

A RESEARCH ON THE RELATIONSHIP BETWEEN HIGH-RISE BUILDINGS AND
URBAN TEXTURE: BEŞİKTAŞ İSTANBUL AS A CASE



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ABSTRACT

A RESEARCH ON THE RELATIONSHIP BETWEEN HIGH-RISE BUILDINGS AND URBAN TEXTURE: BEŞİKTAŞ İSTANBUL AS A CASE

In the thesis, the relationship between high-rise buildings and urban texture has been examined in conceptual and technical aspects, and it has been intended to analyze the contextual relationship of the high-rise buildings and urban texture. The relationship of high-rise buildings and the urban texture at Beşiktaş district of İstanbul have been examined by the use of visual and numerical data collected as the result of a field research. The study consists of five sections under this scope. In the first section, general briefing regarding the subject and evaluations has been provided, and the purpose and scope of the thesis, and the method followed-up in the performance of the study have been explained. In the second section, the concept of high-rise building, and general information with respect to the brief history of high-rise buildings have been provided. In the third section, the concept of the historical city, the high-rise building development processes in urban texture, and the relationship of high-rise building and urban texture of the world at London England, Paris France, Moscow Russia and İstanbul Turkey have been examined. In the fourth section, the relationship of high-rise buildings and urban texture at Beşiktaş district of İstanbul has been examined by the photographs taken considering the height, ratio and silhouette. In order to evaluate the relationship between the high-rise buildings of Beşiktaş district in İstanbul and the urban texture, there is a survey study and its results in which the opinions of architects and architecture students are asked. The fifth section covering the evaluation and interpretation of the information has formed the conclusion part. As per the research, it has been concluded that the relationship between high-rise development and the urban texture is weak. Today, the increase of city population triggers the increase and development of high-rise buildings. When the high-rise buildings are built in the city unplanned, it affects the urban texture negatively. However, if high-rise buildings are planned at a good upper scale, it provides the development of the city.

ÖZET

YÜKSEK YAPILAR VE KENT DOKUSU ARASINDAKİ İLİŞKİNİN ARAŞTIRILMASI: ÇALIŞMA ALANI OLARAK BEŞİKTAŞ/ İSTANBUL

Bu çalışmada yüksek yapılar ve kent dokusu arasındaki ilişki, kavramsal ve teknik açıdan incelenerek, İstanbul Beşiktaş bölgesindeki yüksek yapıların kentsel doku ile nasıl bir bağlam içerisinde olduğunun analiz edilmesi amaçlanmaktadır. İstanbul Beşiktaş bölgesindeki yüksek yapılar ile kent doku ilişkisi, bir saha araştırması sonucunda toplanan görsel ve sayısal veriler kullanılarak incelenmiştir. Bu kapsamdaki çalışma, beş bölümden oluşmaktadır. Çalışmadaki ilk bölümde, konu ve değerlendirmelerle ilgili genel bilgilendirmelere yer verilerek, tezin amacı, tezin kapsamı ve çalışmanın yapılmasında izlenen yöntem açıklanmıştır. İkinci bölümde; yüksek yapı kavramı, yüksek yapıların kısa tarihçesi ile ilgili genel bilgi verilmiştir. Üçüncü bölümde; tarihi kent kavramı, tarihi kentlerde yüksek yapılaşma süreçleri, dünyadaki tarihi kentlerden İngiltere’den Londra, Fransa’dan Paris, Rusya’dan Moskova ve Türkiye’den İstanbul kentinin yüksek yapı ve kent dokusuyla olan ilişkisi incelenmiştir. Dördüncü bölümde, İstanbul’da Beşiktaş bölgesi yüksek yapılar ve kent dokusuyla ilişkisi, çekilen fotoğraflar üzerinden, bağlama göre yükseklik, orana göre yükseklik ve silüete göre irdelenmiştir. İstanbul’da Beşiktaş bölgesi yüksek yapılar ve kent dokusuyla ilişkisinin değerlendirilmesi için mimar ve mimarlık öğrencilerinin görüşlerinin sorulduğu anket çalışması ve sonuçları yer almaktadır. Bilgilerin değerlendirilmesini kapsayan beşinci bölüm ise sonuç kısmını oluşturmuştur. Araştırmaya göre, yüksek yapılaşma ile kent dokusu arasındaki ilişkinin zayıf olduğu çıkarımı yapılmıştır. Bugünün dünyasında nüfusun artması yapıların yükselmesini olağan kılmaktadır. Yüksek yapılar kente plansızca inşa edildiğine kent dokusunu olumsuz etkilemektedir. Fakat, yüksek yapılar iyi bir üst ölçekte planlanırsa kentin gelişimini sağlamaktadır.

OF CONTENTS

ACKNOWLEDGEMENTS.....	iii
ABSTRACT.....	v
ÖZET	vii
LIST OF FIGURES	x
LIST OF TABLES.....	xv
LIST OF SYMBOLS/ABBREVIATIONS.....	xviii
1. INTRODUCTION.....	1
1.1. AIM OF THE STUDY.....	2
1.2. SCOPE OF THE STUDY	3
1.3. METHOD OF THE STUDY	4
2. CONCEPT OF HIGH-RISE BUILDING	6
2.1. DEFINITIONS OF HIGH-RISE BUILDING CONCEPT.....	6
2.1.1. Symbolic Values of High-Rise Buildings.....	7
2.1.2. Physical Values of High-Rise Buildings	12
2.2. BRIEF HISTORY OF HIGH-RISE BUILDINGS	17
2.2.1. High-Rise Buildings in the Antiquity	18
2.2.2. High-Rise Buildings During the Middle Ages and the Renaissance	21
2.2.3. High-Rise Buildings During the Industrial Revolution	24
2.2.4. High-Rise Buildings of 20 th Century	28
2.2.5. High-Rise Buildings of 21 st Century	38
2.3. CONCLUSION OF SECTION	39
3. THE RELATIONSHIP BETWEEN HIGH-RISE BUILDING DEVELOPMENT AND HISTORICAL CITY.....	48
3.1. CONCEPT OF HISTORICAL CITIES.....	50
3.2. THE HIGH-RISE BUILDING DEVELOPMENT AT HISTORICAL CITIES	52
3.3. EXAMPLES OF HIGH-RISE BUILDING DEVELOPMENT AT HISTORICAL CITIES.....	54

3.3.1. Example of England - London.....	56
3.3.2. Example of France - Paris La Défense	60
3.3.3. Example of Russia - Moscow	65
3.4. EXAMPLES OF HIGH-RISE BUILDING DEVELOPMENT FROM TURKEY- İSTANBUL	71
3.5. CONCLUSION OF SECTION	79
4. A RESEARCH ON RELATIONSHIP BETWEEN HIGH-RISE BUILDING DEVELOPMENT AND URBAN TEXTURE: BEŞİKTAŞ İSTANBUL AS A CASE STUDY	81
4.1. BEŞİKTAŞ DISTRICT AS A CASE STUDY	90
4.1.1. A Brief History of Beşiktaş District	92
4.1.2. High-Rise Buildings at Beşiktaş District as a Case Study	98
4.1.3. Historical Buildings at Beşiktaş District as a Case Study	100
4.2. EXAMINATION OF THE CONTEXT OF HIGH-RISE BUILDING AND URBAN TEXTURE AT BEŞİKTAŞ DISTRICT	102
4.2.1. Tension According to Context.....	103
4.2.2. Tension According to Ratio	108
4.2.3. Tension in Terms of Silhouette.....	111
4.3. CASE STUDY	115
4.3.1. The Aims and Scope of the Case Study.....	115
4.3.2. Methodology of the Case Study.....	116
4.3.3. Participants of the Case Study	116
4.3.4. The Assumptions and Constraints of the Survey.....	120
4.3.5. The Hypothesis of the Case Study	120
4.3.6. Results of the Case Study	121
4.3.6.1. The Reliability of the Case Study	121
4.3.6.2. The Findings Regarding Descriptive Statistical Information.....	122
4.3.6.3. Mann-Whitney-U Test Results Regarding Group Difference.....	130
4.3.7. Evaluation of Survey Data.....	139
4.4. CONCLUSION OF SECTION	144
5. CONCLUSION.....	147
REFERENCES	151

APPENDIX A.....	170
APPENDIX B.....	179
APPENDIX C.....	189



LIST OF FIGURES

Figure 2.1. Victoria Tower [8].....	8
Figure 2.2. Big Ben [9]	8
Figure 2.3. Le Due Torri, 1946 [15]	9
Figure 2.4. Azzoguidi Tower [15]	10
Figure 2.5. Washington Monument [20]	11
Figure 2.6. Radiant City design by Le Corbusier [24].....	12
Figure 2.7. Contextual height [28].....	13
Figure 2.8. High-rise, Super high-rise and Mega high-rise buildings [29]	14
Figure 2.9. Building ratios [28]	15
Figure 2.10. High-rise building technologies [28].....	15
Figure 2.11. Painting of Babylon Tower by Painter PieterBrueghel, 1563 [49]	19
Figure 2.12. The Pharos of Alexandria drawn by German Archeologist Prof. H. Thiersch Presumably in 1909 [50].....	19
Figure 2.13. Giza Pyramids [52].....	20
Figure 2.14. Ruins of Insula at Italy Rome [54]	20
Figure 2.15. Asinelli Tower, 2016 [61]	22
Figure 2.16. Shibam City [65]	23
Figure 2.17. Oriel Chambers Building at Liverpool [73]	24
Figure 2.18. Home Insurance Building [78]	25

Figure 2.19. Eiffel Tower [79].....	26
Figure 2.20. Wainwright Building, 1986 [82]	27
Figure 2.21. Monadnock Building [82]	27
Figure 2.22. Witte Haus Building [85]	28
Figure 2.23. Royal Liver Building [86]	28
Figure 2.24. Edificio Telefonica Building [88]	29
Figure 2.25. Boerentoren Building [89].....	29
Figure 2.26. Torre Piacentini Building [90]	30
Figure 2.27. American Surety Building [91]	30
Figure 2.28. The Flatiron Building [92]	31
Figure 2.29. Woolworth Building [93]	31
Figure 2.30. Tatlin Tower [95]	32
Figure 2.31. Size comparison for Tatlin Tower [97]	32
Figure 2.32. Chrysler Building [98].....	33
Figure 2.33. Empire State Building [99].....	34
Figure 2.34. Stalin's Seven Sisters [101].....	35
Figure 2.35. Seagram Building [103]	35
Figure 2.36. Sears Tower [106]	36
Figure 2.37. World Trade Center Building [107]	37
Figure 2.38. Petronas Tower [108]	37
Figure 2.39. Taipei 101 [109]	38

Figure 2.40. Burj Khalifa [111]	39
Figure 3.1. City plan of Babylon [114].....	48
Figure 3.2. City of London [135].....	56
Figure 3.3. Development plan of London 2002 - Zoning of high-rise buildings [136]	57
Figure 3.4. High-Rise development area in London [139]	59
Figure 3.5. Eiffel Tower and Montparnasse Tower [141]	60
Figure 3.6. Map of Paris [142].....	61
Figure 3.7. Plan of La Défense district [131].....	61
Figure 3.8. 3D model of La Défense district [143]	62
Figure 3.9. 3D model of La Défense district [143]	62
Figure 3.10. View of La Défense district [131]	63
Figure 3.11. Map of Paris [112].....	64
Figure 3.12. Paris Eiffel Tower and La Défense district [147].....	64
Figure 3.13. City of Moscow's plan scheme [112].....	65
Figure 3.14. Stalin's Seven Sisters [151].....	66
Figure 3.15. City of Moscow [153].....	66
Figure 3.16. Moscow City Project [112]	69
Figure 3.17. Moscow City Project [156]	70
Figure 3.18. Map of in 1422 [160].....	71
Figure 3.19. İstanbul Hilton Hotel [164]	72
Figure 3.20. İstanbul in 1980 [167]	74

Figure 3.21. Etap Hotel [169]	74
Figure 3.22. Odakule Building [170].....	75
Figure 3.23. İstanbul 4 th Levent district [175]	76
Figure 3.24. High-rise building development in İstanbul [112]	77
Figure 4.1. Locations of high-rise buildings in İstanbul [112]	82
Figure 4.2. Locations of historical buildings in İstanbul [112].....	85
Figure 4.3. Districts of urban texture of İstanbul from the book of Ottoman's İstanbul by Doğan Kuban [179]	86
Figure 4.4. Historical and high-rise buildings in İstanbul [112].....	89
Figure 4.5. Historical and high-rise buildings in İstanbul [112].....	90
Figure 4.6. Panoramic photograph from Çamlıca Tower available on the website of İstanbul Metropolitan Municipality, 2020 [181]	91
Figure 4.7. Aerial photograph of Beşiktaş district [182]	91
Figure 4.8. Levent district plan and photograph, which was started to be built in 1947 [186]	93
Figure 4.9. Levent district in the 1/5000 scale-zoning plan dated 17/02/1954 [184]	94
Figure 4.10. İstanbul Highways Zincirlikuyu Facilities [188].....	95
Figure 4.11. The timeline of the Beşiktaş district [191]	97
Figure 4.12. High-rise buildings at Beşiktaş district as a case study [112]	99
Figure 4.13. Historical buildings at Beşiktaş district as a case study [112]	101
Figure 4.14. View of high-rise and historical buildings at Beşiktaş district as a case study [112].....	103
Figure 4.15. Sapphire Tower [112].....	104

Figure 4.16. Height of Sapphire Tower [112]	104
Figure 4.17. Scenery of İstanbul from the observation deck of Sapphire Tower [112]	105
Figure 4.18. Scenery of İstanbul from the observation deck of Sapphire Tower [112]	105
Figure 4.19. High-rise building of Süzer Plaza, and historical structure of Dolmabahçe Clock Tower [112]	106
Figure 4.20. High-rise building of Süzer Plaza, and religious - historical structure of Dolmabahçe Mosque [112]	106
Figure 4.21. High-rise building of Süzer Plaza, and religious - historical structure of Dolmabahçe Mosque [112]	107
Figure 4.22. Scenery of İstanbul from the observation deck of Sapphire Tower [112]	108
Figure 4.23. Ratios of high-rise buildings [112]	109
Figure 4.24. Dolmabahçe Palace and its immediate vicinity [112]	110
Figure 4.25. Beşiktaş Palace [195]	111
Figure 4.26. Dolmabahçe Palace and its immediate vicinity in 1900s, G. Breggren [197]	112
Figure 4.27. Silhouette of Dolmabahçe Palace in 1900s [198]	112
Figure 4.28. Dolmabahçe Palace and the buildings behind it [192]	113
Figure 4.29. Silhouette of İstanbul from today's Üsküdar Coast [112]	113
Figure 4.30. High-rise buildings at European side of İstanbul [160]	114
Figure 4.31. Dolmabahçe Palace in (a) 1900s [198]. (b) today [112]	114
Figure 4.32. Power analysis results [191]	117

LIST OF TABLES

Table 2.1. The table of construction technology of high-rise buildings described in the brief history of high-rise building [112].....	40
Table 3.1. Factors in the formation of the city [120].....	50
Table 3.2. The table of construction technology of Stalin's Seven Sisters at the City of Moscow [154].....	67
Table 3.3. Evaluation table of cities of England-London, France-Paris La Défense district, Russia-Moscow, and Turkey-İstanbul [112].....	80
Table 4.1. High-rise buildings in İstanbul, and tallness and years of construction of high-rise buildings [112]	82
Table 4.2. Historical buildings of districts of urban texture of İstanbul from the book of Ottoman's İstanbul by Doğan Kuban [179].....	87
Table 4.3. Population of Beşiktaş district in certain years [183]	92
Table 4.4. List of high-rise buildings at Beşiktaş district as a case study [99]	100
Table 4.5. List of historical buildings at Beşiktaş district as a case study [112].....	101
Table 4.6. Frequency and percentage values of the participants regarding the gender [191]	118
Table 4.7. Frequency and percentage values of the participants regarding the age variable [191].....	118
Table 4.8. Frequency and percentage values of the participants regarding the education level variable [191]	119
Table 4.9. Frequency and percentage values of participants regarding the professional variable [191].....	119

Table 4.10. Frequency and percentage values of the participants' duration of residence period in İstanbul variable [191].....	119
Table 4.11. Survey hypotheses [191].....	120
Table 4.12. Reliability test results of the survey [191].....	122
Table 4.13. Frequency and percentage distributions regarding the questions regarding the structuring in İstanbul and Beşiktaş [191]	122
Table 4.14. Percentage distribution for questions related to the construction in Beşiktaş district [191].....	127
Table 4.15. Group difference test for in term of profession questions [191]	130
Table 4.16. Group difference test for in term of profession questions [191]	135
Table 4.17. Evaluation table of the section of “A Research on the Relationship between High-Rise Building and Historical Cities: Beşiktaş İstanbul as a Case Study” [191].....	145
Table C.1. Group difference test for in term of gender questions [191].....	188
Table C.2. Group difference test for in term of gender questions [191].....	193

LIST OF SYMBOLS/ABBREVIATIONS

CBD	Central Business District
CTBUH	Council on Tall Buildings and Urban Habitat
EPAD	Etablissement Public d'Amenagement de La Défense
GLC	Greater London Council
IBB	İstanbul Metropolitan Municipality
LEED	Leadership in Energy & Environmental Design
MKAD	The Moscow Automobile Ring Road
MNC	Multinational Corporations
TOKI	Housing Development Administration
UN	United Nations
UN – SUDR	United Nations Sustainable Urban Development Report
USA	United States of America
USSR	Union of Soviet Socialist Republics

1. INTRODUCTION

Since the past, humanity has had a desire to rise to the sky. High-rise buildings are one of the methods by which the people are able to reflect their desire and intention in subject. The physical and symbolic values of high-rise buildings, those have different conceptual definitions, have evolved compared to past. This change has been actualized by the expansion of human's horizon. Historical break points are linked with the changes in subject. The initial fact affecting the symbolic values and intentions of the people had been their beliefs. The high-rise buildings that the humankind had built prior to Renaissance have religious purposes and symbolic values. Along with the Renaissance, the humankind had directed to science and reason, and after that historical break point, the purposes and symbolic values of the buildings had also changed. The technological developments accelerated after Renaissance period. By the industrial revolution that is a consequence of that process, and accordingly by the development of building technologies, the change of physical and symbolic values of high-rise buildings had continued.

Industrial revolution had extended to North Europe and America as England and France being in the first place, and then it had extended to East along with globalization. After 1950s, along with the industrialization process as well as globalization, the preference of living at urban areas –that are providing economical and social possibilities- instead of rural areas due to rapidly increasing population had given rise to the problem of fast and unplanned urbanization. High-rise buildings that had been built along with the demands of increasing population and unplanned urbanization had started to affect the urban texture.

A dilemma arises between the high-rise building development at cities developing in economic and social aspect, and the urban texture that is required to be preserved. Within this scope, measures, for the sake of sustainable development of cities in the world, and accordingly for the sake of preservation of urban texture, are showing their effect in recent years in urban planning approaches.

High-rise building developments have different strategies in the cities. For this, approaches regarding example of high-rise building development at cities such as London of England, Paris La Defense district of France, Moscow of Russia were included in the thesis. Also, the relation between the high-rise building and the urban texture of İstanbul city of Turkey

was discussed. Moreover, as a case study the relationship between high-rise buildings and urban texture at Beşiktaş district of İstanbul was examined. During the examination of the relationship between high-rise buildings and urban texture at Beşiktaş district, it was based on the criteria of height, ratio, and silhouette of the city. In the study case, a hypothesis has tested. This hypothesis is “There is a significant difference in the evaluation of the tension between the high-rise buildings in the Beşiktaş district and the urban texture in terms of the groups of architects and architecture students.” In order to evaluate the relationship between the high-rise buildings of Beşiktaş district in İstanbul and the urban texture, there is a survey study and its results in which the opinions of architects and architecture students are asked. According to the results, the relationship between high-rise buildings and urban texture in the chosen cities were examined, and according to the results of the case study and interpretation, some suggestions for the urban planners, architect and designers are developed.

1.1. AIM OF THE STUDY

The development of the cities has accelerated by the development of technology following the industrial revolution, and as the result of globalization process. In the same period, migration from villages to cities has occurred, and unplanned population increase has been observed at the cities. By the unplanned increase of the population, the settlement areas have been insufficient in the cities. This situation has been effective in the development of the city.

The growth of the urban texture has caused the decrease of construction areas at the cities, and the increase of land prices. As the result of technological developments, high-rise building development has started in the cities as the symbol of income and power. In some countries, high-rise building plans have been made taking into account the urban texture. Unplanned high-rise buildings have been adversely affected the urban texture.

The aim of this study is to examine the tension between high-rise buildings and urban texture according to three basic approaches. This research focus on the tension between the high-rise buildings in the Beşiktaş district of İstanbul and the urban texture; in terms of height according to context, height according to ratio, and silhouette of city. Another aim is

to make urban design suggestions to city planners regarding the city of İstanbul considering the city design examples of the world countries.

1.2. SCOPE OF THE STUDY

In the first section of the study, general briefing regarding the subject and evaluations has been provided, and the purpose and scope of the thesis, and the method followed- up in the performance of the study have been explained.

In the second section, definitions have been provided within the scope of high-rise building concept, symbolic values and physical criteria, and general information with respect to the brief history of high-rise buildings has been provided. At the end of the section, the brief history of high-rise buildings has been tabulated.

In the third section, the concept of historical cities, high-rise building development processes at urban texture, and high-rise building development strategies of the cities exemplified as per the countries have been explained, and the relationship of high-rise buildings and urban texture has been examined. At the end of the section, the examples provided have been tabulated, and an evaluation has been made.

In fourth section, Beşiktaş district of İstanbul has been examined in the context of high-rise building development and urban texture. During examination, the historical buildings and high-rise buildings at Beşiktaş district have been determined, and an analysis has been made in terms of both layout plan at urban scale and silhouettes of buildings. By the photographs taken at the case study, the relationship between high-rise buildings and urban texture has been interpreted as per height according to context, height according to ratio, and silhouette.

The fifth section, calculation has formed the conclusion part. In that section, the knowledge has been evaluated and interpreted. Suggestions have been made for the urban design of İstanbul considering the high-rise building strategies of the city examples chosen as the relationship between high-rise buildings and the urban texture.

1.3. METHOD OF THE STUDY

In order to attain the aforementioned purposes, the following stages were followed-up in the study by the use of information collection, case study, analysis and synthesis methods.

1st Phase (Search of studies on the subject): Books and articles on the subject, those had been published in Turkey and abroad, were reviewed. In the first, second and third sections of the thesis, the theses and studies on the subject headings were examined. From these studies, the information that will form input especially for architectural design was obtained. Literature review was made again for these sections, examples were examined, and internet was used.

2nd Phase: Following the searches performed, the relationship between the concept of high-rise buildings and urban texture—being the subject of the thesis— was examined, and interactions of high-rise building and city were evaluated by the use of analysis method. Within the scope of the thesis, observations regarding high-rise building development examples at cities such as London of England, Paris La Defense district of France, Moscow of Russia and İstanbul City of Turkey were included in the thesis.

3rd Phase: In the fourth section where Beşiktaş district of İstanbul was included in the context of relationship between high-rise building development and urban texture, fieldwork was performed, and analysis was carried out. In the analysis performed, Beşiktaş district of İstanbul was observed and photographed as the case study. The current status of high-rise building development was interpreted considering the height according to context, height according to ratio, and silhouette of high-rise buildings at the referred district. In order to evaluate the relationship between the high-rise buildings of Beşiktaş district in İstanbul and the urban texture, there is a survey study and its results in which the opinions of architects and architecture students are asked. In the study case, a hypothesis has tested. This hypothesis is “There is a significant difference in the evaluation of the tension between the high-rise buildings in the Beşiktaş district and the urban texture in terms of the groups of architects and architecture students.” The interpretation is done according to the data results of this hypothesis.

4th Phase: In the conclusion section, the findings obtained in the context of urban texture that were examined and exemplified as per high-rise building strategies within the scope of

the study were compared with the Beşiktaş district of İstanbul, and the differences were emphasized. Suggestions were made for the city planning of İstanbul.



2. CONCEPT OF HIGH-RISE BUILDING

The concept of high-rise building had emerged in developed countries, and has become an important concept as progressing in time. As from the rise of buildings until today, many definitions of high-rise buildings have been made under various criteria as per their period, country and environment. The concept of high-rise building varies as per time and space. As height is a relative concept, it is hard to define the high-rise buildings or skyscrapers in terms of dimension. The definition of high-rise building is generally able to be made as a great structural organism where the parts of high-rise buildings interconnect with systems ensuring the vertical connection [1]. But the definition of high-rise building should be examined in more detail considering the changing history and the meanings it bears without being limited with the general definition.

2.1. DEFINITIONS OF HIGH-RISE BUILDING CONCEPT

The definitions of high-rise building have changed along with the changing history. The high-rise building development has different definitions in the dictionary and in different sources [2].

In 1933, the high-rise building development type, whose initial examples had been observed in USA [3], and which is the characteristic development type of modern American cities, had been defined as “multi-storey buildings” in Oxford Dictionary. In 1962, in order to find a way out for different definitions in the dictionaries, all dictionaries had reached a consensus, and had decided on its current meaning. Thus, the concept of high-rise building, used for the buildings in American cities, had started to be used in the whole world. Along with the development of technology, the height of the buildings has increased at the city centers of developed countries. Thus, the concept of high-rise building has given place to the concept of “skyscraper”. And it is being considered that the skyscrapers are dominant on the cities by their physical dimensions, and that they provide symbolic value to the cities [4].

The concept of “high-rise building”, and its meanings should be examined along with meanings attached to height along the history. The definitions of high-rise buildings can be described by the symbolic value and physical value that the high-rise buildings have.

2.1.1. Symbolic Values of High-Rise Buildings

In order to explain the meaning of symbolic values of high-rise buildings, it is required to retrace the high-rise buildings. The origin of high-rise buildings dates back to the Tower of Babel referred in 11th paragraph of the “Genesis” named first section of Torah. Tower of Babel is also being referred in the famous Histories of Herodotus. Tower of Babel is one of the most significant structures of antique world in terms of mysteriousness, figurativeness and ascribed meanings [5].

Since the antique age, reaching to heights by lodging buildings, or by buildings serving production and trade is a matter of concern. Generally, the concept of holiness is being ascribed to high-rise buildings. When we consider the religious beliefs, the usage of height of mosque minarets in Islam, and at belfry in Christianity is based on the requirement of announcing the religious calls to far distances. In Europe, the construction of clock towers higher than the belfries reveals the power and authority loss of church [6].

By the end of middle age, the cities had competed for having the highest cathedral. For instance, the belfry at St. Mark’s Square of Venice is a product of contest, and it had played great role in the design of first skyscrapers constructed in America. In 1800s, it was possible to see at least one high-rise building in European cities. For instance, as in the “Victoria Tower” (Figure 2.1) and “Big Ben” (Figure 2.2) of London, having a high-rise building was the symbol of prestige and superiority for a city [7]. In the light of the examples provided, it has been concluded that high-rise buildings form the perception of “prestige” and “superiority”.



Figure 2.1. Victoria Tower [8].



Figure 2.2. Big Ben [9].

The religious concepts such as “supremacy, holiness” ascribed to height in the former times have today transformed to social and economic symbols. The high-rise buildings have pioneered the development of cities, increase of land values in the cities, gathering of capital at such areas, progress of industrialization, and social developments, and they had been the symbol of taking the nature under control, of technological developments, and of power and rationality (quality based on intelligence) [10].

The concept of high building has had political, social, cultural and religious meanings in any city throughout history. And today, the high-rise buildings are being deemed as the symbol of financial and economic power [11].

When the initial positioning of high-rise buildings at the initial cities is considered, it is observed that they had been constructed at high points of the cities by the purpose of ensuring defense, and maintaining security. High-rise buildings dominating the silhouette of the city had been constructed by the religious based managements in order to show the power of religion [12]. The gothic churches built had been deemed as the power symbols of Christianity [13]. And in the world of Islam, high-rise building development tendency had been observed in mosques and minarets [14].

By the change of management from church to public, the high-rise buildings had represented the power of public [12]. In 13th and 14th centuries, the towers constructed at Bologna, Siena, Toscana and San Gimignano settlements of Italy had represented the power of different families of the period [2]. For instance, twin towers of Le Due Torri of Bologna dating back to middle age -shown in Figure 2.3, and Azzoguidi Tower –shown in Figure 2.4 are the power symbols of families in Bologna.

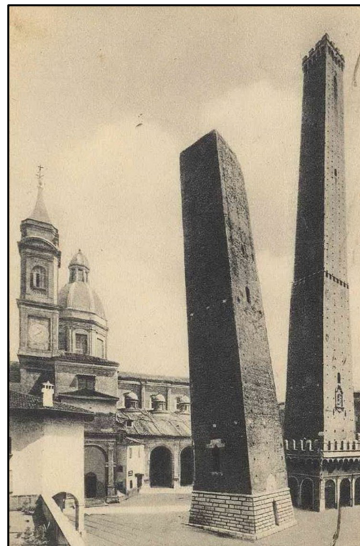


Figure 2.3. Le Due Torri, 1946 [15].



Figure 2.4. Azzoguidi Tower [15].

The factories and factory chimneys constructed along with industrialization and industry revolution had been the symbols of industry [16]. The building technology that had developed in that period, the concept of income in the cities and the desire to form symbolic buildings had caused the buildings to be higher [14]. Along with the industrialization of the cities, high-rise buildings had been deemed as the symbols of technology and development.

In the 1840s, designed by Robert Mills and completed by Thomas Casey and the U.S. Army Corps of Engineers, Washington Monument (169.35m) (Figure 2.5.) was built in memory of George Washington in Washington, DC, USA (in the center of the country's capital). The Washington Monument, which built in the shape of an Egyptian obelisk that evokes the timelessness of ancient civilizations, embodies the admiration, respect and gratitude felt to the nation's founding father [17]. In 1854, an Ottoman inscription was placed on the monument as a symbol of the friendship between the USA and the Ottoman states [18]. The height of the buildings in Washington is limited by the Law on Height of Buildings. Thus, the Washington Monument remained the tallest building in the city and its icon was preserved [19].



Figure 2.5. Washington Monument [20].

In the second half of 19th century, the high-rise building development type called as “skyscraper” had begun to be observed in New York [21]. After 1888, the design criteria of historical towers had been applied in the design of high-rise buildings [22]. The high-rise buildings, which had initially indicated the power of religion and then of rich families, had become the symbols of cities, corporations and metropolitans following 19th century. Accordingly, historical towers had played a significant role in the formation of skyscrapers.

Along with the development of cities, and along with the effect of economic policies, consideration of city lands as income sources had increased the value of urban areas. This circumstance had started to be observed by the beginning of 20th century. In the first quarter of 20th century, Louis Henry Sullivan, who had constructed many skyscrapers had said as follows for the high-rise buildings: “The building has to be high, and it should have the power and energy, and supremacy and haughtiness of abundance [10].”

In city designs that include utopian elements, high-rise buildings have an effective place, and they have been deemed as the final point of technology. In the city buildings of the future, the notion of exhibiting all the possibilities of future’s technology has become dominant. In a part of the utopian city designs of 20th century, the notion that all the main requirements of the cities, that gradually become crowded and whose functions increase,

including open green areas, can be met only with very high-rise buildings had become dominant. Utopian city designs of 20th century in which this notion was dominant, may be exemplified by “Radiant City” by Le Corbusier shown in the Figure 2.6, and by “Plan Voisin” that he had designed for Paris, and by “La Citta Nuova” by Sant’Elia’s [23].



Figure 2.6. Radiant City design by Le Corbusier [24].

The height of the buildings always tends to increase due to effects such as technological developments, urban competition and symbolism. The high-rise buildings also have physical meanings as well as political, social, cultural and religious symbolic meanings that change along the history at any city.

2.1.2. Physical Values of High-Rise Buildings

Physical values of high-rise buildings are being evaluated as per the physical structure features of the city. The physical characteristics that define the high-rise buildings had been determined as per the physical structure characteristics of the city such as height ratios considering the city’s building height, number of storeys, aspect ratio and width of the streets [25]. Physical values of the high-rise buildings should be examined as per the environmental context of the city where they are located [26].

Physical values of high-rise buildings have been addressed by Council on Tall Buildings and Urban Habitat (CTBUH), and the building have been classified in 3 types as per their

physical qualifications. These classification types had been formed according to high-rise buildings as per the context of environment, ratio and high-rise building technologies [27].

Height as per context: The high-rise buildings are being defined as per the height of other buildings in the vicinity as well as their own height (Figure 2.7). For instance, while a building of 15 storeys is not being defined as high at high-rise building cities such as New York or Hong Kong, it is called as high-rise building at Bursa or at cities with buildings having less storeys [27].



Figure 2.7. Contextual height [28].

The values assigned to the height of the buildings have differed as from former times until today. For instance, while the buildings higher than the minarets of mosques were not being allowed at Islamic cities, in China the construction of buildings higher than two storeys was not being allowed for the passage of emperor to be seen by everyone [7].

As per the heights of CTBUH, as also shown in the Figure 2.8, the buildings with a tallness of 300 m (984 feet) and more have been called as Supertall buildings, and the buildings with a tallness of 600 m (1.968 feet) and more have been called as Megatall buildings [27].

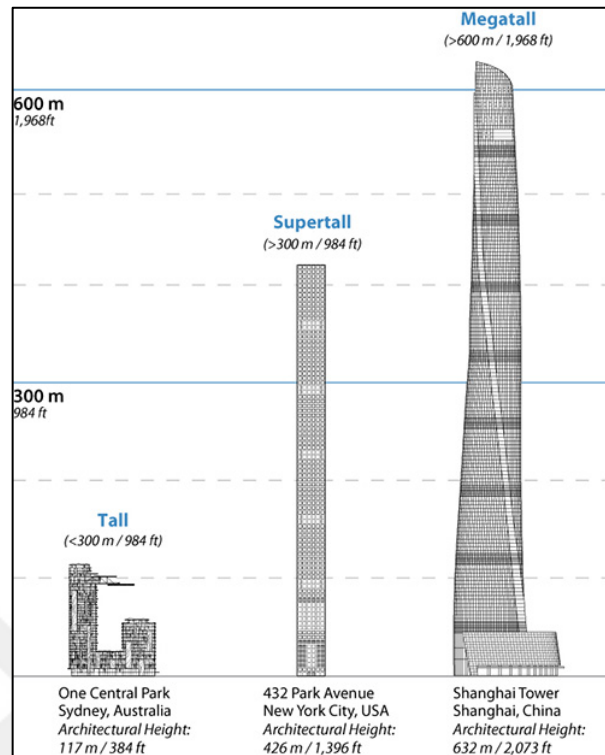


Figure 2.8. High-rise, Super high-rise and Mega high-rise buildings [29].

The high-rise building is being determined not by the number of stories or height, but as per the requirement of measures taken due to the height of the building [30].

Height as per ratio depends on the ratio between the acreage where the building settles and the height of the building as well as the tallness of the building.

As also shown in the Figure 2.9, considering in terms of the city's silhouette, while some buildings are not high compared to the buildings in its vicinity, they may be named as high-rise buildings at cities with low-rise buildings due to their characteristic of being slim. But if the building coverage where the building settles is very wide despite it is very high in terms of tallness, the building is not being named as high-rise building [27].

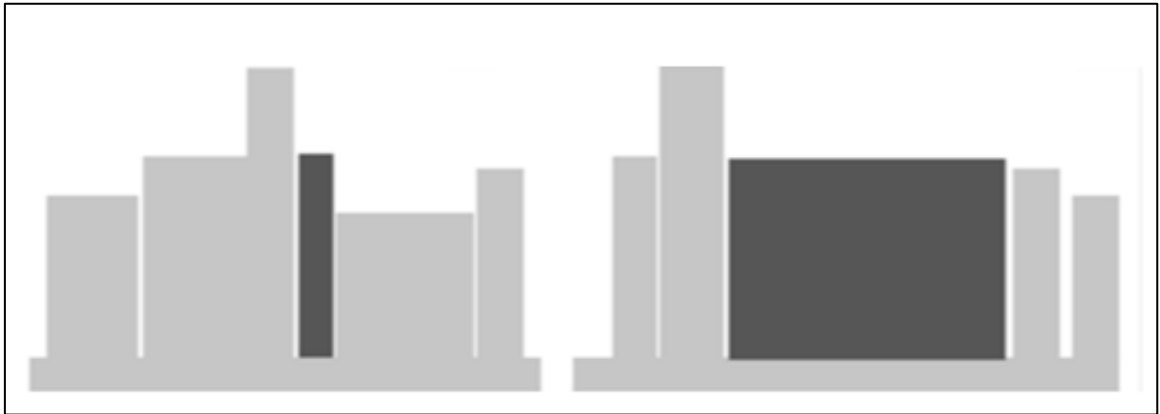


Figure 2.9. Building ratios [28].

Height as per building technologies: A building is able to be named as high-rise building if it has building technologies that are present in high-rise buildings such as vertical bearing technologies as in the Figure 2.10, and structural bearing system structure against horizontal and dynamic loads [27].

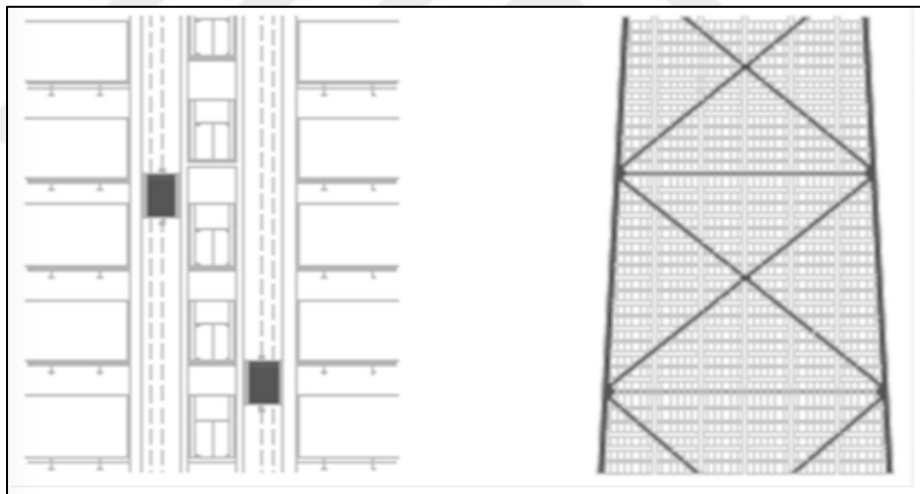


Figure 2.10. High-rise building technologies [28].

