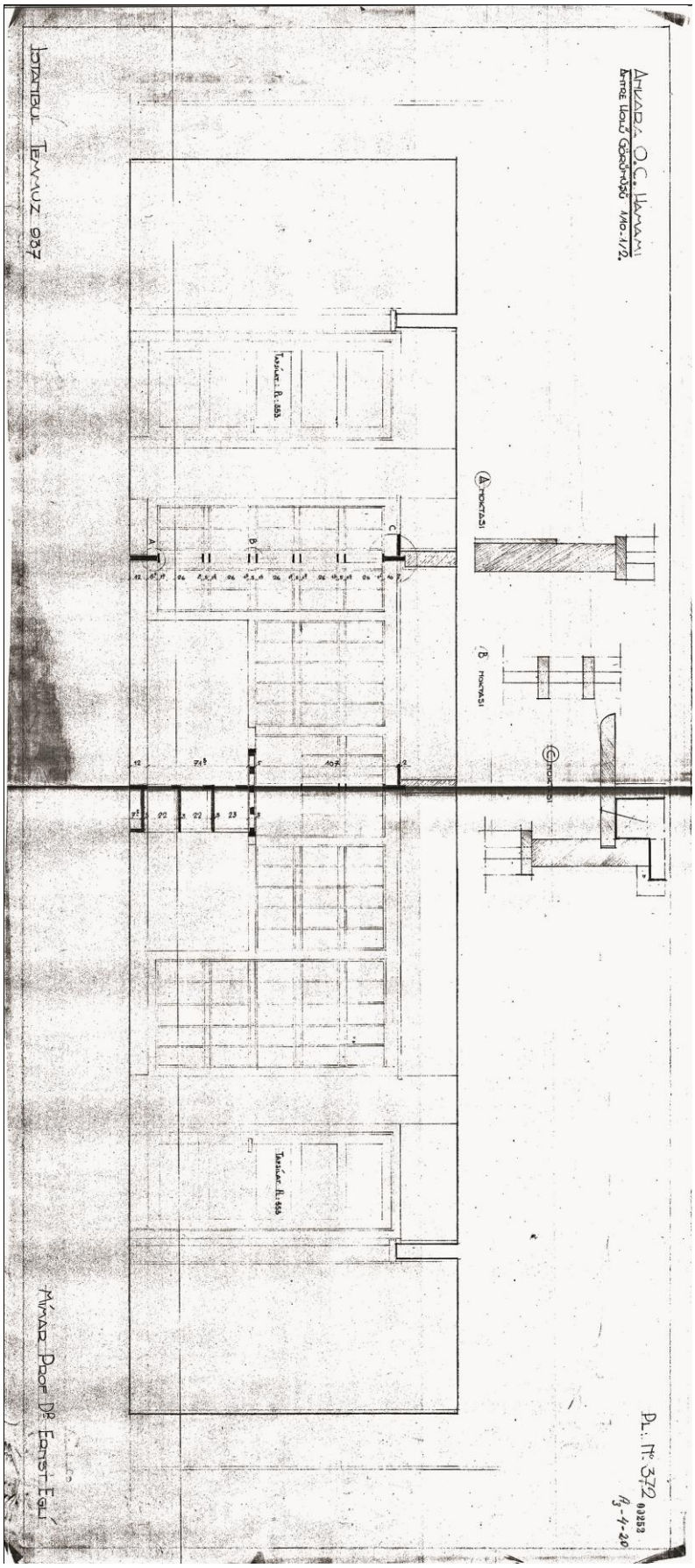


Figure 144 Original Drawings (TTA Archieve)

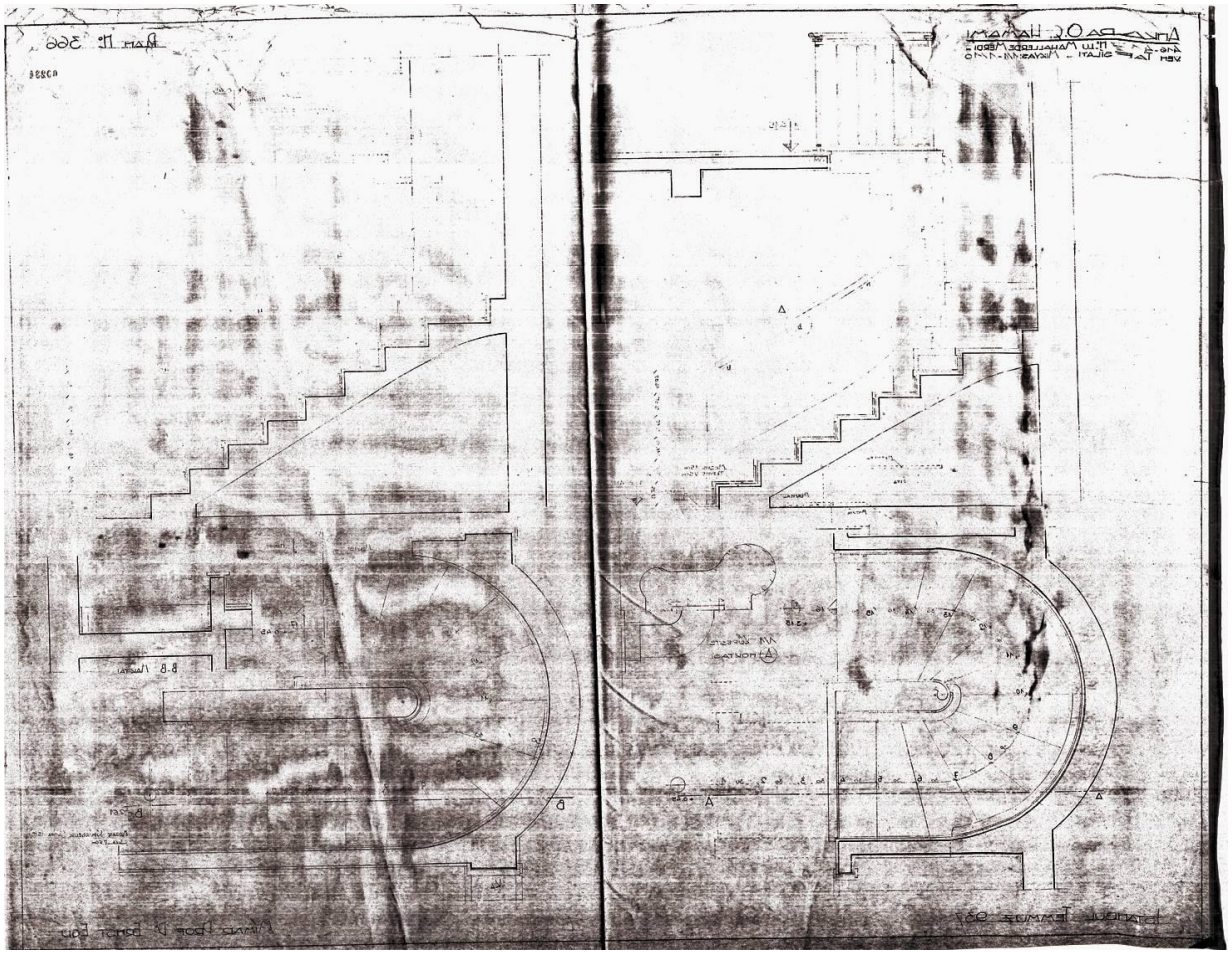


Figure 145 - Original Drawings (TTA archieve)

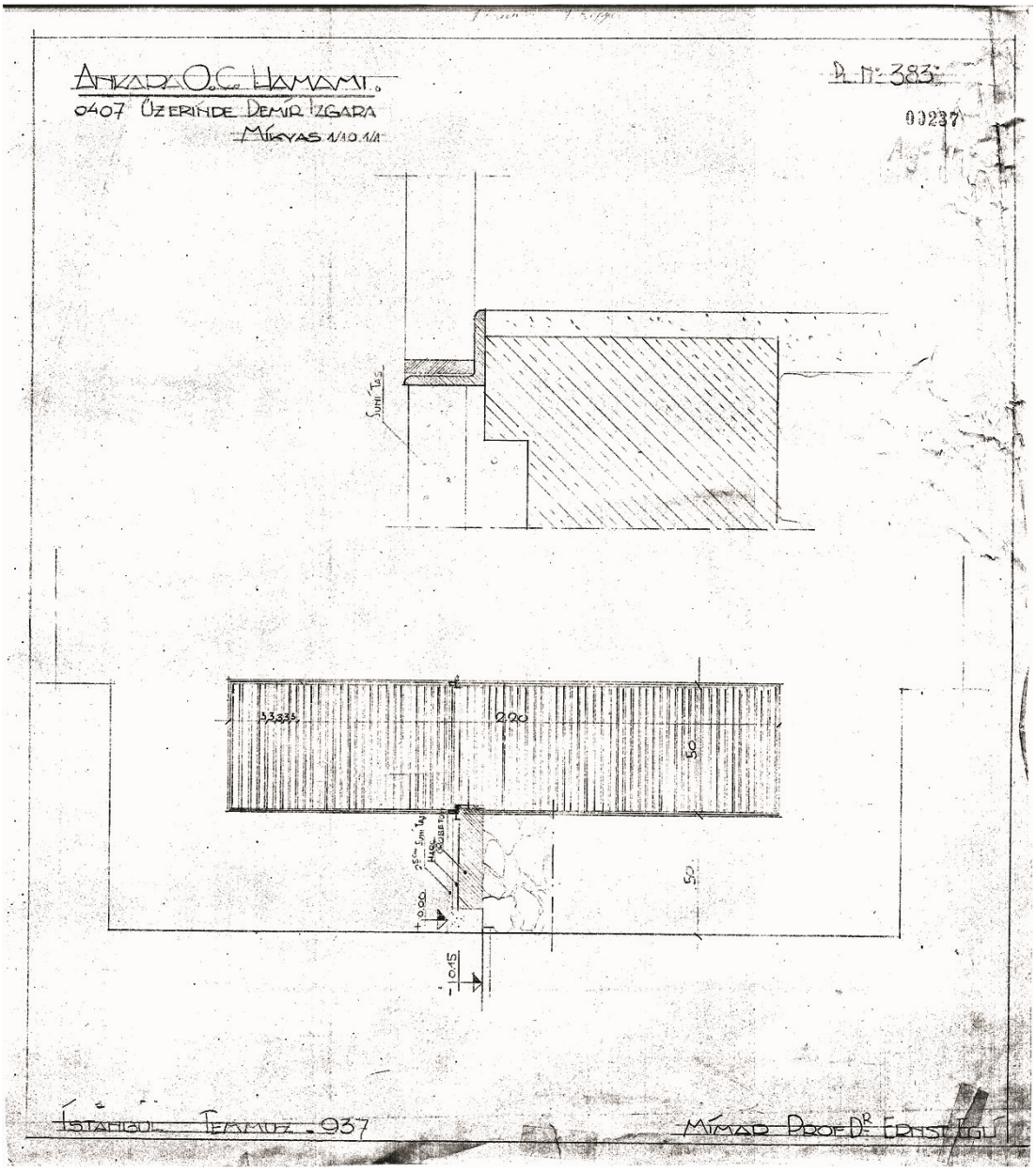


Figure 146 - Original Drawings (TTA archieve)

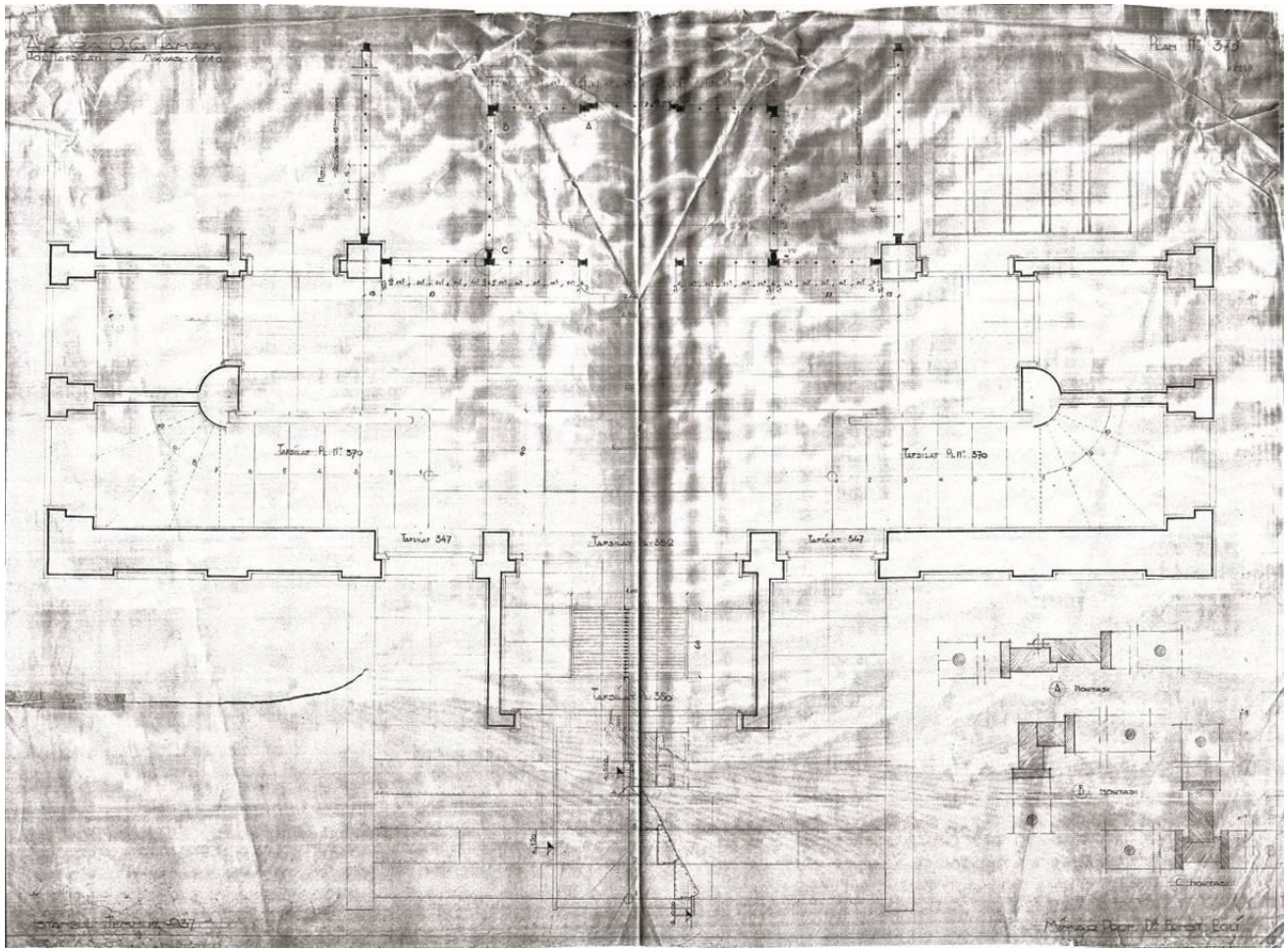


Figure 147 - Original Drawings (TTA archieve)

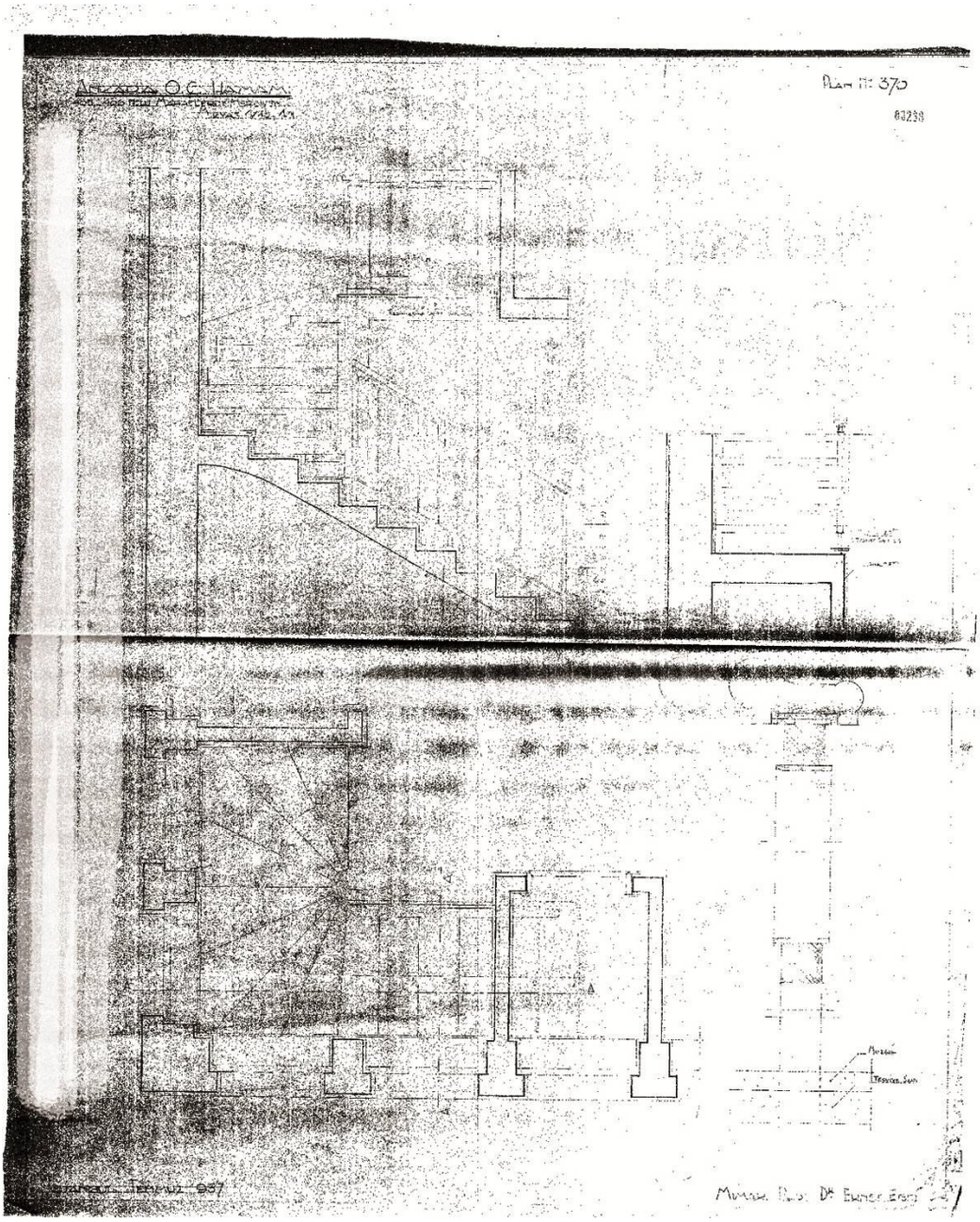


Figure 148 - Original Drawings (TTA archieve)

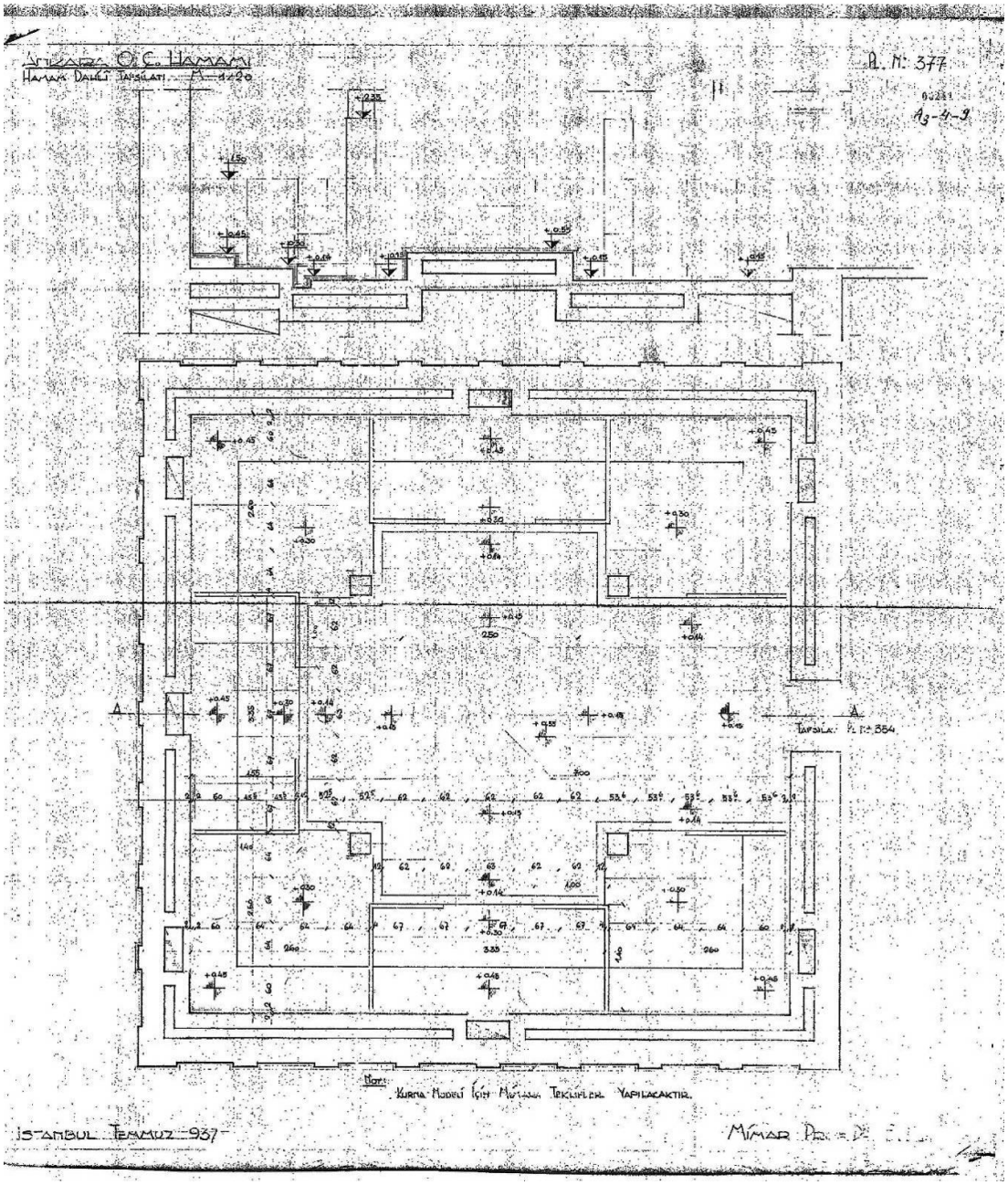


Figure 149 - Original Drawings (TTA archieve)

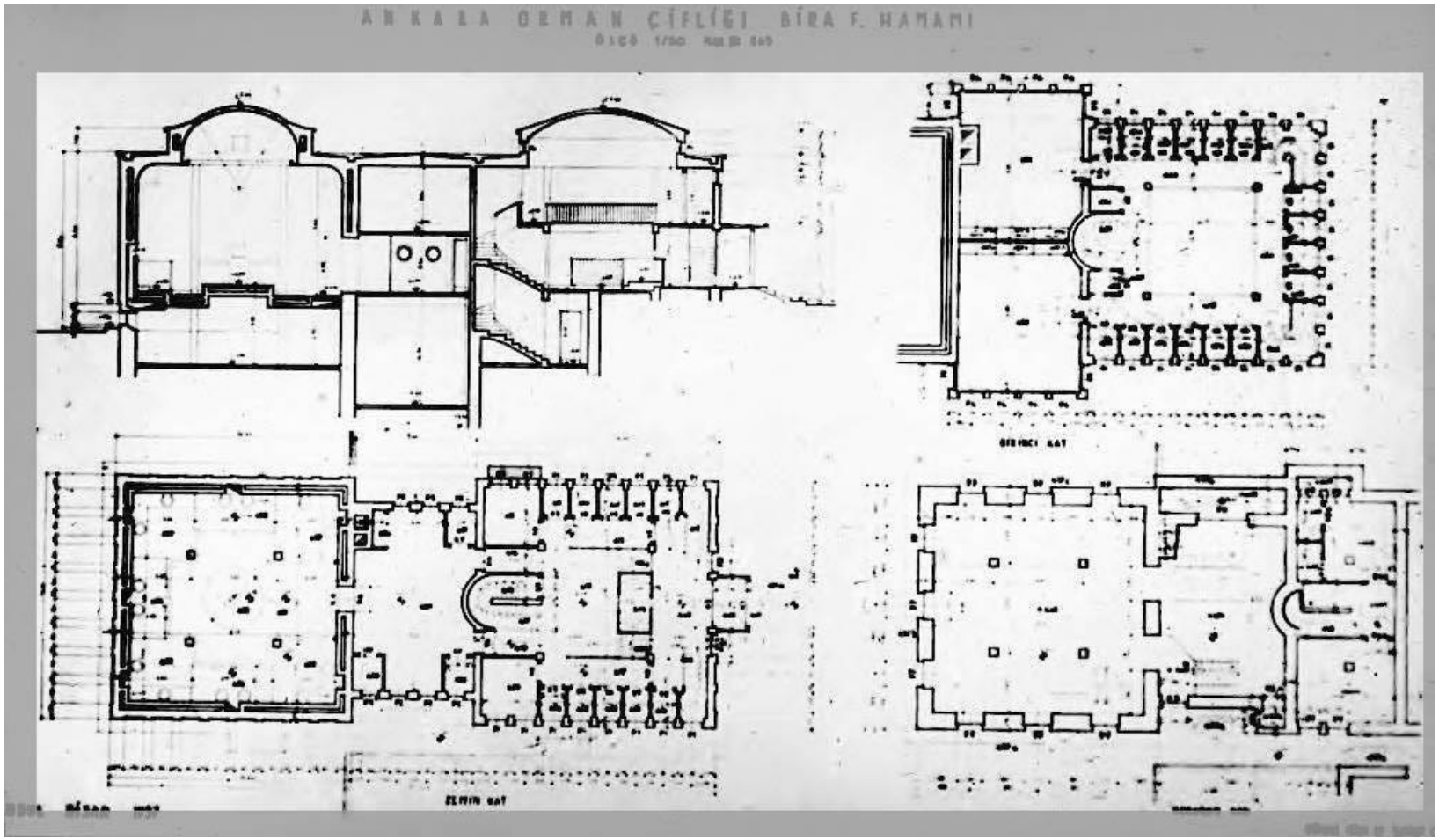


Figure 150- Plan and Section drawings (ALPAGUT,2010:256)

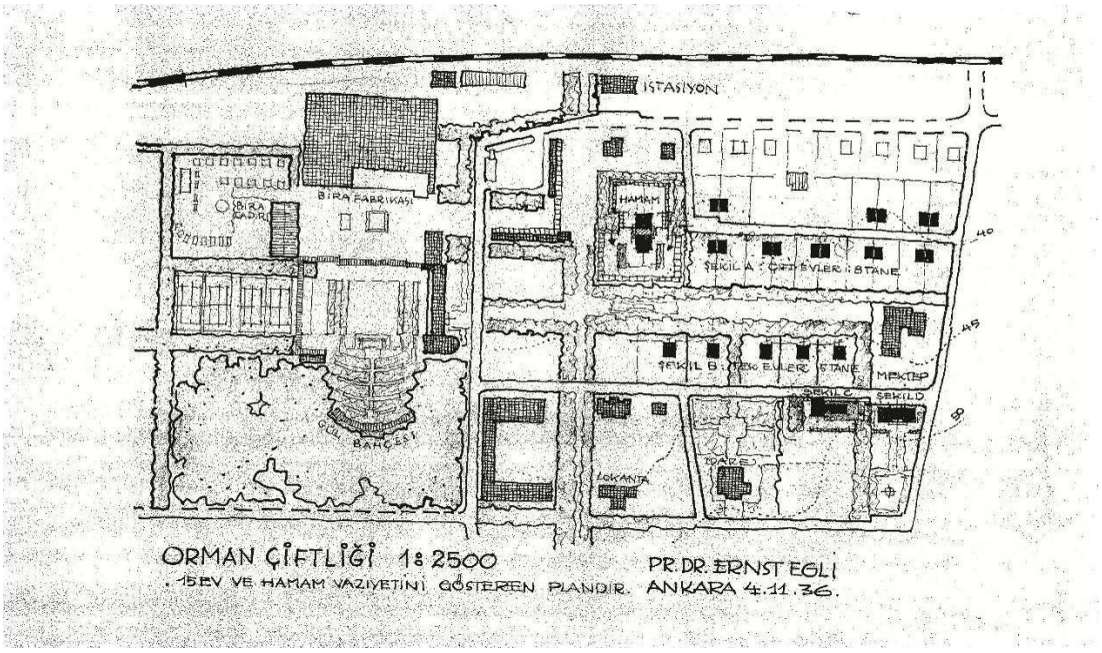


Figure 151 - Original Drawings (TTA archieve)

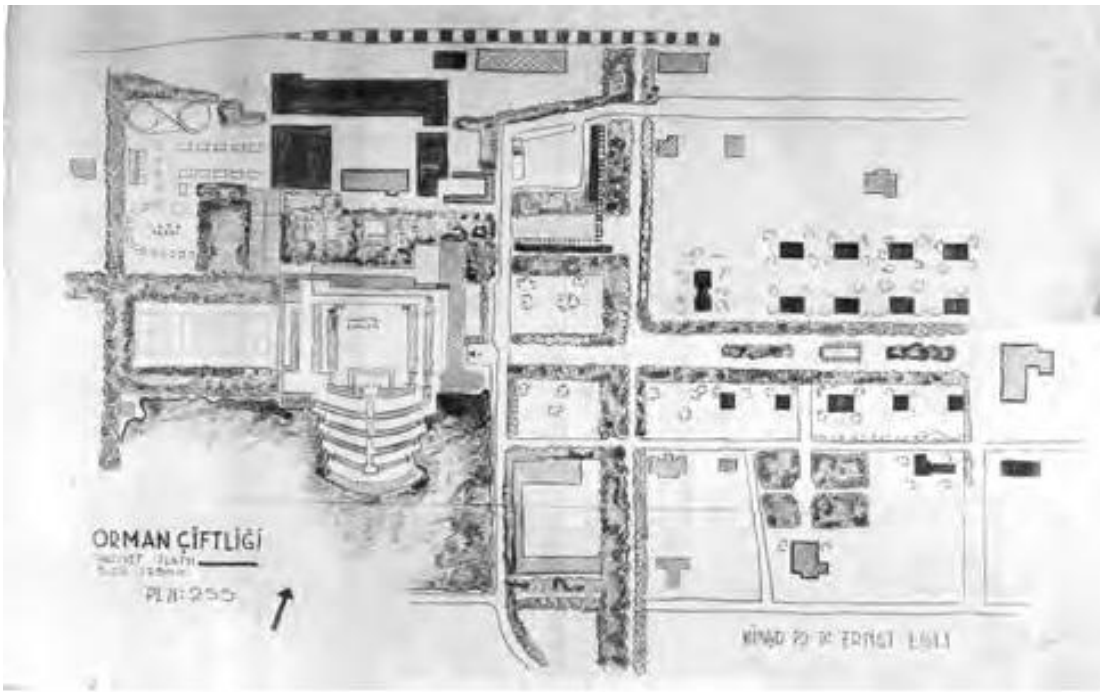


Figure 152 – Site Plan Drawing (ALPAGUT,2010:246)

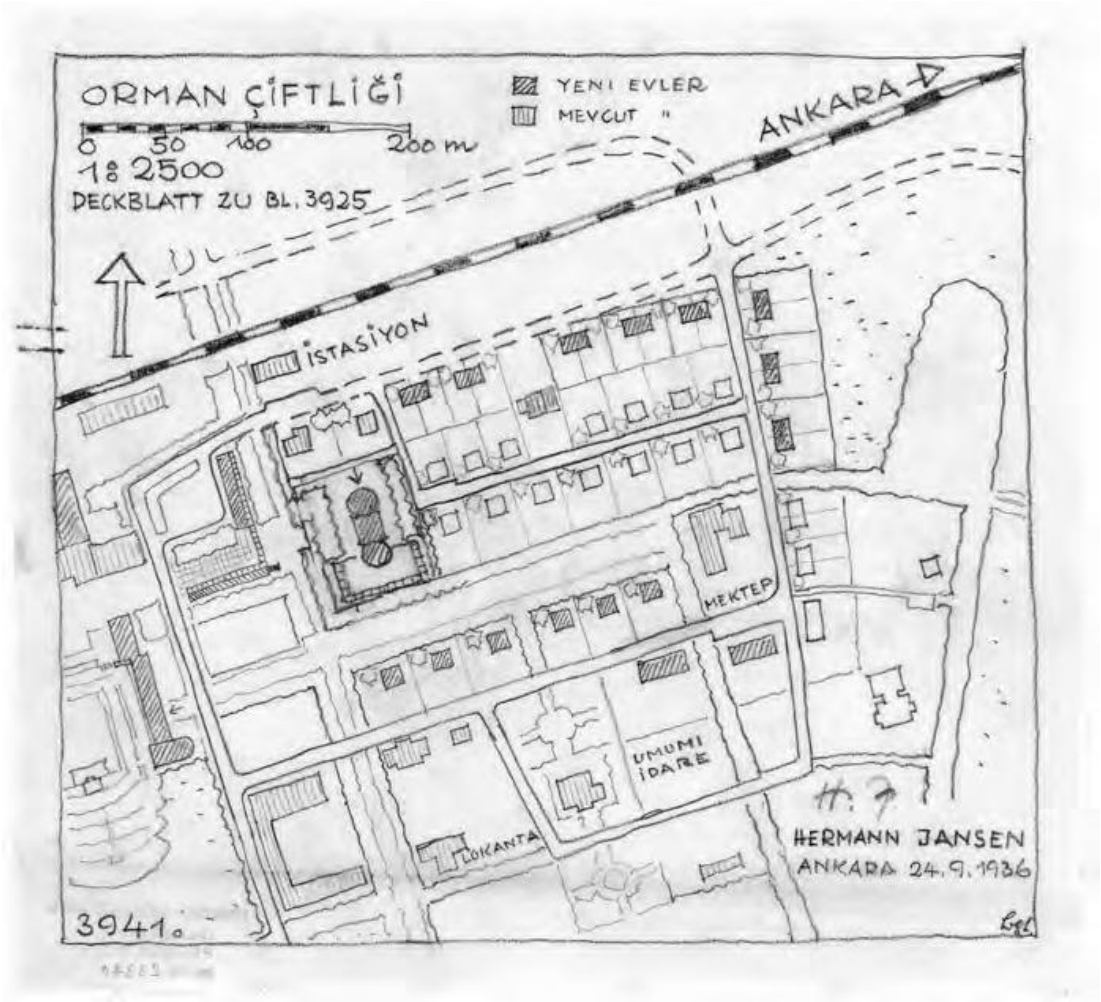


Figure 153 - Site Plan Drawing taken from the article (ALPAGUT,2010:245)

AVRUPA KONSEYİ
TÜRKİYE

DOĞAL VE KÜLTÜREL V LIKLARI KORUMA ENVANTERİ K.V.K.E.
ESKİ ESERLER VE MÜZELER GENEL MÜDÜRLÜĞÜ

ANIT

ENVANTER NO
HARİTA NO.

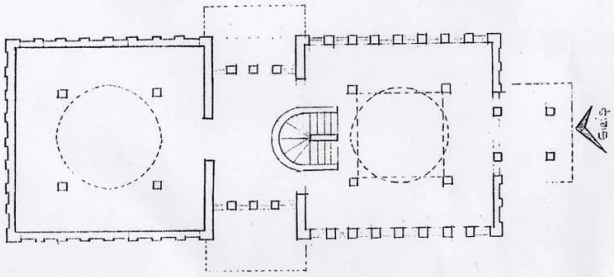
İLİ : ANKARA
İLÇESİ : YENİMAHALLE
MAHALLE KÖY VEYA MEVKİİ : ATATÜRK ORMAN ÇİFTLİĞİ
SOKAK VE KAPI NO :
KADASTRO PAFTA : ADA : PARSEL :
KORUMA DERECESİ : ANITSAL 1 2 3 ; ÇEVRESEL 1 X 3 ; Çevreye Aykırı

ADI : HAMAM
YAPTIRAN : K.ATATÜRK
YAPIM TARİHİ : 1925
YAPAN
KİTABE
MİMARİ ÇAĞI (ÜSLUP) : CUMHURİYET
VAKFİYE :

GENEL TANIM :
Hamam tuğla malzeme ile yapılmış, üzeri sıvalıdır. Hiç bir süsleme elemanı yoktur. 2katlı+ külhan, soğukluk-ılıklık ve sıcaklık bölümlerinden oluşur. 2 adet kubbesi vardır.

