

Rethinking urban design problems through morphological regions: Case of Beyazıt Square

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Abstract. *It is highly vital to recognize the relation between urban morphology and urban design studies in city planning and urban design practices. Beyazıt Square, which is the center of the city of Istanbul, could not be integrated to the other parts of the city either configurationally or socially although many design projects have been previously planned and discussed. In this study, the Historical Peninsula of Istanbul is observed as an essential unit of the traditional path reflecting each civilization, namely Roman, Byzantium, Ottoman and Republic of Turkey that have been settled in the region. Transformations in urban blocks in Beyazıt region are elaborated through a series of morphological analyses based on the Conzenian approach of urban morphology. Morphological regions of the Historical Peninsula are identified and Beyazıt region is addressed in detail in terms of the transformations in urban block components, that are; street, plot and buildings. The effects of surrounding units which are the mosque, university buildings, booksellers and Grandbazaar on Beyazıt Square are discussed according to the morphological analyses that are applied to the region. Previous design practices and the existing plan of the area are observed through the analyses including town plan, building block, and land use patterns. It is revealed that existing design problems in Beyazıt Square come from the absence of urban morphological analyses in all planning and design practices. Through morphological regions as well as the conservation plans, urban design projects can be reconsidered.*

Keywords: Historical Peninsula, morphological regions, urban blocks, urban design, Beyazıt Square.

Introduction

Historical towns of the globalizing cities have been facing the risk of disidentification. As a result of socio-economic developments, political forces and changing urban dynamics in the cities, a fast and constant transformation in urban form has become inevitable. The morphological approach of M. R. G. Conzen which is centered on historical development of towns reached its zenith through morphological regions. Morphological regions represent urban form patterns which have homogenous characteristics based on plan type, building

type and land use. Whitehand states that: “A morphological region is an area that has a unity in respect of its form that distinguishes it from surrounding areas. However, the boundaries between regions vary in strength” (Whitehand, 2001, p.106). Morphological regions are facilitators. This methodology is studied in not only morphology based researches, but also planning studies and design practices.

In this study, method of the morphological region revived in the case of the Historical Peninsula that represents composition of Islamic urban codes constructed on Byzantium traces and transformed through modernization

period of Turkey. In order to understand design problems in the urban form, Beyazıt Square and its morphological relations with the connecting urban pattern is analyzed. Design project proposals for Beyazıt Square and spatial interferences applied from time to time are reviewed in terms of morphological analyses of surrounding building blocks. Based on the identification of morphological regions in the area, social and physical characteristics of Beyazıt Square are discussed.

The Historical Peninsula of Istanbul has various urban layers in which different samples of urban form can be observed. The city of Istanbul is rooted in the 7th century B.C (IBB, 2009). The town named as Byzantium had a typical Greek town model in which Acropolis was at the top of the town and a gymnasium, stadium and temples were settled between acropolis and the Marmara Sea. Even though there are no physical remains from the Byzantium Period, the topography of the town helps to understand the main expansion (Kuban, 1996; IBB, 2009). The city became the center of East Rome in the period of Roman Empire. Therefore, named as Costantinople the borders of the town expanded and urban form was developed on two router axes: Via Egnatia (later named as Mese in Byzantine Empire; Divanyolu in Ottoman Empire; Ordu Street in Republic of Turkey), and the topography line which was constituted from the conjunction of the highest points of the plateau. Mese, being the axis of transition of the king and the traders, built the spin of the town. Constantine's forum and Tauri's forum (which is reformed as Beyazıt Square later) were located on this axis. The walls of the city reached its limits in the Byzantine Empire Period. This expansion created a society including ruling class, trader class and working class with the highest population ever till that time. Walls of the Historical Peninsula are still under conservation. After Ottoman's conquest of Istanbul, with its increasing population of Muslim society, the urban form of the city was reorganized despite the preservation of main buildings such as churches. Although religious rules shaped the life of citizens, cosmopolite structure of the Empire allowed all regions and ethnical groups to live according to their

customs. Also, it is avoided to construct new buildings that block the view or access of present owners owing to two scopes, namely privacy and respect to the others (Kuban, 1996). Since the new neighborhoods are built and the city expanded beyond the walls through years, changes in the form of the Historical Peninsula brought new land utilizations. Both town plan and land use transformations directly affected the open public spaces such as streets and squares. Beyazıt Square was designed based on its surrounding urban form and socio-cultural requirements of the city in early periods of the republic.

