PARASITES ON ARCHITECTURE: AN ASSESSMENT OF BUILDING ADDITIONS IN MAHMUTPASA, ISTANBUL

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PARASITES ON ARCHITECTURE: AN ASSESSMENT OF BUILDING ADDITIONS IN MAHMUTPASA, ISTANBUL

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ABSTRACT

PARASITES ON ARCHITECTURE: AN ASSESSMENT OF BUILDING ADDITIONS IN MAHMUTPASA, ISTANBUL

The goal of this thesis work is to document (see p:1) of building additions in Mahmutpaşa Street, İstanbul, considering their contributions and impacts on the built and cultural environment of the city. A compilation of relevant examples of global parasite architecture is provided for extensive insight to the field.

Mahmutpaşa neighbourhood, a vivid shopping area in the historical peninsula of Istanbul is in constant change and adaptation, in regard to its built environment. To be able to grasp the change better, Mahmutpaşa is examined in terms of its historical, locational, sociocultural and economic structure. Building additions, as the main object of this work, are studied in multiple aspects. All additions are classified in terms of structure, use, places attached; roof, facade and field. The practical background of these interventions as well as their impacts on the host structures are presented. A global understanding of parasitism in biology and architecture is provided in this thesis as a basis of evaluation . Growing needs in a period of advancing technology is also taken into consideration.

Within the framework of the study the "Municipal Sanitation Project in Fatih District" is assessed in terms of objectives, approach and coverage. Based on this assessment, a resilient system to prevent further damage to the built heritage while allowing adaptation to changing conditions is proposed in a preliminary form for further examination. Cultural and economical sustainability, minimized environmental footprint, ability to cope with versatility in user preferences are the corner stones of the new spatial system.

ÖZET

PARAZİTLİ MİMARİ: İSTANBUL MAHMUTPAŞA'DAKİ YAPI EKLERİNİN DEĞERLENDİRMESİ

Bu tezin ana amacı; İstanbul, Mahmutpaşa Caddesi'ndeki yapı eklerinin şehrin kültürel ve yapısal çevreye katkılarının ve etkilerinin incelenerek listelenmesidir. Sahaya derin bir bakış için ilgili seçilen küresel parazit mimari örnekleri de incelenmiştir.

İstanbul tarihi yarımadasının en gözde alışveriş merkezlerinden biri olan Mahmutpaşa çevresi, yapısal çevresine göre sürekli bir değişim ve adaptasyon içerisindedir. Bu değişimi daha iyi kavrayabilmek için Mahmutpaşa; tarihsel, lokasyon, sosyokültürel ve ekonomik olarak değerlendirilmiştir. Tezin ana odak noktası olan yapısal ekler bir çok bakış açısından incelenmiştir. Tüm ekler yapısal, kullanımsal, iliştirilen yerler; çatı, cephe ve müstakil, olarak sınıflandırılmıştır. Tüm yapısal müdahalelerin kullanım faydaları ve yapısal çevresel etkileri sunulmuştur. Tezin temel değerlendirmesinde biyolojik ve mimari parazitimin küresel algısı sunulmuştur. Bunun yanısıra, zamanla gelişen teknolojinin getirdiği artan ihtiyaçlar da göz önüne alınmıştır.

Çalışmanın çerçevesi içerisinde Fatih Belediyesi Sağlıklaştırma Projesi amacı, kapsamı ve yaklaşımı açısından incelenmiştir. Bu incelemenin sonucunda, değişen şartlara adaptasyona izin veren, tarihi mirasa daha fazla zarar verilmesini önleyici, iyileştirici sistemler bir öncalışma olarak önerilmiştir. Ulaşılacak yeni halin önemli parametreleri olarak kültürel ve ekonomik sürdürülebilirlik, asgari çevresel etki ve kullanıcıların tüm ihtiyaçlarını karşılayabilir bir yapının elde edilmesi kabul edilmiştir.

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LIST OF SYMBOLS/ABBREVIATIONS

A/C	Air conditioning
CTP	Glass fiber reinforced plastic
e.g.	For example
EPS	Expanded polystyren foam
Etc	And so forth (Et cetera)
FSC	Forest Stewardship Council
GFRP	Glass fiber reinforced polymers
GSM	Global system for mobile communications
HVAC	Heating, ventilation and air conditioning
i.e.	That is
L.A.	Los Angeles
LNB	Low noise block
L/B	Sabina Lang and Daniel Baumann
m	Meter
m^2	Square meter
MA	Massachusetts
OSB	Oriented strand board
PE	Polyethylene
PVC	Polyvinyl chloride
SiO2	Silicon dioxide (Glass)
sqft	Square foot
SWH	Solar water heater
TV	Television
vol.	Volume
vs.	Versus
2D	Two dimensional
3D	Three dimensional

1. INTRODUCTION

1.1. AIM

The aim of this thesis work is to document and investigate the building additions in Mahmutpaşa street, Istanbul. While the documentation is presented with visual and textual work, the investigation process of the building additions is based on technical and spatial analyses as well as critical evaluation of their architecture through the global understanding of parasite architecture. A comparative assessment of the benefits and impacts of the additions is expected to be a concrete source for future research in the field of informal architecture.. Furthermore, a step towards building a reciprocal spatial approach to cope with the evolution of uses, thus the needs in this historical commercial street is expected to be taken as an outcome of this study.

1.2. SCOPE

The scope of this work is based on two components, through which the processing of the collected data is set:

- Global perspective of "Parasite Architecture"
- Local background of history, society and economy.

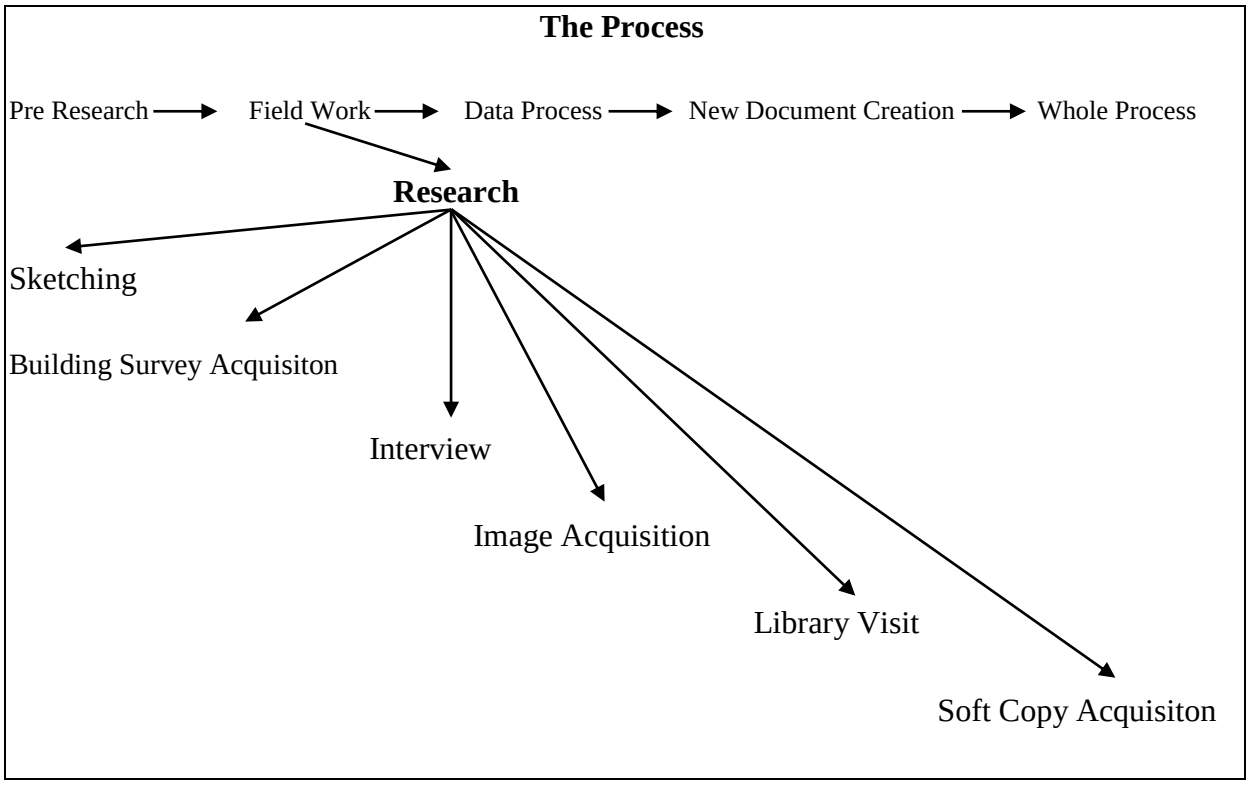
Sporting the out-of-the-box approach by placing attractive and micro units of living and work on seemingly unorthodox locations in the urban fabric, such as rooftops or bridgeheads, the parasitic architecture provides the author a contemporary super-frame for this analysis and documentation work. The district of Mahmutpaşa, an ever-vivid shopping environment with a deep tradition of commerce and historical character, is the ecosystem, producing the objects of research, the building additions. The local component of thesis scope considers the establishment of this district as a commercial body with her built environment as the origin of the shape giving spirit in the field level. The evolution of the commercial activity and its impacts on built environment, backdropped by changes in the society, is reflected in the work by research in history and analyses of traded products vs building additions. The "Sanitation Project" of the district municipality of Fatih is

scheduled to start a “cleaning action” that will remove the building additions on Mahmutpaşa street. The documentation of the temporary spatial situation can be considered to be a contribution to the architectural history of this historical neighborhood.

1.3. METHOD

The presented work utilizes elements of architectural studies as the links of the methodological approach chain in the following order:

- Background literature research in history, economics, society and architecture of Mahmutpaşa District.
- Acquirement of basis documents (e.g. survey drawings, visual documentation)
- Field work and documentation of the actual built environment.
- Field work based on interviews with the actors of the commercial environment (e.g. shop owners)
- Processing the collected information (i.e. updating the surveys and documentation, production of new visual material, analysis charts)
- Integration of collected and processed material into a thesis work.



1.4. RESEARCH ENVIRONMENT: MAHMUTPAŞA

Mahmutpaşa is a shopping Street and a district located in between two significant and old bazaars such as the Grand Bazaar and the Spice Bazaar in Eminönü County of Istanbul.

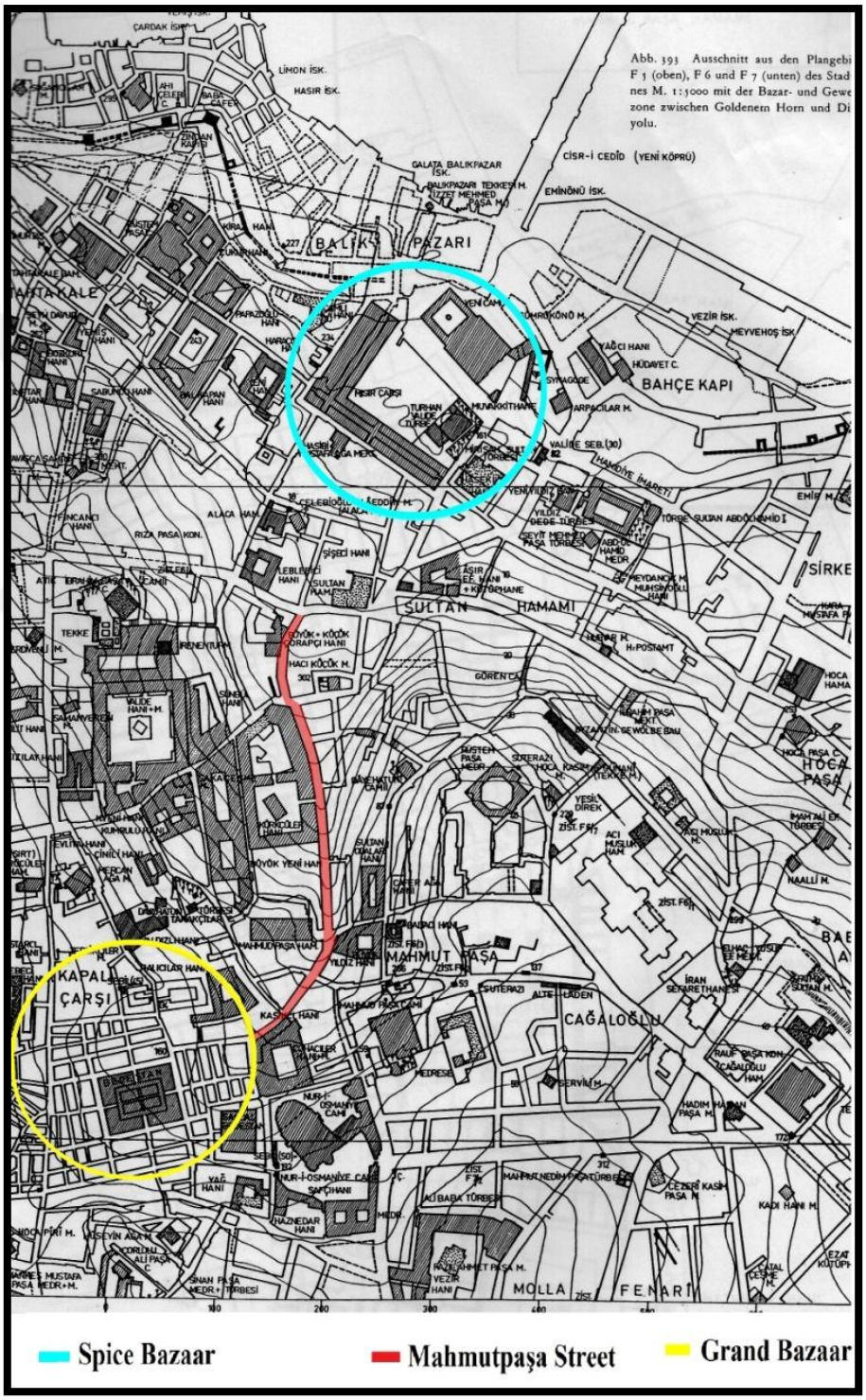


Figure 1.1. Map of Mahmutpaşa Street and vicinity [1]

Mahmutpaşa district is located on the Northern shoulder of Nuruosmaniye hills, which is the second of the seven hills of Istanbul. It was known as the centre of Istanbul in the Byzantium period; the Mese mainroad running through the first (Sarayburnu), the second (Nuruosmaniye) and the third (Beyazıt) hills [2].

This hub, consisting of three hills, was also the hub of the trade in terms of its close location to the port and topographical convenience. This portray reveals the significance of the region in which Mahmutpaşa is located since the Byzantine.

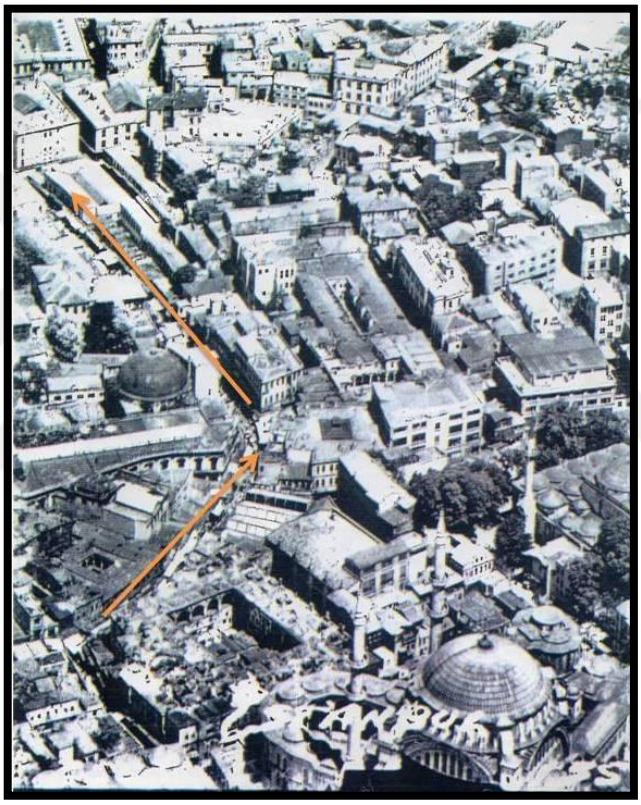


Figure 1.2. Mahmutpaşa Street and vicinity view in 1935 [1]

While the whole of the Grand Bazaar of today is a Turkish work of art, the Byzantines had grand bazaars in the same locality and when Fatih conquered Istanbul he had found a significant trade centre here [3].

This trade was also a transit trade as much as it was for feeding the Palace and meeting the luxury needs of the Palace, the Royal and the Rich due to the fact that it was located at the junction point of the land and marine trade routes of the city. It wouldn't be exaggeration to say that the city was a big international warehouse. The trading places were positioned on the docks and in the sorroundings of the docks. These trading places belonged to the

rich merchants that could have been considered as agency centres some sort. The shores of the Golden Horn which was a natural dock was initially packed with Syrian, Egyptian, Persian, Turkish, Arab, Bulgarian, the Black Sea and Asian people and with people mainly from the various cities and the regions of Spain and Italy in the following centuries. These were the merchants and their assistants as well as their emancipated or non-emancipated officers [4].

The principal commodities filling the Istanbul docks – silk and linen from Syria, wine from Gazza, papyrus and grain from Egypt, grain, slat, timber, slaves, coal tar from Black Sea Countries, espacially all kinds of silk from China, redbud, linen, cotton, canabis, spun wool, spices, odours, precious stones and fabrics coming from the Far East, the Middle East, over Irn and Iraq of the Middle East and the Yemen ports were destined from the Eastern geography to the West that is European markets [5].

Its close relationship with the comercial buildings (e.g. Hans and Bazaars) around it and its proximity to the trade docks underlines the commercial significance of Mahmutpaşa, which has been visible through out the Ottoman and Republic periods.

Mahmutpaşa district, which is still a highly active trading mall in our days, is named after the founder of Kulliye – Social Complex, Mahmut Paşa, the Grand Vizier of the Fatih era. The Kulliye, which took more than 10 years (1463 – 1474) to be completed, consisted of a mosque, a madrasah – Theological School, an almshouse, a Turkish bath, aninfant'sschool, a shrine of the founder Mahmut Paşa, a big Han and a court house whose constructural quality is not known [6].

The fact that it is the largest building complex after the Conquest in the years it was built [7] appears to us as an indicator for determining the commercial texture of Mahmutpaşa district.

Mahmutpaşa was, for a long time, with its close location to the Golden Horn, a region where palaces and mansions of the elite were, too, located (As the district and Street names such as Yanıksaraylar – Burntpalaces, Çiftesaraylar – Doublepalaces indicated, there were mansions and palaces here). However, its close location to the Istanbul Port turned the scale towards commerce and thus Hans, shops and warehouses propagated the district. The residences in the district were diminishing, people living in the palaces and the mansions

were migrating to other places after every fire incident occuring frequently and hans and shops were being built in their places. In the 19th century the commercial texture of Mahmutpaşa became fully evident. In the 20th century, the region between Cağaloğlu Yokuşu, Mercan Yokuşu and Rızapaşa Yokuşu neighbourhoods constituting the Golden Horn hillsides of these three hills turned fully into a trade centre [2].

Istanbul's bazaars which were significant trade centres throughout history, are famous with their richness, variety and dynamism [8].

Until quite recently, markets and bazaars would come back to one's mind when one talks about shopping which is an integral part of life. Right along with supermarkets, giant shopping centres built almost in every corner of the cities, sales made over the Internet and the conveniences provided relatively minimised the need for markets and bazaars. The recent upward trend in urban development in Istanbul has directed people towards shopping malls [9] and has become one of the factors that expedited the change in tradition of grocery-greengrocer and market-bazaarin favour of shopping centres and digital environment.

Furthermore, Mahmutpaşa, the shopping centre of Istanbul symbolised with being cheap, continues to exist with all its crowd. When Mahmutpaşa is mentioned, the first thing that comes to one's mind is Mahmutpaşa Street, also known as Mahmutpaşa Yokuşu (Mahmutpaşa Hill). People looking for outfit for their kids to be circumsised, people getting ready for engagement, wedding and henna activities, people shopping for Bayrams and ones shopping for their needs before openinng of the schools do definitely visit Mahmutpaşa Street.

1.4.1. Built Environment

The street has a pleasent slope providing pedestarions a unique perspective and a vista to the line of shops along it. This inclined and parabolic shaped Street starts at the Mahmutpaşa Gate of the Grand Bazaar, the highest point, and ends at around the Spice Bazaar near the docks descendingly. Mahmutpaşa Street consists of attached shops aligned side by side on both sides of the Street and is a popular place for cheap and attractive shopping.

The uphill and downhill streets on both sides of the Street and many hans, shops, warehouses, workshops etc. that are located on these streets form the built environment of Mahmutpaşa commerciality. In this respect, Mahmutpaşa is a shopping street as well as, if we ignore the small rooms or the "Expat Rooms" as they call it, where some porters, apprentices and single workers stay, a district with no residences (no resident) but many workers and by-passers (many hans and shops) [2].

One side of the Street is formed by the Wall of the Mahmutpaşa Kulliye. One facade of the walls of each Mahmutpaşa Hamam (Turkish bath), the mall inside and the Kürkçü Han with two backyards face the Street and Abud Efendi Han etc. These walls designate the shape of the Street as well as the alignment of the shops on the Street.

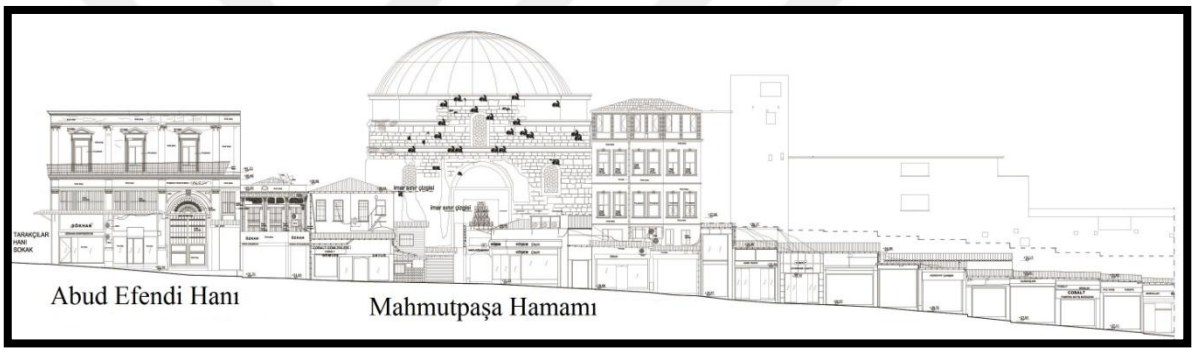


Figure 1.3. Part of the building survey of Mahmutpaşa Street [11]

The alignment of the shops accross the Street are designated by the walls of the Hans such as Manstırlı Han, Yarım Han, Kefeli Han, Şekerci Han and Aslanlı Han.

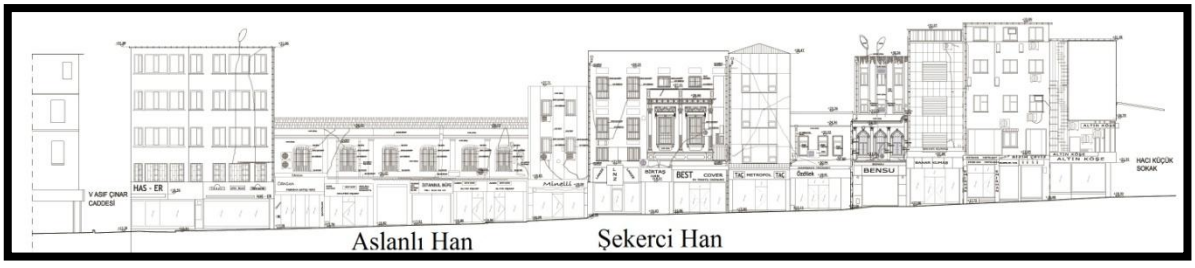
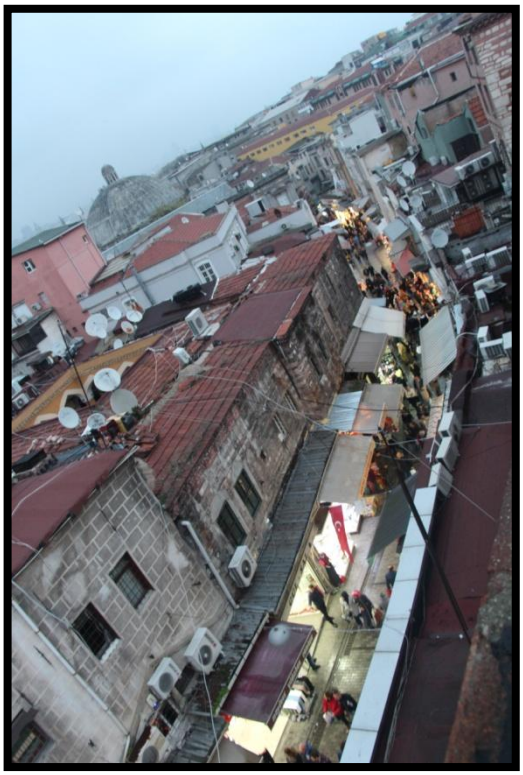


Figure 1.4. Part of the building survey of Mahmutpaşa Street [11]



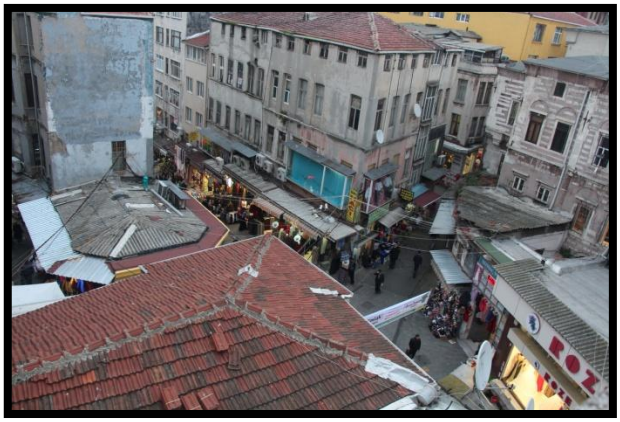


Figure 1.5. and Figure 1.6. Mahmutpaşa Street view from the above [13]

Mahmutpaşa where people of Istanbul have shopped up until recently since the end of the 15th century, for more than five hundred years, is today the first place that comes to one's mind when shopping for circumsision ceramonies, engagement parties, weddings, henna parties, trousseau and various clothing.

Figure 1.7. and Figure 1.8. Mahmutpaşa Street views in 1900's [24]

The most significant reason why people of Istanbul prefer to shop here is that shops that sell wedding dresses, evening gowns, underwear, knitting products, shoes, quilt covers, furs, headscarfs, socks, hankeys etc. which are not supposed to be found together are conglomerated in the same neighbourhood. The fact that the prices are always reasonable compared to other places of the city increases the popularity of this place. However, the background of the customers has changed in time. Once it appealed to every class of community, but the district where all domestic and foreign commodities were sold with little profit marginstoday appeals to low-income earners. Because the middle and upper classes now prefer the shopping centres where contemporary and a great variety of products are sometimes sold with discounts or the internet shopping. Domestic and imported products that came here used to be sold here or be distributed from here to other districts. As many imported and high quality products now come to the shopping centres and on the Internet sites, Mahmutpaşa has, in time, become a district where cheap and ordinary products are sold. Also, as the fixed customers of Mahmutpaşa continue shopping there over generations, the owners of the shops that gain from demand were lucky in short term. However, as they get used to these incomes coming in everyday and every month they felt no need for improving themselves. Even though they realised that they had been beaten by the shopping centres and virtual markets, they continued on their businesses, without worrying about this, with the mentality of centuries ago. The Street is closed to vehicle traffic. While it seems advantegous for easy shopping, it doesn't provide ease for customers coming here by their own cars. Because it is hard to find a close and safe parking spot. With the developing technology, infrastructure of the city has also changed and transportation opportunities have increased. The district, which was arrived by carriages and boats, is now in walking distance to the stops of many public transportation systems such as the ferry, subway, trams, Marmaray etc.

