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Thinking with Universal Design in Historical Environment

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Abstract

Historical environment is a unique and irreplaceable resource which reflects the social, cultural and economic characteristics of the past societies (Donely, 2011). It is an integral part of local, regional and national cultural idendity. The environment especially consists of historical environment and buildings are significant because of their uses as place where people's daily life activities. Moreover, meeting of social and cultural assets which societies have been figuring from the past with daily life turns into a resource for a sustainable future. However, it is generally impossible that those buildings which have been constructed in their own terms can satisfy the needs of today. In Turkey where the balance of protecting-using is on behalf of the first one, the protection policies and protection regulations exceedingly limit the intervention to the natural environments. Wishing that historical buildings are actualized into daily life on one hand and clamping down on accessing, visiting and using those buildings on the other hand leads to a serious discrepancy. However, the prominent examples which oversee the balance of protecting-using show that historical environments can be intervened through designing which will create or add values without compromising on protection. All sorts of interventions to be conducted consider the potential needs of the users without giving any harms to the originality of the building. Thus, it is expected that everyone can access the buildup area including the historical buildings, products and services and information equally and under equitable conditions. For that reason, making the built-up

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environment accessible, visitable and usable through universal design is one of the fundamental rights for the people who expand their daily living environment through accessibility and universal design.

In this study, accessibility, visitability and usability of Bedesten Historical Site in the city of Konya are discussed through the theme of "Thinking through Universal design" and suggestions of designing are given in various scales (urban scale, street scale and building scale).

INTRODUCTION

When it is considered that common perspective related to designing is shaped according to the needs of the average user group, it isn't quite possible to mention that the diversity of users in a historical environment or historical building(s) and their need are taken account. In fact, in an environment where the borders of intervening in a historical buildings are defined in detail and the balance of protecting-using is on behalf of the former, it is almost impossible to conduct it. For that reason, generating ideas through universal design or trying to turn the designing into universal through humanity conditions in a country where there is no practice of application while discussing the terms of universal design (Goldsmith, 2000, Steinfeld and Tauke, 2002, Ostrof, 2001, Mace, 2013, Evcil, 2014), design for more (Herssens, 2013) and design for the no-so-average may be regarded hyperbolic. In a world where being only a human is necessary, however, it is expected that everybody can access to a built-up area including historical buildings, products and services and information independently, equally and without any discriminations. This is the reason lying under the discussions for the terms of universal design/design for all, design for more and design for no-so-average especially during last few years.

Thinking through universal design in a historical environment, making the accessibility, visitability and usability of the historical area possible for everyone is much more difficult when compared to other buildings in the current and available stock of buildings. This environment which is planned/designed or constructed according to the group of average users in the period it has been established can't be expected to be convenient or comprehensive for the people of today (Heitzman, 2005). Moreover, monumentalizing the buildings especially having historical background through protective approaches lead the completion of their lives, especially financial lives, sooner than expected (Çakmak, 2013). It requires series of intervenes which will create or add values in a borad perspective from regulations to designing. All sorts of interventions to be conducted should be executed through practical and reasonable solutions so that originality of the building isn't harmed and considering the needs

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of potential users. For that reason, the civilized applications in the historical environment or historical buildings which is based on the notion of design for everybody/universal design, and the terms such as accessibility or visitability for everyone are rather limited. It is interesting that those applications which should be standard are extremely limited within the general stocks of the buildings, they are included in designing and sanctions even financial punishment is applied if they are executed. This occasion which needs questioning in terms of designing criteria and occupational ethics may legitimate the noninclusive status of the historical environments/buildings from the optimistic perspective.

In addition to that, the interventions to the historical environment or buildings within this environment, from the smallest to the most comprehensive ones, open the relationships, conformity, discrepancy and functionality of each design to the historical environment/building for discussion. Especially, conditions or standards of reconstruction which are required for some regulations such as accessibility, visitability or attachments and primary protection-based approaches such as assizes make the historical buildings inaccessible in terms of protection-usage balance. However, focusing on the necessity of regulations and why the regulations are needed instead of rejecting any universal-based intervention to the historical building or any regulations to be conducted will allow the comprehensiveness is accomplished. The efforts to make designing universal through humanity occasions and turn it into a value only succeeds through comprehensive approaches of designing. No matter it is in the historical environment or not, it is almost impossible to think the opposite in the designing approaches which are turned into values through putting human in the center. By all means, achieving this in the urban scale, urban designing scale and building scale in the historical environment is a great success. There are limited works which share this success in various parts of the world.