KORUMA DURUMU	TAŞIYICI YAPI	DIŞ YAPI	ÜST YAPI	İÇ YAPI	SÜSLEME ELEMANLARI	RUTUBET
A İYİ	A	A	A	A	A	A YOK
B ORTA	B	B	B	B	B	B İZİ VAR
C FENA	C	C	C	C	C	C ÖNEMLİ

VAZİYET PLANI



FOTOĞRAF

GÖZLEMLER :
Boş olan binanın iç ve dış onarıma ihtiyacı vardır.

BUGÜNKÜ SAHİBİ : TARIM ORMAN VE KÖYİŞLERİ BAKANLIĞI
BAKIMINDAN SORUMLU OLMASI GEREKEN KURULUŞ : ATATÜRK ORMAN ÇİFTLİĞİ MÜDÜRLÜĞÜ

YAPILAN ONARIMLAR :

AYRINTILI TANIM :
Hamam Atatürk Orman Çiftliğinde büyük bir bahçe içinde müstakil bir binadır. Binanın 4 yüzünde kolonlu çıkmalar göze çarpmaktadır. Beton sütunlu bir girişle soğukluk kısmına girilir, sonra sırasıyla ılıklık ve sıcaklık kısımları gelmektedir. Her iki bölümde devam eden bir asma kat mevcuttur ve üstleri basık iki kubbe ile örtülüdür. Ilıklık mekanından bir merdivenle aşağı külhan kısmına inilir.

TEKNİK BİLGİLER | SU | ELEKTRİK | ISITMA | Kanalizasyon

ORİJİNAL KULLANIMI : HAMAM
BUGÜNKÜ KULLANIMI : BOŞ
ÖNERİLEN KULLANIMI :

HAZIRLAYANLAR : / /19
MEZİYET UĞURLUOL
SÜHEYLA DEMİRCİ
CANAN SAKARYA

KONTROL EDEN / /19

G.E.E.A.Y.K. ONAYI NO. : / /19 / /19 / /19

REVİZYON / /19

G.E.E.A. Y.K. KARARLARI

YAYIN DİZİNİ :

EKLER :

RAPOR	
FOTOĞRAF	
RÖLÖVE PROJESİ	
RESTORASYON PROJESİ	
HARİTA	
KROKİ	
KİTABE	
VAKFİYE	

Figure 154- Inventory document taken from Ankara Kültür Ve Tabiat Varlıklarını Koruma Bölge Kurulu

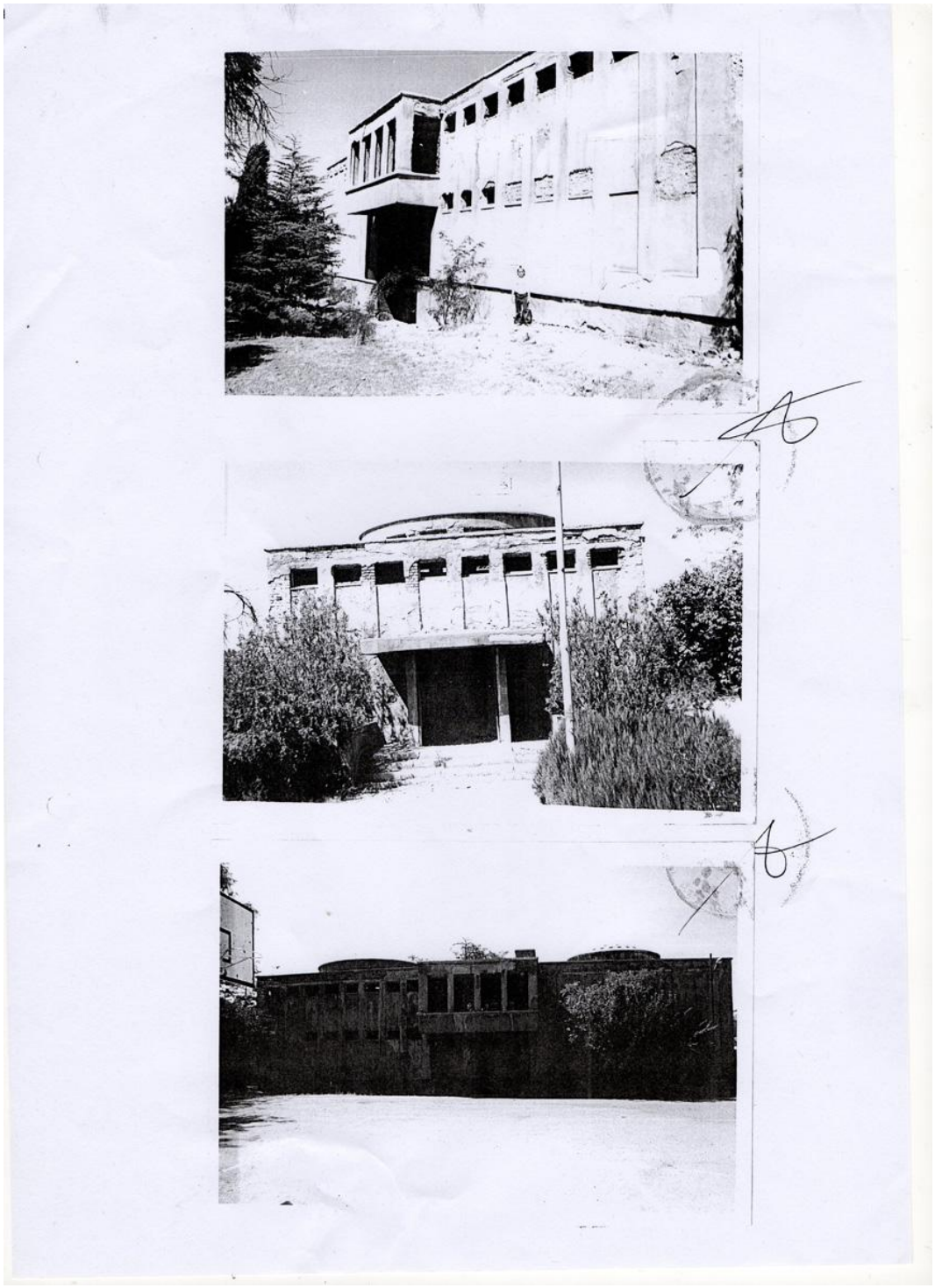


Figure 155 – 1988 dated photographs taken from Ankara Kültür Ve Tabiat Varlıklarını Koruma Bölge Kurulu

Figure 156 -1988 dated photographs taken from Ankara Kültür Ve Tabiat Varlıklarını Koruma Bölge Kurulu

Figure 157 - 1988 dated photographs taken from Ankara Kültür Ve Tabiat Varlıklarını Koruma Bölge Kurulu

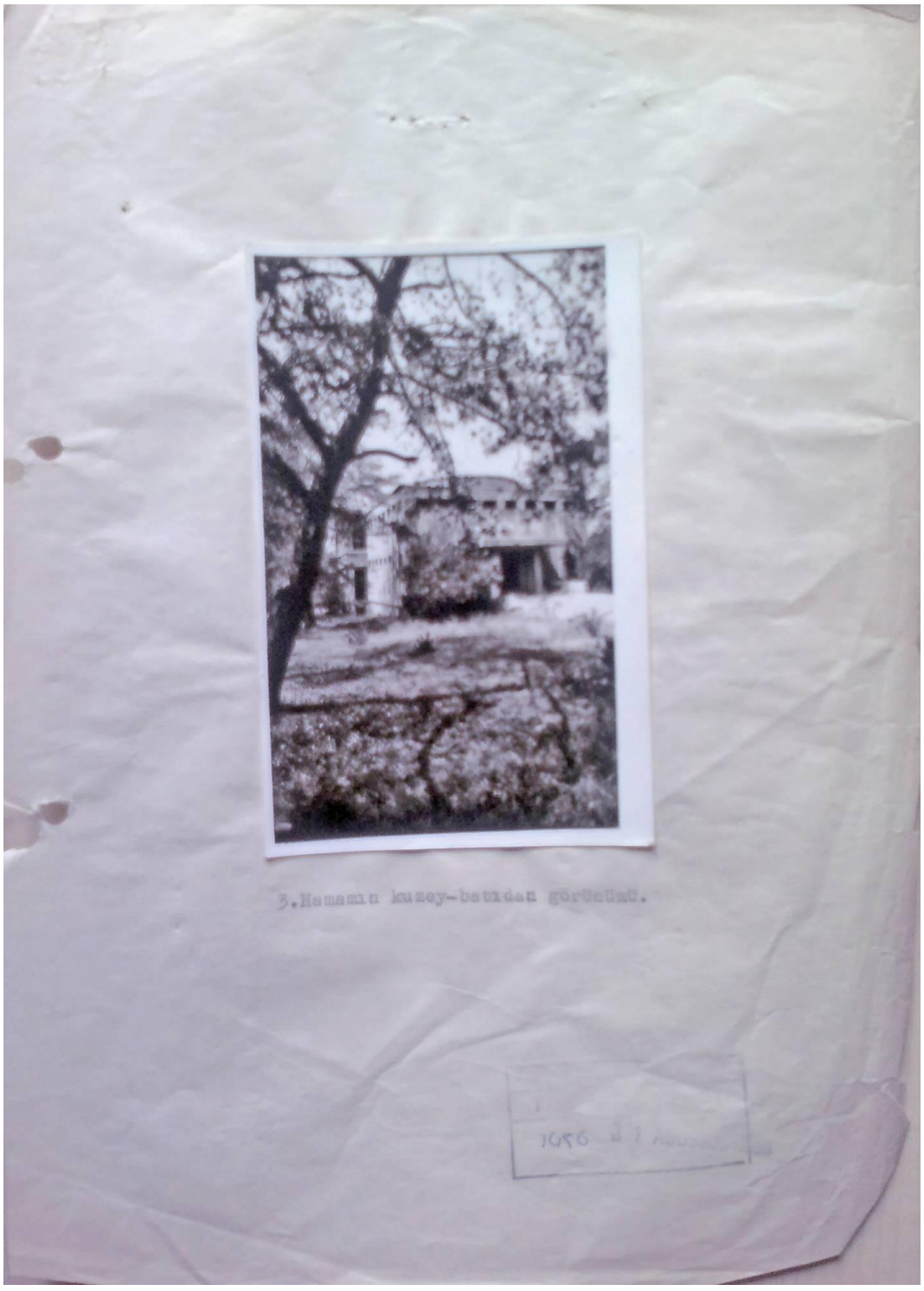


Figure 158 -1988 dated photographs taken from Ankara Kültür Ve Tabiat Varlıklarını Koruma Bölge Kurulu

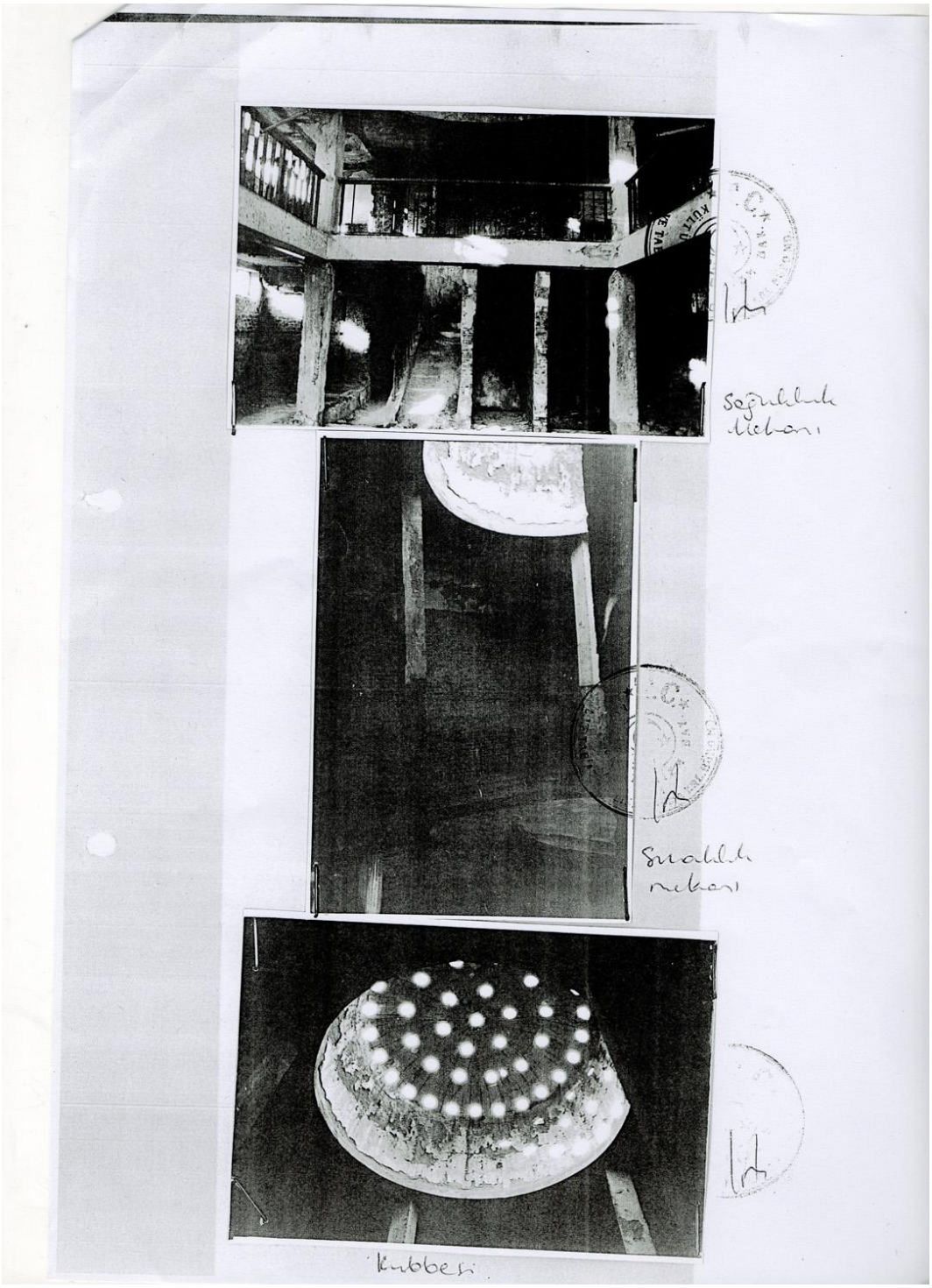


Figure 159 -1988 dated photographs taken from Ankara Kültür Ve Tabiat Varlıklarını Koruma Bölge Kurulu

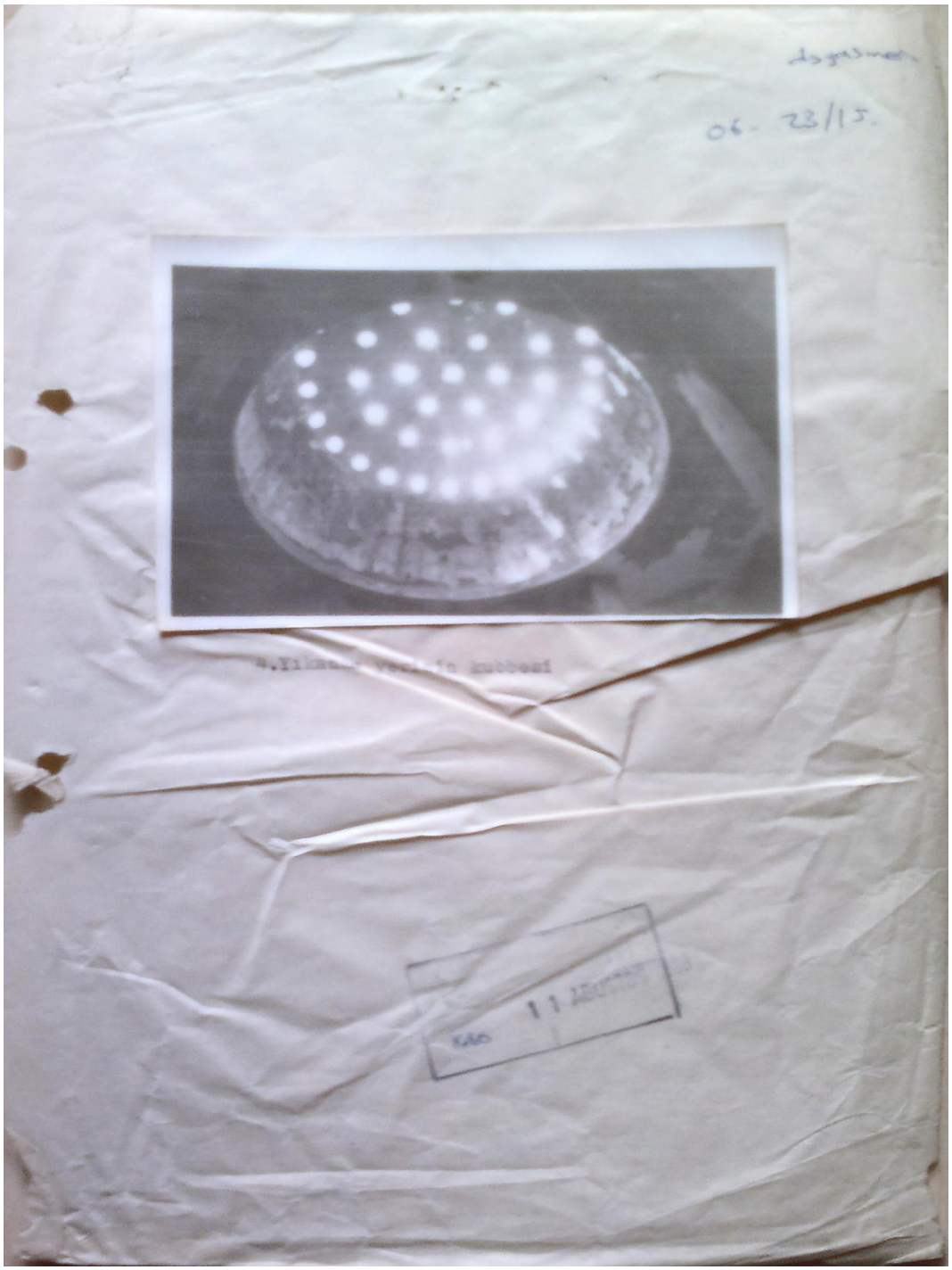
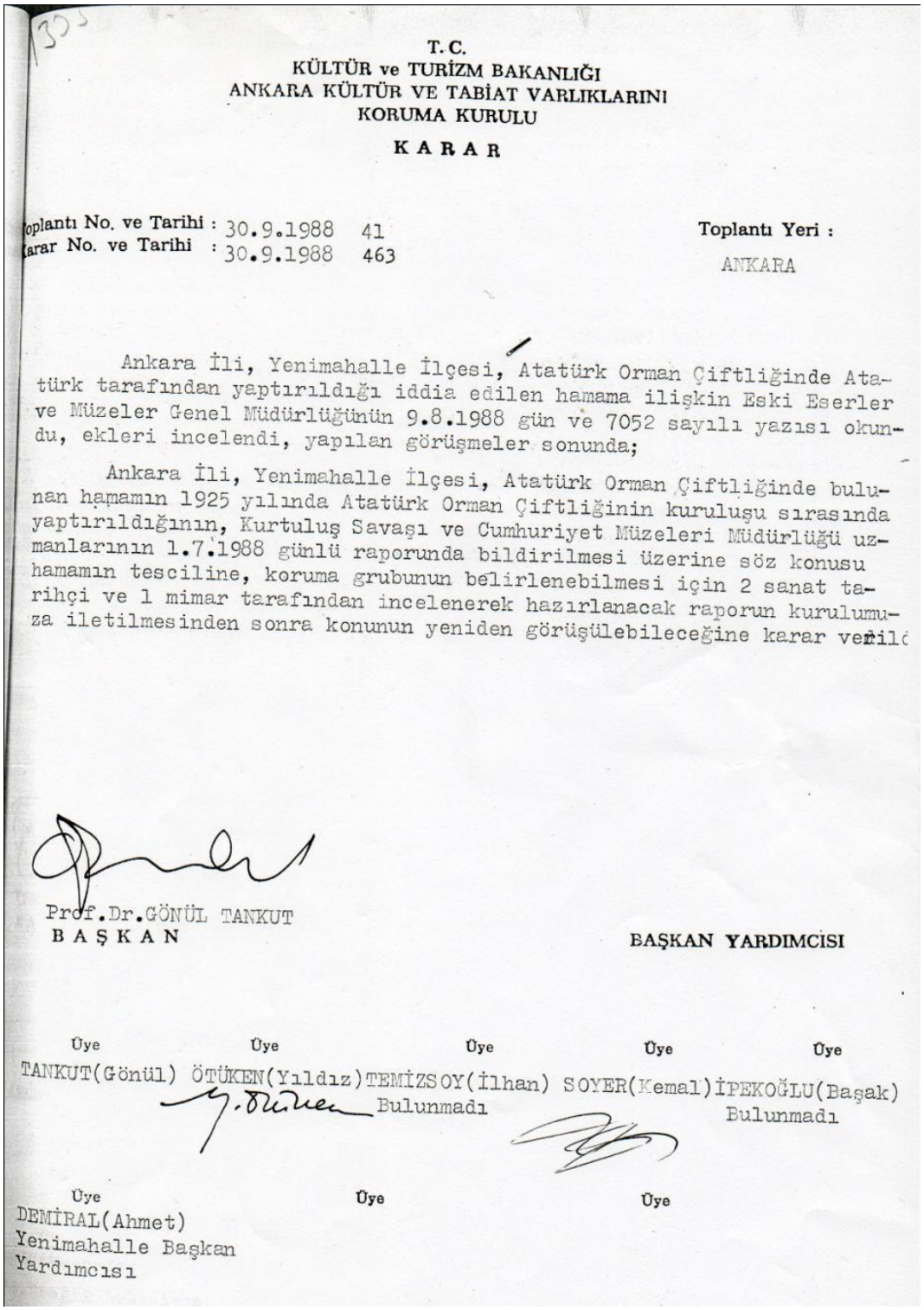


Figure 160 - 1988 dated photographs taken from Ankara Kültür Ve Tabiat Varlıklarını Koruma Bölge Kurulu



T.C.
KÜLTÜR ve TURİZM BAKANLIĞI
ANKARA KÜLTÜR VE TABİAT VARLIKLARINI
KORUMA KURULU

KARAR

Toplantı No. ve Tarihi : 30.9.1988 41
Karar No. ve Tarihi : 30.9.1988 463

Toplantı Yeri :
ANKARA

Ankara İli, Yenimahalle İlçesi, Atatürk Orman Çiftliğinde Atatürk tarafından yaptırıldığı iddia edilen hamama ilişkin Eski Eserler ve Müzeler Genel Müdürlüğünün 9.8.1988 gün ve 7052 sayılı yazısı okundu, ekleri incelendi, yapılan görüşmeler sonunda;

Ankara İli, Yenimahalle İlçesi, Atatürk Orman Çiftliğinde bulunan hamamın 1925 yılında Atatürk Orman Çiftliğinin kuruluşu sırasında yaptırıldığının, Kurtuluş Savaşı ve Cumhuriyet Müzeleri Müdürlüğü uzmanlarının 1.7.1988 günlü raporunda bildirilmesi üzerine söz konusu hamamın tesciline, koruma grubunun belirlenebilmesi için 2 sanat tarihçi ve 1 mimar tarafından incelenerek hazırlanacak raporun kurulumuza iletilmesinden sonra konunun yeniden görüşülebileceğine karar verild

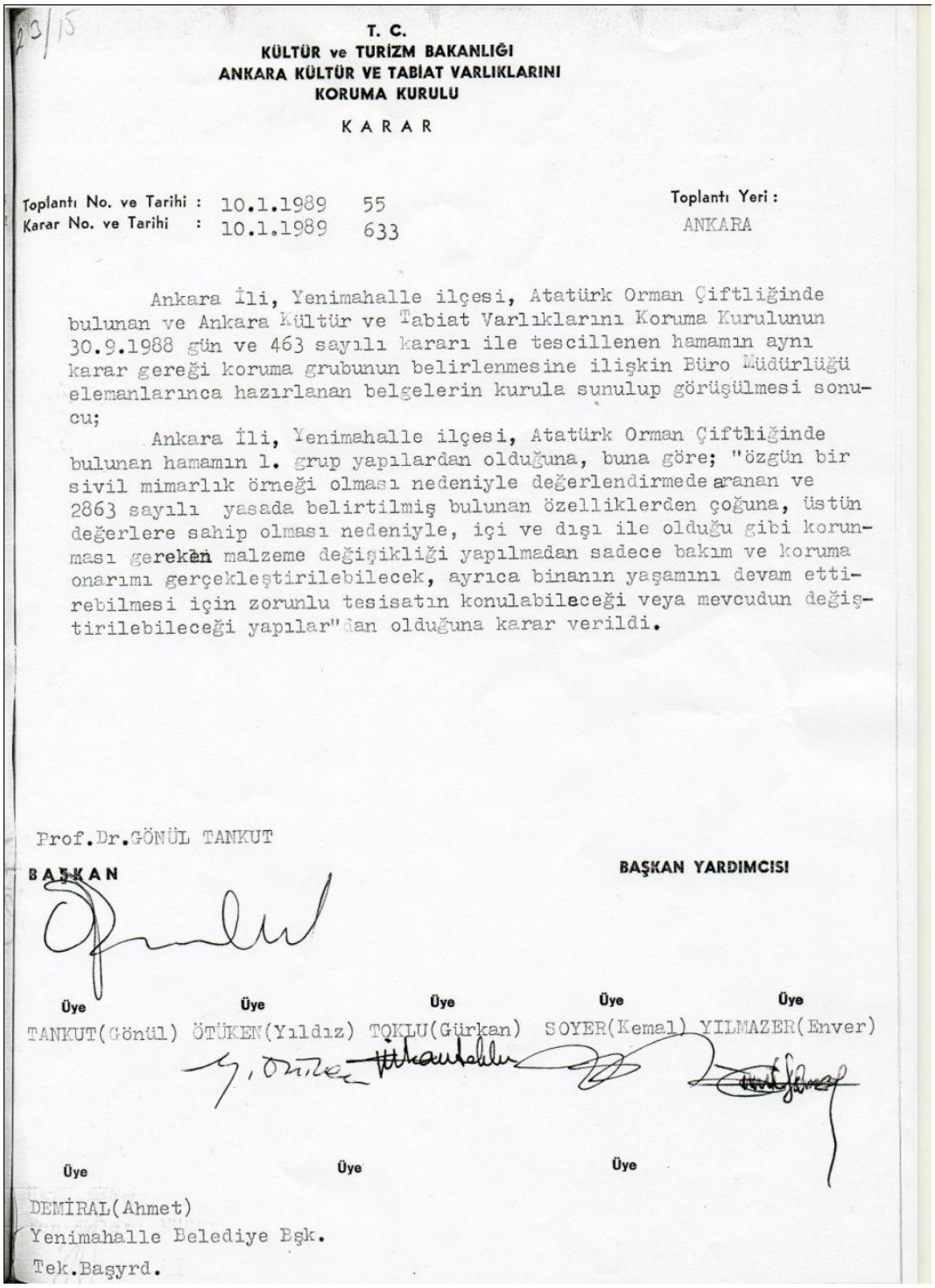
Prof.Dr.GÖNÜL TANKUT
BAŞKAN

BAŞKAN YARDIMCISI

Üye TANKUT(Gönül)
Üye ÖTÜKEN(Yıldız)
Üye TEMİZSOY(İlhan) Bulunmadı
Üye SOYER(Kemal)
Üye İPEKOĞLU(Başak) Bulunmadı

Üye DEMİRAL(Ahmet)
Yenimahalle Başkan Yardımcısı
Üye
Üye

Figure 161 - Registration Desicion
(Ankara Kültür Ve Tabiat Varlıklarını Koruma Bölge Kurulu)



T. C.
KÜLTÜR ve TURİZM BAKANLIĞI
ANKARA KÜLTÜR VE TABİAT VARLIKLARINI
KORUMA KURULU

KARAR

Toplantı No. ve Tarihi : 10.1.1989 55
Karar No. ve Tarihi : 10.1.1989 633

Toplantı Yeri :
ANKARA

Ankara İli, Yenimahalle ilçesi, Atatürk Orman Çiftliğinde bulunan ve Ankara Kültür ve Tabiat Varlıklarını Koruma Kurulunun 30.9.1988 gün ve 463 sayılı kararı ile tescillenen hamamın aynı karar gereği koruma grubunun belirlenmesine ilişkin Büro Müdürlüğü elemanlarınca hazırlanan belgelerin kurula sunulup görüşülmesi sonucu;

Ankara İli, Yenimahalle ilçesi, Atatürk Orman Çiftliğinde bulunan hamamın 1. grup yapılardan olduğuna, buna göre; "özgün bir sivil mimarlık örneği olması nedeniyle değerlendirmede aranan ve 2863 sayılı yasada belirtilmiş bulunan özelliklerden çoğuna, üstün değerlere sahip olması nedeniyle, içi ve dışı ile olduğu gibi korunması gereken malzeme değişikliği yapılmadan sadece bakım ve koruma onarımı gerçekleştirilebilecek, ayrıca binanın yaşamını devam ettirebilmesi için zorunlu tesisatın konulabileceği veya mevcudun değiştirilebileceği yapılar"dan olduğuna karar verildi.

Prof.Dr.GÖNÜL TANKUT
BAŞKAN

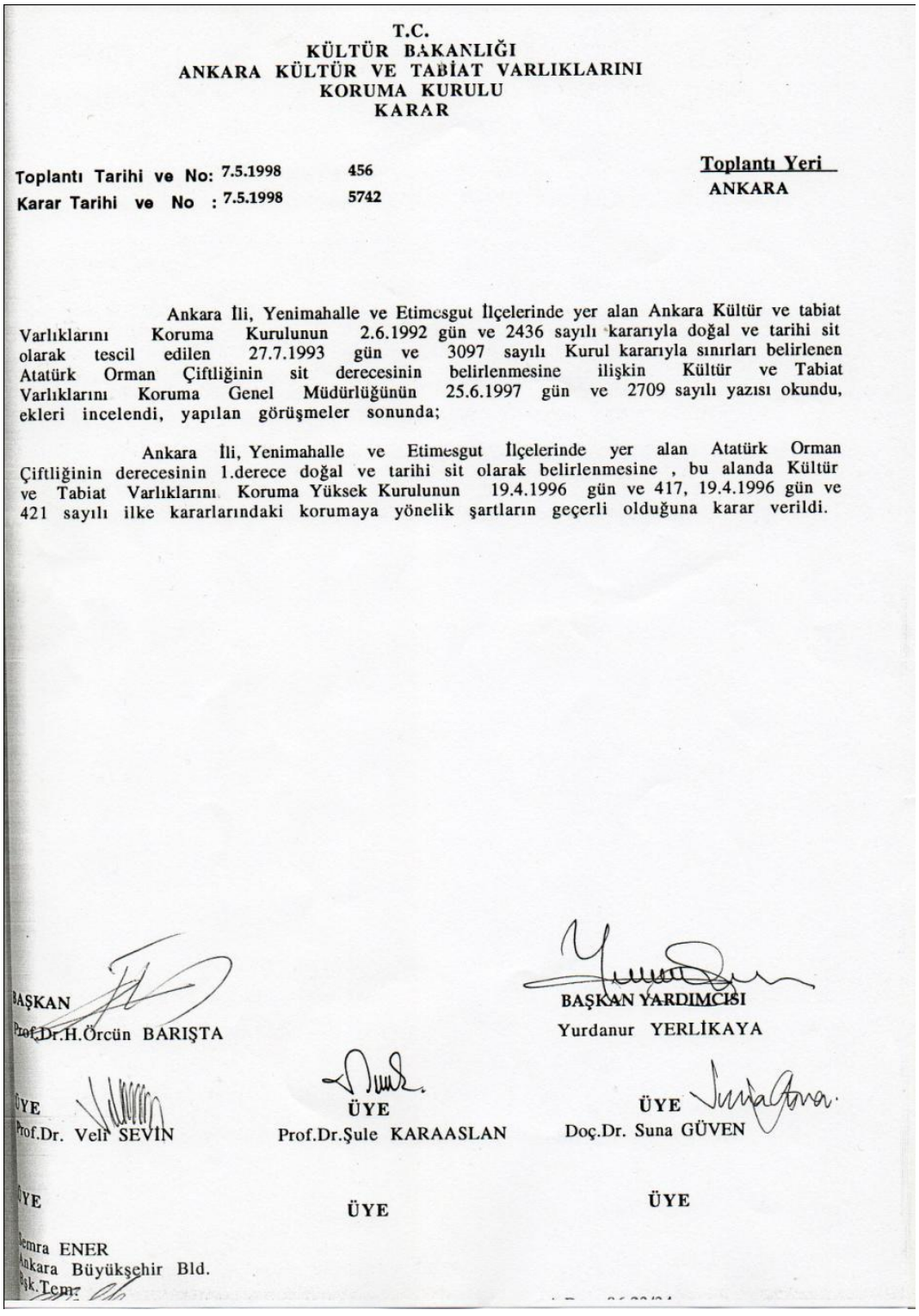
BAŞKAN YARDIMCISI

Üye TANKUT(Gönül)
Üye ÖTÜKEN(Yıldız)
Üye TOKLU(Gürkan)
Üye SOYER(Kemal)
Üye YILMAZER(Enver)

Üye DEMİRAL(Ahmet)
Yenimahalle Belediye Bşk.
Tek.Başyrd.

Üye
Üye

Figure 162 - Registration Desicion
(Ankara Kültür Ve Tabiat Varlıklarını Koruma Bölge Kurulu)



T.C.
KÜLTÜR BAKANLIĞI
ANKARA KÜLTÜR VE TABİAT VARLIKLARINI
KORUMA KURULU
KARAR

Toplantı Tarihi ve No: 7.5.1998 456
Karar Tarihi ve No : 7.5.1998 5742

Toplantı Yeri
ANKARA

Ankara İli, Yenimahalle ve Etimesgut İlçelerinde yer alan Ankara Kültür ve tabiat Varlıklarını Koruma Kurulunun 2.6.1992 gün ve 2436 sayılı kararıyla doğal ve tarihi sit olarak tescil edilen 27.7.1993 gün ve 3097 sayılı Kurul kararıyla sınırları belirlenen Atatürk Orman Çiftliğinin sit derecesinin belirlenmesine ilişkin Kültür ve Tabiat Varlıklarını Koruma Genel Müdürlüğünün 25.6.1997 gün ve 2709 sayılı yazısı okundu, ekleri incelendi, yapılan görüşmeler sonunda;

Ankara İli, Yenimahalle ve Etimesgut İlçelerinde yer alan Atatürk Orman Çiftliğinin derecesinin 1.derece doğal ve tarihi sit olarak belirlenmesine , bu alanda Kültür ve Tabiat Varlıklarını Koruma Yüksek Kurulunun 19.4.1996 gün ve 417, 19.4.1996 gün ve 421 sayılı ilke kararlarındaki korumaya yönelik şartların geçerli olduğuna karar verildi.

BAŞKAN
Prof.Dr.H.Örcün BARIŞTA

BAŞKAN YARDIMCISI
Yurdanur YERLİKAYA

ÜYE
Prof.Dr. Veli SEVİN

ÜYE
Prof.Dr.Şule KARAASLAN

ÜYE
Doç.Dr. Suna GÜVEN

ÜYE

ÜYE

ÜYE

Demra ENER
Ankara Büyükşehir Bld.
Şk.Tem.

