URBAN TRANSFORMATION IN THE EIGHTEENTH CENTURY OTTOMAN CITY

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1. During the researched period general situation remains higly critical. The imperial finances are deplorable. The Ottoman Army is disorganised and the paşas in provinces are constantly in revolt.

2. No such metamorphosis until after the Second World War. Then the proletarisation of Turkish cities start and with the influx of squatter housing and the introduction of industries, substantial structural changes set in. The exclusive mansions, the konaks along the Bosphorus are rented by the room. In it the image of the *İstanbul Efendisi*, "the Gentleman from İstanbul" is lost forever.

3. R. HEILBRONNER, *The Making of Economic Society*, London: Prentice-Hall, 1970, p. 53.

4. G. ROZMAN, *Urban Networks in Ching China and Tokugawa Japan*, Princeton: University Press, 1973, p. 139.

5. I. UZUNÇARŞILI, *Osmanlı Tarihi*, Cilt IV, Bölüm 2, Ankara: Türk Tarih Kurumu, 1959.

6. In the religious intitutions both the college of the *ulema* and a host of dervishes, the so-called holy men after unholy interests, are the two declining groups. In the military institutitons the corps of Janissaries is an imaginary army in all regards, in fighting capacity and in registered (wage receiving) members.

7. G. TANKUT, *The Spatial Distribution of Urban Activities in the Ottoman City*, Structure Sociale et Développement Culturel des Villes Sud-est Européennes et Adriatiques aux XVIIe-XVIIIe Siècles, Bucharest, 1975, pp. 246-265.

8. Urban transformation has many dimensions one being the social: for the social basis of urban transformation, see: P.A. SOROKIN, *Modern Historical and Social Philosophies*, New York, 1963, and M. WEBER, *The City*, New York: The Free Press, 1966.

In general terms research on issues of Ottoman Empire in the eighteenth century is rather limited. Yet extensive information exists on the political events, along with some piecemeal evaluation of the socio-economic milieu, and the number of stylistic studies on architecture and landscaping of the respective era; still not much is known, in the form of a comprehensive outlook of the acting forces and their outcomes. On the other hand, eighteenth century marks a turning point in Ottoman history; until then the somewhat self-sufficient and closed Ottoman system is forced to open up by the growing concern about their relative backwardness[1] and the awareness of the necessity for transformation.

The present article undertakes the task of examining the urban transformation as it relates to the eighteenth century Ottoman city.

The concept of urban transformation implies a set of substantial structural changes. Yet in the eighteenth century within the orbit of the Ottoman Empire incentives for such changes are not yet present. First of all, modes of production remain the same[2]; subsequently the economic sphere of activity is not visible within a more separable from the surrounding matrix of social life[3]; furthermore, the very slow in the marketing, retards the impact of potential development.[4] As to the social institutions in the eighteenth century; they are weak and degenerated,[5] yet they still persist[6] in curtailing urban dynamics. Regarding the physical environment, it does not manifest progress in the improvement of land-uses or transportation patterns the results being that the eighteenth centruy Ottoman city is still a pedestrian city with nondefined land-uses[7].

METHODOLOGY-SCOPE AND AIM

In the light of this introductory information, the methodology, scope and aim of the article will next be explained.

1. METHODOLOGY: Because the real urban transformation[8] does not take place before the middle of the twentieth century, the urban changes in the temporal zone of our period of research, *i.e.*, the eighteenth century, can only be described as sporadic, linear and substructural formations. These

limitations obviously constrain the issue from leading to some meaningful generalisations, let alone to come up with certain paradigms. Hence it becomes difficult to establish a theoretical basis necessary for the underlined study. Therefore, in order to establish the theoretical framework, the very specific nature of the eighteenth century Ottoman urban transformation can be described as more of an urban diffusion. Once the analogy is formed, the urban geographers' diffusion theories can be referred to.

2. THE SCOPE: Within the context of this paper preferences given to the historical evidence presented by eighteenth century İstanbul;[9] and to justify this choice, the assumption is made that, urban transformation in eighteenth century Rumelia and Anatolia is less apparent and difficult to detect. Furthermore visible environmental changes in Ottoman Balkan and Anatolian towns do not start before the nineteenth century. In Anatolia in the eighteenth century local authorities arose, yet their taking over urban decision making is not until a century later. In Rumelia, the weakening of the Central State is being felt, yet in the nineteenth century it induces affinity for autonomy, along with nationalistic independence. Hence in both parts of the Empire during the eighteenth century, cities undergo only negligible changes.

3. THE AIM OF THE STUDY: This work tries to examine the urban diffusion that takes place in the eighteenth century İstanbul, in order to explain the origins and trends of the transformation agents, responsible for minor changes during the same epoch, and the major ones to start from nineteenth century on.