In the high-rise building definitions made, different physical criteria have been considered. Thus, the physical definitions of high-rise building vary.

- According to Charles Jencks, the skyscraper is defined as multi-storey buildings where steel frames are used in its construction, and which has elevators operating at high speed [13].
- According to Thesaurus, skyscraper is defined as multi-storey and very high building [31].

- According to Emporis, the buildings having a height more than 35 m are high-rise buildings. And the buildings with a height more than 100 m are super-high buildings [32].
- According to an approach of Ford, the buildings taller than 400 foot (122 meters) are qualified as skyscrapers [7].
- The term of skyscraper is being used for buildings higher than 25 storeys [33].
- In regulations relevant to building rules being valid in Federal Republic of Germany, the buildings that are higher than 22 meters from the ground, and in which special security measures have been taken [34], and which are allocated for the permanent residence of the people are being deemed as high-rise buildings [35].
- According to Yeşil, high-rise buildings are ones that exceed the limit of 25 storeys, that are mostly being produced as business centers, that require advanced technology applications due to their vertical development, and that create prestige image by their visual effect [36].
- According to Emregül, they are slim buildings with small building coverage, and with a height more than the coverage size, and which are generally in tower form [37].
- According to Ali and Amstrang, high-rise building is a building that is higher than the normal building heights that consists of spaces being present in a building, in which high speed elevators are used, that has chassis system, and that also shows the city's physical, economic and technological power [38].
- According to Beedle, high-rise buildings are ones with 5 storeys or more that exceed the height of buildings at a specific district of the city, and that are subject to use of elevator as per building rules [39].
- According to Yılmaz, when they are evaluated in terms of structural engineering, they are ones whose top floor's slab is at a height of 22 m or more from the ground level [40].
- They are buildings with 10 storeys or more, and that take special measures against fire as per fire regulation [41].
- According to Özgen and Sev, it is a tube in which the slabs are designed one on another in vertical direction, and in which partly gaps are opened on its facade in order to form living spaces in the interior [42].

- In the definitions of high-rise buildings, each country has different height standards. For instance, high-rise buildings are being defined as buildings that exceed 22 m in Germany, that exceed 12 storeys in America, and that exceed 10 storeys in Turkey. In the field of architecture and city planning, generally the buildings of more than 10-15 storeys are generally included in the class of high-rise buildings [1].

While making the definitions of high-rise building definitions, physical criteria have been considered. And the common definition that can be deduced from these various definitions is as follows:

High-rise buildings are ones with more than one storey in physical aspect, that are higher than the other buildings in the silhouette of the city where they are located, that are slim considering the relationship between the land where the building settles and the height of the building, and in which advanced building technologies and structural solutions ensuring environmental and social compliance are used.

In addition to the symbolic and physical meanings and definitions of high-rise buildings, it is required to also examine the brief history of high-rise buildings as it forms the main structure of this thesis.

2.2. BRIEF HISTORY OF HIGH-RISE BUILDINGS

The history of high-rise buildings dates back to antique ages as referred in Torah. The height of buildings is gradually increasing as from antique ages until today due to development of construction technology, and the use of building materials -such as steel or reinforced concrete- in load-bearing systems. History of high-rise buildings has been chronologically classified as follows;

- High-Rise Buildings in the Antiquity,
- High-Rise Buildings During the Middle Ages and the Renaissance,
- High-Rise Buildings During the Industrial Revolution,
- High-Rise Buildings of 20th Century,
- High-Rise Buildings of 21st Century

2.2.1. High-Rise Buildings in the Antiquity

Antique age is the period extending from the beginning of the history of humanity until the downfall of Roman Empire [43]. High-rise buildings are very rare in antique age due to technical problems. The high-rise buildings of antique age period are mostly observed as “TOWER” type buildings in specific forms at various civilizations in East and West. It is required to mention the temples built before the towers.

Temples are the cornerstones of cities in the Ancient Near East. They are attributed by human beings only to the believed God and have mighty architectural structures. These temples were called “Ziggurat” with the Sumerian name in Mesopotamia the most famous of these ziggurats is the “Babylonian Ziggurat” [44], known as the “Tower of Babel” [45]. The Tower of Babel is also described in the famous Herodotus History. The story, the fame of the Tower of Babel, was told in the 11th Bab of the first book of the Moses, called “Genesis”.

And the whole earth was of one language, and of one speech. And it came to pass, as they journeyed from the east, that they found a plain in the land of Shinar; and they dwelt there. And they said one to another, go to, let us make brick, and burn them throughly. And they had brick for stone, and slime had they for mortar. And they said, Go to, let us build us a city and a tower, whose top may reach unto heaven; and let us make us a name, lest we be scattered abroad upon the face of the whole earth. And the Lord came down to see the city and the tower, which the children of men builded. And the Lord said, Behold, the people is one, and they have all one language; and this they begin to do: and now nothing will be restrained from them, which they have imagined to do. Go to, let us go down, and there confound their language, that they may not understand one another's speech. So the Lord scattered them abroad from thence upon the face of all the earth: and they left off to build the city. Therefore is the name of it called Babel; because the Lord did there confound the language of all the earth: and from thence did the Lord scatter them abroad upon the face of all the earth [44].

The Tower of Babylon, referred to in the Torah as such, is one of the most prominent buildings in the ancient world, in terms of mystery, symbolism and attributed meanings. Tower of Babylon (90 meters) had been constructed in B.C. 600 (Figure 2.11). These temples are also called “Step Pyramid”. These temples are found in Egypt, Polynesia and Mexico [46]. The first ziggurats of the Sumerians were made by applying layers of tar between hand-kneaded mud bricks. Ziggurats are sites that rise up to 10m from the ground

level and are close to 1000m [47]. Ziggurats were built by the Mesopotamian societies as seven floors. One color is used in each layer of Mesopotamian Ziggurats. These colors are associated with the seven sky gods according to the belief in Mesopotamia [48].



Figure 2.11. Painting of Babylon Tower by Painter Pieter Brueghel, 1563 [49].



Figure 2.12. The Pharos of Alexandria drawn by German Archeologist Prof. H. Thiersch presumably in 1909 [50].

Pharos of Alexandria with a height of 140, which had been constructed in B.C. 283 (Figure 2.12), and Giza Pyramids with a height of 146 m, which had been constructed in B.C. 26 (Figure 2.13) are the initial high-rise buildings of antique age [51].



Figure 2.13. Giza Pyramids [52].

In classic antique period, Antique Roman people had maintained their lives in insulas (high apartment buildings) reaching 10 storeys [53] (Figure 2.14).



Figure 2.14. Ruins of Insula at Italy Rome [54].

In B.C. 30-14, as beginning by the Emperor Augustus, trials of constructing 20-25 storeys buildings had been actualized, but they had partially succeeded [55]. Ground floor of the high-rise buildings constructed had been used for commercial functions and had been rented out to high-class rich families. And the top floors had been rented out to lower classes [53]. And in the Oxyrhynchus manuscripts that reach until today, it is being referred that there were 7 storeys buildings at the Hermopolis city of Roman Egypt [56].

In 10th century, there had been multi-storey buildings in Egypt of Middle Age and at the city of Fustat. Al-Mukaddersi had deemed those multi-storey buildings as similar to minarets. In 11th century, Nasir Kuşrov had depicted some of these buildings as consisting of 14 storeys, as having gardens on the top floor, and as the irrigation of the gardens was being actualized by waterwheels hauled by oxen [57].

The antique age period had ended by the Christianization of Roman Empire, by its split, by the invasion of its Western part by the Germans, and by the Hellenization of its Eastern part, and then it was reached to the period of Middle Age [43].

2.2.2. High-Rise Buildings During the Middle Ages and the Renaissance

Middle age period had begun by the downfall of final Western Roman Empire in European history (476), and for some by the conquest of İstanbul by Turks (1453), and for some by the discovery of America (1492) [39]. During the formation of middle age cities, the high-rise buildings had been placed at the highest points of the cities due to defense and security concerns [12].

In the early 12th century, the church of Saint Denis near Paris, designed by Abbot Suger in 1122, was seen as the beginning of Gothic architecture and illustrates the features of the gothic style. Gothic architectural art continued until the beginning of the 16th century in the north of Europe. The defining design elements of Gothic architecture are the pointed arch, the flying buttress, the pointed rib vault and flying buttresses, elaborate tracery and stained-glass windows. The Gospel is included in the stained-glass windows [58]. Cathedrals are the main buildings of gothic architecture. In the 13th century, the society spent all its excitement and wealth to build and decorate cathedrals. Thus, the economy has also developed. Notre Dame Cathedral, Chartres Cathedral, Reims Cathedral and Strasbourg Cathedral in Paris; Roskilde Cathedral in Denmark; Salisbury Cathedral in England and Milan Cathedral in Italy are prime examples of gothic architecture. Gothic architectural style has been used in Western Europe, especially in religious buildings. For example, Batalhar Monastery in Portugal, “Palace of Popes” in Avignon, France. Gothic architecture buildings evoke a sense of greatness and sublimity [59].

The communities had been managed by religion and reverends, and the religious buildings constructed had been the highest buildings of the city as symbolizing the power. Along with transition of management to public, the high-rise buildings had begun to symbolize the power of public [12]. In addition, the rich and top class had made city towers constructed as indicating the power of their status [60].



Figure 2.15. Asinelli Tower, 2016 [61].

In between 12th and 14th century, high-rise buildings had been constructed at settlements of Bologna, Siena, Toscana and San Gimignano located within the borders of Florence in Italy [2]. In 12th century, there were about 80 - 100 lodging towers in Bologna among which the highest one was Asinelli Tower with a height of 97.2 m (Figure 2.15). In the Law of Florence that was enacted in 1251, it had been informed that the buildings of the city should not exceed the height of 26 m. In San Gimignano, 72 towers had been constructed among which the highest one was 51 m [60].

The term Renaissance in French origin, which started in Italy in the 14th century and expressed as “Rebirth”, was emerged. In the 15th and 16th centuries, it refers to a movement towards the awakening in the fields of science, literature and art that spread to Europe. The reason why the era was called “Rebirth” by French thinkers, it consists of two important developments in that period. The first of these two developments is the rebirth of Ancient Greek and Roman works, the other is that critical thinking, which played a role in ending the stagnation and contraction that continued throughout the Middle Ages, and ensuring progress, has been actively re-engaged. With the Renaissance, the study of ancient Greek literature and sciences, the invention of the printing press, the immigration of scientists to Italy, the translation of Roman works into other European languages, especially Latin, and geographical discoveries were realized. [62].

Jack Goody's “Renaissance: One or Many?”, according to his book, it was stated that the Italian Renaissance had an important place in history. The Italian Renaissance was seen as a critical moment in terms of economic development and the emergence of free economy, as well as art and science [62].

Renaissance has been interpreted in the field of architecture in the 15th century understanding of antiquity and in line with the worldview and it has been rebirth. According to this understanding, the Renaissance is in a structure understanding that develops horizontally and is suitable for the human scale. For this reason, the buildings are not in an effort to reach the sky as in Gothic architecture. In the Renaissance architecture, civil architecture gained importance in line with the wishes of wealthy merchants and aristocrats [63].

Looking at the city of Shibam in Yemen in the 16th century, while the renaissance architecture started to be effective in Europe, the ground floor of multi-storey buildings in Cairo were being used for commercial and storage functions, and the upper floors were being rented out to public [64].



Figure 2.16. Shibam City [65].

And at the Shibam City of Yemen, about 500 lodging towers had been constructed in order to be freed of the Bedoin attacks [66]. At these lodging towers, only a single family was living at floors between 5 and 11 [67]. As seen in the photograph in the Figure 2.16, the Shibam City of today hosts the highest adobe buildings of the world with a height above 30 m [68].

The end of the Hundred Years' War between England and France, and the conquest of İstanbul had ended the middle age. Arise of Renaissance by the resistance of great landlords of Europe against the central authority [69] had initiated the enlightenment period. The beginning of age of enlightenment had been experienced in 17th century. Many developments had occurred in the fields of science, politics, war, technology, and globalization.

These developments in the age of enlightenment had also played an effective role in the development of high-rise buildings. In 17th century, they had been formed inside the border walls constructed for defense at Scotland Edinburgh. The high-rise buildings of the period were within certain borders; they were mostly built with 11 storeys and the highest ones with 14 storeys [70].

2.2.3. High-Rise Buildings During the Industrial Revolution

In Europe, by the effect of the inventions in 18th and 19th centuries, and by the production of machines operating with steam power, industrial revolution had begun [71]. By the industrial revolution, building technologies such as vertical bearing technologies and structural load-bearing systems against horizontal and dynamic loads had started to be used in the buildings. In 1852, by the presentation of Elisha Otis of an elevator ensuring vertical transport circulation in a secure and practical manner at high-rise buildings, one of the most important developments of early period high-rise buildings had been experienced. As another development, as in the example of Oriel Chambers Building at Liverpool, it had been transited to steel frame system due to impracticability of thick walls at ground floor (Figure 2.17). In 1864, the world's first iron framed glass curtain-wall office building with 5 storeys had been designed by Architect Peter Ellis [72].



Figure 2.17. Oriel Chambers Building at Liverpool [73].

In 1871, the reconstruction of Chicago after the fire that had demolished about 10 km² area of the city [74], the arise of high-rise buildings as the symbol of economic development, and the development of the technology on the building had played significant role on the evolution of high-rise buildings [75].

For new buildings built between 1880 and 1890, the term Chicago School was used. However, some architects and critics have used the term Commercial Style to describe the innovative high-rise buildings of the period that the buildings built in this period in Chicago did not consist of a single style. William Le Baron Jenney, Daniel Burnham, John W. Root, Louis Sullivan and Dankmar Adler are the prominent architects of this period. Chicago School buildings are recognized as the world's first skyscrapers. The features of the Chicago School buildings are formed by a steel frame carrier system, masonry stone cladding, large glass windows and exterior facade design away from ornaments. Neoclassical architectural elements were used in some Chicago School high-rise buildings. Most Chicago School skyscrapers consist of a classic column of three sections. The lower floors serve as a pedestal, the middle floors as a column shaft with small ornamental details, and the last floors as a cornice with decorative detail [76]. The world's first skyscrapers were shaped around these architectural factors. The windows of Chicago School buildings have a certain grid system [77].



Figure 2.18. Home Insurance Building [78].

In 1884, in Chicago, Home Insurance Building that had been designed with a height of 55 m by Architect William Le Baron by the use of steel framing system had been deemed as the first skyscraper of the world. In addition, (Figure 2.18.) the use of I profiles for the first time, the use of elevator ensuring fast and secure vertical transport, and the use of masonry fire walls for fire security in the construction system of Home Insurance Building had formed the basis of many creative innovations in the development of high-rise buildings. But the Home Insurance Building had been demolished in 1931 [75].



Figure 2.19. Eiffel Tower [79].

Between 1887 and 1889, the Eiffel Tower (Figure 2.19) was built by Gustave Eiffel's firm as the entrance gate of the Expo 1889 Paris fair, which was organized within the framework of the 100th anniversary celebrations of the French Revolution, and the symbol of the Universal Exhibition [80]. The Eiffel Tower has an iron structure. It has shown that structures can be built with new technology. The tower has become the symbol of France all over the world. However, the tower also attracted the reaction of the people of Paris, who saw it as a shame. While some artists liken it to a gigantic streetlamp, they argued that it would damage the visual reputation of Paris like a factory chimney [81].

In 1889, in Chicago, the skyscraper Randy McNally Building had been constructed as being designed with complete steel for the first time by Burnham and Root. The one in the Figure 2.20 is the Wainwright Building of 1891 that is located in Missouri, which is one of the initial skyscrapers that had been designed by Lois Sullivan, and which has complete steel load-bearing system and that emphasizes the height of the facade by its vertical band design [75].



Figure 2.20. Wainwright Building, 1986 [82].

In 1891, in Chicago, Monadnock Building with a height of 60 m had been designed by Burnham and Root with conventional building system (Figure 2.21), and it has steel structure forming 16 storeys, masonry wall, wall thickness of 1.83 m at the ground floor, and hollow facade. In the following period, masonry wall system had also been used in the construction of other high-rise buildings [75].



Figure 2.21. Monadnock Building [82].

In 19th century, the high-rise development that started in America had spread to the world and had begun to be deemed as a social and economic symbol [2]. By the end of 19th century, the first period high-rise buildings had been constructed at cities such as Chicago, New York, and London and in the same period the architectural trend of Beaux-Arts affecting the American architecture had arose. In between years 1881-1891, by the

actualization of land rejuvenescence planning at Melbourne city of Australia, the early period high-rise building development had increased, and then it had been decided to limit the height of buildings and to take measures against fire. And in London, the height of the buildings had been limited by the request of Queen Victoria except a few exceptions until 1950 [84].

2.2.4. High-Rise Buildings of 20th Century

By the beginning of 20th century, the economic policies affecting the world had also started to affect the formation of urban spaces. As the result of increase of prices of lands in the cities –that had been the symbol of economy- due to income, the high-rise building development had increased by the beginning of 20th century.



Figure 2.22. Witte Huis Building [85].



Figure 2.23. Royal Liver Building [86].

The development of high-rise buildings, that had developed in Europe in 19th century, had halted in 20th century due to aesthetical concerns and fire security except the Witte Huis building of 45 m having 11 storeys constructed in 1898 in Rotterdam (Figure 2.22), Royal Liver building of 90 m having 17 storeys constructed in 1911 in Liverpool (Figure 2.23), Kungstornen building having 17 storeys constructed in between 1924-1925 in Stockholm, Edificio Telefonica building having 15 storeys constructed in 1929 in Madrid (Figure 2.24), Boerentoren building having 26 storeys constructed in 1932 in Belgium (Figure 2.25), and Torre Piacentini building having 31 storeys constructed in 1940 in Italy (Figure 2.26) [87].



Figure 2.24. Edificio Telefonica Building [88].



Figure 2.25. Boerentoren Building [89].



Figure 2.26. Torre Piacentini Building [90].

And by the end of 19th century in America, by the presentation of elevator ensuring vertical transport circulation in a secure and practical manner, the American cities had begun to compete for constructing the highest high-rise buildings. In 1895, in the contest between New York and Chicago, New York had succeeded the contest of constructing the highest high-rise building by the construction of American Surety Building (Figure 2.27) [87].



Figure 2.27. American Surety Building [91].

By the end of 19th century, architectural trend of Beaux-Arts affecting the American architecture had attracted to New York the architects such as Hastings, Carrere, Stanford, and White by the beginning of 20th century. In 20th century, while the high-rise buildings had been the silhouettes of cities such as New York and Chicago -which were competing for constructing the highest high-rise buildings-, they had also become the symbol of the architecture of 20th century [92].



Figure 2.28. The Flatiron Building [92].

In 1902, in New York, The Flatiron Building had been constructed as being designed by Daniel Hudson Burham with the use of steel frame and it had a height of 87 m and had steel structure (Figure 2.28). And then, Woolworth Building, that had been constructed in 1913 in New York as being designed by Cass Gilbert as a neo- gothic building with a height of 214.4 m and 57 storeys (Figure 2.29), had remained as the highest building of the world until 1930 [27].



Figure 2.29. Woolworth Building [93].

In the period as from 1910 until 1933, the city had been named as “The City of Towers” by Christopher Tunnord and Henry Hope Reed. When skyscrapers started to rise at The City of Towers, large-scaled mass production, large corporations and strong investors had emerged [94].

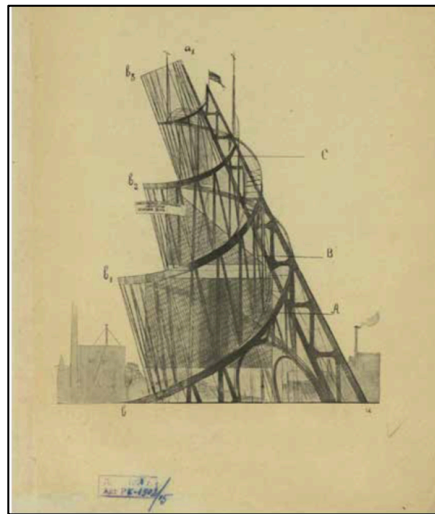


Figure 2.30. Tatlin Tower [95].

After the 1917 October Revolution, in 1919, Tatlin Tower (Figure 2.30.) was designed by Russian artist and architect Vladimir Tatlin. If Tatlin Tower had been built with its spiral steel frame and 400 meters high, it would be a higher structure than the Eiffel Tower, the tallest human-made structure of the time [96] (Figure 2.31.).

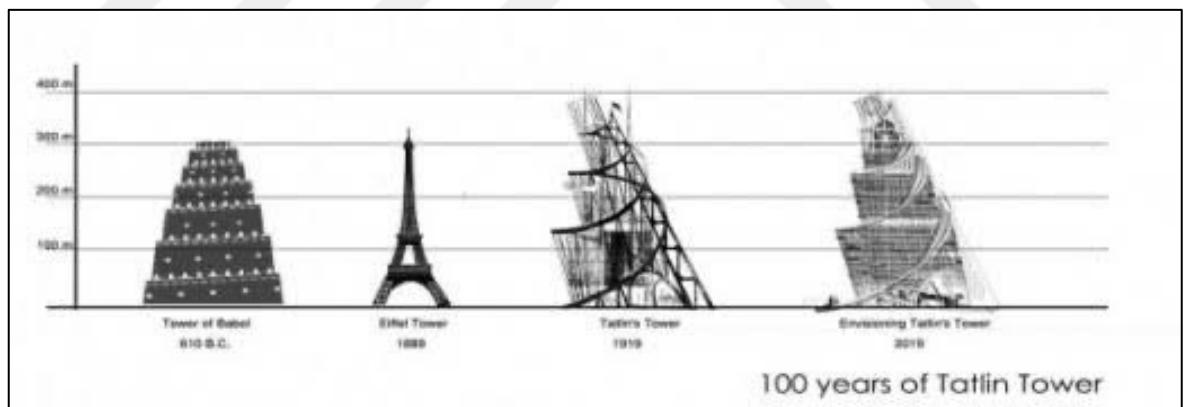


Figure 2.31. Size comparison for Tatlin Tower [97].

In contrast to the Eiffel Tower, which is considered the symbol of capitalism and erected for advertising and entertainment, III. The International Monument, which will become the symbol of socialism, is dedicated to the unity of international socialism.

In contrast to the Eiffel Tower, which is considered the symbol of capitalism and erected for advertising and entertainment, III. The International Monument, which will become the symbol of socialism, is dedicated to the unity of international socialism. In 1920, materials and techniques such as stone, metal, and wood in the tradition of sculpture, the

understanding of mass form, the subject and position of the sculpture changed. Contemporary life has created a structural change in sculpture and the understanding of monuments with new technology, materials, space and movement as well as construction methods. Tatlin Tower is a revolutionary design of art. On November 8, 1920, the third anniversary of the October Revolution in Russia and the harbinger of the Bolshevik revolution, sculptor Vladimir Tatlin inaugurated the model of the monument he designed for the Third International in Petrograd. The building, which is planned to host the Comintern in its finished form, symbolizes the dynamism of Soviet socialism with its four layers with individually rotating structures. The critic Nikolai Punin wrote that; “are full of movement, aspiration and speed: they are taut like the creative will and like a muscle tensed with a hammer [96]” for the tower’s spirals. Tatlin Tower is a building to build for propaganda purposes, and it is intended to host cultural programs, political propaganda and tools [96].

In 1920s, and in the first half of 1930s, in the period of highest high-rise building contests in New York, Chrysler Building had been constructed in 1930 (Figure 2.32), and Empire State building had been constructed in 1931, which remained as the highest building of the world for 40 years (Figure 2.33). In 1930, in New York, Chrysler Building, one of the most famous buildings, had been constructed as being designed by William Van Allen in Art Deco style with a height of 319.4 m [27].



Figure 2.32. Chrysler Building [98].

In 1931, Empire State Building had been constructed in New York as being designed by Shreve, Lamb and Harmon in Art Deco style with a height of 381 m and 102 storeys (Figure 2.33), and it had remained as the highest building until 1972 [27].



Figure 2.33. Empire State Building [99].

After 1930s, high-rise building development had also showed itself in Asia and Latin America.

In the 1940s, the Second Chicago School trend emerged as a result of Ludwig Mies van der Rohe's studies at the Illinois Institute of Technology. Construction engineer Fazlur Khan's new work in skyscraper construction has been implemented in the skyscrapers being built. Fazlur Khan called the frame-tube system (framed-tube); He proposed a new 3-dimensional, tube-like structural system that they created by gathering three, four or even more skeletons or shear walls from the corners. Thus, horizontal loads such as wind load are covered by the entire building. With this new structure system, the number of columns in skyscrapers has been reduced. Thus, in the second Chicago school buildings, wide openings were passed more easily, and a free floor plan was designed [100].

Following World War II, (end of 1940s) high-rise buildings named as “Stalin Towers” as known as “Seven Sisters”, which were planned as 8 towers, but 7 of which had been actualized, had been constructed in Moscow by Soviet Union [87] (Figure 2.34).



Figure 2.34. Stalin's Seven Sisters [101].

In 1950s, the construction of skyscrapers had begun in Madrid in Europe, and then in Africa, Middle East and Oceania (mostly Australia) [102].

In 1958, The Seagram Building (Figure 2.35.) was designed in New York by Mies van der Rohe and the famous Pritzker Prize-winning architect Phillip Johnson. The Seagram Building, the first skyscraper of Mies van der Rohe, is a 38-story office building [103].



Figure 2.35. Seagram Building [103].

Ludwig Mies van der Rohe explains his thoughts on skyscraper architecture with these words:

Skyscrapers reveal their bold structural pattern during construction. Only then does the gigantic steel web seem impressive. When the outer walls are put in place, the structural system, which is the basis of all artistic design, is hidden by a chaos of meaningless and trivial forms...Instead of trying to solve old problems with these old forms we should develop new forms from the very nature of the new problems. We can see the new structural principles most clearly when we use glass in place of the outer walls, which is feasible today since in a skeleton building these outer walls do not carry weight. The use of glass imposes new solutions [104].

In line with these ideas, Van der Rohe has a modern skyscraper setup in his mind. This fiction came to life with the Seagram Building.

By the beginning of 1960s, Fazlur Khan had specified that rigid steel frame –used in the structure of high-rise building design- was not the only system of the structure, and that the revolution of a new skyscraper era had begun by the use of multiple structural systems [105].

As an innovative idea, tubular load-bearing systems as being frame tube, cage tube and bundle tube -used in the design and construction of high-rise buildings- had provided economic benefit, and it had individuated the design of high-rise buildings which were in box form- by creative forms. Until 1975, many high-rise buildings had been constructed by Khan and “Second Chicago School” including the Sears Towers, which was one of the high-rise buildings, freed of box form (Figure 2.36.) [38].



Figure 2.36. Sears Tower [106].

The design comprehension, on which the international style, designed by Shidmre, Owings and Merrill (Bruce Graham) had been reflected as in the Sears Towers (Willis Tower) (Figure 2.36) constructed in 1970 with a height of 442 m and with 108 storeys, had then gave its place to postmodern design comprehension formed by reinterpretation of historical elements in the buildings and by their integration with modern structures [87]. It had remained as the highest building until 1998 [27].

World Trade Center Buildings (Figure 2.37.), which had been constructed in 1972 in New York as being designed by Minoru Yamasaki, Emery Roth and Sons with a height of 417 m and with 110 storeys, which had the title of first tower and which were 2 towers with combined use had demolished during the September 11, 2001 attack [27].



Figure 2.37. World Trade Center Buildings [107].

Towards the end of 20th century, the constructions of great skyscrapers had continued in Shanghai, Dubai, Toronto, and in Chicago, Hong Kong and New York, which are defined as “3 giants” by their city silhouettes having compelling architecture and arousing respect.



Figure 2.38. Petronas Towers [108].

By the Petronas Towers (Figure 2.38.), which had been constructed in 1998 at Kuala Lumpur Malaysia as being designed by Cesar Pelli & Associate with a height of 452 m and with 88 storeys, and as having the world's highest 2 storeys bridge at a height of 170 m, America had lost the title of having highest building in the world. Petronas Twin Towers having postmodern design comprehension had been formed as being inspired by the Asian pagoda architecture, and Islamic geometrical principles [87].

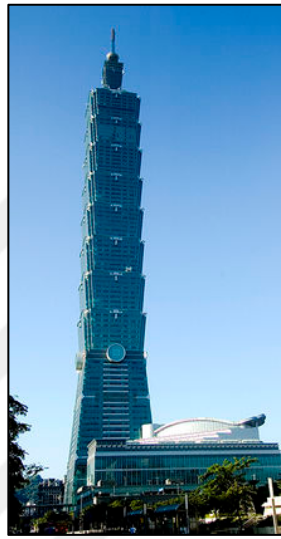


Figure 2.39. Taipei 101 [109].

Taipei 101 building (Figure 2.39.), which had been constructed by the end of 1998 in Taipei Taiwan as being designed by C.Y. Lee & Partners with a height of 509.2 m and with 101 storeys, and as conforming to traditional Chinese symbolism, had gained the title of being the highest building of Asia in 2004. Taipei 101 building, which has a postmodern design comprehension, had been designed by incorporating the Asian pagoda architecture's antique motive Ruyi symbol [87]. Along with the Taipei 101 building 20th century had ended, and it had been transited to the high-rise buildings of 21st century.

2.2.5. High-Rise Buildings of 21st Century

When the high-rise buildings of 21st century are addressed, by the construction of Burj Khalifa (Figure 2.40.) in 2010 in Dubai, UAE as being designed by Adrian Smith – SOM with a height of 828 m and with 160 storeys, and as having the highest free-standing structure, the title of highest high-rise building had passed to Middle East [110].



Figure 2.40. Burj Khalifa [111].

The forms and concepts in the design of high-rise buildings had differed due to construction of buildings at different geographies. The form and plan schemes of high-rise buildings of 20th century had been formed by the simple geometrical figures. Burj Khalifa, having postmodern design comprehension, had been formed as being inspired from traditional Islamic art.

And today, high-rise building development is rapidly increasing due to the price increase of lands along with the development of city centers, and due to their use as the symbol of economic power of the city and formation of the city's personality in its silhouette. Brief history of high-rise buildings has been summarized in the conclusion of the section.

2.3. CONCLUSION OF SECTION

The symbolic meanings of high-rise buildings, that had initiated with Tower of Babel of antique ages, which had been constructed in an attempt to reaching God in B.C. 600, had continuously changed as per periods until the end of 19th century.

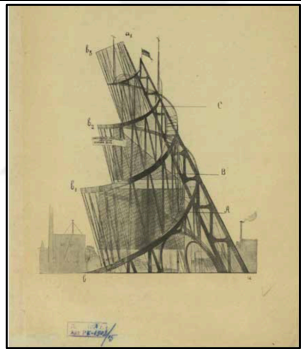
In the Table 2.1., the identity information of high-rise buildings, described in the brief history of high-rise buildings, is present.

Table 2.1. The table of construction technology of high-rise buildings described in the brief history of high-rise building [112].

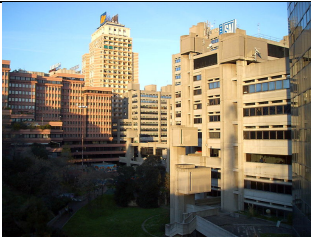
	Photograph	Name	City	Year	Height
1		Babel Tower	Babel	B.C. 600	90 m
2		The Pharos of Alexandria	Egypt- Alexandria	B.C. 283	140 m
3		Giza Pyramids	Egypt- Cairo	B.C. 26	146 m
4		Asinelli Tower	Italy- Bologna	12 th century	97.2 m
5		Shibam Towers	Yemen Shibam	16 th century	Adobe buildings greater than 30 m

6		Oriental Chambers Building	UK-Liverpool	1864	5 storeys
7		Home Insurance Building	Chicago	1884	55 m
		Eiffel Tower	France-Paris	1887	300 m
8		Wainwright Building	ABD-Missouri	1891	41m

9		Monadnock Building	Chicago	1891	60 m
10		American Surety Building	New York	1896	103 m
11		Witte Haus Building	Rotterdam	1898	45 m
12		The Flatiron Building	New York	1902	87 m

13		Royal Liver Building	Liverpool	1911	90 m
14		Woolworth Building	New York	1913	214.4 m
		Tatlin Tower	Not built	1917	400 m
15	—	Kungstornen Building	Stockholm	1924	17 storeys

16		Edificio Telefonica Building	Madrid	1929	15 storeys
17		Chrysler Building	New York	1930	319.4 m
18		Empire State Building	New York	1931	381 m
19		Boerentoren Building	Belgium	1932	96 m

20		Torre Piacentini Building	Italy	1940	108 m
21		Stalin's Seven Sisters	Moscow	1953	-
22		Seagram Building	New York	1958	157 m
23		Sears Tower (Willis Tower)	Chicago	1970	442 m

24		World Trade Center Buildings	New York	1972	417 m
25		Petronas Towers	Malaysia - Kuala Lumpur	1998	452 m
26		Taipei 101	Taiwan- Taipei	1998	509.2 m
27		Burj Khalifa	UAE - Dubai	2010	828 m

In Gottman's (1967) opinion, the high-rise buildings had become popular in the cities as from 1950s. This opinion had been obtained by four results [2].

These results are that;

- High-rise building development at crowded cities has become the manner of settlement on the land.
- High-rise building development has become the manner of reflecting economic power.
- High-rise building development that had begun in America has become global as being spread to other cities.
- High-rise buildings have become the symbol of the cities, and they have started to be dominant in the silhouettes of the cities. And in some cities high-rise buildings have become the image of the city.

It is required to ensure the relationship between high-rise building development and urban texture within the city by being attentive to non-impairment of urban texture.

In the following section, concept of historical city, high-rise building development process, and relationship between urban texture, and high-rise buildings are being referred under the heading of relationship between high-rise building development and urban texture.

3. THE RELATIONSHIP BETWEEN HIGH-RISE BUILDING DEVELOPMENT AND HISTORICAL CITY

In order to understand the relationship between high-rise buildings and the historical city, first of all, a city definition should be made. The definition of the city is a concept open to change that has been defined differently in periods of history.

It is quite difficult to make a definition that would be valid for every country that is suitable for all times. Aristotle (384-322 BC) defined the city as the place where people come together to live a better life. According to Demirer; Marver, who living in the Middle Ages, defined the city as “human settlements with walls built around it” [113]. Babylon city plan can be given as an example of this definition. (Figure 3.1.)



Figure 3.1. City plan of Babylon [114].

According to Erten and Keleş, the word city has been used equivalent to civilization in historical development. Civilization is associated with cities with the discourse that 'civilization exists through urbanization'. In Latin-based languages, “Civilization” is derived from “civitas”, which means city. “Medeniyet”, which means civilization in the Arab culture, derives from the city's name, Medina [113].

Considering the sociological conditions of Max Weber's period, the city is defined as a market with an economic function, centered on political management, a castle and crowded areas where people live in groups and generally as “the place where the people living in it dealt with trade rather than agriculture” [115].

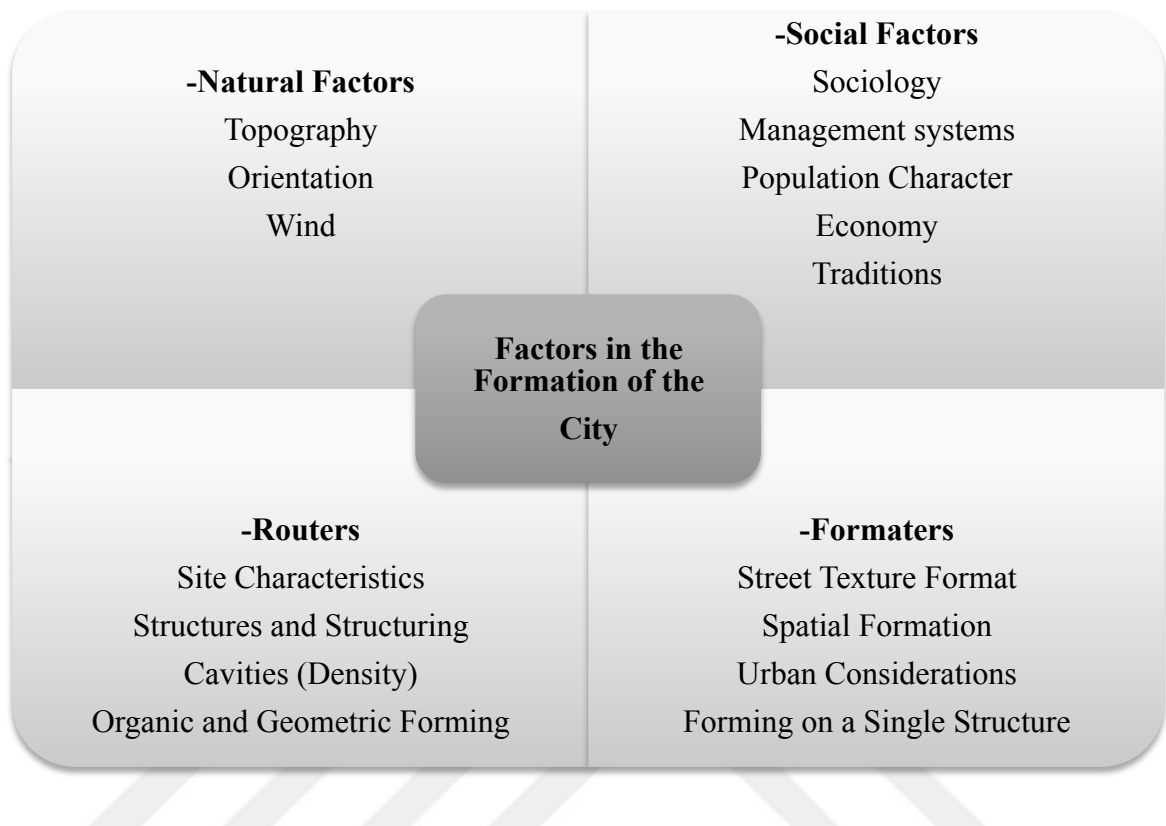
According to Keleş the definition of the city; it is a social system with many functions, constantly developing and meeting the educational, recreational and interaction needs of the society it hosts, having a much higher population compared to villages and having neighborly relations [116].

The definition of the city according to Lynch; it which can be perceived by millions of people with a wide variety of classes and characters, and is the product of many creators who constantly improve their structure according to their reasons, although it remained constant for a while in general terms, its details are constantly changing, only partial control over its growth and form can be achieved, is the areas where a definite result cannot be achieved [117].

The definition of the city according to Marx and Weber; it acts as an object of analysis in the social structure due to the interaction area of the basic social processes created in the capitalist society where some social developments are experienced [118].