Figure 163 – Natural and Hıstorical Site District
(Ankara Kültür Ve Tabiat Varlıklarını Koruma Bölge Kurulu)

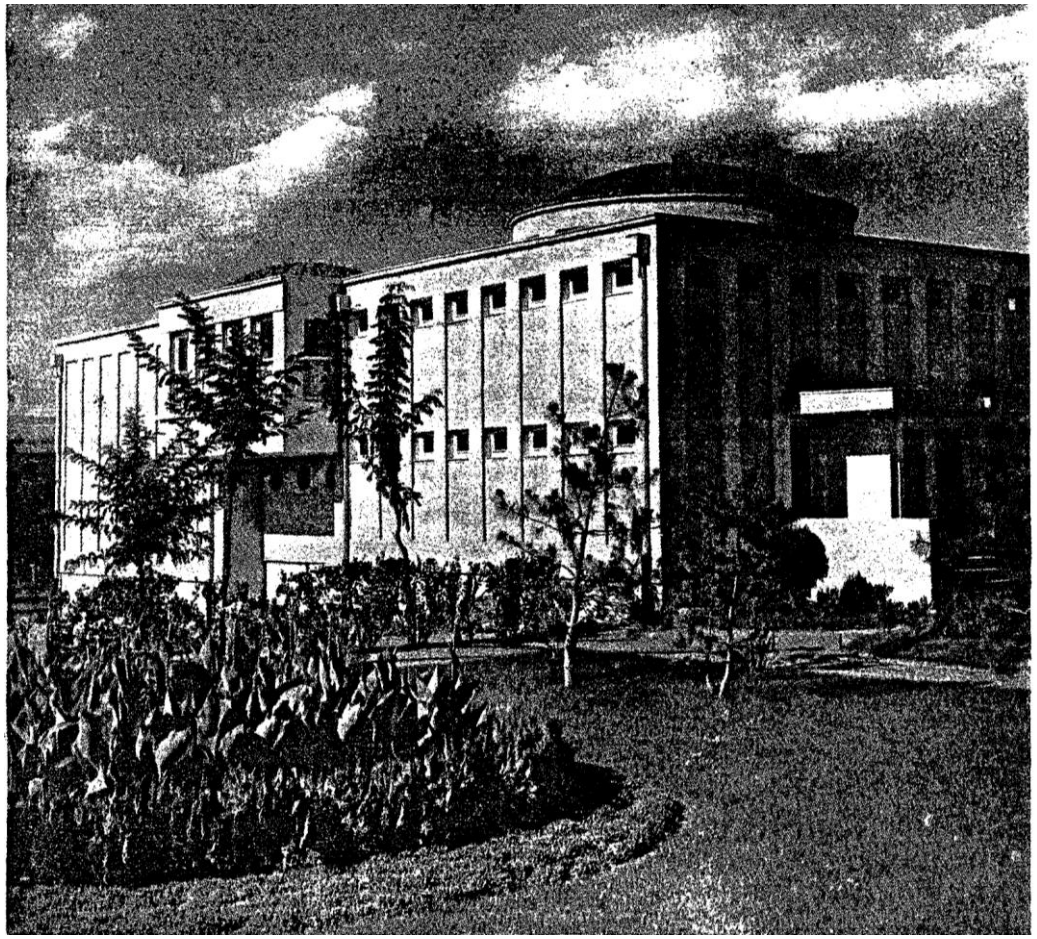


Figure 164 – AOÇ Hamam; (Anonim, 1939)

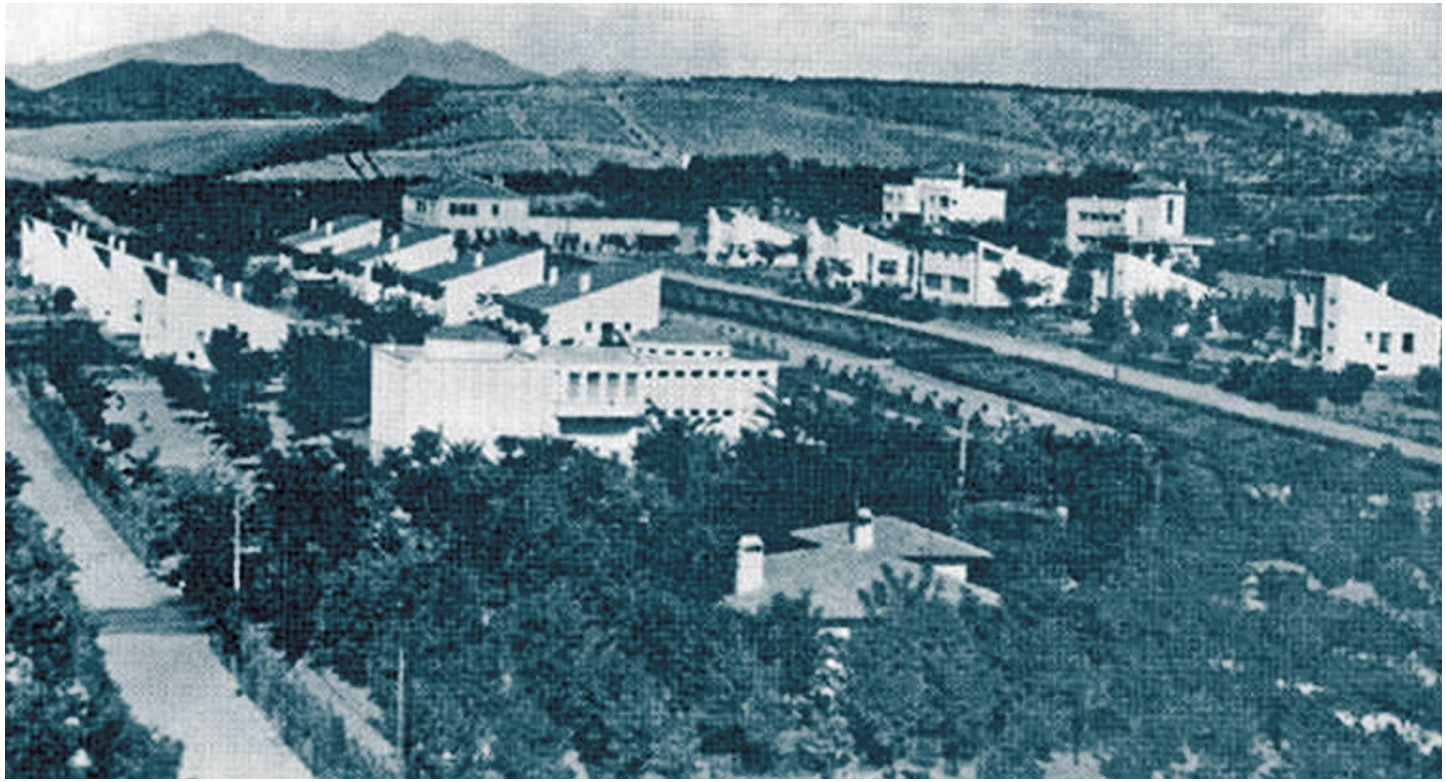
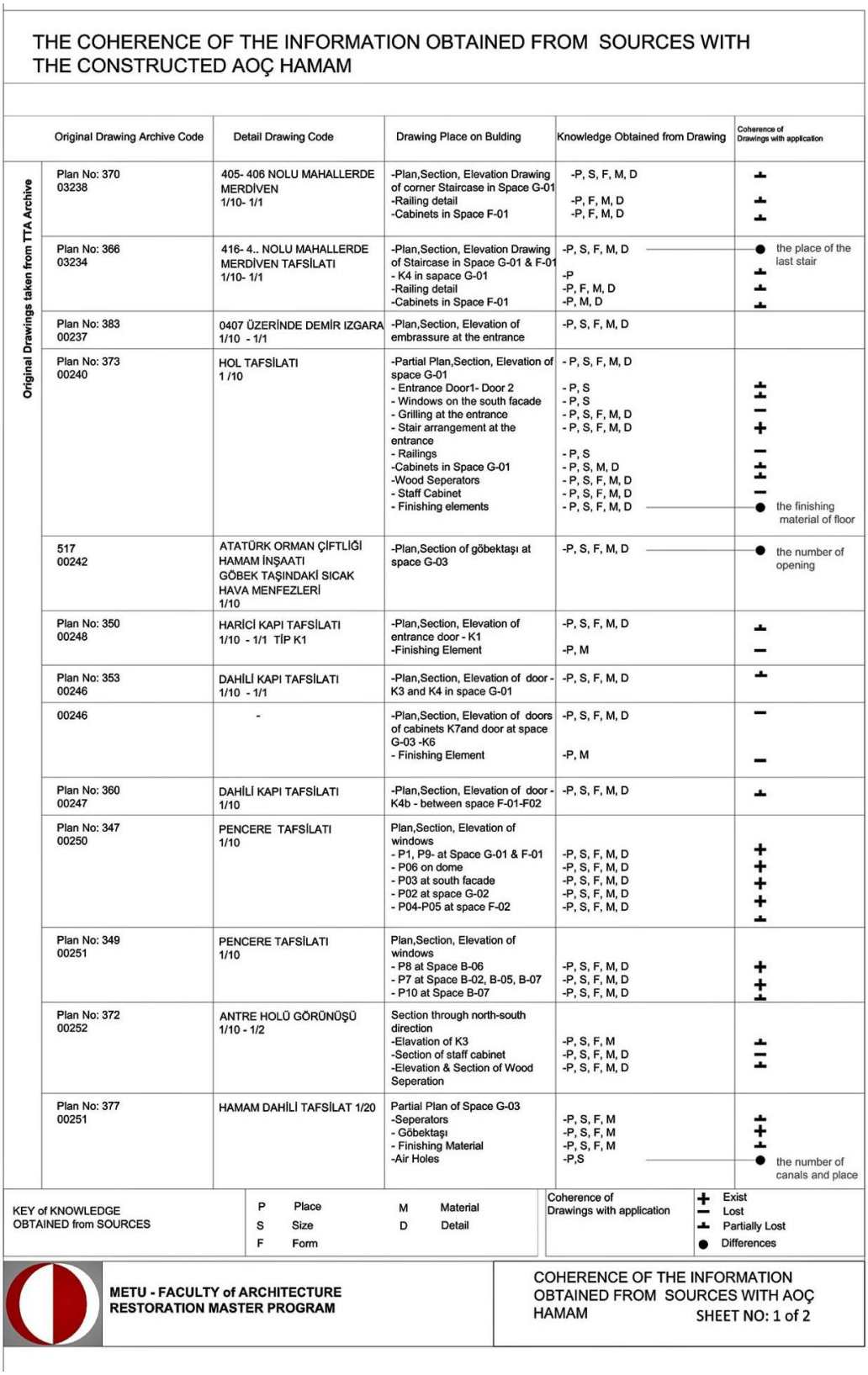


Figure 165 - AOÇ Hamam; (Anonim, 1939)



THE COHERENCE OF THE INFORMATION OBTAINED FROM SOURCES WITH THE CONSTRUCTED AOÇ HAMAM

	Original Drawing Archive Code	Detail Drawing Code	Drawing Place on Bulding	Knowledge Obtained from Drawing	Coherence of Drawings with application
Original Drawings taken from TTA Archive	Plan No: 370 03238	405- 406 NOLU MAHALLERDE MERDİVEN 1/10- 1/1	-Plan,Section, Elevation Drawing of corner Staircase in Space G-01 -Railing detail -Cabinets in Space F-01	-P, S, F, M, D -P, F, M, D -P, F, M, D	± ± ±
	Plan No: 366 03234	416- 4.. NOLU MAHALLERDE MERDİVEN TAFSİLATI 1/10- 1/1	-Plan,Section, Elevation Drawing of Staircase in Space G-01 & F-01 - K4 in sapace G-01 -Railing detail -Cabinets in Space F-01	-P, S, F, M, D -P -P, F, M, D -P, M, D	● the place of the last stair ± ± ±
	Plan No: 383 00237	0407 ÜZERİNDE DEMİR IZGARA 1/10 - 1/1	-Plan,Section, Elevation of embrassure at the entrance	-P, S, F, M, D	
	Plan No: 373 00240	HOL TAFSİLATI 1 /10	-Partial Plan,Section, Elevation of space G-01 - Entrance Door1- Door 2 - Windows on the south facade - Grilling at the entrance - Stair arrangement at the entrance - Railings -Cabinets in Space G-01 -Wood Seperators - Staff Cabinet - Finishing elements	- P, S, F, M, D - P, S - P, S - P, S, F, M, D - P, S, F, M, D - P, S - P, S, M, D - P, S, F, M, D - P, S, F, M, D - P, S, F, M, D	± ± − + − ± ± − ● the finishing material of floor
	517 00242	ATATÜRK ORMAN ÇİFTLİĞİ HAMAM İNŞAATI GÖBEK TAŞINDAKİ SICAK HAVA MENFEZLERİ 1/10	-Plan,Section of göbektaşı at space G-03	-P, S, F, M, D	● the number of opening
	Plan No: 350 00248	HARİCİ KAPI TAFSİLATI 1/10 - 1/1 TİP K1	-Plan,Section, Elevation of entrance door - K1 -Finishing Element	-P, S, F, M, D -P, M	± −
	Plan No: 353 00246	DAHİLİ KAPI TAFSİLATI 1/10 - 1/1	-Plan,Section, Elevation of door - K3 and K4 in space G-01	-P, S, F, M, D	±
	00246	-	-Plan,Section, Elevation of doors of cabinets K7and door at space G-03 -K6 - Finishing Element	-P, S, F, M, D -P, M	− −
	Plan No: 360 00247	DAHİLİ KAPI TAFSİLATI 1/10	-Plan,Section, Elevation of door - K4b - between space F-01-F02	-P, S, F, M, D	±
	Plan No: 347 00250	PENCERE TAFSİLATI 1/10	Plan,Section, Elevation of windows - P1, P9- at Space G-01 & F-01 - P06 on dome - P03 at south facade - P02 at space G-02 - P04-P05 at space F-02	-P, S, F, M, D -P, S, F, M, D -P, S, F, M, D -P, S, F, M, D -P, S, F, M, D	+ + + + ±
	Plan No: 349 00251	PENCERE TAFSİLATI 1/10	Plan,Section, Elevation of windows - P8 at Space B-06 - P7 at Space B-02, B-05, B-07 - P10 at Space B-07	-P, S, F, M, D -P, S, F, M, D -P, S, F, M, D	+ + ±
	Plan No: 372 00252	ANTRE HOLÜ GÖRÜNÜŞÜ 1/10 - 1/2	Section through north-south direction -Elavation of K3 -Section of staff cabinet -Elevation & Section of Wood Seperation	-P, S, F, M -P, S, F, M, D -P, S, F, M, D	± − ±
	Plan No: 377 00251	HAMAM DAHİLİ TAFSİLAT 1/20	Partial Plan of Space G-03 -Seperators - Göbektaşı - Finishing Material -Air Holes	-P, S, F, M -P, S, F, M -P, S, F, M -P,S	± + ± ● the number of canals and place

KEY of KNOWLEDGE OBTAINED from SOURCES

P Place
S Size
F Form
M Material
D Detail

Coherence of Drawings with application

+ Exist
− Lost
± Partially Lost
● Differences

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COHERENCE OF THE INFORMATION OBTAINED FROM SOURCES WITH AOÇ HAMAM
SHEET NO: 1 of 2