The Street with a history of 15^{th} century, has survived until recent days, naturally, after being subjected to many changes. Mahmutpaşa and the surrounding areas whose history extend back to the Byzantine era, has housed many buildings in time. We mentioned earlier that the district which was from time to time used as a residential area used to be surrounded by palaces and mansions. With the effect of the dock trade the yards and vacant lands of the existing buildings got filled with new structures. The lands of the buildings that got destroyed by fires were also utilised as buildings sutiable for commercial use. The

buildings that were constructed on the vacant lands and the ones constructed in the places of the destroyed ones are in contradiction with the old architecture. In these periods where protected areas and archeological sites concept was not improved at all, many buildings were constructed that were incompatible with the Grand Bazaars and Hans not only on this Street only but also on the whole historical penninsula.

Building extensions that were built afterwards have day by day changed the texture of the region as much as the newly constructed buildings did. Trend for allotment and change that started in the Grand Bazaar has also affected Mahmutpaşa. When current condition is considered, significant issues are monitored in the Grand Bazaar and its neighbourhood. Quoting from Prof. Dr. İlber Ortaylı on the brutal interventions in Grand Bazaar retail units;

> The fact that people who take hold of two shops diminish the walls in between decreases the support for resistance of the building. A column with 80 x 80 cm dimensions sometimes is drilled 30cm hole to make display boards. There are no public organisations or chambers that represent and bind the shopkeepers, which would prevent these illegalities in the Grand Bazaar. Within this historical structure where billions of Money is exchanged, there is almost no shop wall that has not been caved in to make extra metre of space inside. As the shops are over-enlightened for display purposes, its won ventilation of the architecture becomes insufficient. Nonetheless, the air conditioning devices installed cause bizarre piles of air conditioning units on the roofs. The roof of the Grand Bazaar, which once was the best looking roof of the World, is now in a piteous condition. There is no organisation or responsible persons that would deal with the Municipality. Penal sanctioning is not, by the law, within the realm of authority of the Municipality and the Municipality has limited authorities in this respect. The power of the tradesmen formations has diminished. We can talk about a history of the Grand Bazaar within this physicial and legal attrition [10].

Fatih Municipality as the governing agency of this district, assests the official attitude as "it is a great responsibility to forward this historical heritage, which has been taken over from the Byzantium Period and got through to us with the contributions of the Ottomans, to next generations safe and sound." In the shade of this responsibility, it aims to make the historical buildings more sound and visible. Likewise, the Hans, the Mosques as well as the other historical structures have been lost in the tumult, losing their rank in user perception. It has been aimed to make the buildings constructed afterwards suitable for this region with rehabilitation works.

1.4.2. Municipal Sanitation Project For Mahmutpaşa Street

The main issues that the Municipality has detected in current situation are:

- Security
- Pollution
- Degeneration of built heritage
- Incompatible buildings
- Traffic

Various solutions have been determined to eliminate these issues. The scope of this Project has been determined as:

- Installation of precast facade elements on 135 building of recent period
- Maintenance and repair works suitable for the original on 75 historical buildings
- Removing of facade additions – satellite dishes, air conditioners etc.
- Using single type awnings, canopies and sign boards [11]

The scope of the Project mainly focuses on the facade looks. The main purpose however, is to obtain a Street in harmony with the coherent buildings. We see this goal of the Municipality in Street and facade rehabilitation projects, which are in design phase, or already on the go and are already completed.

Figure 1.9. Facades of Mahmutpaşa district renovated within the Sanitation Project [11]

Figure 1.10. Facades of Mahmutpaşa district renovated within the Sanitation Project [11]

These can be listed, Mahmutpaşa Street being in the first place, Mahmutpaşa Mosque Yard, Hocapaşa District, Divanyolu, Beyazıt, Lonca, Hocapaşa District, Ankara and Bab-ı Ali Roads, Kadınlar Pazarı, Yeniçeriler and Ordu Streets, Hırka-i Şerif, Samatya Square, Fevzi Paşa Road, Malta Bazaar Street…etc [12].

Figure 1.11. Previous view of the shop facades in the backyard of Mahmutpaşa Mosque [11]

Figure 1.12. View of the shop facades in the backyard of Mahmutpaşa Mosque within the Sanitation Project [11]

These projects of which we can see the before and after on the photos have sometimes ended up far from the desired impact.

While the rehabilitation works are conducted easly on the streets and sections where Municipality is competent, the rehabilitation works that need the approval of the residents of the buildings are conducted in much harder conditions. Besides, as it is too hard to make changes in the buildings that already have registered listed and approvals, the projects on which the parties meet in the middle are continued in line with the public interest.

Harmony has been endeavoured to be reached on the facades with precast members, EPS polystyrene, styrene floor beads and window jambs. Building extension like air conditioners and antennas are fully removed from the facades or taken into hidden places and a condition much more suitable with the historical structure has been desired. The maintenance and repair works on the historical structures and facades on the new buildings are in a nature to hide the cables running along the walls and facades. With the limitation of the extensions of the benches, renewal of the floors and the pedestrian ways, too, the pedestrian traffic on the Street is hoped to get better.

The efficiency as well as the existence from the very beginning of this Project is a question of debate. With this project, being supported in one hand and being considered inefficient on the other, Mahmutpaşa is aimed to become orderly, historical structure protected and be cleaned from its attachments. From another point of view however, the region which has evolved in its own habitat in line with its own needs should be protected the way it is now. The reason is that, projects such as this one and similar ones denaturalise the city.

Figure 1.13. Mahmutpaşa Street current view [11]

Figure 1.14. Mahmutpaşa Street planned 3D view [11]

Figure 1.15. Mahmutpaşa Street planned 3D view [11]

By the accomplishment of this Project, majority of existing extensions will be displaced or removed. Especially on the air conditioners and antennas on the facades, the attitude of the Municipality is pretty clear. Either these air condition units will be moved to the roofs or a centralised air condition system controlled throught he roofs will be installed. The antennas are the extensions whose closeness to the servicing area is not as important as the air conditioners. In terms of the decrease in need for antennas with the developing technologies, as well as ease of being moved to the roofs, it will be easy to adapt into the Project. It is obvious that this Project will lead to getting rid of extensions, which are left over from the old extension and not used any more but not as yet has been removed from their places.

Figure 1.16. Old and unused extensions view [13]

The 135 new buildings within the context of this Project however, will naturally be brought into a historical look and a harmonical structure using building extensions. Old and incompatible awnings and canopies will be replaced with new ones. These, too, will force the buildings to get rid of the old installation marks as well as the new ones to be installed properly. The precast structures and the window jambs, too, used to turn into a historical structure will show up as new age extensions. Either way, the change will take place in any case and the change in Mahmutpaşa will keep on going with adaptation and evolution.

The timing of our working becomes more of an issue in this respect. We hope that the global and local approaches and the scope and existing researches of this thesis will be used for questioning the efficiency and itself. Because, we wanted to develop an innitiative against ruining the sipirit of the Street while trying to reach a healthier Mahmutpaşa with an inadequate intervention or against the sipirit of the Street being lost by introducing a uniform order. Our aim is to scrutinize the co-existence of various cultures in the region while reviewing the change process of Mahmutpaşa and to leave a study behind for the future having evidential value.

1.5. GLOBAL CONTEXT: PARASITE IN ARCHITECTURE

Millions of species available in nature are in ecological connection, either directly or indirectly, with their non-living environment or with each other. These connections appear in various forms from free living to absolute mutual dependency. These relationships are seen in the habitats of humans either as socio-cultural or economic or architectural [14].

Symbiotic living is available in our architectural structures as it is in our biological world. While this relationship is an ordinary one where the smaller form gets the larger form to carry itself mechanically only, it can be a mandatory togetherness to survive such as mutualism. Commensalism and parasitism however, are the symbiotic concepts that we come across in natural life as well as in architecture.

Parasitism; the word parasite used also as dangerous, irritating, freeloader frequently, is derived from the Greek words para- (next to, unfair) and sitos-(food) and is described as “the living being that naturally lives in or on another living being who is stronger than itself, feeding temporarily or permanently and damaging it.” [14]

Figure 1.17. Tick view on a skin [15]

Parasitism can be internal, that is endoparasitism or external, architecturally focused, that is ectoparasitism.

Architectural definition of parasitism can, as Merel Pit puts it,

> Parasite architecture is the personal, informal and unplanned use of a larger structure [16].

Also, Joel Pominville defines as

> The definition of a parasite can be translated into an architectural language as well. In the same way, a structure is designed to be in, on, or around a preexisting structure that acts as its host. The word parasite definitely carries a negative connotation in biological conversations, and this can be true in architecture as well [17].

Figure 1.18. A Room for London by David Kohn and Fiona Banner [18]

Figure 1.19. Urban Hut by Tadashi Kawamata [19]

Figure 1.20. A Parasite for Rotterdam by Korteknie and Stuhlmacher [20]

Definition of parasite which has been taken from biology and the outcomes always face us negatively. Some attachments that damage the host building they are attached to in a minor scale show us a mutual beneficial structure with the significant services they render for the building.

While these building attachments that the buildings use to evolve themselves use the host building to survive, may structurally or visually damage them. In addition to this, they constitute an important part of the architectural journey of our age with their ability to respond to changing needs and turning the building into a functional condition.

1.6. LOCAL CONTEXT: PARASITES IN MAHMUTPAŞA

Mahmutpaşa Street is a commercial district with 500 years of history. Most of the buildings on the Street are rather old and have construction technology of the period they were built. These buildings are quite inadequate for the current type of use or lack the building mechanical systems of electricity, water, air conditioning, heating etc..

When we examine the Mahmutpaşa Street; we can see old buildings belonging to several different periods. In example; Mahmutpaşa Hamamı (Turkish Bath), Çuhacı Han (Office Block), Kürkçü Han (Office Block), Abud Efendi Hanı (Office Block), Hürriyet Çarşısı (Bazaar) etc. are several different structures with different brick-stone workmanships.

These structures are counted as walls from 15th century to end of 20th century without requiring any additions, but in today's world with the developed needs they become insufficient. Today, this situation attracts significantly more attention than it has previously. However, in all periods office-store users have already tried to attach building additions or build to prevent this insufficiency. When we look at the old office photographs and Mahmutpaşa street itself, we will see that these building additions are not new.

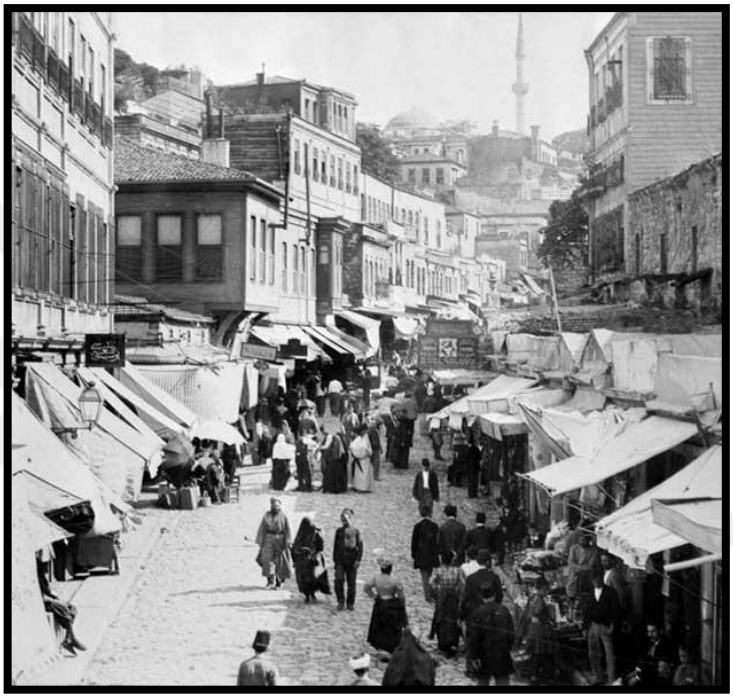
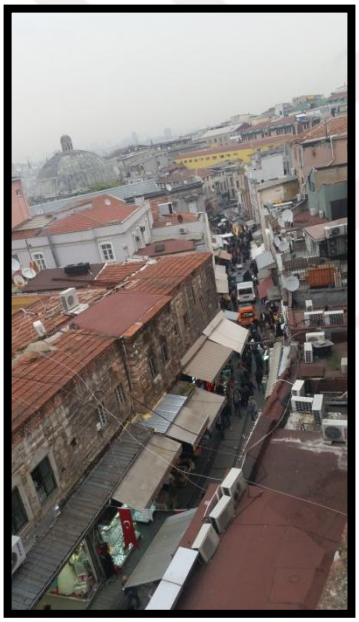


Figure 1.21. Old view of Mahmutpaşa [11]

Building additions in these photographs mostly are awnings, water pipes and counters. In addition to these, we encounter an heavy human crowd in the pictures just like today. Mahmutpaşa shopkeepers of old and new wants flexibility on their offices and the street for the products they offer to sell and the requirements of the customers. In example, in a heavily rainy/sunny day the shopkeeper may require a bigger awning. Then again, same shopkeeper may want to remove the very same awning on a regular day to increase visibility of the products. Or, high hangers to exhibit long coats may not be required in summer to exhibit blouses. These situations that require flexibility forces shopkeepers to change the building additions frequently or to do changes for adaptation.

Figure 1.22. and Figure 1.23. Current view of Mahmutpaşa Street building additions [13]



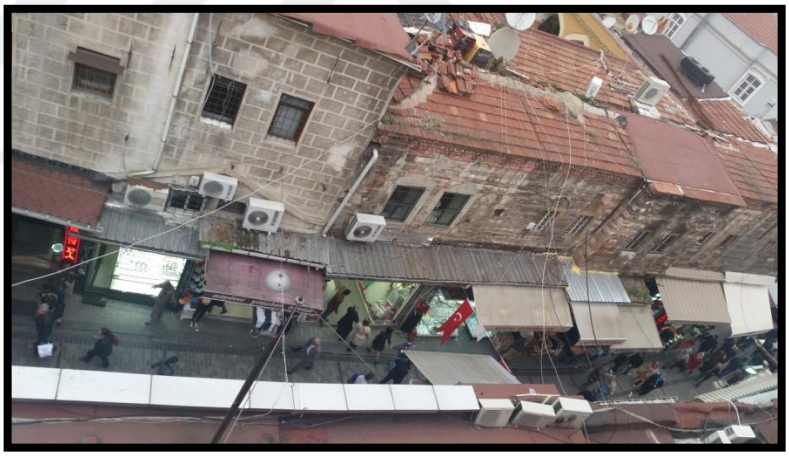


Figure 1.24. and Figure 1.25. Current view of Mahmutpaşa Street building additions [13]

Shopkeepers of Mahmutpaşa already spend approximately 12 hours a day in these buildings. These locations have started to change in order to fulfill the requirements of the storekeepers and the customers in time. While these requirements may be seen as necessary ones like heating, cooling, communication, electricity etc. they may cost on the entire building. Since the office users and storekeepers cannot demolish these valuable buildings inherited from Ottoman Empire and reconstruct them with the technology of today; they tried their best on make these buildings more practical with their own additionss. These additions had become merchandise mark of the Mahmutpaşa Street in time (see p:142 Appendix C, Building Survey of Mahmutpaşa).

While they are disturbing to some and shows original characters of the street to others; we can classify those two building additions by their locations and types of use in two different groups;

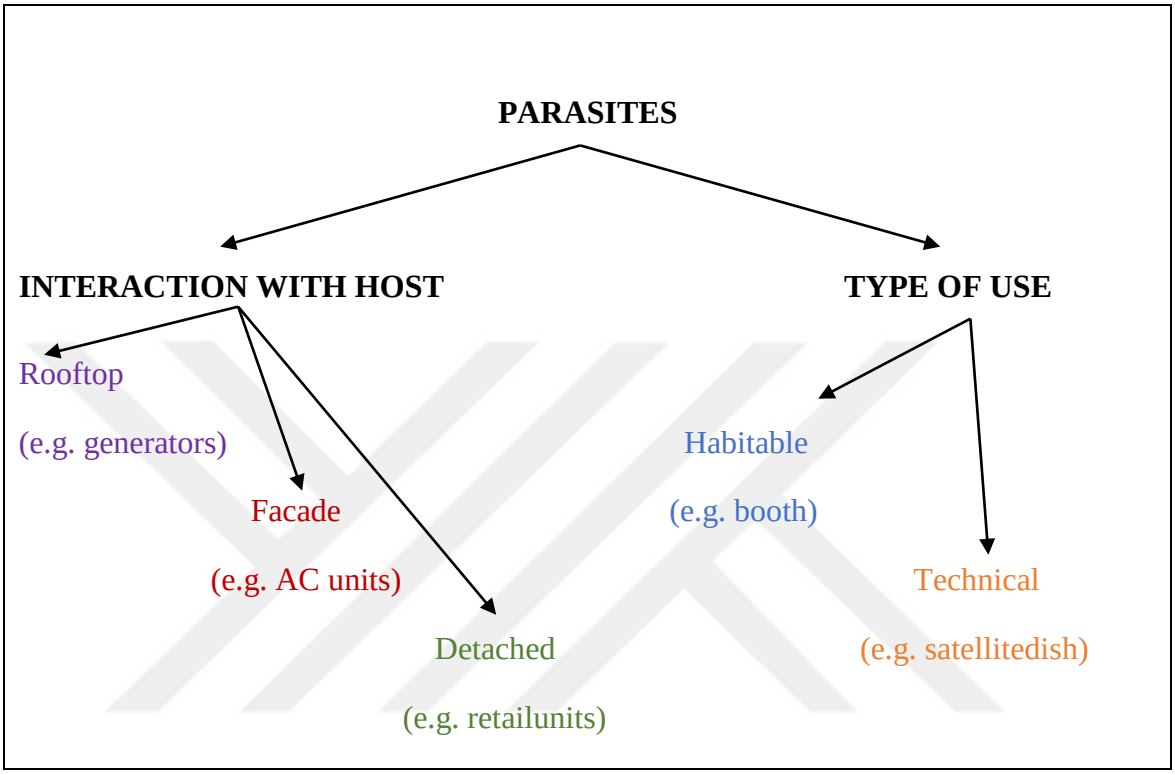


Table 1.1. Classification table of attachments due to its locations and types

2. RESEARCH

2.1. RESEARCH FIELD AND ELEMENTS

2.1.1. Research Field: Mahmutpaşa

2.1.1.1. Mahmutpaşa

We briefly mentioned about its location and constructed surroundings in the introduction section. If we are to make mention of its location and surroundings in little bit more detail:

Mahmutpaşa is the name of the famous shopping district around the hillside and neighbourhood running between the Grand Bazaar and the Spice Bazaar located on the second hill of the city on the hillside of the Walled City (Suriçi) Istanbul facing the Golden Horn. If we are to define the region named Mahmutpaşa, which does not have distinctive borders as do many other distrcits of Istanbul; it is a district surrounded by Mahmutpaşa and Nuruosmaniye Kulliyesi in the South, Sultanhamam in the North, Daye Hatun Mosque in the West and HocaKasımGünani Mosque and the Yeşildirek in the East [21].

Figure 2.1. Fatih District and Mahmutpaşa Street Map[1][12]

[1]Location of Mahmutpaşa Street is approximately shown on the map by Yıldırımer, B.

The uphill street that comes to one's mind when mentioned Mahmutpaşa however, is an inclined and parapolic shaped Street that forms for main line of the district. This inclined street starts at the Mahmutpaşa Gate of the Grand Bazaar, the highest point, and ends descendingly at around the Spice Bazaar near the docks, running through Molla Feneri, Taya Hatun and Sururi vicinities.

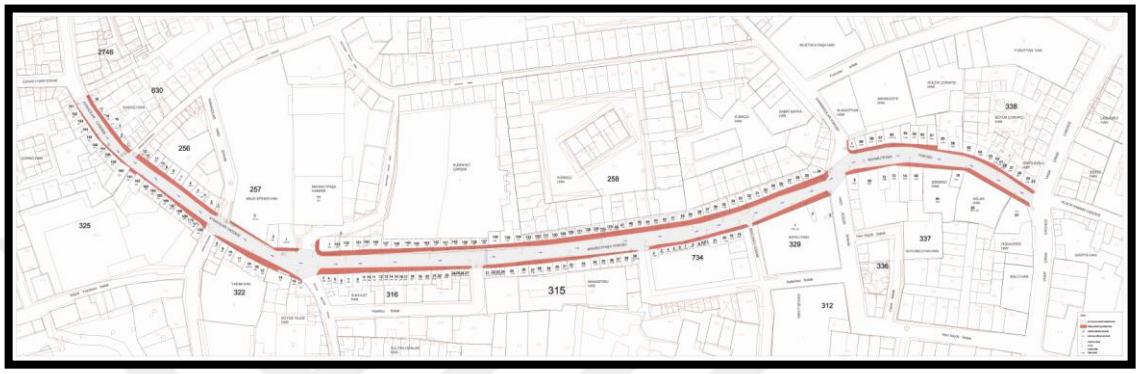


Figure 2.2. Mahmutpaşa Street site plan [11]

Figure 2.3. and Figure 2.4. Mahmutpaşa district old views [11]

Figure 2.5. and Figure 2.6. Mahmutpaşa Street old views [11]

Mahmutpaşa housed the palaces and mansions of the great and the good of the era for a long time during the pre-19th century period. However, the district that faced with the fact that the trading hubs developed around the docks and the neighbourhood gradually filled with trading Hans and shops. One other reason that rushed up this change was the fires that broke out in certain intervals. In the 20th century, Mahmutpaşa had become a trading hub [2]

Figure 2.7. Mahmutpaşa Street old view [24]

The flat land at the sea level covers a greater area in Eminönü. Even though most of this area is divided between a square, mosque and depots, centralised work activities had developed here. There are no uphills in Eminönü running all the way. Instead, the land here ascends with a smooth inclination at the start. Due to this feature, the trade places had a chance to spread inwards the land. Thus, uphill streets such as Ankara, Mahmutpaşa and Rızapaşa Streets had become centralised trade zones. Historical factors a have significant role in this progress [22].

Mercan, Tahtakale, Yeşildirek and Sultanhamam districts around Mahmutpaşa are the centre for wholesale trade as well, not only for retail business. The variety of products and low prices in the Hans and shops in Mahmutpaşa are quite adequate to allure local and ineternational tourists. It is possible for you to meet visitors not only from Istanbul or Turkey but also from almost all countries of the World.

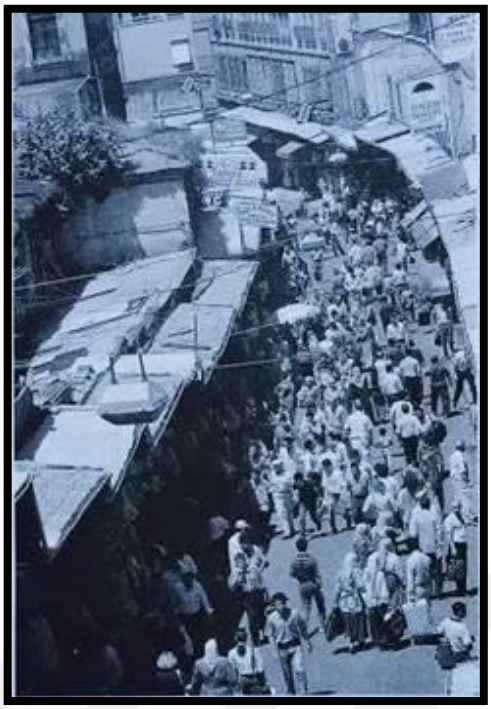


Figure 2.8. Mahmutpaşa Street view in 1994 [23]

Figure 2.9. Mahmutpaşa Street view in 1947 [24]

Figure 2.10. Mahmutpaşa Street view in 2015 [13]

Figure 2.11. and Figure 2.12. Mahmutpaşa Street views in 2014 [11]

This district gets its name from the Kulliye carrying the name of the Grand Vizier of Fatih Era, Mahmut Paşa. Mahmut Paşa is the first devshirmeh (a Christian conscripted to brought up for the janissaries) Grand Vizier who participated in most of the activities of the Ottoman Empire in the 15th Century with Fatih Sultan Mehmed. He is typical Ottoman executive who had an important role in the conquest of Istanbul, Belgrade campaign, in the conquests of Sinop and Trabzon, campaigns of Eflak, Mora, Macaristan, in the conquest of Eğriboz Island and in Otlukbeli War [25]. He was executed by Fatih Sultan Mehmed in 1473 [26].

Right after the conquest, business life of Istanbul was in shock. A part from the settlement policy that was followed in a thought to increase the Turkish population in the city, trade centres that would bring life to the city were needed. Besides, the Turkish city planning was described as a bedesten (covered bazaar) and shops and hanssorruounding it [27].

The Mahmutpaşa Kulliyesi in the centre of Istanbul commerce region is one of the focus points of the Turkish era settlement and has extended until today as a symbol [25].

This Kulliye is in Eminönü district, in the Northwest of Nuruosmaniye Kulliye on a city block surrounded by Mahmutpaşa Mahkemesi Street, Mengene Road and Şeref Efendi Road. Mahmupaşa Kulliye which is the first large Kulliye after the Conquest, is the most significant structure of the 15th Century after Fatih Kulliye [6].

The Kulliye built by Atik Sinan the Architect (Mimar Sinan), brought together some structures such as a mosque, a shrine, a Hamam, a Medresah, An Infant's School, A court house, shops and an almshouse [28].

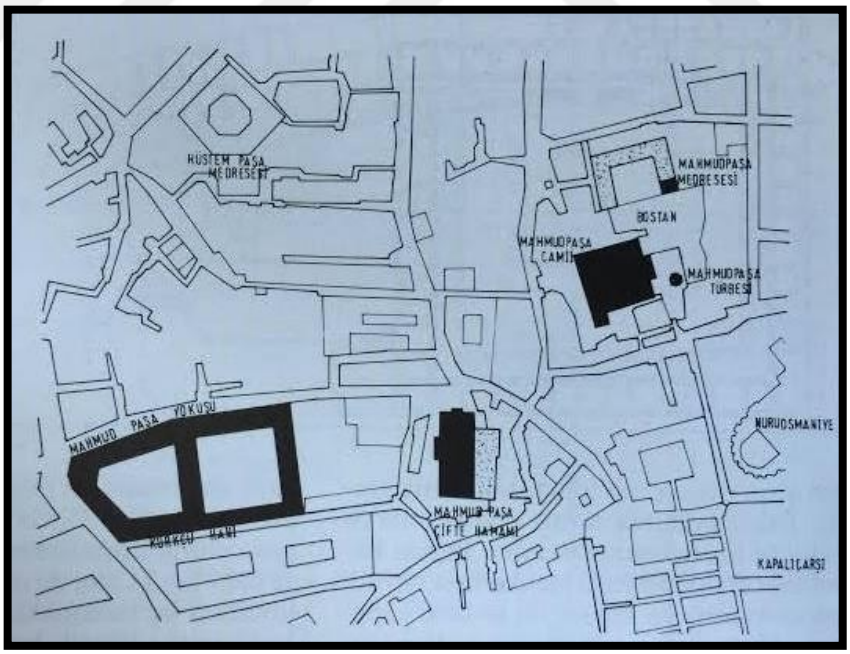


Figure 2.13. Site plan of Mahmutpaşa Külliye [6]

Mahmutpaşa Baths located in the North of the Mosque is one of the oldest Hamams with its construction date of 1466 [6].