It is a critical decision to design a public square which has strong historical background and morphological extensions. As a result of enduring transformation of the city of Istanbul, decision making process to design (or plan) any part of the Historical Peninsula is scrutinized within the actual conservation principles.

Morphological Regions of the Historical Peninsula

Conzenian approach of morphological regions is explained in the orders that are mainly grouped in 4 by Conzen. The first order represents the Old Town as a whole. Also, fringe belts or residential accretions can be involved in first order. The second order predominately shows the main plan units, urban quarters or small residential accretions. Third order reveals intermediate plan units or street units. Lastly, the fourth order signifies the minor plan units, building fabric cells or morphotypes.

Streets, buildings and plots constitute the town plan on which Conzen principally works. In town plan analyses, town plan/urban block components changes in certain periods are identified. Conzen's town plan analysis is mainly seen in his study on Alnwick (1960). In this analysis, the insurance maps of Pervitch that were created in 1935 and the last base map (2011) of the Historical Peninsula that is obtained from Fatih Municipality are superposed in order to observe urban block changes from the early Republican period to the early years of the 21st century. Each town plan analysis is created in order to draw hierarchical

morphological orders. First order shows the old town as a whole as well as second order regions show the main plan units based on the analysis.

Constituting its basis as town plan analysis, which is also Conzen's most significant morphological research method, the Historical Peninsula of Istanbul as a whole constitutes first order due to its persistence as a multi-level urban fabric beginning from the Byzantium period till today inside of the city walls. Primarily walls of Theodosius are taken as the region boundary. In the second phase, according to the direction of urban development, urban fabric configurations, major structural divisions, historical process and the regions within definite identities are taken into consideration as well. Consequently, 15 regions are founded inside of first order whereas 4 other second order regions are identified outside of the city walls where filled coast areas are located (Figure 1).

A base map in scale of 1/5000 is used for settling the first draft of the first and second regions. Subsequently, several maps of different periods are superposed in the same scale in order to determine the technicality of the orders. The map showing significant urban development in Byzantium, Kauffer map of 1789, 1914 map that was drawn in scale of 1/25000 for showing urban blocks, the general street network map of the years between 1925-1950, and Google earth maps of the years of 2005, 2014 and 2017 are used as base maps.

To understand the scale of building block and public square relations; third and fourth order regions are elaborated. Town plan analysis, building fabric analysis and land/building use analysis, which Conzen explains as three-fold urban components, are made.

Beyazıt Square next to Ordu Street and other linked urban blocks are analyzed by emphasizing the changes in urban block components from 1935 to 2011 (see Figure 2). Buildings constructed before 1935 and those built between 1935 and 2011 are dissociated. Streets are classified based on the buildings constructed before 1935, between 1935 and 2011 and also physical changes between reference periods. Plot change

cannot be analyzed in this regard due to data incompleteness. General land use of buildings according to the data of 2011 is also defined.

According to the map, it is seen that especially the built environment around Beyazıt Square, at the north side of Ordu Street, is constructed before 1935. On the other hand, the south side of Ordu Street is mainly constructed after 1935. Moreover, Ordu Street itself demonstrates one of the most significant changes in urban pattern. Expansion of the street has generated new neighborhoods within its borders.