Figure 166- Analysis of the coherence of sources and constructed building

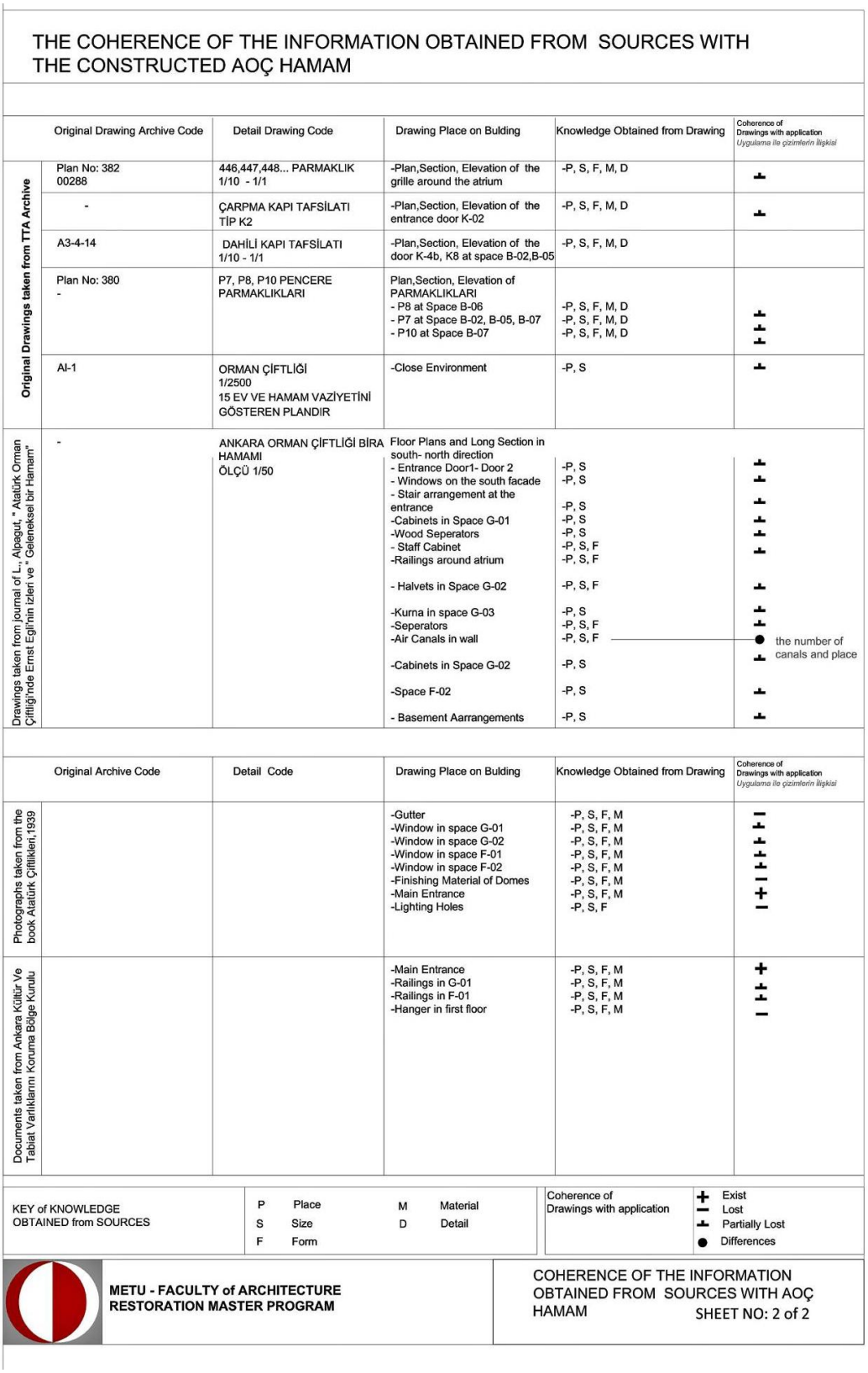

Figure 167 – Analysis of the coherence of sources and constructed building

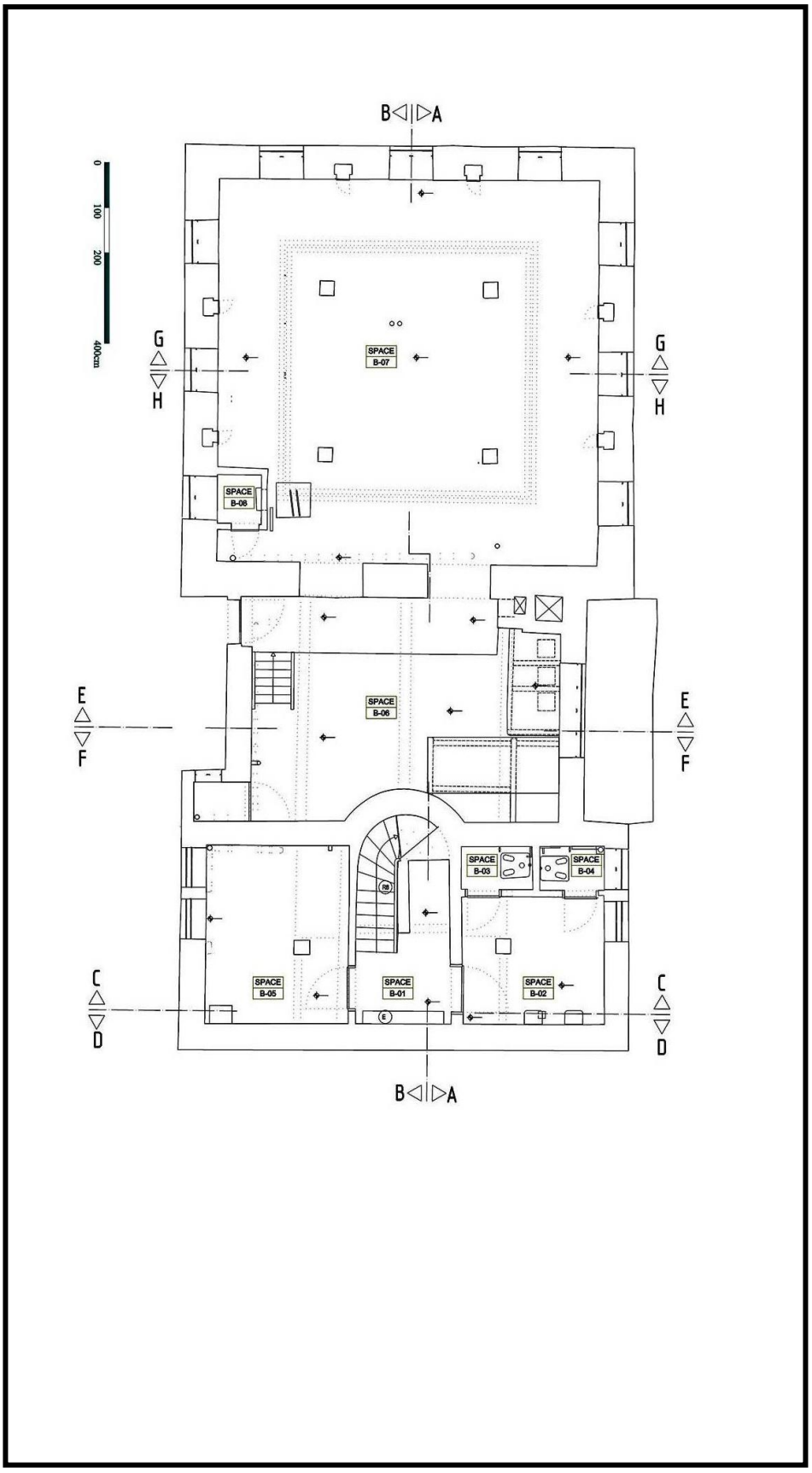

Figure 168 - Restitution Proposal for Basement Floor

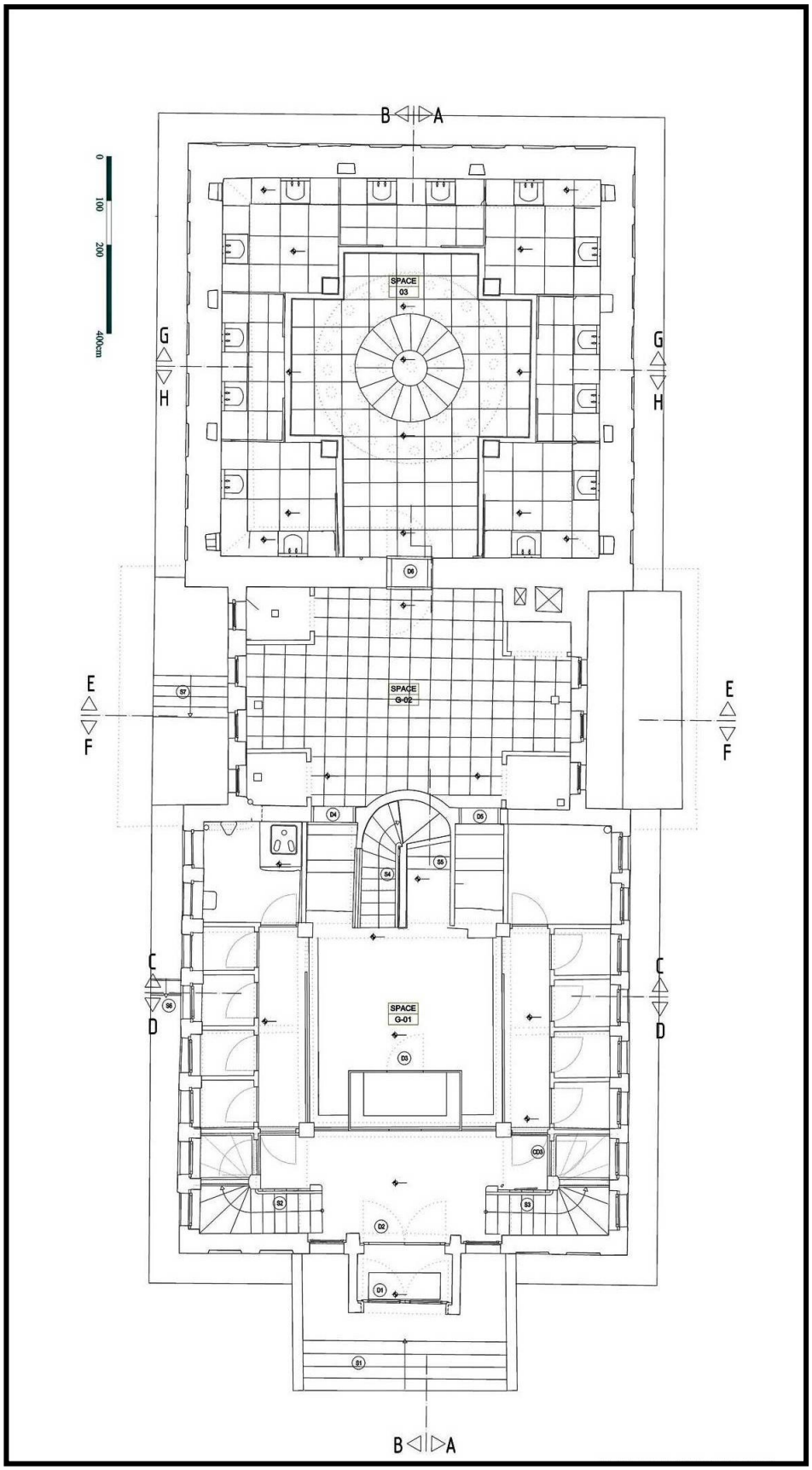

Figure 169 - Restitution Proposal for Ground Floor

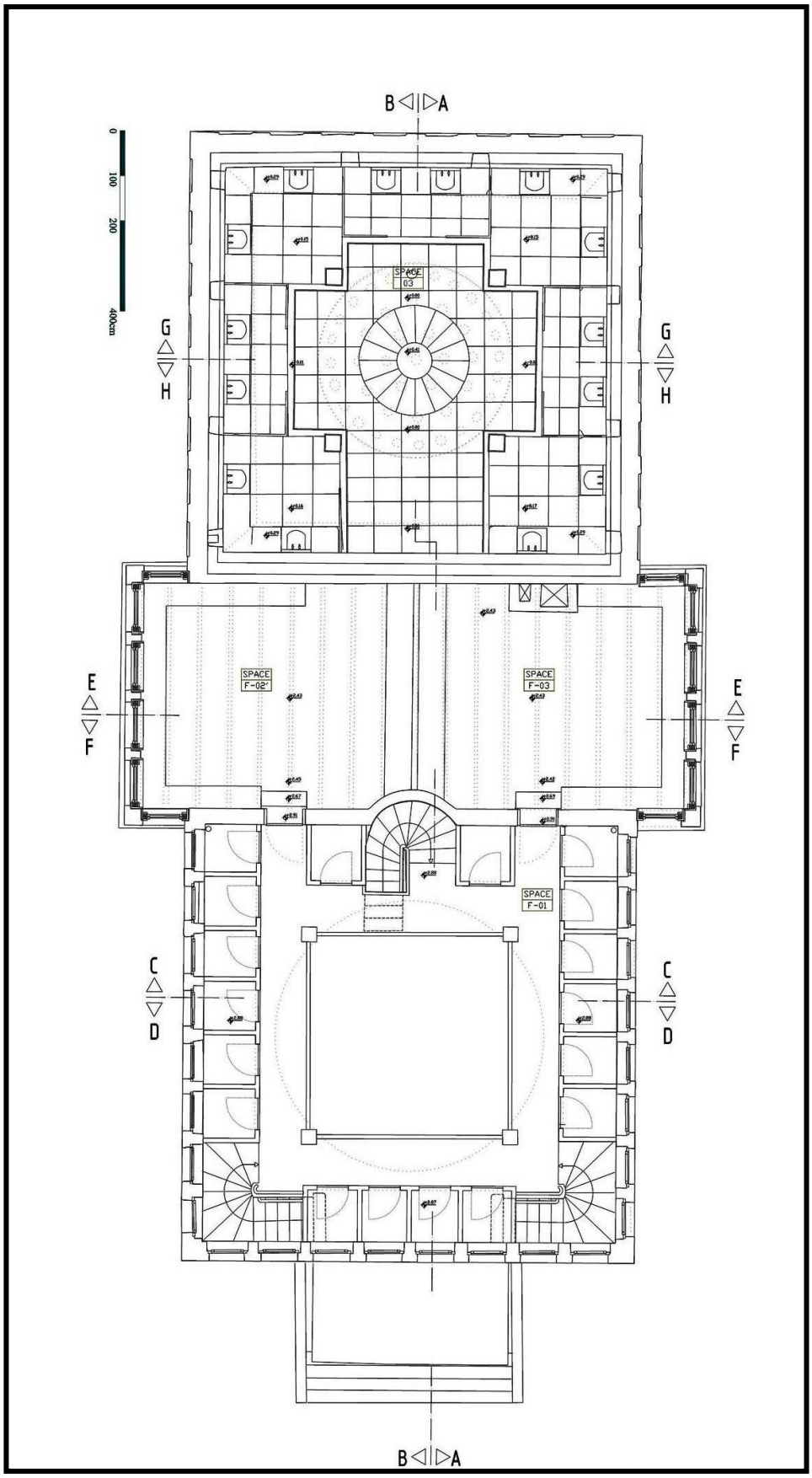

Figure 170 - Restitution Proposal for First Floor

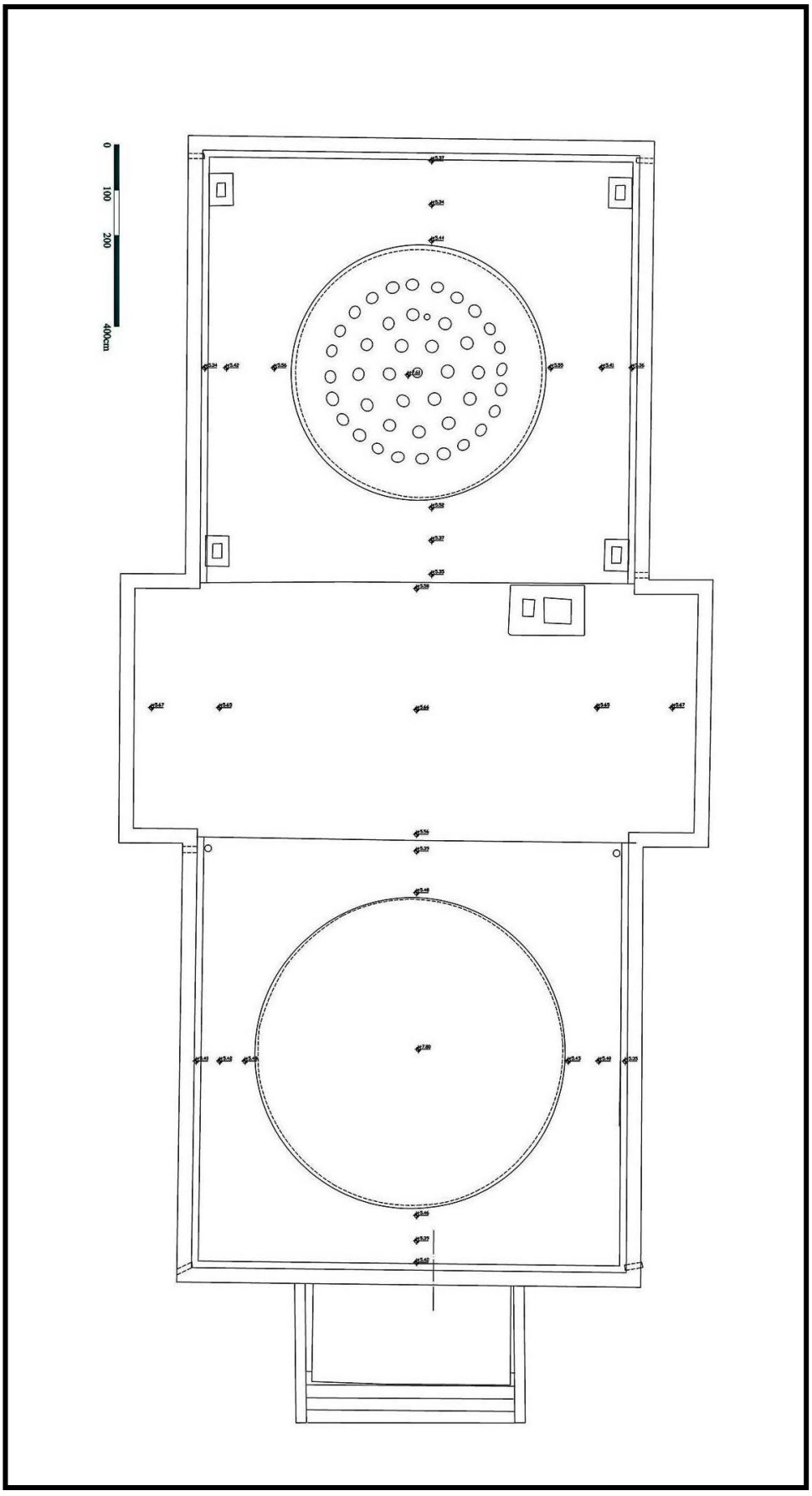

Figure 171 - Restitution Proposal for Facades

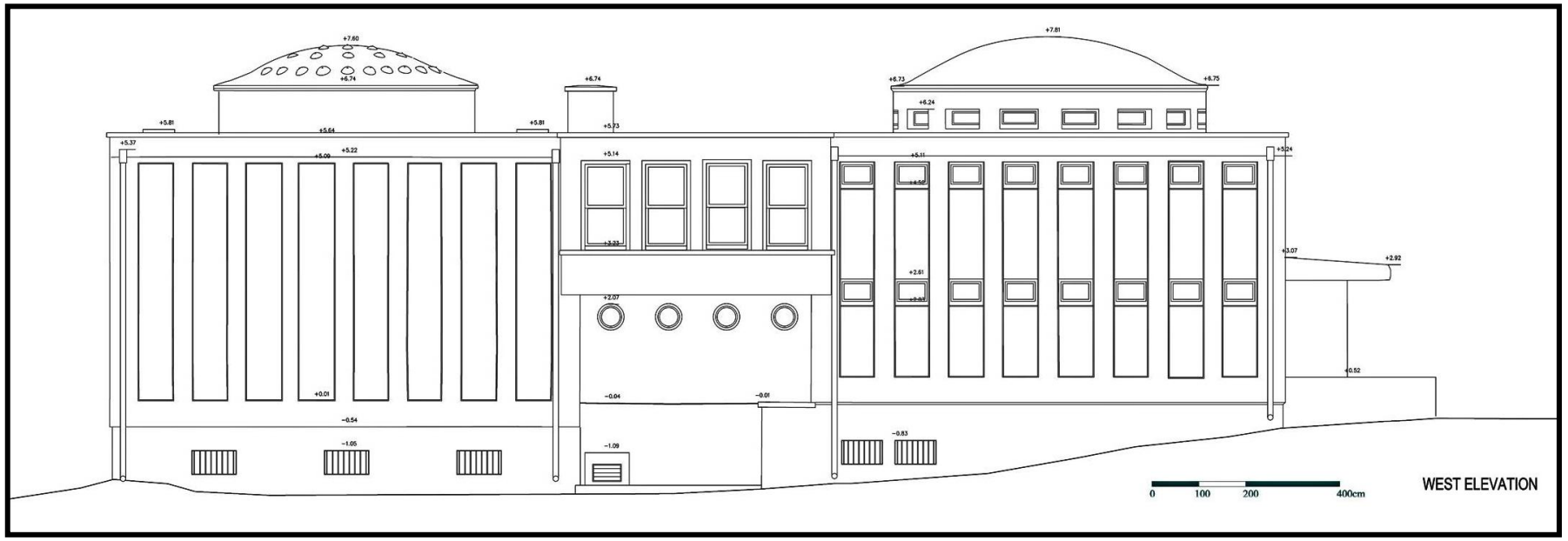

Figure 172 - Restitution Proposal for Facade-1

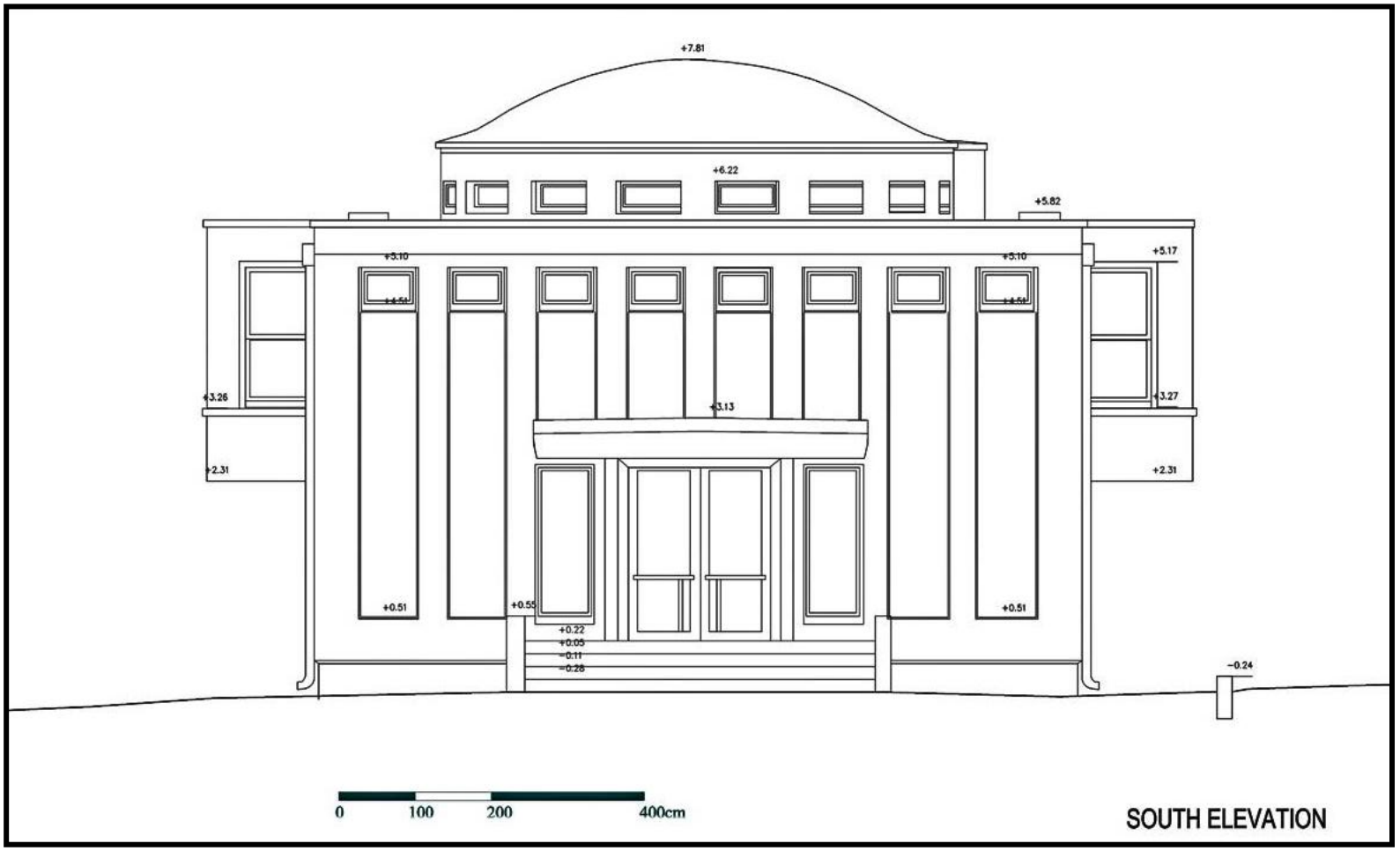

Figure 173 - Restitution Proposal for Facade-2

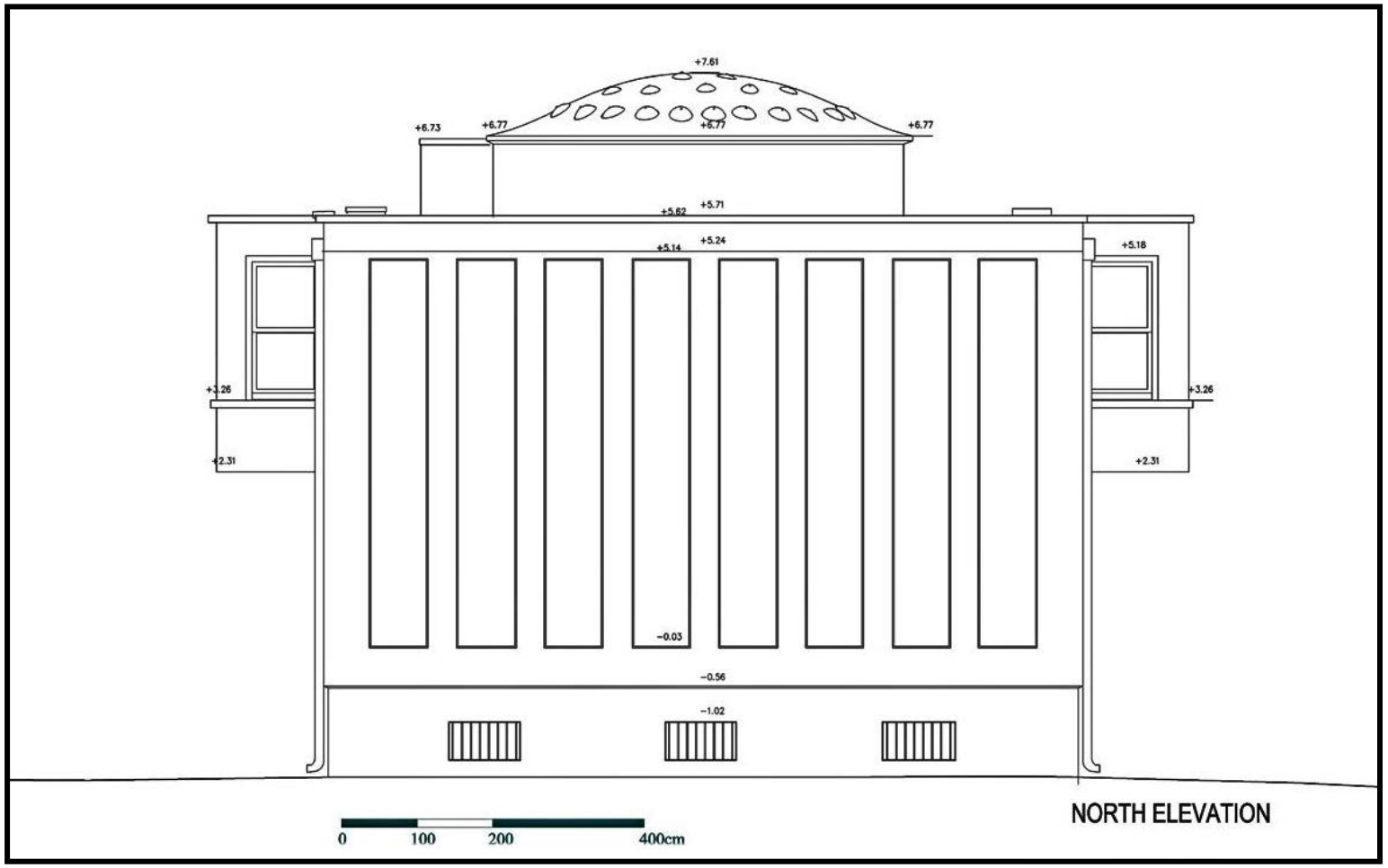

Figure 174 - Restitution Proposal for Facade-3

Figure 175 - Restitution Proposal for Section A A

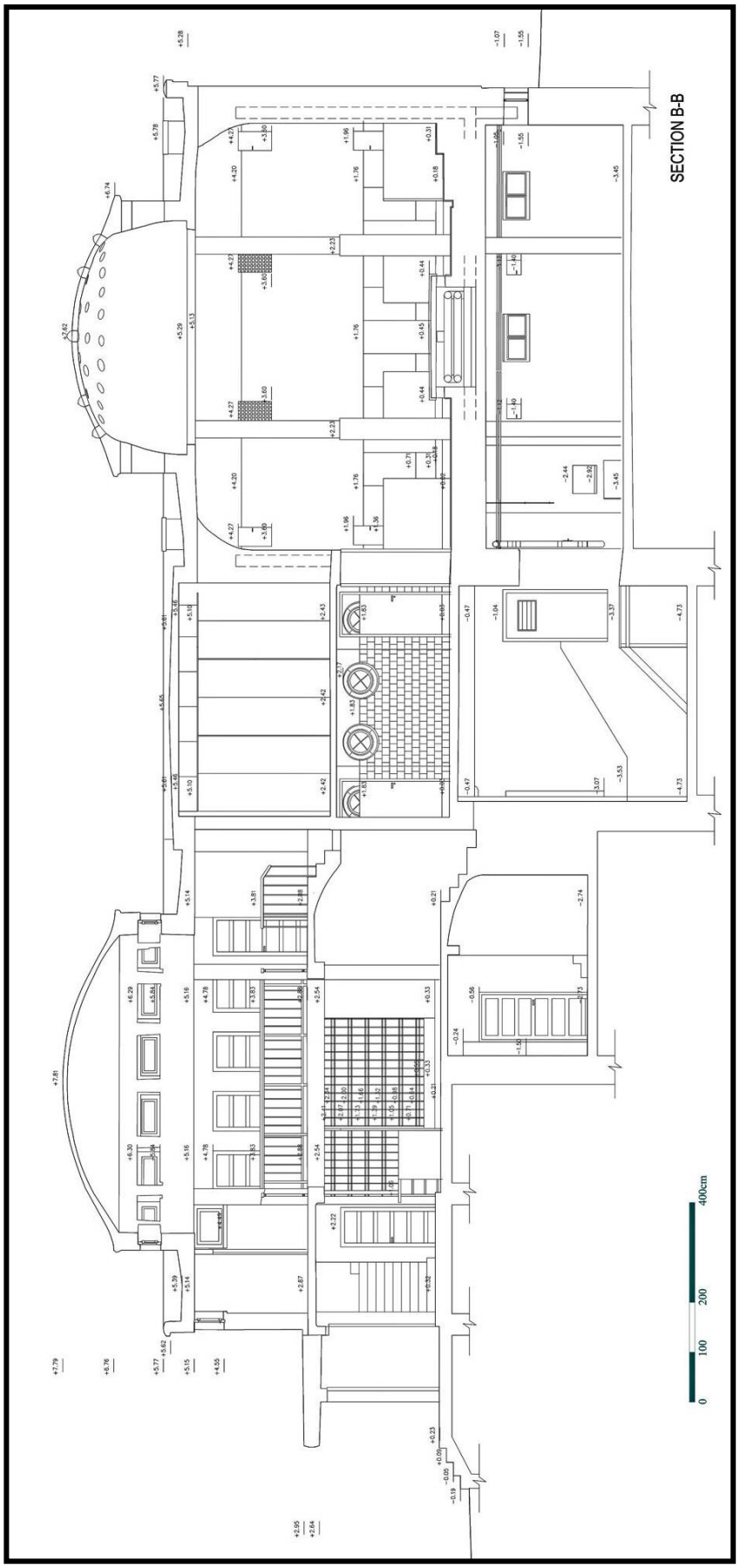

Figure 176 - Restitution Proposal for Section B B

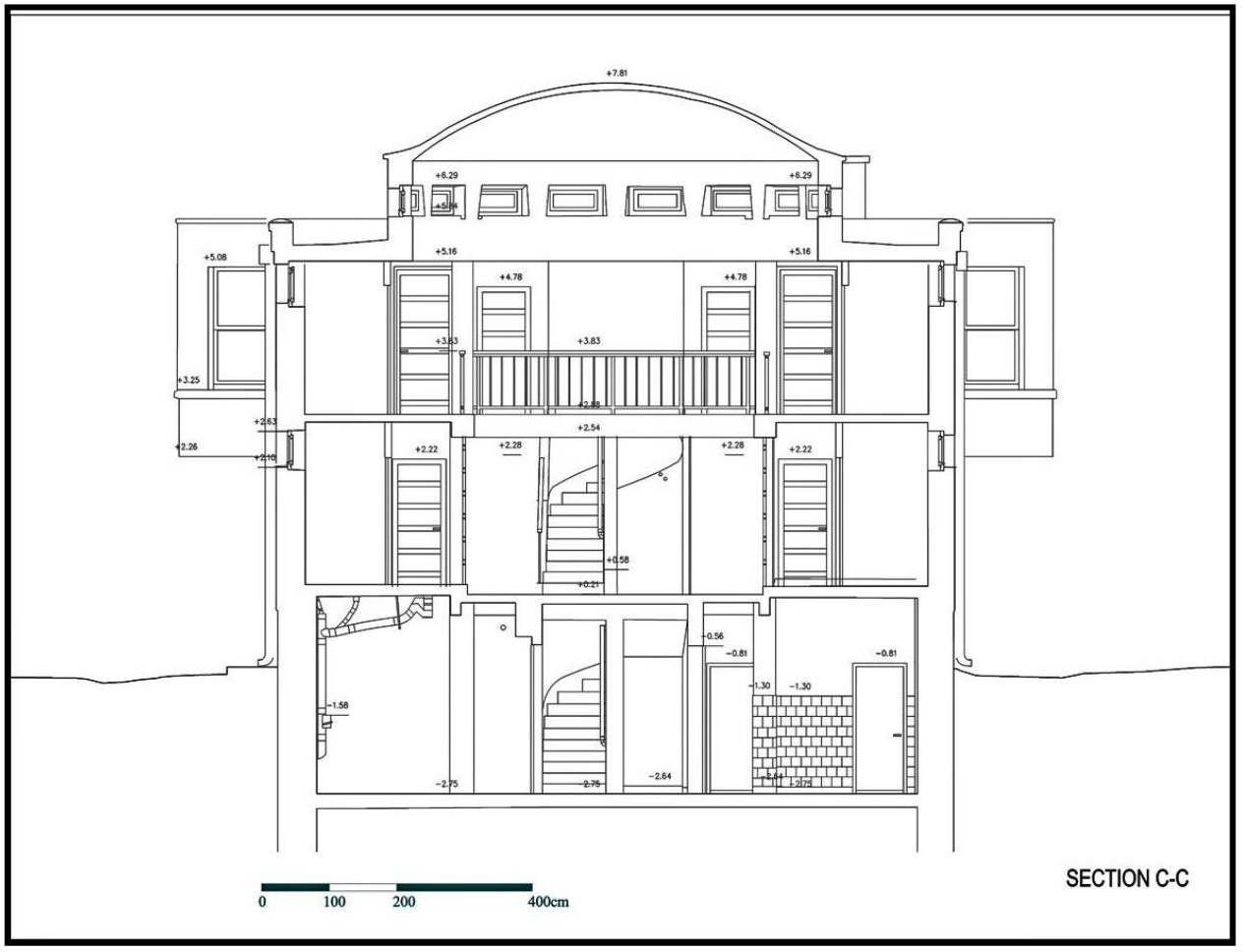

Figure 177 - Restitution Proposal for Section C C

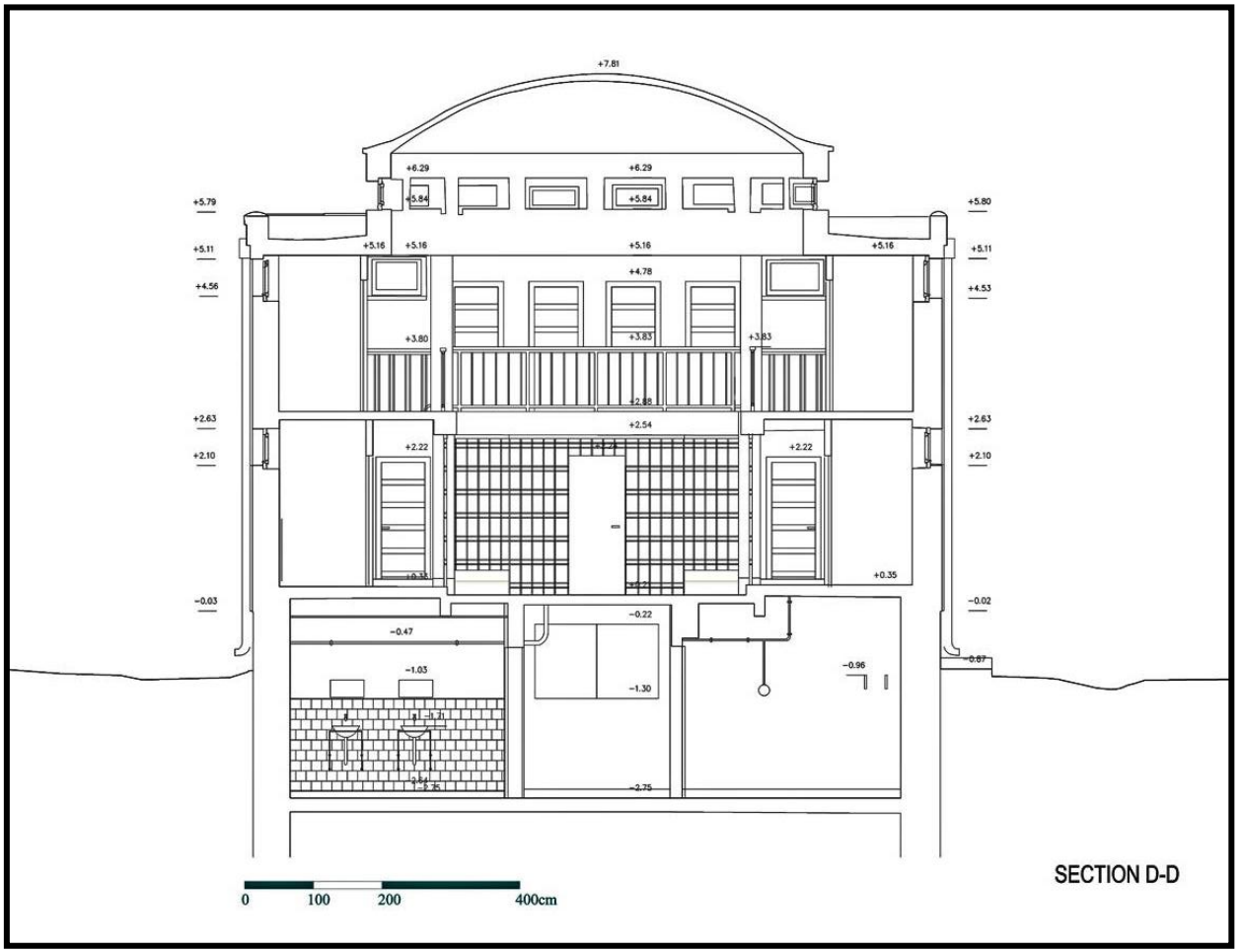

Figure 178 - Restitution Proposal for Section , D D

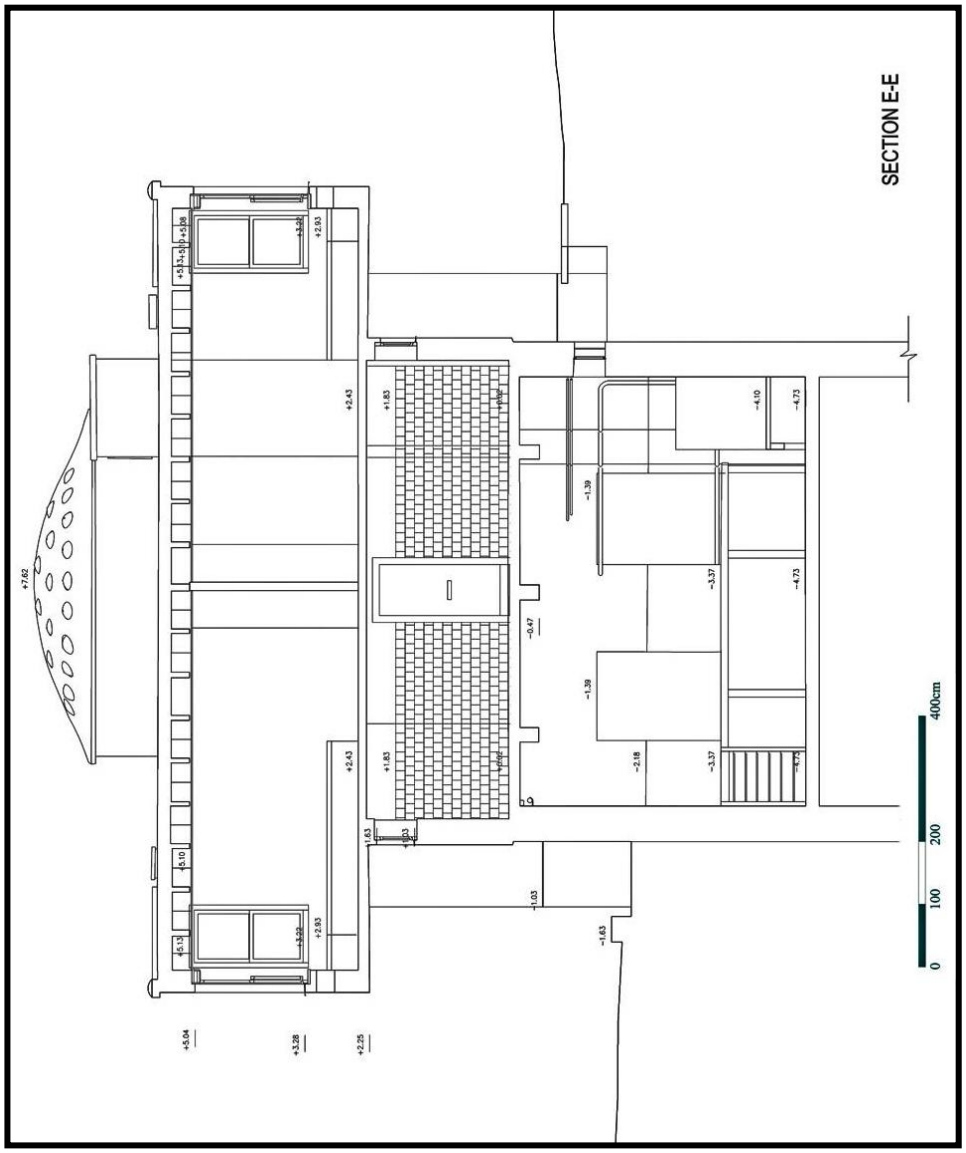

Figure 179 - Restitution Proposal for Section E E

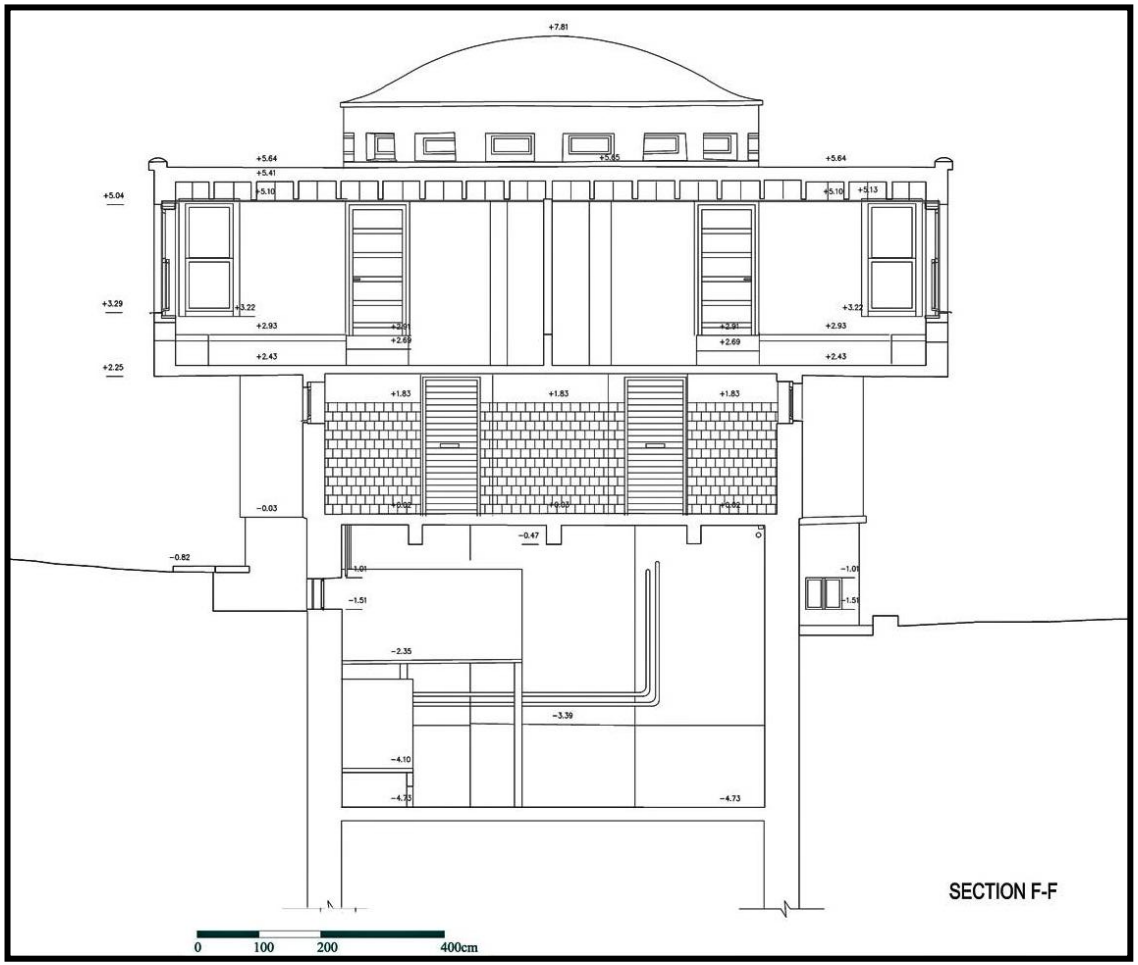

Figure 180 - Restitution Proposal for Section F F

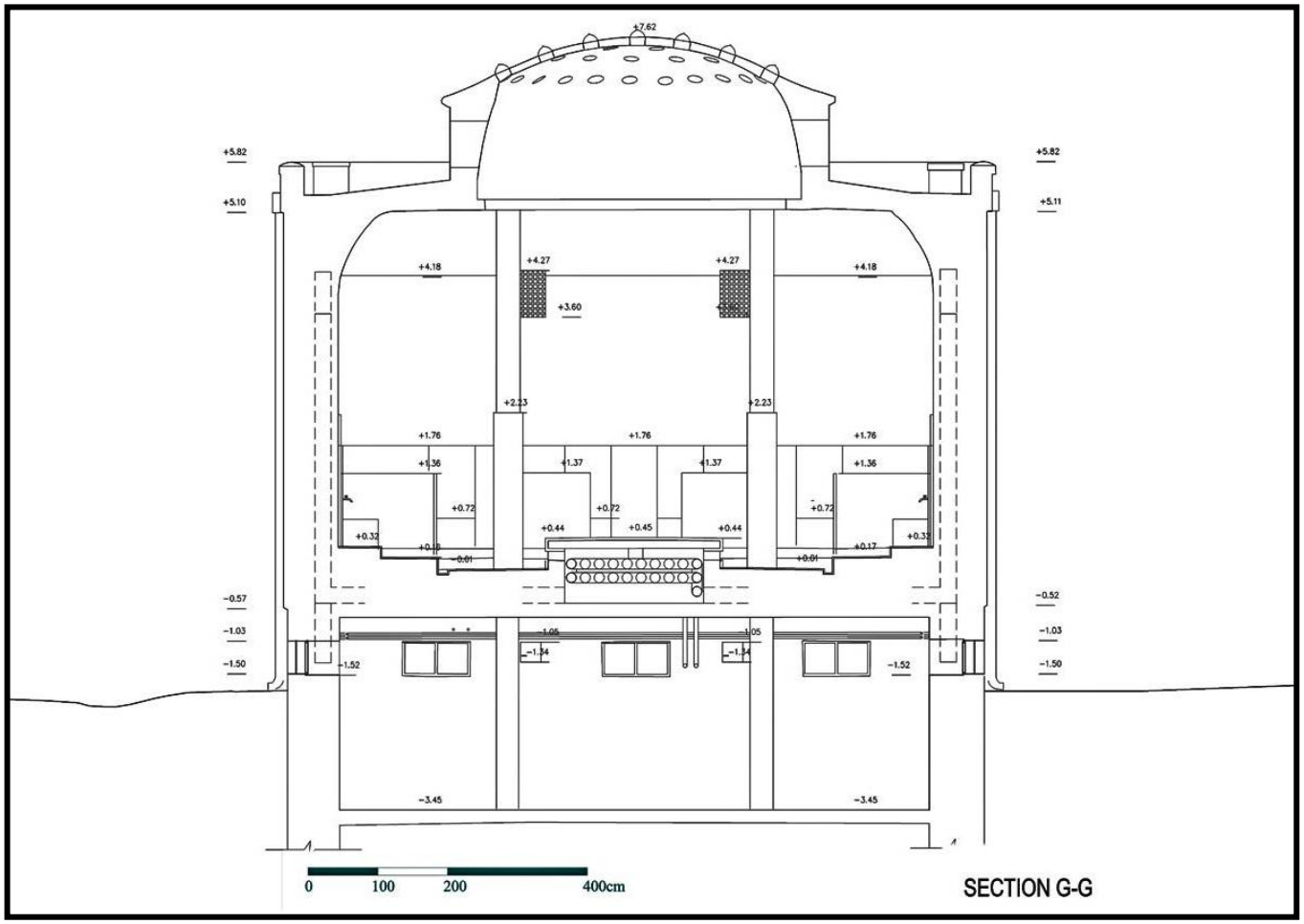

Figure 181 - Restitution Proposal for Section G G,

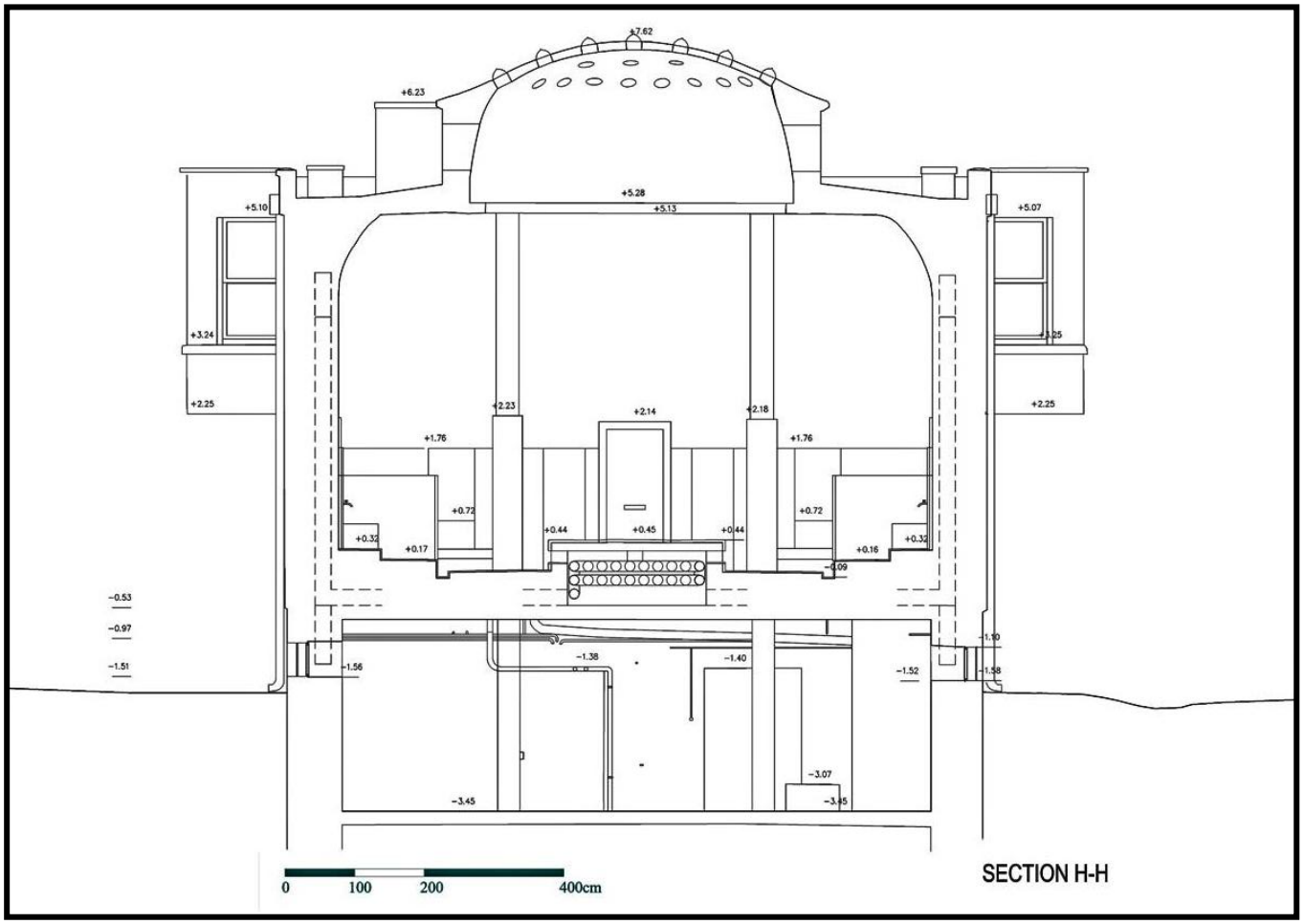

Figure 182 - Restitution Proposal for Section H H

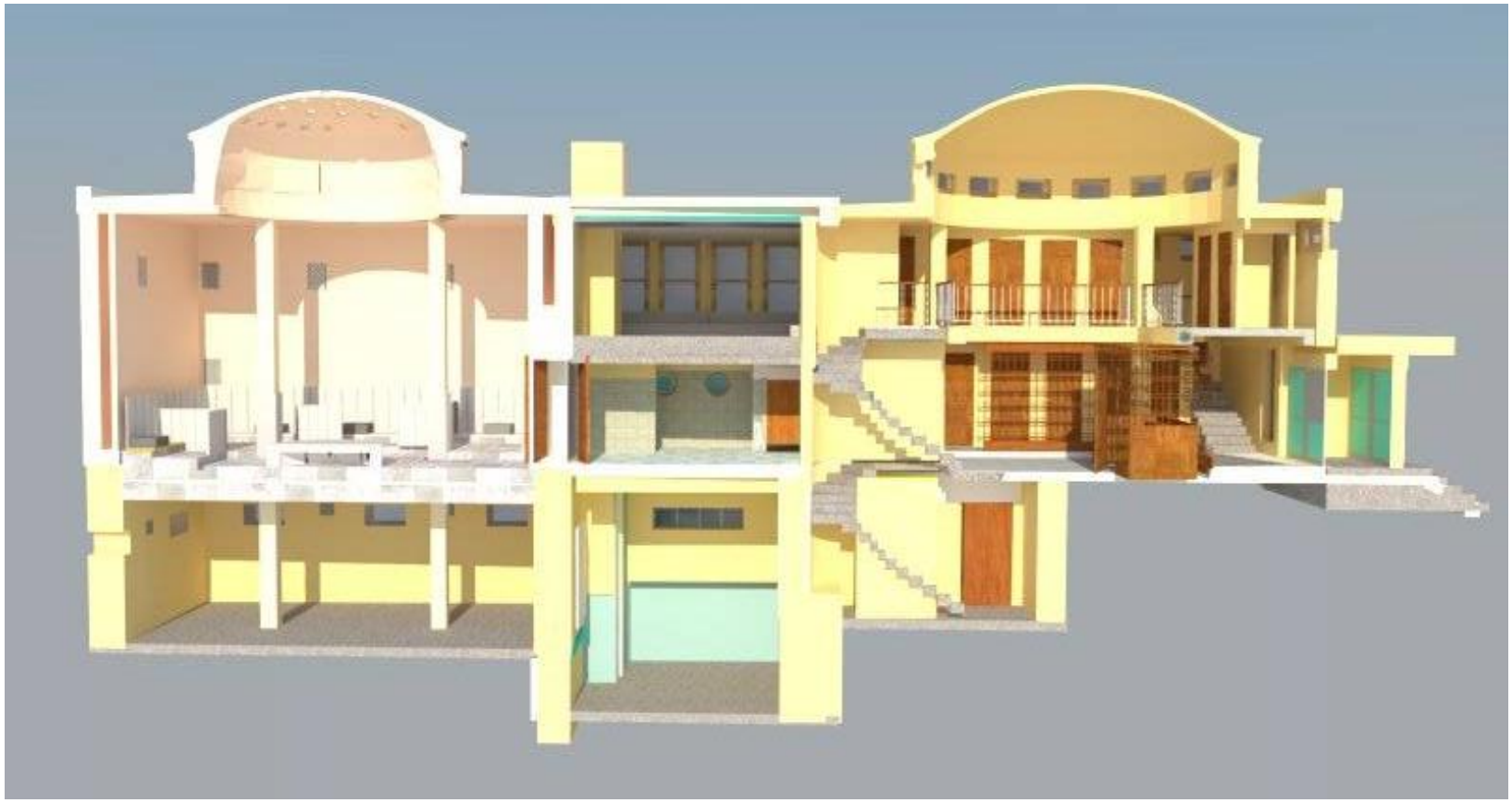

Figure 183 - Restitution Proposal 3D Model

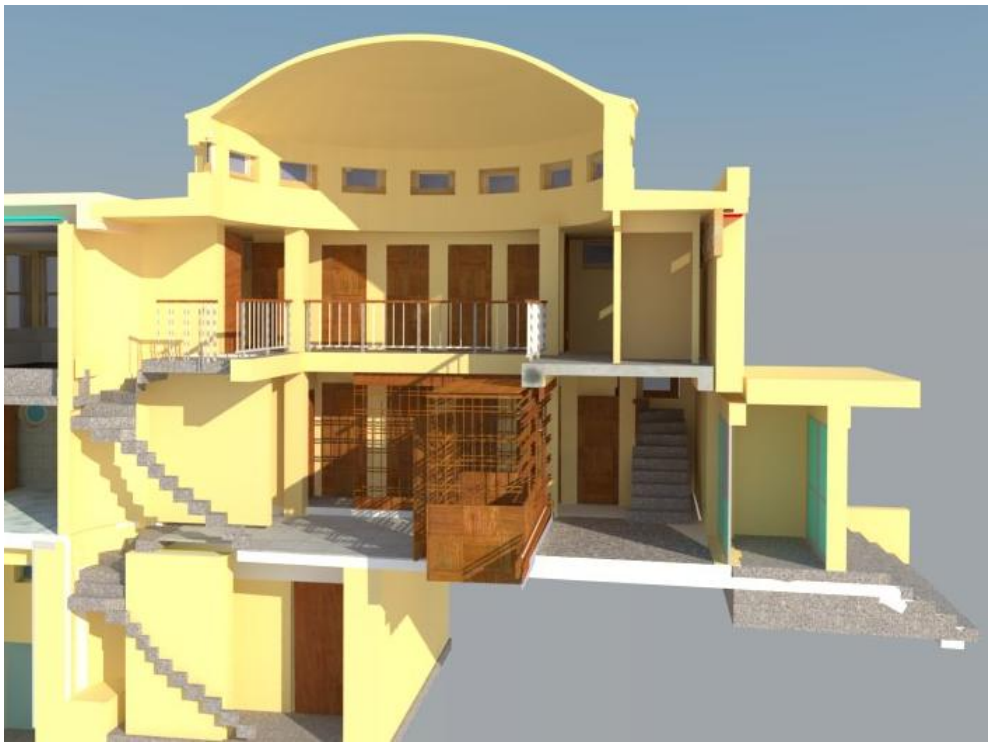

Figure 184 - Restitution Proposal 3D Model G-01, F-01

Figure 185 - Restitution Proposal 3D Model G01

Figure 186 - Restitution Proposal 3D Model G-02

Figure 187 - Restitution Proposal 3D Model G-03,F-02

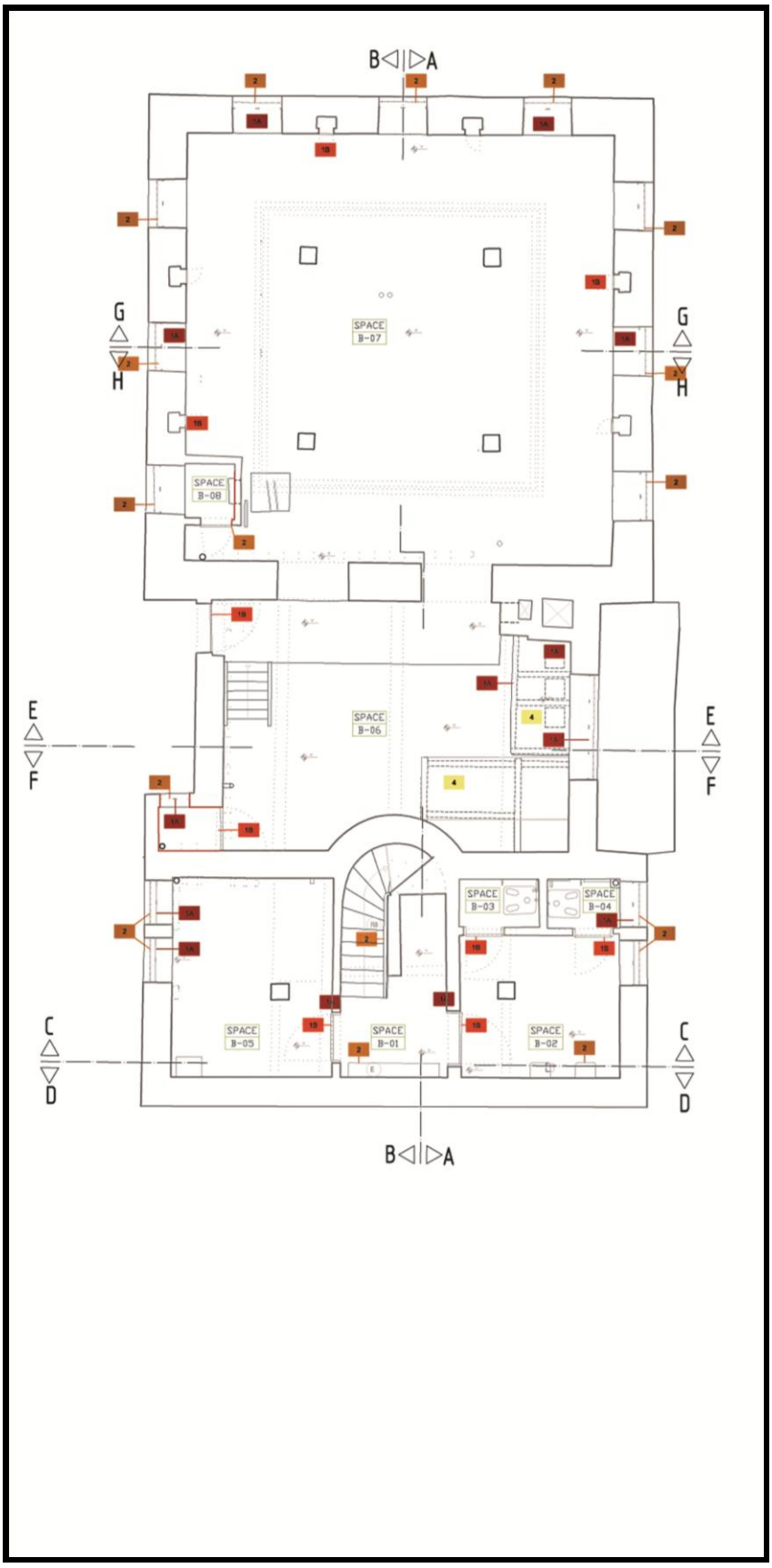

Figure 188 - Evaluation of Restitution Proposal

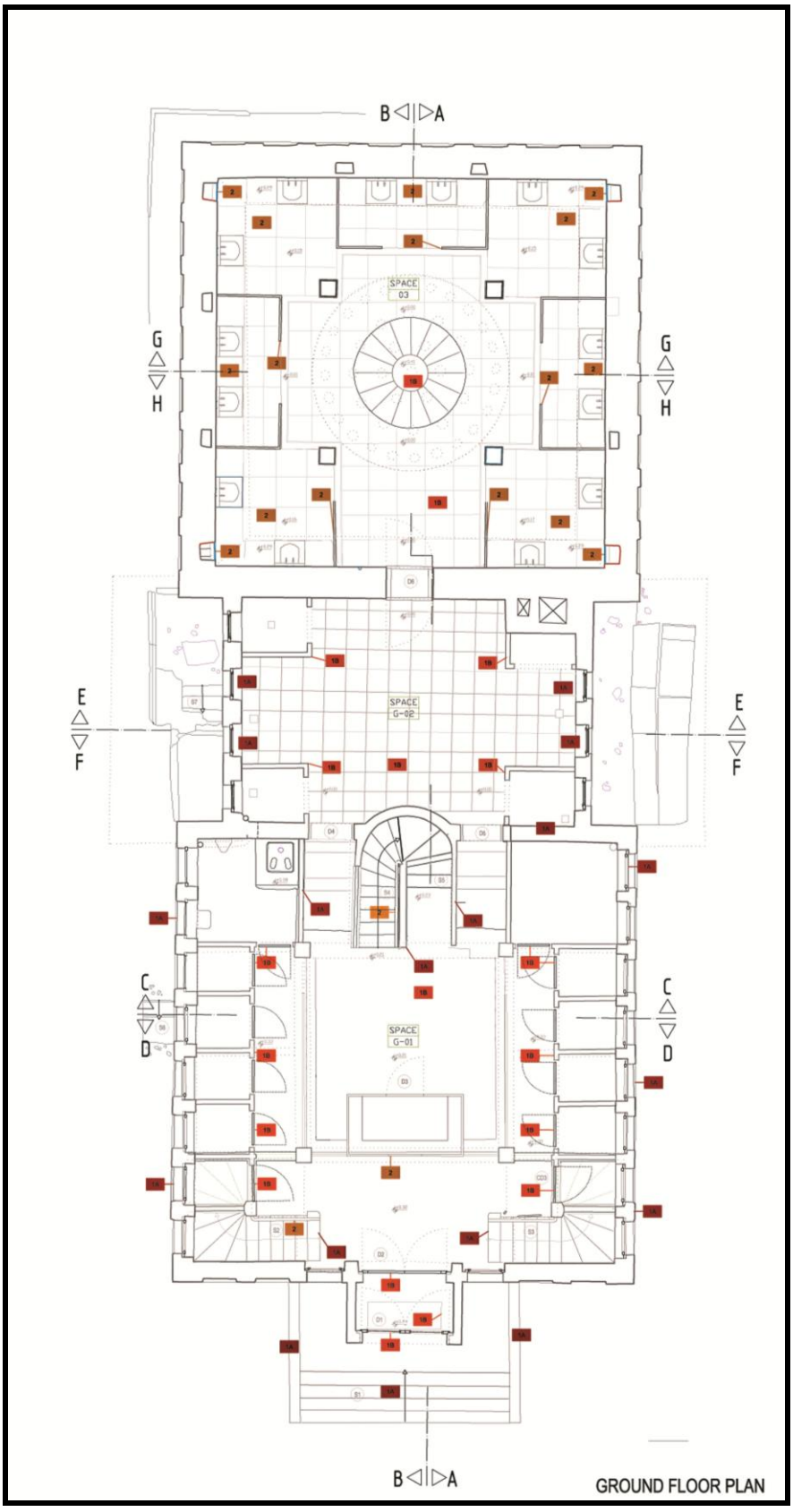

Figure 189 - Evaluation of Restitution Proposal

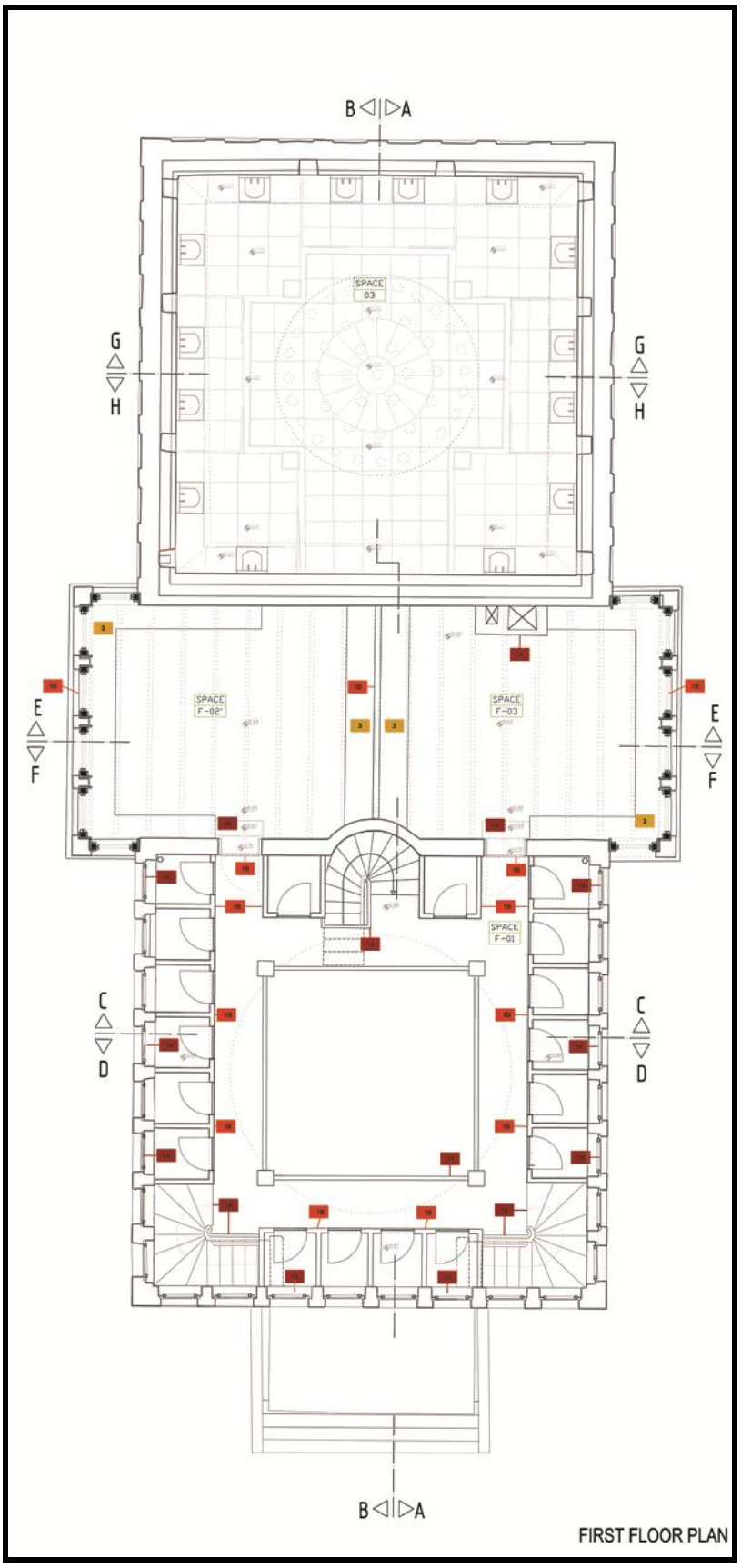

Figure 190 - Evaluation of Restitution Proposal

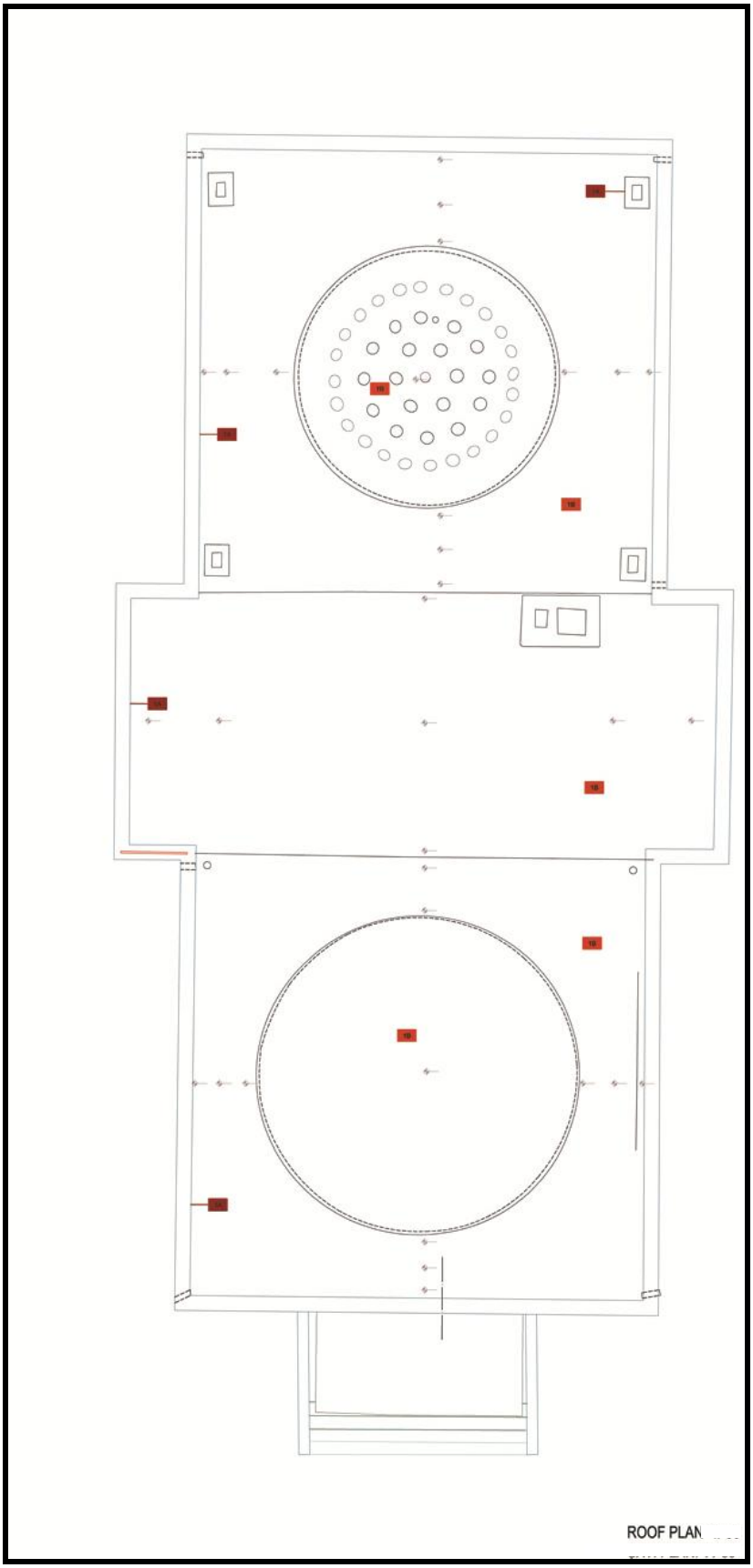

Figure 191 - Evaluation of Restitution Proposal

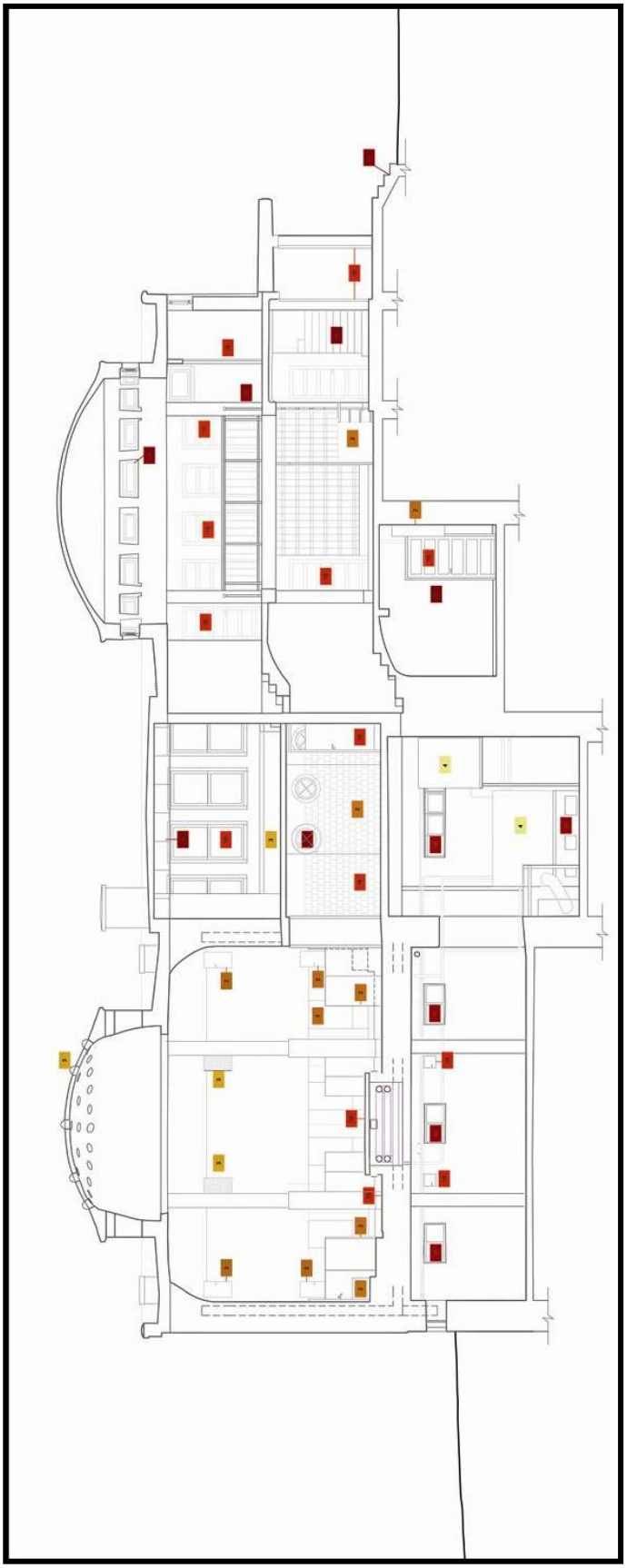

Figure 192 - Evaluation of Restitution

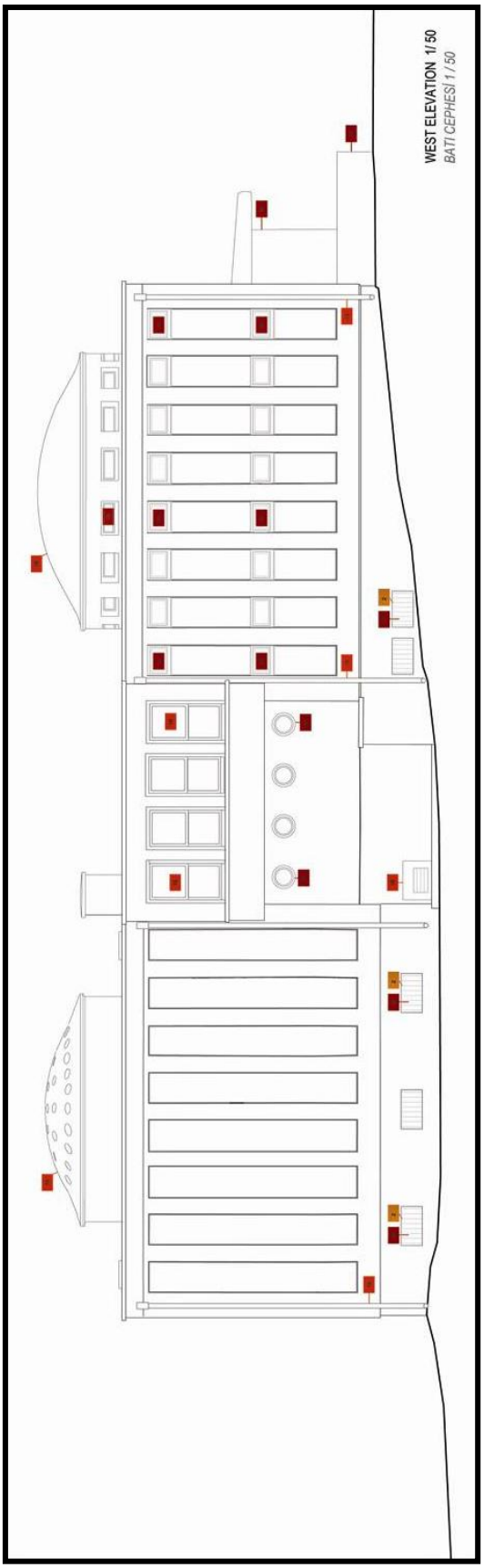

Figure 193 - Evaluation of Restitution Proposal

Table 4-Evaluation of Restitution Proposal

EVALUATION OF RESTITUTION PROPOSAL

BASEMENT FLOOR		Existence	Place	Size	Form	Material	Detail	E	P	S	F	M	D	T
B-01	Railing R8	S	S	S	S	S	S	6	6	6	6	6	6	36
	Electric Box	Bp	Bp	Bp	A	A	A	10	10	10	2	2	2	36
	Door DB-2B*	Bp, S	Bp, S	Bp, S	S	S	S	10	10	10	10	10	10	60
	Door DB-3A*	Bp, S	Bp, S	Bp, S	S	S	S	10	10	10	10	10	10	60
	East and West wall	B	B	B	B	B	B	12	12	12	12	12	12	72
B-02	washbasin	Bp	Bp	Bp, A	S	A	A	10	10	10	6	2	2	40
	mirror	Bp	Bp	Bp	Bp	A	A	10	10	10	10	2	2	44
	Windows of space B-02 (WB1)*	B, S	B, S	B, S	B, S	B,S	B, S	12	12	12	12	12	12	72
	Grille of the windows in space B-02	S	S	S	S	S	S	6	6	6	6	6	6	36
B-03	Door (DB-3B)*	Bp, S	Bp, S	Bp, S	S	S	S	10	10	10	10	10	10	60
B-04	Door (DB-3B)*	Bp, S	Bp, S	Bp, S	S	S	S	10	10	10	10	10	10	60
B-05	Door (DB-3B)*	Bp, S	Bp, S	Bp, S	S	S	S	10	10	10	10	10	10	60
	Windows of space B-02 (WB1)*	B, S	B, S	B, S	B, S	B,S	B, S	12	12	12	12	12	12	72
	Grille of the windows in space B-02	S	S	S	S	S	S	6	6	6	6	6	6	36
B-06	Door (DC-1)*	Bp, S	Bp, S	Bp, S	S	S	S	10	10	10	10	10	10	60
	fireplace*	B, S	B, S	B, S	B, S	B	B	12	12	12	12	12	12	72
	water tank	A	A	A	A	A	A	2	2	2	2	2	2	
	Window WB-2*	B, S	B, S	B, S	B, S	B,S	B, S	12	12	12	12	12	12	72
	Window WB-3*	B, S	B, S	B, S	B, S	B,S	B, S	12	12	12	12	12	12	72
	Grille of the windows in space B-02	S	S	S	S	S	S	6	6	6	6	6	6	36
	Secondary door at west side of the space*	Bp, S	Bp, S	Bp, S	S	S	S	10	10	10	10	10	10	60
	Heating mechanism and pump	A	A	A	A	A	A	2	2	2	2	2	2	12
	Pump	A	A	A	A	A	A	2	2	2	2	2	2	12
B-07	Windows of space B-02 (WB1)*	B, S	B, S	B, S	B, S	B,S	B, S	12	12	12	12	12	12	72
	Grille of the windows in space B-02*	S	S	S	S	S	S	6	6	6	6	6	6	36
	Air Canals	B	B	B	B	B	B	12	12	12	12	12	12	72
	Air Canal Shutter	Bp,I	Bp,I	Bp,I	I,A	I,A	I,A	10	10	10	10	10	10	60
	Door DC-2*	Bp	Bp	Bp	A	A	A	10	10	10	2	2	2	36
	Opening	Bp	Bp	Bp	Bp	A	A	10	10	10	10	2	2	44

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RESTORATION MASTER PROGRAM

EVALUATION OF RESTITUTION PROPOSAL
SHEET NO: 5 of 6

Table 5- Evaluation of Restitution Proposal

EVALUATION OF RESTITUTION PROPOSAL

	GROUND FLOOR / *GİRİŞ KATI*	Existence	Place	Size	Form	Material	Detail	E	P	S	F	M	D	T
	Stair at entrance *	B, S	B, S	B, S	B, S	B, S	B, S	12	12	12	12	12	12	72
	Main Entrance Door1 *	Bp, S	Bp, S	Bp, S	Bp, S	Bp,S	Bp,S	10	10	10	10	10	10	60
	Main Entrance Door 2 *	Bp, S	Bp, S	Bp, S	Bp, S	Bp,S	Bp,S	10	10	10	10	10	10	60
	Grill at the entrance	Bp, S	B, S	B, S	S	S	S	10	12	12	6	6	6	52
	Windows in G-01*	B, S	B, S	B, I, S	B, I, S	B, I, S	B, I, S	12	12	12	12	12	12	72
	Staircase at south-east *	Bp, S	B, S	B, S	B, S	B,I, S	Bp,I, S	10	12	12	12	12	10	68
	Staircase at southwest *	Bp, S	B, S	B, S	B, S	B,I, S	B,I, S	10	12	12	12	12	10	68
G-01	East wall*	B,I, S	B,I, S	B,I, S	B,I, S	B,I, S	Bp,I, S	12	12	12	12	12	12	72
	Staff Cabinet	S	S	S	S	S	S	6	6	6	6	6	6	36
	Dressing cabinets*	S	Bp, S	S	S	S	S	10	10	10	10	10	10	60
	Railing of the main stair	S	S	S	S	S	S	6	6	6	6	6	6	36
	Side walls of the main stair	B, S	B, S	B, S	B, S	B, S	B, S	12	12	12	12	12	12	72
	Railings R3	S	S	S	S	S	S	6	6	6	6	6	6	36
	floor	Bp, S	Bp, S	Bp, S	Bp, S	Bp, S, C	Bp, S	10	10	10	10	10	10	60
	halvet d 1	Bp, S	Bp, S	Bp, S	Bp, S	Bp	S	10	10	10	10	10	6	56
G-02	halvet d2	Bp, S	Bp, S	Bp, S	Bp, S	Bp	S	10	10	10	10	10	6	56
	halvet d 3	Bp, S	Bp, S	Bp, S	Bp, S	Bp	S	10	10	10	10	10	6	56
	Windows in G-02*	B, S	B, S	B, I, S	B, I, S	B, I, S	B, I, S	12	12	12	12	12	12	72