One of the accessible urban design is in the city of Vitoria, in the north of Spain (Figure 1-2). Vitoria has an exceptional medieval old town, situated on a hill. Iwo sections of mechanical In 2012, a design competition for the improvement of accessibility from the modern districts to the Cathedral area was called. A solution was sought for the problem of accessibility between the modern part of the town and the Cathedral through a designing contest and the application which developed through the solutions which enrich designing turned into one of the outstanding examples of accessibility in urban scale.

Another example is the application in Valette, the capital of Malta, which brings the silhouette of historical environment into discussion and considers using the protecting-using balance. The elevation difference over 50 meters between the Great Harbour and the Barakka Gardens and City Gate constructed on the city walls which was constructed in the 16.th century has become accessible through twenty-storey stairs which were built on the external face of the city walls and an specially-designed elevator (Figure 3). Similarly, the ramps, safe-walking zones, lift and stair lift were established for those who were prevented from accessing Acropolis which has numerous antique buildings on a high reef in Athens with architectural and historical importance. Thus visitors were able to easily access the peak of Acropolis which hosts ancient Greek buildings. (Figure 4).

Figure 1-2. The Accessibility of Historical Center of Vitoria Settlement (URL 1)

Figure 3. The Stairs and elevator tower which provide accessibility to the Grand Harbour and the walls of the city in Vallete (URL 2).

Figure 4. The Stairs and platform Elevator Designed for Accessibility to Acropolis, Athens (URL 3)

In Turkey, one of the outstanding examples at the scale of building is Hacı Hasan Mosque in Eskişehir. Although it was registered, its values to be protected were buried under the attachments around it and it encountered incorrect technical and architectural interventions in order to prolong the life of the building. The building which was restorated considering the universal design criteria provides solutions so that orthopedically handicapped, hearing impaired, and visually impaired people independently perform their prayers (Figure 5). The aforementioned solutions involves praying on the wheelchair, seeing the sound of call for prayer, support of sign language related to praying, tactile carpet covering, induction loop systems and Braille Quran set etc. (Tutal, 2012, 2013, Akın Güler-Tutal, 2017).

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Figure 5. Hacı Hasan Mosque interior space for wheelchair users.

The historical environment from urban scale to building scale participates daily life in its original functions through keeping its specific status, through contemporary attachments to the current building at times and being purified from the previously attached attachments at times and through some changes. In all cases, its accessibility, visitability and attachments are aimed to achieve through considering protecting-using balance. For that reason, inclusiveness in planning, designing or adaptation becomes one of the basic rights for the people who are able to participate (visit and use etc.) so long as it expands the daily life space and its borders in accessibility.

This study which deals historical environment in terms of universal design, discusses the participation of users in the place in terms of urban scale, street scale and building scale in the historical Bedesten Çarşısı (Covered Market) in Meram District, Konya The historical Covered Market which has been analyzed within the context of the research is discussed in terms of accessibility, visitability and attachments from urban scale to building scale and suggestions are offered especially for the attachments of the historical environment by all.

KONYA BEDESTEN ÇARŞISI (COVERED BAZAAR)

The Covered Bazaar is the oldest trade center of Konya and it is located on the East of Alaaddin Hill, on the Mevlana Street which is the most important arterial road and is mainly on the south of it. It is a bazaar whose spatial formation dates back to the Seljuk period and it was built around Atpazarı gate, one of 12 gates of the city walls around Konya at that time (Ergenç 1995). (Figure 6).