As a result of this analysis, morphological regions in Beyazıt are defined (see Figure 3). Considering proposed orders for Historical Peninsula, second, third and fourth orders of morphological regions are determined. Since second order regions represent urban quarters with main plan units, it is only seen as passing through Ordu Street by dividing the study area into two. Within third order regions, urban blocks are grouped according to historical persistence or change. Also, layouts of urban blocks and land uses are considered. Therefore, within the study area boundary, approximately 16 different regions of third order are founded. Inside of these regions, some specialized buildings or building blocks are referred to as morphotypes which indicate fourth order. Building block size, grand physical changes or any significant differentiations among other urban blocks became determinant of the fourth order as can be seen from the map. In this sense, faculties of Istanbul University are bounded due to its huge block size. Simkeşhane and Hasan Paşa inns are also bounded because of significant changes in blocks.

In Beyazıt, masonry buildings are seen around Beyazıt Square, including Beyazıt Mosque. The area below Ordu Street contains buildings with concrete materials except for some religious buildings and old inns with masonry materials. At this region, buildings with 2 or 3 floors predominate in the area and the number of floors is not more than 7. As seen from the map of morphological regions (see Figure 3) the third and fourth orders are determined considering the development of similar formations of building fabrics. In third order regions, building materials become the most effective factor; since they represent the