ANALOGY BETWEEN URBAN TRANSFORMATION AND SPATIAL DIFFUSION

To justify the analogy two observations are useful:

1. Diffusion is a sub-set of transformation phenomenon.
2. The mathematical concept of transformation embraces diffusion.

a. Projected into set theory, transformation set U is the frame of reference for our discussion, *i.e.*, the urban transformation in its real sense and proper scale, which is considered as the universal set for research purposes.

9. The agents of change come from everywhere, inside and outside the Empire(causing a great impact) in the capital city, which by that time fluctuates between urban eminence and extreme weakness.

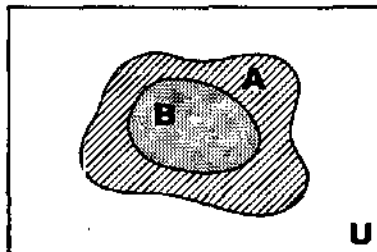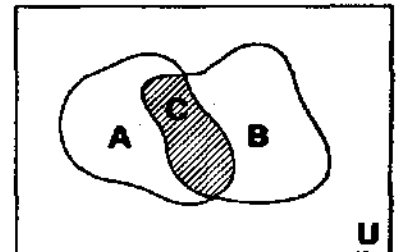Fig 1 Represents the circumstance that, U=Universal set. A=Subset of U. B=Subset of A.

Fig 2 Indicates the union of two sets. B∪A, which means the set of all elements which are in A or B or in both.

10. G.F. SIMMONS, *Introduction to Topology and Modern Analysis*, New York: McGraw Hill, 1965, pp. 7-9.

Set inclusion can also be expressed in terms of forming intersections. C is the intersection of A and B and is the set of all elements which are in both.[10] For the sake of our research we can replace U with urban tranformation (poly-dimensional); A=spatial diffusion, B=patterns of change of the urban scene. Now we can translate the set

theoretical concepts into more prosaic terms. B is a subset of U, so is A and furthermore B and A intersect, *therefore we conclude that spatial diffusion brings about changes in the physical environment endemic to urban transformation.*

b. In mathematical terms, transformation conceived as a function consisting of three objects; two non-empty sets X and Y and the rule "f". The rule of function in the form of an algebraic exression reads as y=f(x); which specifies the exact manner in which the value of y depends on the value of x.

Subsequently what is needed for a function is two sets and a rule "f", which is meaningful in assigning each element x in X or specific element y in Y. Thereby X is the domain of the given function and the set Y is called its range.

The notation f(x) is supposed to be suggestive of the idea that rule "f" takes the element x and does something to it, to produce the element y. Thus the rule "f" is often called a transformation. It transforms x's into y's.[11]

The notion of diffusion can also be conceived as such function and therefore as some kind of transformation.

$$y_d = f(x_1, x_2, x_3 \ldots x_n)$$

y_d = diffusion

$x_1, x_2 \ldots$ = variables influencing diffusion

11. G.F. SIMMONS, *Introduction to Topology and Modern Analysis*, New York: McGraw Hill, 1963, p. 16.

THE SPATIAL PATTERN OF DIFFUSION

Diffusion simply means to spread out, to disperse and to intermingle. The spatial pattern of spread by the places of origin and destination and the paths it follows.[12]

12. P. HAGGETT, *Geography a Modern Synthesis*, New York: Harper and Row, 1972, p. 348.

The two types of diffusion are: the expansion and the relocation diffusion.[13] In the first case, things being diffused remain and intensify in the originating region whereby new members are added between the two periods of time t_1 and t_2, in such a way that spatial patterns as a whole are altered. In the second case the process is similar but things evacuate the old areas as they move to new locations between the two time periods.[14]

13. P. HAGGETT, *Geography a Modern Synthesis*, New York: Harper and Row, 1972, p. 348.

14. As the subdivision of expansion diffusion there are cascades and hierarchic diffusion, of which the first one marks a movement from upper level to lower level, whereas the latter indicates, a notion up or down. The diffusions are characteristics for waves of innovation. See: P. HAGGETT, *Geography a Modern Synthesis*, New York: Harper and Row, 1972, p. 349.

To explain why things move from an origin to a destination, we refer to ideas of complementarity, the relative attractiveness of alternative destinations, the technology needed to overcome distance friction and intervening obstacles to interaction. As to how things move, we imply modes of transport, rates of speed and efficiency.[15]

15. A.A. GOULD, *Spatial Organization*, New York: Prentice Hall, 1971, p.236.

Spatial diffusion is in most cases an outward expanding movement along the urban fringe and the main arterial routes[16] where the geographic distance does not always exert the strongest influence. Economic and social, even political distances, can be at times more meaningful.