This Hamam is most likely the oldest Hamam of the city after Tahtakale Hamam that Sultan Fatih built. The sizes of the Hamams are close to each other. The ladies section got destroyed in 19th Century [25].

Figure 2.14. Current view of Mahmutpaşa Hamam [13]

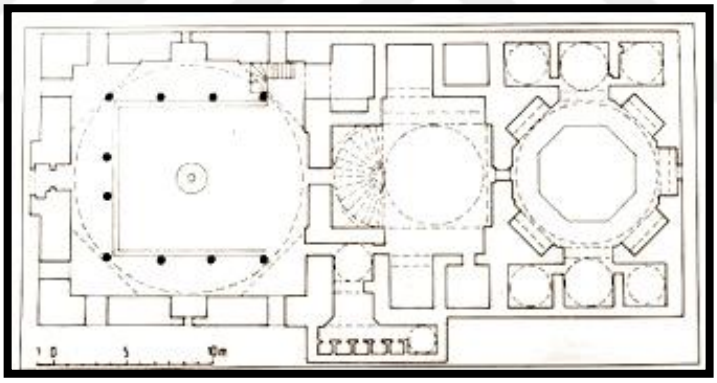


Figure 2.15. Plan of Mahmutpaşa Hamam [6]

When you look into the section of the Hamam survived until today from the roof of the Abud Efendi Han, interestings details can be observed. While there is a limited flat surface on the domes of the Hamam, there are more than one building extensions. The purpose of building of these extensions is not known. But, it can be said that someone lived in the big one and the small one was used to store an electrical device such as a generator.

Figure 2.16. and Figure 2.17. Rooftop additions (shack) of Mahmutpaşa Hamam [13]

Other significant structures of the Kulliye are a 100-room Kervansaray built to get revenues for the mosque (today's Kürkçü Han which was once called Kurşunlu Han), a Medresah, an almshouse, as well as a palace which has not survived today located in Cagaloglu side as per today's benchmarks, a court house known again by his name and which is already diminished and a fountain standing still. This large complex was one of the two large Kulliyes established in the Ottoman era [2].

The only Han dated back to Fatih's era is the Kürkçü Han in this kulliye. We can acknowledge this Han as a continuation of Hans of Bursa [29].

Before investigating Kürkçü Han, we can describe Ottoman Trade Hans generally as structures consisting of rooms located around the cloisters built as 2 or 3 storey buildings, whose entrance floors are spared for storage and shops and the upper floor for accommodation [30].

Kürkçü Han covering an area of 128 by 68 meters, is a two-storey structure with two yards that surrounds these yards. In the square shaped larger yard, is the Hacı Küçük Aga Mosque positioned perpendicular to the walls. The smaller second yard however, is trapezoid shape compatible with the area it covers. The entrance opening to the Mahmutpaşa Street is in iwan shape with vault covered on top. Bricks and stones were used in the construction of the Han [28].

When we review the structures of the Hans in the 15th and 16th centuries, we see some fundamental characteristics such as rise of second yards in the Hans, proper forms not being sought in plans, locating barns for horses on basement floors and prayer rooms in the yards [30]. Most of these characteristics are available in Kürkçü Han belonging to the said era.

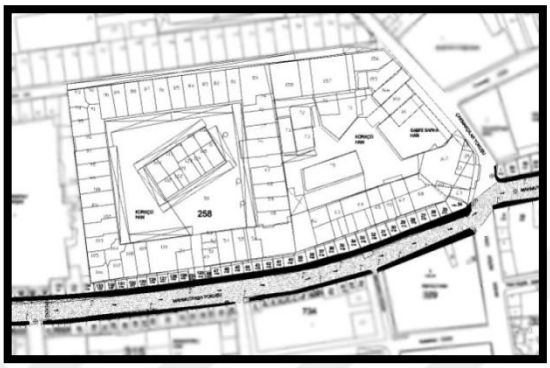


Figure 2.18. Kürkçü Han Site Plan [11]

Awnings and canopies leap to the eye extending almost up to the middle of the yard visible from the arc openings at the tops as well as from the front sections of the shops. The pipes on the facades and the gutters on the canopies are among the building extensions that have not changed in years. Under the awnings and the canopies that are at the entrances of the shops, we see work benches and shelves that we come across on Mahmutpaşa Street. On the roofs of the Han, there are solar panels and water tanks as well. The shops built as an extension around the mosque positioned diagonally across the walls of the yard in the perfect square shaped yard of the Han and the building extensions around, too, are remarkable. The reason for why the Han is not used for its purpose in the old days, filling of empty spaces in the yard with shops by the tradesmen to gian space and these building extension attached afterwards to the Han is due to needs based on commerce.

Figure 2.19. and Figure 2.20. Kürkçü Han yard views [32, 11]

2.1.1.2. A Major Commercial Spaces Next Door: Grand BazaarandÇuhacı Han

2.1.1.2.1. Grand Bazaar

One of the biggest advantages of Mahmutpaşa Street is that a gate of Kapalıçarşı, one of the largest, biggest and most famous bazaars is at the entrance of the street.

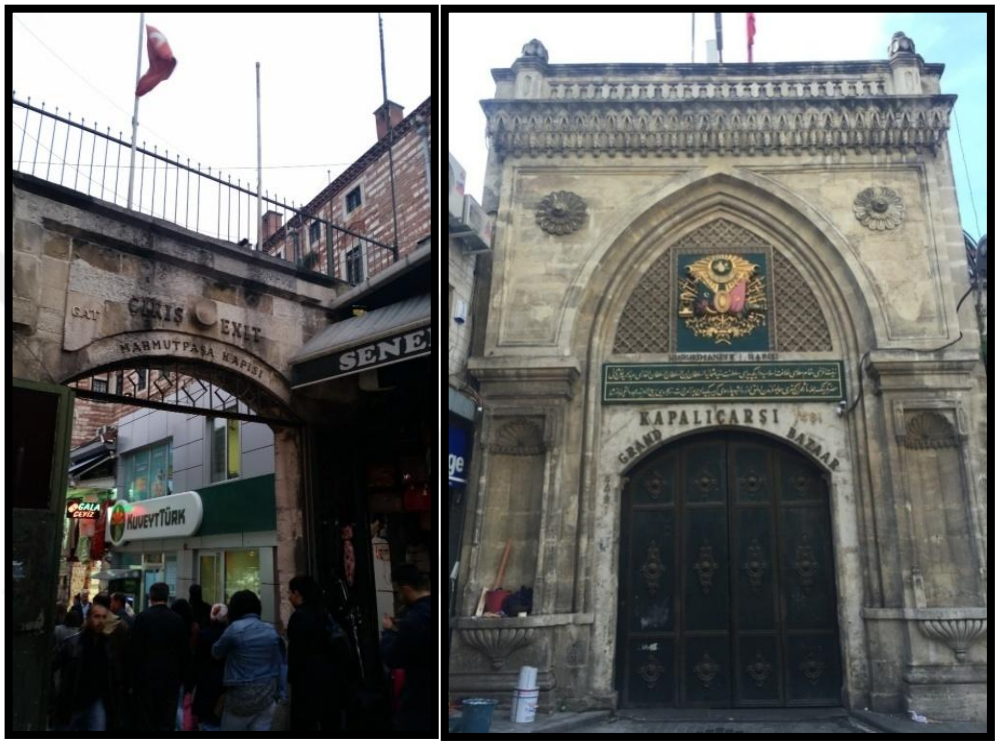


Figure 2.21. and Figure 2.22. Grand Bazaar's Mahmutpaşa Gate and one of the Grand Bazaar's Gate [13]

Because, ones destined to for this bazaar, if they are willing to enter the bazaar through the Mahmutpaşa Gate, they reach the bazaar going through Mahmutpaşa Street. Or the ones finishing their shopppings, when they go out through the Mahmutpaşa Gate find themselves on this street. Mahmutpaşa Street has enough products and varieties to allure local and foreign guests coming up that way. The bazaar located in between Mahmutpaşa and Nuruosmaniye and Beyazıt mosques gain customers as well as commercial activity for Mahmutpaşa.

Figure 2.23. and Figure 2.24. Panaromic view of Grand Bazaar [33, 34]

2.1.1.2.2. Çuhacı Han

Construction plans of Hans have continued with almost the same characteristics for centuries. This central construction plan has been continued for Istanbul Hans, too, with some extensions as per needs, however, as they were positioned as buildings forming road sides, oriels began to be built on the top floors. Kapalıçarşı and the surroundings naturally make up the core of the region where the hans are constructed due to its past and location. Some are positioned to be street faces in the bazaar, and some are located at the exits of bazaars as city blocks side by side [35].

The best example of a Han which contains all these characteristics suc as forming a road side, oriels on the top floors and being close to the Kapalıçarşı is the Çuhacı Han. Çuhacı Han located at the very entrance of Mahmutpaşa Street constitute a significant place in terms of its locationand history with its outer walls facing the Street. It is located across the spot where Kapalıçarşı and Nuruosmaniye Mosques are crossed.

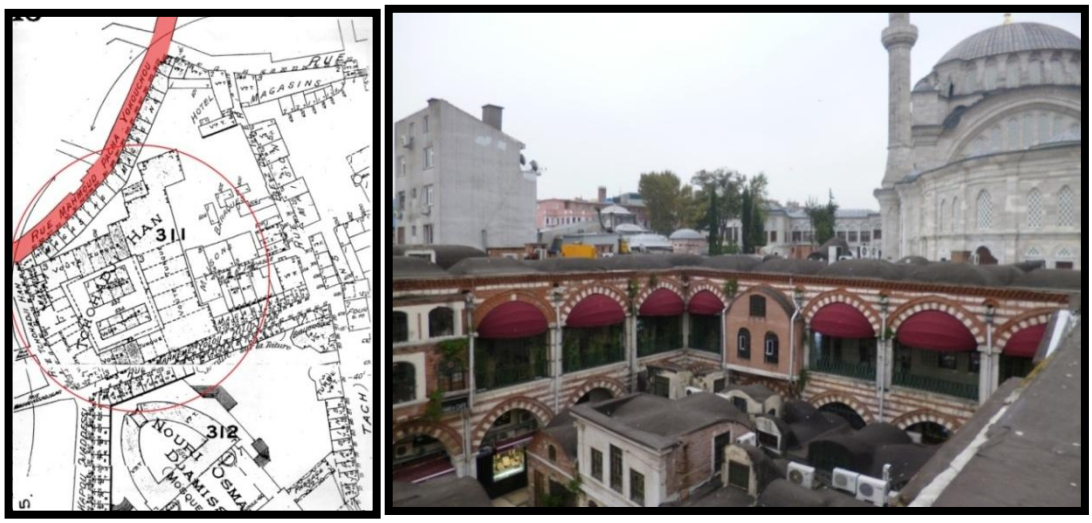


Figure 2.25. Çuhacı Han Goad Map,1904 [36] and Figure 2.26. Çuhacı Han yard view [13]

This Han was built for seller of a fabric called "Çuha" (haircloth) used for men's and women's clothes [37]. According to the information I have gathered from the elderly residents who have been there for years, the name of the Han has remained as "Çuhacı Han" as all of the residents of the Han used to produce and sell haircloth in the old days. In the forthcoming periods haircloth sellers left the Han and gold-silver traders replaced them.

Çuhacı Han was built by Damat Ibrahim Paşa in the 18th century. It has no epitaph and architecture is not known. As the Han was constructed depending on the condition of the road, the facade doesn't have a proper shape; the brokenness of the facade has given it a dynamism. Contrary to this, ıt has a proper 21 by 28.5 meter yard. The basement floor of the building classified in two-floor Hans has been allocated as a depot. One can enter these sections through stairs on the corners. The building constructed using materials mixed with bricks and stones is among the typical conventional Ottoman Hans [38].

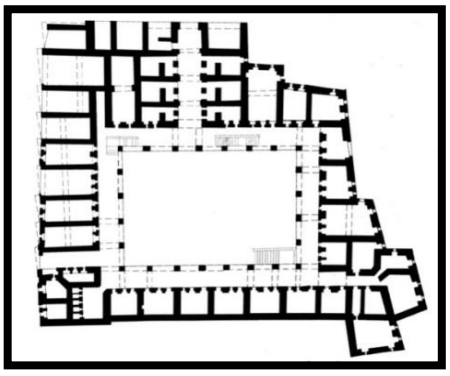


Figure 2.27.Çuhacı Han plan with out retail unit addition in the yard [39]

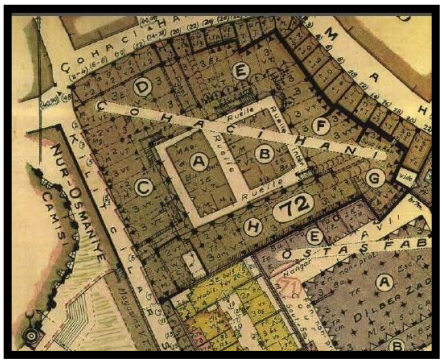


Figure 2.28. Çuhacı Han, J. Perviticsite plan with building additions in the yard, 1940 [40]

The reason why triangle oriels seated on top of stone cantilevers on the top floors is that the Han was constructed compatible with the shape of the lot. The Han, despite the facts that the facades of today's entrance floor shops are deformed, its yard is choked up with many buildings and even the arcs of the building are shadowed by other buildings with oriels, is still standing upright with all its characteristics [34].

Figure 2.29. Çuhacı Han yard view [13]

As Çuhacı Han is located right at the entrance of Mahmutpaşa Street, subject of our study, has fed the street for centuries. Outer wall of one of the four walls forming the Han faces the street and designates the shape of the street as well. The shops constructed afterwards in the yard of the Han use the yard for everything, for space, security and other (power etc.) systems. The building extensions attached afterwards increase the number of shops in Çuhacı Han as well as destroy the Han structure of traditional Ottomans. These building extensions in the yard are also one of our study headings.

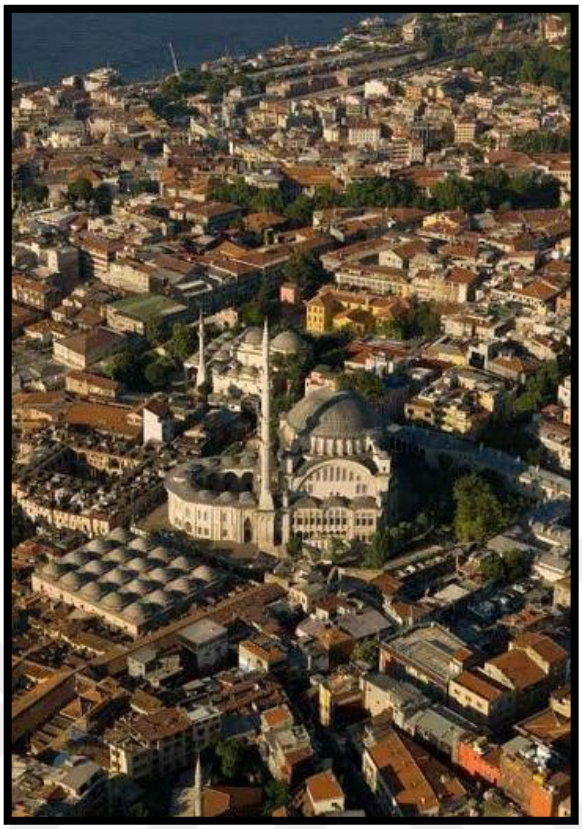


Figure 2.30. Panoramic view of Çuhacı Han, Nuruosmaniye Mosque and Grand Bazaar at the begining of Mahmutpaşa Street [1]

2.1.1.3. Mahmutpaşa Additions: An Overview

In order to be able to better evaluate the current position of Mahmutpaşa which we are examining closer we need to evaluate the change it hs gone through. This change is not limited to the replacement of the surrounding buildings with new ones only. To the contrary, the morstnoticiable change is the ones that they experienced within and which is essential for keeping up with the time. When these changes were being made, generally additions and substructures were used. While these additons that held on to the main structure like parasites to survive need the main structure, they serve the main structure in return. This living style which is a kind of symbiotic life is seen on the overall street on the roofs, facades and yards very often.

It is obvious that it would be useful to visit the tradesmen that made these changes in order to understand better the building extensions in Mahmutpaşa. At the end of the day, these people who live and work in these buildings are the ones that are aware of best what they need in daily life. It is these tradesmen who experience best which of these needs they

don’t meet through existing system and in which issues the current condition of the building is insufficient. I frown upon finalising the comments on these extensions without finding out when and how they have made new changes for these unmet needs and the basic motivation.

The reasons why the residents of the buildings made new extensions despite the extra costs can be evaluated under the headings below:

i- Power Systems: As all systems such as lighting, heating, cooling, calculation and accounting systems are depended on electricity they increase the power needs of the buildings as well as decrease the tolerance in lack of power. While this increased need for power caused local authorities to install more transformers and cables around when they transport power to these buildings. Also many units like cables and fuses attached to buildings inside and outside. While every attachement installed afterwards are in contradiction to the historical view, buildings were demaged in doing so. At the end of the day it is not poosible for us to give up on systems that depend on power. Nowwithstanding this, even though the visiual and structural damages of these extensions can be argued, their existence is inarguable. The justifications of the residents legitimated their actions and what has been done has been accepted in public view and by the authorities.

ii- Communication Extensions: When you look at the history of Mahmutpaşa, one can see that the newest extenson group is the communication extensions. They have begun in the second half of this century and increased in number exponentially. It consists of TV receivers, satellite dishes and necessary cabling. Regardless of a history of about 50 years, their intensive use cuased them to be on every facade and roof.

These legal systems that the residents of the buildings attached in line with realistic needshave become highly controversial in terms of their way of installation. The reson is: instead of being installed collectively with technical and visual attention for all, they were installed individually. For instance, whereas a satellite dish would be enough for almost the whole building, every section installed their own. And when you add the new ones that were installed without removing the unused ones to the already existing mass, however statutary the needs are, installation of these illegal structures with no order and rules have an extremely adverse impact on the historical buildings.

iii- Ventilation Systems: In overall Mahmutpaşa, there were no artificial cooling systems during the construction years of the building but there were heating systems only. And these, too, consisted of cookstoves and internal and external chimney systems that exhausted the smoke coming out these places out through the roof. We come across these extensions made on these chimney/funnel systems afterwards in many places of the street. These are the chimneys of the gas operated heating systems and barbecues of some restaurants. The cooling systems however, have a different course. Especially, when it is considered that the cooling needs in the thousands of years of history of human beings are stuck into the last century, the modernity of the artificial cooling systems can be better realised. Even though the cooling systems have been invented in the last century, becoming spread of domestic use and entering into our country of these systems fall onto last half of the century. These ventilation systems are the systems where some natural gases cool the air. While their existence is argued in terms of environmental foot print and they damage the ozone layer, their availability increases rapidly. While new buildings are designed generally with air conditioning systems, the old buildings adapt themselves rapidly to this system.

The ventilation systems are not systems that are as light as communication system. In fact, their motors are heavy units although not as much as that of generators. Therefore, they are hard to install and the holders are fixed deep into the structure of the buildings. The necessity of being close to the use area causes us to see them in every places of the building especially the facades.

iv- Fresh and Waste Water Systems: The purpose of use of the buildings changes in time. How many people they serve and how many units they consist of do change and their interaction with the surrounding buildings and the sewer systems change as well. In line with the units made aftwerwards, the changes in the sewer systems and the new requirements cuased by the extensions, sanitary systems of the buildings have evolved as well. This eveolution originates from the absolute needs of the residents of the buildings and has been caused suitbale to meet the needs only.

Steel piping systems that have been recently used, too, have compelled this evolution. The metal units have, in time, completed their usage and have become insanitary or even unusable. These lines most of which has been made as extensions have been obliged to renew themselves with new extensions. Many systems that are original or previously

attached either got stuck inside the walls of the building or inside the concrete attachments. In order to renew these and to meet the current needs, new age plastic – metal alloyed exterior piping has been used. Therefore, access and repair in case of faults and damages have become much easier.

These changes are not limited to freash water systems only. Storm water discharge systems have also been changed together with the waste water systems. In the change process of the storm water discharge system, the street that has become a retail market has a geeat share as much as the roof and facade attachements do. In order for the tradesmen to continue on their business, they developed systems that would harm least the street and the stands and reached onto the sewer networks. These attachements that were made so as to not get affected by the weather events which are a part of daily life are visual contradictions with their material and visual contrast as much as they are fair.

v- Awnings, canopies and display attachments: Awnings being in the fromt line, awnings and canopies are the most basic and light attachments. Through the first photos of Mahmutpaşa in hand (see p: 24,25 and 26) we can say that these awnings and canopies are always a part of the street. These attachmantes that the street level tradesmen use are used to protect from the precipitation the goods in front of the shops and the people having a look at these goods standing in front. The business now doesn't fit inside the buildings and Hans but overflows onto the strets and yards. Existence of these is welcomed by the tradesmen as natural or essential. Likewise, the main purpose of the buildings is evaluated in terms of the added value they provide into the economy not the architectural beauty or assessment. The buildings that cannot be operated or participated in the economy have almost no chance for living. One and only undeniable fact about Mahmutpaşa is that it is a business centre. This street that has become a retail centre that sells goods to the end user as the time goes by has also shown a growth in terms of the number of tourists visiting it. This commercial dynamism has also cuased the stands, hangers and shelves to overflow outside buildings. While the most interesting and promotional products are displayed on the hangers and shelves for the attention of the customers, the goods having a looked at on the stands find buyers for themselves in a large commercial volume. The awnings and the canopies protecting this selling spot; however colourful and of different materials and contradict, they are also an essential element.

vi- Spatial Attachments on facades, slef-contained attachements: Most of the buildings we se on the street have a history of a half of a millennium. It has gone through many periods and seen many laws from Ottoman Periods with no individual title deeds to the Rescript of Gülhane, from the Constitutional Period to the Republican Era. Some of these buildings are now personal properties after all these changes, and some of them are the properties of foundations that they rent out to tradesmen. These buildings that were designed as per the commercial needs of the sectors 500 years ago, are now insufficient for today's conditions. The most serious inadequacy is the lack of space. The commerce volume has increased, however the display and depot units have not expanded in line with the needs. The individual shop owners have somewhat tried to minimise this lack of space with the extensions that would provide vertical or horizontal expansion in space. Likewise, the fact that there are even no depot spots nearby and this street is closed to traffic in working hours has necessitated shop owners to domestically satisfy their needs.

While mezzanine floors are solutions that expand shops vertically, there are systems that increase the stock heights with intercarriers. These structural changes are not seen from outside. However, some shops have protrusions from floor baselines, facedes toward the street. While sometimes these protrusions may be shop units attached from outside, they may sometimes be solutions that join the additional space into the internal space which directly increases the floor space. These buildings are contrarian to their building plans, land and area ratios and all structural local regulations. When shop owners are asked about the individual attachements, the same excuses are faced all the time: It is that the commerce volume is depended on these systems and they are essential for the survival of the shops. The reason that the local authorities are aware of this but shut their eyes to it due to their necessary defence has somewhat legitimated it.

Çuhacı Han, one of the most significant centres at the entrance of the street is administered by a Han Committee. The shop owners have democratic rights in the management of the Han. With this Han, too, the biggest argument has been the lack of space, as with other Hans in the rest of the Street. As the lack of space has increased and the retail business has increased, the Han has made its own enlargement. It has constructed in its own yard small baby shops suitable for itself. These shops which, look, at first sight, like individual buildings, have become parasites living inside the Han due to the fact that they are in the backyard of the buildings as well as are technically and operationally depended on the

Han. One of the most significant reasons why these baby structures are bıilt in the backyards of the Han is the security. The backyard of this Han whose opening and closing times are defined and the security is established has become a perfect habitat for these baby structures whose survival would be too hard on their own. And as they are on the active section of the Han, they have utilised the incoming visitors. Even though some minor production takes place in some shops, these shops are retail and display shops. Because of a big need, the Han has sacrificed its backyard and the power of trade, as unfortunately mostly does, has affected the architecture.

2.1.2. Research Instruments

Following research instruments are put to use in this work.

- Evaluation Charts:

  i- Matrix 1 is the chart, where a classification of building additions in Mahmutpaşa Street is presented according to their;

  - host & interaction
  - structure & materials
  - space & use

  ii- Matrix 2 presents a comparative chart of traded products vs. building addition types in Mahmutpaşa Street

- Local (Mahmutpaşa) and global parasite architecture photos
- Building Survey of Mahmutpaşa Street
- 3D Street Views
- Interviews
- Relevant Literature (Digital and painted publications)

2.2. PARASITES

2.2.1. Micro and Parasite Architecture

The only unchanging concept that the written history has taught us is the change itself. Increasing population in time, economic and technological advancements, changes in geographical and global weather conditions and our social evolution have all pushed the mankind for change architecturally as well. The new needs and demands that have originated for various reasons have motivated us to change our current condition. Design can be thought as the first step of our structuring. However foresighted we could be in design stages, times have always brought changes more than and different to what we dream about. Therefore, our structures have become insufficient after a while or have completely lost its functionality.

Especially the Industrial revolution[2] started in 19th century has radically affected all our structuring, our social lives being in the first place. People who were generally engaged in agriculture in rural areas have established central cities with the industrial revolution and these cities started to gradually grow. The cities that had to serve more and more people with domestic migration, headed towards vertical structuring in contrast with horizontal living in the country.

Buildings of the city that didn't meet the needs in time and lost their necessities were either diminished and renewed or were modified and became suitable. This concept of lack of foresight in design stage catching up with the times in small touches we can investigate under Micro Architecture heading.

Industrial revolution has increased our architectural abilities with many innovations apart from the new requirements. Long lasting and strong steel construction techniques and stronger and more useful chemical compounds obtained in concrete and plaster opened up new horizons in design and construction. Again in this era, some light materials such as aluminium began to be refined with new techniques. While new mounting apparatuses

[2] Industial Revolution is the transfer from production styles based on human and animal power to a production style where machine power dominates. This type of production came into existence in the 18th century in the UK especially in textile sector and spreaded onto other fields. With the change into production based on machinery, the type and amount of production has increased [41].

such as prefabricated sheets, gypsum and concrete boards and plywood kind of materials that are obtained from wood chips under high pressure shorten the construction times, they have been joined with the steel constructions and have made possible many applications that were previously not.

Ones we mentioned above thousands more innovations and inventions have enabled us to make changes in existing buildings. Likewise, diminishing and rebuilding of existing buildings have become more expensive and impossible for various reasons in the cities. This however, has necessitated the need for keeping pace with the time and the needs with small scale structures and extensions. These sorts of small and structures and extensions are defined as micro architecture. We see some global definitions regarding micro and mobile architecture. According to Slavid, micro architecture is a distinct level of design:

> Micro architecture deals with these efficient touches in small scale constructions. As a term micro architecture consists of as small architecture, industrial architecture, lightweight architecture, mobile architecture, portable, nomadic architecture and most importantly parasite architecture. They all focused on functionality and interaction of human needs [42].