	seperator wall*	Bp, S	Bp, S	Bp, S	Bp, S	Bp	S	10	10	10	10	10	10	60
	ground	Bp, S	Bp, S	Bp, S	Bp, S	Bp, S, C	Bp, S	10	10	10	10	10	10	60
	wall finishing	S	S	S	S	S	S	6	6	6	6	6	6	36
	"kurna"*	S,C	Bp, S,C	Bp, S,C	S,C	S,C	S,C	10	10	10	6	10	6	52
	seperator marble element*	S	Bp, S	Bp, S	S	S	S	6	10	10	6	6	6	44
	"göbek taşı" *	Bp, S	Bp, S	Bp, S	S	S	S	10	10	10	10	10	10	60
G-03	wall finishing*	S ,C	Bp, S	Bp, S	S, C	S, C	S, C	10	10	10	10	10	10	60
	metal shutter	A	Bp ,A	Bp	Bp	A	A	2	10	10	10	2	2	36
	ground	Bp, S, I	Bp, S	Bp, S	Bp, S	Bp, S, I, C	Bp, S	10	10	10	10	10	10	60
	wall finishing	Bp, S	B, S	B, S	B, S	Bp, S,C	Bp, S	10	12	12	12	10	10	66

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RESTORATION MASTER PROGRAM

EVALUATION OF RESTITUTION PROPOSAL
SHEET NO: 4 of 6

Table 6- Evaluation of Restitution Proposal

EVALUATION OF RESTITUTION PROPOSAL

	FIRST FLOOR	Existence	Place	Size	Form	Material	Detail	E	P	S	F	M	D	
F-01	Railings R4 - R5*	B, S	B, S	B, S	B,S	B, I, S	B, I, S	12	12	12	12	12	12	72
	Railings R6*	B, S	B, S	B, S	B,S	B, I, S	B, I, S	12	12	12	12	12	12	72
	Railings R7*	B, S	B, S	B, S	B,S	B, I, S	B, I, S	12	12	12	12	12	12	72
	Cabinets in first floor *	S	Bp, S	S	S	S	S	10	10	10	10	10	10	60
	Windows in F-01*	B, S	B, S	B, I, S	B, I, S	B, I, S	B, I, S	12	12	12	12	12	12	72
	Cabinets Door CD2*	S	Bp, S	S	S	S	S	10	10	10	10	10	10	60
	Doors D7- D8*	Bp, S	Bp, S	B, S	B, S	S	S	10	10	10	10	10	10	60
	Windows on dome*	B, S	B, S	B, S	B, S	B, S	B, S	12	12	12	12	12	12	72
	Railing of the main stair*	B, S	B, S	B, S	B,S	B, I, S	B, I, S	12	12	12	12	12	12	72
F-02'	"sedir" Se1	S, C, A	S	A	A	A	C	6	6	2	2	2	4	22
	cupboard Cu1	S	S	S	A	A	A	6	6	6	2	2	2	24
	Windows of space F-02*	Bp, S	Bp, S	Bp, S	Bp, S	S	S	10	10	10	10	10	10	60
	Wall between space F-02' and F-03*	Bp, S	Bp, S	Bp, S	Bp, S	Bp, S	Bp, S	10	10	10	10	10	10	60
F-02"	sedir Se1	S, C, A	S	A	A	A	C	6	6	2	2	2	4	22
	cupboard Cu1	S	S	S	A	A	A	6	6	6	2	2	2	24
	Windows of space F-02*	Bp, S	Bp, S	Bp, S	Bp, S	S	S	10	10	10	10	10	10	60
	chimney*	B, S	B, S	B, S	B, S	B, S	B, S	12	12	12	12	12	12	72

	ROOF	Existence/ Varlığı	Place/ Yeri	Size/ Boyut	Form/ Form	Material/ Malzeme	Detail/ Detay	E	P	S	F	M	D	
	Parapet	B, S	B, S	B, S	B, S	B	B	12	12	12	12	12	12	72
	Chimney at northeast side*	Bp	B, I	B,I	B,I	B, I	B, I	10	12	12	12	12	12	70
	Finishing material Dome*	S	Bp, S	Bp, S	S	S	C	10	10	10	10	10	4	54
	Finishing material floor*	Bp	Bp	Bp	Bp	Bp	Bp	10	10	10	10	10	10	60
	Gutter	Bp	Bp	Bp	Bp	Bp	Bp	10	10	10	10	10	10	60

	FACADE	Existence	Place	Size	Form	Material	Detail	E	P	S	F	M	D	
	Gutter	S*	Bp, S*	S	S*	S*,A	S	10	10	6	10	10	6	52
	Main entrance(South facade)	B,S*	B, S*	B,S	B,S	B	B	12	12	12	12	12	12	72
	Main entrance stair side walls (South facade)	B,S*	B, S*	B,S	B,S	B	B	12	12	12	12	12	12	72

Since most of the elements are evaluated inside spaces, for facades only the elements that are not are given.

METU - FACULTY of ARCHITECTURE
RESTORATION MASTER PROGRAM

EVALUATION OF RESTITUTION PROPOSAL
SHEET NO: 6 of 6

NR & NEW INTERNATIONAL SELECTION DOCUMENTATION MINIMUM FICHE

for office use

Wp/ref no Nai ref no

composed by working party of: Turkey

DOCOMOMO TR identification number: 17

1 Identity of building/group of buildings/urban scheme/landscape/garden

1.1	current name of building	Atatürk Orman Çiftliği Bira Fabrikası Hamamı (Bathhouse of the Beer Factory at the Atatürk Forest Farm)
1.2	variant or former name	Gazi Çiftliği Bira Fabrikası Hamamı
1.3	number & name of street	
1.4	town	Ankara
1.5	province	Atatürk Orman Çiftliği
1.6	zip code	
1.7	country	Turkey
1.8	national grid reference	
1.9	classification/typology	HLT – bathhouse.
1.10	protection status & date	National inventory / Turkish Ministry of Culture (?)

2 History of building

2.1	original brief/purpose	The bath-house belongs to a complex of houses for the workers employed at the Beer Factory.
2.2	dates: commission/completion	1936-1938
2.3	architectural designers	Ernst Egli
2.4	others associated with building	ownership: Atatürk Orman Çiftliği Bira Fabrikası client / patron: Atatürk Orman Çiftliği Bira Fabrikası
2.5	significant alterations with dates	The building has lost its function.
2.6	current use	The building is not used today.
2.7	current condition	The building suffers from disuse and lack of maintenance and is partially in ruins.

3 Description

3.1	general description	The building follows the traditional Ottoman bath-house plan schemes, which Egli studied in İstanbul, and is reminiscent especially of the classical examples designed by Sinan in 16th century. The main exterior façade reflects the structure of the building with architectural elements like pilasters and small openings.
3.2	construction	The bathhouse has a reinforced concrete structure.

Figure 194- Minumum fiche prepared by DOCOMOMO Turkey, Sheet 1

3.3 Context — The building is located in Atatürk Orman Çiftliği and is a part of the complex formed by the beer factory and the houses for its workers

4 Evaluation

4.1 technical — This building is a reinforced concrete structure for a tradtional function and following a traditional plan typology.

4.2 social — This building belongs in with a larger complex constructed for the Beer Factory in Atatürk Orman Çiftliği.

4.3 cultural & aesthetic — This building reflects the Modernist tendencies of its architect on a strictly traditional plan type.

4.4 historical — The only building of its type in Turkey designed by Egli. This is a Modern solution for a traditional function.

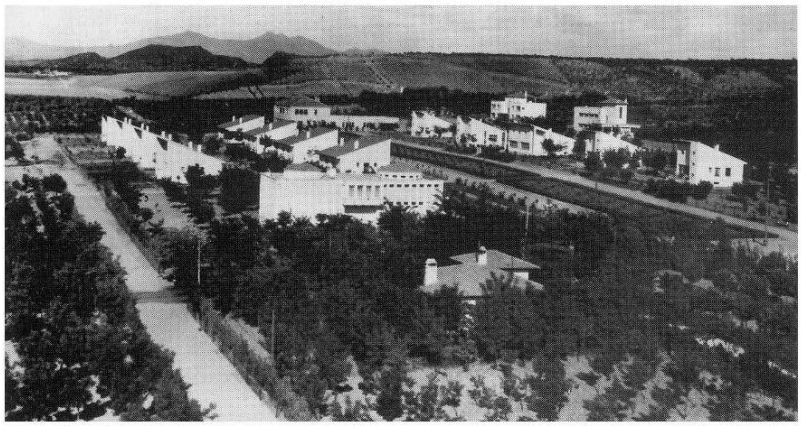
4.5 general assessment — This is one of a series of buildings designed by Egli in Turkey and reflects the characteristics of his architectural design principles. It is also important as a Modernist solution for a traditional function of a culture, foreign to Egli prior to his visit to Turkey.