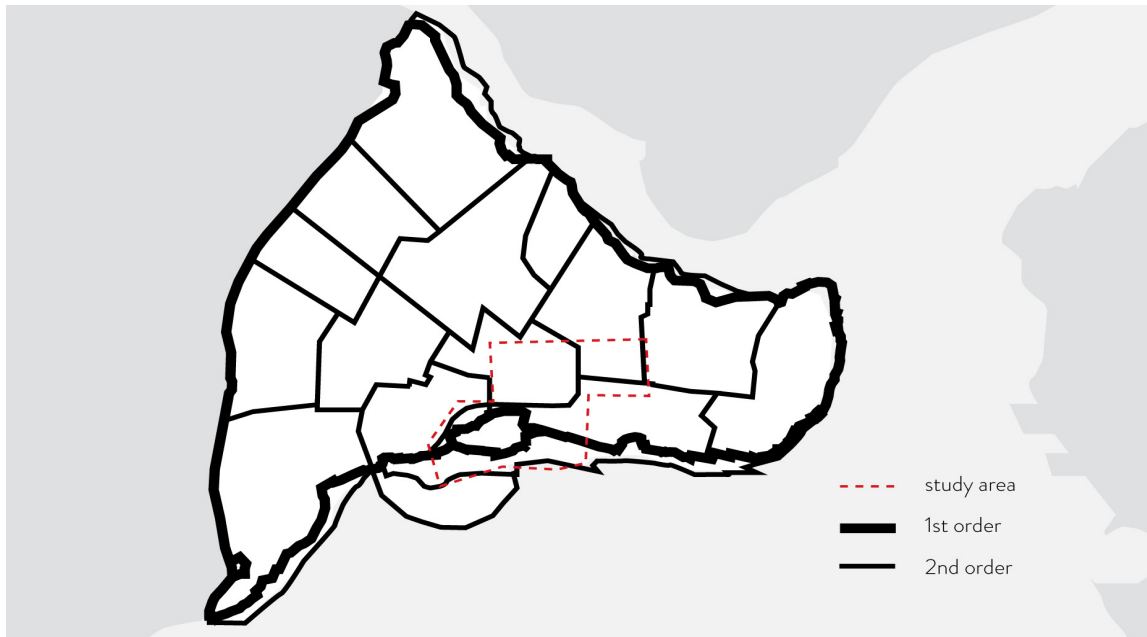


Figure 1. 1st and 2nd order morphological regions in the Historical Peninsula

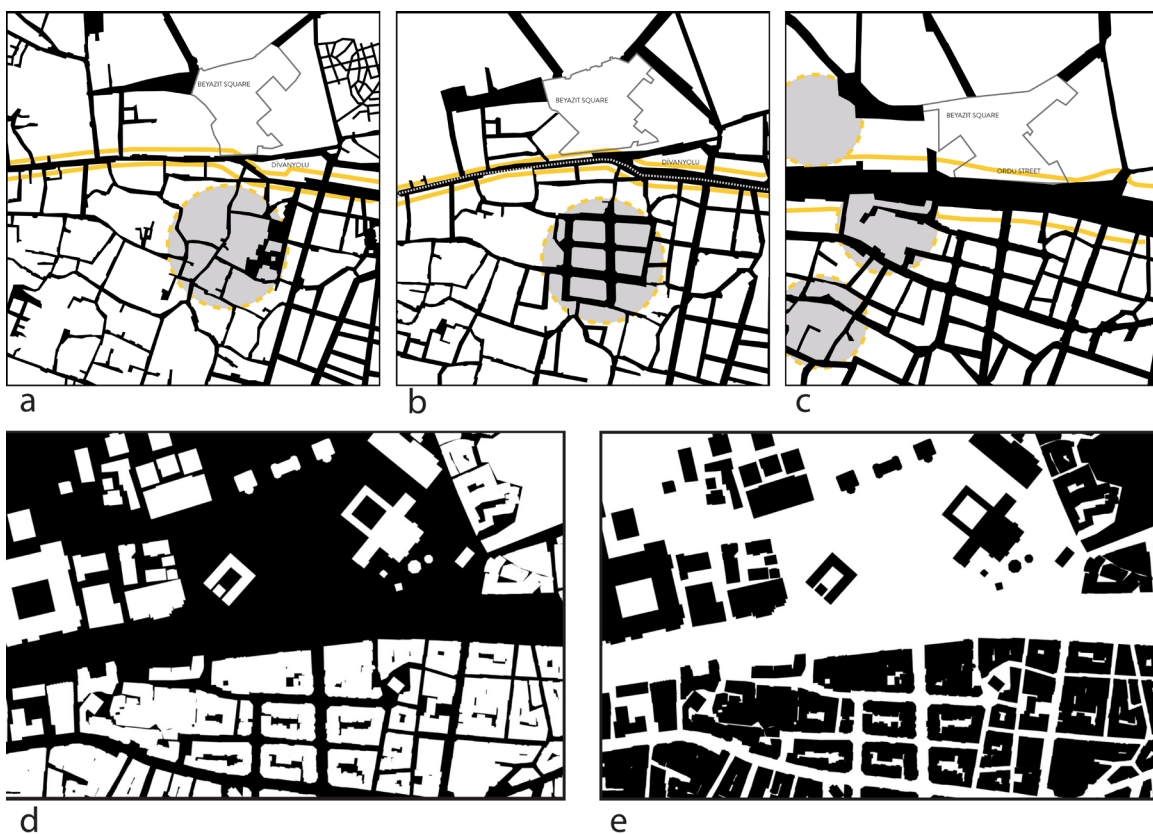


Figure 2. Transformation of street and building patterns in Beyazıt based on a) Ayverdi map in 1875-1882 b) Pervititch map in 1935 c) 2011 base map d) voids of 2011 e) solid of 2011

historical evolution of the urban pattern having known that masonry buildings were generally constructed before 1935. Thus, regions are drawn according to the majority of masonry buildings at the north side of Ordu Street. Below the street, a high density of concrete buildings creates another region. Fourth order regions are determined based on the number of floors. It is observed that floor numbers begin to increase from 5 to 7 in different parts of the area, which can be seen particularly in grid urban block patterns rather than organic ones.

As it is seen from the map of land and building utilization of Beyazıt (see Figure 3), educational region, where Istanbul University is located, constitutes one region at the north side of the map. Below Ordu Street, commerce buildings group as a region such as Grandbazaar region. Around Beyazıt Square, buildings with cultural activities, some administrative utilizations and religious regions are enclosed in third order. Distinctive utilizations of buildings within homogeneous regions, which are in this study area mostly religious uses, are also revealed.