Figure 2.31. Hut on Sleds in New Zelland by Crosson Clarke Carnachan (Small Architecture) [43]

Figure 2.32. Nomad Yurt by Eco Shack (Nomadic Architecture) [44]

Figure 2.33. and Figure 2.34. Portable Container House in Brazil by MAPA Architecture (Portable Architecture) [45]

Figure 2.35. Rucksack House in Munich by a.k.a. Ingenieure (Parasite Architecture) [46]

Mobile architecture is featured in M. Pilar's book in the following form:

> Mobile architecture is an intelligent way of inhabiting an environment in a given time and place, being able to react and interact with ongoing social and cultural changes, complex cities, uncertain territories, undefined boundaries, changing structures...etc [47].

Mankind's dream to reach the moon for centuries has now been replaced with living on the moon. Many of the solutions that could be offered to make his dream come true are related to micro architecture. Designing of lightweight, mobile, close circuit, self-sufficient lunar structures, in Frank Kaltenbach's words, is the task of micro architecture.

> The great response with which small, innovative projects so called Micro architecture [48].

Even though there is no habitation on the moon these days, solutions developed have begun to be tested and used on the pathless corners of the World with no technology. Ikos Flexible Research Station and Peak Lab Research Station can be given as examples of these.

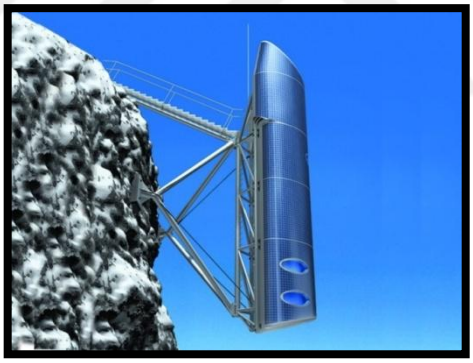


Figure 2.36. Peak Lab Research Station [49]

Figure 2.37. Ikos Flexible Research Station [50]

For most of the time, instead of building from scratch, mankind made some new changes and extensions to make suitable their buildings for their needs. This kind of construction can also be defined as parasite architecture within micro architecture. Micro architecture manifests itself mostly as parasite architecture. As in its biological definition, a parasite construction is one that cannot stand up itself and needs a host to survive. We can see couple of global definitions of parasite architecture. In regard to a perspective of growth, parasite architecture is a form of urban expansion:

> Parasite architecture is the reflection of a rethinking of the value of territories and the necessity that the city grows on it self and no longer beyond [51].

These parasites that invade our cities with small scale extensions and changes pushed us to closely investigate micro architecture.

Parasite architecture is very important type of micro architecture since using existing structures as host and lives like parasites. Parasite architecture in re-evaluating the current situation with new needs and use existing territories to attach new functions.

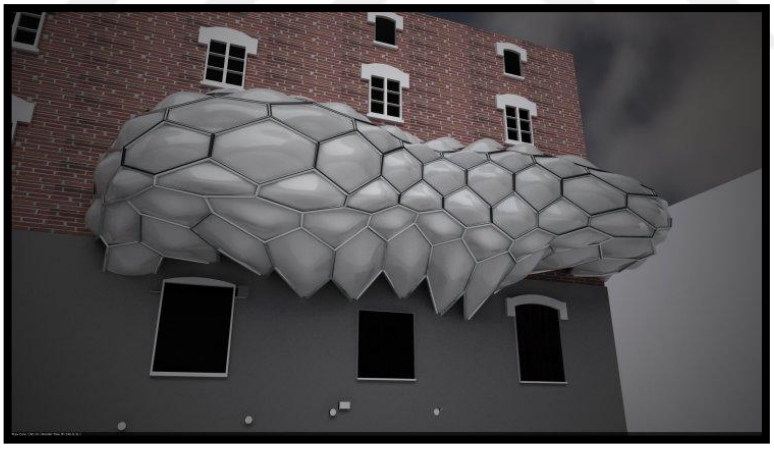


Figure 2.38. An illustration of Parasite Architecture [52]

> Therefore this type of architecture is an adaptable, transient and exploitive form of architecture that forces relationships with host buildings in order to complete themselves [53]

is an other discription of parasitic architecure by Steffen Samberger.

Micro and parasite architecture was a term that existed before the scientists have studied this under a heading. As it is not possible to timely limit this architectural style, it is not possible to limit it geographically either. It is time-wise wider than the time interval, and geographically wider than geography we investigate it in. Even though the figures of the

needs change and the solutions differ the construction extensions and micro interactions have always existed.

Some building extensions are in sizes that cannot be investigated under the headings of parasitic architecture, micro architecture not even architectural topic headers in terms of context and symbiotic living. Albeit, it is not investigated under headings, it does seriously affect the architectural structure visually as well as structurally. Apart from the integrity of the parasite structures depended on host but possessing its own area, the attachments that are seen do vary. While a shack that was built for a generator or a housing that was positioned on the roof is more suitable for the definition of parasitic constructions, awnings, canopies, air conditioning units and similar attachments mounted on the facades do differ. These attachments that are evaluated in a smaller scale need to be evaluated in a larger scale when their numbers and intensities are taken into account.

These building attachments and micro structures are so popular these days; we are used to them to not find their existence strange in our daily lives. In the city life especially, we use them for all our needs; from comfort to security, spaciousness to technology. Even if don't notice, there may be building attachments on the buildings when we visit a museum, sometimes in a shopping centre that we shop, or in a historical structure that we observe. Even in Istanbul there are unnoticeable building attachments in many historical buildings. These attachments are frequently seen in the Churches which were converted to Mosques after the conquest of Istanbul,in the historical buildings which were renovated with some attachments after big fires. Hazinerdaroğlu Konağı (Mansion) located on Bolaman castle in Fatsa is a good example of reuse and adaptation on old structures.

Figure 2.39. Haznedaroğlu Mansion in Fatsa Bolaman [54]

Even though the parasite architecture is generally conducted to adapt the changing needs, in some projects it has been used as the signature of the designers. In this sort of parasites, apart from meeting the needs, outcomes, albeit the high costs, with which the attention opeople are drawn and engraved on. While these projects grab attention increase the popularity of the building at the same time.

Tayson House Victorian Expansion in England, Rooftop Office in Vienne, Rehearsal Room Between Two Parisian House in France, Loftcube-Modular Living, Paris Pop-up Restaurant, Hanging Parasite Office in Moscow and Hotel Everland of which changes its location from time to time are the examples of this.

Figure 2.40. Tayson House Victorian Expansion in England [55]

Figure 2.41. Rooftop Office in Vienne [56]

Figure 2.42. Rehearsal Room Between Two Parisian House in France [57]

Figure 2.43. Loft Cube on rooftop [58]

Figure 2.44. Paris Pop-up Restaurant [59]

Figure 2.45. Hanging Parasite Office in Moscow [60]

Figure 2.46. Hotel Everland [61]

Following expansion and going into the literature of parasite concept, many famous architects have been in for, so to speak, each other with utopian projects they developed. In these utopic projects, it was aimed to find solutions for the homeless, refugee shelters, children's home etc. Parasitic Emergency Homes by Mike Reyes, Prefab Parasite by Lara Calder, Excrescent Homeless Parasite Utopia by Milo Ayden De Luca and Urban Tree Huts by Tadashi Kawamata huts projects can be given as examples for these projects which generally have not been implemented but remained as designs.


Figure 2.47. and Figure 2.48. Parasitic Emergency Homes by Mike Reyes [62]

Figure 2.49. Prefab Parasiteby Lara Calder [63]

Figure 2.50. Excrescent Homeless Parasite Utopia by Milo Ayden De Luca [64]

Figure 2.51. Urban Tree Huts by Tadashi Kawamata [65]

Individual, unplanned and uninspected structures compose the majority of the parasite attachments in cities. The most individualistic and conspicuous of these however, is Inflatable Shaleter by Micheal Rakowitz. Another individualistic sample is Stone Villa on top of a Chinese Condo in Beijing by Zhang Lin.

Figure 2.52. Inflatable Shaleter by Micheal Rakowitz [66]

Figure 2.53. Stone Villa on top of a Chinese Condo in Beijing by Zhang Lin [67]

As these were constructed in a motivation to satisfy the needs only, are far away from coherence with security and laws. While these parasites can be extra floor built on the roofs, can be small scale attachments like holders of A/C units mounted on the facades of the buildings. These small attachments are so many in numbers that they are in a scale to change the appearance of the city forming the major part in total.

Air conditioners, solar panels, generators and magnetic wave receivers (antennas) which are the blessings of the modern times are used with small attachments, generally unchecked, in historical regions of cities. Parasites in the regions where there is lack of space such as city centres however, front us as space making attachments. Unlicensed floors built on roofs, base enlargements going out through the facades and balcony closures that are very common in Turkey are of this kind of parasites.

Many attachments are built far from the inspection of the local authorities as buildings not conforming to the static, electric and sanitary regulations. The space making ones, however generate violation of right of space and serious risks for building integrity on top of these.

While parasite projects being designed by architects with careful studies can be visually attractive and value adding to the host and the environment, they may generate a big visual pollution. An attachment made for an apartment or the building, when the fact that there are many buildings in the city is taken into account, creates a big effect. Many attachments that are against our laws, therefore, cannot be forced to be made compatible with the criteria.

Yet, this action taken will have legitimated the authorities to the extent to accept their existence. Therefore, no control and inspections can be carried out.

There serious reasons why the local authorities cannot or will not confront these illegal attachments. Because, albeit these are generally contrarian to the regulations, are suitable for the reality of the cities and human needs. What legitimates them is the fact that the only solution to satisfy the needs without demolishing them is these attachments.

In order for city buildings to survive and continue on their existence the most significant parameter is that their contribution to the economy persists and remain as revenue makers. Ones used as residents however, should be in quality suitable for life styles and to meet all humanitarian needs. Yet, even if it is a house, it makes it a part of the economy. Economic

and comfort trends and technological advancements create a continuous need for change. The fact that the building gets older and loses some functionality should also be considered. In order to correspond to these issues, buildings sometimes chose the change at all costs. Sometimes this change may damage the building, may cause to lose its backyard or beauty of its faced might be lost; but it will remain its functionality and hold on to life. Despite the fact that the parasite architecture fronts us with its adverse aspects, it is the largest weapon we use to get prepared for years to come.

2.2.2 Global Parasites

2.2.2.1. Rooftop Parasite Examples

i. Loft Cube, Werner Aisslinger

Figure 2.54. Loft Cube on a rooftop [68]

The concept underlying the Loft Cube is to exploit large, flat, city center roof are as that have hitherto remained unused. The rooftops would form the base for lightweight, mobile dwelling units. The planners presented the prototypes for their modular housing cells in 2001 on the roof of the Universal Music building in Berlin.

The roof is borne by eight corner columns. The requisite mobility is ensured by restricting the size of all construction elements to container dimensions. To minimize the weight, the entire load-bearing frame is in aluminium. The wood facade that is also created

especially for the Loft Cube gives it an elegant and precious appearance while the colour selected for the wood create the desired warmth. The wood used is FSC certified. Glass-fibre-reinforced plastic panels are fixed to the structure by means of a quick-locking mechanism. The column-free layout is based on a 62.5 cm finishings grid. Fixed and sliding panels can be inserted in guide tracks in the floor and ceiling to articulate the internal space. Electrical and water supply modules, as well as communications, are also installed at these points. The sanitary fittings are made of acrylic polymer with a proportion of stone dust.

The architect used the latest techniques and new materials, combined with artistic and experimental approaches. The idea behind the project is a proposal for the temporary, minimalistic dwelling unit that can be suitable for a particular group of people – people leading a modern nomadic lifestyle. Loft Cube has 2 sizes, first cubical shape is 39 m² and second rectangular prism shape is 55m² [65].

Figure 2.55. Indications of Loft Cubes [69]

The shipping of Loftcube can be done in a standard shipping container as a self-construction kit. It takes 2-4 days of work on site, and 2-3 people to assemble it. It can also be transported by a helicopter as whole unit.

Figure 2.56. and Figure 2.57. Setup and transport of Loft Cube [69]

When loftcube became a brand and general solution, there shall be different size as and interior designs for different purposes. Loewe, Miele, Vorneke companies are selected for inner use equipments, Ploh, Danshing etc. help with the accesorries. When all these experts come together they establish one style but solutioned for many needs like condo, beach house, office or even help box [69].

Figure 2.58. Interior Design of Loft Cube [69] Figure 2.59. Transport of Loft Cube [69]

ii. Hotel Everland, L/B (Sabina Lang and Daniel Baumann)

Figure 2.60. Hotel Everland on the rooftop of Tokyo Palace [70]

Host building is Palais de Tokyo in Paris. It has a very nice view of Eiffel. At the roof top it hosts the Everland Hotel and provide all facilities.

Figure 2.61. Hotel Everland exterior and interior views [71]

This is one room place with bathroom and lounge. It is prefab and assembled elsewhere and attached host while carrying by crane. Everland traveled to various European cities before it was retired in 2009 [70].

At lounge there are sofas and all sides are window for better view. All bedding and bathing place are very compact and modern. The design elements of the room are bold and unifying, reflecting the artistic style trademark of L/B's contemporary spatial works. The space is wholly integrated by repeating colors and rounded corners, and all the furniture is built into the architecture so that nothing can be moved. The space is also completely open with no doors or curtains to divide guests from each other or the outside environment [71].

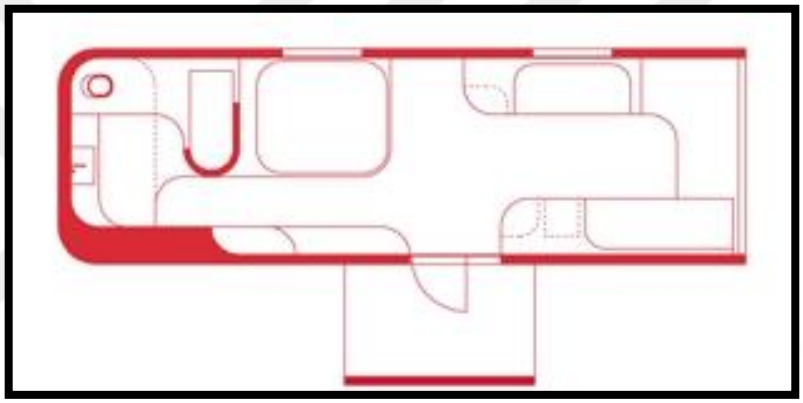


Figure 2.62. Plan of Hotel Everland [71]

iii. Module Elektrolux, Paris Pop-up Restaurant, Pascal Grasso

Host & Interaction Structure & Material Space & Use

Figure 2.63. and Figure 2.64. Paris Pop-up Restaurant exterior views on Tokyo Palace [72]

Host is the same with Hotel Everland, Palais de Tokyo in Paris. It has been constructed in the Cherbourg boatyard, in the North of France, and transported in two pieces by special trunks to Paris, and then set on the roof of Museum.

Architect Pascal Grasso has designed a take-down and easily transportable module, which is twelve seats dining room, with a panaromic view on Paris. This is a temporary rectangular structure made from glass and the central part of the structure is covered with metal.

Figure 2.65. and Figure 2.66. Paris Pop-up Restaurant interior and exterior views on Tokyo Palace [72]

Module Electrolux is a rooftop restaurant that specializes in Japanese food. This mountable structure is 18m long, 4m large, 3.50m high and weights 22 tones [72].

2.2.2.2. Facade Parasite Examples

i. Prefab Parasite, Lara Calder Architecture

Figure 2.67. 3D Drawing of Prefab Parasite [73]

This parasite project is meant populate the unused spaces found in urban landscapes. To achieve sustainable densification the dwelling attaches itself to a blank building fabric found in the city. It grows on empty facades, rock faces and bridges. It finds value by turning dead public space into lively private space [73].

A mounting plate is attached to the back wall where the parasite will attach. Floors are added and lastly, the structural facade is put in place to provide lateral bracing to the form. Designed using a parametric 3d modelling software, the form is a flexible entity as all components, such as the structural system, facade, cladding, floor levels and stairs are integrated into a sole parametric model. This provides flexibility for the parasite to adjust to the different sites it occupies. The structural facade members are all controlled parametrically, as arethe main structural ribs The mounting plate which is the back wall of the dwelling is the first component to be installed. The floors and internal fitout attach to

the mounting plate. The structural facade installed last provides lateral bracing and ties the building together. Main skeleton is from heavy lifting materials like steel and cover parts consist of light materials like metal-plastic alloys, alliminium like light metal sheets and plexiglass…etc [74].

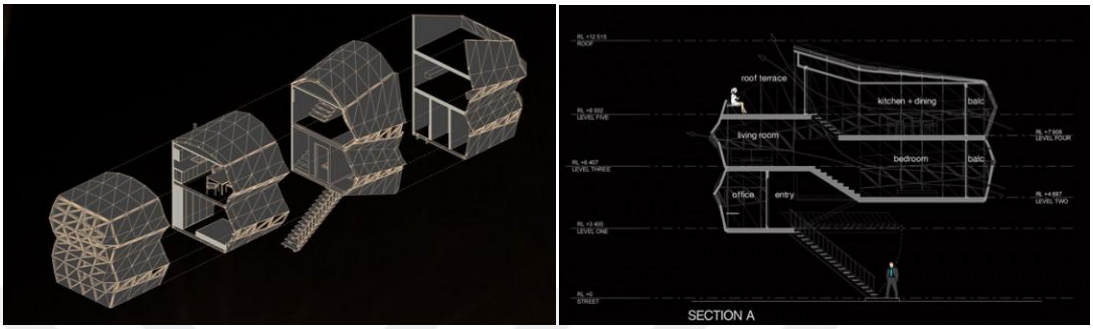


Figure 2.68. and Figure 2.69. Drawings of Prefab Parasite [73]

One the first level, the building contains the main entrance and the study. The bedroom and bathroom are on the second level and the main room has access to a balcony which is protected by a privacy screen. The upper floors contain the living space, kitchen, and small roof terrace, which provides the opportunity for natural cross ventilation. The project is accessed by a retractable staircase so as not to disturb pedestrians or light vehicular traffic. In addition to not disturbing the street, raising the building 3 to 4 meters above the ground level makes a footprint that technically only consists of the stair landing and the services duct [74].

ii. Parasitic Emergency Homes, Mike Reyes

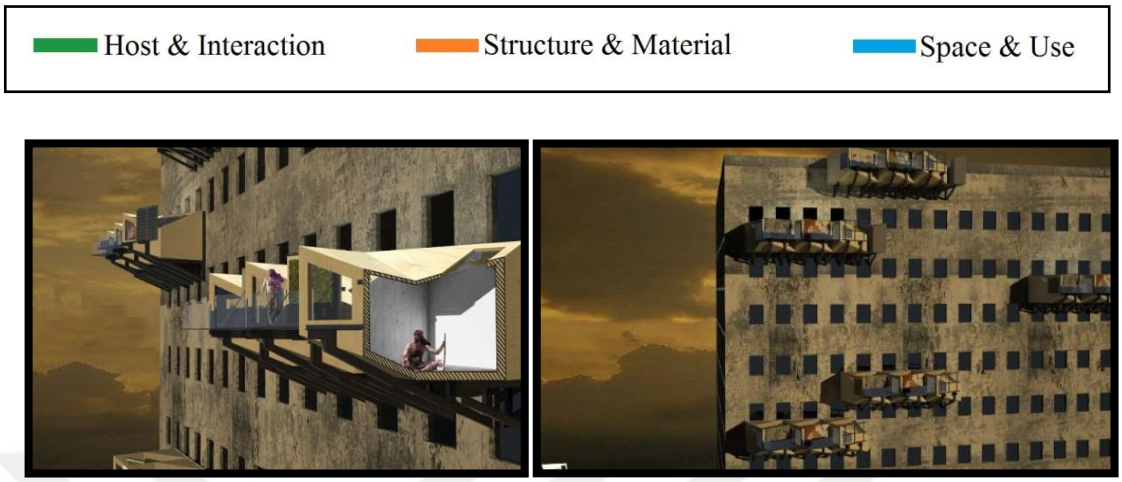


Figure 2.70. and Figure 2.71. Parasitic Emergency Homes 3D Drawings [75]

The design is planned to be placed on abandoned buildings in Sao Paulo, Brazil, which is a famous city for its deadly floods and mudslides. Parasites are outer steel boxes. These boxes assembled as parasites are used as emergency homes. Concept is unique in that it actually enlists able-bodied survivors to assist with the implementation of the shelters,it empowers them to take action instead of simply sitting around, waiting for help.

The structures are box-like homes that can be attached onto the facades of other buildings. A prefabricated, modular dwelling that could be implanted onto an abandoned building like a parasite. The design is inspired by Brazilian shanty towns. Reyes envisions that the pre-constructed structures could be airlifted by helicopter to sides where they are needed and then guided into place with the help of survivors. They clip onto building facades using leverage [75].

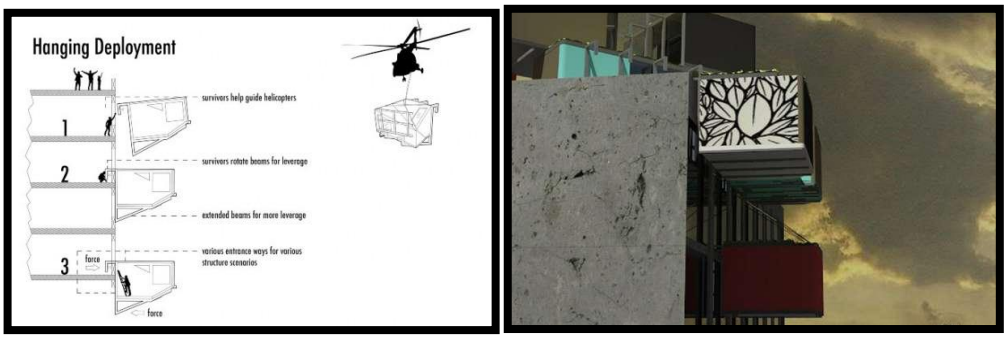


Figure 2.72. and Figure 2.73. Transportation and 3D drawings of Parasitic Emergency Homes [75]

Each shelter would contain beds, lighting, storage and a skylight and be made of recycled materials from local construction sites. There would also be attachments for solar energy, water purification and organic farming. Finding muse in the famous favela paintings of Rio de Janeiro, Reyes also hopes that survivors will be able to use the walls of their shelters as canvases once they are settled in, using painting as a creative outlet as they begin the process of healing [75].

iii. Rucksack House, Stefan Eberstadt

Host & Interaction Structure & Material Space & Use

Figure 2.74.Rucksack House interior and exterior views [76]

Designed by Stefan Eberstadt, the Rucksack House (backpack house) is a an additional room that can be suspended from the facade of any residential building. The cube is a light and empty space, free from connotations and open to its user's needs. While still being inside a private atmosphere, one has the impression of floating outside of the confines of the actual dwelling above the public space.

The Rucksack box is suspended from steel cables that are anchored to the roofor to the facade of the existing building. The construction is a welded steel cage with a light birch veneered plywood interior cladding. The outside cladding is exterior grade plywood with an absorb entres in surface punctuated by plexiglass inserts.

With 9 sqmeters (97 sqft) of space, the Rucksack House is open and can be used for a variety of activities like an extra bedroom, studio space or a living are a Fold down furnishings and a multitude of built-in openings on the inside provide extra living space with direct daylight. Sections of the walls unfold, with the help of hidden magnets, into a desk, shelves, and a platform for reading or sleeping. The entire box is mobile and can move as the resident does to the next dwelling providing instant add-on space [73]. In 2004, the Rucksack House was in Leipzig, then in Cologne in 2005 and then moved to Bamberg in 2011 [77].

2.2.2.3. Detached ParasiteExamples

i. Parasite Inflatable Shelters, Michael Rakowitz

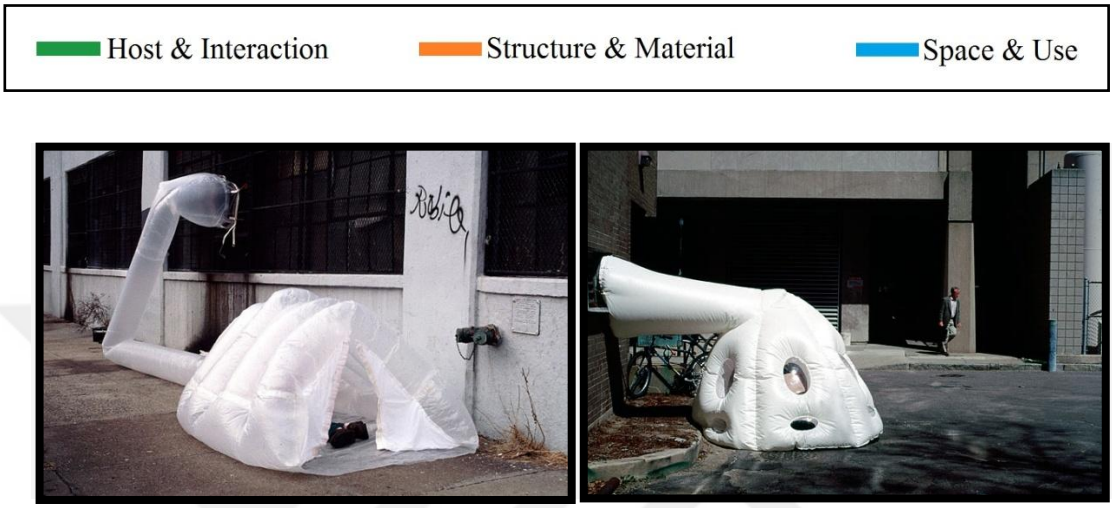


Figure 2.75.and Figure 2.76. Parasite Inflatable Shelters views [78]

Custom built inflatable shelters designed for homeless people that attach to the exterior outtake vents of a building's heating, ventilation and air conditioning (HVAC) system. The warm air leaving the building simultaneously inflates and heats the double membrane structure. It has been built and distributed to over 30 homeless people in Boston and Cambridge, MA and New York City since 1998.

This shelters have designed closer to the ground, more like a sleeping bag or some kind of body extension. Materials used for shelters are mainly trash bags, plastic bags, ziploc bags, polyethylene tubing, hooks, tapeetc. These materials are semi translucent trash bags thefore they obtain little amount of security but on the otherhand users will give up their privacy [78].

Figure 2.77.and Figure 2.78. Parasite Inflatable Shelters detail views [78]

Shelter shapes are generally narrow and long sometimes look like timber frame of a boat or sometimes reminds iglos. Six Windows are placed at eye-level for seating position, six smaller windows are placed at ground level for reclining position in iglo model shelter [78].

ii. Hanging Parasite Office in Moskow, Za Bor Architects

Host & Interaction Structure & Material Space & Use

Figure 2.79.Hanging Parasite Office in Moskow [79]

This hanging parasite is between 7th floors of two existing building which are located in very central place in Moscow. This example is classified under detached parasites but it also has facade parasite features.

The project provides a three-floor volume with an accessible roof area, divided with modular floor panels. The framework which shapes it, is a single structural unit clamped between the blind facades of the houses. The polygonal main facade solved in dynamical volumes, is made from light and durable cellular polycarbonate; the facade turned to the court yard is flat and completely glazed [80].