5 Documentation

5.1 principal references

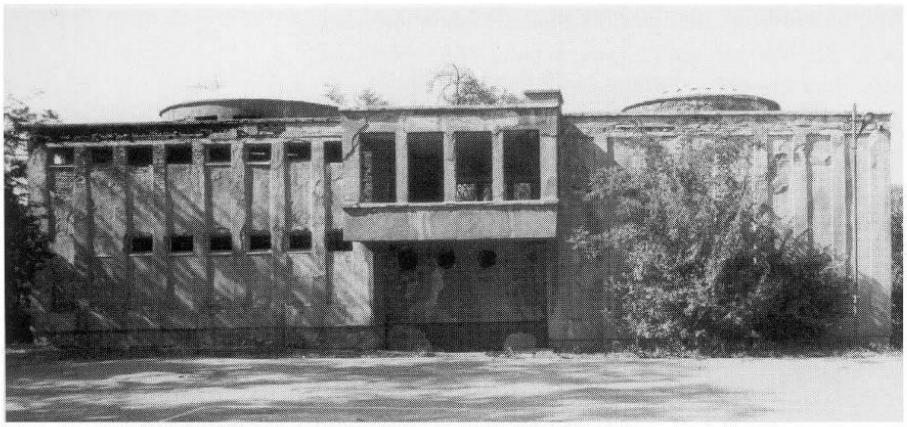
- Nicolai, B., *Modern und Exil, Deutschsprachige Architekten in der Türkei 1925-1955*, Verlag für Bauwesen, Berlin, 1998, pp. 40-41, Abb. 38-39.

5.2 visual material attached

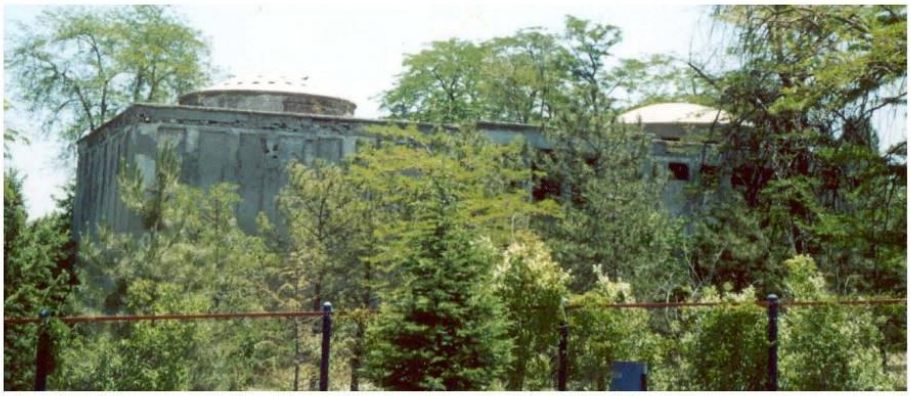


Housing for the workers and bathhouse of the Beer Factory at the Atatürk Forest Farm
General view, *c.* 1938

Figure 195- Minumum fiche prepared by DOCOMOMO Turkey, Sheet 2



The bathhouse of the Beer Factory at the Atatürk Forest Farm
Front elevation, *c.* 1995 (Nicolai)



The bathhouse of the Beer Factory at the Atatürk Forest Farm
Front elevation, 2003

5.3 rapporteur/date — Nilüfer Baturayoğlu Yöney, Yıldız Salman
Oct. 2003

Figure 196- Minumum fiche prepared by DOCOMOMO Turkey, Sheet 3

CONSERVATION PROPOSAL/ INTERVENTIONS - INNER SPACES

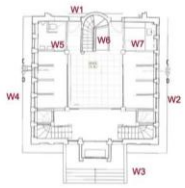
SPACE	ARCHITECTURAL ELEMENTS	PROBLEMS	Strenghtening	Consolidation & Repair	Removal	Surface Cleaning	Reintegration	Addition	INTERVENTION
	W1	graying at surfaces, Plaster lost, lost of brick units at door openings sides		●		●	●		Blackening will be cleaned with proper methods. / The lost brick units will be replaced with same type of brick and compatible mortar. / After laboratory analyses, the inner surfaces will be covered by compatible plaster and painted with the original color.
	W2	Structural crack, infill,lost of brick units at window openings sides, plaster lost,	●	●	●		●		After the required structural analysis the Structural Cracks will be repaired with proper methods that civil engineer will decide / -The window opening infill will be removed out.The demolished parts will be completed with same material and detail -The lost brick units will be replaced with same type of brick and compatible mortar. / After laboratory analyses, the inner surfaces will be covered by compatible plaster, and painted with the original color.
	W3	Structural crack, infill,lost of brick units at window,door openings sides Plaster lost,	●	●	●		●		After the required structural analysis the Structural Cracks will be repaired with proper methods that civil engineer will decide / -The window opening infill will be removed out.The demolished parts will be completed with same material and detail -The lost brick units will be replaced with same type of brick and compatible mortar. / After laboratory analyses, the inner surfaces will be covered by compatible plaster and painted with the original color.
	W4	Structural crack, infill,lost of brick units at window,door openings sides Plaster loss,detachment Demolished wall	●	●	●		●		After the required structural analysis the Structural Cracks will be repaired with proper methods that civil engineer will decide / -The window opening infill will be removed out.The demolished parts will be completed with same material and detail -The lost brick units will be replaced with same type of brick and compatible mortar. / The original plasters used in building , that has detachment problem, will be consalidated in its place and preserved with suitable methods After laboratory analyses, the inner and outer unplastered surfaces will be covered by compatible plaster
	W5,W6,W7						●		The demolished parts will be completed with same material
	C	Plaster loss		●					After laboratory analyses, the inner unplastered surfaces will be covered by compatible plaster
	F	Structural crack, finishing material loss	●				●		Analyses will be made about foundation, especially the different settlement of the building will be investigated. After that if required the foundation will be strengthened with a method that structural engineer will decide. / After the required structural analysis the Structural Cracks will be repaired / The lost floor coverings will be completed with same material and same detail. The broken marble floor coverings will be consolidated in its place and defines by bordering from its periphery.
	Windows at south, east and west sides	material loss, phisically deformed frameworks		●			●		The frameworks of Windows will be consolidated in its place. If the material became unusable due to the decay, the framework will be renewed with same material and detailed framework. The lost window frameworks and doors will be completed with same material and detailed elements. Glass will inserted into frame works.
	Doors	element loss					●		The doors will be used as convenient with the original drawings and as defines in conservation project.
	Stairs at corners and timber lattice	demolishment, architectural element loss					●		The stairs will be completed with its original material and detail. The timber lattice at the entrance will be completed with its original material and detail.
	Railings	metal buckling, material loss		●			●		If the corrosion is below critical level, it will be cleaned out with appropriate methods.If possible, the buckled metals in railings will be reshaped to its original form. If it is not possible the buckled metal will be replaced with same material and detailed railing. The lost metal elements will be completed with same material and detailed metal element
	"Seki" edge surfaces	there are broken parts at the edges		●					The broken parts will be completed by compatible material.
	Columns		●	●					The concrete columns will be strengthened with proper methods that civil engineer will decide. / After laboratory analyses, the inner surfaces will be covered by compatible plaster and painted with the original color.
	Dome		●	●					The dome will be strengthened with proper methods that civil engineer will decide. / After laboratory analyses, the inner surfaces will be covered by compatible plaster
	Traces	traces can be seen in several part of the space		●					The traces will be preserved in its place, they will be consalidated.
W: Wall C :Ceiling F :Floor	Refunctioning							●	Intervention will be done by new material and construction technique that is compatible with original material and the intervention will be reversible. The rythm of space division will be supplied by the timber elements placed at the borders of the cabinets. A small service kitchen will be placed at the north east corner. The toilet will be changed in order to increas sanitary and comfort condition. And the space at north west side will be aranged as toilet like in the original function.

Table 7- Conservation Proposal Table-1

CONSERVATION PROPOSAL/ INTERVENTIONS - INNER SPACES

SPACE	ARCHITECTURAL ELEMENTS	PROBLEMS- ITEMS RELATED WITH INTERVENTION	Strenghtening	Consolidation & Repair	Removal	Surface Cleaning	Reintegration	Addition	INTERVENTION	
	W1	blackening at surfaces, wall finishing material lost, brick unit lost at side of door opening		●		●	●		Blackening will be cleaned with proper methods.	After laboratory analyses, the inner surfaces will be covered by compatible plaster,except the surfaces of wall junction traces
	W2	Infill,lost of brick units at window openings sides, Plaster lost		●	●		●		The window opening infill will be removed out.The demolished parts will be completed with same material and detail The lost brick units will be replaced with same type of brick and compatible mortar.	After laboratory analyses, the inner and outer unplastered surfaces will be covered by compatible plaster,except the surfaces of wall junction traces
	W3	lost of brick units at door openings sides, Plaster lost		●			●		The lost brick units will be replaced with same type of brick and compatible mortar.	After laboratory analyses, the inner and outer unplastered surfaces will be covered by compatible plaster, except the surfaces of wall junction traces
	W4	infill,lost of brick units at window sides Plaster loss		●	●		●		The window opening infill will be removed out.The demolished parts will be completed with same material and detail The lost brick units will be replaced with same type of brick and compatible mortar.	After laboratory analyses, the inner and outer unplastered surfaces will be covered by compatible plaster
	C	Plaster loss		●					After laboratory analyses, the inner and outer unplastered surfaces will be covered by compatible plaster,except the surfaces of wall traces	
	F	finishing material loss		●					The lost floor coverings will be completed with same material and same detail.	
	Windows at east and west sides	material loss, phisically deformed frameworks		●			●		The frameworks of Windows will be consolidated in its place. If the material became unusable due to the decay, the framework will be renewed with same material and detailed framework. The lost window frameworks and doors will be completed with same material and detailed elements. Glass will inserted into frame works.	
	Doors	element loss					●		The doors will be used as defines in conservation project.	
	Traces	demolishment, architectural element loss		●					The demolished wall traces will be consalidated and preserved. In that terms the brickprojections won't be plastered The wall remains on ground will be capped with compatible mortar. The water canal traces on east and west wall will be covered a special detailed glass, where there is also a lighting system integrated.	
W: Wall C :Ceiling F :Floor	Refunctioning							●	Intervention will be done by new material and construction technique that is compatible with original material and the intervention will be reversible	

Table 8- Conservation Proposal Table-2

CONSERVATION PROPOSAL/ INTERVENTIONS - INNER SPACES

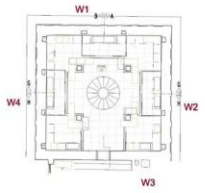
SPACE	ARCHITECTURAL ELEMENTS	PROBLEMS	Strenghtening	Consolidation & Repair	Removal	Surface Cleaning	Reintegration	Addition	INTERVENTION
	W1	Graying, blackening at surfaces, plaster detachment, Plaster lost, lost of brick units at niches sides,wall covering lost		●		●	●		Blackening and graying will be cleaned with proper methods. The lost brick units will be replaced with same type of brick and compatible mortar. The original plasters used in AOÇ Hamam , that has detachment problem, will be consalidated in its place and preserved by proper methods. After laboratory analyses, the inner surfaces will be covered by compatible plaster, the wall with covered til its original level
	W2	Graying at surfaces, plaster detachment, Plaster lost, lost of brick units at niches sides, wall covering lost		●		●	●		Blackening and graying will be cleaned with proper methods. The lost brick units will be replaced with same type of brick and compatible mortar. The original plasters used in AOÇ Hamam , that has detachment problem, will be consalidated in its place and preserved by proper methods. After laboratory analyses, the inner surfaces will be covered by compatible plaster. The wall with covered til its original level
	W3	Graying at surfaces, plaster detachment, Plaster lost, wall covering lost		●		●			Graying will be cleaned with t proper methods. The original plasters used in AOÇ Hamam , that has detachment problem, will be consalidated in its place and preserved by proper methods. After laboratory analyses, the inner surfaces will be covered by compatible plaster.The wall with covered til its original level
	W4	,wall covering lost Graying at surfaces, plaster detachment, Plaster lost, lost of brick units at niches sides, brick course deformation above niche	●	●		●			Blackening and graying will be cleaned with proper methods. The lost brick units will be replaced with same type of brick and compatible mortar. Deformed brick courses will be strengthened by compatible materials The original plasters used in AOÇ Hamam that has detachment problem, will be consalidated in its place and preserved by proper methods.After laboratory analyses, the inner surfaces will be covered by compatible plaster.The wall with covered til its original level
	C	Plaster loss		●					After laboratory analyses, the inner unplastered surfaces will be covered by compatible plaster. The oculuses will be covered with glass as defined in conservation proposal.
	F	Finishing material loss, graying		●		●			The lost floor coverings will be completed with same material and same detail.The places of kurna also be covered with a different color marble, together with the seperation marble traces. The oculuses will be covered with glass as defined in conservation project.
	"Seki" edge surfaces	there are broken parts at the edges					●		The broken parts will be completed by compatible material.
	Göbektaşı	there are broken parts at the edges, fiishing material loss		●			●		The broken parts will be completed by compatible material.The lost coverings will be completed with same material and same detail.
W: Wall C :Ceiling F :Floor	Door	element loss					●		The doors will be used as convenient with the original drawings and as defines in conservation project.
	Columns		●	●					The concrete columns will be strengthened with proper methods that civil engineer will decide. After laboratory analyses, the inner surfaces will be covered by compatible plaster
	Domes		●	●					The dome will be strengthened with proper methods that civil engineer will decide. After laboratory analyses, the inner surfaces will be covered by compatible plaster
	Traces	traces can be seen in several part of the space		●				●	The places of kurna also be covered with a different color marble, together with the seperation marble traces. The outputs of the pipe exits will be remained on marble. The niches will be covered by glass. Artificial illumination elements will be inserted in the canals.
	Refunctioning							●	Intervention will be done by new material and construction technique that is compatible with original material and the intervention will be reversible

Table 9- Conservation Proposal Table-3

CONSERVATION PROPOSAL/ INTERVENTIONS - INNER SPACES

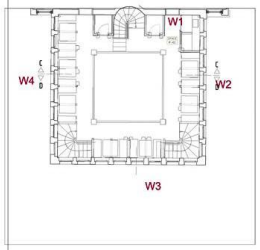
SPACE	ARCHITECTURAL ELEMENTS	PROBLEMS	Strenghtening	Consolidation & Repair	Removal	Surface Cleaning	Reintegration	Addition	INTERVENTION
	W1	Plaster lost, lost of brick units at door opening sides		●			●		The lost brick units will be replaced with same type of brick and compatible mortar. / After laboratory analyses, the inner surfaces will be covered by compatible plaster
	W2	Plaster lost, lost of brick units at window opening sides		●			●		The lost brick units will be replaced with same type of brick and compatible mortar. / After laboratory analyses, the inner surfaces will be covered by compatible plaster
	W3	Infill, blackening at surfaces, Plaster lost,lost of brick units at window opening sides		●	●	●	●		Blackening will be cleaned with proper methods. / The window opening infill will be removed out.The demolished parts will be completed with same material and detail The lost brick units will be replaced with same type of brick and compatible mortar. / After laboratory analyses, the inner surfaces will be covered by compatible plaster
	W4	Plaster lost, lost of brick units at window opening sides		●			●		The lost brick units will be replaced with same type of brick and compatible mortar. / After laboratory analyses, the inner surfaces will be covered by compatible plaster
	C	Plaster loss		●					After laboratory analyses, the inner unplastered surfaces will be covered by compatible plaster
	F	Ruin, traces			●				The ruins will be removed.
	Door	element loss					●		The doors will be used as convenient with the original drawings and as defines in conservation project.
	Windows at south, east and west sides	material loss, phisically deformed frameworks		●			●		The frameworks of windows will be consolidated in its place. If the material became unusable due to the decay, the framework will be renewed with same material and detailed framework. The lost window frameworks and doors will be completed with same material and detailed elements. Glass will inserted into frame works.
	Railings	material loss, metal corrasion, metal buckling		●			●		If the corrosion is below critical level, it will be cleaned out with appropriate methods.If possible, the buckled metals in railings will be reshaped to its original form. If it is not possible the buckled metal will be replaced with same material and detailed railing. The railings beetween main balusters around the gallery opening will be inserted with the material and detail defined in conservation project.
	Columns		●	●					The concrete columns will be strengthened with proper methods that civil engineer will decide. / After laboratory analyses, the inner surfaces will be covered by compatible plaster
	Domes		●	●					The dome will be strengthened with proper methods that civil engineer will decide. / After laboratory analyses, the inner surfaces will be covered by compatible plaster
W: Wall C :Ceiling F :Floor	Traces	traces can be seen in several part of the space		●					The holes on ground will be filled with compatible mortar till the level of ground and the intervention will be detachable.
	Refunctioning							●	Intervention will be done by new material and construction technique that is compatible with original material and the intervention will be reversible.The rythm of space division will be supplied by the timber elements placed at the borders of the cabinets. A small service kitchen will be placed at the north east corner.

Table 10- Conservation Proposal Table-4

CONSERVATION PROPOSAL/ INTERVENTIONS - INNER SPACES

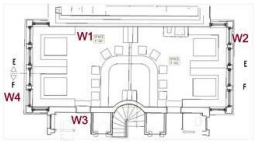
SPACE	ARCHITECTURAL ELEMENTS	PROBLEMS	Strenghtening	Consolidation & Repair	Removal	Surface Cleaning	Reintegration	Addition	INTERVENTION	
	W1	Whitening, Plaster lost, lost of brick units at window opening sides, break of brick units, metal corrasion, concrete loss		●		●	●		The physically damaged brick units that lost their quality will be removed out and replaced by same type brick unit, others will be preserved in their place.	If the corrosion is below critical level, it will be cleaned out with appropriate methods. The surface will be plastered with competible material, except the surface of the wall trace.
	W2	Plaster lost, lost of concrete units at window opening sides		●			●		The lost concrete parts will be covered with compatible mortar.	After laboratory analyses, the inner surfaces will be covered by compatible plaster
	W3	Plaster lost,lost of brick units at door opening sides		●			●		The lost brick units will be replaced with same type of brick and compatible mortar.	After laboratory analyses, the inner surfaces will be covered by compatible plaster.The surface will be plastered with competible material, except the surface of the wall trace.
	W4	Plaster lost, lost of brick units at window opening sides		●			●		The lost concrete parts will be covered with compatible mortar.	After laboratory analyses, the inner surfaces will be covered by compatible plaster
	C	Partial element lost, Plaster loss		●			●		The suspended ceiling remains will be consolidated in its place, the other lost parts will be completed with same material and detail. The surface later will be plastered by compatible material.	
	F	Ruin			●				The ruins will be removed.	
	Door	element loss					●		The doors will be used as convenient with the original drawings and as defines in conservation project.	
	Windows	element loss					●		The lost window frameworks will be completed with same material and detailed elements. Glass will inserted into frame works.	
	Chimney	partially demolished					●		The demolished chimney wall will be complaeted with same material and detail.	
	Stair	partially demolished					●		The material losses on stairs will be complated by compatible material.	
W: Wall C :Ceiling F :Floor	Traces	traces can be seen in several part of the space		●					The demolished wall traces will be consalidated and preserved. In that terms the brickprojections will not be plastered.	
	Refunctioning							●	Intervention will be done by new material and construction technique that is compatible with original material and the intervention will be reversible	

Table 11- Conservation Proposal Table-5

CONSERVATION PROPOSAL/ INTERVENTIONS - INNER SPACES

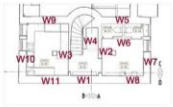
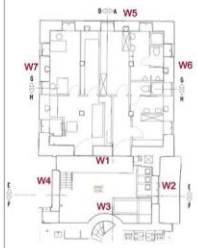
SPACE		ARCHITECTURAL ELEMENTS	PROBLEMS	Strenghtening	Consolidation & Repair	Removal	Surface Cleaning	Reintegration	Addition	INTERVENTION
	B01	W1	Plaster lost		●					After laboratory analyses, the inner surfaces will be covered by compatible plaster, and painted with original color.
		W2 (B-01 east wall)	Plaster lost, break of brick units and lost of brick units at door opening sides		●			●		The lost brick units will be replaced with same type of brick and compatible mortar. Only The physically damaged brick units that lost their quality will be removed out and replaced by same type brick unit, others will be preserved in their place / After laboratory analyses, the inner surfaces will be covered by compatible plaster, and painted with original color.
		W3(B-01 west wall)	Plaster lost, break of brick units and lost of brick units at door opening sides		●			●		The lost brick units will be replaced with same type of brick and compatible mortar. . Only The physically damaged brick units that lost their quality will be removed out and replaced by same type brick unit, others will be preserved in their place / After laboratory analyses, the inner surfaces will be covered by compatible plaster, and painted with original color.
		W4	Plaster lost		●					After laboratory analyses, the inner surfaces will be covered by compatible plaster, and painted with original color.
		C	Plaster lost,		●			●		After laboratory analyses, the inner surfaces will be covered by compatible plaster
		F	Ruin			●				The ruins will be removed.
		Refunctioning							●	Intervention will be done by new material and construction technique that is compatible with original material and the intervention will be reversible.The area beneath the stairs will be used as storage, a door will be placed in the detail defined in conservation project. Technical panel will be placed on south wall of space B-01.
	B02,03,04	W2 (B-02 west wall)	Plaster lost,tile lost, biological growth, break of brick units and lost of brick units at window opening sides		●		●	●		The lost brick units will be replaced with same type of brick and compatible mortar. Only The physically damaged brick units that lost their quality will be removed out and replaced by same type brick unit, others will be preserved in their place / Tile coverings will be completed with same material and same detail. / After laboratory analyses, inner surfaces above tile level will be covered by compatible plaster
		W5-6	Plaster lost,tile lost, biological growth		●		●	●		Tile coverings will be completed with same material and same detail. / After laboratory analyses, inner surfaces above tile level will be covered by compatible plaster
		W7	Plaster lost,tile lost,infill, biological growth, break of brick units and lost of brick units at window opening sides		●	●	●			The infills will be removed out. / The lost brick units will be replaced with same type of brick and compatible mortar. Only The physically damaged brick units that lost their quality will be removed out and replaced by same type brick unit, others will be preserved in their place / Tile coverings will be completed with same material and same detail. After laboratory analyses, inner surfaces above tile level will be covered by compatible plaster
		W8	Plaster lost,tile lost, biological growth		●		●	●		Tile coverings will be completed with same material and same detail. / After laboratory analyses, inner surfaces above tile level will be covered by compatible plaster
		C	Plaster lost		●					After laboratory analyses, inner surfaces above tile level will be covered by compatible plaster
		F	Ruin			●				The ruins will be removed.
		Door	element loss					●		The doors will be used as convenient with the original drawings and as defines in conservation project.
		Windows	corrasion, material loss		●					If the corrosion is below critical level, it will be cleaned out with appropriate methods. If its not possible than the framework will be renewed.
		Refunctioning							●	Intervention will be done by new material and construction technique that is compatible with original material and the intervention will be reversible.The toilets will be changed in order to increas sanitary and comfort condition.
	B05	W9 -11	Plaster detachment and lost		●					The original plasters used in AOÇ Hamam , that has detachment problem, will be consolidated in its place and preserved by proper methods. If the detachment problem can't be reversable than it will removed out. / After laboratory analyses, the inner surfaces will be covered by compatible plaster
		W3(B-01 east wall)	Plaster lost, break of brick units and lost of brick units at door opening sides		●			●		The lost brick units will be replaced with same type of brick and compatible mortar.. Only The physically damaged brick units that lost their quality will be removed out and replaced by same type brick unit, others will be preserved in their place / After laboratory analyses, the inner surfaces will be covered by compatible plaster
		W10	Plaster lost,infill, biological growth, break of brick units and lost of brick units at window opening sides		●	●	●	●		The infills will be removed out. / The original plasters used in AOÇ Hamam , that has detachment problem, will be consolidated in its place and preserved by proper methods. If the detachment problem can't be reversable than it will removed out. / After laboratory analyses, inner surfaces above tile level will be covered by compatible plaste and painted with original color.
		W4	Plaster lost		●					After laboratory analyses, the inner surfaces will be covered by compatible plaster,and painted with original color.
W: Wall C :Ceiling F :Floor		C	Plaster lost		●					After laboratory analyses, the inner surfaces will be covered by compatible plaster, and painted with original color.
		F	Ruin			●				The ruins will be removed.
		Refunctioning							●	Intervention will be done by new material and construction technique that is compatible with original material and the intervention will be reversible.The space will be designed as a small kitchen.

Table 12- Conservation Proposal Table-6

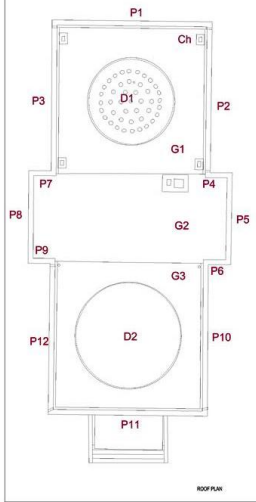
CONSERVATION PROPOSAL/ INTERVENTIONS - INNER SPACES

SPACE		ARCHITECTURAL ELEMENTS	PROBLEMS	Strenghtening	Consolidation & Repair	Removal	Surface Cleaning	Reintegration	Addition	INTERVENTION
	B06	W1	Plaster lost and detachment,infill, biological growth		●	●	●			The biological growths, plants will be removed by proper methods. The original plasters used in AOÇ Hamam , that has detachment problem, will be consalidated in its place and preserved by proper methods. If the detachment problem can't be reversable than it will removed out. The door infill will be removed out. After laboratory analyses, the inner surfaces will be covered by compatible plaster
		W2	Plaster lost and detachment,infill, biological growth		●	●	●			The biological growths, plants will be removed by proper methods. The original plasters used in AOÇ Hamam , that has detachment problem, will be consalidated in its place and preserved by proper methods. If the detachment problem can't be reversable than it will removed out. The window infill will be removed out. After laboratory analyses, the inner surfaces will be covered by compatible plaster
		W3	Plaster lost and detachment, biological growth		●		●			The biological growths, plants will be removed by proper methods. The original plasters used in AOÇ Hamam , that has detachment problem, will be consalidated in its place and preserved by proper methods. If the detachment problem can't be reversable than it will removed out. After laboratory analyses, the inner surfaces will be covered by compatible plaster
		W4	Plaster lost and detachment,infill, biological growth		●	●	●			The biological growths, plants will be removed by proper methods. The original plasters used in AOÇ Hamam , that has detachment problem, will be consalidated in its place and preserved by proper methods. If the detachment problem can't be reversable than it will removed out. The window infill will be removed out. After laboratory analyses, the inner surfaces will be covered by compatible plaster
		C	Plaster lost		●					After laboratory analyses, the inner surfaces will be covered by compatible plaster
		G	Ruin			●				The ruins will be removed.
		Door	element loss					●		The door will be used as convenient with the original drawings and as defines in conservation project.
		Windows	corrasion, material loss		●			●		If the corrosion is below critical level, it will be cleaned out with appropriate methods. If its not possible than the framework will be renewed than glass will be inserted.
		Fireplace	brick lost, concrete lost					●		The lost brick units and concrete units will be completed with same material and detail.
		Metal framework-platform	corrasion		●					If the corrosion is below critical level, it will be cleaned out with appropriate methods.
		Traces	traces can be seen in several part of the space		●					The traces in the space will be consolidated and preserved in its place.
		Refunctioning							●	Proper mechanism and water tank will be placed acording to mechanical project of the building.
	B07	W5	Plaster lost and detachment,infill, ruin, biological growth		●	●	●			The biological growths, plants will be removed by proper methods. The original plasters used in AOÇ Hamam , that has detachment problem, will be consalidated in its place and preserved by proper methods. If the detachment problem can't be reversable than it will removed out. The window infill and the ruin inside niches will be removed out. After laboratory analyses, the inner surfaces will be covered by compatible plaster
		W6	Plaster lost and detachment,infill, ruin, biological growth		●	●	●			The biological growths, plants will be removed by proper methods. The original plasters used in AOÇ Hamam , that has detachment problem, will be consalidated in its place and preserved by proper methods. If the detachment problem can't be reversable than it will removed out. The window infill and the ruin inside niches will be removed out. After laboratory analyses, the inner surfaces will be covered by compatible plaster
		W7	Plaster lost and detachment,infill, ruin, biological growth		●	●	●			The biological growths, plants will be removed by proper methods. The original plasters used in AOÇ Hamam , that has detachment problem, will be consalidated in its place and preserved by proper methods. If the detachment problem can't be reversable than it will removed out. The window infill and the ruin inside niches will be removed out. After laboratory analyses, the inner surfaces will be covered by compatible plaster
		C	Plaster lost		●					After laboratory analyses, inner surfaces above tile level will be covered by compatible plaster
		F	Ruin			●				The ruins will be removed.
		Door	element loss					●		The doors will be used as convenient with the original drawings and as defines in conservation project.
		Windows	corrasion, material loss		●			●		If the corrosion is below critical level, it will be cleaned out with appropriate methods. If its not possible than the framework will be renewed.
		Traces	traces can be seen in several part of the space		●					The traces in the space will be consolidated and preserved in its place. A metal shutters will be placed at the openings of the small niches.
		Refunctioning							●	Proper mechanism and water tank will be placed acording to mechanical project of the building. The space B-07 is designed for the staff working in the building. For this reason the space will be divided into spaces by light construction material and the intervention will be reversible. For the inserted wet spaces the floor level be rised and the waste water pipes will be inserted inside this rised slab.

W: Wall
C :Ceiling
F :Floor

Table 13- Conservation Proposal Table-7

CONSERVATION PROPOSAL/ INTERVENTIONS - ROOF



W : Wall
C :Ceiling
F :Floor
P :Parapet
Ch: Chimney

SPACE	ARCHITECTURAL ELEMENTS	PROBLEMS	Strenghtening	Consolidation & Repair	Removal	Surface Cleaning	Reintegration	Addition	INTERVENTION		
	P1	Structural deformation, plaster lost, vegetation	●	●		●			The biological growths, plants will be removed by proper methods.	The deformed parapet wall will be strengthened with compatible materials and it will be brought back to its original axis	After laboratory analyses, the inner and outer unplastered surfaces will be covered by compatible plaster.The parapet wall will be capped with compatible material in right slopes.
	P2 - 3	Plaster lost, vegetation		●		●			The biological growths, plants will be removed by proper methods.	After laboratory analyses, the inner and outer unplastered surfaces will be covered by compatible plaster. The parapet wall will be capped with compatible material in right slopes.	
	P4-5-6-7-8-9	Plaster lost,lost of brick units, lost of concrete cap, vegetation		●		●	●		The biological growths, plants will be removed by proper methods.	The lost brick units and concrete cap will be completed with same material and detail.	After laboratory analyses, the inner and outer unplastered surfaces will be covered by compatible plaster. The parapet wall will be capped with compatible material in right slopes.
	P10	Plaster lost,lost of brick units, lost of concrete cap, vegetation		●		●	●		The biological growths, plants will be removed by proper methods.	The lost brick units and concrete cap will be completed with same material and detail.	After laboratory analyses, the inner and outer unplastered surfaces will be covered by compatible plaster. The parapet wall will be capped with compatible material in right slopes.
	P11-12	Plaster lost, vegetation		●		●			The biological growths, plants will be removed by proper methods.	After laboratory analyses, the inner and outer unplastered surfaces will be covered by compatible plaster. The parapet wall will be capped with compatible material in right slopes.	
	D1	Uncompatible material, material loss, biological growth, plaster loss		●	●	●	●		The cement based later period plasters that is incompatible with construction material on facade will be removed out. After laboratory analyses, the inner and outer unplastered surfaces will be covered by compatible plaster.	The biological growths, plants will be removed by proper methods.	The oculeses will be closed with glass at the detail defined in conservation project.
	D2	Uncompatible material, material loss, biological growth, plaster loss			●	●	●		The cement based later period plasters that is incompatible with construction material on facade will be removed out. After laboratory analyses, the inner and outer unplastered surfaces will be covered by compatible plaster.	The biological growths, plants will be removed by proper methods.	The frameworks of Windows at the drum will be consolidated in its place. If the material became unusable due to the decay, the framework will be renewed with same material and detailed framework. The lost window frameworks and doors will be completed with same material and detailed elements. Glass will inserted into frame works.
	F1-F2-F3	soil, vegetation			●	●			The soil over roof will be cleaned out.The vegetation will be cleaned.		
	Ch	architectural element loss					●		The chimney will be completed as in the original with same material and detail.		
	Gutter, canals	material loss		●			●		The original drainage system will be consalidated and renewed .		
	chimney surfaces	Plaster lost		●					After laboratory analyses, the outer unplastered surfaces will be covered by compatible plaster.		

Table 14- Conservation Proposal Table-8

CONSERVATION PROPOSAL/ INTERVENTIONS - FACADES

The problems such as opening infills, window and door elements lost and problems of the roof won't be invesitigated under facade intervention proposal part in detail since they are investigated under spaces and plan sheets .

SPACE	ARCHITECTURAL ELEMENTS	PROBLEMS	Strenghtening	Consolidation & Repair	Removal	Surface Cleaning	Reintegration	Addition	INTERVENTION		
	W1	Plaster lost, uncompetible plaster, detachment problem, Structural crack, graying, break of brick units, lost of brick units	●	●	●	●	●		After the required structural analysis the Structural Cracks will be repaired with proper methods that civil engineer will decide The physically damaged brick units that lost their quality will be removed out and replaced by same type brick unit, others will be preserved in their place.	The cement based later period plasters that is incompatible with construction material on facade will be removed out. Graying will be cleaned with proper methods	The original plasters used in AOÇ Hamam , that has detachment problem, will be consalidated in its place and preserved by proper methods. If the detachment problem can't be reversable than it will removed out.After laboratory analyses, the unplastered surfaces will be covered by compatible plaster.
	W2	Plaster lost, uncompetible plaster, detachment problem,graying, break of brick units		●	●	●			The physically damaged brick units that lost their quality will be removed out and replaced by same type brick unit, others will be preserved in their place.	The cement based later period plasters that is incompatible with construction material on facade will be removed out. Graying will be cleaned with proper methods	The original plasters used in AOÇ Hamam , that has detachment problem, will be consalidated in its place and preserved by proper methods. If the detachment problem can't be reversable than it will removed out.After laboratory analyses, the unplastered surfaces will be covered by compatible plaster.
	W3	Plaster lost, uncompetible plaster, detachment problem,graying, break of brick units		●	●	●			The physically damaged brick units that lost their quality will be removed out and replaced by same type brick unit, others will be preserved in their place.	The cement based later period plasters that is incompatible with construction material on facade will be removed out. Graying will be cleaned with proper methods	The original plasters used in AOÇ Hamam , that has detachment problem, will be consalidated in its place and preserved by proper methods. If the detachment problem can't be reversable than it will removed out.After laboratory analyses, the unplastered surfaces will be covered by compatible plaster.
	W4	Plaster lost, uncompetible plaster, detachment problem,graying, break of brick units		●	●	●			The physically damaged brick units that lost their quality will be removed out and replaced by same type brick unit, others will be preserved in their place.	The cement based later period plasters that is incompatible with construction material on facade will be removed out. Graying will be cleaned with proper methods	The original plasters used in AOÇ Hamam , that has detachment problem, will be consalidated in its place and preserved by proper methods. If the detachment problem can't be reversable than it will removed out.After laboratory analyses, the unplastered surfaces will be covered by compatible plaster.
	Sidepavement	drainage problem						●	A drainage system will be constructed to get rid of surface waters, later that side pavements will be done with new material and detail.		
	W1	Plaster lost, uncompetible plaster, detachment problem,graying, break of brick units, lost of brick units		●	●	●	●		The physically damaged brick units that lost their quality will be removed out and replaced by same type brick unit, others will be preserved in their place.	The cement based later period plasters that is incompatible with construction material on facade will be removed out. Graying will be cleaned with proper methods	The original plasters used in AOÇ Hamam , that has detachment problem, will be consalidated in its place and preserved by proper methods. If the detachment problem can't be reversable than it will removed out.After laboratory analyses, the unplastered surfaces will be covered by compatible plaster.
	Entrance	structural deformation at stairs, vegetation, ruin , partial break of concrete units, partial demolishment at the side walls of the stair.	●		●	●	●		The deformed stair will be strengthened with compatible materials and it will be brought back to its original place. The biological growths, plants will be removed by proper methods.	The ruins will be removed. The broken parts will be completed with competible mortar. The side walls of the stair will be completed with similar material and detail.	