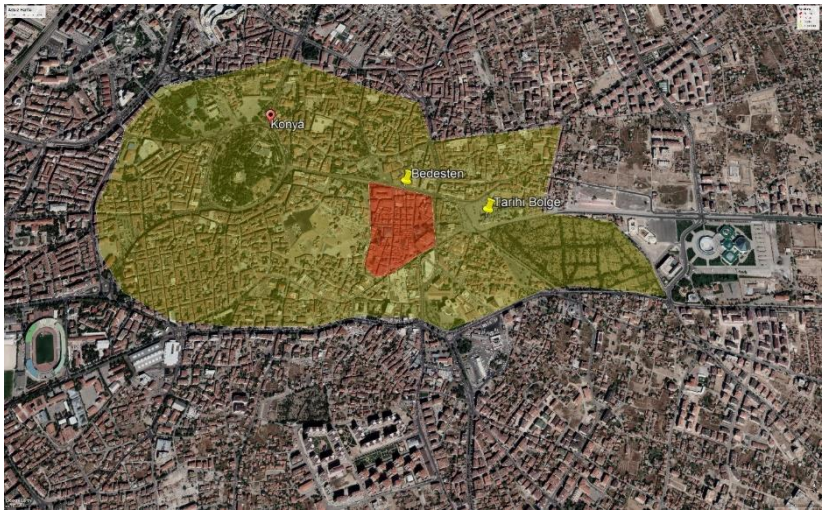

Figure 6. The location of Konya Bedesten Çarşısı (Covered Bazaar) in the heart of historical city.

The traditional Bazaar employs a traditional character in terms of its characteristic shops, the relationships of shops with street, its form in human scale, its proportions which conform to human beings, details of fringe and the way the goods to sell are exhibited. In addition to this, it forms a background for the monumental buildings such as Kapı Mosque, Aziziye Mosque, Bulgur Tekke Mosque and makes those cultural assets more effective; moreover, it has important visual characteristics in general silhouette. Within its body, there are numerous lodgings such as Mecidiye Lodging and Nakiboğlu Lodging which bears the characteristics of late Ottoman architectural period (Aydın, 1989).

Like many other covered bazaars, this covered bazaar encountered few occasions of fire and thus its physical structure has been changed. The most important fire was seen in 1867. The traditional covered bazaar which carries the characteristic features of Seljuk and Ottoman periods encountered the danger of losing its original texture during the Republican Era as a result of structuring which doesn't conform to the traditional pattern in gabarite since new structures are multi-storey in the narrow streets. The reason for current commercial transactions of the shops in the bazaar is the deep rooted commercial institutions of the city, official institutions, specific products (stove manufacturers, hardware dealers, spice-sellers and offal shops etc) and rural bus station which serves to the population coming from around Konya. Moreover, the shopping habits with historical roots and structure and the form of trading which still continues are also effective in this pattern (Uysal, 2004).

Those who come to the town from the settlement areas around for daily shopping are the most important elements which increase the economic potential of the bazaar. Moreover, the location of the bazaar close to the Mevlana tomb also increases the density of its

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usage. Except for Mecidiye Lodging and Nakıpoğlu Lodging which still maintain their commercial functions, there are no more qualitative traditional commercial buildings today. Although the names of the streets are maintained in Konya bazaar today, the activities related to those jobs don't continue anymore – except few ones. Despite all those problems, the pattern of open bazaar which constitutes the Konya bazaar is continued by this place partially maintains physical, social and cultural characteristics (Topçu, 2011).

Konya covered bazaar underwent radical spatial changes through a big-scale improvement project conducted by Konya Metropolitan Municipality in 2013. Within this context, designing of top covering of the covered bazaar, restorating the lodgings in the area in conformity with social activities, restitution, restoration and urban designing applications of the walls of all the structures facing to the street, walls of courtyards and gardens and the patterns of street were conducted. Moreover, arrangements were made for infrastructure lines, floor coverings, street improvements and the walls of buildings facing towards the street (Kocadağıstan, 2015). Within this context, 84 pieces of street façade arrangements, 40 pieces of street arrangements were conducted. Both spatial development of Konya covered bazaar within its historical process and its current status after the improvement process played an important role in selecting it as the sampling field through the perspective of universal design.