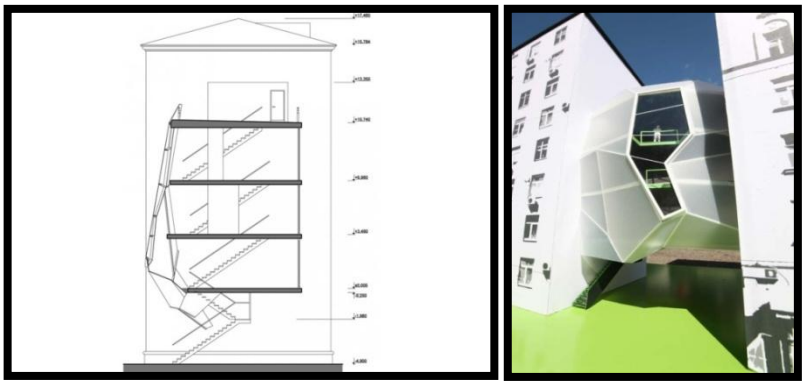


Figure 2.80. and Figure 2.81. Drawings of Hanging Parasite Office [79]

"Parasitic Office" caters to a new emphasis on modern design. It is built in a way that doesn't disrupt the flow of traffic.This is an ordinary office interior composed of single desks and meeting furnitures. The Parasite Office's floor area is 230 m2. All flats has WC at same vertical line buiding. Interior design is remarkable with modern design and plants. The floor plan inside is as quirky as the dimensional outside, making it the perfect creative space for a design office. At night, the building glows from within, as the walls are semi-translucent on the street side and have a flat, glazed back on the courtyard side [79].

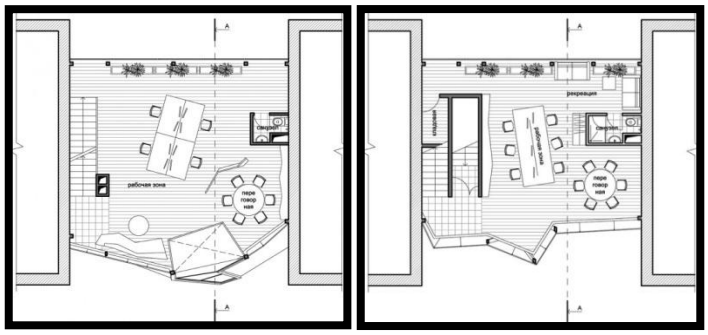


Figure 2.82. and Figure 2.83. Plans of Hanging Parasite Office [79]

Figure 2.84. Interior view of Hanging Parasite Office [79]

iii. Rehearsal Room Between Two Parisian Homes, Cut Architecture

Host & Interaction Structure & Material Space & Use

Figure 2.85. Rehearsal Room interior and exterior views [81]

The square addition creates a serene practice space for the client, a cello player. The room hangs like a parasite between the client's house and a neighbour's. This example is classified under detached parasites but it also has facade parasite features.

There is no supporter on the bottom of this steel parasite. The parasite is hang between two building. The reason of not supporting it on the bottom part is that the empty is used as an garage. The empty space that is used as a garage has a two sided door. A giant plate glass window lines almost the entire front of the room, drenching it with light while creating the illusion that it's bigger than it really is. The concrete room is framed by a skewed geometric shape in the front of the house, and a smaller rectangular window along the bottom of the back of the room [81].

Since it is a music room interior part of wall covered with smooth anondized aluminum for aqustic purposes. The main reason of is the sound isolation and decrease the echoing problem. In order for both neighbours to enter into the parasite, two doors are inserted to both sides of the design. Internal design is simple and only white color is used. This room also has a role for Canopy over the parking area [81].

2.2.3. Mahmutpaşa Parasites

Grouped under 3 categories;

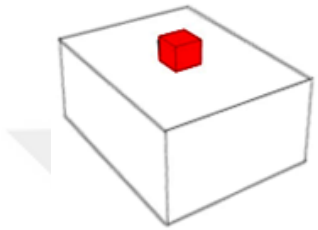
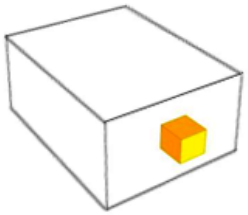
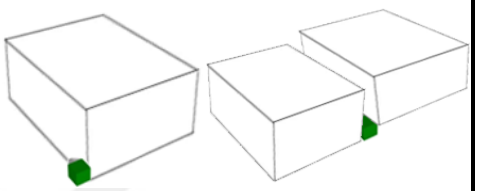
ROOFTOP	FACADE	DETACHED
		

Table 2.1. Classification of Parasites [13]

2.2.3.1. Rooftop Parasites

Rooftop additions are add-on modules that are positioned on the top side of the existing host buildings. Especially the buildings with no roof or the ones with small roofs and wide terraces have a tendency to place their extensions here. Terraces are suitable for extensions with their ease of access, flat floors, load-carrying capacity and area for moving they offer for their users.

Showing continuous changes in the centuries, Mahmutpaşa have mostly used its terraces to satisfy its technological and sectorial needs. On all the terraces, even on the terrace of the Turkish Bath which is domed when seen from the top, we see large and small extensions serving various purpsoses. Some of these are satellite dishes, solar panels, cooling towers, A/C units, generator cabinets and booths used for various purposes. Furthermore, these terraces have been used, beyond the extensions that we have mentioned, for building extra floors.

Ofcourse, as every attachment and floor has benefits, they have some disadvantageous and risky aspects as well. We can investigate this issue under three general headings; technical, visiual and social.

When considered technically, first fact that comes to one's mind is that many units that would be attached afterwards were not taken into account during the design and construction of these buildings. Static calculations, electrical floor criteria and the fresh and waste water system parameters were all designed for the original building. Some high-power and high-water consuming heavy attachments that made afterwards may be incompatible with the building. These attachments most of which have been made without permits are generally contrarian to the local earthquake, sanitary and fire regulations.

When these attachments that were made using new materials that were not available and used in the construction period of the building are investigated, are incompatible with the building. The building is designed in an architectural integrity; however, these attachements that were made individually have a chaotic appearance. And when you add the cabling and piping systems used for the electricity, the water and the air that they use, the aesthetical loss is dramatic.

Terraces and the roofs are considered common spaces and use of right belongs to the residents of the building. But, what is seen is that while there are attachments serving the whole building, there are ones that serve individual as well. Also, the building is responsible for the environment it resides in and is governed by the municipality with some constraints. Many inappropriate attachments are placed on top of the terraces in particular, that are not seen from the street level. These, however, can be easily visible from the neighbouring terraces.

2.2.3.1.1. Satellite Dish

Satellite dishes are components of TV receivers, providing the shops with satellite TV reception. The satellite dish, itself, is a leightweight metal parabolic antenna [82].

Host & Interaction Structure & Material Space & Use

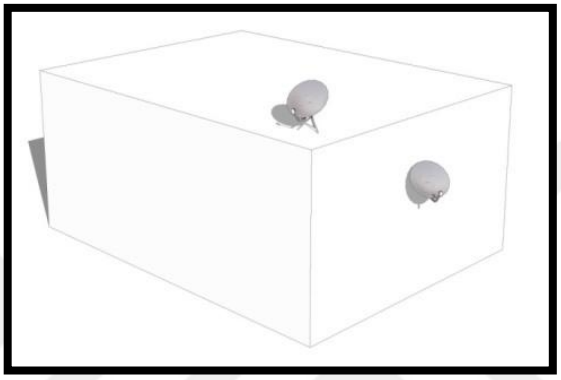


Figure 2.86. Illustration of Satellite Dish [13]

Satellite Dishes are mostly mounted on rooftops and on facades. Since the alignment of the unit with the given polarization values of the satellite, these units are mounted on the face of the building, where the best line-of-reception is possible.

These modules are comprised of sheet metal and PVC. If the satellite dishes are to be fixed to the side it is done via carrier hangers that are fixed to the wall of the side. Rooftop units are fixed on metal stands. These units are mounted on hollow section structures, which are fixed on the facades or roofs at structurally hard points.

Satellite Units provide TV broadcast reception. Cables are connecting the dish to the receiver units are connected via waterproof pipes from outside. There is no interaction between the user and these units. These units can be classified under external technical addition category.

i- Evaluation: The communication system installations on facades in Mahmutpaşa Street were always visible. Shopowners had later access to the TV broadcasts and to the Internet through the dishes they placed on the roof and facades. Nowadays, these units are mostly integrated into the architectural design as the TV and internet receivers that will be attached to the buildings are designed at the construction permit stage. While underground infrastructure integration can present a wide-scale solution to such systems, visible and minor telecom additions to thehistorical texture can be viewed as a part of the "liveliness" of this unique environment.Taking the challenges of constructing underground channels in such a historical district and the ever-changing requirements by the users, the telecom additions seem to keep on existing in Mahmutpaşa in coming years.

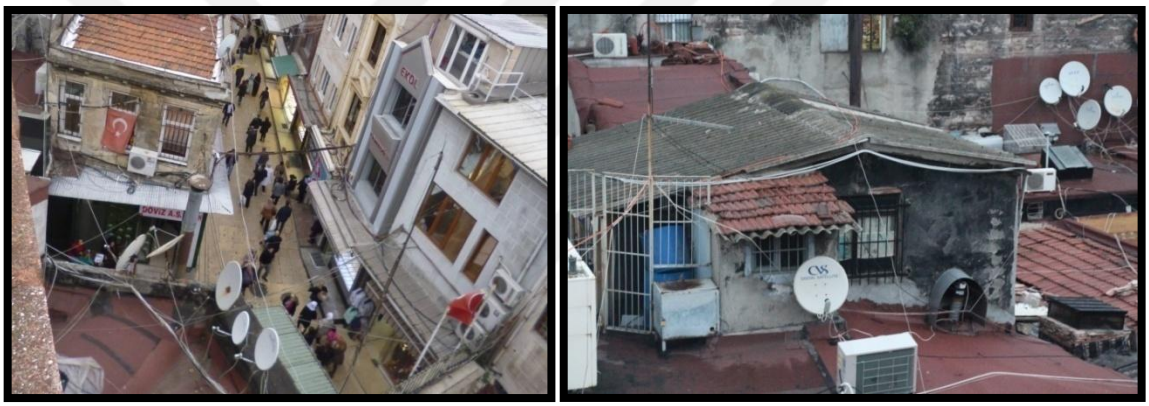


Figure 2.87. and Figure 2.88. Satellite dish rooftop views [13]

Figure 2.89. and Figure 2.90. Satellite dish detail views [13]

2.2.3.1.2. Generator

Electricity generators are mainly powered by fuel and convert mechanical energy to electricity to be used as an external circuit during powercuts. The main unit is housed in a metal box, connected to the electrical system by cables.

Host & Interaction Structure & Material Space & Use

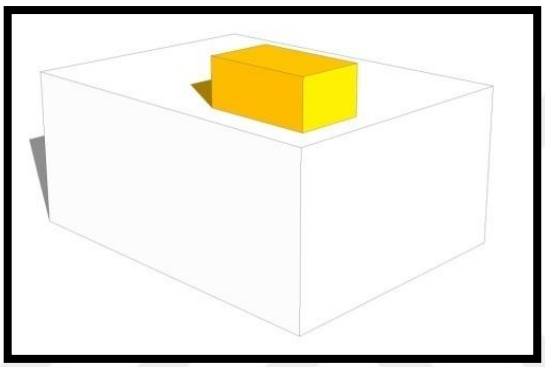


Figure 2.91. Illustration of Generator [13]

Generators are mostly positioned on unused and flat places of rooftops. Even though the new generators are built weather-proof sheltered spots are preffered for generator units. These units present extra load and visual impact on the existing built environment.

Generator units, comprised of a diesel engine, an alternator and electrical equipment are housed in sheet metal boxes, supported by steel section framing.

Generators are needed for generating electrical power. They are connected to the electrical system of the building and are operated automatically. The sole interaction of users and these units is the maintenance by service personnel. They are non-spatial, technical additions.

i- Evaluation: Electrical power is a necessity for almost all modern building systems. At the construction times of these historical buidlings on this street, there was either no power or it was used for lighting purposes only. Nowadays however, all systems from business to ventilation, from security to communication are depended on electricity. Therefore, power cuts are unacceptable events. In order to overcome this, individual or common generators are used. These devices converting kinetic energy into electricity are too heavy and noisy. These devices being too vulnerable to weather conditions, especially the rain, are protected by means of cabinets or similar shelters, which increase their visibility in the built scape. Putting into danger the statical integrity of the buildings with their weights, these devices cause a great visual impact on the roof with their protectors and cabinets.

Figure 2.92. and Figure 2.93. Generator on rooftops [13]

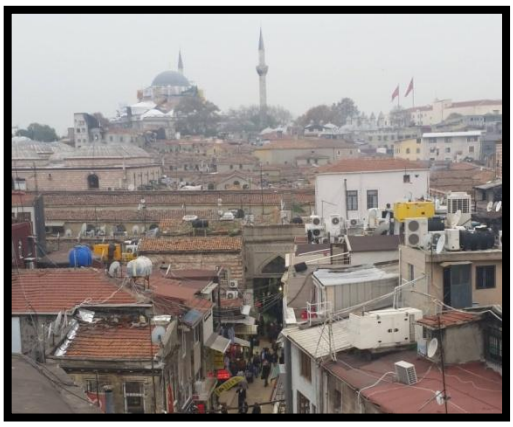


Figure 2.94. Generator on rooftops [13]

2.2.3.1.3. Chimney/Funnel

These are hollow structures that exhaust smoke and gases from inside to open air.

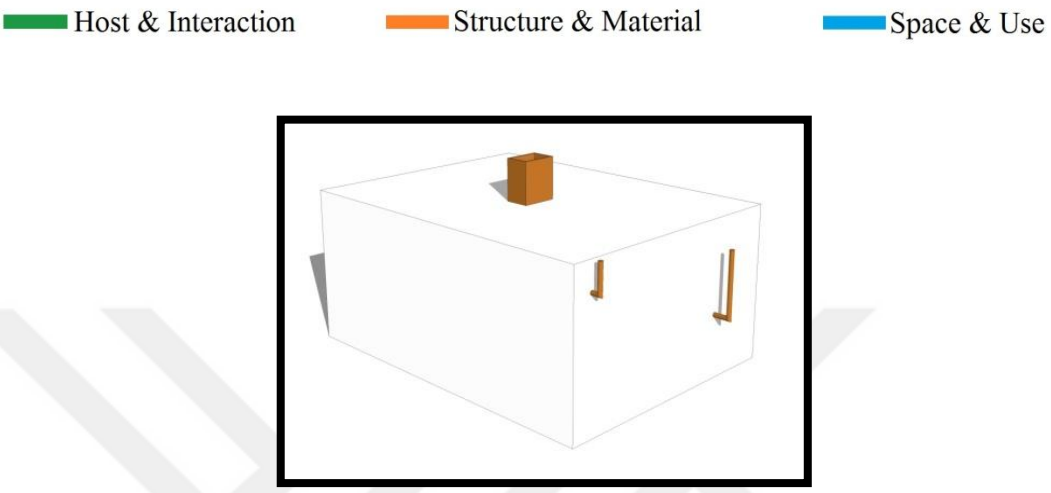


Figure 2.95. Illustration of Chimney/Funnel [13]

Chimneys are placed on facades,rooftops depending on the type of exhaust and composition of buildings. The material and form of chimneys-exhaust funnels have impact on their interaction with host buildings.

Mostly of circular and rectangular cross-section, exhaust funnels are constructed of weather proof metal sheets and supporting structural frames.

Funnels enable exhaust of discharge gases. There is no interaction with the buildings users, apart from maintenance. These are non-spatial technical add-on modules.

i- Evaluation: Apart from the chimneys of heating devices such as fire places or stoves in the original buildings, we come across some other exhaust channels on the buildings. While some of these belong to heating devices such as water heaters, some are used to exhaust barbecue smokes of the restaurants. Depending on the type and intensity of the smoke, the diameters and heights vary. Apart from the ones running thorugh the roofs, ones running from the sides can be sighted. There are even ones coming out through the side running all the way upto the roof. While the chimneys in the original plans are quite true to the building, the ones added afterwards create a complete chaos with their diameter, length, material and colour varieties.

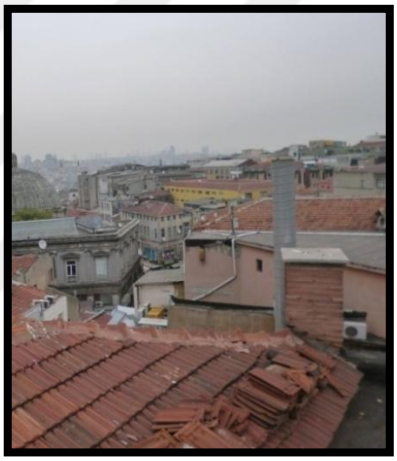



Figure 2.96. and Figure 2.97. Chimneys on rooftops [13]


Figure 2.98. and Figure 2.99. Chimneys on facades [13]

2.2.3.1.4. Solar Collector System

Solar panels are devices that convert sunlight into energy in the form of electricity and heat. Solar water heating systems use this energy to heat water.

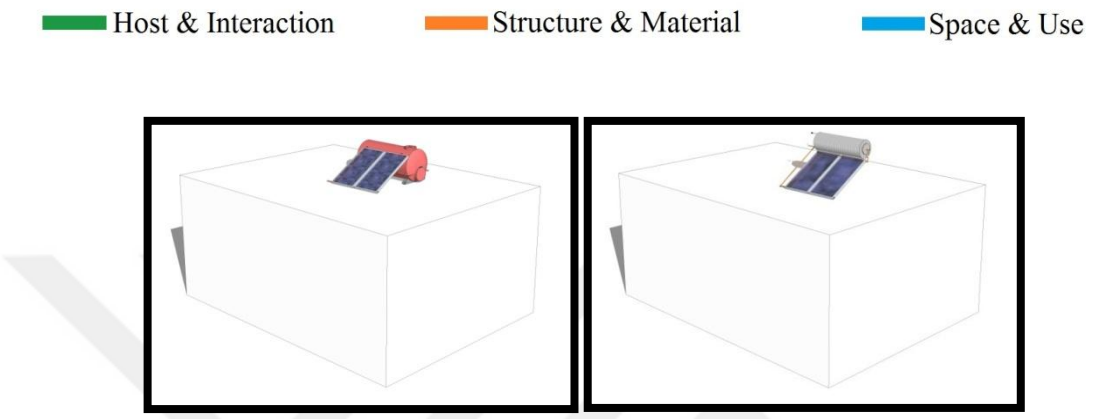


Figure 2.100. and Figure 2.101. Illustrations oftwo kind of Solar Collector System [13]

A solar collector system, comprised of typically mounted on rooftops. These units are placed wide roof and adjusted to an optimal angle to the solar path. These units present extra load and visual impact on rooftops. When placed on flat roof, these units are adjusted to 45 degree angle.

The solar panels are glazed boxes of metal section frames, piping and glass panels. The storage tank is typically a glass fiber reinforced plastic cylinder , positioned right above the panel unit.

These SWH units are classified under technical additions. The user interaction is limited with maintenance.

i- Evaluation: It is vital to use solar energy in regard to environmental footprint minimization. With the wide spreading of the technology of the use of solar power through panels, use of solar energy for heating purpsoes has increased. Very few buildings in Mahmutpaşa Street have begun to use solar power for water heating purposes; they have saved money as well as contributed in the protection of the environment. But, as the historical structure of the buildings is not suitable for this kind of attachments, the panels break the harmony on the roofs and, with the weight of the water tanks attached to the panels, they cause structural impacts on the buildings. Yet, these systems are likely to continue their existence, due to environmental awareness.

Figure 2.102. Solar panel and its water tanks [13]

2.2.3.1.5. Chiller Tower

Chiller towers are heat rejection devices, used to cool the waterstreams of HVAC systems. Placed on top of buildings, they are essential elements of central ventilation systems.

Host & Interaction Structure & Material Space & Use

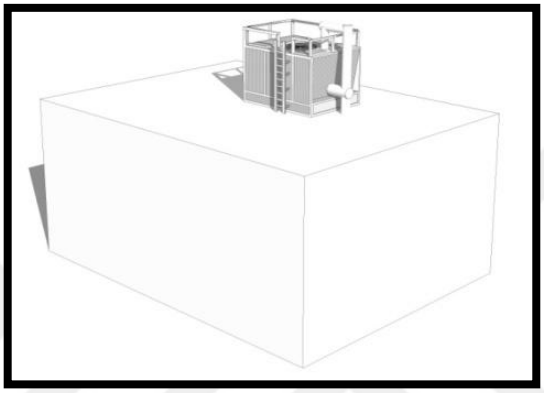


Figure 2.103. Illustration of Ventilation and Chiller Tower [13]

Chiller towers, in regard to their function, are positioned on suitable places on rooftops. The user-interaction is limited with maintenance. The heat emission and noise is a factor in placing these units on habitable parts of the rooftops.

Chiller towers are comprised of metal sheet bodies on a simple metal frame structure.

Bulky in form, yet not presenting a habitable space, these units are classified under technical additions.

i- Evaluation: The fact that existing buildings have poor thermal regulation and low indoor air quality indicates the necessity for HVAC systems. However, the bulky and noisy chiller towers of mechanical ventilation systems have considerable impact on Mahmutpaşa environment.

Figure 2.104.Ventilation and Chiller Tower on Rooftop [13]

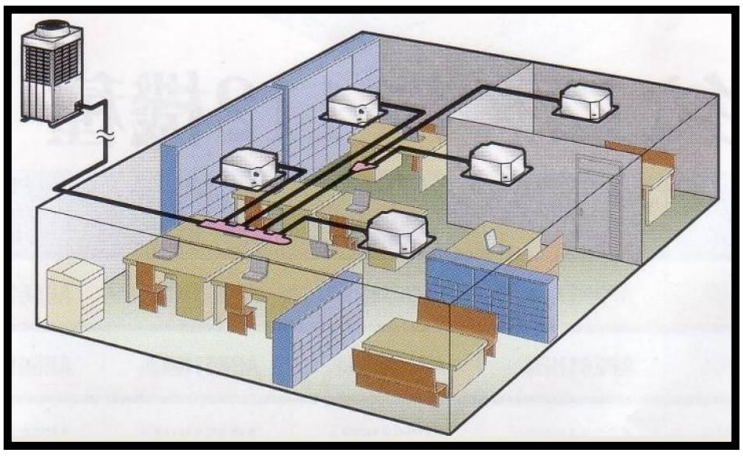


Figure 2.105. Illustration of Ventilation and Chiller Tower [83]

2.2.3.1.6. Shack-2

This unit is a user built, leightweight box, possibly used as a cabin by the building (hamam) staff.

Host & Interaction Structure & Material Space & Use

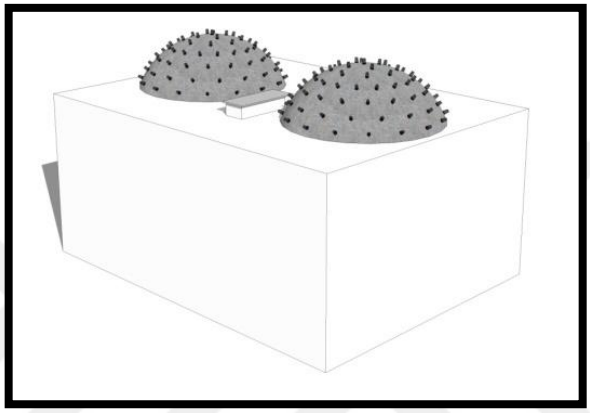


Figure 2.106. Illustration of Shack-2 on rooftop of Mahmutpaşa Hamam [13]

Shack-2 is mounted on rooftop of historical Mahmutpaşa Bathhouse building. The add-on module is attached structure on between two domes, thus might present extra load on the old existing roof. Shack-2 unit can be considered as a "perfect parasite" according to conventional definitions exploiting the warm roof of bathhouse (hamam) presenting an independent and habitable space.

Shack-2 has a makeshift timber structural system. There is a steel mesh part on front facade of the shack. This addition is in the form of an elongated rectangle. There is also a corrugated roofing sheets, possibly salvaged from other buildings, covering the attachment of this structure consisting of four wall.

Shack-2 is a spatial unite. This box is just big enough to host a bed to rest. The shack is thought to be accessible through a small opening in the roof of the building. Shack-2 is classified under habitable add on category.

i- Evaluation: The shops in Mahmutpaşa, during the times they were constructed, were a hub directing the trade in Istanbul, even in the whole of Anatolia. During the course of the time, the sectors have moved to other places due to reasons such as lack of space, severe transportation conditions and similar. Some of the buildings in Mahmutpaşa have become places where more retail sales are made and cheap and low quality merchandise is sold. This change has increased the finance control and low cost employment. Surrounding of Mahmutpaşa has filled up with labour housing in severe conditions where this low income earning labourers can accommodate. This situation emerges in the form of rambling roof shacks, built with light materials.

Figure 2.107. and Figure 2.108. Shack-2 view on rooftop of Mahmutpaşa Hamam [13]

2.2.3.1.7. Booth

This unit, reffered to as booth, is a common portable cabin to host personnel and equipment in public zones for security, info, ticket sale...etc.

Host & Interaction Structure & Material Space & Use

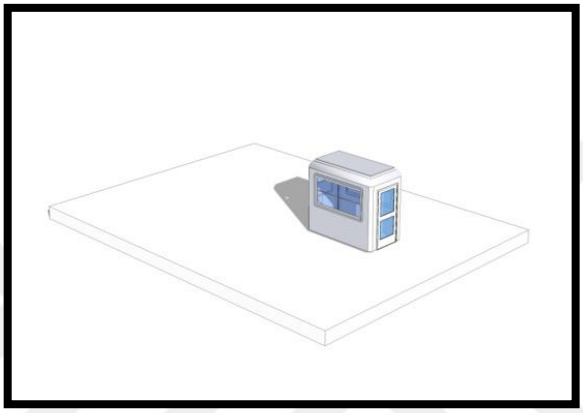


Figure 2.109. Illustration of Booth [13]

The mentioned booth is located on the perimeter roof facing back-courtyard of Nuruosmaniye Mosque. The unit is not visible from street level, due to its position on the roof.

The booth features a shell composite structure, made of GFRP and polyurethane foam. This booth is sized to host two people comfortably. Designed to be light and easily portable, this booth is a typical example of a public zone service unit in contemporary urban life of İstanbul.

These units are habitable add-on modules. Reserved possibly for security personnel of the mosque complex, this addition is just large enough to host one person.

i- Evaluation: In this region, where there is lack of space against growing needs, there are various parasite building attachments. As much as these needs do need to be met in narrow spaces, they need to be satisfied in a manner that is rapid and not blocking trade. It is quite hard to make construction in this region where even standard vehicles have limited access to it in cetain hours of the day. Therefore, many needs are satisfied in prefabricated buildings. These fast and cheap buildings can easily be mounted on the buildings as they are light. As no care is paid to the colours and motives of these cabinets that are made of advanced materials, they do not conform to the general structure. Cabling and other installations performed haphazardly during the installation have an appearance contradicting to the historical texture.

Figure 2.110. and Figure 2.111. Booth view on the roof of back-courtyard of Nuruosmaniye Mosque [13]

Figure 2.112.Booth view on the roof of back-courtyard of Nuruosmaniye Mosque [13]

2.2.3.1.8. Shack-1

This shack is cubical with an edge of 70 cm. The box is presumably built to shelter an electromechanical unit for the hamam building.

Host & Interaction Structure & Material Space & Use

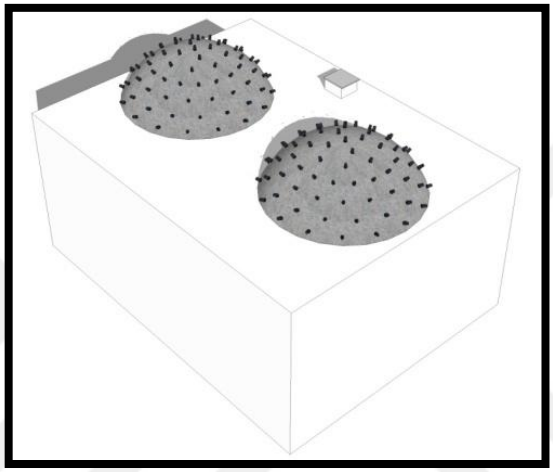


Figure 2.113. Illustration of Shack-1 on rooftop of Mahmutpaşa Hamam [13]

Shack-1 is mounted on rooftop of Mahmutpaşa Hamam. The add-on module is attached on next to one of the bathhouse's domes, thus might present extra load on the old existing roof. The small size of the unit causes a low visibility level.