Designing Beyazıt Square

Beyazıt Square is placed on the third hill of the seven hills of the Historical Peninsula of Istanbul. Like all squares, Beyazıt Square has witnessed many activities such as meetings, celebrations, trading, festivals, executions, demonstrations and so on throughout the history. It records the memory of the city. Leading the movement of people from the main roads to Istanbul University or from Grandbazaar to the mosque, the square is also an archeological area which is open to exploration continuously. However, it has been one of the problematic public spaces in terms of design processes for ages.

In Roman period, Beyazıt Square was named as Forum of Theodosius (before that it had been named as Forum Tauri by Constantine I) which was located on the space between Beyazıt Mosque and madrasah of today. It had a triumphal column in the middle like other Roman forums and it was connected to Mese. There was a triumphal arch which was erected

on the west side of the forum. Today's area of Istanbul University (faculty of letters and sciences) had been the place of three Basilicas of Byzantine Empire. Around the forum, civic buildings like churches were built.

As Istanbul was conquered by Ottomans in 1453, Old Palace was built at the north side of the forum, which is the highest point of Beyazıt. Mint of Ottoman (Simkeřhane), bazaar areas and Grandbazaar were formed at this period. In the 1500s Beyazıt Mosque and külliye (Islamic social complex) was constructed and the square became the center of Istanbul. In the 1800s the mosque was integrated to Beyazıt Square. In the 19th century, the square was used as a bazaar/exhibition area (Kuban, 1998). The square was one of the most significant meeting places between the Old Palace and külliye. It was also the only open space that was integrated into the Grandbazaar.

Beyazıt Square was designed and planned many times in the early Republican period. Between 1923-1924, a fountain pool was placed in the middle of the square and tram line entwined around the pool (Kuban, 1998). Later, motor vehicles dominated the area. In 1933, the Old Palace building was given to Istanbul University. Traffic flow was removed from Beyazıt Square and it began to serve as a public square again with the plan of Prost in 1937-1938. In Prost's plan of Istanbul, as many other proposals on street widening, there was a road widening proposal on the east part of Divanyolu up to Çemberlitař. However, it was not executed. At the beginning of the 1940s, the Faculty of Letters and Sciences was built. The building became a new morphotype with its huge size and architectural style in the urban fabric. The significant changes in these areas were seen in mid 1950s. In the years of 1956-1957, known as Menderes period in Turkey, Divanyolu (Ordu Street) was widened from 9,5 m to 30 m. That development in the main spine of the Historical Peninsula brought the destruction of many historical buildings as well as some urban blocks. In order to widen Ordu Street, north facades of Simkeřhane (old royal mint) and Hasan Pařa Inns which were facing the square were demolished (Figure 4). Furthermore, with the enlargement of Ordu Street, Beyazıt Mosque, the bath, and some

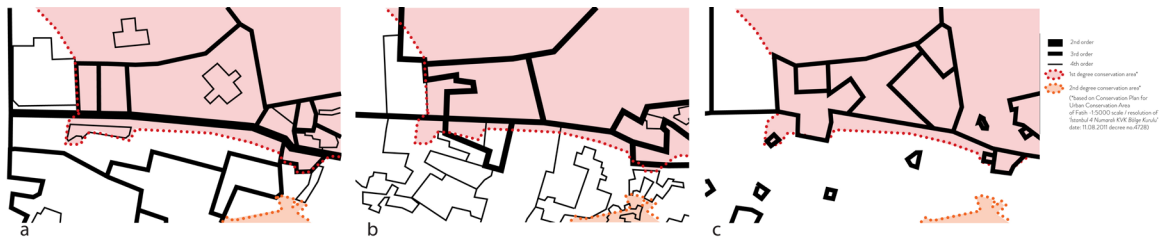


Figure 3. Morphological regions of Beyazit a) based on town plan b) based on building material c) land use



Figure 4. Demolished buildings between 1935 and today in Beyazit

other commercial buildings began to stay in the upper level whereas Ordu Street was developed in the lower level. Thereafter, new commerce and business buildings began to be built up in the area.