METHOD

Thinking with universal design in historical environment/historical buildings from accessibility of travel to historical environment/historical buildings (the type of travel, the access to transportation buildings and vehicles) to accessibility, visitability, attachments and even livability of historical environment/buildings mean continuity among the scales. This continuity is obtained through maintaining the strategical decisions starting at the top level in the scale of detail and the comprehensiveness of designing as well as its originality. The Covered Bazaar which was selected as the application area in this study was discussed and analyzed in terms of urban scale, street scale and building scale (Figure 7).

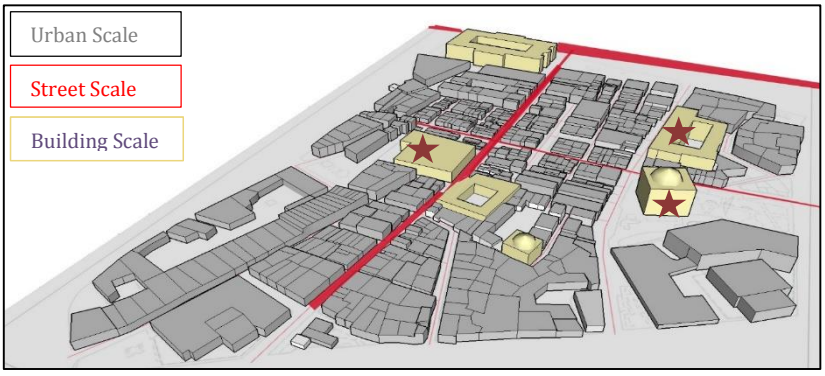

Figure 7. The 3 dimensional display of the study area (analysis were conducted on the buildings with star)

In the urban scale, the region which covers the entire covered bazaar was chosen as the area of investigation. The basic objective in urban design is to build comfortable, safe, quality places which will satisfy the inclinations, needs and preferences of the user. For that reason, the basic director is the individual and the characteristics and expectations of the individual. Depending on the changes observed in the individuals, the characteristics expected from a place will also change. Keeping the individuals with various desires, characters and expectations in the same place and make them happy constitute the power of urban designing. In designing a strong, creative and effective place the basic approach is the approach which is democrat, equalitarian and serving for everybody (Uslu & Shakouri, 2014). The public places seen in this scale were classified in four topics. They are urban furniture, urban landscape elements, lighting equipment and floor coverings.

The researchers conducted at urban scale were supported with the street scale which we called as a lower sub-scale. At this point, three streets in the covered bazaar which are densely used were chosen as the investigation area. The aforementioned streets are Mevlana Street, Tevfikiye Street and Türbe Street. Detailed analysis were conducted within the framework of the principles of universal design mentioned in the chapter of methods for the selected streets. Those analysis were categorized as transportation, car park, horizontal circulation zones, vertical circulation zones, surfaces for walking, and restrooms. Afterwards, they were marked on the current maps and supported with photographs. The conducted analysis examined the elements of transportation system such as main types of transportation, stop-points for transportation vehicles and ticketing points through the criteria of universal design.

Related to the car park, the status of car parks were analyzed in terms of whether they have sections for disabled people or not, whether parking spaces are at the level of traffic way and the status of the accessibility to the pavements. In terms of horizontal circulation zones, the status of pedestrian areas around studying zone including pavements from the point of accessing to the traffic way (cross-roads, car parks and pedestrian crossing) and the status of the buildings (entrances) facing to the streets in terms of access to the pedestrian crossing were considered. As for the vertical circulation zones, each elevation difference in the circulation zones (if available) was analyzed in terms of whether they provide accessibility through ramps, lifts or elevators. The availability of the accessible restrooms and their convenience for using were also considered. The question of whether there is

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tactile walking zones within the urban circulation area, its continuity and conformity to the standards constituted a base for the analysis at urban scale.

At the level of building scale in the street scale which is the bottom scale of the study, one lodging (Mecidiye Lodging) among the monumental buildings around the covered bazaar, 3 mosques (Kapu Mosque, Azizizye Mosque and Bulgur Tekke Mosque) were analyzed in terms of the principles of universal design. Access the lodge and mosques for vehicles/pedestrians, accessibility on the routes towards the mosques (car park/stop-mosque and access to the mosque), parking lot/ parking lots for disabled, horizontal and vertical access to the building, the use of building, ablution zones and restrooms were also analyzed. Especially, the attachments of mosques for different categories of disabled people (orthopedically, vision and hearing) was focused on.