Shack-1 has an improvised shelter for mechanical equipment. Possibly built with reused materials, the unit has a steel or timber section frame and cladding surfaces.There is a steel mesh part on front facade of the shack, allowing airflow. This addition is in the 90x60 measure and it's the size of approximately dishwasher. There is also a plywood roof covering the attachment of this structure consisting of four wall.

Presumably hosting a small generator, Shack-1 is classified under habitable addition category (see p:140, Appendix A).

i- Evaluation: Mahmutpaşa Bathes is one of the oldest buildings in the region. Its domed roof structure which unique to a Turkish Bath is not suitable for placing parasites. Nevertheless, necessary devices like A/C and generators need to be placed here somehow. The improvised shacks that we see are built to create flat floor in limited spaces and to protect the sytem within from the outer factors. But, as they are on one of the best roofs of the street it has created a noticeable visual impact**.**

Figure 2.114. and Figure 2.115. Shack-1 view on rooftop of Mahmutpaşa Hamam [13]

2.2.3.1.9. User Built Add-on Spaces, Rooftop Add-On Spaces

These units are user-built (mostly illegal) habitable spaces on rooftops.

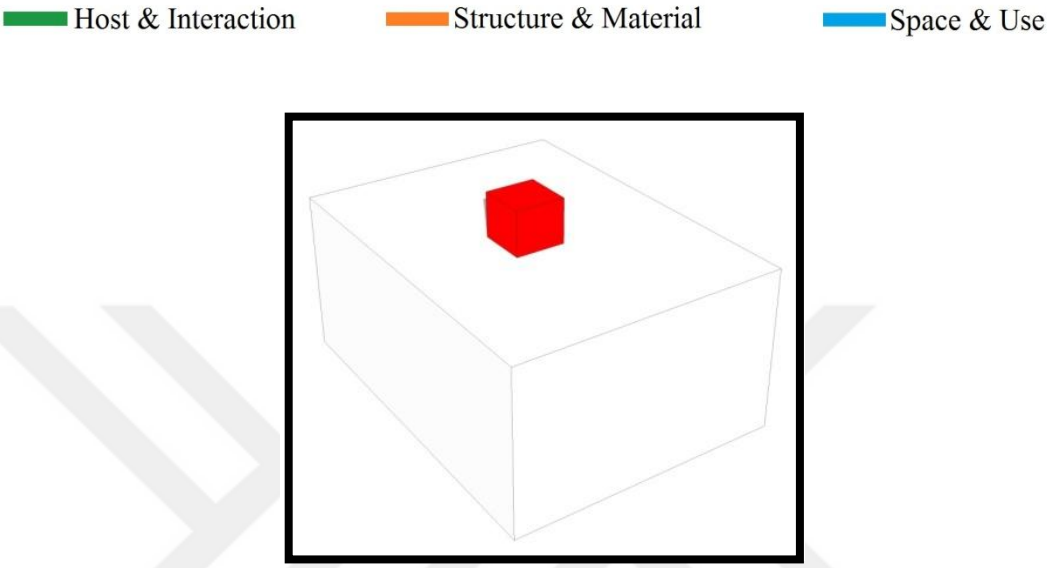


Figure 2.116. Illustration of rooftop add-on spaces [13]

User built add-on spaces are mounted on flat segments of the existing roofs. Unit sizes vary according to roof structure and use.

Mostly built as a light-weight timber structure, the habitable rooftop units feature metal frames and fiber cement cladding panels as well as simple masonry walls of foam concrete blocks.

Rooftop add-on units are used as an extended space of the host building beside and rarely as independent spaces. Specific uses as storage or accomodation rooms are among the observed situations in this study.

i- Evaluation: One of the most significant types of the parasite architecture is the extra floors, seen worldwide, which are located on the roofs, generally having a base area smaller than that of the building's. The reson why they are built narrower is so that they can't be seen from outside. In a place like Mahmutpaşa, where there is a lack of space and many people work, the roof are filled with illegal small building extensions that are suitable for human living. Supplying all their needs like power and water from the main building, these small buildings put a load on the buildings with their weights as well. These illegal floors that do not comply with earthquake, fire and sanitary regulations, apart from creating a serious risk, create visual impact in bird's eye view as well.

Figure 2.117. Rooftop add-on space view [13]

2.2.3.2. Facade Parasites

Facades, as visible and accessible faces of a building are among hosting interfaces for parasitic additions. Since the first times of Mahmutpaşa, the facade parasites have been a part of the street. We can see this through the old photos of the street. These old parasites front us as awnings and canopies generally made of light materials. The main reason for this is that the load carrying capacity of facades is less. When installation hardships of the times are added on top, the attachements are generally seen on the bottom floors.

As many new needs originated with the industrial revolution, many applications have become easy to use with the advancement of the contruction technologies. In particular, with the diversifying of metal apparatuses, steel constructions and light materials, the facades, too, have become more complying for attachments as other options do.

The steel constructions supporting the main carriers and auxillary carriers supported by the foundation are used in restoration and fortification and attchement of many buildings on the street. With the new installation kits applied on the walls, many grounds have been covered in weight distribution. Metal hangers mounted on the facades in deep holes carry light attachments such as dishes as well as heavy units such as air conditioners. Putting attachments on the facades have become easier with lefitng devices such as small cranes.

This advancement in technology has encouraged many tradesmen and craftsmen to enlarge their working spaces which are already too small. Floor enlargements running from facade to the street and shop fronts mounted on the facades for display purposes are sometimes sighted. Structures of the awnings and canopies, too, have changed and even canopies with lighting inside and with flashing signs are now being used.

Even though the terraces and roofsare filled with attachments serving the building and the individulas, the facades are mainly used for individual needs. The units too far away from the roofs have compulsorily installed their air conditioners on the facades. In order to minimise the cabling costs, the satellite dishes of these are seen on the facades.

The facades, in contradiction to the roofs, are places much in view. An attachment made on these places, affects the appearance of the astreet as well. The existing attachments have already caused a serious visual pollution in Mahmutpaşa. Furthermore, the deep holes and metal apparatuses used for installation on facades have caused irrecoverable wounds in the historical structure of the building.

2.2.3.2.1. Air Conditioner Box

An air conditioner is a type of device that generates thermal comfort indoors. Installed to regulate the thermal condition of building, AC systems feature. Main mechanical component that is generally located in a box attached to the exterior surface host of the building.

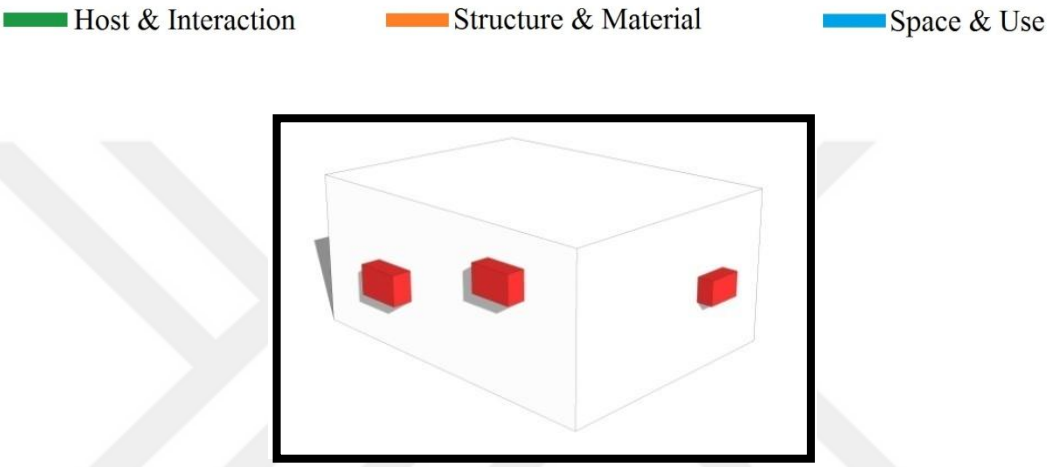


Figure 2.118. Illustration of air conditioner box [13]

Air conditioner boxes are mostly mounted on facades,rarely unused areas of rooftops.These modules are placed close to the ventilated spaces which cover the external parts of HVAC units. Air conditioner boxes constitute extra load and visual impact despite attached with two small hanger to the facades.If it is to be fixed on the roof it is fixed to the floor causing puncture holes on the roof surface. Beside punctual damage on the building envelope, AC external units cause extra load on the structural system of host buildings.

AC Boxes are comprised of metal sheet bodies on a simple metal frame structure. Air conditioners consist of two parts, inside and outside. The metal formed external shell is generally placed close to the interior system which enables the air transfer. If this metal sheet piece is to be fixed to the side it is done via two carrier wings that are placed under the unit.

Most of the buildings along Mahmutpaşa street are equipped with AC systems to create a convenient indoor environment especially during hot periods in summer and moderate heating in winter. These units are classified as external technical add on modules in the evaluation matrix (see p:140, Appendix A).

i- Evaluation: Air conditioning is a vital neccesity of our nowadays architecture. Despite its importance we should not forget that it is a new technology just over a century. Also it has been used in our country only for approximetaly 25 years. Therefore, most of the buildings have air conditioning system which attached after their design and construction. New buildings have their air conditioning system and / or at least have suitable places for attaching individual A/C units. This obligatory attachments cause unplanned load to their host. When we take into account that A/C designers and setup companies don't act due to aesthetic point of view visual impact occure in this neighbourhood. Also commonly hanger holes they used are damaging historical texture of buildings.

Figure 2.119. Air contioner box view [13]

Figure 2.120. Air contioner box views [13]

2.2.3.2.2. Rainwater-Cable Pipes and Gutters

Pipes are tube shaped installation lines used to transfer generally liquid, gas and various cables. These elements are components of building mechanical systems. Gutters are half pipe shaped, open- top apparatus used for draining rain water from the roof of bulding to outside through eavs.

Host & Interaction Structure & Material Space & Use

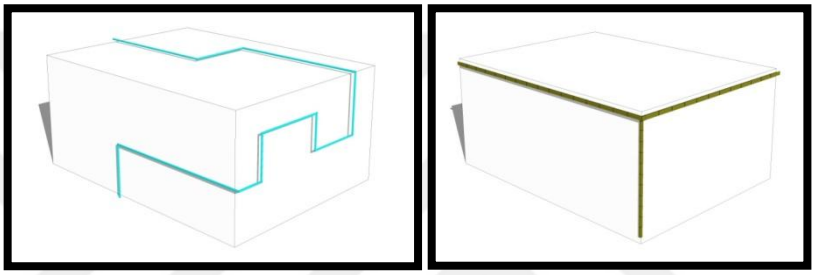


Figure 2.121. Illustration of pipes [13] and Figure 2.122. Illustration of gutters [13]

Pipes and gutters are generally located on facades and rooftops. The pipes can generally be placed close to the cornices horizontally/vertically or if necessary over the doors/windows. Gutters are placed either under the cornices or above them. These grooves are connected to other pipes at certain points. They are attached to the roofs and sides via connection apparatus.

Pipes are usually manufactured of PVC, P.E., copper, plastic and stainless steel. The material of the pipes also varies depending on what passes through them. For instance, P.E. pipes are used for water pipes, PVC shell channels are used for cables. The pipes are fixed on the wall with hooks. Gutters are comprised of PVC, sheet metal and copper. These gutters can both be round or square in cross section. They are added each other via connection apparatus and fixed to the intended place.

Pipes and gutters are purely technical additions to the studied built environment, thus classified as non-habitable technical installations in the evaluation matrix (see p:140, Appendix A).

i- Evaluation: Popularisation of Mahmutpaşa more and more in time and many extensions in the buildings and other attachments and other parasites have caused existing drainage systems to be insufficient. With the overflow of shops and shop fronts into the street new water discharge measures for the buildings have become necessary. These pipes provisionally attached to the new extension and to the building cause a very primitive appearance. These extensions deface greatly the appearance of this historical street with their inconsistent colours and materials. These individually made attchments may sometimes get inconsistent with the general sewer system and cause problems.

Figure 2.123. Gutter and pipe view [13]

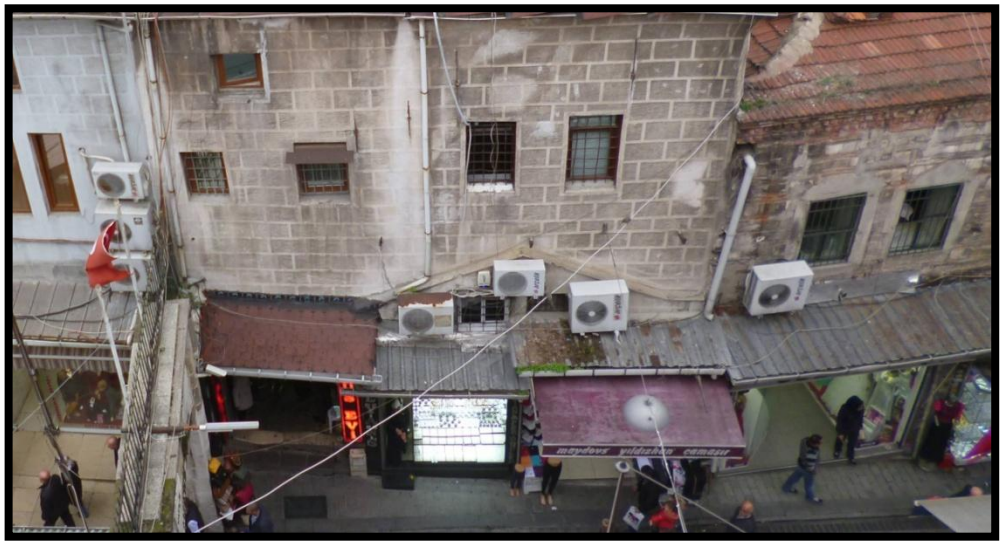


Figure 2.124. Gutter and pipe view [13]

2.2.3.2.3. Display Case

Depending on the type and character of the traded products, the ground level of the buildings along the street are equipped with glazed cases for displaying products and providing extra space for shops.

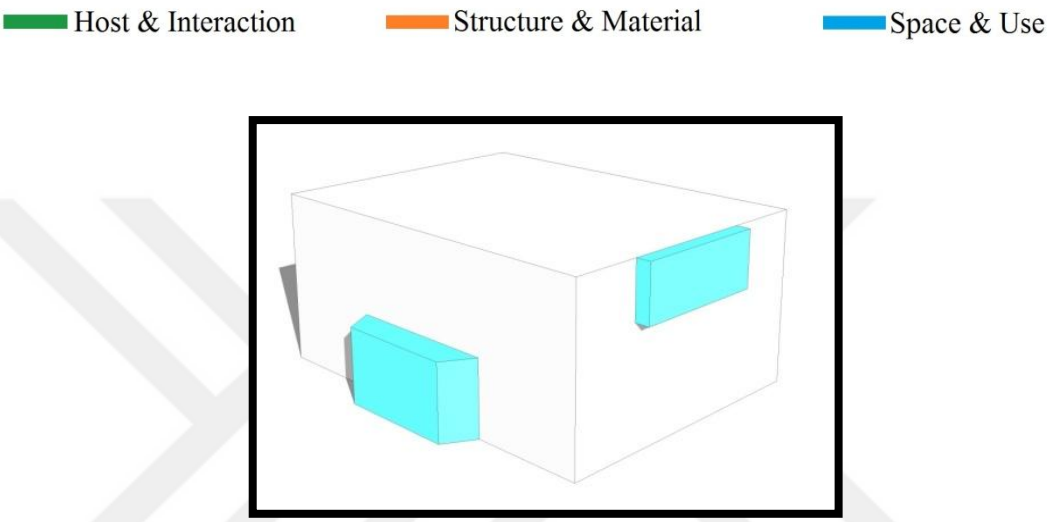


Figure 2.125. Illustration of display case [13]

These units are mostly mounted additions on facades , yet they might appear in detached and portable form. The add-on types are attached directly on the structural frames of the host buildings, thus might present extra load on the existing system.

Featuring transparent surfaces, display units are framed with PVC and metal sections. The glazing material is mostly glass, type depending on the dimensions of the element. The mobility level and size of the unit determines the structural material, as lightweight pvc casing of mobile units or structural steel frame of facade display

Display units provide the hosts with extended display capability. The facade mounted large examples, housing a portion of interior display space can be assessed as habitable additions. The smaller units, in regard to their functional contribution, can be classified under habitable add-on category (see p:140, Appendix A).

i- Evaluation: It is located on the historical peninsula, in one of the leading and most precious spots of Istanbul. The fact that it is visited by millions of tourists every day makes it more significant in terms of commerce, too. Visited in particular by the retail customers intensively, Mahmutpaşa has evolved itself in compliance with this business aspect. The common problem of the tradesmen who are willing to apply all kinds of ways to attrack customers is that fact that the display areas in their shops and around are limited. It is for this reason that, rather than displaying their goods inside the shops, making their shops smaller, they have overcome this by displayin them on the shop fronts they attached on the facades. This way they have not made their shop smaller as well as they have formed better display areas. These shop fronts are individually very beautiful and attractive. But, as all shops act individually an appearance inconsistent with each other has come about in terms of building materials and colours. If acted jointly in authority control, a much more legant and consistent street can be obtained.

Figure 2.126. Figure 2.127. and Figure 2.128. Display case views [13]

Figure 2.129. Display case view [13]

2.2.3.2.4. Awning

Awnings are lightweight, retractable shading systems, providing moderate protection from rain and sun. These elements are the oldest building addition types in Mahmutpaşa Street (see p:24,25 and 26), as an indication to the user intervention on the built environment.

Host & Interaction Structure & Material Space & Use

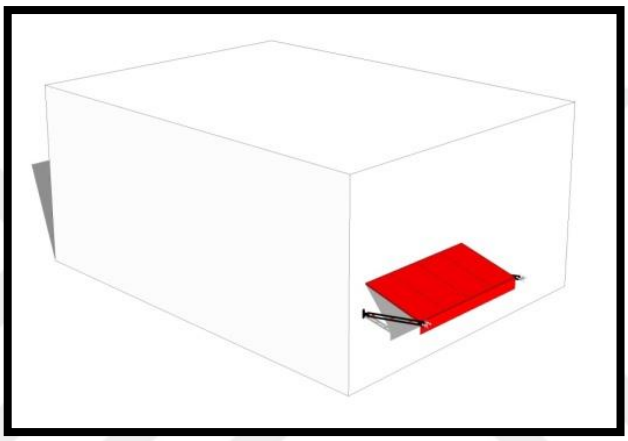


Figure 2.130. Illustration of awning [13]

Awnings are mostly mounted additions on facades, yet they might appear in detached portable form. These add-on modules are mostly attached on facades directly on top of the shopwindows, shopdoors.

A steel - aliminum frame with PVC is used for structural system. The traditional materials of timber sections and canvas surface have evolved into hollow metal sections and plastic membranes.

Awnings are classified under technical add-on modules category. Though non-habitable themselves, these units create a unique spatial situation that allows the shopping activity to be extended into the street.

i- Evaluation: As the retail business increased in Mahmutpaşa, the stands placed in front of shops and the customers glancing and bargaining in front of the stands have increased as well. Awnings are used to protect the goods on the stands as well as the customers from rain and the Sun. Sometimes this cloud of awnings is so intense, no sunlight falls on the street. This operationally much needed system is carried out individually and with no inspection as are other systems. Therefore, intense inconsistency is sighted in terms of colour, size and materials and it causes required ambiance being not reached. The holders and holes used in mounting of the awnings cause permanent damages in the original and historical structure.

Figure 2.131. and Figure 2.132. Awning views [13]

Figure 2.133. Awning view [13]

2.2.3.2.5. Canopy

Canopies are fixed overhanging elements that provide shade and shelter mostly to the enterance areas of the street level shops.

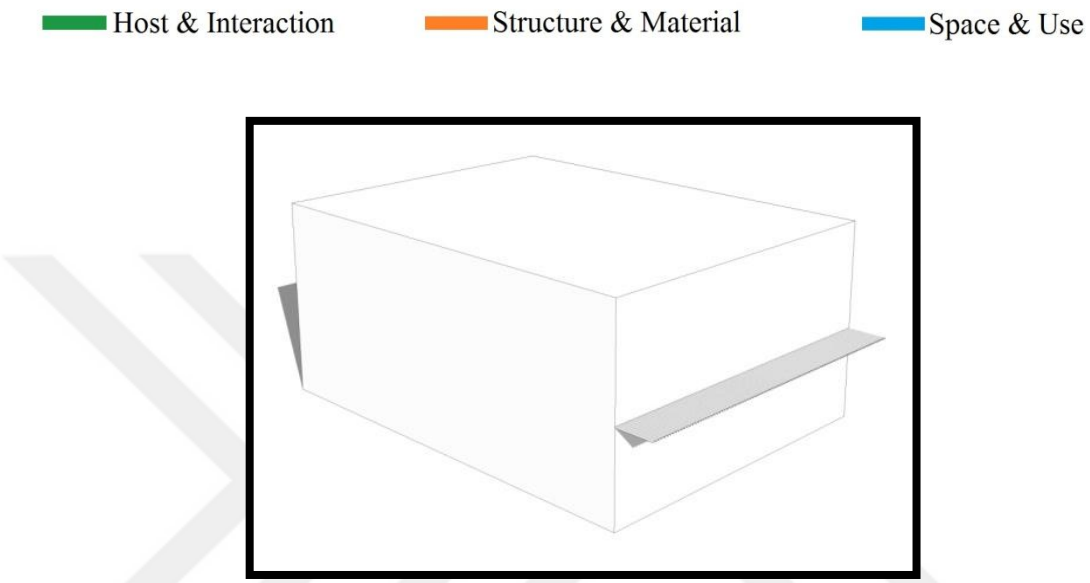


Figure 2.134. Illustration of canopy [13]

Canopies are mostly seen on rooftops and facades. These units are mostly fixed attachments.some of these appear in detached portable form.

These units are comprised of cement corrugated sheets,galvanized trapezoidal sheet, OSB, sheet metal.It has also PVC and aluminum parts.

These units are for protecting from weather conditions. Canopies provide cover against weather conditions like sun, rain and snow. They don't have a consistent and one type look to them. It causes visual impact and extra load. Canopies are classified under technical add-on modules category (see p:140 Appendix A).

i- Evaluation: These canopies built to protect the enctrances of the shops, depots below the entrance level from outside factors are fixed. When we investigate the old-time photos, we see that many awnings were used in this region even though the materials and sizes had been varied. While the canopies do almost the same job as awnings do, they are much more durable as well as heavier. Some of them are more complex structures with lighting systems and flashing signs. These more persistent protectors cause more damages and put more weights on the buildings when being installed. Cabling of the ones with lighting may sometimes be eyesoring. The fact that atey are all different from each other damages the consistency of the street.

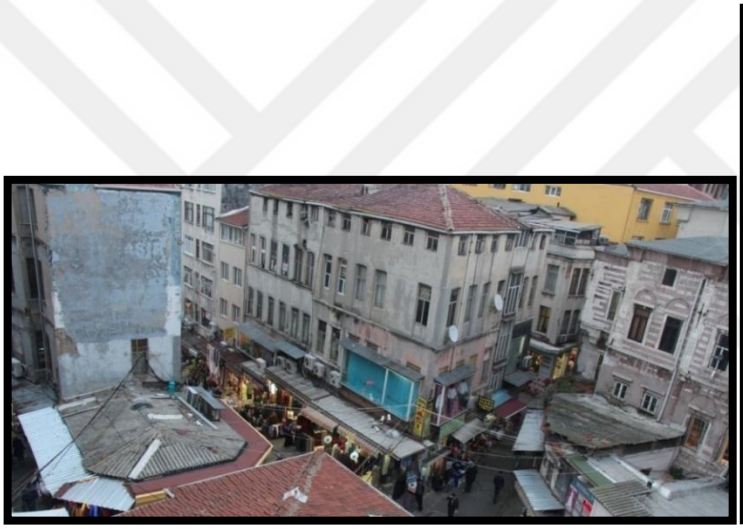


Figure 2.135. and Figure 2.136. Canopy views [13]

Figure 2.137. Canopy views [13]

2.2.3.2.6. Billboard

Billboard is a large size, flat or 3D outdoor panel for housing advertisement display surfaces. These units are non-spatial technical additions though they are highly visible building additions.

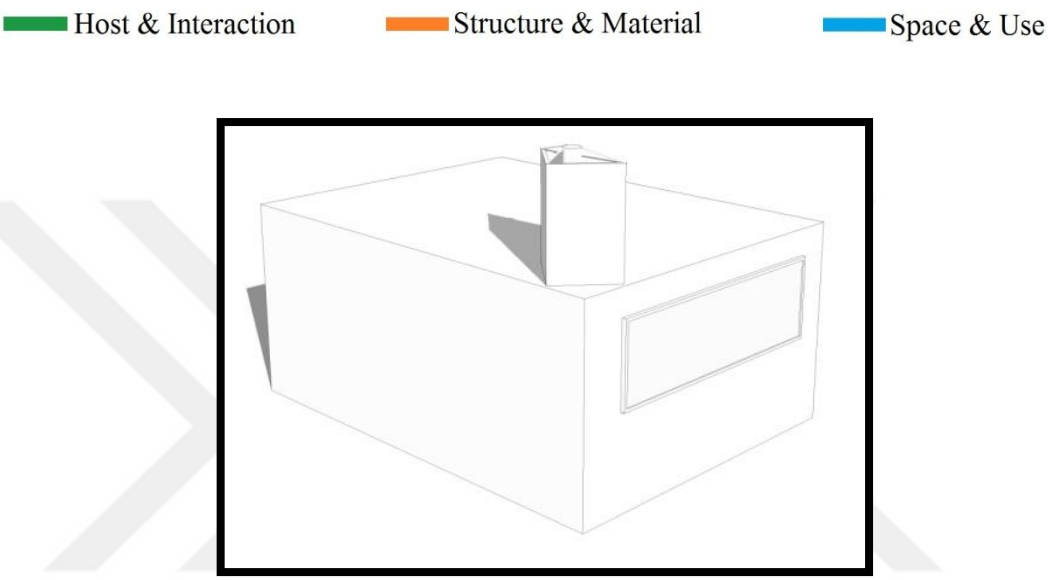


Figure 2.138. Illustrations of billboard [13]

Billboards are mounted on rooftops, facades or seen in detached and portable form.They might cover an entire facade of the host buildings or be placed on the visible portions of the rooftops.

These billboards seems as 2D in facade and sometimes as 3D on the rooftop in detached form.These units are comprised of PVC, plexiglass, aliminum, canvas and acrylic. They are mostly framed with PVC, plexiglass and aliminum sections.

With their bright colors and lighting, advertisement elements draw the attraction to their shops, creating a new layer of visuality in the existing environment. Putting these up on old han walls causes serious damage to the structural system and also obstructing the view to beautiful historic textures of the old facades. Their high visal impact on the surrounding is among the major factors that triggered the "Sanitation Project" of the district municipality. Billboards are classified under technical add-on modules category (see p:140, Appendix A).

i- Evaluation: The retail shops use the shop fronts that we have previously evaluated. But, in order to display the shop and brand names and to make customers aware of promotions, billborads and digital screens are used. These attachments can be 2D, 3D or in various forms and materials. Led light display panels and shop signs are spreaded throughout the street disorderedly. The metal holders used for the heavy ones and the cables for electric ones are all over the place. These, while having essential benefits for the retail business, cause inconsistent and chaotic appearance with the siprit of the street.