In the 1960s, several projects for Beyazit Square were added to the agenda as a result of previous construction activities which

were disappointing. Prof. Piccinato, Prof. Högg and architect Turgut Cansever were designated to work on new design projects for the square. The project of Cansever was accepted for construction among these three design proposals. In Cansever's project, the whole square was pedestrianized. The conflicts between the direction of the mosque and the

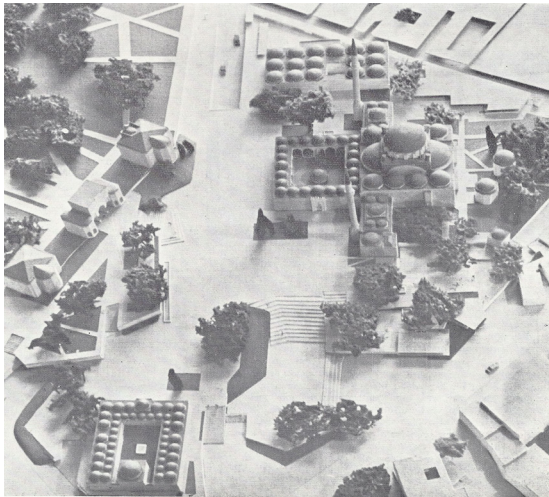


Figure 5. Model of Beyazıt Square designed by Turgut Cansever

university buildings were resolved through orienting the main perception of the design on kiblah. The trees on the square were preserved, new trees were proposed in front of the door of Istanbul University and a series of 2-storied buildings in use of eating-house, bookstore or coffeehouse were designed to separate Ordu Street from the mosque and its surroundings. He resolved the elevation problem of the square through the stairs that were planned between the mosque, külliye and Ordu Street (see Figure 5). On those days, this project generated a discussion between architects on the excuse that the project should have not been applied since the master plan of the city was uncompleted. In the end, the construction of the project was suspended. Neither the shops and the ornamental pool were built nor the proposed trees never planted in the square. There were also delays on the construction materials. Instead of the brick and mosaic pavements which were harmonious to the building material of surrounding built form, rough stone blocks were used for the ground of the square.

After 1980s, urban design competitions were organized for Beyazıt Square. In 2010s an underpass construction started even though it was on the contrary of the assize of the preservation board. Today, a new design project is being applied to Beyazıt by demolishing the stairs which are oriented to create distinct spatial forms in the square. It leads the flow

from Ordu Street to the center of the whole space. It expands the boundaries of the square having a plain void that blurs the relation between the movement and the buildings.

Conclusion

Morphological regions that are identified through the analyses signify that the region has many differentiated units that are separated by other homogeneous units. This constitutes a heterogonous pattern in the area. Each morphological region should be considered as a unique unit to design within itself and as a tool of a larger design project. This study demonstrates that design projects applied on Beyazıt Square are not taken based on morphological characteristics of the surrounding urban pattern.

The analyses and the discussion above mentioned illustrate the emphasis of morphological analyses in urban design practices. Urban morphology should be evaluated as an essential methodology in urban planning and design studies. Designers should comprehend all the units that compose the whole urban pattern. Fragments of the whole and the whole of the fragments can be meaningful as long as the socio-cultural aspects related to the land utilization are recognized. The Historical Peninsula requires to be read as whole. The organisms which transform throughout the history and revitalize the sense of belonging in the town have to be conserved before redesigning activities. Urban morphology becomes more of an issue in this kind of projects. On the other hand, designing requires both spatial and socio-cultural considerations. Thus the current design approaches should be skeptical with regard to morphological foundations. In the context of Beyazıt Square; we should ask whether it is a square of the city or a void of built environment.

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