FINDINGS

Urban Scale Analyses

The urban furniture is the group of materials which complete urban external spaces and provide comfort for the individuals in the external space and they should be designed and brought into use according to the principles of universal design. When the field was analyzed in terms of urban furniture, the distributions of elements of structures such as billboards, phone boxes, banks, ATM, litter bins, fountains, landscape elements, lighting elements and surfaces to walk as well as conformity of the urban furniture to the criteria of universal design were analyzed. Such analyses were divided into categories such as urban furniture, urban landscape elements, lighting elements, and floor coverings. The distribution of urban furniture in the research was shown in Figures 8, 9, 10 and 11. The conducted analysis shows that urban furniture isn't available for everyone, it is insufficient in terms of designing criteria which provides attachments for everyone through the designing.

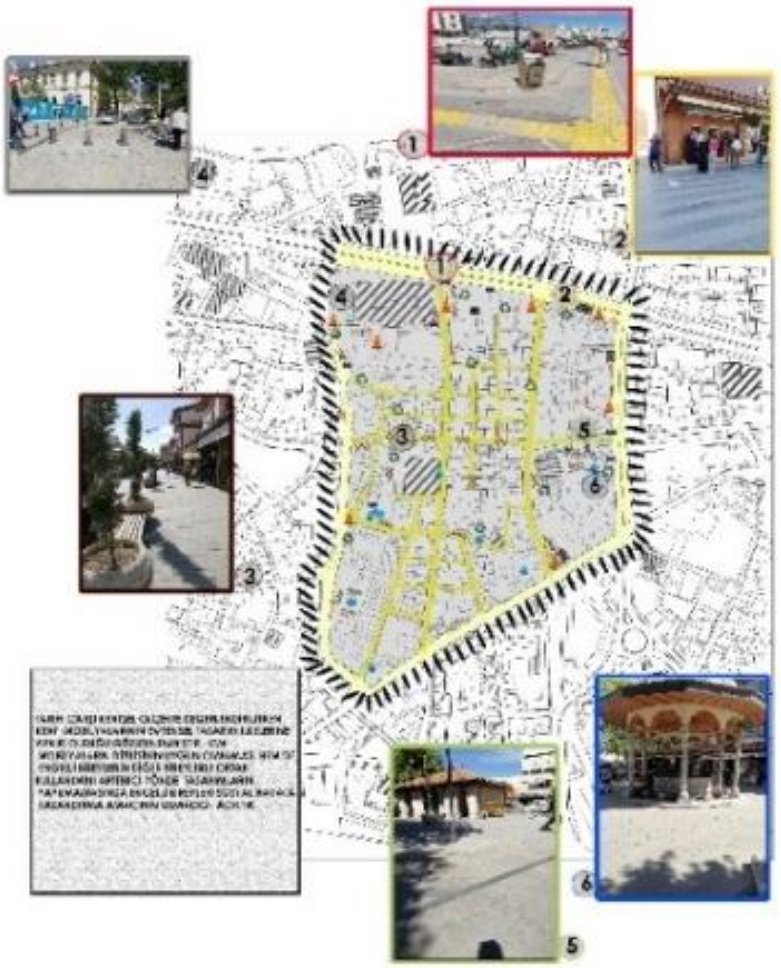

Figure 8. Urban furniture in Bedesten region.