According to Desert the definition of the city; has reached a certain size; can provide various services such as education, health and culture; instead of functional functions, people who work from outside, outside of agriculture. It is the settlements where communication and division of labor among the inhabitants develop [119]. Factors in the formation of the city are given in the Table 3.1.

Table 3.1. Factors in the formation of the city [120].



According to the previous city definitions, cities; It is mentioned that there are settlements that contain the elements of social, economic, political and cultural definitions together and show differences because they are formed by various groups of people from different cultures at different times. According to the city definition, it is necessary to understand the relationship between high-rise buildings and the historical city and a historical city definition.

3.1. CONCEPT OF HISTORICAL CITIES

Definitions about the concept of historical city have been made from many different sources. These concept definitions;

According to Arabacıoğlu P and Aydemir I., historical urban textures are places that reflect the social, cultural and economic structure, life philosophy and aesthetic concerns of past civilizations and are organized on a human scale. Environment is an expression of a culture and historical accumulation. The environment is born, grows and develops parallel to

human. The last image of the environment bears the traces of human life. These traces are the traces of the social, cultural and economic system [121].

Many civilizations have lived since the day human beings existed. The settlements that have managed to survive from the past to the present, completely or partially, enlighten the historical past, enable us to recognize and understand past civilizations, and establish a connection between the past and the present.

According to Velioğlu, historical areas enlighten the past and help us perceive the past better by bringing the architectural styles, technological developments, interactions, experiences and cultural achievements of the past periods to the present day [122].

According to Ahunbay, historical areas have instructive and interesting features as places arranged according to human scale. They contain spaces that affect social relations positively and help create the sense of unity between individuals. In a world where living conditions, traditions and production techniques are changing rapidly, historical areas are open-air museums that show what kind of place they lived in the past [123].

Regarding the historical environment, in the UNESCO Recommendation on the Historical City, by explaining these areas, one of the most important documents of the common cultural heritage, which are created by the contribution of many generations, as valuable documents that witness human life, definitions of “Historical City” and “Historical Urban Area” have been mentioned.

Historical City (Excerpt from UNESCO's 1976 Recommendation):

Historic and architectural (including vernacular) areas' shall be taken to mean any groups of buildings, structures and open spaces including archaeological and paleontological sites, constituting human settlements in an urban or rural environment, the cohesion and value of which, from the archaeological, architectural, prehistoric, historic, aesthetic or sociocultural point of view are recognized. Among these 'areas', which are very varied in nature, it is possible to distinguish the following 'in particular: prehistoric sites, historic towns, old urban quarters, villages and hamlets as well as homogeneous monumental groups, it being understood that the latter should as a rule be carefully preserved unchanged [124].

Historic urban areas, (Excerpt from ICOMOS, Washington Convention):

Large and small, including cities, towns and historic centers or quarters, together with their natural and man-made environments. Beyond their role as historical documents, these areas embody the values of traditional urban cultures [125].

Historical cities are areas that reflect the social, cultural and economic structure, containing traces of human's life and aesthetic concerns of past civilizations and are organized on a human scale.

In the next section, the development of high-rise buildings in historical cities is explained.

3.2. THE HIGH-RISE BUILDING DEVELOPMENT AT HISTORICAL CITIES

Along the history, the cities are settlements that experience change and reconstruction, and where the population and economic activities are the highest. The cities have specific characteristic histories and identities. Tekeli had expressed the city identity with an equation consisting of city's physical values (depending on natural environment, architectural values, cultural heritage etc.), satisfaction regarding life quality; discourse regarding the city's identity [126].

Globalization process has caused the change of the cities and centralization of world economy. Globalization is causing the increase of population in the cities, and affection of the cities' physical and socio-cultural structures. Thus, the cities and their identities are changing [127].

Globalization, which had accelerated by the industrial revolution, had caused population increase formed by migration from village to city. When the city development movements depending on rapid population increase are examined, the developments in the fields of technology, science and medicine also have great effect on the rapid increase of population. While less than 5 percent of the world population had been living in the cities in 1900s [128], they had received rapid migration by the development of industry, and the rate of population had increased. By the beginning of 20th century, the world had begun to become urbanized rapidly.

According to United Nations Sustainable Urban Development Report [129], it has been alleged that the main problems of the cities of 21st century will be as follows;

- Global warming, and its effect on climate change,
- Rapid population increase,
- Squatting, and unplanned urbanization,
- Economic uncertainties.

Job opportunities have arisen along with the increase of development level of the countries. The arising job opportunities have encouraged the people living in rural area to migrate to cities. Thus, this circumstance has also affected the urban development process. Rapid increase of population in the urban development process has given rise to the problems of squatting and unplanned urbanization at the city having a specific urban texture. In this process, rapid population increase is also affecting the high structuring planning in the cities.

According to Benton-Short, L. and Short, J. R., the relationship between urban development and historical urban texture may be associated in three stages.

- In the first stage, it has been observed that its negative effect on historical urban texture is limited in small cities, or in cities where urban development is slow.
- In the second stage, it has been observed that the negative effect of rapidly developing urban areas on the historical urban texture had increased more along with sudden economic and industrial development.
- And in the third stage, it has been observed that such negative effect on historical urban texture at cities, where the economic development level had matured and where the welfare level of the society had increased, is at minimum.

Within this scope, while the city examples of developed countries generally fall into third category, the city examples of developing countries fall into the second category [130].

One of the most important problems formed by rapid and unplanned urbanization is the intersection areas between urban texture, and urban areas subject to high-rise building development. These intersection areas are taking the urban texture under great pressure.

In the next section, it has been tried to examine in the examples of cities and high-rise building development.

3.3. EXAMPLES OF HIGH-RISE BUILDING DEVELOPMENT AT HISTORICAL CITIES

Positive and negative effect of the high-rise building development on the human life and on development of city has been a matter of discussion, and it has been referred that it is required to manage the high-rise buildings by some limits/limitations and by the determined policies. For instance, factors such as condition of ground where the high-rise building is located, construction, structure, transport circulation within the building (elevator), air-conditioning systems, material and facade systems, cost, fire safety systems, location within the urban environment, nature analysis data (wind) limit the height and concept of the high-rise buildings. It is possible to examine these high-rise building limitations under 2 headings. These are;

- “Height Limitations” covering the sub-headings of Purpose (power-prestige indicator of individuals or corporations, decrease of lands within the city, and increase of land prices), Technology (construction system, development of facade systems and material, elevator, heating-cooling ventilation, fire safety systems), and Legal Boundaries – Legislation (for instance, limitations brought by “zoning law” that had first been enacted in Chicago and then in New York in America), and
- “Limitations regarding the Positioning of High-Rise Buildings within the City” (limits brought for high-rise buildings in the urban texture in Europe) [131]

Social, economic and technological factors have been effective in the height limitations of high-rise buildings, and in development of high-rise buildings. These factors have also undertaken the duty of limit. Social limits, economic limits, technological limits, and legal limits form the height limitations.

- Social limits have formed due to the request of the companies to gather all their units at the skyscrapers.
- Economic limits have formed due to increase of the value of lands that decrease as the result of the development of the cities.

- Technological limits have formed by the development level of building materials such as elevators, steel frame load-bearing systems, hydrophore and fitting systems, and glass, steel, concrete.
- Legal limits have formed by the legal regulations within the scope of “zoning laws” that are being enacted by local and central administrations [131].

In America, while the limitations imposed on the construction of high-rise buildings are height limitations, in Europe, they are limitations regarding their locations within the city in Europe. High-rise buildings had been prohibited or taken under control at historical city centers of European cities. The high-rise buildings in European cities had generally been located at specific areas outside the city. For the above subject to be better understood, it is required to examine the high-rise building development process at historical cities.

The country that had experienced industrialization the first is England. That rapid development process had caused migration from rural areas to cities, and formation of unplanned settlements. Along with rapid industrial development, problems such as high-rise building development, infrastructure, fire risk, water and air pollution had begun to arise. The wealthy families, that wanted to move away from such problems, had moved to more untouched parts of the city where they could live along with neighbors of the same class. Thus, suburbanization had followed the industrial urbanization [110].

The flee of wealthy class from the city centers that had become poor in quality, and their desire of living in a clean environment had caused the expansion of the city's borders, and the formation of new settlements whose relationship with the city was low. Accordingly, the infrastructure requirements of such settlements had arisen. And areas that cannot be used had formed at built-up old city centers that were providing low life quality [128].

And in the example of France, prior to industrial revolution, technological changes and urbanization process, the public had evolved and developed in cultural and social sense by the French Revolution that had actualized in 1789. The development of that understanding had ensured the change of ideas, political systems and production manners. The economic structure of France that had formed in the light of such changes had ensured the initiation of moves for industrial revolution by the end of 19th century [132]. Also in France, intense migration from rural areas to cities had occurred, and various health problems, residence

problems, economic and social problems had arisen in the city whose population had increased. In time, these problems had caused collapses in the cities.

In the following section, it has been referred of high-rise building development policies regarding the city problems that England and France had experienced after the industrial revolution. City of London of England, Le Defense district of Paris of France and City of Russia of Moscow have been examined in the context of high-rise building development and urban texture.

3.3.1. Example of England - London

London is one of the strong cities of Western Europe in terms of its geographical location, economy and social life of the city's society [133]. Along with intense migrations in 19th century, social, sanitary and economic disruptions had started to be observed in the city of London [16]. In London (Figure 3.2.), high-rise buildings had been deemed as an urban reality, and adding extra values to the city had been supported by ensuring development in a controlled manner instead of its prevention [134].



Figure 3.2. City of London [135].

High-rise buildings had been classified as per their aesthetic values and architectural originalities. In 1970s, high-rise building planning, control and inspection duties had

started to be carried out by Greater London Council (GLC) for the high-rise buildings not to be constructed at green areas of the city, and for them not to damage the historical texture of the location of construction.

In London, limitations had been imposed in high-rise building development as per the rates of height of the building in the areas being planned, and the high-rise buildings of the buildings in its vicinity [131].

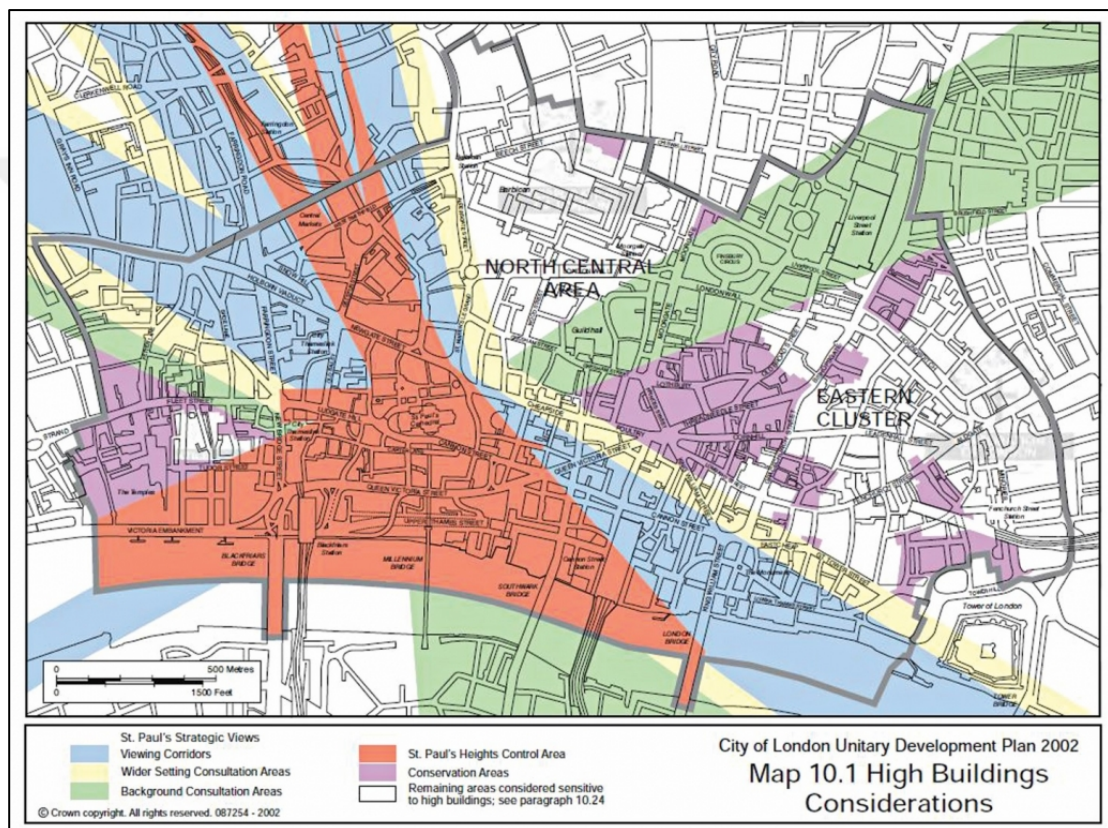


Figure 3.3. Development plan of London 2002 - Zoning of high-rise buildings [136].

The design criteria of the city of London had been formed in 2002 by the London Metropolitan Municipality through the “The London Plan” regulation [136]. In the Figure 3.3., Development Plan of London formed in 2002 by the London Metropolitan Municipality is being seen. And the purpose of “The London Plan” regulation had been to prevent damage of the high-rise buildings against the urban texture, and to ensure their conformity with the landscape of the city.

Thus, the city of London had been determined by the urban planners through division of the historical areas of the city to three different areas as being;

- Areas where high-rise building development is not allowed,
- Areas where high-rise building development is partially possible through evaluation of architectural qualifications and urban characteristics,
- Areas where high-rise building development is allowed [16].

As communicated by Bore, J., the characteristics of areas where high-rise building development is not allowed by the London Municipality are as follows:

- Historical urban texture,
- Natural protected areas, and areas to which such areas are directly linked,
- Cultural areas being significant for the city,
- Hills, high areas that may affect the urban texture in the city's silhouette [25].

The areas, where high-rise building development is partially possible through the evaluation of architectural qualifications and urban characteristics, are development areas close to metropolitan areas, areas having architectural characteristics, and hills and high-rise building areas affecting the city's silhouette at secondary level [138].

Areas, where high-rise building development is allowed are areas whose city infrastructure had been prepared, and whose positive effect on the city's silhouette is observed. At areas allowed for high-rise building development, their relationship with the characteristics of other developments and their intensity is also being evaluated as well as the evaluation of high-rise building development in the city [138].

Planning of the distribution of high-rise buildings in the city is in the direction of positioning at areas where they may provide contribution as considered by the decision of London Municipality and senior management [25]. According to such consideration, there is the notion that positioning of high-rise buildings at developing areas of the city will play an effective role in the development of the city.

In London, in the determination of high-rise building development areas and in zoning of the city, approaches such as concentration, height and non-damage to urban texture had been formed. One of the high-rise building development criteria in London is horizontal and vertical concentration rates [137]. Another urban zoning performed had been made considering the infrastructures of the city [26].

The high-rise building development areas regarding the urban texture in London have two different understandings as being the effect on the city's silhouette, and perception by the habitants of the city. This understanding had been published in 2007 as "London View Management Framework". "London View Management Framework" is a protectionist approach preventing the damage by high-rise buildings to urban perspectives [131].



Figure 3.4. High-rise development area in London [139].

According to Bore, J. at Design Tall Buildings Symposium in London [25]; the areas where high-rise building development is allowed are; (Figure 3.4.)

- Development and concentration areas,
- Primary center areas,
- Secondary center areas,
- Other special center areas,
- City's center lines where public transportation is strong,
- Upstate areas where public transportation is strong. Urban development is intended at the areas where high-rise building development is allowed.

And areas where high-rise building development is not allowed are;

- Urban protection areas, and transition areas,
- Areas reflecting the city's character,
- Areas that may affect the green areas in the silhouette,
- Areas affecting the strategic views [26].

London is a city that has historical urban texture, cultural values and urban identity. High-rise buildings are able to affect the urban life of London. In London, areas where high-rise building development is and is not allowed had been determined for the sake of not losing

the local values and identities. Thus, it had been tried for the high-rise building planning in London to be in conformity with the historical urban texture.

3.3.2. Example of France - Paris La Défense

Paris is the capital city of France. Since the 17th century, Paris has been one of Europe's major centers of finance, diplomacy, commerce, fashion, gastronomy, science and arts. In the middle of the nineteenth century, the center of Paris was viewed as overcrowded, dark, dangerous, and unhealthy. Between 1853 and 1870, program of Haussmann's renovation of Paris was commissioned by Emperor Napoléon III and directed by his prefect of Seine, Georges-Eugène Haussmann. It was included the demolition of medieval neighborhoods that were deemed overcrowded and unhealthy by officials at the time; the building of wide avenues; new parks and squares; the annexation of the suburbs surrounding Paris; and the construction of new sewers, fountains, and aqueducts. Haussmann's work has been met with fierce opposition. In 1870, he was finally dismissed by Napoleon III; but work on his projects continued until 1927. The street plan and distinctive appearance of the center of Paris today are largely the result of Haussmann's renovation [140].



Figure 3.5. Eiffel Tower and Montparnasse Tower [141].

At the city center of Paris, there are two high-rise buildings as being Eiffel Tower, and Montparnasse Tower of 210 m height, which had been constructed in 1972 (Figure 3.5.). Following these towers, which had been constructed at intramural being the historical city center having 20 gates, the height for the high-rise buildings to be built had been determined as 37 m (Figure 3.6.) [131]. Due to this condition, high-rise building development inside the historical city had become impossible.

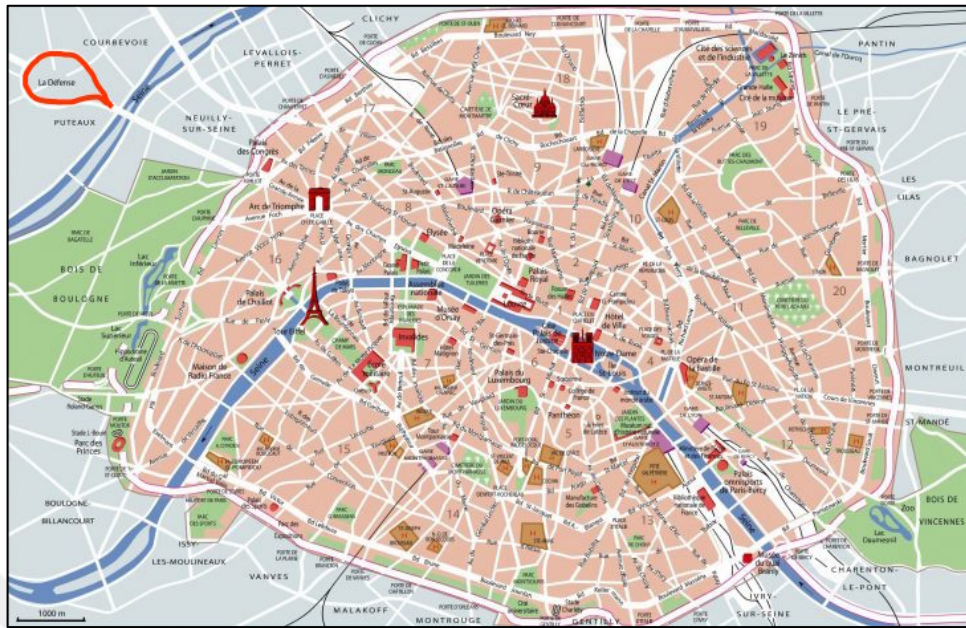


Figure 3.6. Map of Paris [142].

For high-rise building development, La Défense district, which is outside the city center of Paris and which is the new central business area, had been planned as the development area. (Figure 3.7.)

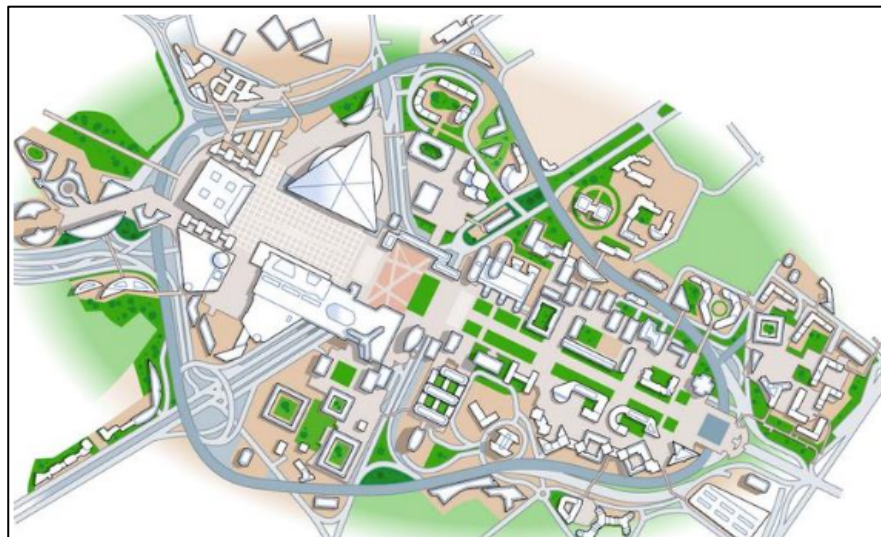


Figure 3.7. Plan of La Défense district [131].

La Défense district is at the west of the city and near the Seine River, and at the end of the centerline of Champs-Élysées and Arc de Triomphe that pass from the middle of the city. The development process of La Défense district had been planned by “Établissement Public Pour Aménagement de la Région de la Défense” (EPAD), which had been

established and supported by the government, and infrastructure investments and taxation incentives had been applied for the development of the district [131].



Figure 3.8. 3D model of La Défense district [143].



Figure 3.9. 3D model of La Défense district [143].

At La Défense district, which covers an area of 750 hectares, there is largest city development of the city of Paris with office areas of 3.5 million m² [144]. (Figure 3.8) (Figure 3.9.)

At La Défense district, urban transformation planning had been made in 1958 with the intention of making it one of the most prominent trade centers of Continental Europe. An autonomous public institution named EPAD (Etablissement Public Pour Aménagement de la Région de La Défense) had been appointed for actualizing the urban transformation

project. The planning of the district had been made by the referred institution, and cooperation of public and private sector had been ensured. The urban transformation project had been presented in 1960s, and the development of the project is also continuing today [145].

40-hectare part of the project, which extends to an area of 160 hectares, had been designed as open space for the pedestrians. La Défense district functions as Europe's largest scaled trade center, and it is the commercial door of France opening to the world. Urban transformation project of La Défense district had been formed by the purpose of reviving the economy of France that had narrowed after World War II. It is a successful project that is still fulfilling the referred purpose [146]. The Grand Arc structure of 100 m height that had been constructed at La Défense district in 1989 had played a significant role in viewing of the centerline from Elysées to Versailles [131]. (Figure 3.10.)



Figure 3.10. View of La Défense district [131].

In 2005, additional planning had been prepared by EPAD for La Défense district. Today, new office areas of 300.000 m², and more than 10 high-rise buildings had been constructed at the La Défense district [131]. In addition to the development scale in the city, it is being worked on addition to subway network, and on integrity and accessibility of the district at park areas.

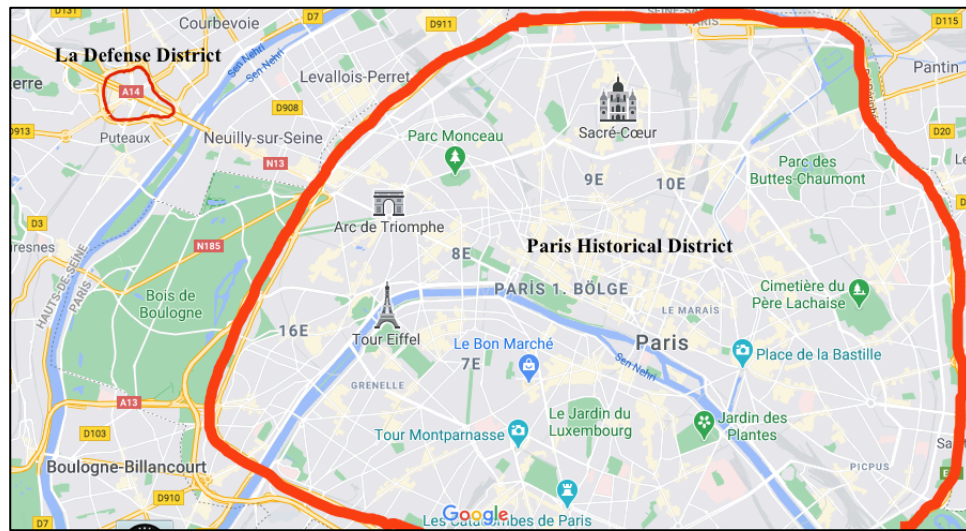


Figure 3.11. Map of Paris [112].



Figure 3.12. Paris Eiffel Tower and La Défense district [147].

As seen in the Figure 3.11., it can be mentioned that the high-rise building development in La Défense district and historical urban texture of Paris (1st Area) is being divided by the Seine River as a natural factor. But they are connected by the centerline from Elysées to Versailles.

And when the Paris's view is observed in the Figure 3.12, it can be mentioned that Seine River and Bois de Boulogne Park are functioning as buffers between Paris Eiffel Tower and La Défense district.

3.3.3. Example of Russia - Moscow

The Russian Soviet Federative Socialist Republic is the world's first constitutional socialist state after the 1917 October Revolution. During the Second World War, the country became a recognized Superpower that played a decisive role in the victory of the Allies [148]. Russia, which is a superpower, has led to the formation of a new vision and the creation of new buildings.

Moscow had been the capital of USSR until 1991. It has the characteristic of being a large industrial city as well as being a political, economic, cultural, and religious center. In the Figure 3.13, the area of the city has been limited with the highway (MKAD) indicated with the ring number three. Historical city center of Moscow is within the ring (Golden Ring) shown with number one. The construction of the highway indicated with the ring number two, which had been constructed in order to facilitate transportation, and which is located between rings with numbers one and three, had been completed in 2003 [149].



Figure 3.13. City of Moscow's plan scheme [112].

The high-rise buildings in Russia had showed an unbalanced development. By the end of 1940s, and by the beginning of 1950s construction summit with name of Stalin's Seven Sisters had been actualized [150]. (Figure 3.14.) Distinctive development of the high-rise buildings in Russia had actualized in Moscow in the period of Stalin.



Figure 3.14. Stalin's Seven Sisters [151].

After World War II, Soviet President Stalin had said, “We won the war. The people will come to visit Moscow from all around the world and will tour the city. There are no skyscrapers around. If the tourists compare Moscow with other capital cities in the world, it would be shame for us.” Upon these words, they had planned to construct eight high-rise buildings within 5 years in Moscow in 1947. They had tried the architecture of these buildings not to be similar with the buildings in other countries, and they had been designed in gothic architecture style as Stalin liked [152].

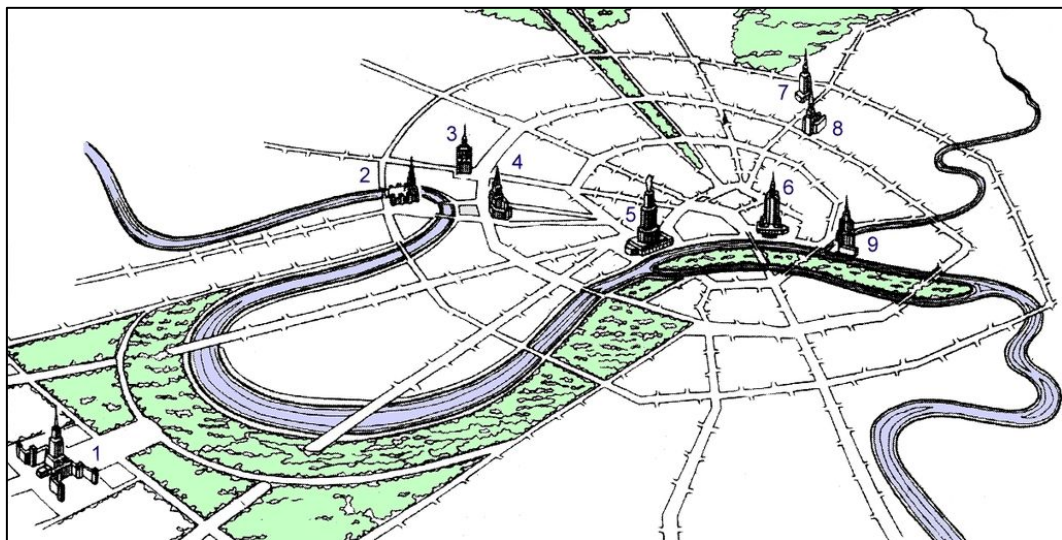


Figure 3.15. City of Moscow [153].

On September 07, 1947, the foundations of the building had been laid collectively. But only seven of the buildings had been constructed. And these buildings had been named as “Stalin's Seven Sisters”. On top of them, there are red star, hammer and sickle that were the symbols of the Soviet period.

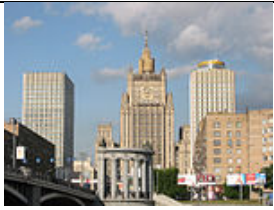
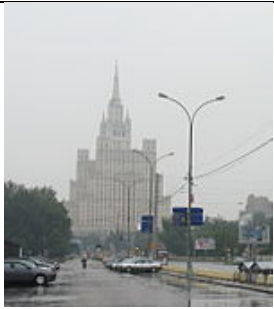
The names of the buildings shown in the Figure 3.15. are as follows;

- Moscow State University (1),
- Hotel Ukraine (2),
- Ministry of Foreign Affairs of Russia (3),
- Kotelnicheskaya Embankment Building (4),
- Red Gates Administrative Building (5),
- Kudrinskaya Square Building (6), and
- Hotel Leningradskaya (7).

And the eight building that had not been constructed was Zaryadye Administrative Building (8) [152]. Despite the construction of Soviet Palace (9) had been planned, its construction had been cancelled. According to the numbers assigned to Stalin's Seven Sisters in the Moscow city plan in the Figure 3.15., their construction technology has been provided in the Table 3.2.

Table 3.2. The table of construction technology of Stalin's Seven Sisters at the City of Moscow [154].

	Photograph	Name	Year	Height	Floor
1		Moscow State University - Главное здание МГУ	1953	240 m	36
2		Hotel Ukraine - Гостиница « Украина »	1957	198 m	34

3		Ministry of Foreign Affairs of Russia - Здание Министерства иностраннх дел России (МИД)	1953	172 m	27
4		Kotelnicheskaya Embankment Building — Жилой дом на Котельнической набережной	1952	176 m	26
5		Red Gates Administrative Building - Административно- жилое здание	1953	133 m	24
6		Kudrinskaya Square Building - Жилой дом на Кудринской площади	1954	160 m	22
7		Hotel Leningradskaya - Гостиница « Ленинградская »	1954	136 m	26

The construction purpose of the high-rise buildings in Moscow is the desire of Soviet Union to catch up on the skyscraper development in America. They had tried to show to the whole world that the resources of Soviet Union had not been consumed, and that it is able to stand on its own feet [152]. While Soviet Union was imitating the skyscraper development in America, they had designed high-rise buildings by their characteristic architecture peculiar to city of Moscow. But in the development of high-rise buildings, the importance of large corporations had not been considered. The interest in high-rise building development had clearly decreased following the death of Joseph Stalin [155].

In 1996, the second summit of high-rise building construction had actualized in Russia. At one of the City of Moscow Government sessions, a report regarding the improvement of City of Moscow, which is a large-scaled trade zone, had been discussed [155].

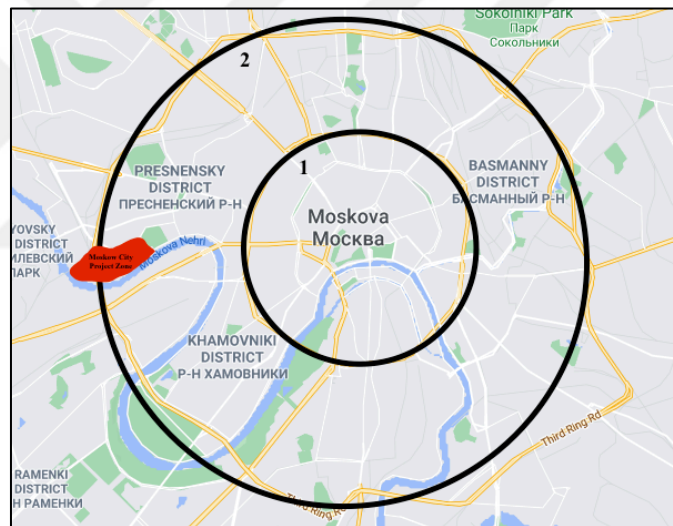


Figure 3.16. Moscow City Project [112].

In 1996, “Moscow City” project (Figure 3.16, which is close to the historical center (zone number 1), which is located below Kutuzov, and which has an area of 100 hectares, had started to be constructed. “Moscow City” project (Figure 3.17.) that had been constructed for transformation of Moscow to an international politic and economic city had turned the city to a worksite. Due to the crisis in 1998, the construction of “Moscow City” project had been paused [149]. Along with the start of upturn of country’s economy, the project had continued from the point it had paused. In Russia, the interest in real estate investments had increased. Thus, the development of high-rise buildings in the city of Moscow had accelerated. In 21st century, a new period had started in the development of high-rise

buildings in Russia. 64 percent of the highest high-rise buildings (buildings of more than 109 meters) in Russia had been constructed in 21st century [155]. Moscow had aimed at being a world city in the reconstruction process. In addition, the arise of economy and investment demands within the city had played a role in the formation of urban policies. But as it is a Russian city that is trying to preserve its history, it had faced a dilemma.



Figure 3.17. Moscow City Project [156].

Along with the globalization period, the construction of skyscrapers in Moscow having the effects of West, Far East and Middle East, and reconstruction performed at the historical center, and the operations for preservation of historical heritage had allowed the buildings - dating back to communism period- to be completely removed [157].

“Moscow City” project is a project having characteristics that may change the city in terms of scale and quality. This project is being deemed as the new symbol of the globalizing cities by its different architectural buildings, different building technologies and different functions to arise in urban areas. It will significantly affect the natural, historical and cultural values of Moscow [149]

As “Moscow City” project (Figure 3.16.) is very close to the historical center of the city (area within the border number one), that has a flat topography, it can be mentioned that it is negatively affecting the city’s silhouette, and urban texture. The project, that is covering high-rise buildings, is also able to affect the urban life of Moscow. Moscow is a city that has urban texture, and cultural and urban identity. It can be mentioned that the “Moscow

City” project cannot accord with the historical urban texture due to both the design of building, and the location of the project site selected. Thus, it can be mentioned that this condition is causing loss of local values and loss of urban identity in the city of Moscow.

3.4. EXAMPLES OF HIGH-RISE BUILDING DEVELOPMENT FROM TURKEY-İSTANBUL

İstanbul had reached to current day as a developed city in terms of business life and trade due to its strategic location, history and possession of different cultures [158]. Along the history, the city of İstanbul (Figure 3.18) had not lost its characteristic of being the center city. Strategic location of İstanbul is able to be indicated as one of the reasons of not losing its characteristic of being the center city [159].

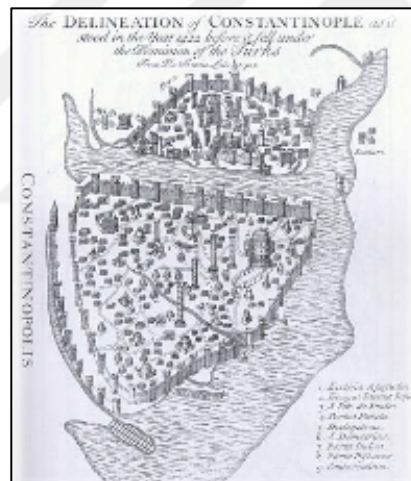


Figure 3.18. Map of İstanbul in 1422 [160].

The city of İstanbul had witnessed contemporary development as well as having the significant architectural works of history. Along with the Republic Period, and as from 1950s, significant changes had been observed in the socio-economic structure of Turkey. And at the scale of city of İstanbul, rapid development had been observed in the settlements [161]. The 15 storeys İstanbul Hilton Hotel, whose project work was completed in 1952 and was built in 1955, was designed by American architects Skidmore, Owings, Merrill (SOM) and applied by Sedad Hakkı Eldem, a local consultant (Figure 3.19.). İstanbul Hilton Hotel is important in terms of being the first example opened abroad

after America and being the first 5-star hotel in İstanbul and Turkey. It symbolizes the closing of an era in the context of the end of national architecture [162].

At the end of the 1930s, the continuity of the park area number 2, which was included in the master plan of İstanbul built by Henri Prost and extending between Taksim Gezi Park and Maçka Democracy Park, was broken with the construction of the hotel and the park was divided into two [163].

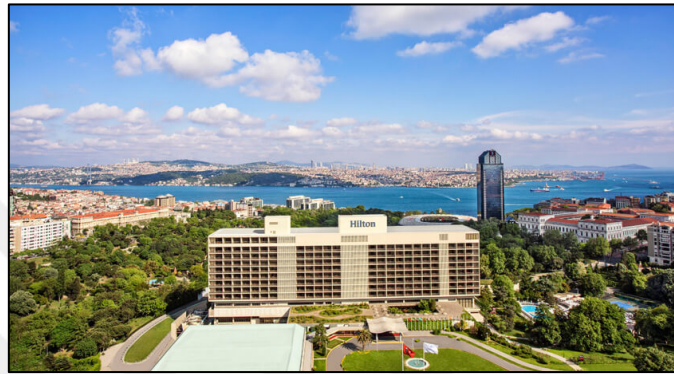


Figure 3.19. İstanbul Hilton Hotel [164].

İstanbul is a city that had received migration from rural parts. By the effect of the migrations, a rapid population increase had been experienced after 1950s. This population increase had caused İstanbul to go through a great change and development. That development and change had also affected the settlements.

Increase of value of the city's lands had brought along the increase of land prices. The increase of land prices, and the intensity of building development in the city had caused the growth of the city.

As the result of these, the limited lands in hand had been tried to be used with maximum profit. This circumstance brought forward high-rise building development planning for the city of İstanbul [165].

High-rise building development, that is presenting a rapid development in the world, had been followed-up with delay in İstanbul as in all other provinces of Turkey. While the initial examples of high-rise building development had been observed in America by the end of 19th century, and while great progresses and developments had occurred in Far East countries in 20th century, the same condition had not been in subject in Europe. That

circumstance in Europe had also been reflected on Turkey. While high-rise building development had started to be observed in Turkey in 1950s even if slightly, high-rise building development had begun to develop as from 1970s [161].