W: Wall
C :Ceiling
F :Floor

Table 15 -Conservation Proposal Table-9

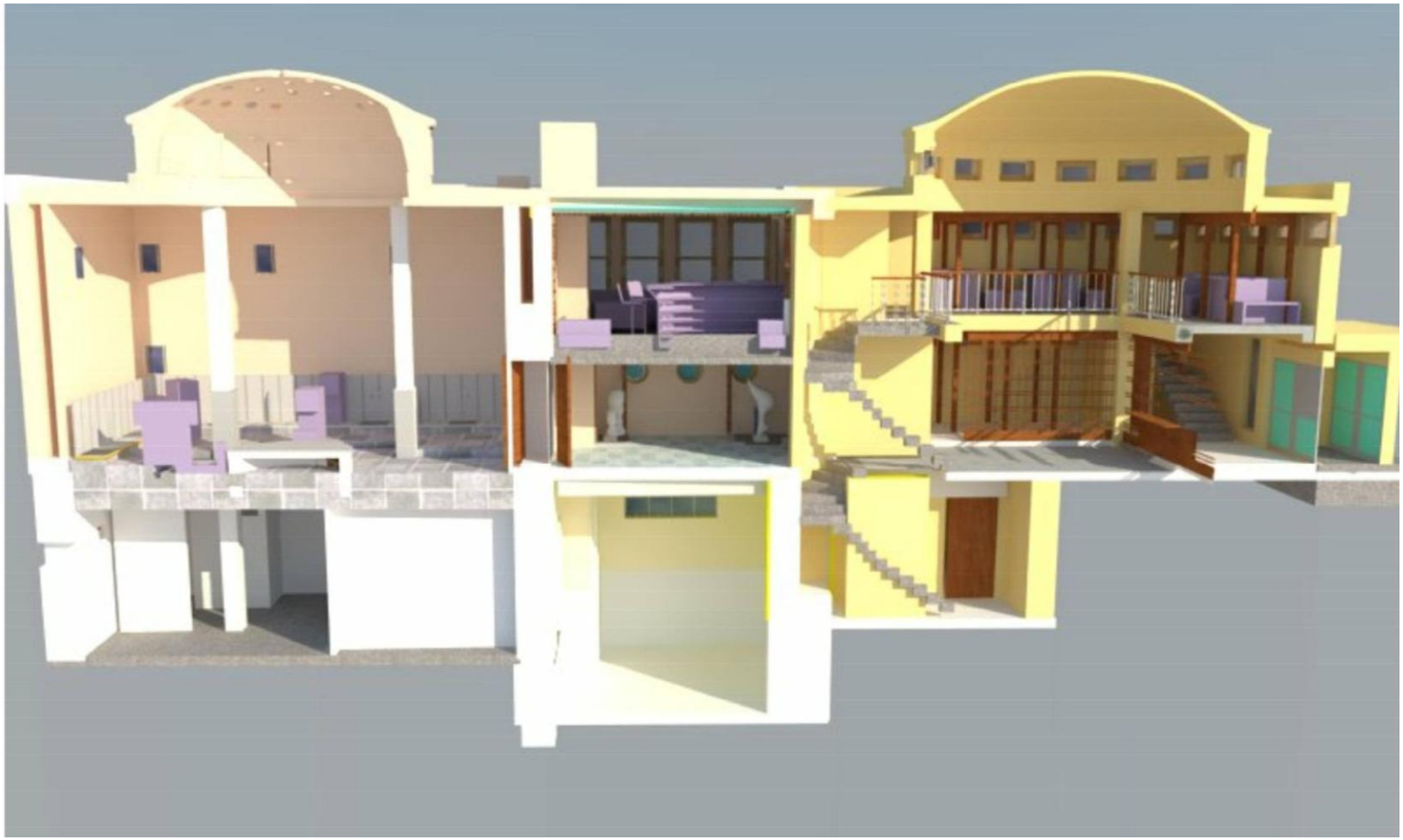


Figure 197-Conservation Proposal Model

INTERVETION MAP /SECTION & FACADE

BASEMENT FLOOR

GROUND FLOOR

0 100 200 400cm

INTERVENTION MAP KEY

1.0 Strengthening

- **1.1** -Analyses will be done about the different settlement problem of the foundation. If required the foundation will be strengthened with proper methods that civil engineer decide.
- **1.2** -The concrete columns and dome will be strengthened with proper methods.
- **1.3** -The Structural cracks will be stabilized with proper methods that civil engineer will decide.
- **1.4** -Structurally deformed wall will be strengthened with compatible materials and the brick course will be brought to its original axis
- **1.5** -The stairs at the entrance will be strengthened with compatible materials and it will be brought back to its original place.
- **1.6** -The deformed parapet wall will be strengthened with compatible materials and it will be brought back to its original axis.
- **1.7** -Deformed brick courses will be strengthened by compatible materials.

2.0 Consolidation & Repair

- **2.1** -The surface voids of decayed brick unit will be consolidated in its place. The irregularities will be filled with compatible mortar. Only the physically damaged brick units that lost their quality will be removed out and replaced by same type brick unit, others will be preserved in their place.
- **2.2** -The original plasters used in AOÇ Hamam, that has detachment problem, will be consolidated in its place and preserved with suitable methods
- **2.3** -The loosen tiles and floor coverings will be consolidated in their place with compatible materials.
- **2.4** - If decay rate of the window framework is low , they will be consolidated in their place.
- **2.5** -The timber railings in space F-02 will be consolidated and they will be varnished.
- **2.6** -If the decay rate is low, the original vertical drainage system will be consolidated.
- **2.7** -The traces in the building will be preserved. In that respect the intervention type is consolidation of this traces of which are defined in detail in the intervention table.
- **2.8** -If the corrosion is below critical level, it will be cleaned out with appropriate methods. Than it will be painted with corrosion inhibitor.
- **2.9** -If possible, the buckled metals in railings will be reshaped to its original form. If it is not possible the buckled metal will be replaced with same material and detailed railing.
- **2.10** -The surfaces where there is plaster lost, will be plastered with compatible material.
- **2.11** -The wall and floor finishing will be renewed with compatible material with the detail defined in conservation project. For the finishing that are at high reliability level, similar material and detailed materials will be used.
- **2.12** -Proper detail glass will be used at the dome oculuses.
- **2.13** -The parapet wall will be capped with compatible material in right slopes.

3.0 Removal

- **3.1** -The window and door opening infill will be removed out.
- **3.2** -The ruins will be removed. If the material in the ruins is original, its original place will be investigated and if possible it will be placed to its original place, if it can not be determined than they can be used in appropriate place.
- **3.3** -The soil, shrubs and vegetation will be removed.
- **3.4** -The cement based later period plasters that is incompatible with construction material on facade will be removed out, than the surface will be plastered with compatible material.

4.0 Surface Clearing

- **4.1** -The biological growths, plants will be removed , than the surface will be cleaned with proper methods.
- **4.2** -Color changes will be cleaned with proper methods.

5.0 Reintegration

- **5.1** -The demolished parts such as side walls of the stairs, chimney in space F-02, will be completed with similar material and same detail.
- **5.2** -After removal of the infill the window openings and demolished wall parts, the complete will be made with original detail and material.
- **5.3** -The lost brick units will be replaced with same type of brick and compatible mortar.
- **5.4** -The lost concrete parts will be covered with compatible ingredient concrete.
- **5.5** - If the decay rate is irreversible than the the framework will be renewed with same material and detailed material. The lost window frameworks and doors will be completed with same material and detailed elements The material losses in the edges of window and door openings will be completed with similar material and same detail.
- **5.6** -The lost metal elements will be completed with similar material and detailed metal element.

6.0 Addition

- **6.1** -Appropriate drainage system for roof will be added.
- **6.2** -A drainage system will be constructed to get rid of surface waters, later a side pavements will be constructed.
- **6.3** -Furniture that is in harmony with the original architectural elements and design of the building will be used, with new material.
- **6.4** - For the artificial illumination new materials and details will be used. In space G-03 hidden lightening elements will be used.
- **6.5** - For heating of the building floor heating systems will be used in places where there is finishing lost. For the spaces F-01 and F-02 the heating elements will be hidden. In space G-03 the heating system will be hidden either in niches or ground. The original heating elements traces will be preserved
- **6.6** -The required infrastructure will be supplied.
- **6.7** -For wet spaces new material and detailed architectural elements will be used.

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conservation MASTER PROGRAM

Supervisor: Dr Fuat GÖKÇE
Thesis Study Prepared by Büşra KUL

INTERVENTION MAP
SHEET NO: 1 of 4

Figure 198- Intervention Map

INTERVETION MAP /SECTION & FACADE

SECTION A-A

WEST ELEVATION

0 100 200 400cm

* The photographs used in sections are rectified by using ROLLEI Metric MSR 4.0 computer software, while the Photograph at basement floor are rectified with photoshop with references of measured points.

INTERVENTION MAP KEY

1.0 Strengthening

1.1 -Analyses will be done about the different settlement problem of the foundation. If required the foundation will be strengthened with proper methods that civil engineer decide.

1.2 -The concrete columns and dome will be strengthened with proper methods.

1.3 -The Structural cracks will be stabilized with proper methods that civil engineer will decide.

1.4 -Structurally deformed wall will be strengthened with compatible materials and the brick course will be brought to its original axis

1.5 -The stairs at the entrance will be strengthened with compatible materials and it will be brought back to its original place.

1.6 -The deformed parapet wall will be strengthened with compatible materials and it will be brought back to its original axis.

1.7 -Deformed brick courses will be strengthened by compatible materials.

2.0 Consolidation & Repair

2.1 -The surface voids of decayed brick unit will be consolidated in its place. The irregularities will be filled with compatible mortar. Only the physically damaged brick units that lost their quality will be removed out and replaced by same type brick unit, others will be preserved in their place.

2.2 -The original plasters used in AOÇ Hamam, that has detachment problem, will be consolidated in its place and preserved with suitable methods

2.3 -The loosen tiles and floor coverings will be consolidated in their place with compatible materials.

2.4 - If decay rate of the window framework is low , they will be consolidated in their place.

2.5 -The timber railings in space F-02 will be consolidated and they will be varnished.

2.6 -If the decay rate is low, the original vertical drainage system will be consolidated.

2.7 -The traces in the building will be preserved. In that respect the intervention type is consolidation of this traces of which are defined in detail in the intervention table.

2.8 -If the corrosion is below critical level, it will be cleaned out with appropriate methods. Than it will be painted with corrosion inhibitor.

2.9 -If possible, the buckled metals in railings will be reshaped to its original form. If it is not possible the buckled metal will be replaced with same material and detailed railing.

2.10 -The surfaces where there is plaster lost, will be plastered with compatible material.

2.11 -The wall and floor finishing will be renewed with compatible material with the detail defined in conservation project. For the finishing that are at high reliability level, similar material and detailed materials will be used.

2.12 -Proper detail glass will be used at the dome oculuses.

2.13 -The parapet wall will be capped with compatible material in right slopes.

3.0 Removal

3.1 -The window and door opening infill will be removed out.

3.2 -The ruins will be removed. If the material in the ruins is original, its original place will be investigated and if possible it will be placed to its original place, if it can not be determined than they can be used in appropriate place.

3.3 -The soil, shrubs and vegetation will be removed.

3.4 -The cement based later period plasters that is incompatible with construction material on facade will be removed out, than the surface will be plastered with compatible material.

4.0 Surface Clearing

4.1 -The biological growths, plants will be removed , than the surface will be cleaned with proper methods.

4.2 -Color changes will be cleaned with proper methods.

5.0 Reintegration

5.1 -The demolished parts such as side walls of the stairs, chimney in space F-02, will be completed with similar material and same detail.

5.2 -After removal of the infill the window openings and demolished wall parts, the complete will be made with original detail and material.

5.3 -The lost brick units will be replaced with same type of brick and compatible mortar.

5.4 -The lost concrete parts will be covered with compatible ingredient concrete.

5.5 - If the decay rate is irreversible than the the framework will be renewed with same material and detailed material. The lost window frameworks and doors will be completed with same material and detailed elements The material losses in the edges of window and door openings will be completed with similar material and same detail.

5.6 -The lost metal elements will be completed with similar material and detailed metal element.

6.0 Addition

6.1 -Appropriate drainage system for roof will be added.

6.2 -A drainage system will be constructed to get rid of surface waters, later a side pavements will be constructed.

6.3 -Furniture that is in harmony with the original architectural elements and design of the building will be used, with new material.

6.4 - For the artificial illumination new materials and details will be used. In space G-03 hidden lightening elements will be used.

6.5 - For heating of the building floor heating systems will be used in places where there is finishing lost. For the spaces F-01 and F-02 the heating elements will be hidden. In space G-03 the heating system will be hidden. either in niches or ground. The original heating elements traces will be preserved

6.6 -The required infrastructure will be supplied.

6.7 -For wet spaces new material and detailed architectural elements will be used.

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INTERVENTION MAP
SHEET NO: 2 of 4