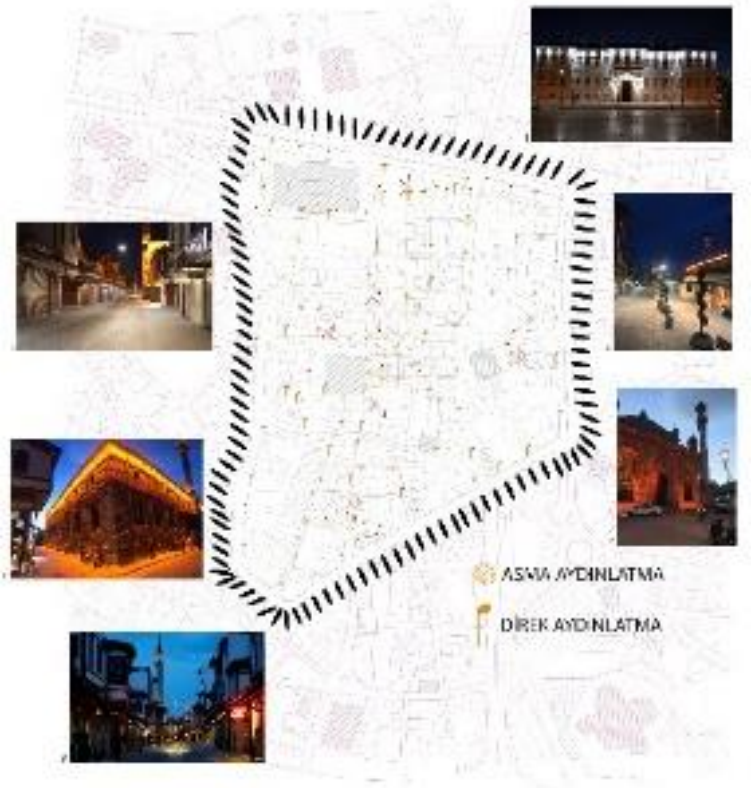

Figure 9. Lightining equipment in Bedesten region.

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Figure 10. landscape equipment in Bedesten region

Figure 11. Walking surfaces in Bedesten region

Street-Scale Analyses

Within the framework of the analyses conducted in the street scale, a map section shown in Figure 12 was formed for analysis and evaluation. When the determinations in the map section was analyzed, it is understood that the stop points for mass transportation vehicles and the stop points don't conform to the standards for the principles of universal design. In the car park zone, there is a space for disabled people and the parking zones for disabled people is at the same level with traffic way and the pavements are accessible. When the field of study was analyzed in terms of horizontal circulation zones, there was a discrimination of vehicles and pedestrians on Mevlana Street, the pedestrian-zones in this street were accessible to the traffic way and no

problem was determined on Tevfikiye street and Türbe street in terms of accessibility since they are pedestrianized. When the buildings with façade to the pedestrian's road (entrance) are analyzed in terms of their accessibility through pedestrian's way, it was seen that the different of level at 5% wasn't taken into consideration. When the streets were analyzed in terms of vertical circulation areas, the access was obtained through elevators in Mevlana Street and the criteria of accessibility was considered in the transition areas. On the other streets, there are no difference of level and ramps and thus it was impossible make such a determination. As for the toilets for handicapped people in the zone, it was observed that there are public restrooms but no sensibility was observed there related to handicapped people, for example, there is no convenient space to use wheelchairs. When the application of tactile walking surfaces are analyzed within the urban circulation zone, it was observed that the tactile surfaces to walk were only applied on Mevlana Street there was accessibility for handicapped people but there was no such an application on Tevfikiye Street and Turbe Street. Under the light of those findings, it is understood that an arrangement is necessary for the use of public toilets by the handicapped people, the tactile surfaces for walking should be applied to the whole area, and more tactile solutions are necessary in terms of the accessibility between the entrance of the buildings and pedestrian ways.