In Turkey, especially after 1980s, domestic and foreign multinational corporations had invested in the city of İstanbul along with globalization. The global business environment changing as the result of that had caused the city of İstanbul to receive excessive migration from rural parts. Moreover, new business fields and business centers focused on consumption had gained importance. Accordingly, multi-storey shopping malls, skyscrapers, plazas, starry hotels or residences had been constructed. Due to the perception of power and prestige created on people by the high-rise buildings, the historical and cultural buildings -that had an important place in the past- had given their place to high-rise office buildings and plazas, and the new image points of the city had been these buildings [166].

But as cited by Sarı B., the following problems had started to arise in İstanbul after 1980s; (Figure 3.20)

- Formation of shanty and unplanned settlement,
- Destruction of historical and cultural values in the city,
- Inability to preserve the silhouette,
- Inappropriate selection of areas,
- Insufficiency of the current zoning plans, and their continuous change etc.

Such problems had also affected the high-rise building development. High-rise building development is becoming widespread due to migration from villages to the city, increase of land values in the city, development of technology, and desire of business world to exhibit power [160].

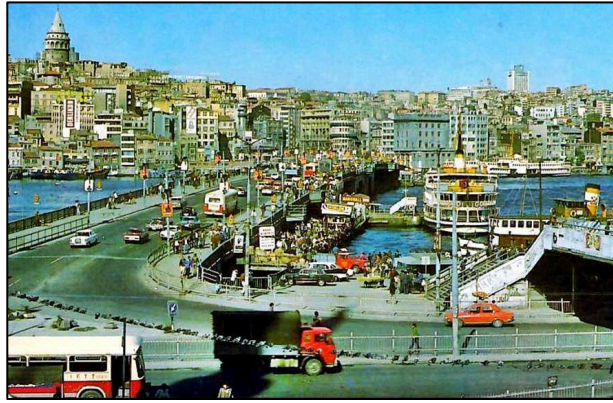


Figure 3.20. İstanbul in 1980 [167].

In the case of high-rise building development that begun in Turkey by 1950s, intensity of storeys had not been observed. Along with 1970s, demand for modern office buildings had increased as the result of some corporations being international, and the old city centers had fell short. The buildings, which had been constructed in that period, had not exceeded 25 storeys. Etap Hotel of 20 storeys (Figure 3.21.), Sheraton Hotel of 23 storeys and Odakule Building of 23 storeys (Figure 3.22.) may be exemplified as the high-rise buildings constructed in İstanbul in that period. The Odakule building was completed by Architects Kaya Tecimen and Ali Taner and it is an important building in terms of having a height and size that can be considered as a skyscraper according to its period, having one of the first curtained glass facade applications in Turkey and creating an open space between two streets [168]. And today, gradual increase had been observed in the storey heights and numbers of the buildings [165].



Figure 3.21. Etap Hotel [169].



Figure 3.22. Odakule Building [170].

The socio-economic transformations in İstanbul, especially in the post-1980 period, are effective in meeting urban services, diversifying and increasing services in İstanbul, where industrial production and services sector has developed [171]. Concepts such as globalization, neo-liberal policies, new world order, single market, new regionalism and multinational companies have offered new opportunities for İstanbul to become a world city.

Between 1980-1990, “Reagan” in America, “Thatcher” in England and “Özal” in Turkey are in the same conjuncture. In this period when the principles of change and restructuring are determined, Turkey prides itself on being a “groundbreaking country”. While open to all technological innovations on the one hand, it has faced many controversial social issues on the other hand. In this period, modernization is also seen clearly in municipal activities. The formation of multi-storey lodging buildings had been observed at Ataköy and Bakırköy districts, which had been outside the city center until 1985. As from 1985, the construction high-rise buildings had increased in İstanbul due to being a prestige factor, and due to speculative gain requirements. Along with the increase of high-rise building development, many discussions had come up due to lack of city zoning plans, making temporary changes in laws and regulations in the direction of the interests of individuals and institutions, insufficiency of city’s infrastructure, and zoning amnesties [171].

According to Erbaş AE.; In the 1990s, the concept of globalization has been mentioned may be associated with changes in İstanbul. The emphasis on “Global city” in the approach based on the attractiveness of international capital includes expectations that will affect the

future identity of İstanbul. During this period, the spatial structure of İstanbul begins to experience three elements of change: the process of change in the center and functional areas of the city, the formation of new spatial development axes in the urban structure, and the trend of change in residential areas [172].

In the process of transformation of the urban center and functional areas in İstanbul, two basic factors have been effective; "The decentralization process of the industry in İstanbul and the displacement of industrial areas accordingly" and "The growth and concentration of service areas". It is seen that İstanbul's change towards central business areas [173].

Between 1989-1994, İstanbul Municipality included populist practices in its activities. During this period, it created a new image depending on the spatial development of İstanbul, new economic and political decisions. The speed of the spatial expansion of the city has increased. On the one hand, new settlement areas were formed; on the other hand, existing settlements developed and grew [174].

On January 21, 1991, by the "Bosporus Protection" law taken in force by the İstanbul Metropolitan Municipality, Zincirlikuyu and 4th Levent districts had been allowed for high-rise buildings in İstanbul [174]. As "Bosporus Protection" law had allowed high-rise building development at specific districts, high-rise building development had been limited with laws (see p. 54) [12]. "Bosporus Protection" law may be indicated among the first high-rise building development policies for İstanbul. Thus, the high-rise buildings in İstanbul (Figure 3.23.) had concentrated on the line of Beşiktaş- Zincirlikuyu- Maslak [161].



Figure 3.23. İstanbul 4th Levent district [175].

According to the citation of Konuk G., the high-rise building development in Turkey had begun in a rapid, unplanned and dynamic manner, and it is still continuing in that manner [12]. According to the citation of Lynch K., high-rise building development is improving directly proportional with the developments in the city of İstanbul, but high-rise building planning had not been made for İstanbul [176] (Figure 3.24.). Problems of unearned income had become an issue at such districts. Rapid and unplanned high-rise building development had begun to be formed in İstanbul with the purpose of encouraging the investors for not losing the entrepreneurs. It is possible to say that this circumstance will constitute psychological problems and infrastructure problems in the future for the city of İstanbul [26].

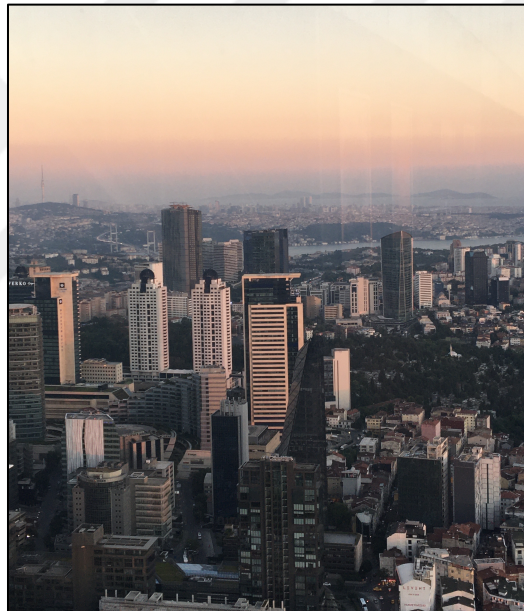


Figure 3.24. High-rise building development in İstanbul [112].

No limit had been imposed by the city planning of İstanbul regarding the building height. Only the rule of Proust's 40 grades is being implemented for the sake of preserving the silhouette of historical peninsula of İstanbul. According to the rule of Proust's 40 grades; above 40 meters grade, a building exceeding 9.5 meters in height cannot be built. Thus, the mosques of the Historic Peninsula and the silhouette of İstanbul formed by that topographic line are preserved [177]. In the urban planning of İstanbul, only the height of buildings having symbolic value in public terms had been excluded [26].

Between 1994 and 2004, the political thought that is in power in the central government today was effective in the local government at that time. After the 2000s, depending on the development of the Central Business Area in the urban development of İstanbul, the settlements with newly formed spatial development axes are examples of new commercial structuring, which differ from traditional centers within the urban integrity of İstanbul, interact with globalization and have special characteristics. Spatial formations are emerged as a result of the change and transformation experienced by the city's central and functional areas in these development axes. These development axes are places where new shopping, living, entertainment and working areas are concentrated within one axis. It is the spatial reflection of the process that started with “hyper marketization”, continues with the development of “giant shopping and office centers” and “skyscraping”. Şişli - Mecidiyeköy - Zincirlikuyu - Maslak axis is among the places of reflection of globalization. With the dynamism created by the shopping malls on the axis and the services sector connected to finance, adding the vertical growth process to the horizontal growth process of İstanbul, a new structuring trend has started to develop with its historical, cultural and environmental values and texture. This development was not only limited to office buildings; It has gained new meanings with its multi-functional structures where a number of functions such as office, shopping, housing, sports and entertainment center coexist [173]. After the 1999 Marmara Earthquake, it emerged after the 9/11 events in the USA in 2001, and the determination of the city of İstanbul as a financial center by the government is seen as the reflection of the liberal policies implemented by the government to the cities [172].

After 2004, it was a period of central government-dominated development decisions in the metropolitan area of İstanbul. Consequently, administrative boundaries on district and neighborhood basis were frequently changed. This phase manifests itself as the one-party period that implements policies along a conservative liberal axis [173].

By the decision of Council of IBB in 2016, Planned Areas Type Zoning Regulation had become valid instead of Bosphorus Zoning Law at Beşiktaş district's Bosphorus original view and exposure areas. As per Bosphorus Zoning Law, the grade points of the building are being taken from the lowest natural level in zoning plans prepared.

But in Planned Areas Type Zoning Regulation, it is being taken from the highest grade and road. This implies that the building storeys at Beşiktaş district are to be 2-3 storeys more

than the current storeys from the road level. A report had been issued by which IBB City Planning Directorate had presented negative opinion regarding this circumstance. According to the report, this change implies larger construction area and higher storeys, and thus population increase at districts such as Dikilitaş, Balmumcu, Garanti Neighborhood, Ortaköy, Köyiçi that are the Bosphorus original view and exposure areas of Beşiktaş district [178].

It can be mentioned that the high-rise building development in İstanbul, which arose along with globalization, is not based on a specific high-rise building development strategy. This circumstance is negatively affecting İstanbul's urban texture and city identity. The locations of high-rise buildings should be determined as per the natural and historical values in the city.

While discussions on high-rise building development in İstanbul are continuing, opinions are being expressed regarding what kind of view the high-rise buildings will create by making research also on the silhouettes of the city of İstanbul. The buildings, which may ruin the urban texture and city identity of İstanbul, should be prevented. The relationship between high-rise building development and historical city has been summarized in the conclusion of the section.

3.5. CONCLUSION OF SECTION

For the context of high-rise building development and historical city to be understood, England – London, France – Paris Le Défense district, Russia – Moscow and Turkey – İstanbul have been exemplified. In Table 3.3., evaluation regarding England – London, France – Paris Le Défense district, Russia – Moscow and Turkey – İstanbul being described in the section of “Relationship of High-Rise Building Development and Historical City” has been made.

Table 3.3. Evaluation table of cities of England-London, France-Paris Le Défense district, Russia-Moscow and Turkey-İstanbul [112].

	England London	France Paris La Défense District	Russia Moscow	Turkey İstanbul
High-Rise Buildings	+	+	+	+
High-Rise Building Development Strategies	+	+	-	-
How did the relationship of high-rise building development and urban texture formed?	High-rise development is being divided to three areas in city planning. • Areas where high-rise building development is not allowed, • Areas where high-rise building development is partially possible, • Areas where high-rise building development is allowed.	Water and green areas – as natural factor- serve as buffer. But the two areas connect with a centerline.	As “Moscow City” project is very close to the historical center of the city, it negatively affects the city’s silhouette, and the urban texture.	As the high-rise buildings in İstanbul are very close to the historical center of the city, they negatively affect the city’s silhouette and the urban texture.

When the Table 3.3. is considered, it is mentioned that countries have a specific high-rise building development strategy, and that the relationship of high-rise buildings and urban texture has been ensured. But for some countries, it is able to be observed that the urban texture is being ignored in high-rise building development. The examples provided would be used in examining and understanding the relationship of high-rise building development and urban texture at Beşiktaş district of İstanbul, which is the case study. In the following section, under the heading of “A Research on Relationship between High-Rise Building Development and Urban Texture: Beşiktaş İstanbul as a Case Study”, the high-rise buildings and historical buildings in İstanbul, a brief history of Beşiktaş district, and the relationship of as example are being referred.

4. A RESEARCH ON RELATIONSHIP BETWEEN HIGH-RISE BUILDING DEVELOPMENT AND URBAN TEXTURE: BEŞİKTAŞ İSTANBUL AS A CASE STUDY

In the examination of high-rise building development and urban texture, Beşiktaş district of İstanbul was selected as exemplary area. First, general information on socio-economic circumstance, spatial and historical circumstance, and settlements of Beşiktaş district was provided. In the research, it was described why the Beşiktaş district had been selected as case study in the context of high-rise building development and urban texture. While selecting Beşiktaş district as case study, first the analysis of high-rise buildings in İstanbul, and urban texture was made. As the result of the analysis of high-rise buildings in İstanbul, and urban texture, it was tried to determine the intersection area.

The locations of high-rise buildings and historical buildings at Beşiktaş district were determined. The high-rise buildings and historical buildings at the Beşiktaş district were examined as per their locations on the city plan, silhouettes, height according to context, height according to ratios and they were compared with the contextual relationship between high-rise building development and historical city of exemplary cities selected from other countries.

In the case study, the high-rise buildings in İstanbul, and the concentration locations in İstanbul of high-rise buildings were searched. The high-rise buildings were specified on İstanbul map as in the Figure 4.1. It was observed that high-rise buildings are concentrated at the European side of İstanbul.

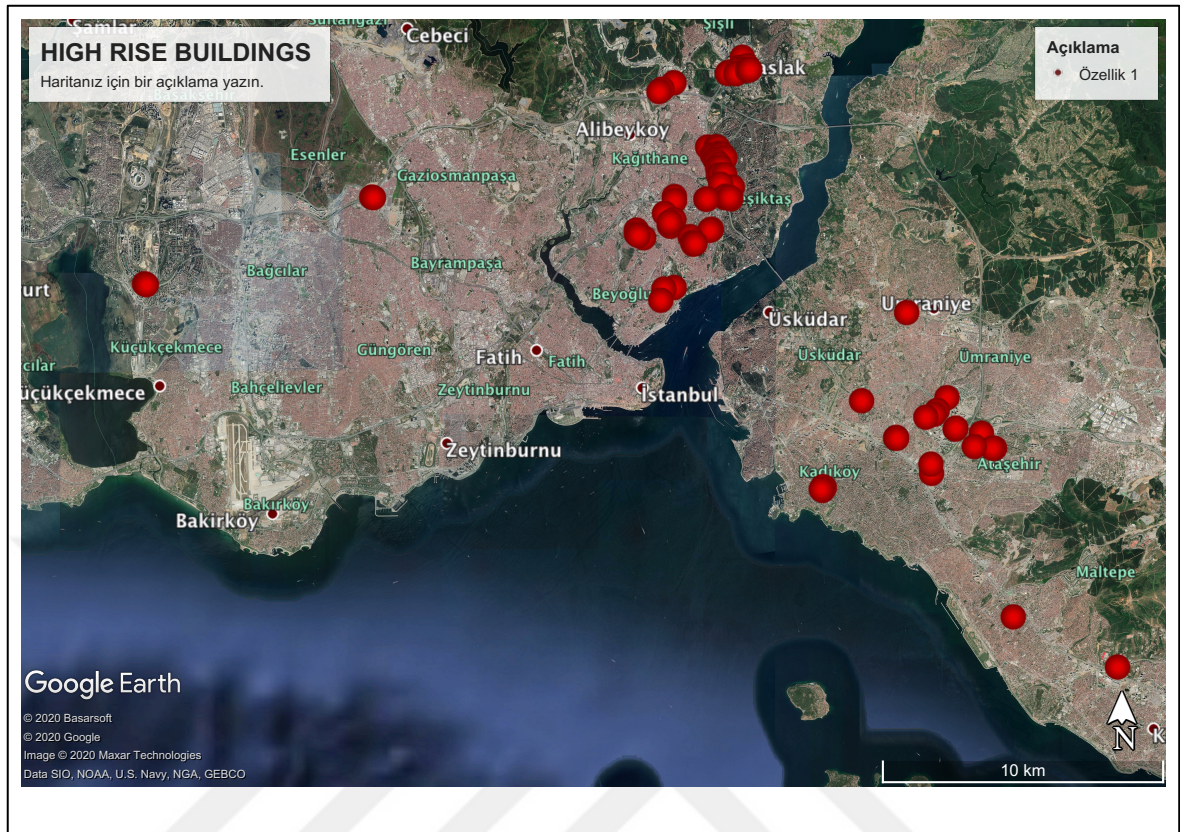


Figure 4.1. Locations of high-rise buildings in İstanbul [112].

High-rise buildings specified on İstanbul map were listed as per their heights. The high-rise buildings on European side were specified with dark color in the list in the Table 4.1. As specified in the Table 4.1., there are 63 high-rise buildings on European side, and 24 high-rise buildings on Asian side of İstanbul. 72.41 percent of the high-rise buildings are at European side, and 27.58 percent of them are at Asian side of İstanbul. As 72.41 percent of the high-rise buildings are at European side of İstanbul, the case study was selected within the borders of European side.

In the Table 4.1., the numbers of floors and heights of high-rise buildings in İstanbul, and different sources including the book of Sağlam, “High-Rise Buildings Examples of İstanbul” are also specified in the table.

Table 4.1. High-rise buildings in İstanbul, and tallness and years of construction of high-rise buildings [112].

NUMBER	BUILDINGS	CITY	FLOORS	HEIGHT	YEAR	SAGLAM, R.,HIGH RISE BUILDINGS, 2016 FLOORS	SAGLAM, R.,HIGH RISE BUILDINGS, 2016 HEIGHT
1	SKYLAND RESIDENCE TOWER	ISTANBUL - EUROPE - SARIYER	65	284m	2017		
2	SKYLAND OFFICE TOWER	ISTANBUL - EUROPE - ŞİŞLİ	64	284m	2017		
3	THE METROPOL TOWER	ISTANBUL - ANATOLIA - ATAŞEHİR	58	280m	2017		
4	SAPPHIRE TOWER	ISTANBUL - EUROPE - 4. LEVENT	54	261m	2010	64	261m
5	THE ADDRESS HOTEL & RESIDENCES (EMAAR SQUARE RESIDENCES)	ISTANBUL - ANATOLIA - ÜSKÜDAR	50	229m	2019		
6	NUROL LIFE	ISTANBUL - EUROPE - SARIYER	60	220m	2018		
7	FACO TOWER (ISTANBUL TOWER 205)	ISTANBUL - EUROPE - ŞİŞLİ	54	220m	2019		
8	ANTHILL RESIDENCE 2	ISTANBUL - EUROPE - ŞİŞLİ	55	210m	2010		
9	ANTHILL RESIDENCE 1	ISTANBUL - EUROPE - ŞİŞLİ	55	210m	2010		
10	SPINE TOWER	ISTANBUL - EUROPE - SARIYER	51	201m	2014		
11	BOMONTI TIME RESIDENCE	ISTANBUL - EUROPE - ŞİŞLİ	52	195m	2018		
12	ÇİFÇİ TOWER B	ISTANBUL - EUROPE - BEŞİKTAŞ	45	194m	2018		
13	ÇİFÇİ TOWER A	ISTANBUL - EUROPE - BEŞİKTAŞ	45	194m	2018		
14	VARYAP MERIDIAN BLOCK A	ISTANBUL - ANATOLIA - ATAŞEHİR	52	188m	2012		
15	ALLIANZ TOWER	ISTANBUL - ANATOLIA - ATAŞEHİR	42	186m	2014		
16	İŞBANK TOWER 1	ISTANBUL - EUROPE - LEVENT	52	181m	2000	52	181.2m
17	MY TOWERLAND TOWER A	ISTANBUL - ANATOLIA - ATAŞEHİR	52	181m	2013		
18	VARYAP MERIDIAN BLOCK C	ISTANBUL - ANATOLIA - ATAŞEHİR	45	180m	2012		
19	PALLADIUM TOWER	ISTANBUL - ANATOLIA - ATAŞEHİR	43	180m	2014		
20	SKYLAND HOTEL TOWER	ISTANBUL - EUROPE - SARIYER		180m	2018		
21	SARPHAN FINANS PARK	ISTANBUL - ANATOLIA - UMRANIYE	46	178m	2014		
22	ŞİŞLİ PLAZA	ISTANBUL - EUROPE - ŞİŞLİ	44	170m	2007	44	170.1m
23	LEVENT 199	ISTANBUL - EUROPE - ŞİŞLİ	40	170m	2014		
24	SOYAK TOWER (QNB FINANSBANK)	ISTANBUL - EUROPE - ŞİŞLİ	40	170m	2014		
25	TERRACE TEMA	ISTANBUL - EUROPE - KUÇUKÇEKMECE	39	170m	2014		
26	OZDILEK PLAZA ISTANBUL 1	ISTANBUL - EUROPE - ŞİŞLİ	38	170m	2014		
27	42 MASLAK	ISTANBUL - EUROPE - MASLAK	42	167m	2014		
28	VARYAP MERIDIAN GRAND TOWER 3	ISTANBUL - ANATOLIA - ATAŞEHİR	41	164m	2011		
29	SELENIUM TWINS (1)	ISTANBUL - EUROPE - BEŞİKTAŞ	35	164m	2009	42	159m
30	SELENIUM TWINS (2)	ISTANBUL - EUROPE - BEŞİKTAŞ	35	164m	2009	42	159m
31	EXEN PLAZA	ISTANBUL - ANATOLIA - UMRANIYE	44	160m	2011		
32	SKY TOWER 1	ISTANBUL - ANATOLIA - ATAŞEHİR	42	160m	2010		
33	RIXOS BOMONTI RESIDENCE	ISTANBUL - EUROPE - ŞİŞLİ	43	159m	2010		
34	AKBANK TOWER (SABANCI CENTER)	ISTANBUL - EUROPE - BEŞİKTAŞ	39	158m	1993		
35	FOUR WINDS 1	ISTANBUL - ANATOLIA - KADIKÖY	49	156m	2012		
36	FOUR WINDS 2	ISTANBUL - ANATOLIA - KADIKÖY	49	156m	2012		
37	FOUR WINDS 3	ISTANBUL - ANATOLIA - KADIKÖY	49	156m	2012		
38	FOUR WINDS 4	ISTANBUL - ANATOLIA - KADIKÖY	49	156m	2012		
39	ARKON PARK RESIDENCE 1	ISTANBUL - EUROPE - KUÇUKÇEKMECE	39	155m	2010		
40	TRUMP TOWER 1	ISTANBUL - EUROPE - ŞİŞLİ	39	155m	2010		
41	UPRISE ELITE	ISTANBUL - ANATOLIA - KARTAL	42	154m	2011		
42	SUZER PLAZA PITZ-CARLTON	ISTANBUL - EUROPE - BEŞİKTAŞ	41	154m	2001	41	136m
43	POLAT TOWER RESIDENCE	ISTANBUL - EUROPE - ŞİŞLİ	40	153m	2001		
44	TEKSTILKENT KOZA PLAZA	ISTANBUL - EUROPE - ESENLER	44	152m	2006	44	152m

45	ISTANBLOOM	ISTANBUL - EUROPE - ŞİŞLİ	44	150m	2012		
46	DUMANKAYA IKON 1	ISTANBUL - ANATOLIA - ATAŞEHİR	41	149m	2012		
47	DUMANKAYA IKON 2	ISTANBUL - ANATOLIA - ATAŞEHİR	41	149m	2012		
48	DUMANKAYA IKON 3	ISTANBUL - ANATOLIA - ATAŞEHİR	40	149m	2012		
49	SUN PLAZA	ISTANBUL - EUROPE - SARIYER	38	147m	2005		
50	TRUMP TOWER 2	ISTANBUL - EUROPE - ŞİŞLİ	37	145m	2010		
51	TAT TWIN TOWER 1	ISTANBUL - EUROPE - ŞİŞLİ	34	143m	2000		
52	TAT TWIN TOWER 2	ISTANBUL - EUROPE - ŞİŞLİ	34	143m	2000		
53	METROCITY MILLENNIUM TOWERS 1	ISTANBUL - EUROPE - LEVENT	31	143m	2003	27	135m
54	METROCITY MILLENNIUM TOWERS 2	ISTANBUL - EUROPE - LEVENT	35	143m	2003	27	135m
55	METROCITY MILLENNIUM TOWERS 3	ISTANBUL - EUROPE - LEVENT	35	143m	2003	27	135m
56	SABANCI CENTER	ISTANBUL - EUROPE - LEVENT	39	142m	1993	39	142m
57	GARANTI BANK HEADQUARTER	ISTANBUL - EUROPE - LEVENT	21	141m	2002	21	141m
58	PRESTIGE HOTEL	ISTANBUL - EUROPE - ŞİŞLİ	38	140m	2007		
59	SISLI ELITE RESIDENCE	ISTANBUL - EUROPE - ŞİŞLİ	35	140m	2000	40	132.5m
60	UPHILL COUNT 1	ISTANBUL - ANATOLIA - ATAŞEHİR	33	140m	2008	36	120m
61	UPHILL COUNT 2	ISTANBUL - ANATOLIA - ATAŞEHİR	33	140m	2008	36	120m
62	ROYAL CENTER 1	ISTANBUL - ANATOLIA - MALTEPE	30	140m	2012		
63	BEYBI GİZ	ISTANBUL - EUROPE - MASLAK	34	136m	1996	34	136m
64	SISLI KEY PLAZA	ISTANBUL - EUROPE - ŞİŞLİ		135m			
65	KEMPINSKI RESIDENCE ASTORIA	ISTANBUL - EUROPE - ŞİŞLİ	27	127m	2007	27	127m
66	YAPI KREDİ BANK HEADQUARTER	ISTANBUL - EUROPE - LEVENT	30	120m	1998	30	120m
67	SELENIUM RESIDENCE	ISTANBUL - EUROPE - BEŞİKTAŞ	30	120m	2004	30	120m
68	TEKFEN TOWER	ISTANBUL - EUROPE - ŞİŞLİ	26	120m	2003	26	120m
69	KOZYATAĞI WORK CENTER	ISTANBUL - ANATOLIA - KOZYATAĞI	30	119.2m	2003	30	119.2m
70	ZORLU PLAZA	ISTANBUL - EUROPE - AVCILAR	30	118m	2001	30	118m
71	ISBANK TOWERS 2	ISTANBUL - EUROPE - BEŞİKTAŞ	36	117.6m	2000	36	117.6m
72	ISBANK TOWERS 3	ISTANBUL - EUROPE - BEŞİKTAŞ	36	117.6m	2000	36	117.6m
73	KANYON SHOPPING CENTER	ISTANBUL - EUROPE - ŞİŞLİ	30	117.5m	2006	30	117.5m
74	APA GİZ PLAZA	ISTANBUL - EUROPE - ŞİŞLİ	32	112m	2008	32	112m
75	MAYA AKAR TOWER	ISTANBUL - EUROPE - ESENTEPE	30	103m	1992		
76	MASLAK SHERATON HOTEL	ISTANBUL - EUROPE - MASLAK	27	99m	1992	27	99m
77	İZ PLAZA GİZ	ISTANBUL - EUROPE - ŞİŞLİ	28	91m	2003	28	91m
78	HARMACI GİZ PLAZA	ISTANBUL - EUROPE - ŞİŞLİ	24	90m	2001	24	90m
79	GİZ 2000 PLAZA	ISTANBUL - EUROPE - MASLAK	23	90m	1999	23	90m
80	SPRING GİZ PLAZA	ISTANBUL - EUROPE - MASLAK	27	90m	1994	27	90m
81	CEYLAN INTERCONTINENTAL HOTEL	ISTANBUL - EUROPE - BEYOĞLU	25	90m	1975		
82	BARBAROS PLAZA A	ISTANBUL - EUROPE - BEŞİKTAŞ	24	90m			
83	HSBC BANK NHQ PROJECT	ISTANBUL - EUROPE	21	84.5m	2004	21	84.575m
84	SKYMARK TOWER	ISTANBUL - ANATOLIA	52	222m	2012		
85	DAIMOND OF ISTANBUL	ISTANBUL - EUROPE - MASLAK	62	257m	CONTINUED	62	257m
86	PARK PLAZA	ISTANBUL - EUROPE - MASLAK	26		1998		
87	THE MARMARA HOTEL	ISTANBUL - EUROPE - BEYOĞLU	21	69m	1975		

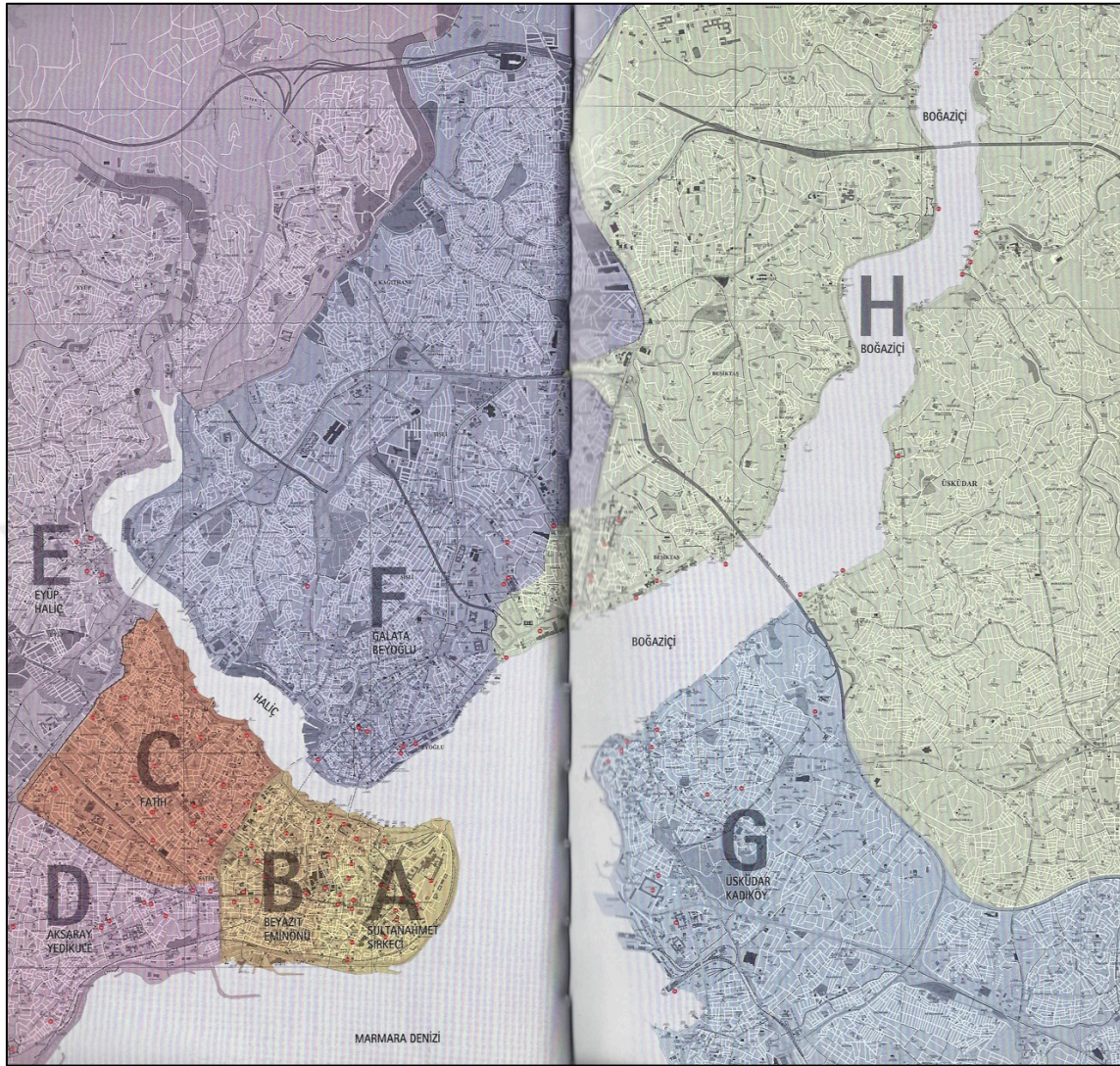


Figure 4.3. Districts of historical city of İstanbul from the book of Ottoman's İstanbul by Doğan Kuban [179].

As in the Figure 4.3., the urban texture in İstanbul was divided to 9 areas by Doğan Kuban. Letter A was assigned to Sultanahmet and Sirkeci area at the historical peninsula, which is the area where the urban texture is observed the most. Letter B was assigned to Beyazıt – Eminönü area, C was assigned to Fatih area, D was assigned to Aksaray – Yedikule area, E was assigned to Eyüp – Haliç area, F was assigned to Galata – Beyoğlu area, G was assigned to Üsküdar – Kadıköy area, H was assigned to Bosphorus area, and I was assigned to areas in the vicinity of İstanbul. In the following the Table 4.2., the historical buildings of İstanbul are listed as per areas.

Table 4.2. Historical buildings of districts of urban of İstanbul from the book of Ottoman's İstanbul by Doğan Kuban [179].