Figure 2.139. Figure 2.140. and Figure 2.141. Billboard views [13]

Figure 2.142. and Figure 2.143. Billboard views [13]

2.2.3.2.7. Counter

Counter is a table like attachment at the front of retail shops used for displaying goods and products.

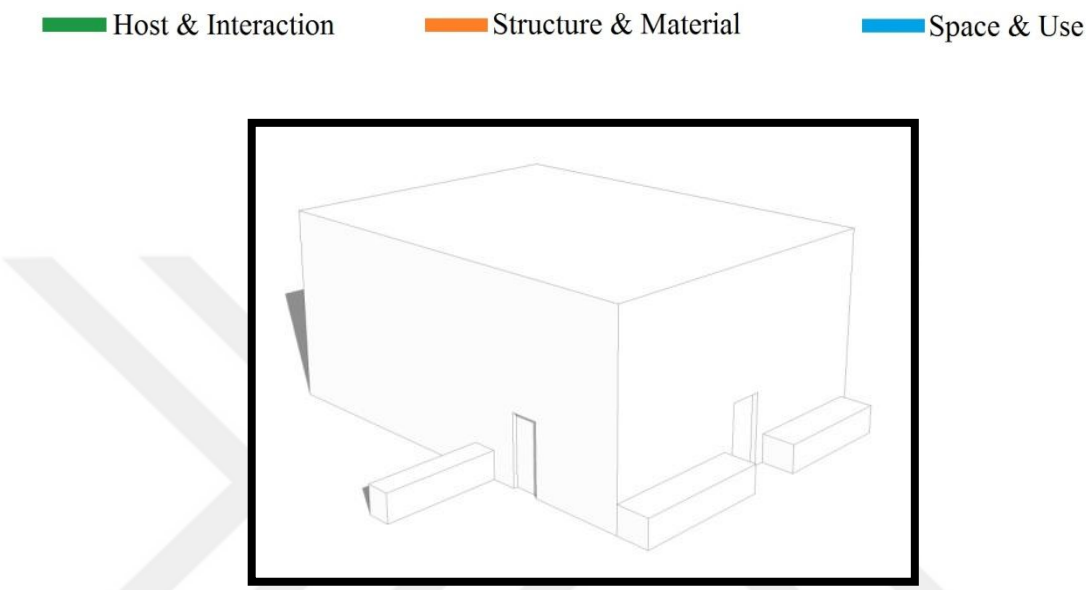


Figure 2.144. Illustration of counter [13]

Counters are mostly mounted on the facades, at steet level, yet they might appear in detached portable form, where they are driven in and out of the shops.

These units have timber or metal structural sections. The counter top materials are commonly coated timber, OSB or plywood. Widths are between 60-100 cm and lengths change due to length of facades.

Counters are classified under technical add-on modules category. They are attached to facades or seen in detached form. Most attractive products are being displayed on those attachments. Most of the customers choose and buy those products without even going inside the shop. These simple elements turn the shop front into an extension of the interior with the help of awnings.

i- Evaluation: Retail sales are more intense in the street level shops in Mahmutpaşa. Stands are used for the displayed products to be seen and examined by the visitors. The material and the sizes of these stands do vary. These stands running along the street destroy the texture of the street even though they are functional. With ending of the working hours, while some of these are packed away, some get left empty on the street. And this makes them part of the building; likewise, most of them are fixed to the building prevent theft.

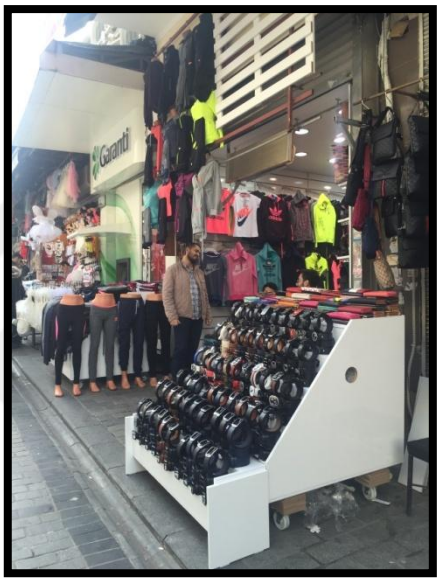


Figure 2.145. and Figure 2.146. Counter views [13]

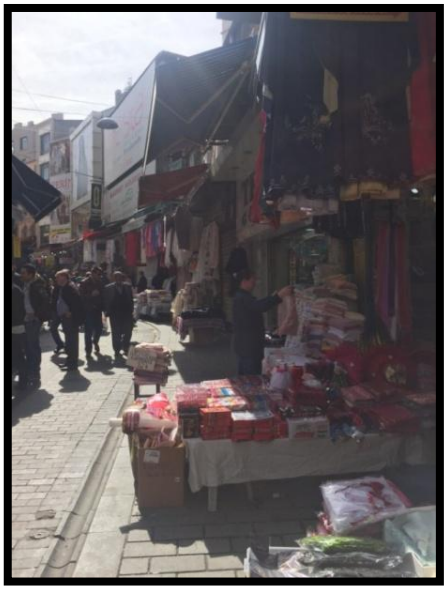


Figure 2.147. and Figure 2.148. Counter views [13]

2.2.3.2.8. Hanger

Hangers are simple metal elements used for displaying textile products.

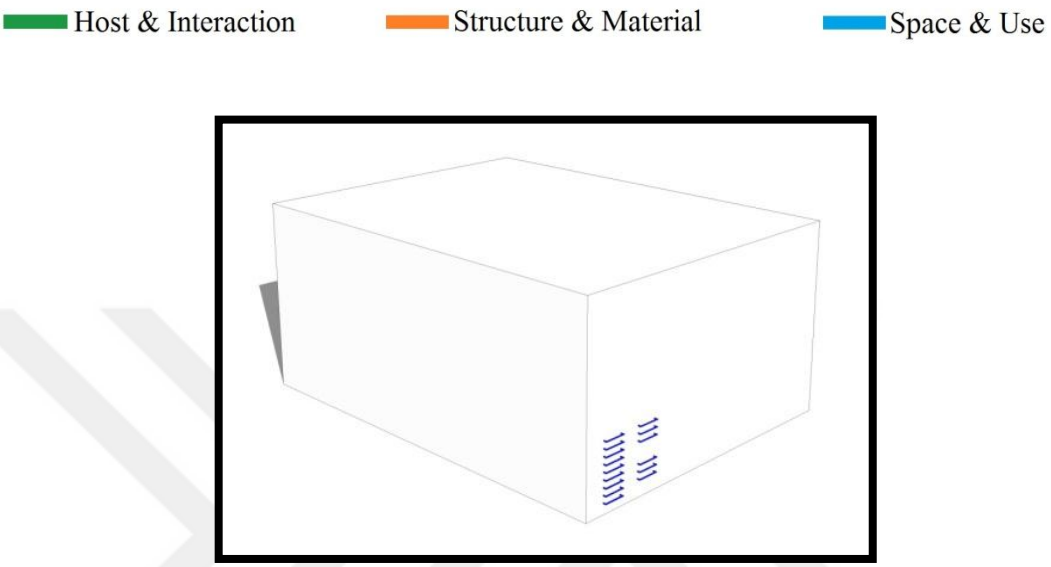


Figure 2.149. Illustration of hanger [13]

Hangers are placed on facades. Their structures and sizes variate due to width of facade and goods to be displayed. They are fixed at facades and they remain even after working hours.

Hangers are commonly made of steel or iron as chains or hooks. They can be attached to facades or canopies.

Comprised of small size elements, these systems have low structural and visual impacts on the existing facades, when empty. Loaded with various textiles (e.g. clothing), they turn the shop fronts into a colourful palette of traded products. These hanger elements are accessed by hooked poles by shop servants, thus can be rearranged quickly. They are classified under technical add-on modules category.

i- Evaluation: Even though the stands used on the street level help display, the shopkeepers of the street generally use hangers for spot goods to be more inviting. These hangers mounted on the canopies and the facades consist of various sizes and materials. As these hangers give structural damages to where they are attached, they are architecturally unfavourable despite of their usage-wise benefits.

Figure 2.150. and Figure 2.151. Hanger views [13]

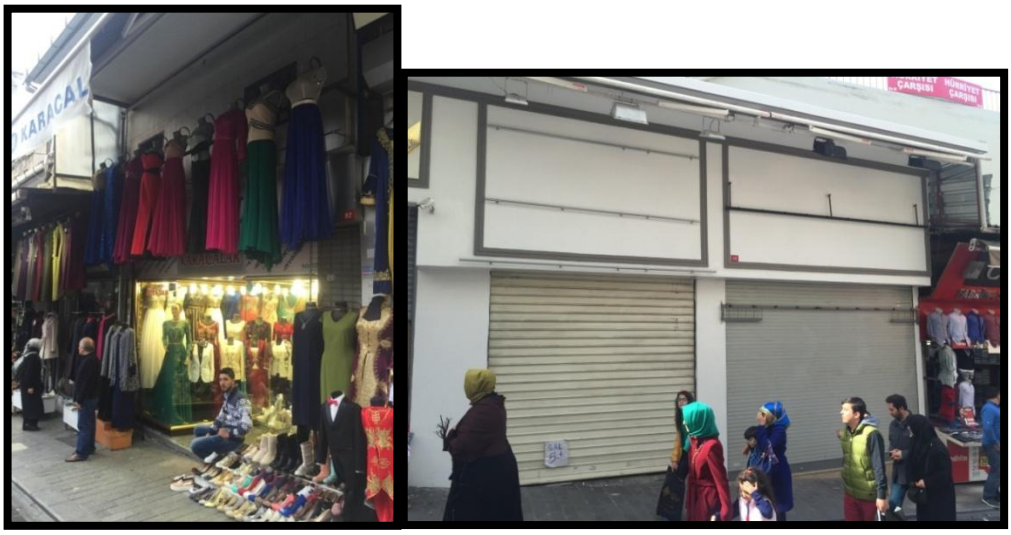


Figure 2.152. and Figure 2.153. Hanger views [13]

2.2.3.2.9. Shelf

Shelves are parallel surfaces aligned vertically, attached to facades of retail shops. Timber of metal shelves are used for display areas.

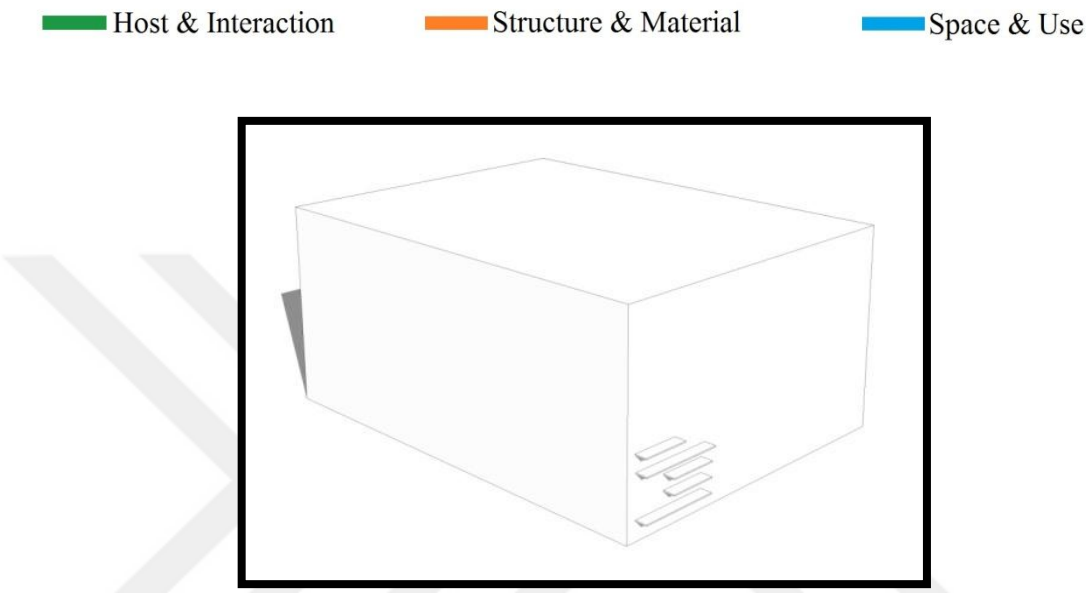


Figure 2.154. Illustration of shelf [13]

Shelves are placed on facades. Their structures and sizes variate due to width of facade and goods to be displayed. They are fixed at facades and they remain even after working hours.

There are two types of shelves. First one is typically metal with multiple layers. This kind is attached to facades with few points of contact and bears its own weight. The latter is a single layer type that is mounted directly to facades.

Shelves generally used for displaying shoes, electronics, cosmetics etc. They are located at facades facing main street where the entrance is. They are classified under technical add-on modules category.

i- Evaluation: Shelf system used for vertical display has two kinds. First one is a kind, carrying load itself, made of wrought iron and attached to the facade. Second one however, is the one mounted directly on the facades where the load is carried by the facade itself. Here, the facade is statically damaged. In both of the designs, the integrity and the historical structure of the facade gets damaged, though less in the first one. Both kinds are parts that affect the appearance of the buildings as they are fixed.

Figure 2.155. and Figure 2.156. Shelf views [13]

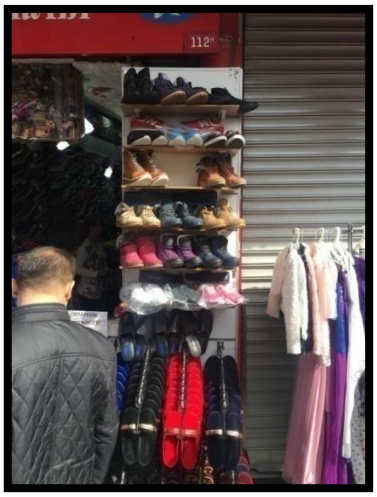


Figure 2.157. Shelf view [13]

2.2.3.2.10. User Built Add-on Spaces, Facade Add-On Spaces

These add-ons built generally illegally for gaining space as an expansion through the facade to outside.

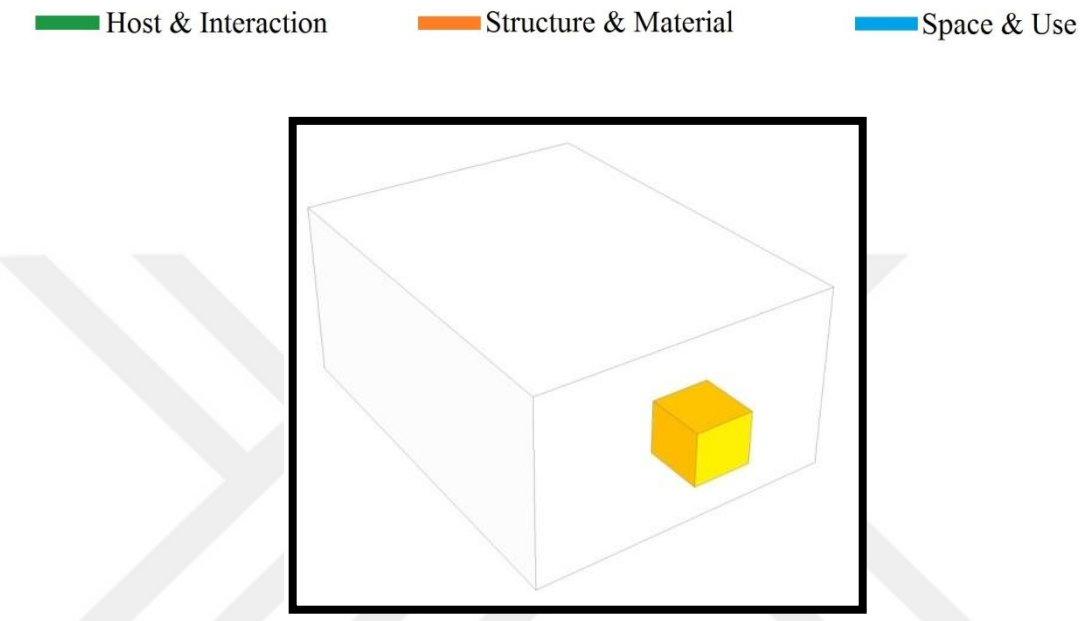


Figure 2.158. Illustration of facade add-on spaces [13]

Placed on the facades of existing buildings, these units have different characters, depending on their position and size. They can have a high visual impact on the environment since they alter the original shape and order of the existing facades. However, some can be blended in the building system in time.

Since these units serve as a habitable portion of the interiors, structural systems feature similar elements and cross sections as the existing (i.e. steel and timber sections). Cladding materials are lightweight boards or glass, depending on the use.

Main purpose of these attachments is expanding usage area for storage, display and as extra shop space. These units are classified under habitable add-on modules category (see p:140, Appendix A).

i- Evaluation: The residents tried to find various solutions as the existing space is not enough for increasing needs. While some prefer the mezzanine floors to create vertical space volume, some however, expanded the base area by having an extension from the baseline level of the shop towards the streets. In contrast to mezzanine floors, these extensions can be seen from outside and greatly affect the building statics. Requiring a fine static calculation, these extensions, as they extinguish the facade forming the character of the building, cause irreversible damages on the historical structure of the buildings. In order to make them out of light materials outcomes not consistent with the rest of the building are obtained. And this, too, causes a structuring in contradiction with the sipirit and architecture of the region throughout the street.

Figure 2.159. and Figure 2.160. Views of facade add-on spaces [3] [13]

[3]Figure 2.159. is a previous view of facade add-on in 2015. Figure 2.160 is a view of the same facade add-on renovated within the Fatih Municipality Sanitation Project in 2016.

2.2.3.3. Detached Parasites

When we investigate Mahmutpaşa in terms of parasite architecture, while we see structures attached to the terrace-roofs and facades we see detached examples in some places. These detached structures are mainly separate buildings not in contact with the main buildings. What makes them parasite is the fact that they are built on the land of the main building or very close to it as a baby-extension of it. Furthermore, the requirements of them for water or electiricity as such are satisfied throught the system the main building receives from outer world.

The best example for this is the Çuhacı Han at the top of the hill (see p:114,Figure 2.163.). The initial layout of Çuhacı Han complies with the traditional "Han design" if the Ottoman Architecture with a central courtyard, surrounded by four wings. The building was constructed to form the sides of a square and the mid destion was allocated to be the backyard. This Han of 15th century with two floors and arcs still has not lost its significanc. As the trade volume increased, the number of shops become inadequate as well as lack of space in the shops has become evident.

A unique example of parasite architecture has formed here in the form of add-on retail units in the central courtyard (see p:114 Figure 2.164.). These shops located on the entrance floor in the backyard have mostly been used as retail sale points, administration and production remained in the top floors.

Therefore, the retail sale of the Han is accumulated in one spot as well as the shops on the top floors were utilised more efficiently. These baby shops were tried to be constructed as consistent with the architecture of the main building as possible. The roofs of these backyard-shops constructed afterwards were built in the same style being inspired from the original roof of the Han. This way, when residents of the Han look at the backyard-shops from the top floors they see integrity of buildings due to similarity of the roofs.

These baby buildings which do not apply extra forces on the main building as conventional prasaites do, take away from the main building something more precious. This wide backyard which was designed for the tradesmen and the visitors to get socialised and gives spaciousness to the space, has turned into a labyrinth where even walking is impossible. Thus our parasite in this kind has become a parasite causing the biggest damage to the main bulding.

2.2.3.3.1. Retail Units

Çuhacı Han, located at the beginning of Mahmutpaşa Street, was built in 18 th century as a trade complex [38]. The Han, today, is a center for jewel production and trade. The proximity to Nuruosmaniye Mosque and Grand Bazaar gives this commercial building a favorable position in the neighborhood. As a matter of this research, the set of retail units, the "babyshops" in the courtyard is taken into consideration as an example of parasitic architecture in Mahmutpaşa.

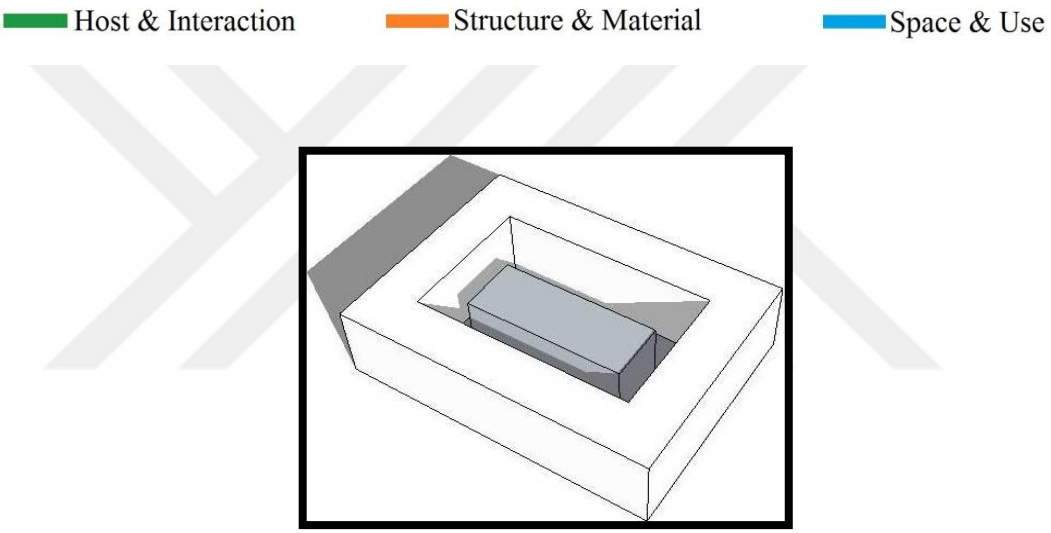


Figure 2.161. Illustration of retail unit [13]

Retail units are classified under detached additions category. Host building is Cuhacı Han. These units are placed in the middle of Çuhacı Han courtyard, detached from the building wings, yet within the spatial system of the building.

Retail units feature masonry structures. Despite these units are built after a long time of Çuhacı Han construction, they areplaced in accordance with han's spatial configuration. The arched facade layout is harmonised with the Han's domed wings.

These retail units increase the number of total shops at Han. It provides the shop owners extra retail space. Retail units are classified under habitable add-on modules category.

i- Evaluation: From the ancient Turkish States to the Ottomans, apart from being used for trading centers, the Hans were used for accommodation and all kinds of socialism. The backyards of the Hans were decorated with nice fountains and landscaping and were places where tradesmen and the visitors are met and socialised and spend time togetger. Rapid increase of Istanbul and quickly expanding trade increased the number of visitors and at the same time increased the opportunity cost of these places. As the demands of the investors willing to open businesses here and the tradesmen willing to have shop fronts at the entrance increase, these places got choked with small shops which we could call the babies of the Han.The conventional Ottoman Han texture of Çuhacı Han has therefore been destroyed and changed by these shops. These retail units solid evidence for the existance of parasite architecture centuries ago.

Figure 2.162. Çuhacı Han Retail Unit view from the above [13]

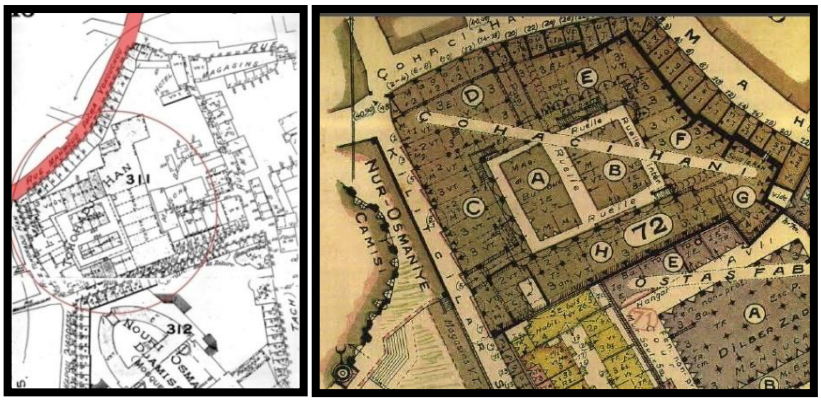


Figure 2.163. Çuhacı Han Goad site plan, 1904 and Figure 2.164. Çuhacı Han J. Pervitic site plan, 1940 [36,40]

3. CONCLUSION AND OUTLOOK

3.1. CONCLUSIONS

The outcomes of this study can be summarised in three categories:

i. An analysis of the building additions at Mahmutpaşa Street based on interaction type
ii. The impact evaluation of the building additions
iii. A draft proposal for a building system for customized extensions.

i. The building attachments we have investigated in Mahmutpaşa can be grouped as:

	Weight	**Difficulty of Installation**	**Maintenance Needs**
Generator	H	H	H
Electrical Cables	L	M	L
Communication De	L	M	L
A/C	H	H	H
Vent. Pipe. Cable	L	M	L
Water Tanks	H	M	L
Plumbing	L	L	L
Facade Spatial Attch.	M	H	L
Baby B/Y Build.	H	M	M
Display Attach.	L	L	L

Table 3.1. Attachment types vs. characteristics table [13]

ii. The impact evaluation of the building additions

Parasite Group	**Visual Impact Level**	**Structural Impact Level**	**Social Impact Level**
Technical Installation	H	M	L
Habitable Add-ons	H	H	H

Table 3.2. Attachments vs. their impacts table [13]

iii. Based on the assessments of the building additions on a back ground of the built and socio-economical environment of Mahmutpaşa, one major conclusion of this work appears as the deep-rooted existence of thebuilding adaptations, in form of add-on units. These kind of user intervention shave existed and will possibly continue to emerge in this dynamic commercial environment. The municipal sanitation Project forth is area is scheduled to wipe away the building additions, producing“clean” facades, as well as a built environment of almost an anonymous character. The development of a resilient and adaptive system for future building additions can be a valuable contribution to the social and architectural sustainability of Mahmutpaşa neighborhood development.

The following draft proposal for building extensions can present the researchers a basis to start building a resilient system that can create a reciprocal code to ensure multiple benefits. The author indicates the first steps as:

- assessment of the existing building structures
- locating the hard points of the structures for grapple fixtures
- assessment of the existing building mechanical installations
- locating the docking points for building addition systems to the host in frastructure
- designing an integrative grid system of fixtures for the entire Street to host additions
- designing a building code, specifying materials, basic proportions, leaving enough room for originality and natural
- evolution of adaptations.

3.2. LOCAL OUTLOOK

When we examine the architectural adventure of Mahmutpaşa, the cause of the change is seen as the needs. And this motivation proves that this change is natural. Past building attachments and the changes brings light for us as to what will happen in the future. At the end of the day technology continues to advance and increase in population and socio-cultural changes still push Mahmutpaşa for change. And these new changes will leave the building attachments passive as much as there will be a need for building attachments.

Electrical attachments of the building attachments group; electric cables wrapping around the buildings like creepers wrap trees and generators feeding these can be seen in every section intensively. When lighting device and electric and electronic devices are added on, it will become a huge system. It would appear that the future indicates us that need for power will increase. Despite the fact the induction is now technologically possible, it cannot be applied in long distances and with high power. As the impact of the "electric field" that forms around cannot be decreased, it appears that we still need the cables little more longer. Increasing of the green buildings[4] that are self-sufficient, too, will give us the idea that solar power can be used to generate electricity in the buildings. And this system is the proof that other attachments will be placed on our roofs in addition to generators.