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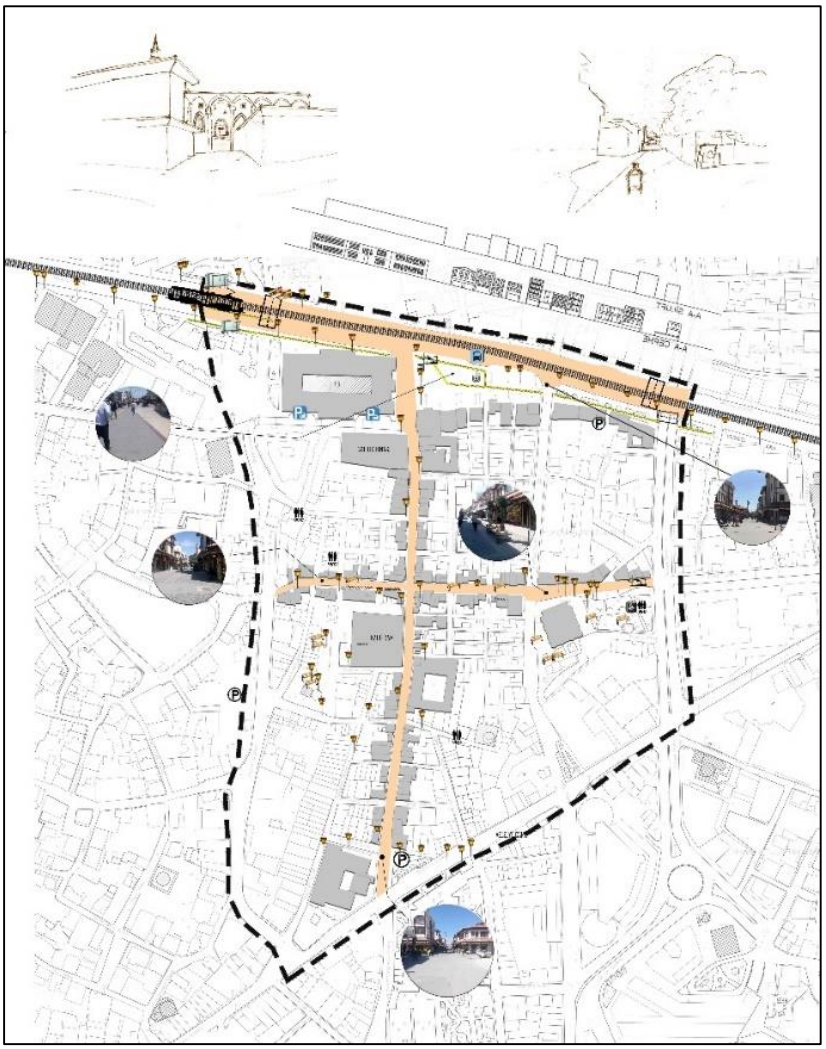

Figure 12. Determination conducted on the streets of Mevlana, Tevfikiye and Türbe.

Building-scale analyses

In terms of the building scale, Mecidiye Lodge, Kapu Mosque, Aziziye Mosque and Bulgur Tekke Mosque were analyzed in terms of accessibility and the map sections of Figures of 13, 14, 15 and 16 were formed for the buildings according to those analyses. It was especially observed that the Mecidiye Lodge and Bulgur Tekke Mosque weren't easily recognized within the pattern at the scale of human being for finding directions/ways/places.

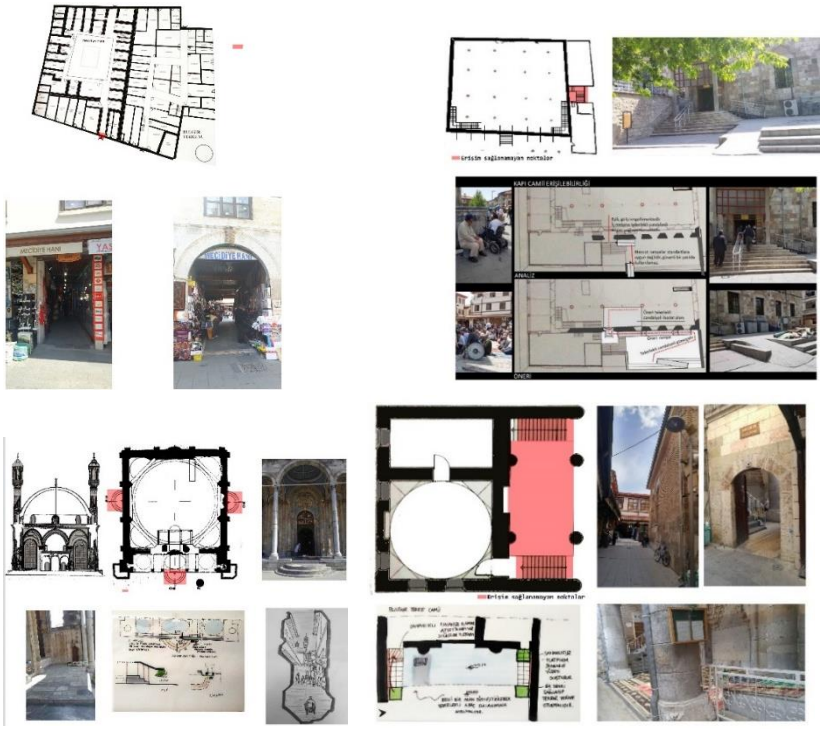

Figure 13. Mecidiye Lodging.