NUMBER	HISTORICAL BUILDINGS	CITY
1	TOMB OF MAHMUD II	ISTANBUL / SULTANAHMET - SIRKECI (A)
2	TOMB OF SELIM II	ISTANBUL / SULTANAHMET - SIRKECI (A)
3	FOUNTAIN OF AHMED III	ISTANBUL / SULTANAHMET - SIRKECI (A)
4	ATIK ALI PASHA COMPLEX	ISTANBUL / SULTANAHMET - SIRKECI (A)
5	HAGIA SOPHIA	ISTANBUL / SULTANAHMET - SIRKECI (A)
6	HAGIA SOPHIA HAMAM	ISTANBUL / SULTANAHMET - SIRKECI (A)
7	HAGIA EIRENE CHURCH	ISTANBUL / SULTANAHMET - SIRKECI (A)
8	BESIR AGHA COMPLEX	ISTANBUL / SULTANAHMET - SIRKECI (A)
9	KOPRULU COMPLEX	ISTANBUL / SULTANAHMET - SIRKECI (A)
10	LITTLE HAGIA SOPHIA MOSQUE	ISTANBUL / SULTANAHMET - SIRKECI (A)
11	MAHMUD PASHA COMPLEX	ISTANBUL / SULTANAHMET - SIRKECI (A)
12	NURUOSMANIYE COMPLEX	ISTANBUL / SULTANAHMET - SIRKECI (A)
13	RUSTEM PASHA MEDRESE	ISTANBUL / SULTANAHMET - SIRKECI (A)
14	SIRKECI RAILWAY STATION	ISTANBUL / SULTANAHMET - SIRKECI (A)
15	SOKOLLU MEHMED PASHA COMPLEX	ISTANBUL / SULTANAHMET - SIRKECI (A)
16	SULTANAHMET MOSQUE AND COMPLEX	ISTANBUL / SULTANAHMET - SIRKECI (A)
17	TOPKAPI PALACE	ISTANBUL / SULTANAHMET - SIRKECI (A)
18	ZEYNEP SULTAN MOSQUE	ISTANBUL / SULTANAHMET - SIRKECI (A)
19	ABDULHAMID I COMPLEX	ISTANBUL / BEYAZIT - EMINONU (B)
20	BEYAZID II COMPLEX	ISTANBUL / BEYAZIT - EMINONU (B)
21	BODRUM MOSQUE	ISTANBUL / BEYAZIT - EMINONU (B)
22	DAMAT İBRAHİM PASHA COMPLEX AND DIREKLERARASI	ISTANBUL / BEYAZIT - EMINONU (B)
23	KALENDERHANE MOSQUE	ISTANBUL / BEYAZIT - EMINONU (B)
24	KAPALIÇARŞI (GRAND BAZAAR), SANDAL AND GREAT BEDESTEN	ISTANBUL / BEYAZIT - EMINONU (B)
25	KOCA RAGIP PASHA COMPLEX	ISTANBUL / BEYAZIT - EMINONU (B)
26	KUYUCU MURAD PASHA COMPLEX	ISTANBUL / BEYAZIT - EMINONU (B)
27	LALELI COMPLEX	ISTANBUL / BEYAZIT - EMINONU (B)
28	RECAİ MEHMED EFENDİ PRIMARY SCHOOL AND SEBİL	ISTANBUL / BEYAZIT - EMINONU (B)
29	RUSTEM PASHA MOSQUE	ISTANBUL / BEYAZIT - EMINONU (B)
30	SULEYMANIYE COMPLEX	ISTANBUL / BEYAZIT - EMINONU (B)
31	ŞEBSAFA HATUN MOSQUE	ISTANBUL / BEYAZIT - EMINONU (B)
32	ŞEHZADE COMPLEX	ISTANBUL / BEYAZIT - EMINONU (B)
33	TAHTAKALE HAMAM	ISTANBUL / BEYAZIT - EMINONU (B)
34	VALİDE HAN	ISTANBUL / BEYAZIT - EMINONU (B)
35	YENİCAMİ COMPLEX	ISTANBUL / BEYAZIT - EMINONU (B)
36	AMCAZADE HÜSEYİN PASHA COMPLEX	ISTANBUL / FATİH (C)
37	BALİ PASHA MOSQUE	ISTANBUL / FATİH (C)
38	ESKİ İMARET MOSQUE	ISTANBUL / FATİH (C)
39	FATİH COMPLEX	ISTANBUL / FATİH (C)
40	FENARİ İSA MOSQUE	ISTANBUL / FATİH (C)
41	FETHİYE MOSQUE	ISTANBUL / FATİH (C)
42	FEYZULLAH EFENDİ MEDRESE	ISTANBUL / FATİH (C)
43	GAZANFER AGHA COMPLEX	ISTANBUL / FATİH (C)
44	GÜL MOSQUE	ISTANBUL / FATİH (C)
45	HIRKA-I SERİF MOSQUE	ISTANBUL / FATİH (C)
46	KARA AHMED PASHA COMPLEX	ISTANBUL / FATİH (C)
47	KARIYE MOSQUE	ISTANBUL / FATİH (C)
48	MİHRİMAH SULTAN COMPLEX	ISTANBUL / FATİH (C)
49	TOMB OF NAKŞİDİL SULTAN	ISTANBUL / FATİH (C)
50	NIŞANCI MEHMED PASHA MOSQUE	ISTANBUL / FATİH (C)
51	SULTAN SELİM COMPLEX	ISTANBUL / FATİH (C)
52	SVETI STEFAN CHURCH	ISTANBUL / FATİH (C)
53	ZEYREK MOSQUE	ISTANBUL / FATİH (C)
54	BAYRAM PASHA COMPLEX	ISTANBUL / AKSARAY - YEDİKÜLE (D)
55	CERRAHPAŞA MOSQUE AND COMPLEX	ISTANBUL / AKSARAY - YEDİKÜLE (D)
56	DAVUD PASHA COMPLEX	ISTANBUL / AKSARAY - YEDİKÜLE (D)
57	HADİM İBRAHİM PASHA MOSQUE	ISTANBUL / AKSARAY - YEDİKÜLE (D)
58	HASEKİ COMPLEX	ISTANBUL / AKSARAY - YEDİKÜLE (D)
59	HEKİMOĞLU ALİ PASHA COMPLEX	ISTANBUL / AKSARAY - YEDİKÜLE (D)
60	İMRAHÖR MOSQUE	ISTANBUL / AKSARAY - YEDİKÜLE (D)
61	MURAD PASHA COMPLEX	ISTANBUL / AKSARAY - YEDİKÜLE (D)
62	PERTEVNİYAL VALİDE SULTAN MOSQUE	ISTANBUL / AKSARAY - YEDİKÜLE (D)
63	YEDİKÜLE FORTRESS	ISTANBUL / AKSARAY - YEDİKÜLE (D)
64	EYÜP SULTAN COMPLEX	ISTANBUL / EYÜP - HALIC (E)
65	MİHRİSAH VALİDE SEBİL AND FOUNTAIN	ISTANBUL / EYÜP - HALIC (E)

66	SAHSULTAN TOMB COMPLEX	ISTANBUL / EYUP - HALIC (E)
67	ZAL MAHMUD PASHA COMPLEX	ISTANBUL / EYUP - HALIC (E)
68	BOTTER APARTMENT	ISTANBUL / GALATA - BEYOGLU (F)
69	GALATA MEVLEVI DERVISH LODGE	ISTANBUL / GALATA - BEYOGLU (F)
70	HAMIDIYE FOUNTAIN	ISTANBUL / GALATA - BEYOGLU (F)
71	IHLAMUR PAVILION	ISTANBUL / GALATA - BEYOGLU (F)
72	KILIÇ ALI PASHA COMPLEX	ISTANBUL / GALATA - BEYOGLU (F)
73	MACKA ARSENAL	ISTANBUL / GALATA - BEYOGLU (F)
74	NUSRETIYE MOSQUE	ISTANBUL / GALATA - BEYOGLU (F)
75	PIYALE PASHA MOSQUE	ISTANBUL / GALATA - BEYOGLU (F)
76	SALIHA SULTAN SEBIL AND FOUNTAIN	ISTANBUL / GALATA - BEYOGLU (F)
77	TESVIKIYE MOSQUE	ISTANBUL / GALATA - BEYOGLU (F)
78	TOPHANE FOUNTAIN	ISTANBUL / GALATA - BEYOGLU (F)
79	ABDULMECID EFENDI PAVILION	ISTANBUL / ÜSKÜDAR - KADIKÖY (G)
80	ATIK VALIDE COMPLEX	ISTANBUL / ÜSKÜDAR - KADIKÖY (G)
81	AYAZMA MOSQUE	ISTANBUL / ÜSKÜDAR - KADIKÖY (G)
82	ÇINILI MOSQUE AND COMPLEX	ISTANBUL / ÜSKÜDAR - KADIKÖY (G)
83	HAYDARPAŞA RAILWAY STATION	ISTANBUL / ÜSKÜDAR - KADIKÖY (G)
84	HAYDARPAŞA MEDICAL COMPLEX	ISTANBUL / ÜSKÜDAR - KADIKÖY (G)
85	MIHRIMAH SULTAN COMPLEX	ISTANBUL / ÜSKÜDAR - KADIKÖY (G)
86	RUM MEHMED PASHA COMPLEX	ISTANBUL / ÜSKÜDAR - KADIKÖY (G)
87	SELIMIYE MOSQUE	ISTANBUL / ÜSKÜDAR - KADIKÖY (G)
88	SELIMIYE BARRACKS	ISTANBUL / ÜSKÜDAR - KADIKÖY (G)
89	ŞEMSİ PASHA MOSQUE	ISTANBUL / ÜSKÜDAR - KADIKÖY (G)
90	YENİ VALIDE COMPLEX	ISTANBUL / ÜSKÜDAR - KADIKÖY (G)
91	ANADOLUHISARI FORTRESS	ISTANBUL / BOSPHORUS SITES (H)
92	BEYLERBEYİ MOSQUE	ISTANBUL / BOSPHORUS SITES (H)
93	BEYLERBEYİ PALACE	ISTANBUL / BOSPHORUS SITES (H)
94	ÇIRAGAN PALACE	ISTANBUL / BOSPHORUS SITES (H)
95	DOLMABAĞÇE (BEZMIALEM VALIDE SULTAN) MOSQUE	ISTANBUL / BOSPHORUS SITES (H)
96	DOLMABAĞÇE PALACE	ISTANBUL / BOSPHORUS SITES (H)
97	EMIRGAN MOSQUE	ISTANBUL / BOSPHORUS SITES (H)
98	ERTUĞRUL TEKKE AND MOSQUE	ISTANBUL / BOSPHORUS SITES (H)
99	HAMIDIYE MOSQUE	ISTANBUL / BOSPHORUS SITES (H)
100	KULELİ BARRACKS	ISTANBUL / BOSPHORUS SITES (H)
101	KUÇUKSU (GOKSU) PAVILION	ISTANBUL / BOSPHORUS SITES (H)
102	KUÇUKSU SQUARE FOUNTAIN	ISTANBUL / BOSPHORUS SITES (H)
103	MECIDIYE MOSQUE	ISTANBUL / BOSPHORUS SITES (H)
104	ORTAKOY MOSQUE	ISTANBUL / BOSPHORUS SITES (H)
105	RUMELIHISARI FORTRESS	ISTANBUL / BOSPHORUS SITES (H)
106	SAFFET PASHA YALI	ISTANBUL / BOSPHORUS SITES (H)
107	SAİD HALİM PASHA YALI	ISTANBUL / BOSPHORUS SITES (H)
108	SİNAN PASHA MOSQUE	ISTANBUL / BOSPHORUS SITES (H)
109	TOMB OF SHEIKH ZAFİR	ISTANBUL / BOSPHORUS SITES (H)
110	YILDIZ PALACE AND PRIVY GARDEN	ISTANBUL / BOSPHORUS SITES (H)
111	BUYUKCEKMECE BRIDGE	ISTANBUL / THE ENVIRONS (I)
112	MAGLOVA AQUEDUCT	ISTANBUL / THE ENVIRONS (I)

As specified in Table 4.2., there are 93 historical buildings at European side, and 19 at Asian side. 83 percent of the historical buildings are at European side, and 17 percent of them are at Asian side of İstanbul. As 83 percent of the historical buildings are at European side of İstanbul, the case study was selected within the borders of Europeanside.

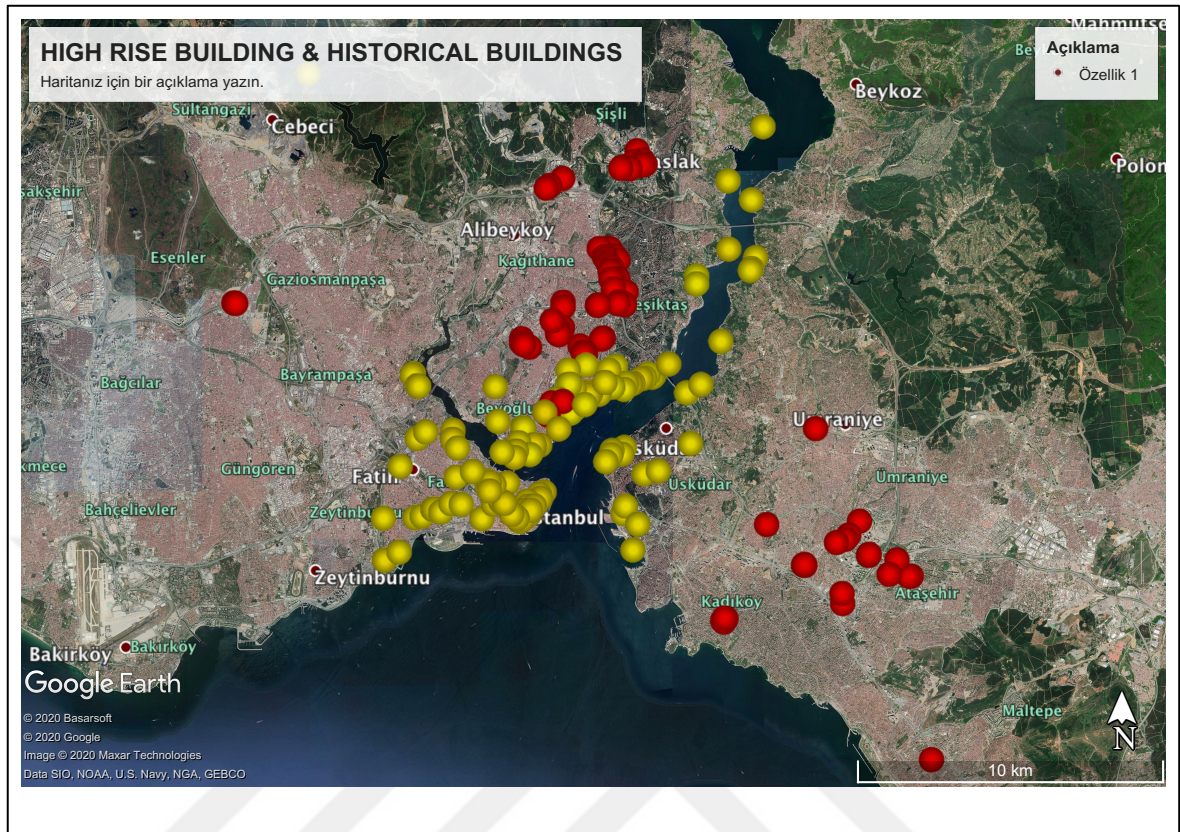


Figure 4.4. Historical and high-rise buildings in İstanbul [112].

The analyses of high-rise buildings and urban texture of İstanbul are shown together in the Figure 4.5. As the result of the analysis, as shown in the Figure 4.5., the area where the high-rise buildings are present in İstanbul is indicated with red color, the area where the urban texture is present is indicated with yellow color, and the intersection point of these two areas is indicated with orange color. The intersection area indicate with orange color was determined as the Beşiktaş district.

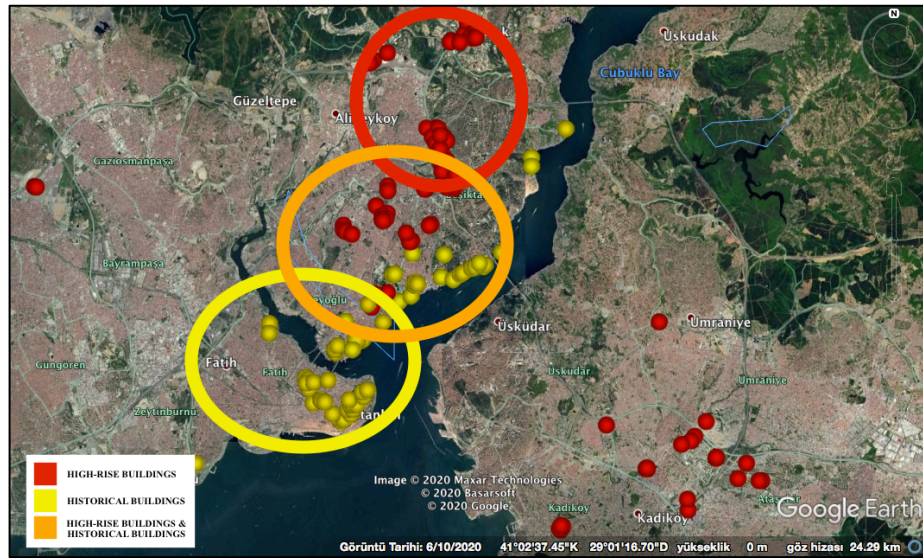


Figure 4.5. Historical and high-rise buildings in İstanbul [112].

The relationship between historical buildings and high-rise buildings was searched as per location. In the Figure 4.5., the ones indicated with red color are high-rise buildings, and the ones indicated with yellow color are historical buildings.

In İstanbul, 73.8 percent of the high-rise buildings, and 83 percent of the historical buildings are at European side. It is being observed that the high-rise building area and historical building area, which are concentrated on European side, are intersecting at Beşiktaş district. Beşiktaş district, where the high-rise building area and historical building area intersect, was selected as the case study. In the following section, the context between high-rise buildings and urban texture at Beşiktaş district –which was selected as a case study- was examined.

4.1. BEŞİKTAŞ DISTRICT AS A CASE STUDY

Beşiktaş is one of the oldest localities of İstanbul, and it is also a district of İstanbul. Beşiktaş district is at European side of İstanbul (Figure 4.6., Figure 4.7.), and it is located between Tophane and Ortaköy. There is Sarıyer district at north, Şişli and Kağıthane districts at west, and Beyoğlu district at southwest of Beşiktaş district. Its surface area is 1,520 hectares, and shoreline length is 8,375 meters [180].

Beşiktaş district is shown the panoramic view of İstanbul city of 2020 provided in the Figure 4.6., which had been obtained from the website of İstanbul Metropolitan Municipality.



In Figure 4.6. Panoramic photograph from Çamlıca Tower available on the website of İstanbul Metropolitan Municipality, 2020 [181].



Figure 4.7. Aerial photograph of Beşiktaş district [182].

Population of Beşiktaş district in certain years is shown in the following the Table 4.3.

Table 4.3. Population of Beşiktaş district in certain years [183].

1935	1945	1955	1965	1975	1985	1990	1997	2000	2007
54.761	63.611	84.698	107.442	174.911	204.911	192.21	201.109	190.813	191.513
2008	2010	2011	2012	2014	2015	2016	2017	2018	2019
185.373	184.390	187.053	186.067	188.793	190.033	189.356	185.447	181.074	182.649

When the Table 4.3. is examined, it is observed that the population of Beşiktaş district has increased slowly but in a regular manner between years 1935-1985. And that it had a fluctuating course in the recent 34 years due to reaching to limit point in terms of lodging areas, and due to transformation to business areas at specific points. Thus, it is able to be said that its night population, which is considered in census, has a gradually decreasing trend.

As Kırar cited, according to a thesis among the written sources regarding Beşiktaş, the original name of Beşiktaş is Beştaş. And the name Beştaş (five stones) is derived from the five stone columns that Hayreddin Barbarossa had them erected for securing his ships. In time the name Beştaş had turned to Beşiktaş [180].

In the next section, the brief history of the Beşiktaş district is explained.

4.1.1. A Brief History of Beşiktaş District

Beşiktaş had faced the raids of looters coming from Bosphorus in Byzantine period. The damage and fear caused by the looters had prevented the development of settlements beyond the city walls. Beşiktaş's transformation to a settlement in Ottoman period had been by taking the control of Black Sea by the Ottoman Empire.

In the Ottoman Period, in the 18th century, the Levent district in this region was named from Levent Farm. It is known that in the 18th century, the large land in the east of Büyükdere Road was given to Captain-ı Derya Hasan Pasha by I. Abdülhamit as a foreclosure, and Pasha built gardens, summer palaces, and a guard company consisting of sea bream was placed in the district [184].

In 1947, when Emlak Kredi Bank chose Levent District for the mass residential project (Figure 4.8.), it started with the planning works of Prof. Dr. Kemal Ahmet Arû and M. Arch. Rebiî Gorbon. The 1st, 2nd, 3rd and 4th Levent mass housing projects built on the land known as Levent Farm are among the first mass housing projects in Turkey. With this project, by designing small, organized settlement groups, It was built by TOKI and the private sector, which are located in big cities today, and brought the excessive, massive construction closer to human and neighborly relations and scale [185].

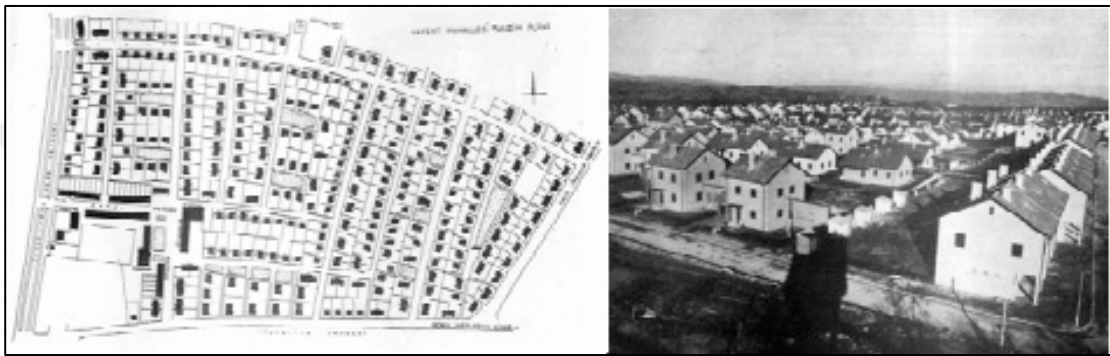


Figure 4.8. Levent district plan and photograph, which was started to be built in 1947 [186].

In 1950, Levent neighborhood had started to be formed through mass residential practice, which started in the pattern of houses with garden on the land of historical Levent Farm. In Levent projects, the buildings have been developed in certain typologies and placed in the area according to their topographic and human characteristics. At the time of its establishment, Levent District became a residential area where civil servants, officers, teachers, artists, writers, scientists, small and medium level merchants and businessmen lived. In addition, new slums such as Gültepe, Çeliktepe and Sanayi neighborhoods were formed due to the strengthening of the transportation infrastructure in the region with the triggering of the industrial facilities located on Büyükdere Street [184].

In 1952, Levent Project was prepared by Bebek – Etiler Cooperative and Prof. Dr. Kemal Ahmet Aru, on Nispetiye Avenue, without Emlak Bank Residences. The idea of “garden cities”, which had a dominant regulation understanding in the planning practice of the 1950s and established by the father of the idea, Ebenezer Howard, as suburbs on the periphery of existing cities, aims to respond to the increasing settlements that were needed by the period. The “garden cities” of Levent and Etiler, designed by Prof. Dr. Kemal

Ahmet Aru and M. Architect Rebiî Gorbun and which are the first in İstanbul, are the product of a planning approach of this nature [184].

In the 1/5000 scale Zoning Plan dated 17/02/1954, Levent district was planned as a settlement area and the surrounding areas as “Non-Residential Area” (Figure 4.9.) [184]. After 1956 Etiler, Konaklar, Akatlar, Nispetiye, Levazım and Kültür neighborhoods had formed. After 1958, other settlements had emerged other than the localities such as Beşiktaş, Ortaköy, Kuruçeşme, Arnavutköy, Bebek being within the borders of Beşiktaş district [180].

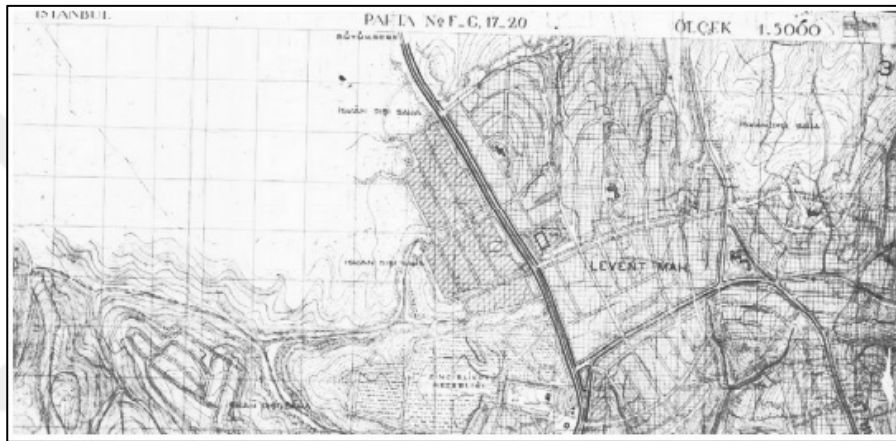


Figure 4.9. Levent district in the 1/5000 scale-zoning plan dated 17/02/1954 [184].

After the mass residential project of Emlak Kredi Bank, which was completed in 1960, many residential projects and sites were built in Levent and the region started to develop rapidly. The areas other than the parts determined according to this plan are divided into residential areas [184].

When Beşiktaş became a district in 1930, it was consisting of 14 neighborhoods. In 1954, Teşvikiye neighborhood had been included in the borders of Şişli district. In 1956, Municipality Branch Managers had been assigned to Beşiktaş. After 1958, it was consisting of 23 neighborhoods [180].

Following 1980, the groves on the hillsides extending along the shore of Bosphorus had been zoned for construction. Beşiktaş district then had the status of attraction point for lodging construction [180]. The factories, which are located on Büyükdere Street and using large industrial areas, have started to leave their places to high buildings for office and multi-purpose use. The region has started to develop very rapidly as a part of İstanbul's

CBD region. Located on the Zincirlikuyu-Levent-Maslak line, İstanbul has the tallest buildings and quality service and commercial buildings [184].

In 1980, the Highways Zincirlikuyu Facilities (Figure 4.10.) structure was designed by Konuralp Architecture in İstanbul in order to meet the administrative and technical service needs of the regional directorate. In the placement of the building on the land, it was deemed appropriate to build the facilities in the area closest to the control point and the main entrance, taking into account the formation of the facilities in that process and the necessary transportation convenience in terms of traffic load. The formation of the building in accordance with the existing internal and external road network and natural directions affected the mass shape. The low block, which includes drawing workshops and open offices, is located to the north and northeast, and the high block that includes the divided offices is located in the direction of Barbaros Boulevard, affecting the narrowest facade of the west sun. The structure has a morphologically non-directional expression with the office areas having the same shape and appearance in both directions [187].



Figure 4.10. İstanbul Highways Zincirlikuyu Facilities [188].

In 1984, according to the ordinance of Metropolitan Municipality, Beşiktaş Municipality was removed from the status of being a branch of İstanbul Metropolitan Municipality, and became a separate municipality [180].

The neighborhoods of Levent, Etiler and Bebek are being exemplified for modern urbanization. The buildings generally consist of reinforced concrete and masonry buildings. And there are a few number of wooden masonry old buildings. Collective squatter areas in Beşiktaş are present at Karanfilköy [180].

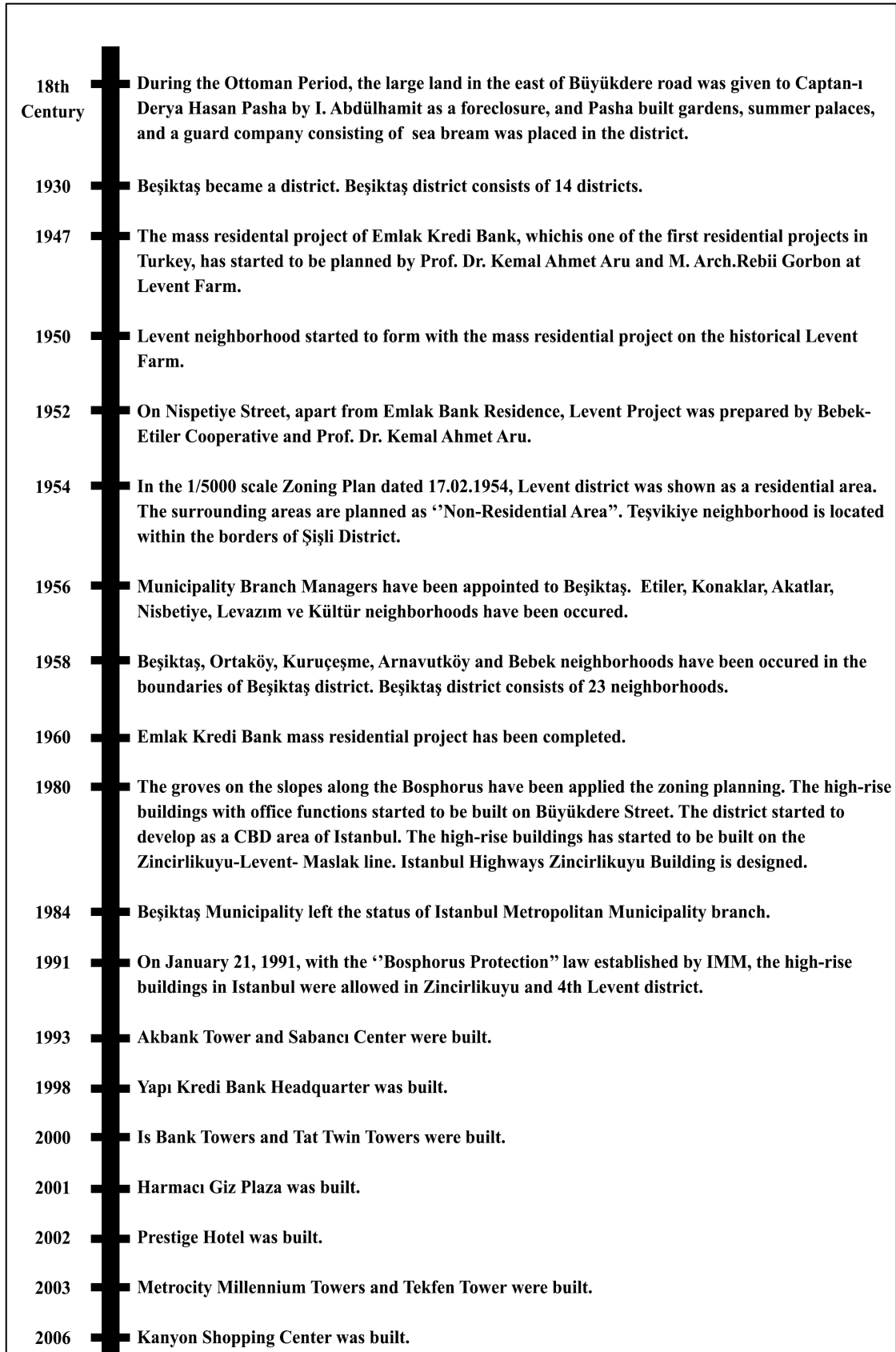
Urban development of Beşiktaş district has accelerated in the Ottoman Empire period, and today it is completely an urban settlement. It is also drawing attention in terms of its transportation, human relations and facilities. Levent and Etiler are settlements recently preferred by industrialists, businesspersons, and artists [180]. As a result of these developments in recent years, the residential character of the region, starting from 1st Levent, has started to transform into commercial and entertainment-oriented functions with administrative centers of small companies. This development threatens the local characteristics of residential buildings in Levent and Etiler. Levent District has been accepted as an “exemplary prestige neighborhood” in terms of settlement and architectural designs of its residential development [184].

Due to setting an example in terms of planning order and model in the Levent district; the simple and unpretentious character that is consciously preferred in the architecture of the buildings is no longer encountered today; the fact that it still maintains all its original qualities and there is a risk of deterioration and losing its quality in the face of the development in this part of the city, Levent Mass Residential Area has been declared as an urban site in accordance with the decision numbered 3047 and dated May 13, 2008 of the İstanbul Regional Conservation Council for Cultural and Natural Properties numbered 3 [189].

This decision means that the buildings in the region are used only as residences and that no commercial activity is allowed. In an interview with Arû by the Contemporary Levent Association; Arû recommended that this area should be planned in a manner appropriate to the population density, and that it should be integrated with the city in the future. When asked about how Levent can be protected, Aru emphasized that the external appearance of the buildings should not be changed and mentioned that the general image of a neighborhood consists of the garden walls and they pay attention to this while planning Levent.

Today, if it is requested to protect and renew the Levent texture designed by Arû; He emphasized that the necessity of protecting the residential area image of Levent by preventing the transformation of residences into workplaces, ensuring compliance with the original plan in the renovation of the buildings and not allowing the use of signboards in workplaces [190].

The timeline of Beşiktaş district is specified in the Figure 4.11.



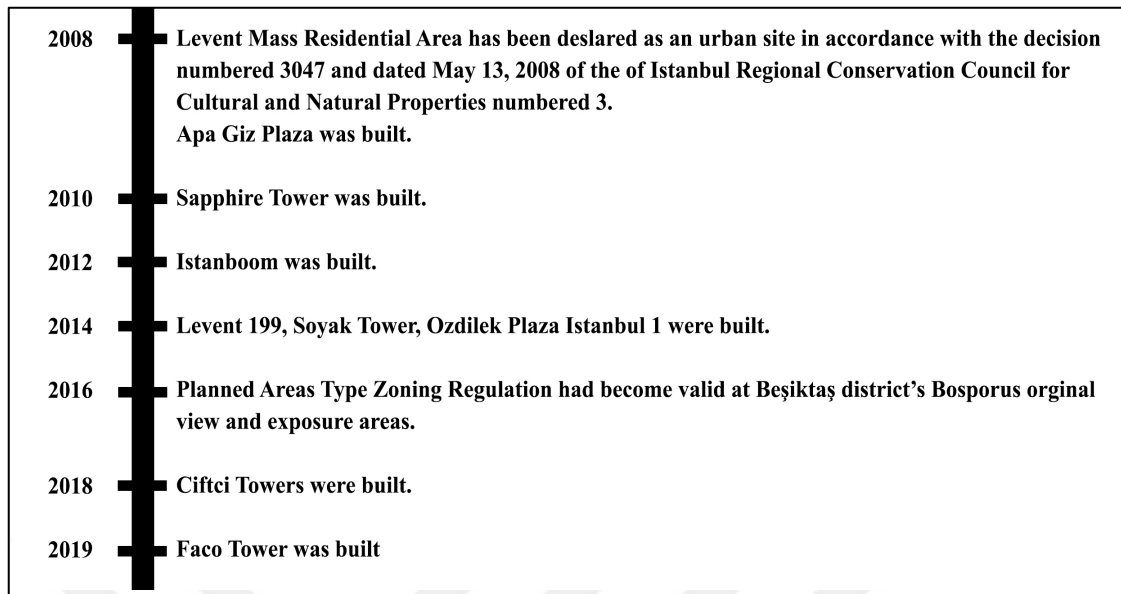


Figure 4.11. The timeline of the Beşiktaş district [191].

It is mentioned in the timeline of the Beşiktaş District that Beşiktaş district was formed from different regions in different periods. Due to Beşiktaş district consists of 23 neighborhoods, Prof. Dr. Kemal Ahmet Aru's low family houses, Levent project in Levent district, high-rise buildings and construction technologies of structures in İstanbul's CBD region, etc., Beşiktaş district has a heterogeneous structure.

In the next section, high-rise and historical buildings in the Beşiktaş district are examined.

4.1.2. High-Rise Buildings at Beşiktaş District as a Case Study

In this section, the high-rise buildings at Beşiktaş district –selected as a case study- are referred. In the Figure 4.12, the locations of high-rise buildings at Beşiktaş district are indicated.

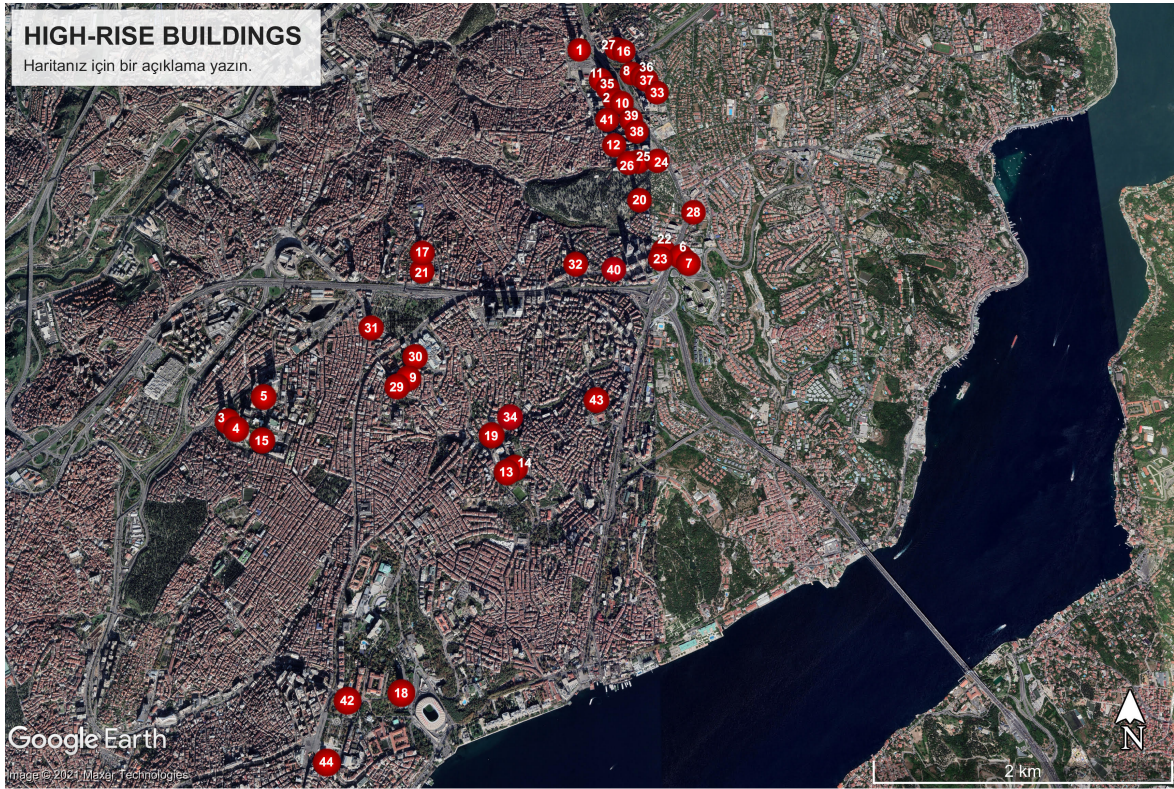


Figure 4.12. High-rise buildings at Beşiktaş district as case study [112].

The high-rise buildings at Beşiktaş district, indicated in the Figure 4.12., are provided in the Table 4.4. in terms of their high-rise building list, locations, number and height of storeys. The high-rise buildings at Beşiktaş district are listed in descending order. The numbers on the map has corresponding items in the Table 4.4.

In the Table 4.4., the number of floors and heights of high-rise buildings in İstanbul, and different sources including the book of Sağlam, “High-Rise Buildings Examples of İstanbul” are also specified in the table.

Table 4.4. List of high-rise buildings at Beşiktaş district as a case study [112].

NUMBER	BUILDINGS	CITY	FLOORS	HEIGHT	YEAR	SAGLAM, R., HIGH RISE BUILDINGS , 2016 FLOORS	SAGLAM, R., HIGH RISE BUILDINGS , 2016 HEIGHT
1	SAPPHIRE TOWER	ISTANBUL - EUROPE - 4. LEVENT	54	261m	2010	64	261m
2	FACO TOWER (ISTANBUL TOWER 205)	ISTANBUL - EUROPE - SISLI	54	220m	2019		
3	ANTHILL RESIDENCE 1	ISTANBUL - EUROPE - SISLI	55	210m	2010		
4	ANTHILL RESIDENCE 2	ISTANBUL - EUROPE - SISLI	55	210m	2010		
5	BOMONTI TIME RESIDENCE	ISTANBUL - EUROPE - SISLI	52	195m	2018		
6	ÇİFÇİ TOWER A	ISTANBUL - EUROPE - BESİKTAS	45	194m	2018		
7	ÇİFÇİ TOWER B	ISTANBUL - EUROPE - BESİKTAS	45	194m	2018		
8	İSBANK TOWER 1	ISTANBUL - EUROPE - LEVENT	52	181m	2000	52	181.2m
9	ŞİŞLİ PLAZA	ISTANBUL - EUROPE - SISLI	44	170m	2007	44	170.1m
10	LEVENT 199	ISTANBUL - EUROPE - SISLI	40	170m	2014		
11	SOYAK TOWER (QNB FINANSBANK)	ISTANBUL - EUROPE - SISLI	40	170m	2014		
12	OZDILEK PLAZA ISTANBUL 1	ISTANBUL - EUROPE - SISLI	38	170m	2014		
13	SELENIUM TWINS (1)	ISTANBUL - EUROPE - BESİKTAS	35	164m	2009	42	159m
14	SELENIUM TWINS (2)	ISTANBUL - EUROPE - BESİKTAS	35	164m	2009	42	159m
15	RIXOS BOMONTI RESIDENCE	ISTANBUL - EUROPE - SISLI	43	159m	2010		
16	AKBANK TOWER (SABANCI CENTER)	ISTANBUL - EUROPE - BESİKTAS	39	158m	1993		
17	TRUMP TOWER 1	ISTANBUL - EUROPE - SISLI	39	155m	2010		
18	SUZER PLAZA PITZ-CARLTON	ISTANBUL - EUROPE - BESİKTAS	41	154m	2001	41	136m
19	POLAT TOWER RESIDENCE	ISTANBUL - EUROPE - SISLI	40	153m	2001		
20	ISTANBLOOM	ISTANBUL - EUROPE - SISLI	44	150m	2012		
21	TRUMP TOWER 2	ISTANBUL - EUROPE - SISLI	37	145m	2010		
22	TAT TWIN TOWER 1	ISTANBUL - EUROPE - SISLI	34	143m	2000		
23	TAT TWIN TOWER 2	ISTANBUL - EUROPE - SISLI	34	143m	2000		
24	METROCITY MILLENNIUM TOWERS 1	ISTANBUL - EUROPE - LEVENT	31	143m	2003	27	135m
25	METROCITY MILLENNIUM TOWERS 2	ISTANBUL - EUROPE - LEVENT	35	143m	2003	27	135m
26	METROCITY MILLENNIUM TOWERS 3	ISTANBUL - EUROPE - LEVENT	35	143m	2003	27	135m
27	SABANCI CENTER	ISTANBUL - EUROPE - LEVENT	39	142m	1993	39	142m
28	GARANTI BANK HEADQUARTER	ISTANBUL - EUROPE - LEVENT	21	141m	2002	21	141m
29	PRESTIGE HOTEL	ISTANBUL - EUROPE - SISLI	38	140m	2007		
30	SISLI ELITE RESIDENCE	ISTANBUL - EUROPE - SISLI	35	140m	2000	40	132.5m
31	SISLI KEY PLAZA	ISTANBUL - EUROPE - SISLI		135m			
32	KEMPINSKI RESIDENCE ASTORIA	ISTANBUL - EUROPE - SISLI	27	127m	2007	27	127m
33	YAPI KREDİ BANK HEADQUARTER	ISTANBUL - EUROPE - LEVENT	30	120m	1998	30	120m
34	SELENIUM RESIDENCE	ISTANBUL - EUROPE - BESİKTAS	30	120m	2004	30	120m
35	TEKFEN TOWER	ISTANBUL - EUROPE - SISLI	26	120m	2003		
36	İSBANK TOWERS 2	ISTANBUL - EUROPE - BESİKTAS	36	117.6m	2000	36	117.6m
37	İSBANK TOWERS 3	ISTANBUL - EUROPE - BESİKTAS	36	117.6m	2000	36	117.6m
38	KANYON SHOPPING CENTER	ISTANBUL - EUROPE - SISLI	30	117.5m	2006	30	117.5m
39	APA GİZ PLAZA	ISTANBUL - EUROPE - SISLI	32	112m	2008	32	112m
40	MAYA AKAR TOWER	ISTANBUL - EUROPE - ESENTEPE	30	103m	1992		
41	HARMAÇI GİZ PLAZA	ISTANBUL - EUROPE - SISLI	24	90m	2001	24	90m
42	CEYLAN INTERCONTINENTAL HOTEL	ISTANBUL - EUROPE - BEYOĞLU	25	90m	1975		
43	BARBAROS PLAZA A '(2)	ISTANBUL - EUROPE - BESİKTAS	24	90m			
44	THE MARMARA HOTEL	ISTANBUL - EUROPE - BEYOĞLU	21	69m	1975		

The high-rise buildings of Beşiktaş district indicated in Figure 4.11. are listed in the Table 4.4.