Figure 199-Intervention Map

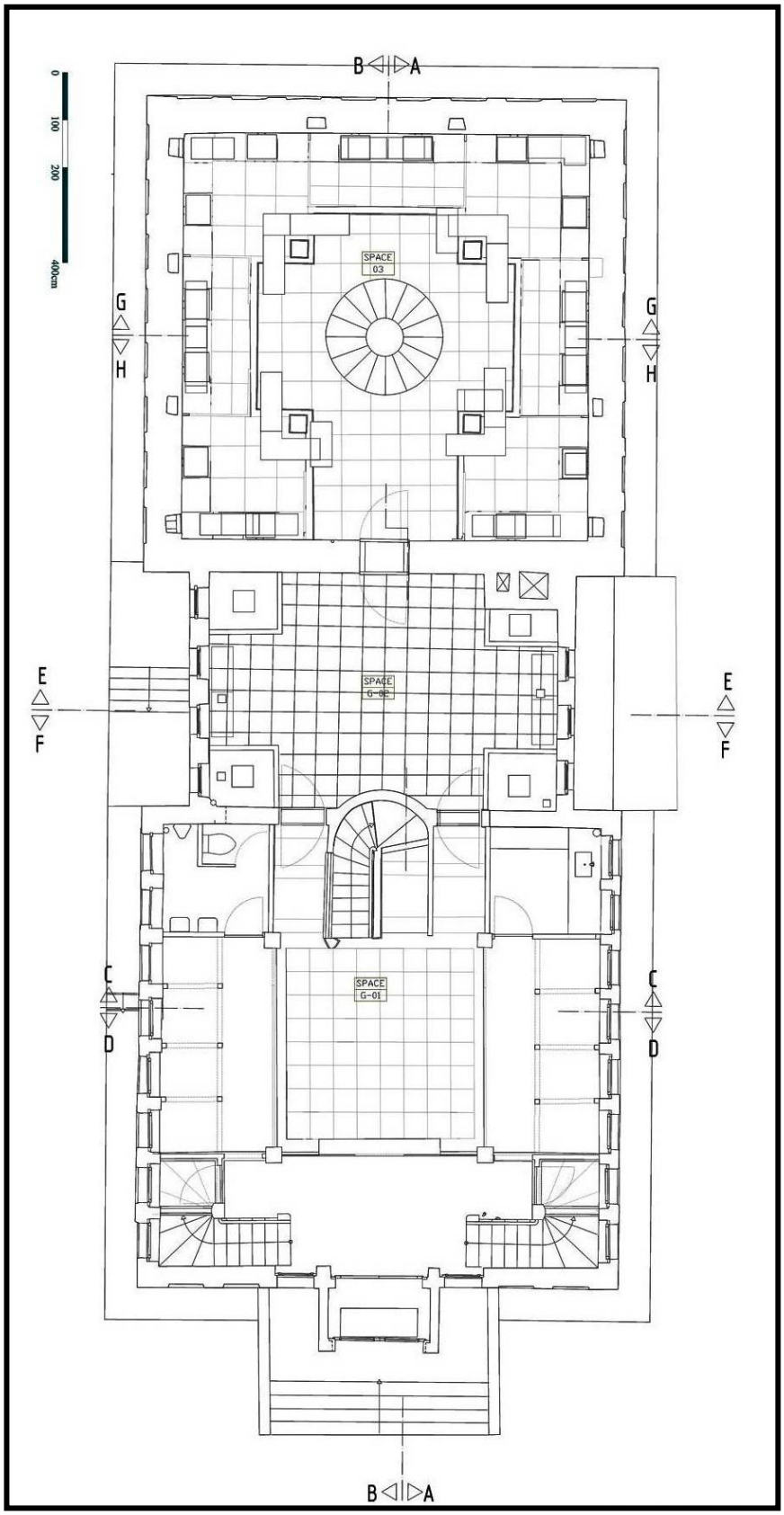

Figure 200- Conservation Proposal

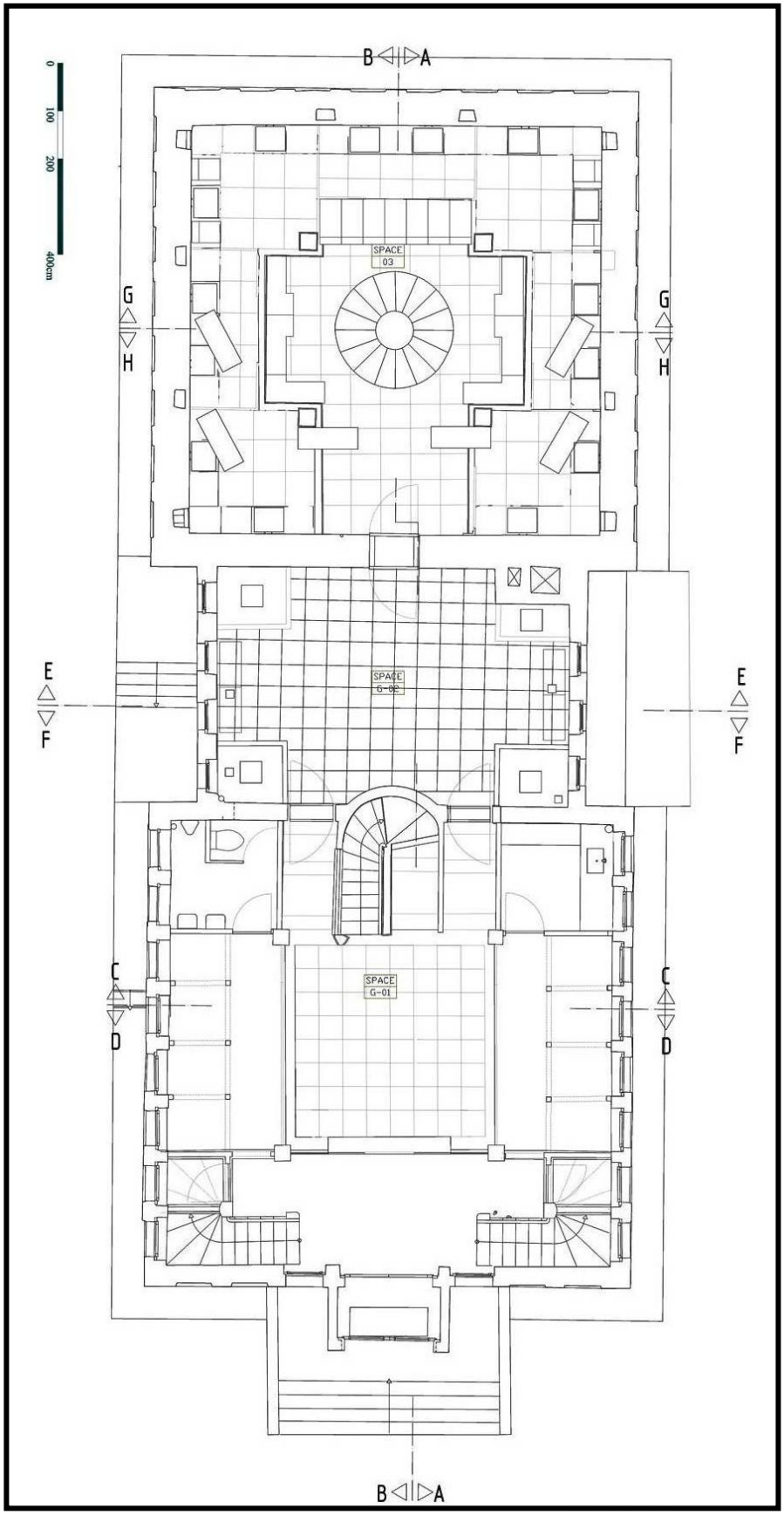

Figure 201- Conservation Proposal

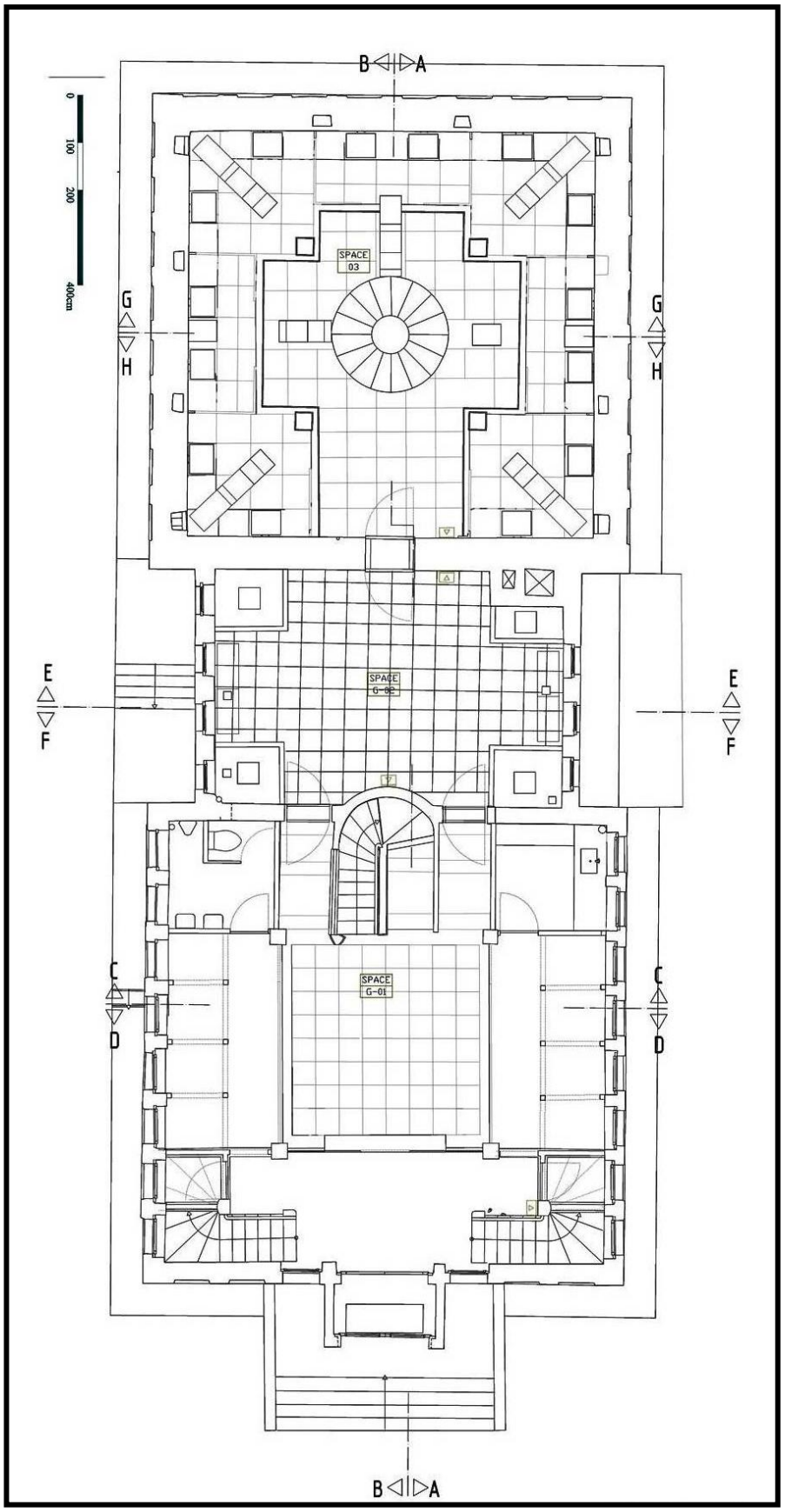

Figure 202- Conservation Proposal

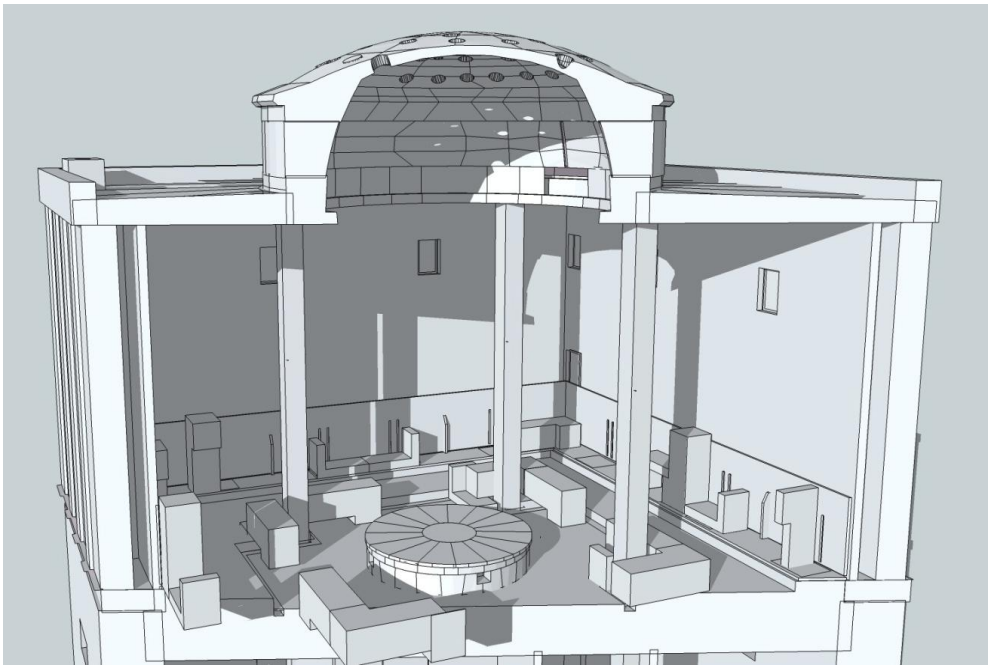

Figure 203- Exhibition Order

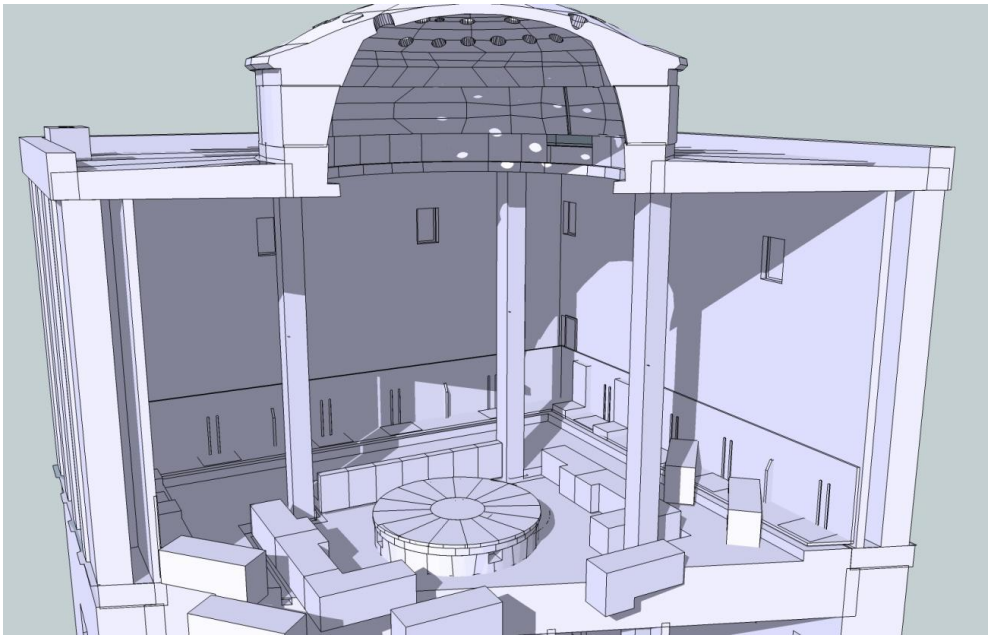

Figure 204- Modular furniture design for space G-03- Chamber Music Order

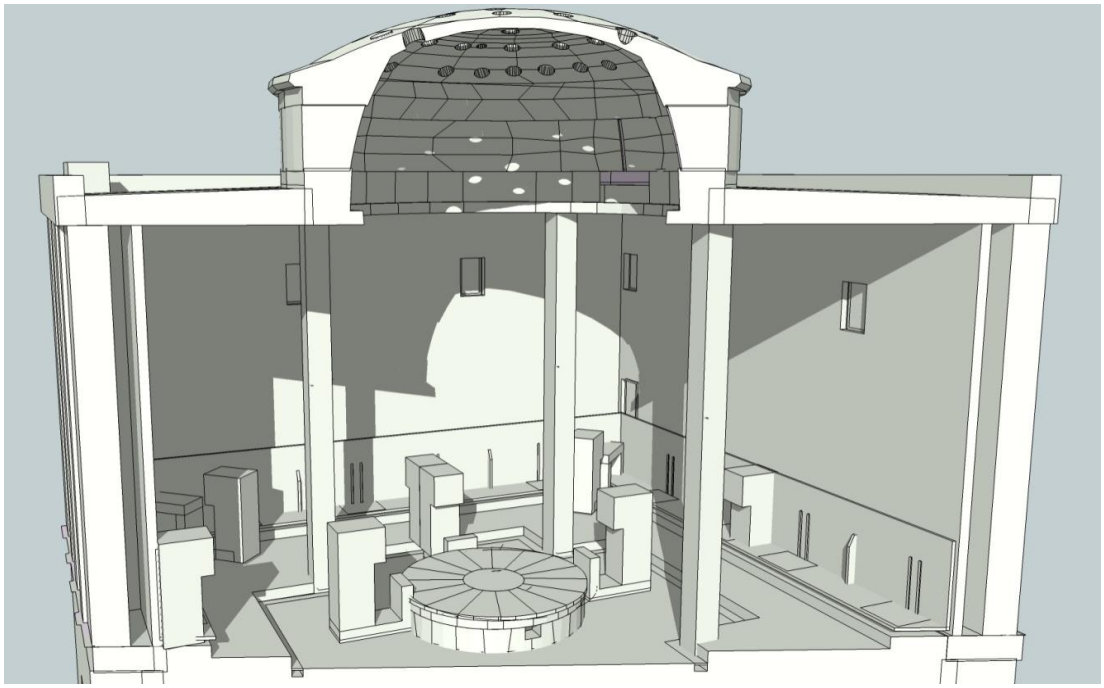

Figure 205-Cocktail order

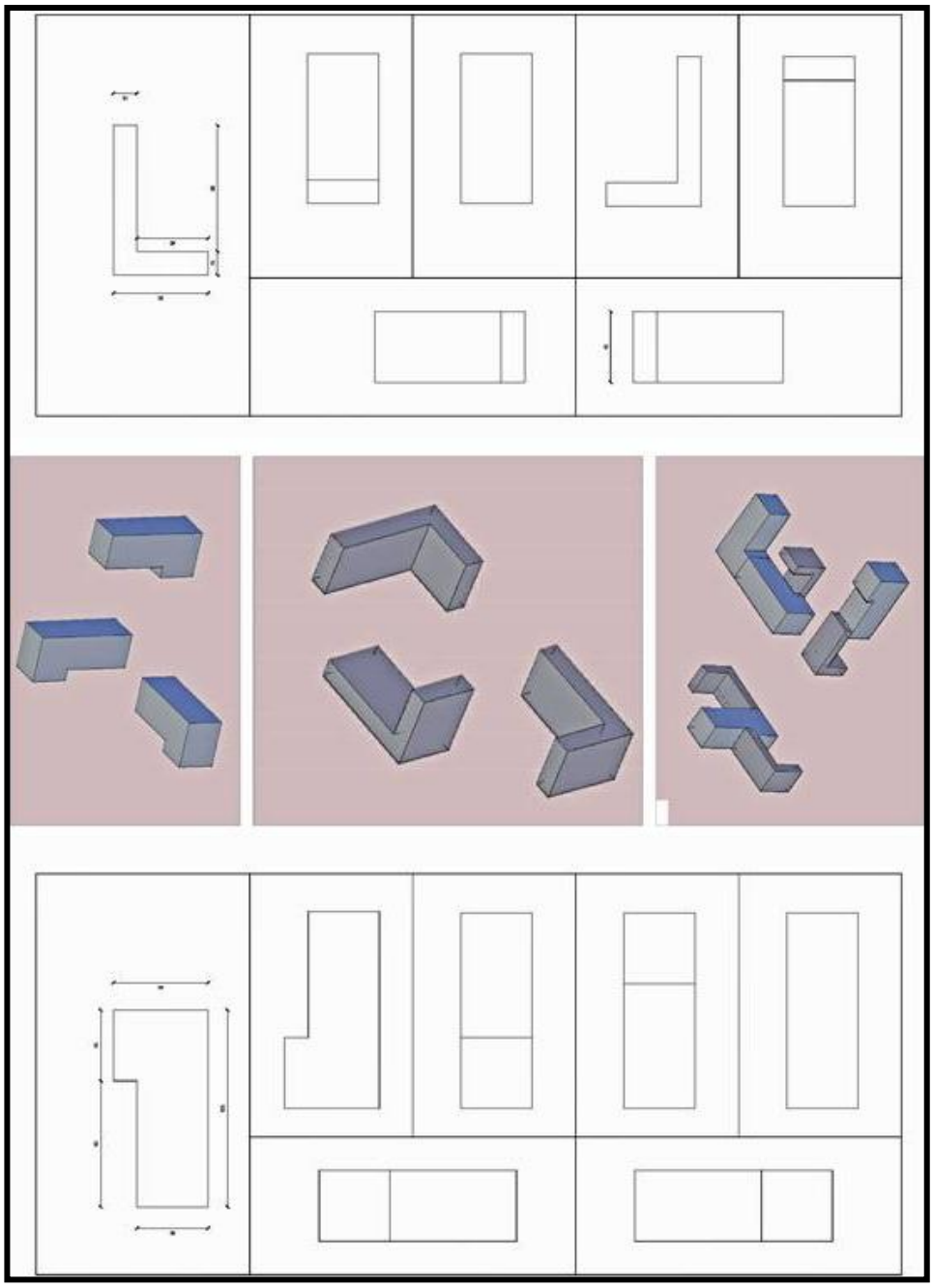

Figure 206- Modular furniture for G-03

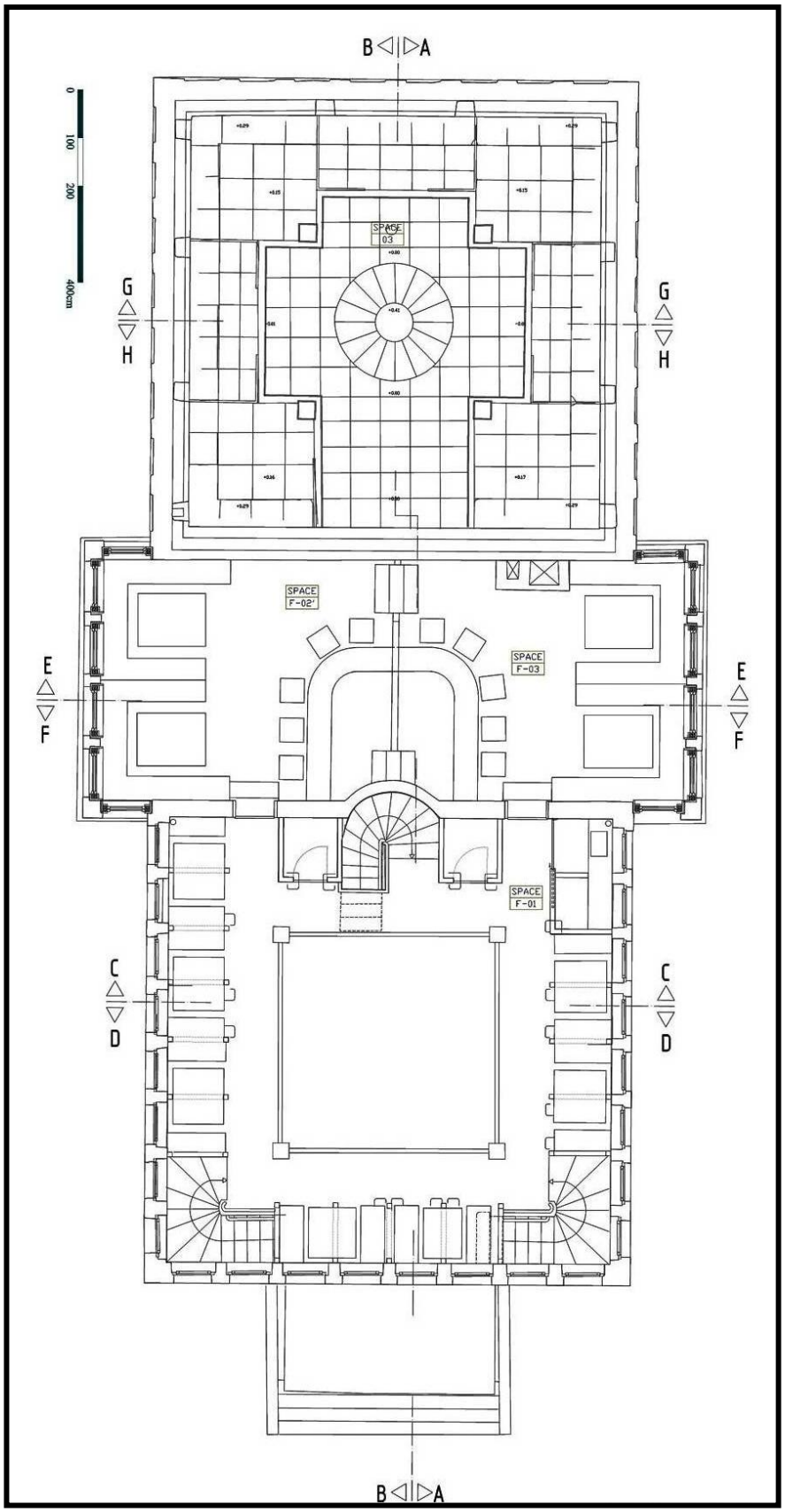

Figure 207- Conservation Proposal

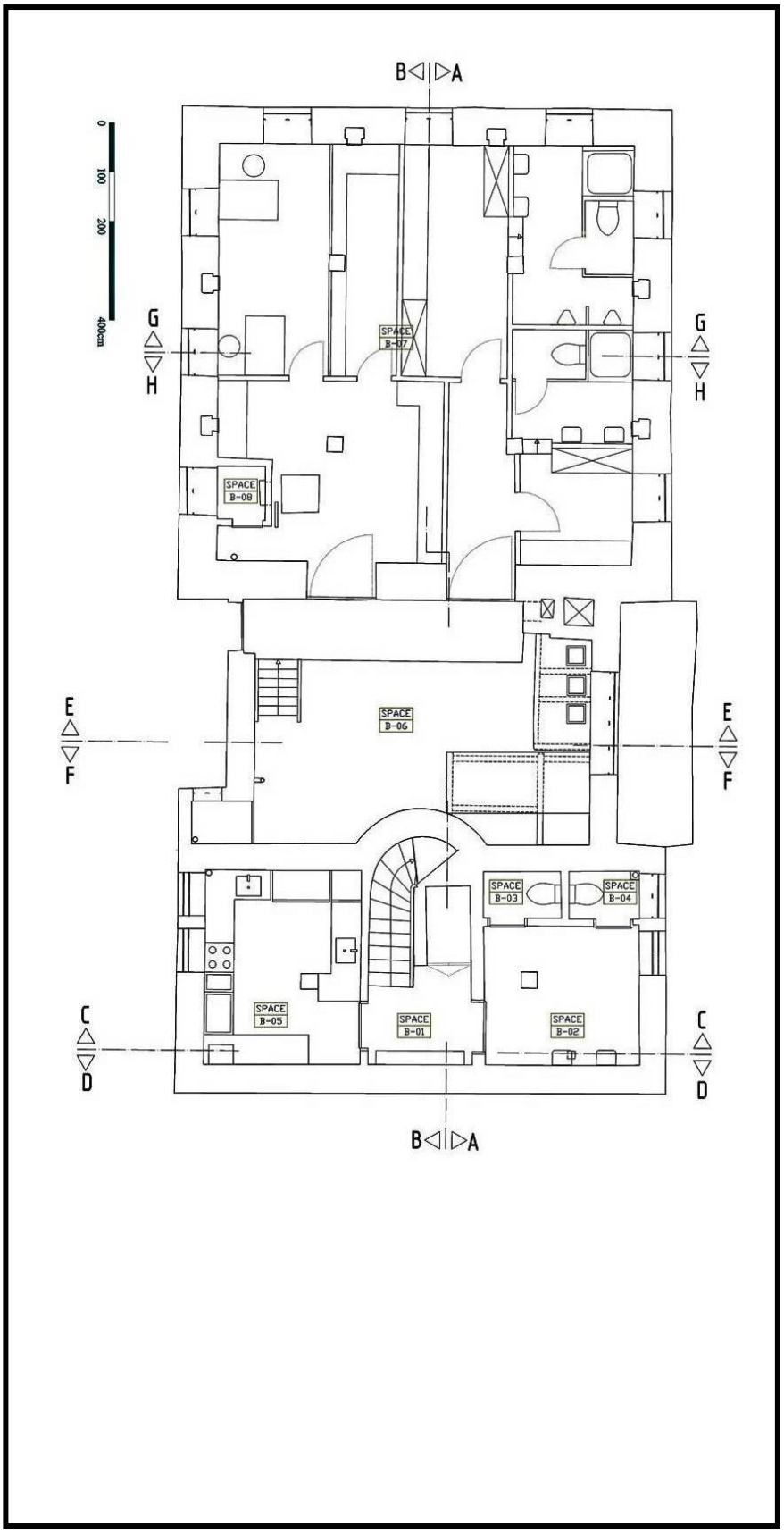

Figure 208- Conservation Proposal

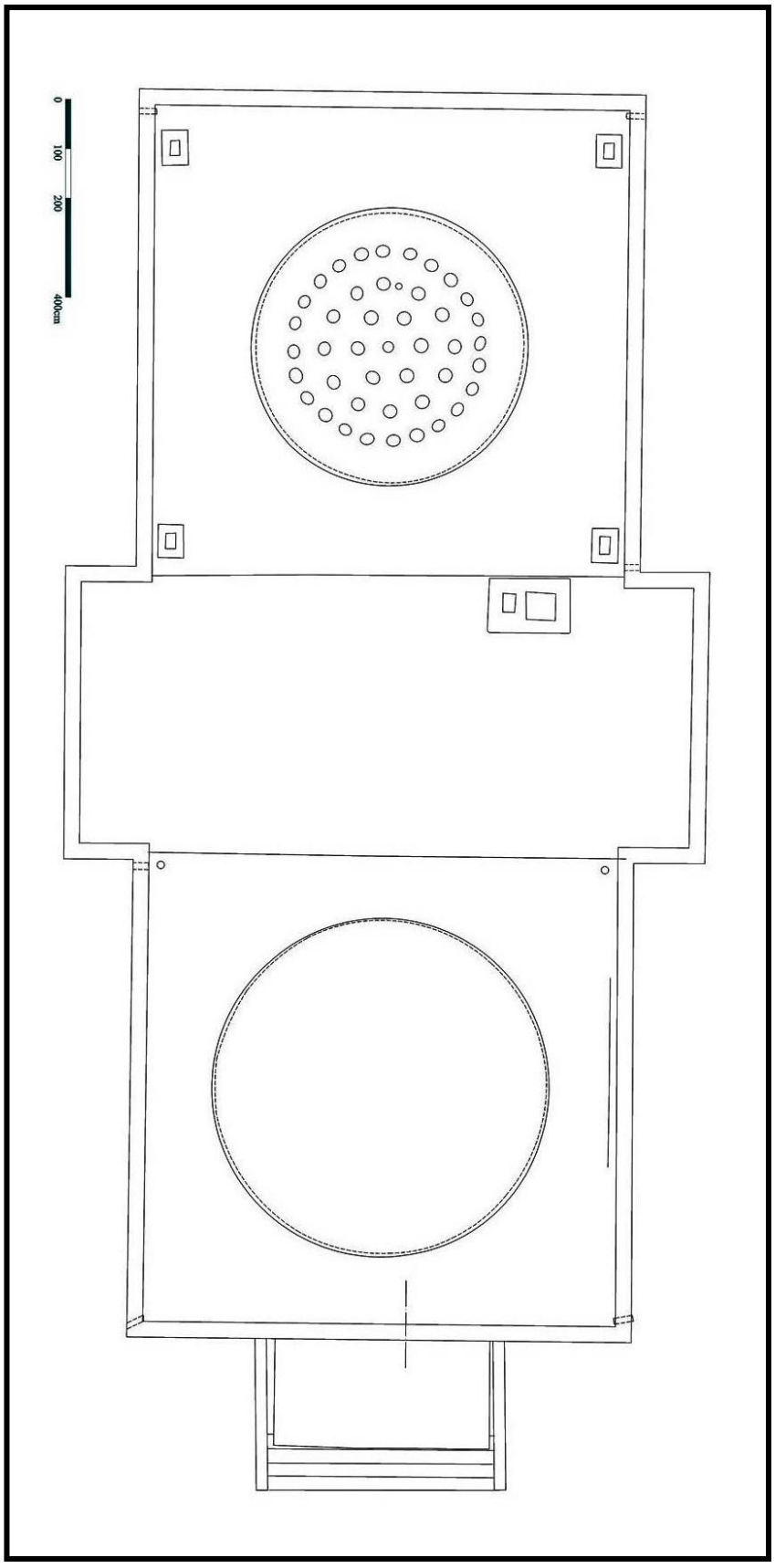

Figure 209- Conservation Proposal

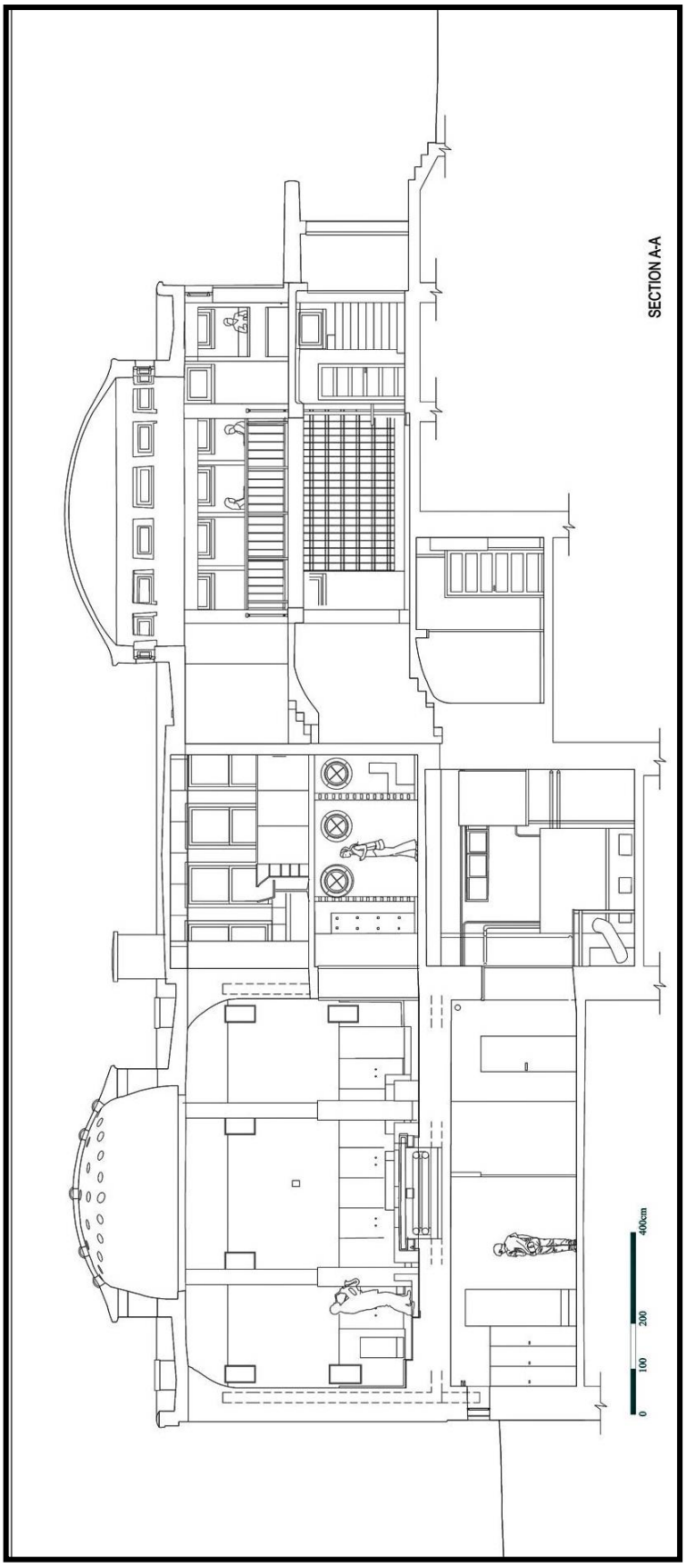

Figure 210- Conservation Proposal

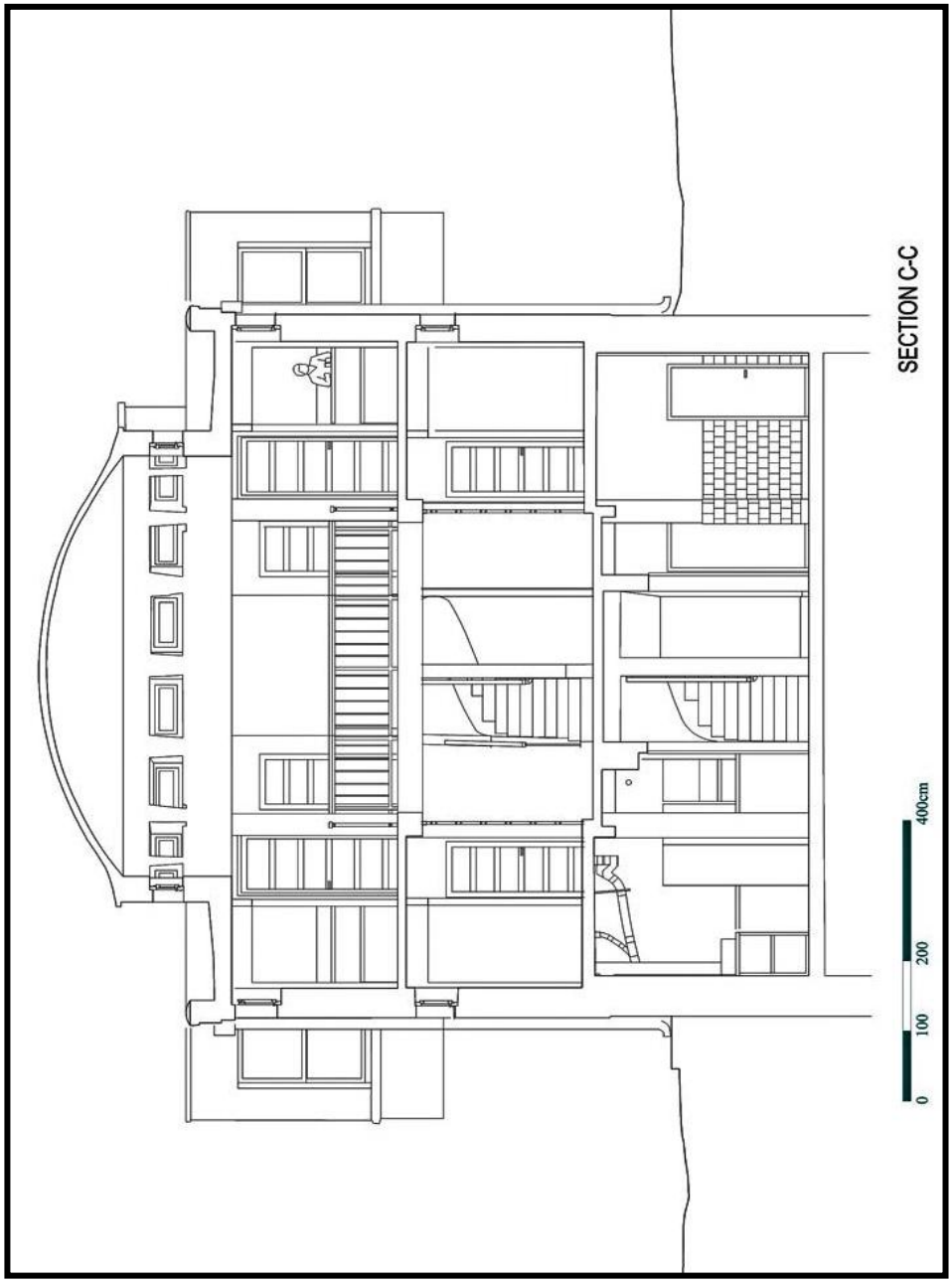

Figure 211- Conservation Proposal

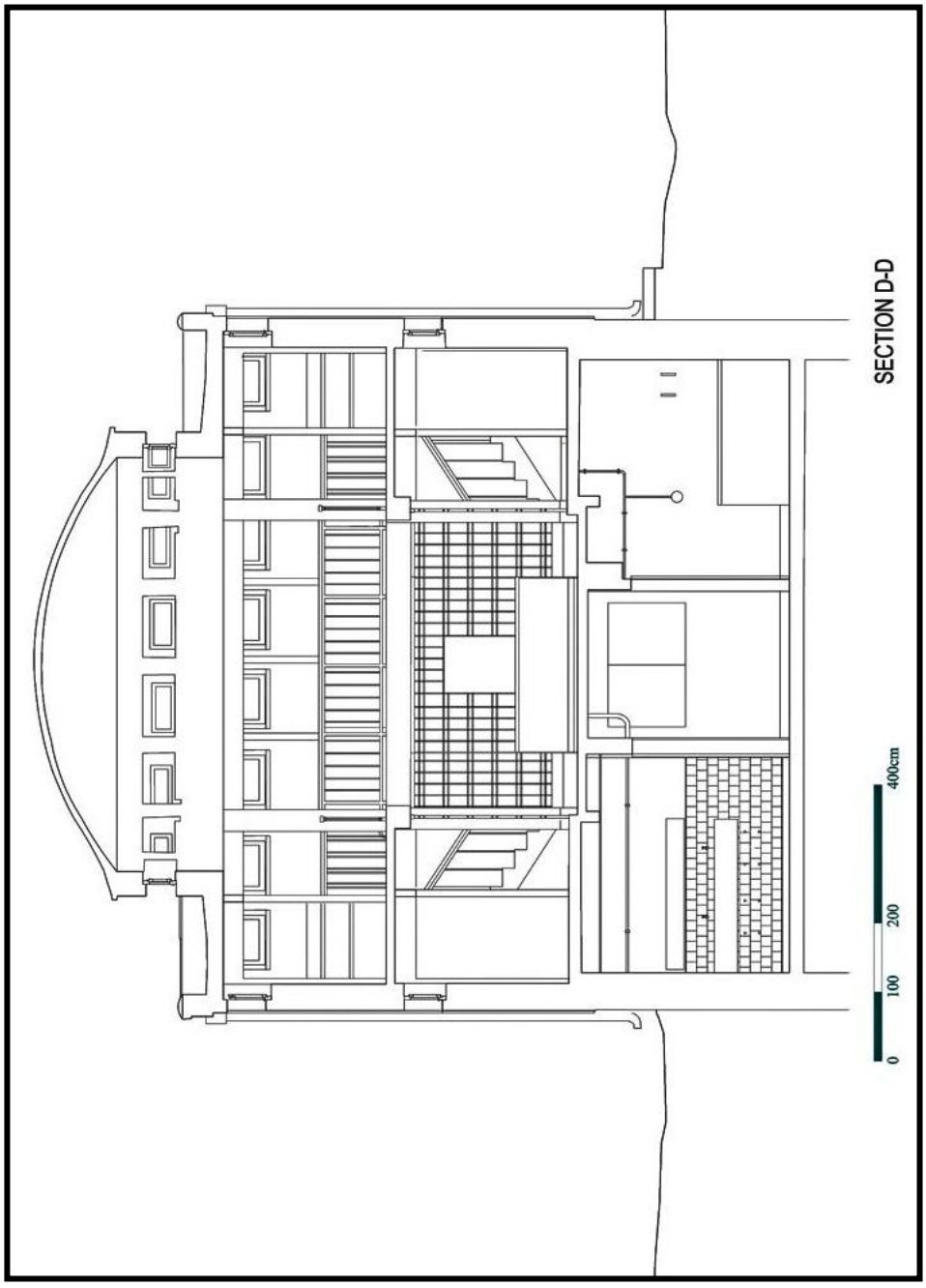

Figure 212- Conservation Proposal

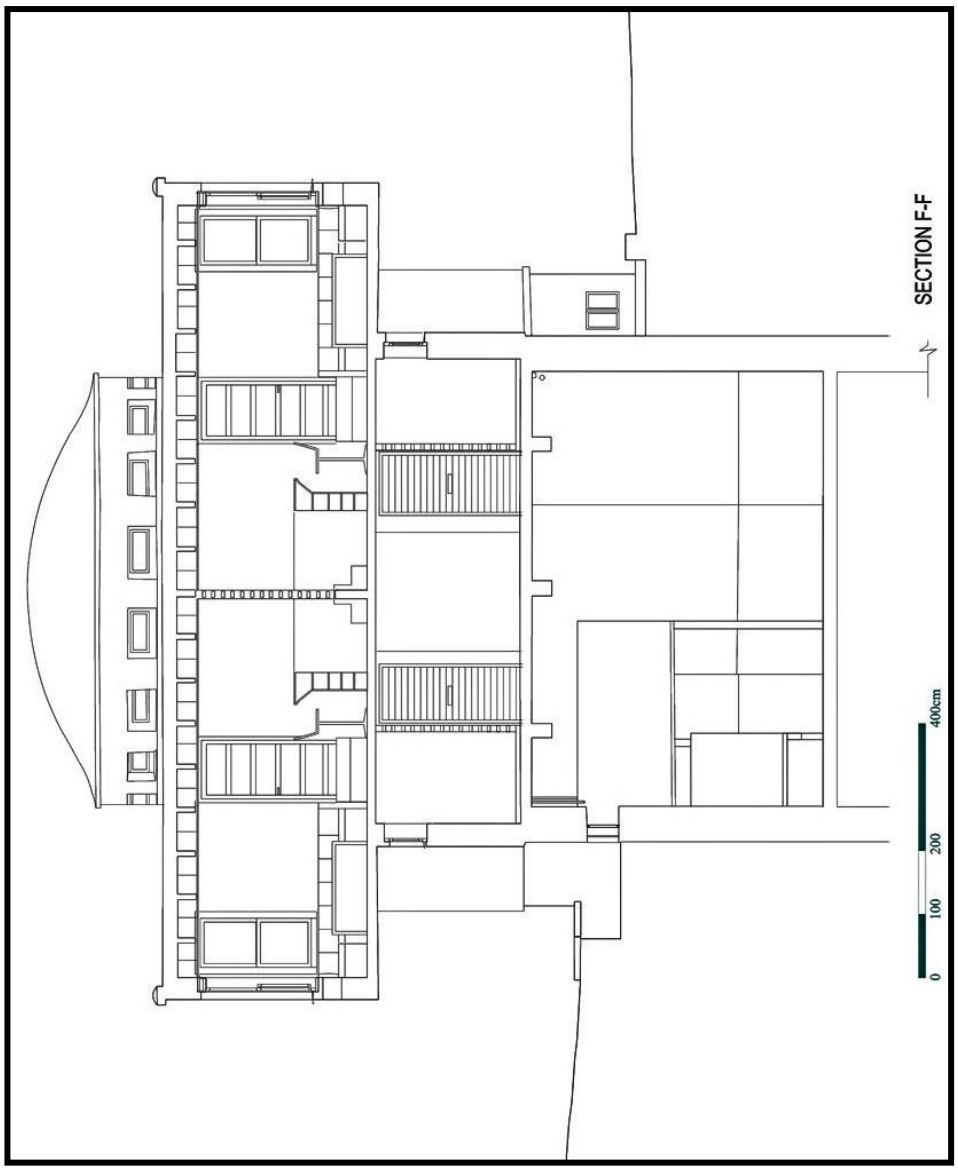

Figure 213- Conservation Proposal

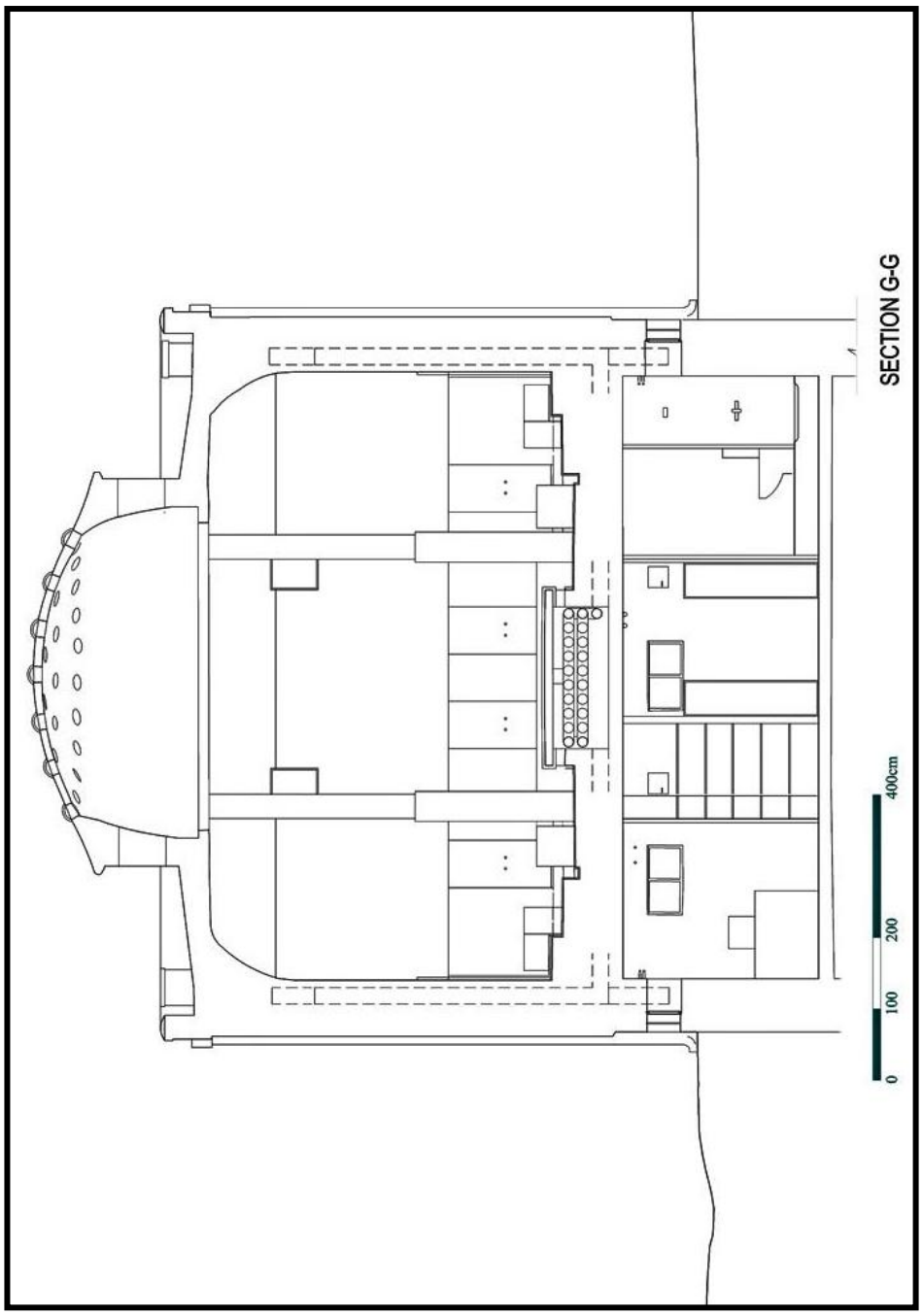

Figure 214- Conservation Proposal

Figure 215- View from G-01, F-01

Figure 216- View from G-01, F-01 and basememnt

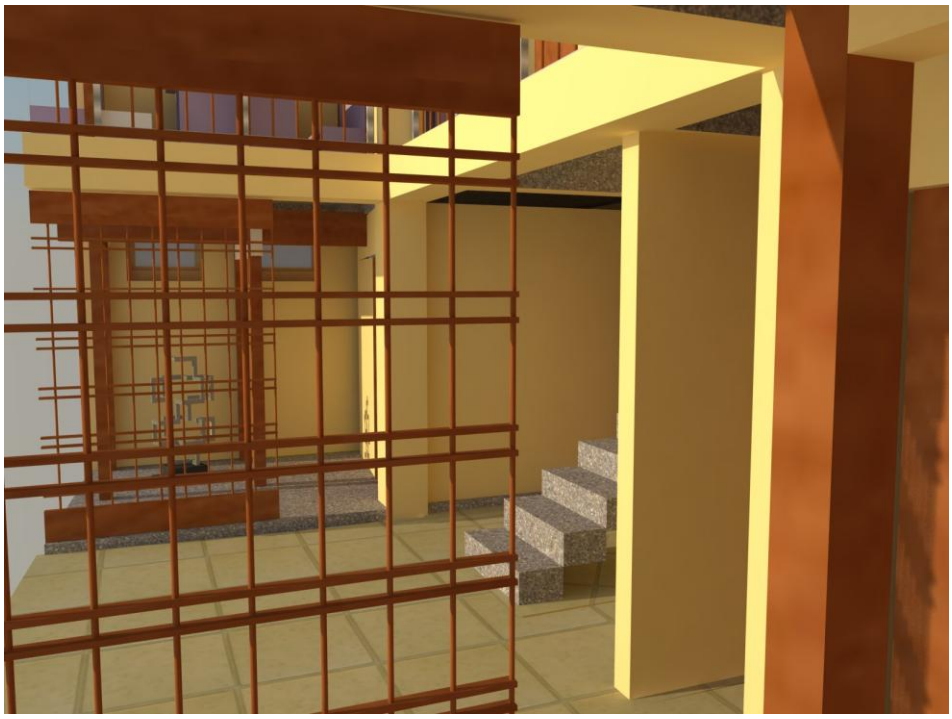

Figure 217- View from G-01, F-01

Figure 218- View from G-01, F-01

Figure 219- View from G-01, F-01

Figure 220-View from G-02

Figure 221- View from G-03

Figure 222- View from G-03

CONSERVATION PROPOSAL / SITE PLAN DESIGN

Figure 223– Conservation Proposal, Site Plan 1

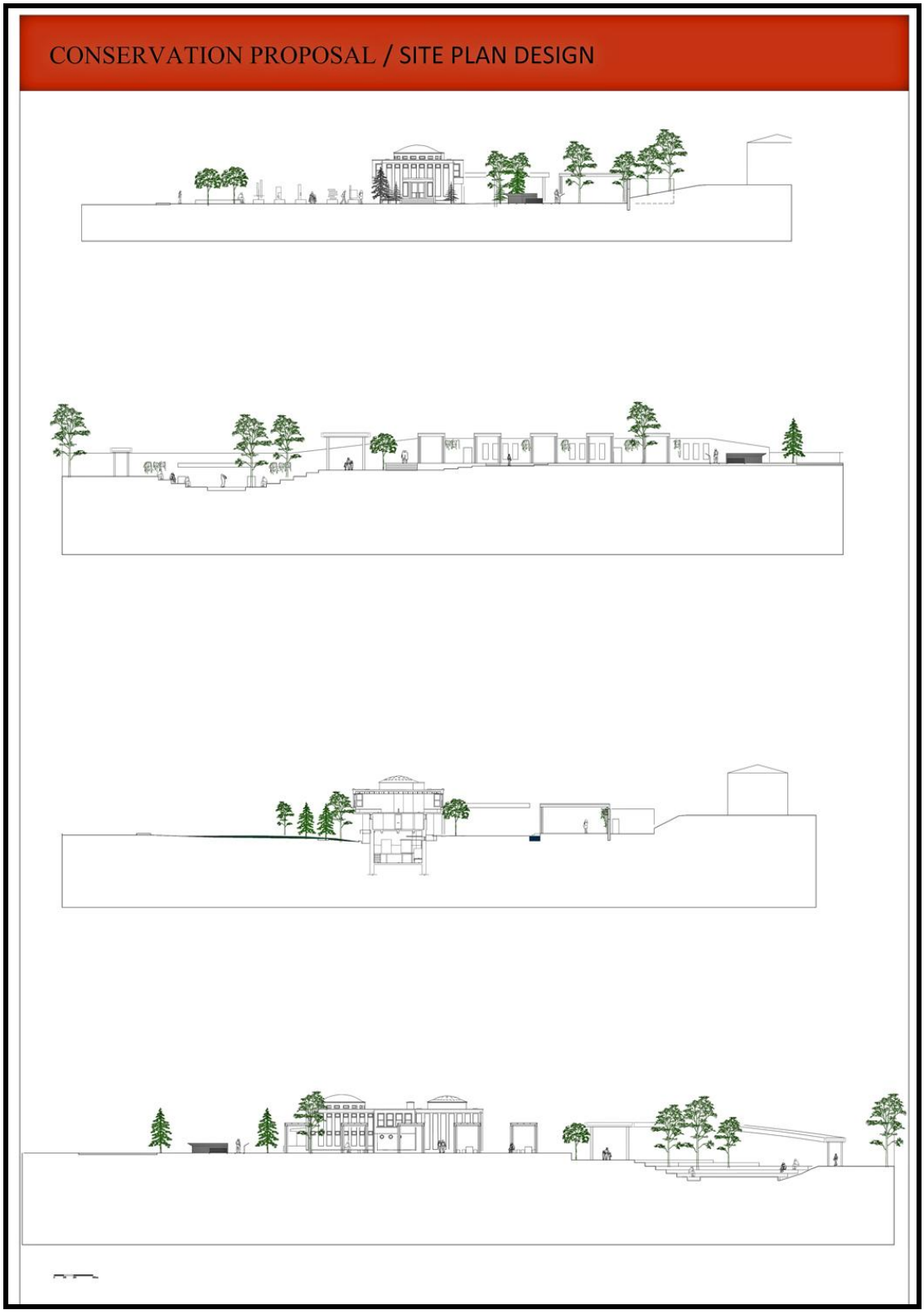

Figure 224-– Conservation Proposal, Site Plan 3

Figure 225- Conservation Proposal- Site Plan

Figure 226- Conservation Proposal- Site Plan

Figure 227- Conservation Proposal- Site Plan

Figure 228- Conservation Proposal- Site Plan

Figure 229- Conservation Proposal- Site Plan

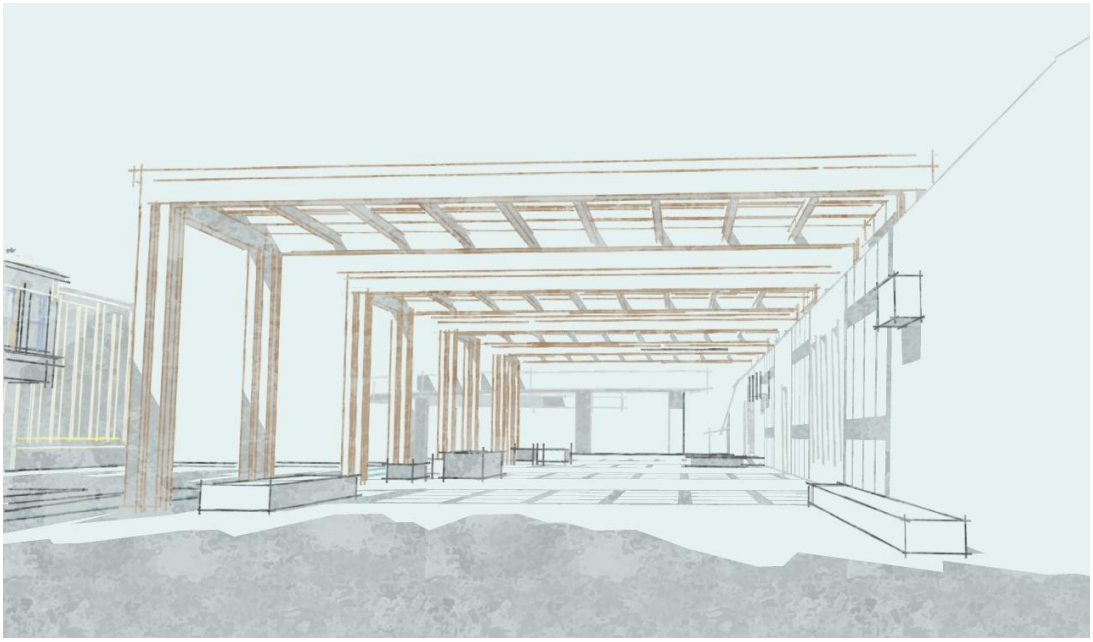

Figure 230- Conservation Proposal- Site Plan

Figure 231-- Conservation Proposal- Site Plan

Figure 232-- Conservation Proposal- Site Plan