Figure 14. Bulgur Tekke Mosque.

Figure 15. Aziziye Mosque.

Figure 16. Kapu Mosque.

Due to the location of the buildings and the entrance to those buildings were surrounded (enclosed) by the commercial activities around, their entrance gates are limitedly realized. On the contrary, the Kapu Mosque and Aziziye Mosque turned into two important focusing points due to their locations and their domes and minarets which forms a reference point in the narrow streets of the Covered Bazaar Region. The Mecidiye Lodge which was separated from the buildings of worshipping in terms of its functions are affected inaccessibility. Especially, the goods of the trading houses which overflow onto the courtyard make the entrance difficult. Horizontal accessibility is available in general sense however the upper floor of the lodge can't be accessed (Photo 17-18-19). In addition, there is no accessible toilet which serve in the lodge.

Photograph 17-18-19. Mecidiye Lodging entrance, courtyard and stairs to upstairs.

The mosques encounter accessibility problems which can be sorted out through tiny interventions. It was observed that the accessibility until the main entrance gate of the mosque is insufficient in general sense but it isn't unsolvable. The elevation

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between natural ground and ground of the building is inaccessible. The current solutions related to the difference of levels is far from satisfying the standards (Photograph 20). Especially, ablution space, restrooms and space for worship have limited access (Photograph 21-22).

Photograph 20. Inaccessibility around the mosque.

Photograph 21-22. Ablution and participation to worship of wheelchair users.

Thereby, the analyses conducted related to the building scale indicate that some current solutions are only those with movement restriction. The solutions except those which are degraded to carparks, ramps, elevators and toilet commonly seen in our country do not cover the disabled people except orthopedically disabled ones. For that reason, especially comprehensive approaches which cover different age and handicap category should provide accessibility and attachments from urban scale level to building scale level.

CONCLUSION

Universal design which differentiates since it brings the equally accessible, adaptable patterns and designing to the fore is applied in a very large scope of fields from urban scale to building scale

(Hacıhasanoğlu, 2003). Especially, historical environment is the most important scale among the others. The balance of protecting-using is on behalf of the former related to historical environment and it leads monumentalization of the buildings and decrease in their economic life. However, enabling historical buildings for being accessed, visited and used in their own terms will allow the participation of historical buildings with their original or revised functionality to the daily life and their economic life will be extended. Although the protection-based regulation related to historical buildings and the related regulations are consistent in themselves and reflect important decisions in detail, it isn't possible to mention about an integrative approach. Although the related legislations present the rules that should be obeyed within itself, it is insufficient in terms of the types of the interventions to each historical building which differs due to their originality and determining the borders of those aforementioned interventions. In the legislations, there is no directing instruction about how to provide accessibility or the principles of universal design in a historical environment at the higher level or historical building. If a building is registered according to the Regulation for determination and Registration of Immovable Cultural and Natural Properties Needing Protection, the related commission may not conduct necessary observations and inspections related to the accessibility of the building. This occasion displays that there is no integrative approach among the legislations.

This study conducted in Konya Covered Bazaar reveals that the activities of improvement and restoration which have been implemented in the area in recent years have been very limited in terms of universal design principles unless integrative approaches are employed and continuity is provided although they employs some sensibility in terms of accessibility. From urban scale to building scale, every interrupted approach of planning and designing negatively influence accessibility, visitability or attachments. For that reason, life quality for everyone who wishes to expand the borders of daily life through universal design principles, especially, accessibility require integrative and with continuity in order to participate to daily life.

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URL 3 http://mila.izkustvo.net/wp-content/uploads/2009/06/athens-acropolis-elevator.jpg

Resume

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