4.1.3. Historical Buildings at Beşiktaş District as a Case Study

In this section, the historical buildings at Beşiktaş district –selected as a case study- are referred. In the Figure 4.3., there is the map of İstanbul’s urban texture from the book of “Ottoman’s İstanbul” by Doğan Kuban which is divided as per areas (see in the Figure 4.3). When the Figure 4.3. is considered, in the İstanbul’s urban texture which is divided to 9 areas, the Beşiktaş district, which was selected as a case study, was tried to be distinguished.

Beşiktaş district, selected as a case study, is at the intersection point of Galata – Beyoğlu area F, and Bosphorus area H from among these areas.

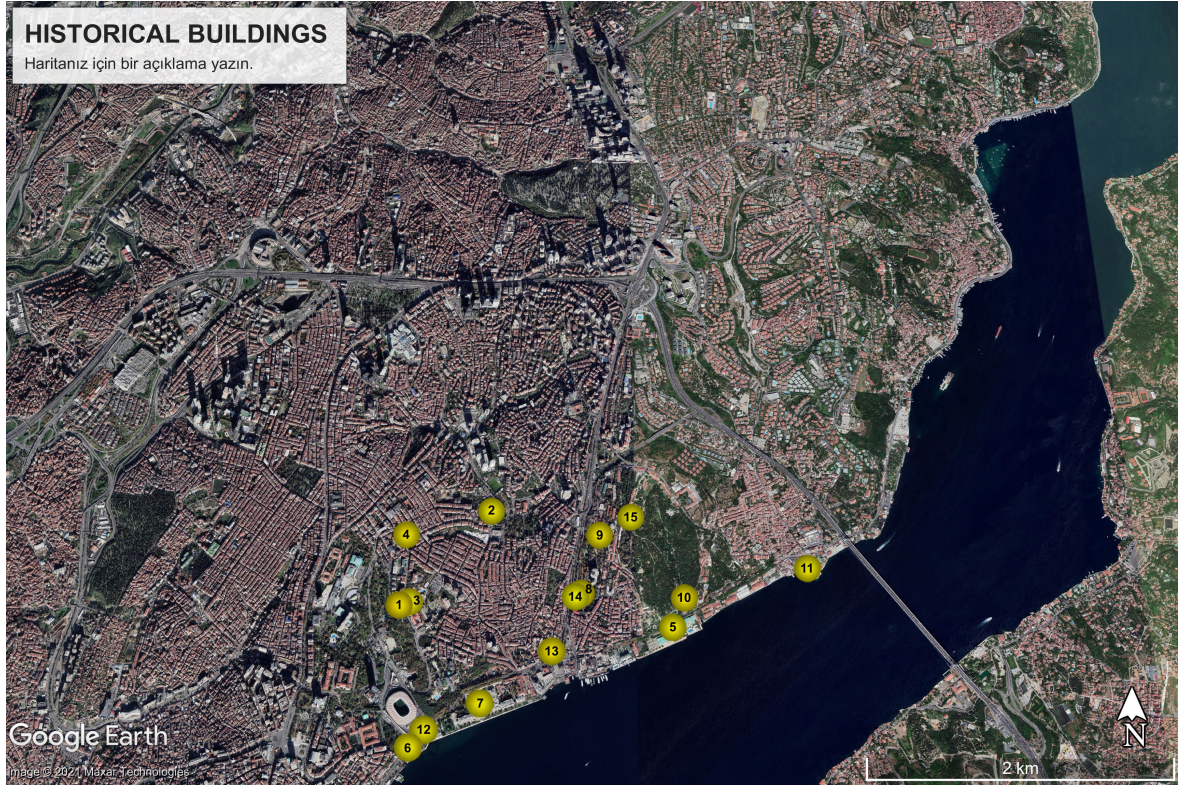


Figure 4.13. Historical buildings at Beşiktaş district as a case study [112].

In the Figure 4.13., the locations of historical buildings at Beşiktaş district are indicated. Historical buildings at Beşiktaş district as case study are given in the Table 4.5.

Table 4.5. List of historical buildings at Beşiktaş district as a case study [112].

NUMBER	HISTORICAL BUILDINGS	CITY
1	HAMIDIYE FOUNTAIN	ISTANBUL / GALATA - BEYOGLU (F)
2	IHLAMUR PAVILION	ISTANBUL / GALATA - BEYOGLU (F)
3	MACKA ARSENAL	ISTANBUL / GALATA - BEYOGLU (F)
4	TESVIKIYE MOSQUE	ISTANBUL / GALATA - BEYOGLU (F)
5	ÇIRAGAN PALACE	ISTANBUL / BOSPHORUS SITES (H)
6	DOLMABAHÇE (BEZMIALEM VALIDE SULTAN) MOSQUE	ISTANBUL / BOSPHORUS SITES (H)
7	DOLMABAHÇE PALACE	ISTANBUL / BOSPHORUS SITES (H)
8	ERTUĞRUL TEKKE AND MOSQUE	ISTANBUL / BOSPHORUS SITES (H)
9	HAMIDIYE MOSQUE	ISTANBUL / BOSPHORUS SITES (H)
10	MECIDIYE MOSQUE	ISTANBUL / BOSPHORUS SITES (H)
11	ORTAKOY MOSQUE	ISTANBUL / BOSPHORUS SITES (H)
12	DOLMABAHÇE TOWER	ISTANBUL / BOSPHORUS SITES (H)
13	SINAN PASHA MOSQUE	ISTANBUL / BOSPHORUS SITES (H)
14	TOMB OF SHEIKH ZAFIR	ISTANBUL / BOSPHORUS SITES (H)
15	YILDIZ PALACE AND PRIVY GARDEN	ISTANBUL / BOSPHORUS SITES (H)

The historical buildings at Beşiktaş district indicated in the Figure 4.13., and the list of historical buildings at Beşiktaş district indicated in the Table 4.5. will be used in the research evaluation included in the following sections.

4.2. EXAMINATION OF THE CONTEXT OF HIGH-RISE BUILDING AND URBAN TEXTURE AT BEŞİKTAŞ DISTRICT

The context of high-rise buildings and urban texture at Beşiktaş district was examined as per their locations and silhouettes on the city plan, their heights according to context and height according to ratios. High-rise buildings concentrate on the line of Beşiktaş, Zincirlikuyu and Maslak at European side.

When İstanbul's urban texture examined in the following parts of the research are considered, the area where İstanbul's high-rise buildings and historical buildings intersect was selected as Beşiktaş district. By listing the high-rise buildings and historical buildings at Beşiktaş district, the contextual relationship among them was searched.

High-rise building area and historical building area, which intersect at Beşiktaş district, have played effective role in the selection of the case study. In the Figure 4.14., high-rise buildings and historical buildings at Beşiktaş district as a case study are indicated.

In the above Beşiktaş district map, all high-rise buildings and historical buildings in the case study are numbered. In the Appendix A, the visuals and identity information of numbered buildings are included.

As seen in the Figure 4.14., it is being observed that the high-rise buildings and historical buildings at Beşiktaş district as a case study are positioned as nested on the map.

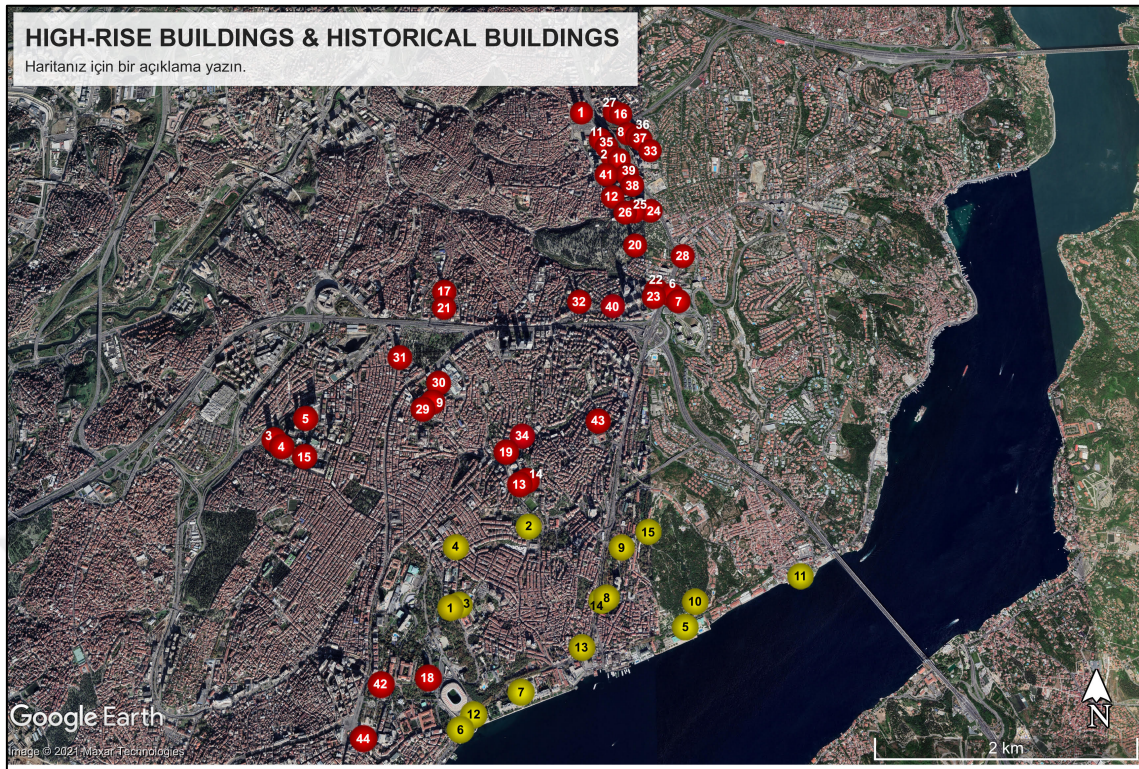


Figure 4.14. View of high-rise and historical buildings at Beşiktaş district as a case study [112]

In the next sections, it is mentioned about tension according to context, tension according to ratio, tension in terms of silhouette.

4.2.1. Tension According to Context

Under this heading, the tension between high-rise buildings and urban texture at Beşiktaş district was examined in the context of height. The high-rise buildings are being defined as per the height of other buildings in the vicinity as well as its own height. The interpretations of heights and ratios of buildings in a case study were performed as per the photographs taken from the observation deck of Sapphire Tower.



Figure 4.15. Sapphire Tower [112].

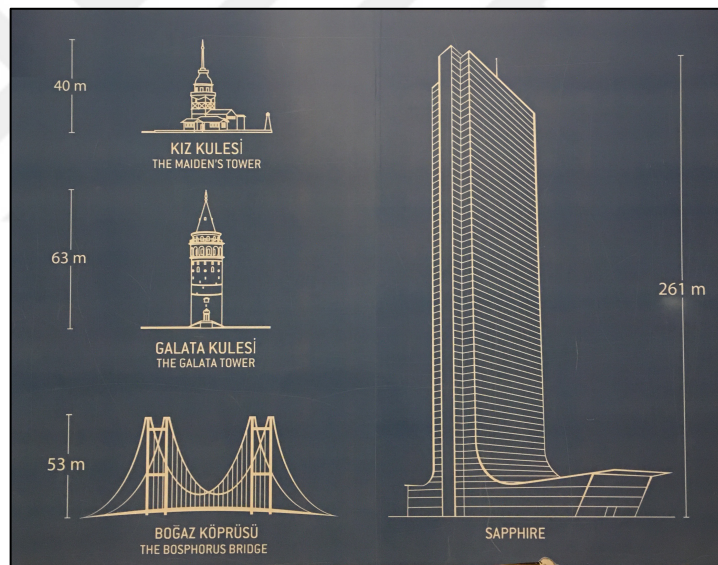


Figure 4.16. Height of Sapphire Tower [112].

The building indicated with number 1 on the map in the Figure 4.14. and in the Figure 4.15., is Sapphire Tower. The height of Sapphire Tower is 261 m as specified in the Figure 4.16.



Figure 4.17. Scenery of İstanbul from the observation deck of Sapphire Tower [112].

As observed from the photograph in the Figure 4.17., taken from the observation deck of Sapphire Tower, it is mentioned that there is a height tension between the high-rise buildings and lodging buildings. When the photograph in the Figure 4.17. is considered, it is observed that there are buildings exceeding 100 m right near the lodging buildings of 5-6 storeys. It is mentioned that high-rise buildings are repressing the lodging buildings of 5-6 storeys by the height tension they form.



Figure 4.18. Scenery of İstanbul from the observation deck of Sapphire Tower [112].

As per context, the height is also causing perceptual differences also among the high-rise buildings. As observed from the photograph in the Figure 4.18., as the height of Is Bank building is higher than the other buildings, it is mentioned that it is causing the other high-rise buildings in its vicinity to be perceived short.



Figure 4.19. High-rise building of Süzer Plaza, and historical structure of Dolmabahçe Clock Tower [112].

According to the Figure 4.19., it is mentioned that the high characteristic of Süzer Plaza is repressing the Dolmabahçe Clock Tower, which has a historical value. In the Figure 4.19, there are exemplary visuals showing that the high-rise buildings are visually affecting the urban texture. It should be taken care for the heights of buildings to be arranged in a manner that will not affect the urban texture. For this reason, while making zoning plan, the locations of high-rise buildings should be planned in a manner that will not affect the visual perceptions of historical buildings.



Figure 4.20. High-rise building of Süzer Plaza, and religious - historical structure of Dolmabahçe Mosque [112].

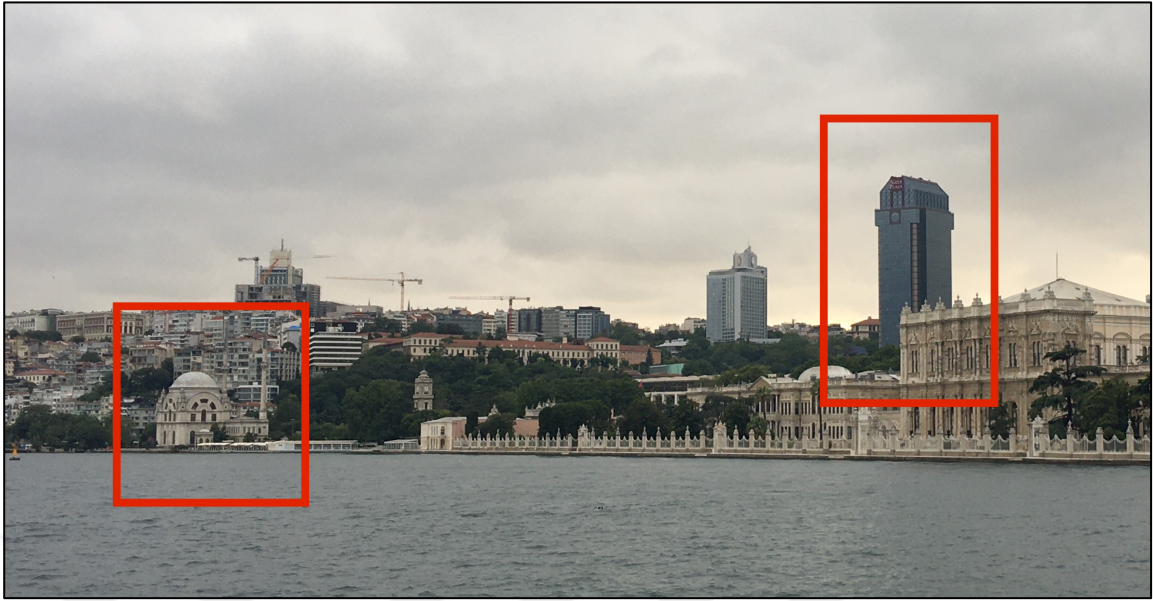


Figure 4.21. High-rise building of Süzer Plaza, and religious - historical structure of Dolmabahçe Mosque [112].

In the Figure 4.20. and the Figure 4.21., it can be mentioned that there is a height tension between high-rise building of Süzer Plaza, and religious - historical structure of Dolmabahçe Mosque. When the photograph in the Figure 4.21 is considered, Süzer Plaza high-rise building of 154 m is being observed right near the Dolmabahçe Mosque religious – historical building. It is mentioned that Süzer Plaza high-rise building is repressing the 5-6 storeys lodging buildings and repressing the Dolmabahçe Mosque religious – historical building by the height and rising topography tension it causes.

In the photograph in the Figure 4.20. and the Figure 4.21., it is observed that the high-rise buildings are exceeding the mosque's minaret, and accordingly it is mentioned that the religious meanings, ascribed to height such as “supreme, holiness”, have now turned to social and economic symbols (see p.8.).



Figure 4.22. Scenery of İstanbul from the observation deck of Sapphire Tower [112].

In the photograph in the Figure 4.22., it is mentioned that the skyscrapers rising from among the lodging buildings are causing tension in the context of height.

In this context, it is being thought that live quality of individuals living at 5-6 storeys buildings is decreasing, as they are unable to benefit from sunlight during daytime due to the presence of high-rise buildings around them. In the light of these evaluations, high-rise buildings should be constructed considering the formation of shadow according to the sunrise and sunset angles for the 5-6 storeys buildings to benefit from the daylight, and especially for the historical buildings not to lose their magnificence due to the shadow formed on them. The rise of high-rise buildings at areas having lodgings and urban texture may cause the city to lose its local values and identities.

4.2.2. Tension According to Ratio

In this section, the tension between high-rise buildings and urban texture at Beşiktaş district was examined in the ratio of height. The height of building also depends on the ratio of relationship between the area of land where the building settles and the height of the building. When considered in terms of the city's silhouette, while some buildings are

not high compared to the buildings in its vicinity, they may be named as high-rise buildings at cities with low-rise buildings due to their characteristic of being slim. But when considered from another aspect, if the building coverage where the building settles is very wide despite it is very high in terms of tallness, the building is not being named as high-rise building.



Figure 4.23. Ratios of high-rise buildings [112].

When the Figure 4.23. is considered, the ratio of height relationship specified in the above definition is observed. In the visual, the high-rise buildings are able to be distinguished easily. The building coverage of the referred high-rise buildings may be equal to or smaller than the building coverage of the 5-6 storeys buildings around them. But when the difference of height is considered, 5-6 storeys buildings that are normally being perceived as high are not being deemed as “high building” in case presence of higher buildings near them.



Figure 4.24. Dolmabahçe Palace and its immediate vicinity [112]

When the photograph in the Figure 4.24. is considered, ratio relationship is being perceived between Dolmabahçe Palace, that has historical value, and high-rise building of Süzer Plaza. While Dolmabahçe Palace is low-rise, and showing horizontal spread on its area of $250,000 \text{ m}^2$ [192], the high-rise building of Süzer Plaza is multi-storey, and it is positioned vertically with a construction area of $48,000 \text{ m}^2$ and building coverage of $4,948 \text{ m}^2$ [193]. Both buildings of different scales, which are provided as example, are being perceived as “stupendous” or “gigantic”. But based on the referred ratio relationship, in the perception of high-rise building, “value of height” is being determinant between the two buildings having different scales.

4.2.3. Tension in Terms of Silhouette

In the formation of physical environment, the interaction of human and nature had a significant place along the history. At cities that have a specific culture and identity, the historical traces and the feeling they give should be cared in order to prevent the urban values against damage. The new development should be performed as per these principles [194]. The silhouettes of cities have always changed along with the development of the cities. It should be cared for the prudential urban planning not to damage the historical values of the city.

In the Figure 4.25., Beşiktaş Palace, which is then named as Dolmabahçe Palace, preserved on the cover of typebar undersigned by Mıgırdıç Melkon, which is obtained from the book of “Hasbahçe” by Atasoy, has been shown. In the photograph, the topography rising behind the Dolmabahçe Palace is being seen clearly.



Figure 4.25. Beşiktaş Palace [195].

Following the hotel towers of 1960s and 1970s, that had been constructed on the line of Beyoğlu – Harbiye, developments rising towards north had occurred. The high-rise buildings, that had been constructed at the north of Beyoğlu and TEM, and at Maslak as from 1980s, has played a role in the formation of İstanbul’s silhouette [196]. In the recent forty years, numerous towers had been constructed in the region, and it is mentioned that all has contributed to the formation of a new layer on the horizon line.



Figure 4.26. Dolmabahçe Palace and its immediate vicinity in 1900s, G. Breggren [197].

In the Figure 4.26. and the Figure 4.27., Dolmabahçe Palace and its immediate vicinity in year 1900s are present. In these photographs, it is possible to see the urban texture in İstanbul's silhouette prior to construction of high-rise buildings.



Figure 4.27. Silhouette of Dolmabahçe Palace in 1900s [198].

When the photograph in the Figure 4.28. is considered, it can be mentioned that the urban texture at Beşiktaş district had gradually deteriorated by the construction of buildings behind the Dolmabahçe Palace.



Figure 4.28. Dolmabahçe Palace and the buildings behind it [192].



Figure 4.29. Silhouette of İstanbul from today's Üsküdar Coast [112].

When the Figure 4.29. and the Figure 4.30. are considered, the topography rising behind Dolmabahçe Palace and Çırağan Palace are observed. Considering the silhouette, the buildings not exceeding 60 m are also able to be perceived as high-rise buildings due to topography. And it can be said that the high-rise buildings constructed seem to be higher in a non-proportional manner due to topography. Regarding the high-rise buildings constructed, it is thought that the urban texture, formed by historical buildings such as Dolmabahçe Palace, is having difficulty on the city's silhouette.

In the Figure 4.29., the horizon line observed from the scenery point of Üsküdar coast is vividly reflecting this effect.



Figure 4.30. High-rise buildings at European side of İstanbul [160].

In the buildings, consideration of humans, and conformity with nature has great importance for urban design. In the Figure 4.30., the side-by-side alignment of high-rise buildings, and not ignoring the 5-6 storeys buildings behind them and ignoring the other environmental factors are not being deemed as a correct approach as per urban design principles [160].



(a)



(b)

Figure 4.31. Dolmabahçe Palace in (a) 1900s [198]. (b) Today [112].

When the two photographs of Dolmabahçe Palace, one from 1900s and one from recent times as seen in the Figure 4.31., are compared, it can be said that high rate of building – urban texture tension is forming in terms of height and ratio in the visual perception of İstanbul's silhouette.

In cities having historical buildings, urban elements and characteristic urban silhouette, all-round silhouette researches should be performed at the area where the high-rise buildings will be constructed. When the high-rise buildings are constructed at an environment close to the urban texture, they are having a distinguishing characteristic on the city's silhouette. High-rise building development may become harmful on the urban texture. Whether the high-rise buildings will damage the urban texture or not, how they will look from the urban center should be considered. It shouldn't be allowed for the high-rise building, planned to be constructed, to be positioned in a manner, which would hinder the development of surrounding urban texture [194].

The section of "A Research on Relationship between High-Rise Building Development and Urban Texture: Beşiktaş İstanbul as a Case Study" has been summarized in the conclusion of the section.

4.3. CASE STUDY

In this section, evaluations of the survey study conducted for İstanbul Beşiktaş district are included. In evaluations, the purpose, method, method, participants, hypothesis and conclusion sections of the survey study are included.

4.3.1. The Aims and Scope of the Case Study

In this case study, it is aimed to reveal the tension between high-rise buildings and the urban texture. Other purposes are listed as follows:

- To discuss the relationship between city skyline and the high-rise buildings,
- To get an idea about the high-rise buildings process in İstanbul and Beşiktaş district,
- To examine the relationship between high-rise buildings and historical singular buildings in the Beşiktaş district,
- To examine the importance of historical singular building locations and rates in the development of high-rise buildings in the Beşiktaş district,

- To examine the suitability of the high-rise buildings in the Beşiktaş district to be built with construction technology as required by the period,

In addition, it was aimed to determine the differences of view in terms of architect-architecture student and female-male groups.

4.3.2. Methodology of the Case Study

This case study was conducted for the Beşiktaş district of İstanbul. These survey questions were created on the assumptions formed as a result of the literature review and the researcher's observations and in order to test these assumptions. There are a total of 28 questions in the survey study. The first question of the survey is personal data protection and the next 5 questions are socio-demographic questions. There are twenty-two high-rise questions in the survey. One of them is open-ended and twenty-one of them are multiple-choice questions. Four questions are multiple choice question styles; fifteen questions are structured as “Agree”, “Unsure” and “Disagree” in the survey. This survey is prepared in Google Form format. The survey started on 10.03.2021 and ended on 04.04.2021. The survey was sent both by mail and by phone application. Each participant answered the survey in approximately 6-8 minutes. The survey's questions are included in Appendix B. The survey was applied digitally and saved as Google Drive.

4.3.3. Participants of the Case Study

Power analysis was carried out with G * POWER 3.1 version for the existence of the ability of the number of people who accepted to participate in the survey to produce robust results. (Figure 4.32.) In the case studies, Cohen (1988) and Parajapati et al. (2010) are mentioned that statistical power is sufficient to have $1-\beta = 0.80$. The effect level was 0.50 as suggested in Cohen (1988) and it was higher than the value suggested in the case study as $1-\beta = 0.95$. Statistical significance was $\alpha = 0.05$.

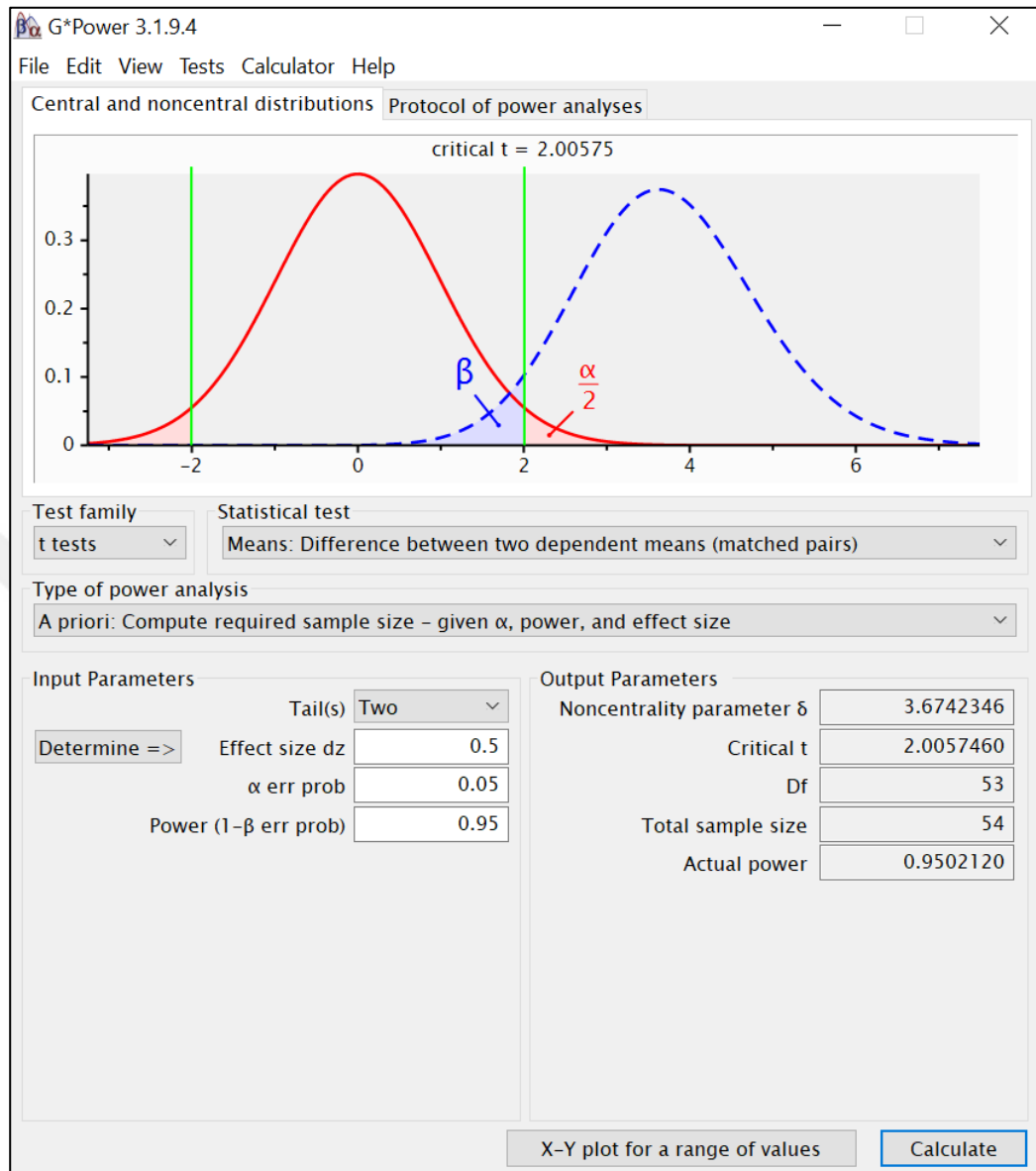


Figure 4.32. Power analysis results [191].

As a result of the power analysis, the validity of the case study was determined if it was studied with at least 54 samples in testing the group differences. This case study demonstrated that the analyses for 161 people would be reliable.

“Snowball Sampling” method was applied in the survey. The survey was conducted by architecture students from Mimar Sinan Fine Arts University, İstanbul Technical University, Bahçeşehir University, Yıldız Technical University, architects and academicians from the faculty of architecture. Participants were asked about their age, gender, education level, profession, and how many years they have resided in İstanbul. The participants are 80 architects and 81 students of architecture in the survey.

In the case study, firstly, the general profile was tried to be explained by interpreting the frequency (frequency) distribution tables for the descriptive variables for the individuals participating in the survey.

Table 4.6. Frequency and percentage values of the participants regarding the gender variable [191].

Gender	<i>f</i>	%
Female	117	72,7
Male	44	27,3
Total	161	100,0

Table 4.6. shows that 72.7 percent of the participants are female and 27.3 percent are male.

Table 4.7. Frequency and percentage values of the participants regarding the age variable [191].

Age	<i>f</i>	%
15-25 years	94	58,4
25-45 years	63	39,1
45-65 years	4	2,5
66 years and over	-	-
Total	161	100,0

Table 4.7. shows that there are 58.4 percent of the participants were 15-25 years old, 39.1 percent of the participants were 25-45 years old, 2.5 percent of the participants were 45-65 years old. There were no participants aged 66 and over.

Table 4.8. Frequency and percentage values of the participants regarding the education level variable [191].

Level of Education	<i>f</i>	%
University Student	81	50,3
License	19	11,8
Master	46	28,6
Doctorate	15	9,3
Total	161	100,0

Table 4.8. shows that 50.3 percent of the participants are university students, 11.8 percent of the participants are undergraduate, 28.6 percent of the participants are a master's degree and 9.3 percent are doctoral graduates.

Table 4.9. Frequency and percentage values of participants regarding the professional variable [191].

Profession	<i>f</i>	%
Architect	80	49,7
Architecture Student	81	50,3
Total	161	100,0

Table 4.9. shows that there are 49.7 percent of the participants are architects, 50.3 percent are students in the department of architecture.

Table 4.10. Frequency and percentage values of the participants' duration of residence period in İstanbul variable [191].

Period	<i>f</i>	%
0-5 years	43	26,7
6-15 years	43	26,7
16 years and above	75	46,6
Total	161	100,0

Table 4.10. shows that 26.7 percent of the participants for 0-5 years, 26.7 percent of the participants for 6-15 years, and 46.6 percent of the participants for more than 16 years have been residing in İstanbul.

4.3.4. The Assumptions and Constraints of the Survey

It was accepted that the individuals who answered the case study reflected their real feelings and thoughts while answering the questions in the measurement tools. It was accepted that the individuals participating in the case study answered the survey willingly and answered the survey accurately and completely. It was accepted that the participants understood the words literally while answering the questions. Misconceptions that may occur have been ignored.

Difficulties were experienced in increasing the sample size of the survey. These difficulties; Face-to-face communication difficulties were experienced with participants due to the global epidemic Covid-19. Although it was mentioned to be used for scientific purposes to many people, there were people who did not want to participate. The fact that the people do not view the survey positively is mentioned as an important constraint.

4.3.5. The Hypothesis of the Case Study

The hypothesis of the case study is to reveal whether the tension between the high-rise buildings in the Beşiktaş district of İstanbul and the urban texture differs in terms of the architect and student group and the male and female group. The hypotheses developed in the case study are shown in the Table 4.11.

Table 4.11. Survey hypotheses [191].

		Hypotheses
H₁	Main Hypothesis	There is a significant difference in the evaluation of the tension between the high-rise buildings in the Beşiktaş district and the urban texture in terms of the groups of architects and architecture students.
H₂	Sub-hypothesis	There is a significant difference in terms of gender in the evaluation of the tension between the high-rise buildings in the Beşiktaş district and the urban texture.

4.3.6. Results of the Case Study

The data matrix obtained from the survey was analyzed in IBM SPSS 25.0 package program. The significance level of the study is $\alpha = 0.05$. In the first stage, percentage distribution information regarding demographic information is presented. In the second stage, there is percentage distribution information for each question of the survey. At the other stage, group difference analysis was applied to test the hypotheses. Kolmogorov-Smirnov and Shapiro-Wilk normal distribution tests were performed in the SPSS program, since which method should be used in the analysis of group difference, will vary according to the distribution of the questions. As a result of these tests, since the questions were not normally distributed ($p < 0.05$), non-parametric methods that do not require normal distribution were used in the analyzes. Mann-Whitney-U test was applied, as the difference test would be done for the two groups.

4.3.6.1. The Reliability of the Case Study

Among the reliability tests, the most used tests are Cronbach Alpha, Split, Parallel, Absolutely Parallel (strict). If the Cronbach Alpha value exceeds 70 percent, it is an indicator that the survey is successful. Some researchers are based on exceeding 75 percent. Passing 70 percent of the other criteria reveals that the internal consistency of the survey is ensured and the inferences can be trusted. As in the Table 4.12, the percentage values specified and desired in all four tests have passed the confidence criteria. The results of the sample were found to be consistent and reliable with high reliability values. The all of reliability criterion exceeds 70 percent, it is proved that the survey conducted with individuals is successful, the survey is consistent within itself, and the results to be obtained will reflect the facts.

Reliability test results of the survey are included in the Table 4.12.

Table 4.12. Reliability test results of the survey [191].

Tests	Reliability Results of the Survey
Cronbach Alpha	0.845
Split	0.844-0.846
Parallel	0.845
Strict	0.846

4.3.6.2. The Findings Regarding Descriptive Statistical Information

In this section, the percentage values and frequency values of the survey questions, which questioning the tension between the high-rise buildings in the Beşiktaş district and the urban texture are explained with tables.

Table 4.13. Frequency and percentage distributions regarding the questions regarding the structuring in İstanbul and Beşiktaş [191].