Journey of the communication attachments however, despite being short, has happened very quick. Speed of change of these attachments is extremely high like their speed of existence. Frequency of technology duplicating itself keeps increasing and the duration of devices becoming insufficient is getting shorter. With the beginning of information age, use of computers has increased. Trend of information being processed and stored in premises is transferring itself to the trend of being backed up in clouds, even processed.

Basic antennas used for simple TV broadcasting are being replaced with antennas carrying intensive information and simple copper cables are being replaced with fibre optic cables carrying millions-fold of information in thousand-fold faster. It is seen that this technology that is intensively seen in the newer and modern sections of the city will shortly take hold

[4]Green building is the practice of creating structures and using processes that are environmentally responsible and resource-efficient throughout a building's life-cycle from siting to design, construction, operation, maintenance, renovation and deconstruction. This practice expands and complements the classical building design concerns of economy, utility, durability, and comfort. Green building is also known as a sustainable or high performance building [84].

of Mahmutpaşa as well. These innovations, that is the attachments, will bring along requirements such as base stations and similar. With the GSM technology that we already have wireless and antenna-free date transfer is now possible. With this technology becoming cheaper and more common, it is envisaged that in a very near future all these antennas and cables will be unneeded.

While the purpose of use of the ventilation systems could be essential reasons such as to store their products which would need to be stored in chilled rooms, it could be for increasing comfort level in our age where global warming and climate change issues are increasing. Even though the use of them is for comfort purposes, it seems that the use these climate conditioning devices are a fundamental need. Even though this situation legitimates these attachments, if some systems that have been developed start to be used, damages being caused on the buildings and the visual contradiction can be minimised.

Central ventilating system can be given as examples for these systems. With the new age air based heating pumps, the use of these central systems will be cheaper than the total of individual systems. Apart from this, it will cause heavy air conditioning units which destroy the harmony on the facades and damage them with their weights to get minimised or get totally vanished. Maybe in the future, systems that would use the constant heat in the depths of the earth can be placed. We can use the heat of these depths to heat up or cool down our buildings. The climate conditioning systems that we can set up with little energy with the help of a water booster appear to be the most ecological solution. These systems which are expensive and hard to set up and with the cost advantages during use will pay for themselves. As the technology advances and set up costs decrease, and as it gets easier to be implemented on such a historical peninsula, we hope that the use of these systems will increase and the other attachments will decrease in the future.

Fresh and waste water attachments are ordinary attachments. Frequency of being replaced is quite low. Despite being replaced randomly, due to being embedded inside building structures, it is hard to replace them, except for the ones attached on the outside of the buildings. Possible changes in these systems can be assessed as being renovation or progressive. The changes made in relation to renovation are the ones that would be made using new material and installation techniques due to materials being used having their lives completed and malfunctioning. The progressive ones too, are alternative interventions as per water saving systems whose importance increases gradually more and more. The

system that collects storm water and waste water by means of collectors and transfers them to the depots and this water being reused has started in our days and will get common in the future. It will be shaped in accordance with the municipal sanitation project. This project focusing mainly on facade systems will cover most of the external attachments and make them invisible.

One of the most important factors that identify the today's condition of the street is the commercial activities. This intensity caused display units to overflow. As long as this retail market continues, it appears that we will continue to see these vertical and horizontal display apparatuses even though their materials and types change. But, it has been interviewed that with the sanitation projects of the municipality, attachments of the awnings and canopies will be bound by certain rules and the occupation of street by the stands as per the pedestrian traffic.

As the commercial and historical significance of the region increases over the centuries, lack of space has been encountered. While the buildings burnt and demolished are replaced by trading centres, backyards, roofs and even the facades of the existing buildings have been filled with expanding attachments and substructures. It is an undeniable fact that the lack of space will for sure increase with the increase of the population and with intensifying of tourist attraction in the region. Tendency for facade extensions and individual shops will continue as well. The rules and mechanisms that regulate these have now become essential. Yet, Changes and units expanding the building are not ordinary attachments but are much complicated and requiring fine calculations and whose outcomes would be significant.

Most common characteristics of Mahmutpaşa parasites, many types of which we have investigated in terms of past, future and its structure is that they are very natural. These structural changes comprising solely of needs is an indication that how the structure of the street looks like an organism. This organism is a living thing that was born, adapted to the environment it is located in which has been changing, and will continue to evolve. Apart from the slight modifications that it has gone through with ordinary functional attachments, mutations that have gone inside its structure and genetic code can also be monitored. Just as the man is a living and changing living being, this street made of people and the whole architecture and the social formations are living organisms, too. It is their adaptation skills that would make living beings, especially the man, survive for thousands of years. While

many buildings and places that do not keep up with the times and become passive and demolished in many different places, Mahmutpaşa stands and keeps its functionality. Most important reason for this is that it has kept up with times for all costs as well as beat the odds and continued its commerce with some various attachments. When we examine it closely, and even though we criticise it with unsuitable situations, Mahmutpaşa's energetic and dynamic structure which can adapt to the changes is an undeniable reality. While there are many places around the world which are similar and having adaptation skills, the one not having these skills have been vanished.

As a result, if the change is necessary and inevitable, our duties are to measure, design and plan and manage it. First rule for managing is to measure. It is very hard for you to manage events that you don't measure and identify in terms of numerical figures. We should plan our project by scaling down to cities first, then districts and street and finally down to buildings. But it should be remembered that, the largest scale is our world. We should make all our plans and project in a way without damaging the environment and in a way it will survive for many years. And this, however, motives us for green buildings that considers ecological parameters, environmentally-friendly and fed by the clean energy resources. Self-contained buildings are long lasting as well as economic and ecologic.

Even though it would be hard to have green buildings which are a hundred-percent of self-contained, it is not impossible. Also, even if they are not a hundred-percent of self-contained buildings or buildings with plus energy, it is environmentally and economically advantageous for us that our existing buildings have high energy efficiency and low energy dependent.

Construction sector in our country is kneaded with low cost criteria. When cost of buildings is calculated turn-key costs are calculated and the costs during the use of the building is not included in the calculations. Whereas, if all the costs are included in the calculation with a broad perspective, it is obvious that the structure of the buildings would change. Yet, the systems that are not preferred during the construction of the building as they would increase the cost would pay for themselves within a certain time with their cost-benefit during their use.

Europe being in the first place, many developed world countries take great care for energy resources. They try to minimise the use of nuclear and fossil fuels and decrease the carbon

and green gas emissions. When we consider that our country lacks fossil fuel, it would be best for the buildings to be green buildings or preferably ones having high energy efficiency. Yet, houses and the shops constitute 1/3 of the energy consumption of the world.

There are two fundamental components of buildings to be self-contained. First is production and the second is efficient consumption. Energy production is conducted by photovoltaic panels placed on the roofs. No sunny day is needed for these devices to produce power. Yet, Germany who produces the most solar power in the world is not a sunny country at all. With the new age photovoltaic panels, it is possible to generate reasonable amount of power with an angle calculated right. Hot water needs of the building can also be provided by means of thermal panels for hot water and the excess of this water can be used to support heating / cooling systems. With the reuse of storm water collectors and waste water systems in the building in suitable places, too, external water needs of the buildings can be minimised.

While the details in the production section are as such, one of the parameters of fundamental importance is the level of energy needed by the buildings. All units from the cables and bulbs, cooling devices to electric devices, will determine the power requirements in total. For this, all units need to be energy efficient. Cables and electrical installations are to be members preventing energy loss. Air based heat pumps to be used in ventilation and climate conditioning would help energy saving. These systems are very useful in regions like Mahmutpaşa whose most of the active time falls onto day light.

Even though the technical characteristics, structures of the technical devices and the general technological trends do change with each day passing, self-contained and efficient building concept should constitute our basic perspective. Therefore, we can develop sustainable solutions suitable for this perspective in our attachments and building changes.

When having the change in Mahmutpaşa under control and planning directive interventions, another aspect that needs to be taken into account is that the historical texture should not be destroyed and this structure that has turned into such a condition with its own requirement parameters for five hundred years is to be protected. Just as it is not possible to turn Mahmutpaşa back to 15^{th} century by zeroing the time elapsed, it would be harmful as it would destroy the evolution it has gone through in the natural process. The

fundamental should be to let it exist together. For this, all building attachments and replacements should make the building visible and should be implemented with alternative systems in a way not to damage the natural habitat.

What should come to one's mind when Mahmutpaşa is mentioned?... It's condition when it was built in 15thcentury or its current condition? The social-cultural texture and the commercial structure in its days have changed a lot in the five hundred years. This change has changed the street as well.While one point of view finds it right to keep historical buildings as original, that is, as they were built, another point of view thinks that Mahmutpaşa is beautiful and natural as it is now. This point of view that takes these attachments that the years have added on the street as natural perceives turning Mahmutpaşa back into its original state as zeroing the heritage obtained for five hundred years.

The most significant characteristic of Mahmutpaşa and also which makes it stand up is its commercial dynamism. One of the biggest factors that have shaped its current condition is again the trade. Reshaping the shops by internally dividing or joining, shops being changed to increase the commercial functionality, adding spatial attachments and substructures in empty spaces… they all have been made with commercial concerns. At the end of the day, it has become a market where circulation is fast and the prices are low. Its hundreds of extensions and disordered appearance, in fact, have complied with the cheap market perception. Rehabilitation works are under go with new projects. Mahmutpaşa Sanitation Programme of Fatih municipality is the main one. Even though this project covers, geographically, the whole street, in practice, it is slight and limited to the facades of the buildings only. Despite the fact that it is aimed to make the buildings sanitary and visible with monotonic facades planned, single type awnings and canopies, there is a risk for obtaining an artificial outcome which is contrarian to the spirit of Mahmutpaşa and which would erase the marks of a five hundred year history at the end.

While aiming to protect the historical texture of Mahmutpaşa, not destroying the new structure of it is important in terms of the natural adaptation of the street. Systems in which the new and the old styles can coexist should be researched. While solutions are generated that would not destroy the street nature for the damages of the past changes, directive rules should be imposed for the new changes. But, it should be paid attention to that, these rules

should not be strict and ordinary and should allow the units to be able to make changes freely in their natural ways.

In order to minimise the structural damages, grid systems can be designed onto which we can mount attachments that structurally damage the buildings, destroying facade textures and heavy. These systems might aim to remove the damages of the attachments, not the attachments themselves. Also, with the technological advancement, possibility of making these attachments as a group which have been made individually should be investigated. For instance, instead placing antennas on every facade, a receiver placed on the roof might be more than enough. Centralised ventilation systems might be more efficient solutions.

The changes that has been or will be made to decrease the costs in this region which has become a cheap market should be directed towards constantly saving, even self-contained systems. With micro and general credit loans and grants, systems that produce or even self-contained should be encouraged and supported.

3.3. GLOBAL OUTLOOK

The reality underlying parasite and micro architecture is the needs. Adaptation to the changing conditions constitutes the base of the Works. Outcomes being different within itself however, becomes diversified depending on generally how regular structuring is made and how scientific and artistic it is made by whom. While the structures coming out of the hands of the architects and engineers may be reliable, aesthetic and alluring, the attachments can be rambling and risky.

While there are cities such as Havana that has fully adapted themselves, many touristic cities and streets have themselves evolved and protected their functionality.

Figure 3.1. A view of adaptation city Havana from the above [85]

The residents trying to avoid the noise and the smell at the street levels almost settle in the roofs of the buildings. Thus they have chosen a life far away from the noise and smell of the city and close to the skies. In Rio De Janeiro however, new buildings constructed in the city growing out towards the hills are attached to the old ones. Thus, the city that looks like a single organism from far away, used its closed structure as an advantage to law enforcement officers and it has become a castle.

When we compare Mahmutpaşa which we investigate to most attention-grabbing parasites seen in world similarities are hardly noticeable. Thinking about the wonders-of-design positioned in the most beautiful cities even sometimes on top of the most important buildings and our attachments on the same platform can get harder. But, these buildings constituting the minority of the parasitic structures share the same basic principles. They were all built attached to the host building and as a post-requirement solution.

Most significant detail of Mahmutpaşa is the trading which is the locomotive of this region. Its dependence on its economy has completely changed this place as if metamorphic rocks changing under high heat and pressure. When it is taken into account that these changes are made by the tradesmen, the main purpose has always been functionality, aesthetical concerns have almost not been considered even the robustness has been pushed into the background.

Only region that evolves as a consequence of economic pressures worldwide is naturally not Mahmutpaşa. There are similar regions on every continent and in every country almost. Ladies Market (Fa Yuen Street) in Hong Kong and El Wad Road in Israil can be shown as

examples with their resemblances to Mahmutpaşa. These regions that have especially evolved with the effect of retail sales, looking alike facade attachments and the display units at the street level have been shaped in conformity with the comfort and trade.

Figure 3.2. Ladies Market (Fa Yuen Street) in Honkong [86]

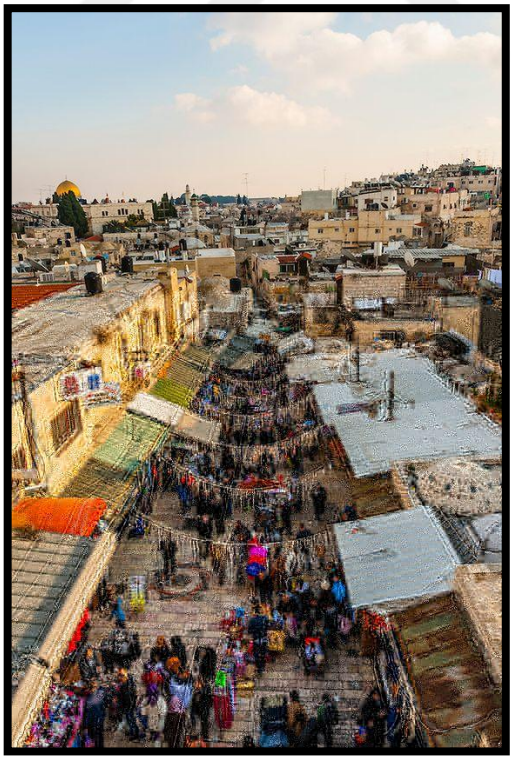


Figure 3.3. El Wad Road in Israil, 2012 [87]

Parasite architecture has been used in cultural expansion and international cultural transfer in some regions. Differences of these parasites from others are seen. Even though these

attachments originate from individual needs in terms of structure, they give the expression of being constructed with a mass consciousness in the background. China Towns, Arab Streets and Little Indias in many countries are good examples of this.

Figure 3.4. China Town in London, 2011 [88]

Figure 3.5. and Figure 3.6. Little India in Singapore [89]

These streets that change their structure as per the cultures they represent are all retail centres. Need for technology and retail accrued here as well. Even though they solve it with the same style attachments, outer appearances of the attachments are in harmony. The image being seen by the outsiders is that these streets are a small part of their main countries.

In fact, the main motivation of this mass action is again the economic objectives. These regions have used various attachment and parasites to resemble their home countries culturally. On top of this, if the new attachments originating from new requirements destroy this careful ambiance, it would cause their visitors to become disinterested.

Lille in France, El Rastro in Madrid, Olvera in L.A. Maxwell in Chicago and Saara in Rio de Janeiro and similar regions in America and the Europe can be given as example for these changes which are in harmony. In these regions, due to the strict rules of the local authorities especially, the historical texture has not been destroyed. In short, the market conditions and income trends are the most important factors in the change as it is in Mahmutpaşa and others.

Figure 3.7. Lile in France [90]

Figure 3.8. El Rastro in Madrid [91]

Figure 3.9. Old view of Maxwell Street in Chicago [92]

Figure 3.10. Saara in Rio de Jeneiro [93]

Apart from the parasites where market conditions are the basic motivation, as the parasite architecture science advances, some masterpiece parasite projects have been constructed. Hotel Everland (see p:57), Hanging Parasite Office in Moscow (see p:68) and Hanover House Warehouse Conversion and similar structures of which we samples of are the first ones of these. These projects where visuality and aesthetic concerns are prioritised have great contributions to themselves and their environments. These projects which seems far away from financial concerns at first site have been constructed taking into account economic parameters as in all projects. These buildings which are generally used for restaurants, hotels and similar purposes pay for their construction costs during their operation times. The ones becoming museums and symbols of the cities however were constructed to increase the values of museums and the city being supported by many funds. When the projects of big companies and architecting offices with reputation and

advertising value are added it can be better understood that the main purpose is to increase economic value in different ways.

As a result, motivations of attachments and parasites are common, except for some functional and utopic projects made with a purpose to solve issues of the homeless and some public issues. And this, too, is to re-evaluate our existing materials and make them comfortable and compatible with the times and economy.

It would be true to think that the evolution of the mankind, hence the architecture being observed for centuries will continue in the times ahead of us. It is obvious that the future socio-cultural structure and the level of technology will bring about new requirements. Just as these new requirements will need new attachments, they will make some old attachments redundant. Advancement of holographic devices may be replaced by billboards and signs at the street level and facades. With the use of maybe drones or individual aerial devices in delivery and transport, we might need to set up areas on our roofs and terraces for parking, loading and unloading of these devices. This and many other possibilities that sound too scientific or utopic might be expecting us in the future. The only thing we are sure of is that the change will take place in some way or the other.

The only thing we can do about this definite change is to be able to put it under control. It is of vital importance to determine the methods we will use in the implementation of the necessary attachments and the parameters that we need to take care of to not damage our existing buildings and more importantly, to implement these rules. But, when identifying these rules, the values that the freedom and individual approaches add to our environment and the importance of the mosaic in the spirit of the city should be remembered. The streets that have become ordinary and the look-alike buildings are standing in front of us as a hidden risk on the other side of the medallion.

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APPENDIX A: MATRIX-1

Matrix 1 is the chart, where a classification of building additions in Mahmutpaşa Street.

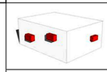
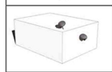
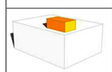
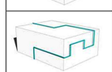
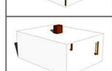
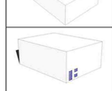
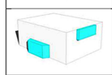
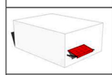
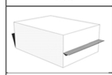
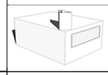
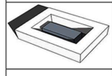
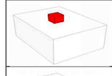
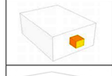
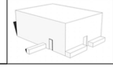
	VISUAL	ADDITIONS	STRUCTURE AND MATERIALS																												HOST AND INTERACTION				SPACE AND USE
			STRUCTURAL SYSTEM				MINERAL					GLASS	WOOD			PLASTIC				METAL							FABRIC								
			Masonry	Steel Structure	Timber	Shell Composite	Ceramic	Brick	Tile	Fibre Cement	Cement Corrugated Sheet	SiO2 Glass	Plywood	OSB	Timber	Plexiglass	CTP	PVC	PE	Aliminium	Sheet Metal	Copper	Iron	Steel Mesh	Galvanized Trapezodial Sheet	Stainless Steel	Canvas	Nylon	Polyster	Acrylic	Facade	Rooftop	Detached	Impacts	Explanation
TECHNICAL INSTALLATIONS		Air Conditioner Boxes																X			X										X	X		(+) Indoor thermal comfort, air quality. (-) Structural load on host, visual impact.	External component of AC system, purely technical
		Satellite Dishes																X			X										X	X		(+) Entertainment factor. (-) Damage to the existing facades. (-) Visual impact. (-) Damage to building insulation envelope.	External telecommunication device used to send and receive electromagnetic signals, purely technical
		Generators																			X											X		(+) Service quality. (-) Structural load on host. (-) Visual impact.	Technical device that generates electrical power.
		Cables&Pipes																X	X			X				X						X			(+) Building mechanical system adaption. (-) Visual impact. (-) Damage to building insulation envelope.	Purely technical addition to the studied built environment.
		Gutters																X			X	X										X	X		(+) Building mechanical system adaption. (-) Visual impact. (-) Damage to building insulation envelope.	Technical addition for water disposal system
		Chimney/Funnels						X																		X						X	X	X	(+) Throwing out polluted air (-) Visual impact. (-) Damage to building envelope.	Technical addition that enable exhaust of discharge gases.
		Solar Collector System										X					X		X	X	X	X										X		(+) Energy efficiency. (-) Structural load. (-) Visual impact.	Technical device that converts sunlight into energy like electricity and heat.
		Ventilation and Chiller Tower																			X											X		(+) HVAC system efficiency. (-) Structural load on host. (-) Visual impact. (-) Dam	Heat rejection devices, used to cool the waterstreams of HVAC system, purely technical
		Shack-1			X						X		X		X			X													X		(+) Building mechanical system upgrade. (-) Visual impact. (-) Structural load on host. (-) Damage to building envelope	Habitable unit that is just big enough to host a bed to rest.
		Awning																X		X							X	X	X	X	X		X	(+) Shading stores. (+) Protecting from bad weather conditions. (+) Extra retail space on street. (-) Visual impact. (-) Minor damage to host.	Awning is a portable covering system attached to the walls for protection from rain and sun, purely technical.
		Counter		X	X								X	X	X								X							X		X	(+) Increased retail space. (-) Place use on street. (-) Visual impact.	Counters are elongated tables where the exhibition and sale of products, purely technical.
		Hanger		X																			X		X					X			(+) Improved retail activity. (-) Visual impact on the historical textures of facades.	Technical addition used for displaying the products vertically.
		Shelf											X	X	X								X							X			(+) Improved retail activity.(-) Visual impact on the historical textures of facades.	Wide and long, metal or wooden surface which attached to facades parallel to eachother.
		Canopy								X	X			X							X										X			(+) Shading stores. Protecting from bad weather. (-) Structural damage. (-) Structural load. (-) Disruption of orginal facade	Canopy is attached to the walls for protection from rain and sun, purely technical.
		Billboard(2D,3D)														X		X		X									X	X	X	X		(+) Visuality. (+) Advertising. (-) Structural load. (-) Visual impact. (-) Disruption of orginal facade.	(2D or 3D panels for housing advertisement display surfaces.
HABITABLE ADD-ON MODULES		Shack-2			X						X		X		X			X													X		(+) Extra accomodation. (-) Visual impact. (-) Structural load on host. (-) Damage to building envelope.	Presumably hosting a small generator, technical addition.
		Retail Units	X					X				X																					X	(+) Increased retail space. (-) Decreased common space.	These retail units increase the number of total shops at Han. It helps guilds to expand their business. Habbitable exterior retail units add-on
		Booth				X						X					X	X		X												X	X	(+) Security. (+) Extra accomodation. (-) Visual impact. (-) Structural load on roof.	Habitable unit which is located in back-courtyard of Nuruosmaniye Mosque, it is used as security cage.
		User Built Roof Add On Spaces	X		X		X	X	X	X	X	X																			X			(+) Extra space. (-) Visual impact. (-)Structural load on host.	Mostly illegal habitable space on rooftops.
		User Built Facade Add On Spaces		X	X			X	X	X		X								X											X			(+) Extra space. (+) Serves as a display (-) Visual impact. (-) Structural load on host. (-) Disruption of orginal facade	Mostly illegal habitable space as an expansion through the facade to outside.
		Display Case		X								X								X											X			(+) Guarding showcase. (+) Expanding business. (-) Disrupting architecture. (-) Structural load on host.	(-)Display units provide the hosts with extended display capability, purely habitable.

Figure A.1. Matrix-1

APPENDIX B: MATRIX-2

Matrix-2 presents a comparative chart of traded products vs. building addition types in Mahmutpaşa Street.

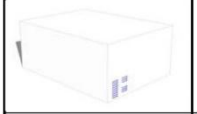
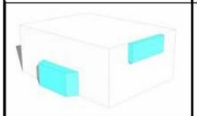
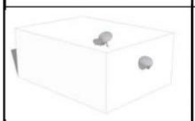
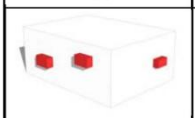
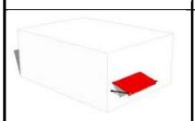
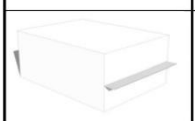
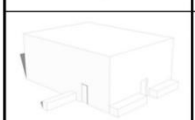
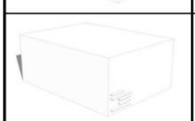
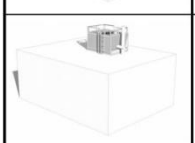
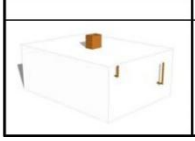
MAHMUTPASA BUILDING ADDITIONS VS TRADED PRODUCTS			
STORE ADDITION ELEMENT		TRADED PRODUCTS IN STORE	FUNCTION OF ADDITION
	Hanger	Feast decorations - Clothes - Textiles	Display, visibility.
	Display Case	Feast decorations - Clothes - Textiles - Accessories	Display, Presentation, secure showcasing of products, saving space.
	Satellite Dishes	Feast decorations - Clothes - Textiles - Accessories - Sweets - Food - Tailor's Equipment - Packaging materials - Kitchenware - Glassware - Art Supplies - Cosmetics - Household Appliances - Spices - Milk products	Watching TV, communicating for news, stock exchange, econometric data.
	Air Conditioner Box	Feast decorations - Clothes - Textiles - Accessories - Sweets - Food - Tailor's Equipment - Packaging materials - Kitchenware - Glassware - Art Supplies - Cosmetics - Household Appliances - Spices - Milk products	Cooling and heating of interiors, keeping products fresh.
	Awning	Feast decorations - Clothes - Textiles - Accessories - Sweets - Food - Tailor's Equipment - Packaging materials - Kitchenware - Glassware - Art Supplies - Cosmetics - Household Appliances - Spices - Milk products	Sun and rain protection
	Canopy	Feast decorations - Clothes - Textiles - Accessories - Sweets - Food - Tailor's Equipment - Packaging materials - Kitchenware - Glassware - Art Supplies - Cosmetics - Household Appliances - Spices - Milk products	Sun and ran protection, store name surface.
	Counter	Feast decorations - Clothes - Textiles - Accessories - Food - Glassware - Art Supplies and hobby - Household Appliances - Spices - Milk products	Presentation, display and preparation of goods.
	Shelf	Feast decorations - Clothes - Textiles - Accessories - Kitchenware - Glassware - Art Supplies and hobby - Cosmetics - Household Appliances	Display, visibility.
	Chiller Tower	Sweets - Food - Spices - Milk Products	Environmental control HVAC.
	Chimney/Funnel	Food	Trowing out polluted air.

Table B.1. Matrix 2

APPENDIX C

Building Survey of Mahmutpaşa,2014-2015

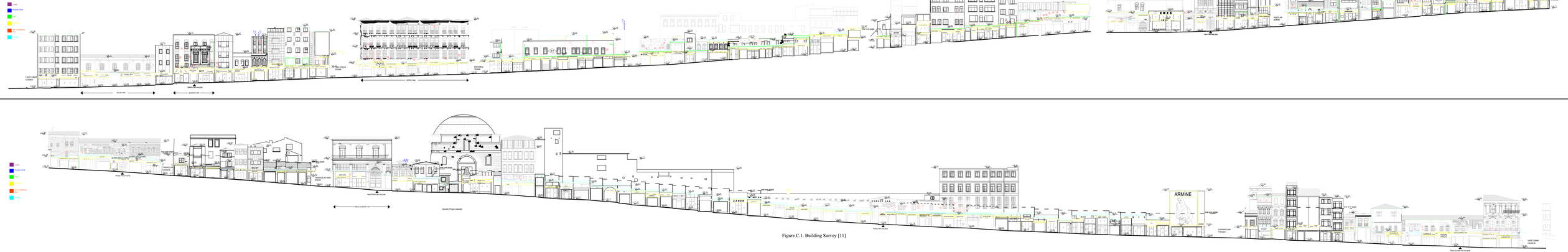


Figure C.1. Building Survey [11]