		Frequency (n)	Percent (%)
How do you evaluate the high construction process in İstanbul? (multiple choice answer)	a) It is developing without a plan.	112	69,6
	b) It harms the urban, natural and cultural texture due to its location in İstanbul.	99	61,5
	c) There should be high-rise construction, but a planning policy should be established.	103	64,0
	d) I think the high-rise building initiatives in İstanbul are positive.	9	5,6
	e) There shouldn't be high-rise buildings in İstanbul.	15	9,3
	f) Other	1	0,6
How should the high-rise buildings in İstanbul be located in the silhouette?	a) High buildings should be evenly distributed over the silhouette.	75	46,6
	b) High buildings should be gathered in an area in the silhouette.	70	43,5
	c) Their current location can be accepted.	2	1,2
	d) Other	14	8,7

How do you evaluate the high-rise buildings in the Beşiktaş district? <i>(multiple choice answer)</i>	a) I think it affects the urban texture negatively.	111	68,9
	b) I see it as a urban symbol.	10	6,2
	c) I definitely think that they should not be located in cities.	14	8,7
	d) I think they are a commercial show off in a symbolic sense.	62	38,5
	e) I believe that it can have positive results as long as it is located in accordance with the structure of the district.	72	44,7
	f) I see it as a reflection of technology.	20	12,4
	g) I see it as a requirement of the period.	35	21,7
	h) Other	3	1,9
How do you evaluate the high construction process in Beşiktaş? <i>(multiple choice answer)</i>	a) It is developing without a plan.	112	69,6
	b) It harms the urban, natural and cultural texture due to its location in İstanbul.	87	54,0
	c) There should be high-rise construction, but a planning policy should be established.	98	60,9
	d) I think the high-rise building initiatives in İstanbul are positive.	10	6,2
	e) There shouldn't be high-rise buildings in İstanbul.	28	17,4
	f) Other	1	0,6
How should the high buildings in the Beşiktaş district be located? <i>(multiple choice answer)</i>	a) Their current location can be accepted.	7	4,3
	b) High construction should be in a specific place.	73	45,3
	c) High structures can be evenly distributed in the district.	59	36,6
	d) It can be located in the urban texture.	8	5,0

	e) It should not be located in the urban texture.	92	57,1
	f) Other	2	1,2
Evaluate the impact of high-rise buildings in the Beşiktaş district in the city. <i>(multiple choice answer)</i>	a) It puts the historical buildings under pressure according to the height.	97	60,2
	b) It casts shadows on structures that are shorter than them.	75	46,6
	c) The existence of high-rise buildings increases the real estate value.	18	11,2
	d) It negatively affects the silhouette of İstanbul.	106	65,8
	e) It harms the urban texture of İstanbul.	112	69,6
	f) It positively affects the urban texture of İstanbul.	9	5,6
	g) It makes the urban texture of İstanbul magnificent.	17	10,6
	h) Other	1	0,6
How do you evaluate the location of high-rise buildings in the Beşiktaş district? <i>(multiple choice answer)</i>	a) It has disturbed the urban texture of the district.	118	73,3
	b) It has adversely affected the silhouette of İstanbul.	109	67,7
	c) It has brought commercial vitality to the district.	59	36,6
	d) It contributed to the development of the district.	38	23,6
	e) It spoils the original structure of the district.	107	66,5
	f) Urban space quality has decreased.	58	36,0
	g) Other	0	0

- For the question “How do you evaluate the high construction process in İstanbul?”;

The participants gave their answers that 69.6 percent of the participants “It is developing without a plan.”, 61.5 percent of the participants “It harms the urban, natural and cultural texture due to their location in İstanbul.”, 64.0 percent of the participants “There should be high-rise construction, but a planning policy should be established.”, 5.6 percent of the participants “I think the high-rise building initiatives in İstanbul are positive.”, 9.3 percent of the participants “There shouldn't be high-rise buildings in İstanbul.”. 0.6 percent of the participants gave answers for the other from the options.
- For the question “How should the high-rise buildings in İstanbul be located in the silhouette?”;

The participants gave their answers that 46.6 percent of the participants “High buildings should be evenly distributed over the silhouette.”, 43,5 percent of the participants “High buildings should be gathered in a are in the silhouette.”, 1,2 percent of the participants “Their current location can be accepted.”. 8,7 percent of the participants gave answers for the other from the options.
- For the question “How do you evaluate the high-rise buildings in the Beşiktaş district?”;

The participants gave their answers that 68,9 percent of the participants “I think it affects the urban texture negatively.”, 6,2 percent of the participants “I see it as a urban symbol.”, 8,7 percent of the participants “I definitely think that they should not be located in cities.”, 38,5 percent of the participants “I think they are a commercial show off in a symbolic sense.”, 44,7 percent of the participants “I believe that it can have positive results as long as it is located in accordance with the structure of the region.”, 12,4 percent of the participants “I see it as a reflection of technology.”, 21,7 percent of the participants “I see it as a requirement of the period.”. 1,9 percent of the participants gave answers for the other from the options.
- For the question “How do you evaluate the high construction process in Beşiktaş?”;

The participants gave their answers that 69.6 percent of the participants “It is developing without a plan.”, 54.0 percent of the participants “It harms the urban, natural and cultural texture due to their location in İstanbul.”, 60.9 percent of the participants “There should be high-rise construction, but a planning policy should be established.”, 6.2 percent of the participants “I think the high-rise building

initiatives in İstanbul are positive.”, 17.4 percent of the participants “There shouldn't be high-rise buildings in İstanbul.”. 0.6 percent of the participants gave answers for the other from the options.

- For the question “How should the high buildings in the Beşiktaş district be located?”;

The participants gave their answers that 4,3 percent of the participants “Their current location can be accepted.”, 45,3 percent of the participants “High construction should be in a specific place.”, 36,6 percent of the participants “High structures can be evenly distributed in the region.”, 5,0 percent of the participants “It can be located in the urban texture.”, 57,1 percent of the participants “It should not be located in the urban texture.”. 1,2 percent of the participants gave answers for the other from the options.

- For the question “Evaluate the impact of high-rise buildings in the Beşiktaş district in the city.”;

The participants gave their answers that 60,2 percent of the participants “It puts the historical buildings under pressure according to the height.”, 6,2 percent of the participants “It casts shadows on structures that are shorter than them.”, 46,6 percent of the participants “The existence of tall buildings increases the real estate value.”, 11,2 percent of the participants “It negatively affects the silhouette of İstanbul.”, 65,8 percent of the participants “I believe that it can have positive results as long as it is located in accordance with the structure of the district.”, 69,6 percent of the participants “It harms the urban texture of İstanbul.”, 5,6 percent of the participants “It positively affects the urban texture of İstanbul.”, 10,6 percent of the participants “It makes the urban texture of İstanbul magnificent.”. 0,6 percent of the participants gave answers for the other from the options.

- For the question “How do you evaluate the location of high-rise buildings in the Beşiktaş district?”;

The participants gave their answers that 73,3 percent of the participants “It has disturbed the urban texture of the district.”, 67,7 percent of the participants “It has adversely affected the silhouette of İstanbul.”, 36,6 percent of the participants “It has brought commercial vitality to the district.”, 23,6 percent of the participants “It contributed to the development of the district.”, 66,5 percent of the participants “It

spoils the original structure of the district.” and 36,0 percent of the participants “Urban space quality has decreased.”.

Table 4.14. Percentage distribution for questions related to the construction in Beşiktaş district [191].

Questions	Disagree		Unsure	Agree
	%			
1) Historical building locations have an importance in the development of high-rise buildings in the Beşiktaş district.	%	41,6	19,3	39,1
	<i>f</i>	67	31	63
2) Urban texture has an importance in high-rise buildings in the Beşiktaş district.	%	85,1	13,0	1,9
	<i>f</i>	137	21	3
3) The relationship of ratio between high-rise buildings and historical buildings in the Beşiktaş district is positive.	%	87,0	7,5	5,6
	<i>f</i>	140	12	9
4) High-rise buildings in the Beşiktaş district positively affect the urban texture of İstanbul.	%	75,2	18,6	6,2
	<i>f</i>	121	30	10
5) The urban texture of İstanbul has been magnificent by the high-rise buildings in the Beşiktaş district.	%	74,5	12,4	13,0
	<i>f</i>	120	20	21
6) Historical buildings in the Beşiktaş district are repressed according to height by high-rise buildings.	%	5,6	18,6	75,8
	<i>f</i>	9	30	122
7) The real estate value in the Beşiktaş district increases by high-rise buildings.	%	26,7	25,5	47,8
	<i>f</i>	43	41	77
8) I think that it is appropriate to build high-rise buildings in the Beşiktaş district with construction technology as required by the period.	%	29,2	24,8	46,0
	<i>f</i>	47	40	74
9) I think that the high-rise buildings in the Beşiktaş district should be compatible with the materials of the historical buildings in the district.	%	28,0	23,6	48,4
	<i>f</i>	45	38	78
10) I think that the high-rise buildings in the Beşiktaş district negatively affect the urban texture.	%	7,5	9,9	82,6
	<i>f</i>	12	16	133
11) The high-rise construction in the Beşiktaş district	%	23,0	30,4	46,6

has brought commercial vitality to the district.	<i>f</i>	37	49	75
12) The high-rise construction in the Beşiktaş district has contributed to the development of the district.	%	31,7	29,8	38,5
	<i>f</i>	51	48	62
13) The high-rise construction in the Beşiktaş district disrupts the original structure of the district.	%	6,8	10,6	82,6
	<i>f</i>	11	17	133
14) The high-rise construction in the Beşiktaş district has reduced the urban space quality in the district.	%	18,6	27,3	54,0
	<i>f</i>	30	44	87

Suggestion 1: For the suggestion “Historical building locations have an importance in the development of high-rise buildings in the Beşiktaş district.”;

The participants gave their answers that 41,6 percent of the participants “Disagree”, 19,3 percent of the participants “Unsure”, 39,1 percent of the participants “Agree”.

Suggestion 2: For the suggestion “Urban texture has an importance in high-rise buildings in the Beşiktaş district.”;

The participants gave their answers that 85,1 percent of the participants “Disagree”, 13,0 percent of the participants “Unsure”, 1,9 percent of the participants “Agree”.

Suggestion 3: For the suggestion “The relationship of ratio between high-rise buildings and historical buildings in the Beşiktaş district is positive.”;

The participants gave their answers that 87,0 percent of the participants “Disagree”, 7,5 percent of the participants “Unsure”, 5,6 percent of the participants “Agree”.

Suggestion 4: For the suggestion “High-rise buildings in the Beşiktaş district affect positively the urban texture of İstanbul.”;

The participants gave their answers that 75,2 percent of the participants “Disagree”, 18,6 percent of the participants “Unsure”, 6,2 percent of the participants “Agree”.

Suggestion 5: For the suggestion “The urban texture of İstanbul has been magnificent by the high-rise buildings in the Beşiktaş district.”.

The participants gave their answers that 74,5 percent of the participants “Disagree”, 12,4 percent of the participants “Unsure”, 13,0 percent of the participants “Agree”.

Suggestion 6: For the suggestion “Historical buildings in the Beşiktaş district are repressed according to height by high-rise buildings.”;

The participants gave their answers that 5,6 percent of the participants “Disagree”, 18,6 percent of the participants “Unsure”, 75,8 percent of the participants “Agree”.

Suggestion 7: For the suggestion “The real estate value in the Beşiktaş district increases by high-rise buildings.”;

The participants gave their answers that 26,7 percent of the participants “Disagree”, 25,5 percent of the participants “Unsure”, 47,8 percent of the participants “Agree”.

Suggestion 8: For the suggestion “I think that it is appropriate to build high-rise buildings in the Beşiktaş district with construction technology as required by the period.”;

The participants gave their answers that 29,2 percent of the participants “Disagree”, 24,8 percent of the participants “Unsure”, 46,0 percent of the participants “Agree”.

Suggestion 9: For the suggestion “I think that the high-rise buildings in the Beşiktaş district should be compatible with the materials of the historical buildings in the district.”;

The participants gave their answers that 28,0 percent of the participants “Disagree”, 23,6 percent of the participants “Unsure”, 48,4 percent of the participants “Agree”.

Suggestion 10: For the suggestion “I think that the high-rise buildings in the Beşiktaş district negatively affect the urban texture.”;

The participants gave their answers that 7,5 percent of the participants “Disagree”, 9,9 percent of the participants “Unsure”, 82,6 percent of the participants “Agree”.

Suggestion 11: For the suggestion “The high-rise construction in the Beşiktaş district has brought commercial vitality to the district”;

The participants gave their answers that 23,0 percent of the participants “Disagree”, 30,4 percent of the participants “Unsure”, 46,6 percent of the participants “Agree”.

Suggestion 12: For the suggestion “The high-rise construction in the Beşiktaş district has contributed to the development of the district.”;

The participants gave their answers that 31,7 percent of the participants “Disagree”, 29,8 percent of the participants “Unsure”, 38,5 percent of the participants “Agree”.

Suggestion 13: For the suggestion “The high-rise construction in the Beşiktaş district disrupts the original structure of the district.”;

The participants gave their answers that 6,8 percent of the participants “Disagree”, 10,6 percent of the participants “Unsure”, 82,6 percent of the participants “Agree”.

Suggestion 14: For the suggestion “The high-rise construction in the Beşiktaş district has reduced the urban space quality in the district.”;

The participants gave their answers that 18,6 percent of the participants “Disagree”, 27,3 percent of the participants “Unsure”, 54,0 percent of the participants “Agree”.

4.3.6.3. Mann-Whitney-U Test Results Regarding Group Difference

In this section, there are analyzes that compare the tension between high-rise buildings and urban texture, which are stated as the hypotheses of the case study, in terms of architecture-architecture student and gender variables.

Comparative analyzes in terms of gender variables are included in Appendix C.

Table 4.15. Group difference test for in term of profession questions [191].

	Architect (n=80 %49,7		Architecture Student (n=81; %(50,3)		p
	n	%	n	%	
1) How do you evaluate the high construction process in İstanbul?					
a) It is developing without a plan.	55	68,75	57	70,4	0,824
b) It harms the urban, natural and cultural texture due to its location in İstanbul.	50	62,5	49	60,5	0,794
c) There should be high-rise construction, but a planning policy should be established.	51	63,75	52	64,2	0,953
d) I think the high-rise building initiatives in İstanbul are positive.	6	7,5	3	3,7	0,296
e) There shouldn't be high-rise buildings in İstanbul.	2	2,5	13	16	0,003*

f) Other	-	-	1	1,2	0,320
2) How should the high-rise buildings in İstanbul be located in the silhouette?					
a) High buildings should be evenly distributed over the silhouette.	25	31,25	50	61,7	0,000*
b) High buildings should be gathered in an area in the silhouette.	46	57,5	24	29,6	
c) Their current location can be accepted.	-	-	2	2,5	
d) Other	9	11,25	5	6,2	
3) How do you evaluate the high-rise buildings in the Beşiktaş district?					
a) I think it affects the urban texture negatively.	55	68,75	56	69,1	0,958
b) I see it as a urban symbol.	5	6,25	5	6,2	0,984
c) I definitely think that they should not be located in cities.	7	8,75	7	8,6	0,981
d) I think they are a commercial show off in a symbolic sense.	32	40	30	37	0,700
e) I believe that it can have positive results as long as it is located in accordance with the structure of the district.	31	38,75	41	50,6	0,131
f) I see it as a reflection of technology.	9	11,25	11	13,6	0,655
g) I see it as a requirement of the period.	18	22,5	17	21	0,817
h) Other	1	1,25	2	2,5	0,569
4) How do you evaluate the high construction process in Beşiktaş?					
a) It is developing without a plan.	56	70	56	69,1	0,905
b) It harms the urban, natural and cultural texture due to its location in İstanbul.	41	51,25	46	56,8	0,482
c) There should be high-rise construction, but a planning policy should be established.	51	63,75	47	58	0,458
d) I think the high-rise building initiatives in İstanbul are positive.	3	3,75	7	8,6	0,200
e) There shouldn't be high-rise buildings in İstanbul.	15	18,75	13	16	0,652

f) Other	-	-	1	1,2	0,320
5) How should the high buildings in the Beşiktaş district be located?					
a) Their current location can be accepted.	2	2,5	5	6,2	0,255
b) High construction should be in a specific place.	41	51,25	32	39,5	0,136
c) High structures can be evenly distributed in the district.	17	21,25	42	51,8	0,000*
d) It can be located in the urban texture.	3	3,75	5	6,2	0,481
e) It should not be located in the urban texture.	52	65	40	4,9	0,026*
f) Other	1	1,25	1	1,2	0,993
6) Evaluate the impact of high-rise buildings in the Beşiktaş district on the city.					
a) It puts the historical buildings under pressure according to the height.	53	66,25	44	54,3	0,123
b) It casts shadows on structures that are shorter than them.	41	51,25	34	42	0,240
c) The existence of high-rise buildings increases the real estate value.	7	8,75	11	13,6	0,332
d) It negatively affects the silhouette of İstanbul.	59	73,75	47	58	0,036*
e) It harms the urban texture of İstanbul.	54	67,5	58	71,6	0,573
f) It affects positively the urban texture of İstanbul.	5	6,25	4	4,9	0,718
g) It makes the urban texture of İstanbul magnificent.	5	6,25	12	14,8	0,078
h) Other	-		1	1,2	0,320
7) How do you evaluate the location of high-rise buildings in the Beşiktaş district?					
a) It has disturbed the urban texture of the district.	59	73,75	59	72,8	0,896
b) It has adversely affected the silhouette of İstanbul.	64	80	45	55,6	0,001*
c) It has brought commercial vitality to the district.	28	35	31	38,3	0,668

d) It contributed to the development of the district.	18	22,5	20	24,7	0,744
e) It spoils the original structure of the district.	58	72,5	49	60,5	0,108
f) Urban space quality has decreased.	32	40	26	32,1	0,298
g) Other	-	-	-	-	1,000

*Significant difference for 0.05

- In terms of profession, “How do you evaluate the high construction process in İstanbul?” according to the answer options; “It is developing without a plan.”, “It harms the urban, natural and cultural texture due to its location in İstanbul.”, “There should be high-rise construction, but a planning policy should be established”, “I think the high-rise building initiatives in İstanbul are positive.” and “Other” options do not differ significantly. However, it creates a significant difference since there is an option ($p < 0.05$) “There shouldn't be high-rise buildings in İstanbul.”. If it is examined the source of the difference, it is seen that the difference stems from the architecture students with a high value of n .
- In terms of profession, “How should the high-rise buildings in İstanbul be located in the silhouette?” according to the answer options; “High buildings should be evenly distributed over the silhouette.”, “High buildings should be gathered in an area in the silhouette.”, “Their current location can be accepted.” and “Other” options. ($p < 0.05$) do differ significantly. If it is examined at the source of the difference, it is seen that the “High buildings should be evenly distributed over the silhouette.” and “Their current location can be accepted.” options are due to the students of architecture who have a high value of n , and for the other two options, the difference is due to the architects with a high value of n .
- In terms of profession, “How do you evaluate the high-rise buildings in the Beşiktaş district?” according to the answer options; “I think it affects the urban texture negatively.”, “I see it as a urban symbol.”, “I definitely think that they should not be located in cities.”, “I think they are a commercial show off in a symbolic sense.”, “I believe that it can have positive results as long as it is located in accordance with the structure of the district.”, “I see it as a reflection of

technology.”, “I see it as a requirement of the period.” and “Other” options ($p > 0.05$) do not differ significantly.

- In terms of profession, “How do you evaluate the high construction process in Beşiktaş?” according to the answer options; “It is developing without a plan.”, “It harms the urban, natural and cultural texture due to its location in İstanbul.”, “There should be high-rise construction, but a planning policy should be established.”, “I think the high-rise building initiatives in İstanbul are positive.”, “There shouldn't be high-rise buildings in İstanbul.” and “Other” options ($p > 0.05$) do not differ significantly.
- In terms of profession, “How should the high buildings in the Beşiktaş district be located?” according to the answer options; “Their current location can be accepted.”, “High construction should be in a specific place.”, “It can be located in the urban texture.” and “Other” options do not differ significantly. However, it creates a significant difference since there are options ($p < 0.05$) “High structures can be evenly distributed in the district.” and “It should not be located in the urban texture.” If it is examined at the source of the difference, the difference stems from the architecture students with a high value of n for “High structures can be evenly distributed in the district.”, while the difference for the option “It should not be located in the urban texture.” stems from the architects.
- In terms of profession, “Evaluate the impact of high-rise buildings in the Beşiktaş district on the city.” according to the answer options; “It negatively affects the silhouette of İstanbul.” option ($p < 0.05$) does differ significantly. If it is examined the source of the difference, it is seen that the difference stems from the architect with a high value of n . There was no significant difference in terms of profession in the other options of the question.
- In terms of profession, “How do you evaluate the location of high-rise buildings in the Beşiktaş district?” according to the answer options; “It has adversely affected the silhouette of İstanbul.” option ($p < 0.05$) does differ significantly. If it is examined the source of the difference, it is seen that the difference stems from the architect with a high value of n . There was no significant difference in terms of profession in the other options of the question.

Table 4.16. Group difference test for in term of profession questions [191].

	Architect (n=80 %49,7		Architecture Student (n=81; %(50,3)		P
	n	%	n	%	
1) Historical building locations have an importance in the development of high-rise buildings in the Beşiktaş district.					
Disagree	41	51,25	26	32,1	0,038*
Unsure	16	20	15	18,5	
Agree	23	28,75	40	49,4	
2) Urban texture has an importance in high-rise buildings in the Beşiktaş district.					
Disagree	71	88,75	66	81,5	0,387
Unsure	8	10	13	16	
Agree	1	1,25	2	2,5	
3) The relationship of ratio between high-rise buildings and historical buildings in the Beşiktaş district is positive.					
Disagree	75	93,75	65	80,2	0,813
Unsure	3	3,75	9	11,1	
Agree	2	2,5	7	8,6	
4) High-rise buildings in the Beşiktaş district positively affect the urban texture of İstanbul.					
Disagree	64	80	57	70,4	0,183
Unsure	11	13,75	19	23,4	
Agree	5	6,25	5	6,2	
5) The urban texture of İstanbul has been magnificent by the high-rise buildings in the Beşiktaş district.					
Disagree	63	78,75	57	70,4	0,878
Unsure	8	10	12	14,8	

Agree	9	11,25	12	14,8	
6) Historical buildings in the Beşiktaş district are repressed according to height by high-rise buildings.					
Disagree	5	6,25	4	4,9	0,034*
Unsure	9	11,25	21	25,9	
Agree	66	8,25	56	69,1	
7) The real estate value in the Beşiktaş district increases by high-rise buildings.					
Disagree	25	31,25	18	22,2	0,160
Unsure	22	27,5	19	23,4	
Agree	33	41,25	44	54,3	
8) I think that it is appropriate to build high-rise buildings in the Beşiktaş district with construction technology as required by the period.					
Disagree	25	31,25	22	27,2	0,975
Unsure	19	23,75	21	25,9	
Agree	36	45	38	46,9	
9) I think that the high-rise buildings in the Beşiktaş district should be compatible with the materials of the historical buildings in the district.					
Disagree	30	37,5	15	18,5	0,032*
Unsure	20	25	18	22,2	
Agree	30	37,5	48	59,3	
10) I think that the high-rise buildings in the Beşiktaş district negatively affect the urban texture.					
Disagree	5	6,25	7	8,6	0,035*
Unsure	4	5	12	14,8	
Agree	71	88,75	62	76,6	

11) The high-rise construction in the Beşiktaş district has brought commercial vitality to the district.					
Disagree	18	2,5	19	23,4	0,215
Unsure	28	35	21	25,9	
Agree	34	42,5	41	50,6	
12) The high-rise construction in the Beşiktaş district has contributed to the development of the district.					
Disagree	34	42,5	17	21	0,292
Unsure	22	27,5	26	32,1	
Agree	24	30	38	46,9	
13) The high-rise construction in the Beşiktaş district disrupts the original structure of the district.					
Disagree	4	5	7	8,6	0,105
Unsure	6	7,5	11	13,6	
Agree	70	87,5	63	77,8	
14) The high-rise construction in the Beşiktaş district has reduced the urban space quality in the district.					
Disagree	17	21,25	13	16	0,101
Unsure	16	20	28	34,6	
Agree	47	58,75	40	49,4	

*Significant difference for 0.05

- In terms of profession, “Historical building locations have an importance in the development of high-rise buildings in the Beşiktaş district.” according to the answer options do differ significantly ($p < 0.05$). If it is examined at the source of the difference, it is seen that the “Disagree” and “Unsure” options are due to the architect who have a high value of n, and “Agree” option is due to the architecture students with a high value of n.

- In terms of profession, “Urban texture has an importance in high-rise buildings in the Beşiktaş district.” according to the answer options ($p > 0.05$) do not differ significantly.
- In terms of profession, “The relationship of ratio between high-rise buildings and historical buildings in the Beşiktaş district is positive.” according to the answer options ($p > 0.05$) do not differ significantly.
- In terms of profession, “High-rise buildings in the Beşiktaş district positively affect the urban texture of İstanbul.” according to the answer options ($p > 0.05$) do not differ significantly.
- In terms of profession, “The urban texture of İstanbul has been magnificent by the high-rise buildings in the Beşiktaş district.” according to the answer options ($p > 0.05$) do not differ significantly.
- In terms of profession, “Historical buildings in the Beşiktaş district are repressed according to height by high-rise buildings.” according to the answer options ($p < 0.05$) do differ significantly. If it is examined at the source of the difference, it is seen that the “Disagree” and “Agree” options are due to the architect who have a high value of n , and “Unsure” option is due to the architecture students with a high value of n .
- In terms of profession, “The real estate value in the Beşiktaş district increases by high-rise buildings.” according to the answer options ($p > 0.05$) do not differ significantly.
- In terms of profession, “I think that it is appropriate to build high-rise buildings in the Beşiktaş district with construction technology as required by the period.” according to the answer options ($p > 0.05$) do not differ significantly.
- In terms of profession, “I think that the high-rise buildings in the Beşiktaş district should be compatible with the materials of the historical buildings in the district.” according to the answer options ($p < 0.05$) do differ significantly. If it is examined at the source of the difference, it is seen that the “Disagree” and “Unsure” options are due to the architect who have a high value of n , and “Agree” option is due to the architecture students with a high value of n .
- In terms of profession, “I think that the high-rise buildings in the Beşiktaş district negatively affect the urban texture.” according to the answer options ($p < 0.05$) do differ significantly. If it is examined at the source of the difference, it is seen that

the “Disagree” and “Unsure” options are due to the architecture student who have a high value of n, and “Agree” option is due to the architect with a high value of n.

- In terms of profession, “The high-rise construction in the Beşiktaş district has brought commercial vitality to the district.” according to the answer options ($p > 0.05$) do not differ significantly.
- In terms of profession, “The high-rise construction in the Beşiktaş district has contributed to the development of the district.” according to the answer options ($p > 0.05$) do not differ significantly.
- In terms of profession, “The high-rise construction in the Beşiktaş district disrupts the original structure of the district.” according to the answer options ($p > 0.05$) do not differ significantly.
- In terms of profession, “The high-rise construction in the Beşiktaş district has reduced the urban space quality in the district.” according to the answer options ($p > 0.05$) do not differ significantly.

4.3.7. Evaluation of Survey Data

Two hypotheses developed in this case study, in which the tension between high-rise buildings and urban texture was revealed, was questioned. The main hypothesis is that there is a significant difference in the evaluation of the tension between the high-rise buildings in the Beşiktaş district and the urban in terms of the groups of architects and architecture students. The evaluation of the tension between the high-rise buildings in the Beşiktaş area and the urban texture was associated with the groups of architects and architecture students who answered the survey. Sub-hypothesis is that there is a significant difference in terms of gender in the evaluation of the tension between the high-rise buildings in the Beşiktaş area and the urban texture. The evaluation of the tension between the high-rise buildings in the Beşiktaş area and the urban texture was associated with the gender of the respondents. According to this;

- For the question of “How do you evaluate the high construction process in İstanbul?”;
Architecture students who answered, “There shouldn't be high-rise buildings in İstanbul” were dominant compared to architects. Female, who answered, “It harms

the urban, natural and cultural texture due to their location in İstanbul.” were dominant compared to male.

It has been revealed in the survey study that it harms the urban, natural and cultural texture due to its location in İstanbul. For high-rise buildings in İstanbul, it should be planned in a way that will not harm the urban history, natural and cultural texture.

- For the question of “How should the high-rise buildings in İstanbul be located in the silhouette?”;

Architecture students who answered, “High buildings should be evenly distributed over the silhouette.” and “Their current location can be accepted.” were dominant compared to architects. Architects who answered, “High buildings should be gathered in an area in the silhouette.” and “Other” were dominant compared to architecture students. There is no dominant tendency the gender among the participants who answered the same question.

In line with the survey data, it can be mentioned, “The high-rise buildings in İstanbul should be located in the silhouette that will not harm the urban, natural and cultural texture.”

- For the question of “How do you evaluate the high-rise buildings in the Beşiktaş district?”;

There is no dominant tendency in terms of profession among the participants who answered the question. Female who answered “I think it affects the urban texture negatively.” and “I think they are a commercial show off in a symbolic sense.” were dominant compared to male for the same question. Male who answered “I see it as a urban symbol.” were dominant compared to female.

In line with the survey data, it can be mentioned, “The high-rise buildings in İstanbul should be located in the silhouette that will not harm the urban, natural and cultural texture.” It can be mentioned that the high-rise buildings negatively affect the urban texture and it is a commercial vanity element and a symbol of the city.

- For the question of “How do you evaluate the high construction process in Beşiktaş?”;

There is no dominant tendency in terms of profession among the participants who answered the question. Female who answered, “It harms the urban, natural and cultural texture due to its location in İstanbul.” were dominant compared to male

for the same question. Male who answered, “I think the high-rise building initiatives in İstanbul are positive.” were dominant compared to female.

It can be mentioned that the high-rise construction in Beşiktaş has damaged the urban, natural and cultural texture due to their location, although attempt of the high-rise building in İstanbul is positive.

- For the question of “How should the high buildings in the Beşiktaş district be located?”;

Architecture students who answered, “High structures can be evenly distributed in the district.” were dominant compared to architects. Architects who answered, “It should not be located in the urban texture.” were dominant compared to architecture students. Female who answered, “Their current location can be accepted.” were dominant compared to male for the same question.

- For the question of “Evaluate the impact of high-rise buildings in the Beşiktaş district on the city.”;

Architects who answered, “It negatively affects the silhouette of İstanbul.” were dominant compared to architecture students. Female who answered, “It negatively affects the silhouette of İstanbul.” and “It harms the urban texture of İstanbul.” were dominant compared to male for the same question. Male who answered “It affects positively the urban texture of İstanbul.” were dominant compared to female.

It can be mentioned that the high-rise buildings in the Beşiktaş district negatively affect the silhouette of İstanbul.

- For the question of “How do you evaluate the location of high-rise buildings in the Beşiktaş district?”;

Architects who answered, “It has adversely affected the silhouette of İstanbul.” were dominant compared to architecture students. Female who answered, “It spoils the original structure of the district.” were dominant compared to male for the same question.

It can be mentioned that high-rise buildings in the Beşiktaş district negatively affect the silhouette of İstanbul and ruin the unique urban texture of the district.

- For the question of “Historical building locations have an importance in the development of high-rise buildings in the Beşiktaş district.”;

Architects who answered, “Disagree” and “Unsure” were dominant compared to architecture students. There is no dominant tendency the gender among the participants who answered the same question.

It can be mentioned that the locations of historical building are not taken into consideration in the development of high-rise buildings in the Beşiktaş district.

- For the question of “Urban texture has an importance in high-rise buildings in the Beşiktaş district.”;

There is no dominant tendency in terms of profession and gender among the participants who answered the question.

- For the question of “The relationship of ratio between high-rise buildings and historical buildings in the Beşiktaş district is positive.”;

There is no dominant tendency in terms of profession and gender among the participants who answered the question.

- For the question of “High-rise buildings in the Beşiktaş district positively affect the urban texture of İstanbul.”;

There is no dominant tendency in terms of profession among the participants who answered the question. Female who answered, “Disagree” and “Unsure” were dominant compared to male for the same question. Male who answered “Agree” was dominant compared to female.

- For the question of “The urban texture of İstanbul has been magnificent by the high-rise buildings in the Beşiktaş district.”;

There is no dominant tendency in terms of profession and gender among the participants who answered the question.

- For the question of “Historical buildings in the Beşiktaş district are repressed according to height by high-rise buildings.”;

Architects who answered, “Disagree” and “Agree” were dominant compared to architecture students. Architecture students who answered “Unsure” were dominant compared to architects. There is no dominant tendency the gender among the participants who answered the question.

According to the suggestion of “Historical buildings in the Beşiktaş district are repressed according to height by high-rise buildings.”, it can be mentioned that the opinion of architects are divided into two. The reason why architecture students are

answered “Unsure” to the suggestion may be that they do not have sufficient information.

- For the question of “The real estate value in the Beşiktaş district increases by high-rise buildings.”;

There is no dominant tendency in terms of profession and gender among the participants who answered the question.

- For the question of “I think that it is appropriate to build high-rise buildings in the Beşiktaş district with construction technology as required by the period.”;

There is no dominant tendency in terms of profession and gender among the participants who answered the question.

- For the question of “I think that the high-rise buildings in the Beşiktaş district should be compatible with the materials of the historical buildings in the district.”;

Architects who answered, “Disagree” and “Unsure” were dominant compared to architecture students. Architecture students who answered “Agree” were dominant compared to architects. There is no dominant tendency the gender among the participants who answered the question.

According to the suggestion of “I think that the high-rise buildings in the Beşiktaş district should be compatible with the materials of the historical buildings in the district.”, the opinion of the architects is that the high-rise buildings should not be compatible with the historical buildings in the district. However, students of architecture suggested that the material should be compatible.

- For the question of “I think that the high-rise buildings in the Beşiktaş district negatively affect the urban texture.”;

Architecture students who answered “Disagree” and “Unsure” were dominant compared to architects. Architects who answered “Agree” were dominant compared to architecture students. There is no dominant tendency the gender among the participants who answered the question.

According to the suggestion of “I think that the high-rise buildings in the Beşiktaş district negatively affect the urban texture.”, the opinion of the architects is that the urban texture is affected negatively. The reason why students of architecture are answered, “Disagree” with the same suggestion may be that they do not have sufficient knowledge.

- For the question of “The high-rise construction in the Beşiktaş district has brought commercial vitality to the district.”;
There is no dominant tendency in terms of profession and gender among the participants who answered the question.
- For the question of “The high-rise construction in the Beşiktaş district has contributed to the development of the district.”;
There is no dominant tendency in terms of profession among the participants who answered the question. Female who answered, “Disagree”, “Unsure” and “Agree” were dominant compared to male for the same question.
- For the question of “The high-rise construction in the Beşiktaş district disrupts the original structure of the district.”;
There is no dominant tendency in terms of profession and gender among the participants who answered the question.
- For the question of “The high-rise construction in the Beşiktaş district has reduced the urban space quality in the district.”;
There is no dominant tendency in terms of profession and gender among the participants who answered the question.

In the next part of the study, the result of the section is included.

4.4. CONCLUSION OF SECTION

Tabulation has been formed for the “A Research on Relationship between High-Rise Building Development and Urban Texture: Beşiktaş İstanbul as a Case Study” section to be understood. In the Table 4.17., the context of high-rise building and urban texture at Beşiktaş district described in the section of “A Research on Relationship between High-Rise Building Development and Urban Texture: Beşiktaş İstanbul as a Case Study” has been evaluated as per the criteria of height, ratio and silhouette.

Table 4.17. Evaluation table of the section of “A Research on Relationship between High-Rise Building Development and Urban Texture: Beşiktaş İstanbul as a Case Study” [191].

	Photographs of high-rise buildings at Beşiktaş district	Photographs of historical buildings at Beşiktaş district	Relationship between high-rise building development and urban texture at Beşiktaş district
Height			It is mentioned that the tension of the height caused by the high-rise buildings, and İstanbul's rising topography is repressing the 5- 6 storeys lodging buildings and the historical buildings.
Ratio			Regarding ratio relationship, in the perception of high-rise building, “value of height” is being determinant between the two buildings having different scales. Thus, it is causing the high-rise buildings to be more easily recognized than the historical buildings. This condition is absorbing the perception of historical building.
Silhouette			When the high-rise buildings are constructed at an environment close to the urban texture, they are having a distinguishing characteristic on the city's silhouette. The city silhouette formed by the historical buildings on the coastline of İstanbul had been damaged due to the high-rise buildings constructed behind them.

According to the evaluation in the Table 4.17.; when it is compared with the city of London from England, and Paris La Defense district from France, while there is a high-rise building development planning for the sake of non-deterioration of urban texture, there is no high-rise building development planning at Beşiktaş district of İstanbul from Turkey.

According to the results of the survey conducted in the case study;

- Due to its location in İstanbul, it harms the urban, natural and cultural texture.
- Planning should be created for high-rise buildings in İstanbul in a way that will not harm the urban, natural and cultural texture.
- High-rise buildings in İstanbul should be positioned in a way that does not damage the urban, natural and cultural texture.
- It has been observed that the positive aspects of the high-rise construction in Beşiktaş district and the high-rise enterprise in İstanbul are more dominant.
- The high-rise buildings in Beşiktaş are seen as a symbol of a commercial showpiece and a symbol of the urban.
- The high-rise buildings in the Beşiktaş district have a negative impact on the silhouette of İstanbul and ruin the unique structure of the district.
- In the development of high-rise buildings in the Beşiktaş district, the locations of historical building were ignored.

Thus, it is mentioned that lack of high development planning in İstanbul is damaging the urban texture.

In the following section, there is the conclusion part of the thesis. In the conclusion of the thesis, general evaluation of the thesis has been made, and design suggestions have been provided for the designers regarding the city planning of İstanbul.

5. CONCLUSION

Along with the industrial revolution, and by the beginning of 19th century, it has been more frequently encountered with the concept of high-rise building. In that period, the population of the cities was rapidly increasing. Along with globalization, rapid development of the cities had increased the land values at the city centers. And along with the development of technology, high-rise building development process has started as a symbol of power among the countries. It is being observed there is an increase in high-rise building development also in Turkey as in the whole world.

Urban planning has been established for high-rise building development in some countries. In this context, London from England, Paris Le Defense district from France, Moscow from Russia, and city of İstanbul from Turkey have been examined in the thesis. In the beginning, all four cities had faced similar conditions regarding high-rise building development along with globalization. But the countries, that had continuously developed themselves in economic and cultural aspect along with renaissance, have developed limitations regarding high-rise building development and high-rise building development policies for future city formations in order to prevent the urban texture from being negatively affected, and in order to preserve the identity of the city. The high-rise building strategy in London from England; It was planned in a way not to damage the existing urban texture. The high-rise building strategy in Paris from France; the high-rise buildings are planned outside of the city in a way that does not damage the urban texture. So, London from England, Paris from France have this comprehension. But, in Moscow from Russia and İstanbul from Turkey, the high-rise buildings have a spontaneous development process and have not adapted this comprehension. Consequently, it can be mentioned that the urban texture is being damaged due to commercial concerns. In addition, unplanned urbanization couldn't be prevented. Today, urban transformation projects are being practiced in order to prevent unplanned urbanization.

As the subject of study, the relationship between high-rise buildings and urban texture at Beşiktaş district of İstanbul was evaluated as per the criteria of height according to context, height according to ratio and city's silhouette. According to the results of evaluation;

Height According to Context; It is mentioned that the tension of the height caused by the high-rise buildings, and İstanbul's rising topography are repressing the 5-6 storeys lodging buildings and the religious - historical buildings. The high-rise buildings are exceeding the mosques' minarets. Based on this condition, it is mentioned that the religious meanings such as "supremacy, holiness" ascribed to height in the former times have today transformed to social and economic symbols.

Height According to Ratio; The building coverage of the high-rise buildings may be equal to or smaller than the building coverage of the historical buildings around them. But when the difference of height is considered, historical buildings that are normally being perceived as high are not being deemed as "high-rise building" in case of presence of higher buildings near them. Consequently, both buildings of different scales are being perceived as "stupendous" or "gigantic". But based on the referred ratio relationship, in the perception of high-rise building, "value of height" is being determinant between the two buildings having different scales. Thus, it is causing the high-rise buildings to be more easily recognized than the historical buildings. This condition is absorbing the perception of historical building.

City's Silhouette: When the high-rise buildings are constructed at an environment close to the urban texture, they are having a distinguishing characteristic on the city's silhouette. High-rise building development is becoming harmful on the urban texture. There is a rising topography behind Dolmabahçe Palace and Çırağan Palace.

Considering the silhouette, the buildings not exceeding 60 m are also able to be perceived as high-rise buildings due to topography. And it can be said that the high-rise buildings constructed seem to be higher in a non-proportional manner due to topography. The city silhouette formed by the historical buildings on the coastline had been damaged due to the high-rise buildings constructed around them. In cities having historical buildings, urban elements and characteristic historical silhouette, all-round silhouette researches should be performed at the area where the high-rise buildings will be constructed.

It is mentioned that there are some deficiencies in some design criteria in high-rise building planning regarding prevention of deterioration of urban texture in İstanbul. Urban planning design criteria for the high-rise buildings in countries may be suggested for the city of İstanbul from Turkey.

Suggestions from the case study and comments for urban planners, architects and designers are listed below.

- The locations of high-rise buildings should be chosen in a way that does not harm the urban, natural and cultural texture.
- High building planning decisions should be created in a way that does not harm the urban, natural and cultural texture. At this point, should be considered to the principles of urban sustainability.
- The locations of high-rise buildings should be such that they do not damage the natural and architectural silhouette and do not put pressure on the silhouette in height.
- It should also be taken into account that high buildings have symbolic values and are considered as city symbols during the planning phase of high buildings.
- High buildings should be planned and located in a way that does not spoil the original structure of the city silhouette.
- The locations of the existing historical buildings of the city should be considered in the planning and positioning of high-rise buildings.
- The high-rise building designs to exhibit a preservationist approach not damaging the urban perspective are suggested.
- The natural green areas of the urban silhouette must be preserved. A natural green border serving as a buffer zone between the urban texture and the high-rise buildings is suggested.

It is suggested for the high-rise buildings to be constructed considering the formation of shadow and sunshine duration according to the sunrise and sunset angles for the 5-6 storeys buildings to benefit from the daylight, and especially for the historical buildings not to lose their magnificence due to the shadow formed on them. The suggestions in this study can be mentioned a case study for the cities of İstanbul and Moscow, which do not have a high-rise building strategy.

For the future research, in line with the content of the thesis, it is suggested to focus on the research question such as where the high-rise buildings are required to be positioned, and what their height limits within the city should be, and the urban transformation projects at

areas of historical buildings, and the restorations regarding historical buildings within such transformation projects.



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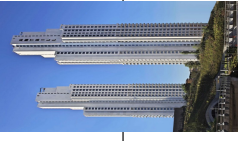
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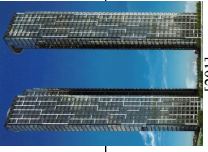
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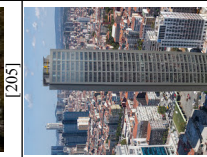
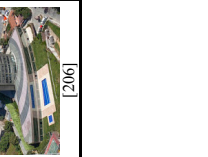
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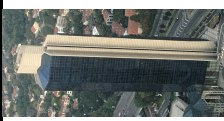
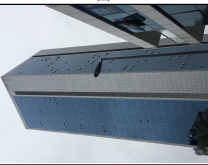


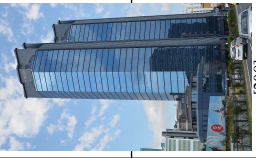
APPENDIX A

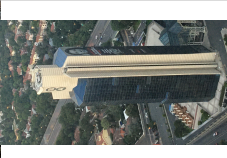
NUMBER	PHOTOGRAPH	BUILDINGS	CITY	FLOORS	HEIGHT	YEAR	SAGLAM R. HIGH RISE BUILDINGS 2016 FLOORS	SAGLAM R. HIGH RISE BUILDINGS 2016 HEIGHT	PURPOSE OF USAGE	CONSTRUCTION SYSTEM	BUILDING MATERIALS
1		SAPPHIRE TOWER	ISTANBUL - EUROPE - 4. LEVENT	54	261m	2010	64	261m	RESIDENTAL SHOPPING MALL	CORE + FRAME	REINFORCED CONCRETE
2		FACO TOWER (ISTANBUL TOWER 205)	ISTANBUL - EUROPE - ŞİŞLİ	54	220m	2019	-	-	RESIDENTAL OFFICE	CORE + FRAME	REINFORCED CONCRETE, STEEL
3	 [199]	ANTHILL RESIDENCE 1	ISTANBUL - EUROPE - ŞİŞLİ	55	210m	2010	-	-	RESIDENTAL SHOPPING MALL	CURTAIN CONCRETE	REINFORCED CONCRETE
4		ANTHILL RESIDENCE 2	ISTANBUL - EUROPE - ŞİŞLİ	55	210m	2010	-	-	RESIDENTAL SHOPPING MALL	CURTAIN CONCRETE	REINFORCED CONCRETE
5	 [200]	BOMONTI TIME RESIDENCE	ISTANBUL - EUROPE - ŞİŞLİ	52	195m	2018	-	-	RESIDENTAL OFFICE	-	REINFORCED CONCRETE

6	 [201]	ÇİFTİ TOWER A	İSTANBUL - EUROPE - BEŞİKTAŞ	45	194m	2018	-	-	RESIDENTAL, OFFICE, SHOPPING MALL	-	REINFORCED CONCRETE, STEEL
7	 [201]	ÇİFTİ TOWER B	İSTANBUL - EUROPE - BEŞİKTAŞ	45	194m	2018	-	-	RESIDENTAL, OFFICE, SHOPPING MALL	-	REINFORCED CONCRETE, STEEL
8		İŞ BANK TOWER 1	İSTANBUL - EUROPE - LEVENT	52	181m	2000	52	181.2m	OFFICE	CORE + EXTERIOR TUBE	REINFORCED CONCRETE
9	 [202]	ŞİŞLİ PLAZA	İSTANBUL - EUROPE - ŞİŞLİ	44	170m	2007	44	170.1m	RESIDENTAL	TUBE IN TUBE	REINFORCED CONCRETE
10	 [203]	LEVENT 199	İSTANBUL - EUROPE - ŞİŞLİ	40	170m	2014	-	-	RESIDENTAL, OFFICE, SHOPPING MALL	CORE + FRAME	REINFORCED CONCRETE

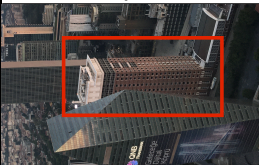
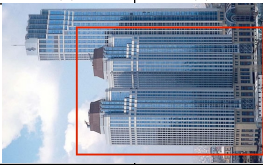
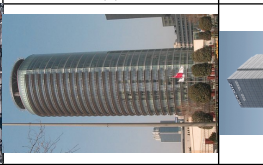
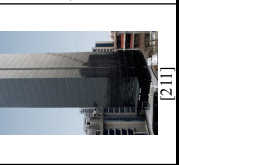
11		SOYAK TOWER (QNB FINANSBANK)	İSTANBUL - EUROPE - ŞİŞLİ	40	170m	2014	-	-	OFFICE, SHOPPING MALL	CORE + FRAME	REINFORCED CONCRETE, STEEL
12		ÖZDİLEK PLAZA İSTANBUL 1	İSTANBUL - EUROPE - ŞİŞLİ	38	170m	2014	-	-	OFFICE, HOTEL, SHOPPING MALL	-	REINFORCED CONCRETE
13		SELENIUM TWINS (1)	İSTANBUL - EUROPE - BEŞİKTAŞ	35	164m	2009	42	159m	RESIDENTIAL	CORE + FRAME	REINFORCED CONCRETE
14		SELENIUM TWINS (2)	İSTANBUL - EUROPE - BEŞİKTAŞ	35	164m	2009	42	159m	RESIDENTIAL	CORE + FRAME	REINFORCED CONCRETE
15		RIXOS BOMONTI RESIDENCE	İSTANBUL - EUROPE - ŞİŞLİ	43	159m	2010	-	-	RESIDENTIAL	-	REINFORCED CONCRETE

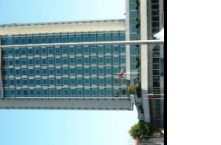
16		AKBANK TOWER (SABANCI CENTER)	İSTANBUL - EUROPE - BEŞİKTAŞ	39	158m	1993	-	-	OFFICE	-	REINFORCED CONCRETE
17	 [207]	TRUMP TOWER 1	İSTANBUL - EUROPE - ŞİŞLİ	39	155m	2010	-	-	RESIDENTAL	CORE + FRAME	REINFORCED CONCRETE
18		SÜZER PLAZA PITZ-CARLTON	İSTANBUL - EUROPE - BEŞİKTAŞ	41	154m	2001	41	136m	RESIDENTAL, OFFICE, HOTEL, SHOPPING MALL	CORE + FRAME	REINFORCED CONCRETE, STEEL
19		POLAT TOWER RESIDENCE	İSTANBUL - EUROPE - ŞİŞLİ	40	153m	2001	-	-	RESIDENTAL, OFFICE, SHOPPING MALL	-	REINFORCED CONCRETE

20		ISTANBULBLOOM	ISTANBUL - EUROPE - ŞİŞLİ	44	150m	2012	-	-	RESIDENTIAL, OFFICE	CORE + FRAME	REINFORCED CONCRETE, STEEL
21		TRUMP TOWER 2	ISTANBUL - EUROPE - ŞİŞLİ	37	145m	2010	-	-	OFFICE	CORE + FRAME	REINFORCED CONCRETE
22		TAT TWIN TOWER 1	ISTANBUL - EUROPE - ŞİŞLİ	34	143m	2000	-	-	OFFICE	CORE + FRAME	REINFORCED CONCRETE
23		TAT TWIN TOWER 2	ISTANBUL - EUROPE - ŞİŞLİ	34	143m	2000	-	-	OFFICE	CORE + FRAME	REINFORCED CONCRETE
24		METROCITY MILLENNIUM TOWERS 1	ISTANBUL - EUROPE - LEVENT	31	143m	2003	27	135m	OFFICE	CORE + MIXED TUBE	REINFORCED CONCRETE

25		METROCITE MILLENNIUM TOWERS 2	İSTANBUL - EUROPE - LEVENT	35	143m	2003	27	135m	RESIDENTIAL	CORE + MIXED TUBE	REINFORCED CONCRETE
26		METROCITE MILLENNIUM TOWERS 3	İSTANBUL - EUROPE - LEVENT	35	143m	2003	27	135m	RESIDENTIAL	CORE + MIXED TUBE	REINFORCED CONCRETE
27		SABANCI CENTER	İSTANBUL - EUROPE - LEVENT	39	142m	1993	39	142m	OFFICE	CORE + FRAME	REINFORCED CONCRETE
28		GARANTI BANK HEADQUARTER	İSTANBUL - EUROPE - LEVENT	21	141m	2002	21	141m	OFFICE	SLIDING CURTAINS+ FRAME	REINFORCED CONCRETE
29		PRESTIGE HOTEL	İSTANBUL - EUROPE - ŞİŞLİ	38	140m	2007	-	-	HOTEL	-	REINFORCED CONCRETE
30		ŞİŞLİ ELITE RESIDENCE	İSTANBUL - EUROPE - ŞİŞLİ	35	140m	2000	40	132.5m	RESIDENTIAL	CORE + EXTERIOR TUBE	REINFORCED CONCRETE

31		ŞİŞLİ KEY PLAZA	İSTANBUL - EUROPE - ŞİŞLİ	-	135m	-	-	-	-	-	REINFORCED CONCRETE
32		KEMPINSKI RESIDENCE ASTORIA	İSTANBUL - EUROPE - ŞİŞLİ	27	127m	2007	27	127m	RESIDENTAL, OFFICE, HOTEL	CORE + FRAME	REINFORCED CONCRETE
33		YAPI KREDİ BANK HEADQUARTER	İSTANBUL - EUROPE - LEVENT	30	120m	1998	30	120m	OFFICE	CORE + EXTERIOR TUBE	REINFORCED CONCRETE
34		SELENIUM RESIDENCE	İSTANBUL - EUROPE - BEŞİKTAŞ	30	120m	2004	30	120m	RESIDENTAL	SLIDING CURTAINS	REINFORCED CONCRETE

35		TEKFEN TOWER	İSTANBUL - EUROPE - ŞİŞLİ	26	120m	2003	-	-	OFFICE	-	REINFORCED CONCRETE
36		İŞ BANK TOWERS 2	İSTANBUL - EUROPE - BEŞİKTAŞ	36	117.6m	2000	36	117.6m	OFFICE	CORE + EXTERIOR TUBE	REINFORCED CONCRETE
37		İŞ BANK TOWERS 3	İSTANBUL - EUROPE - BEŞİKTAŞ	36	117.6m	2000	36	117.6m	OFFICE	CORE + EXTERIOR TUBE	REINFORCED CONCRETE
38		KANYON SHOPPING CENTER	İSTANBUL - EUROPE - ŞİŞLİ	30	117.5m	2006	30	117.5m	RESIDENTIAL, OFFICE, SHOPPING MALL	REINFORCED FRAME+CURTAIN	REINFORCED CONCRETE
39		APA GİZ PLAZA	İSTANBUL - EUROPE - ŞİŞLİ	32	112m	2008	32	112m	OFFICE	CORE + FRAME	REINFORCED CONCRETE

40	 [212]	MAYA AKAR TOWER	ISTANBUL - EUROPE - ESENTEPE	30	103m	1992	-	-	OFFICE	CORE + FRAME	REINFORCED CONCRETE
41	 [213]	HARMAÇI GÜZ PLAZA	ISTANBUL - EUROPE - ŞİŞLİ	24	90m	2001	24	90m	OFFICE	CORE + EXTERIOR TUBE	REINFORCED CONCRETE
42	 [214]	CEYLAN INTERCONTINENTAL HOTEL	ISTANBUL - EUROPE - BEYOĞLU	25	90m	1975	-	-	HOTEL	-	REINFORCED CONCRETE
43	 [215]	BARBAROS PLAZA A	ISTANBUL - EUROPE - BEŞİKTAŞ	24	90m	-	-	-	OFFICE	-	REINFORCED CONCRETE
44		THE MARMARA HOTEL	ISTANBUL - EUROPE - BEYOĞLU	21	69m	1975	-	-	HOTEL	-	REINFORCED CONCRETE

APPENDIX B

İSTANBUL BEŞİKTAŞ BÖLGESİ YÜKSEK YAPILAR VE TARİHİ KENT DOKUSU ARASINDAKİ GERİLİMİN İNCELENMESİ

Bu çalışmada, Beşiktaş bölgesindeki yüksek yapılar ile tarihi yapı çevresi arasındaki ilişkinin irdelenmesi amaçlanmıştır.

Verdiğiniz yanıtlar, Yeditepe Üniversitesi'nde yürütülen bilimsel bir çalışmada kullanılacaktır.

Katılımınız için teşekkür ederiz.

* Gerekli

1. Aşağıda cevaplandıracağım soruların yukarıda bahsi geçen akademik çalışma kapsamında kullanımını kabul ediyorum. *

Yalnızca bir şıkkı işaretleyin.

- ☐ Evet
☐ Hayır

2. Yaşınız: *

Yalnızca bir şıkkı işaretleyin.

- ☐ 15-25
☐ 25-45
☐ 45-65
☐ 66 yaş ve üstü

3. Cinsiyetiniz: *

Yalnızca bir şıkkı işaretleyin.

- ☐ Kadın
☐ Erkek
☐ Belirtmek istemiyorum.

4. Eğitim düzeyiniz: *

Yalnızca bir şıkkı işaretleyin.

- ☐ Üniversite Öğrencisi (1. sınıf)
- ☐ Üniversite Öğrencisi (2. sınıf)
- ☐ Üniversite Öğrencisi (3. sınıf)
- ☐ Üniversite Öğrencisi (4. sınıf)
- ☐ Lisans
- ☐ Y. Lisans
- ☐ Doktora

5. Mesleğiniz nedir? *

Yalnızca bir şıkkı işaretleyin.

- ☐ Mimar
- ☐ Mimarlık öğrencisi

6. Kaç yıldır İstanbul'da ikamet ediyorsunuz? *

Yalnızca bir şıkkı işaretleyin.

- ☐ 0-5 yıl
- ☐ 6-15 yıl
- ☐ 16 yıl ve üzeri

7. İstanbul'daki yüksek yapılaşma sürecini nasıl değerlendiriyorsunuz? (Birden fazla seçeneği işaretleyebilirsiniz.) *

Uygun olanların tümünü işaretleyin.

- ☐ Plansız olarak gelişmektedir.
- ☐ İstanbul'daki konumları sebebi ile kentsel tarihe, doğal ve kültürel dokuya zarar vermektedir.
- ☐ Yüksek yapılaşma olmalıdır, ancak bir planlama politikası oluşturulmalıdır.
- ☐ İstanbul'daki yüksek yapı girişimlerini olumlu karşıliyorum.
- ☐ İstanbul'da yüksek yapılaşma olmamalıdır.

Diğer: ☐ _____

8. İstanbul'daki yüksek yapılar silüette nasıl konumlanmalıdır? *

Yalnızca bir şıkkı işaretleyin.

- ☐ Yüksek yapılar silüete dengeli olarak dağılmalıdır.
- ☐ Yüksek yapıların silüette bir yerde toplanmalıdır.
- ☐ Mevcut yerleri kabul edilebilir.
- ☐ Diğer: _____

9. Beşiktaş bölgesindeki yüksek yapılaşmayı nasıl değerlendiriyorsunuz? (Birden fazla seçeneği işaretleyebilirsiniz.) *

Uygun olanların tümünü işaretleyin.

- ☐ Tarihi kent dokusunu olumsuz etkilediğini düşünüyorum.
- ☐ Kent simgesi olarak görüyorum.
- ☐ Kesinlikle kentlerde yer almamaları gerektiğini düşünüyorum.
- ☐ Simgesel anlamda, ticari bir gösteriş unsuru olduklarını düşünüyorum.
- ☐ Bölgenin yapısına uygun konumlandığı sürece olumlu sonuçları olabileceğine inanıyorum.
- ☐ Teknolojinin yansıması olarak görüyorum.
- ☐ Çağın gereği olarak görüyorum.

Diğer: ☐ _____

10. Beşiktaş'taki yüksek yapılaşma sürecini nasıl değerlendiriyorsunuz? (Birden fazla seçeneği işaretleyebilirsiniz.) *

Uygun olanların tümünü işaretleyin.

- ☐ Plansız olarak gelişmektedir.
- ☐ İstanbul'daki konumları sebebi ile kentsel tarihe, doğal ve kültürel dokuya zarar vermektedir.
- ☐ Yüksek yapılaşma olmalıdır, ancak bir planlama politikası oluşturulmalıdır.
- ☐ Bölgedeki yüksek yapı girişimlerini olumlu karşılıyorum.
- ☐ Bölgede yüksek yapılaşma olmamalıdır.

Diğer: ☐ _____

Yüksek Yapı ve Tarihi Yapı Arasındaki İlişki - Süzer Plaza ve Dolmabahçe Sarayı



11. Beşiktaş bölgesindeki yüksek yapıların gelişmesinde tarihi yapı konumlarının önemi vardır. *

Yalnızca bir şıkkı işaretleyin.

- ☐ Katılıyorum.
- ☐ Katılmıyorum.
- ☐ Kararsızım.

12. Beşiktaş bölgesindeki yüksek yapılaşmada kent dokusu önemsenmiştir. *

Yalnızca bir şıkkı işaretleyin.

- ☐ Katılıyorum.
- ☐ Katılmıyorum.
- ☐ Kararsızım.

Beşiktaş bölgesinin silüeti



13. Beşiktaş bölgesindeki yüksek yapılar ile tarihi yapılar arasında oransal ilişki olumludur. *

Yalnızca bir şıkkı işaretleyin.

- ☐ Katılıyorum.
- ☐ Katılmıyorum.
- ☐ Kararsızım

14. Beşiktaş bölgesindeki yüksek yapıların konumları nasıl olmalıdır? Değerlendiriniz. (Birden fazla seçeneği işaretleyebilirsiniz.) *

Uygun olanların tümünü işaretleyin.

- ☐ Mevcut yerleri kabul edilebilir.
- ☐ Yüksek yapılaşma belirli bir yerde olmalıdır.
- ☐ Yüksek yapılar bölgede dengeli bir şekilde dağılabilir.
- ☐ Tarihi kentin içinde yer alabilir.
- ☐ Tarihi kentin içinde yer almamalıdır.

Diğer: ☐ _____

15. Beşiktaş bölgesindeki yüksek yapıların kente etkisini değerlendiriniz. (Birden fazla seçeneği işaretleyebilirsiniz.) *

Uygun olanların tümünü işaretleyin.

- ☐ Tarihi yapıları yüksekliğe göre baskı altına almaktadır.
- ☐ Kendinden daha kısa yapılara gölge yapmaktadır.
- ☐ Yüksek yapıların olması emlak değerini arttırmaktadır.
- ☐ İstanbul'un silüetini olumsuz yönde etkilemektedir.
- ☐ İstanbul'un tarihi dokusuna zarar vermektedir.
- ☐ İstanbul'un kent dokusunu olumlu yönde etkilemektedir.
- ☐ İstanbul'un kentsel dokusunu görkemli hale getirmektedir.

Diğer: ☐ _____

16. Beşiktaş bölgesindeki yüksek yapılar İstanbul'un kent dokusunu olumlu yönde etkilemektedir. *

Yalnızca bir şıkkı işaretleyin.

- ☐ Katılıyorum.
☐ Katılmıyorum.
☐ Kararsızım.

17. Beşiktaş bölgesindeki yüksek yapılar İstanbul'un kentsel dokusunu görkemli hale getirmektedir. *

Yalnızca bir şıkkı işaretleyin.

- ☐ Katılıyorum.
☐ Katılmıyorum.
☐ Kararsızım.

18. Beşiktaş bölgesindeki yüksek yapılar tarihi yapıları yüksekliğe göre baskı altına almaktadır. *

Yalnızca bir şıkkı işaretleyin.

- ☐ Katılıyorum.
☐ Katılmıyorum.
☐ Kararsızım.

19. Beşiktaş bölgesindeki yüksek yapıların olması emlak değerini arttırmaktadır. *

Yalnızca bir şıkkı işaretleyin.

- ☐ Katılıyorum.
☐ Katılmıyorum.
☐ Kararsızım.

20. Beşiktaş bölgesindeki yüksek yapıların bulunduğu çağın gereği olarak yapı teknolojisiyle yapılmasının uygun olduğunu düşünüyorum. *

Yalnızca bir şıkkı işaretleyin.

- ☐ Katılıyorum.
☐ Katılmıyorum.
☐ Kararsızım.

21. Beşiktaş bölgesindeki yüksek yapıların bölgedeki tarihi yapıların malzemesiyle uyumlu olması gerektiğini düşünüyorum. *

Yalnızca bir şıkkı işaretleyin.

- ☐ Katılıyorum.
☐ Katılmıyorum.
☐ Kararsızım.

22. Beşiktaş bölgesindeki yüksek yapıların tarihi kent dokusunu olumsuz etkilediğini düşünüyorum. *

Yalnızca bir şıkkı işaretleyin.

- ☐ Katılıyorum.
☐ Katılmıyorum.
☐ Kararsızım.

23. Beşiktaş bölgesinde yüksek yapılaşma bölgeye ticari canlılık getirmiştir. *

Yalnızca bir şıkkı işaretleyin.

- ☐ Katılıyorum.
☐ Katılmıyorum.
☐ Kararsızım.

24. Beşiktaş bölgesinde yüksek yapılaşma bölgenin gelişimine katkı sağlamıştır. *

Yalnızca bir şıkkı işaretleyin.

- ☐ Katılıyorum.
- ☐ Katılmıyorum.
- ☐ Kararsızım.

25. Beşiktaş bölgesinde yüksek yapılaşma bölgenin özgün yapısını bozmaktadır. *

Yalnızca bir şıkkı işaretleyin.

- ☐ Katılıyorum.
- ☐ Katılmıyorum.
- ☐ Kararsızım.

26. Beşiktaş bölgesinde yüksek yapılaşma bölgedeki kentsel mekan kalitesini azaltmıştır. *

Yalnızca bir şıkkı işaretleyin.

- ☐ Katılıyorum.
- ☐ Katılmıyorum.
- ☐ Kararsızım.

27. Beşiktaş bölgesinde yüksek yapılaşmaların konumlanmasını nasıl değerlendiriyorsunuz? (Birden fazla seçeneği işaretleyebilirsiniz.) *

Uygun olanların tümünü işaretleyin.

- ☐ Bölgenin tarihi kent dokusunu bozmuştur.
- ☐ İstanbul'un silüetine olumsuz yönde etkilemiştir.
- ☐ Bölgeye ticari canlılık getirmiştir.
- ☐ Bölgenin gelişimine katkı sağlamıştır.
- ☐ Bölgenin özgün yapısını bozmaktadır.
- ☐ Kentsel mekan kalitesi azalmıştır.

Diğer: ☐ _____

28. Beşiktaş'taki yüksek yapıların kent dokusunun uyumu için nasıl bir öneri getirilmelidir? *

Bu içerik Google tarafından oluşturulmamış veya onaylanmamıştır.

Google Formlar

APPENDIX C

Table C.1. Group difference test for in term of gender questions [191].

	Female (n=117; %72,7)		Male (n=44; %(27,3)		p
	n	%	n	%	
1) How do you evaluate the high construction process in İstanbul?					
a) It is developing without a plan.	85	72,6	27	61,4	0,167
b) It harms the urban, natural and cultural texture due to its location in İstanbul.	80	68,4	19	43,2	0,004*
c) There should be high-rise construction, but a planning policy should be established.	73	62,4	30	68,2	0,497
d) I think the high-rise building initiatives in İstanbul are positive.	6	5,1	3	6,9	0,678
e) There shouldn't be high-rise buildings in İstanbul.	12	10,2	3	6,8	0,505
f) Other	-		1	2,3	0,103
2) How should the high-rise buildings in İstanbul be located in the silhouette?					
a) High buildings should be evenly distributed over the silhouette.	56	47,9	19	43,2	0,479
b) High buildings should be gathered in an area in the silhouette.	51	43,6	19	43,2	
c) Their current location can be accepted.	-	-	2	4,5	
d) Other	10	8,5	4	9,1	
3) How do you evaluate the high-rise buildings in the Beşiktaş district?					
a) I think it affects the urban texture negatively.	88	75,2	23	52,3	0,005*
b) I see it as a urban symbol.	4	3,4	6	13,6	0,017*
c) I definitely think that they should not be located in cities.	11	9,4	3	6,8	0,605
d) I think they are a commercial show off in a symbolic sense.	51	43,6	11	25	0,031*

e) I believe that it can have positive results as long as it is located in accordance with the structure of the district.	47	40,2	25	56,8	0,059
f) I see it as a reflection of technology.	16	13,7	4	9,1	0,433
g) I see it as a requirement of the period.	24	20,5	11	25	0,540
h) Other	2	1,7	1	2,3	0,814
4) How do you evaluate the high construction process in Beşiktaş?					
a) It is developing without a plan.	86	73,5	26	59	0,077
b) It harms the urban, natural and cultural texture due to its location in İstanbul.	71	60,7	16	36,4	0,006*
c) There should be high-rise construction, but a planning policy should be established.	71	60,7	27	61,4	0,937
d) I think the high-rise building initiatives in İstanbul are positive.	4	3,4	6	13,6	0,017*
e) There shouldn't be high-rise buildings in İstanbul.	24	20,5	4	9,1	0,089
f) Other	-	-	1	2,3	0,103
5) How should the high buildings in the Beşiktaş district be located?					
a) Their current location can be accepted.	2	1,7	5	11,4	0,008*
b) High construction should be in a specific place.	54	46,1	19	43,2	0,736
c) High structures can be evenly distributed in the district.	47	40,2	12	27,3	0,131
d) It can be located in the urban texture.	5	4,3	3	6,8	0,509
e) It should not be located in the urban texture.	67	57,3	25	56,8	0,959
f) Other	1	0,85	1	2,3	0,470
6) Evaluate the impact of high-rise buildings in the Beşiktaş district on the city.					
a) It puts the historical buildings under pressure according to the height.	68	58,1	29	66	0,370

b) It casts shadows on structures that are shorter than them.	60	51,3	15	34,1	0,052
c) The existence of high-rise buildings increases the real estate value.	12	10,2	6	13,6	0,545
d) It negatively affects the silhouette of İstanbul.	83	70,9	23	52,3	0,026*
e) It harms the urban texture of İstanbul.	89	76,1	23	52,3	0,004*
f) It affects positively the urban texture of İstanbul.	3	2,6	6	13,7	0,007*
g) It makes the urban texture of İstanbul magnificent.	12	10,2	5	11,4	0,839
h) Other	1	0,85	-	-	0,540
7) How do you evaluate the location of high-rise buildings in the Beşiktaş district?					
a) It has disturbed the urban texture of the district.	89	76,1	29	66	0,196
b) It has adversely affected the silhouette of İstanbul.	83	70,9	26	59,1	0,153
c) It has brought commercial vitality to the district.	40	34,2	19	43,2	0,293
d) It contributed to the development of the district.	23	19,7	15	34,1	0,055
e) It spoils the original structure of the district.	84	71,8	23	52,3	0,020*
f) Urban space quality has decreased.	43	36,8	15	34,1	0,755
g) Other	-	-	-	-	1,000

*Significant difference for 0.05

- In terms of gender, “How do you evaluate the high construction process in İstanbul?” according to the answer options; “It is developing without a plan.”, “There should be high-rise construction, but a planning policy should be established.”, “I think the high-rise building initiatives in İstanbul are positive.”, “There shouldn't be high-rise buildings in İstanbul.” and “Other” options do not differ significantly. “It harms the urban, natural and cultural texture due to its location in İstanbul.” option ($p < 0.05$) does not differ significantly. If it is examined the source of the difference, it is seen that the difference stems from the female.

- In terms of gender, “How should the high-rise buildings in İstanbul be located in the silhouette?” according to the answer options; “High buildings should be evenly distributed over the silhouette.”, “High buildings should be gathered in an area in the silhouette.”, “Their current location can be accepted.” and “Other” options ($p > 0.05$) do not differ significantly.
- In terms of gender, “How do you evaluate the high-rise buildings in the Beşiktaş district?” according to the answer options; “I definitely think that they should not be located in cities.”, “I believe that it can have positive results as long as it is located in accordance with the structure of the district.”, “I see it as a reflection of technology.”, “I see it as a requirement of the period.” and “Other” options do not differ significantly. “I think it affects the urban texture negatively.”, “I see it as a urban symbol.” and “I think they are a commercial show off in a symbolic sense.” options ($p < 0.05$) do differ significantly. If it is examined at the source of the difference, it is seen that the “I think it affects the urban texture negatively.” and “I think they are a commercial show off in a symbolic sense.” options are due to the female who have a high value of n and “I see it as a urban symbol.” option is due to the male who have a high value of n .
- In terms of gender, “How do you evaluate the high construction process in Beşiktaş?” according to the answer options; “It is developing without a plan.”, “There should be high-rise construction, but a planning policy should be established.”, “There shouldn't be high-rise buildings in İstanbul.” and “Other” options do not differ significantly. However, “It harms the urban, natural and cultural texture due to its location in İstanbul.” and “I think the high-rise building initiatives in İstanbul are positive.” options ($p < 0.05$) do differ significantly. If it is examined the source of the difference, the difference stems from the female with a high value of n for “It harms the urban, natural and cultural texture due to its location in İstanbul.”, the difference stems from the male with a high value of n for “I think the high-rise building initiatives in İstanbul are positive.”

- In terms of gender, “How should the high buildings in the Beşiktaş district be located?” according to the answer options; “High construction should be in a specific place.”, “High structures can be evenly distributed in the district.”, “It can be located in the urban texture.”, “It should not be located in the urban texture.” and “Other” options do not differ significantly. “Their current location can be accepted.” option ($p < 0.05$) does differ significantly. If it is examined at the source of the difference, the difference stems from the male with a high value of n .
- In terms of gender, “Evaluate the impact of high-rise buildings in the Beşiktaş district on the city.” according to the answer options; “It puts the historical buildings under pressure according to the height.”, “It casts shadows on structures that are shorter than them.”, “The existence of high-rise buildings increases the real estate value.”, “It makes the urban texture of İstanbul magnificent.” and “Other” options do not differ significantly. “It negatively affects the silhouette of İstanbul.”, “It harms the urban texture of İstanbul.”, “It affects positively the urban texture of İstanbul.” options ($p < 0.05$) do differ significantly. If it is examined the source of the difference, the difference stems from the female with a high value of n for “It negatively affects the silhouette of İstanbul.”, “It harms the urban texture of İstanbul.”, the difference stems from the male with a high value of n for “It affects positively the urban texture of İstanbul.”
- In terms of gender, “How do you evaluate the location of high-rise buildings in the Beşiktaş district?” according to the answer options; “It has disturbed the urban texture of the district.”, “It has adversely affected the silhouette of İstanbul.”, “It has brought commercial vitality to the district.”, “It contributed to the development of the district.”, “Urban space quality has decreased.” and “Other” options do not differ significantly. “It spoils the original structure of the district.” option ($p < 0.05$) does differ significantly. If it is examined the source of the difference, it is seen that the difference stems from the female with a high value of n .

Table C.2. Group difference test for in term of gender questions [191].

	Female (n=117; %72,7)		Male (n=44; %27,3)		p
	n	%	n	%	
1) Historical building locations have an importance in the development of high-rise buildings in the Beşiktaş district.					
Disagree	51	43,6	16	36,4	0,077
Unsure	25	21,4	6	13,7	
Agree	41	35	22	0,5	
2) Urban texture has an importance in high-rise buildings in the Beşiktaş district.					
Disagree	102	87,2	35	79,5	0,917
Unsure	14	12	7	15,9	
Agree	1	0,85	2	4,5	
3) The relationship of ratio between high-rise buildings and historical buildings in the Beşiktaş district is positive.					
Disagree	103	88	37	84,1	0,063
Unsure	10	8,5	2	4,5	
Agree	4	3,4	5	11,4	
4) High-rise buildings in the Beşiktaş district positively affect the urban texture of İstanbul.					
Disagree	88	75,2	33	75	0,022*
Unsure	25	21,4	5	11,4	
Agree	4	3,4	6	13,6	
5) The urban texture of İstanbul has been magnificent by the high-rise buildings in the Beşiktaş district.					
Disagree	93	79,5	27	61,4	0,337
Unsure	13	11,1	7	15,9	

Agree	11	9,4	10	22,7	
6) Historical buildings in the Beşiktaş district are repressed according to height by high-rise buildings.					
Disagree	5	4,3	4	9,1	0,996
Unsure	23	19,6	7	15,9	
Agree	89	76,1	33	75	
7) The real estate value in the Beşiktaş district increases by high-rise buildings.					
Disagree	28	23,9	15	34,1	0,168
Unsure	35	29,9	6	13,6	
Agree	54	46,1	23	52,3	
8) I think that it is appropriate to build high-rise buildings in the Beşiktaş district with construction technology as required by the period.					
Disagree	34	29	13	29,5	0,228
Unsure	32	27,3	8	18,2	
Agree	51	43,6	23	52,3	
9) I think that the high-rise buildings in the Beşiktaş district should be compatible with the materials of the historical buildings in the district.					
Disagree	34	29	11	25	0,946
Unsure	27	23,1	11	25	
Agree	56	47,9	22	50	
10) I think that the high-rise buildings in the Beşiktaş district negatively affect the urban texture.					
Disagree	6	5,1	6	13,6	0,652
Unsure	13	11,1	3	6,8	
Agree	98	83,8	35	79,5	
11) The high-rise construction in the Beşiktaş district has brought commercial vitality to the district.					

Disagree	22	18,8	15	34,1	0,880
Unsure	38	32,5	11	25	
Agree	57	48,7	18	40,9	
12) The high-rise construction in the Beşiktaş district has contributed to the development of the district.					
Disagree	38	32,5	13	29,5	0,038*
Unsure	39	33,3	9	20,4	
Agree	40	34,2	22	50	
13) The high-rise construction in the Beşiktaş district disrupts the original structure of the district.					
Disagree	6	5,1	5	11,4	0,613
Unsure	13	11,1	4	9,1	
Agree	98	83,8	35	79,5	
14) The high-rise construction in the Beşiktaş district has reduced the urban space quality in the district.					
Disagree	17	14,5	13	29,5	0,713
Unsure	34	29	10	22,7	
Agree	66	56,4	21	47,7	

*Significant difference for 0.05

- In terms of gender, “Urban texture has an importance in high-rise buildings in the Beşiktaş district.” according to the answer options ($p > 0.05$) do not differ significantly.
- In terms of gender, “Urban texture has an importance in high-rise buildings in the Beşiktaş district.” according to the answer options ($p > 0.05$) do not differ significantly.
- In terms of gender, “The relationship of ratio between high-rise buildings and historical buildings in the Beşiktaş district is positive.” according to the answer options ($p > 0.05$) do not differ significantly.

- In terms of gender, “High-rise buildings in the Beşiktaş district positively affect the urban texture of İstanbul.” according to the answer options ($p < 0.05$) do differ significantly. If it is examined at the source of the difference, it is seen that the “Disagree” and “Unsure” options are due to the female who have a high value of n , and “Agree” option is due to the female with a high value of n .
- In terms of gender, “The urban texture of İstanbul has been magnificent by the high-rise buildings in the Beşiktaş district.” according to the answer options ($p > 0.05$) do not differ significantly.
- In terms of gender, “Historical buildings in the Beşiktaş district are repressed according to height by high-rise buildings.” according to the answer options ($p > 0.05$) do not differ significantly.
- In terms of gender, “The real estate value in the Beşiktaş district increases by high-rise buildings.” according to the answer options ($p > 0.05$) do not differ significantly.
- In terms of gender, “I think that it is appropriate to build high-rise buildings in the Beşiktaş district with construction technology as required by the period.” according to the answer options ($p > 0.05$) do not differ significantly.
- In terms of gender, “I think that the high-rise buildings in the Beşiktaş district should be compatible with the materials of the historical buildings in the district.” according to the answer options ($p > 0.05$) do not differ significantly.
- In terms of gender, “I think that the high-rise buildings in the Beşiktaş district negatively affect the urban texture.” according to the answer options ($p > 0.05$) do not differ significantly.
- In terms of gender, “The high-rise construction in the Beşiktaş district has brought commercial vitality to the district.” according to the answer options ($p > 0.05$) do not differ significantly.
- In terms of gender, “The high-rise construction in the Beşiktaş district has contributed to the development of the district.” according to the answer options ($p < 0.05$) do differ significantly. If it is examined at the source of the difference, it is seen that the “Agree”, “Disagree” and “Unsure” options are due to the female who have a high value of n .

- In terms of gender, “The high-rise construction in the Beşiktaş district disrupts the original structure of the district.” according to the answer options ($p > 0.05$) do not differ significantly.
- In terms of gender, “The high-rise construction in the Beşiktaş district has reduced the urban space quality in the district.” according to the answer options ($p > 0.05$) do not differ significantly.