16. A.A.GOULD, *Spatial Organization*, New York: Prentice Hall, 1971, p. 537.

A. AREA IN WHICH DIFFUSION OCCURS

The general directions of urban developments in eighteenth century İstanbul show the trend of integration of the Bosphorus and the Golden Horn with the capital city complex.[17] By that time the settlements in Bosphorus, Scutari and the Golden Horn region are gaining in population and extending in surface. Thus, the city is turning towards the sea.

17. D. KUBAN, "Boğaziçi", *TTOK Belleteni*, Ocak-Mart, 1973, p.3.

18. The capital city is divided in four *kadı* districts. 1. The enwalled city, 2. Eyüp, 3. Galata, 4. Scutari, this complex is called İstanbul ve *Bilâdı Selâse*. E. EŞREFOĞLU, "İktisat Mukataası ile İlgili bir Belge", *Tarih Enstitüsü Dergisi*, No.: 4/5, p. 1; ~ footnote: I.H. UZUNÇARŞILI, *İstanbul Enstitüsü Dergisi*, vol.III, p. 25, 1957.

19. The beginning of the researched period is the Edirne event, the end of the era is the fall of Selim III; hence years between 1703-1807.

20. In the case of diffusion of urban patterns in İstanbul the communicability is low, because of the prevailing level of technology. Yet the acceptibility is rather high. Encouragement or discouragement of new urban development depends on royal decisions; and people are likely to be affected. Neighborhoods are initiated by Sultans or at times *fermans* are issued to prohibit migrations. However discouragement has little effect and İstanbul becomes the most desirable target for mass migration from Rumelia and Anatolia. P. HAGGETT, *Geography a Modern Synthesis*, New York: Harper and Row, 1972, p. 350.

21. P. HAGGETT, *Geography a Modern Synthesis*, New York: Harper and Row, 1972, p. 352.

Further growth areas follow the direction of Kadıköy and Pera and further north. All these growth poles with the villagelike settlements on the coast form a constellation at subregional scale. Hence in eighteenth century more than ever, the capital city is a composite entity along the sea board.[18] Furthermore, with all the surface expansion, the characteristics of a city region are emerging. For our research purposes, this fairly large diffusion area will be considered as uniform and somewhat isotropic.

B. TIME DURING WHICH DIFFUSION OCCURS

First of all, the question rises whether the hundred years in question should be treated as continuous or differentiated in phases.[19] In the eighteenth century İstanbul model, there are three significant temporal events: in 1703 Mustafa II abdicates; in 1730 Ahmet III is dethroned; and in 1807 Selim III is assassinated.

The two cycles between three historical climax points are:

$c_1 = 27$ years and $c_2 = 77$ years. Obviously these periods are long enough to be considered as differentiated phases. Yet, following considerations indicate some kind of a continuity

All the three Sultans are artistically inclined, progress minded and peace loving. Each of them undertake projects of modernisation and general recuperation attempts, concerning the socio-economic set up as well as the physical environment. Their action has been put to stand still by the reactionary behaviour of the joint forces of the soldiers, i.e., (Janissaries) and the religious élite(ulema), both in fear of losing their vested interests and social eminence. Hence the end comes for the three important Sultans of the eighteenth century, successively by the Edirne revolt, the Patrona Uprising and the coup d'état staged by Kabakçı Mustafa. Thus in spite of the great temporal distance, in the light of the evidence of a series of common denominators, the element of time can be considered as continuous.

C. ITEMS WHICH ARE BEING DIFFUSED

In general terms, this can be material like(people or objects) or nonmaterial like(behaviours, messages or illnesses). In our research the settlement patterns are viewed as the items subject to diffusion. The different representatives of this element vary in their degree of communicability and acceptability.[20]

THE CARRIERS AND BARRIERS OF DIFFUSION

Carriers -or rather transmitters and senders- of messages and triggerers of motion and diffusion depend on the size of the contact field.[21] Implying a decline with distance, yet, as mentioned before this distance does not necessarily have to be a geographic one. It can also be economic or social. Diffusion processes are further influenced by barriers. The waves seldom move smoothly, homogeneously or for that matter symmetrically. Barriers slow them down or alter the course. Barriers have two basic effects. Absorbing, -pulsive motion stops cold -and reflecting - where the energy is channelled and intensified in a local area.

Pure absorbing and reflecting barriers are rare. In most cases, barriers are permeable rather than absolute, allowing

22. A.A. GOULD, *Spatial Organization,* New York: Prentice-Hall, 1971, p. 397f.

part of the energy of a diffusion pulse to go through, but generally slowing down the process in a local area.[22]

Underlying the research into the eighteenth century capital city of Ottoman Empire a variety of social, economic and physical factors are treated, in order to show how they initiate or hamper the waves of spatial diffusion. These factors are negative or positive, indigeneous or exogeneous or have revealing or concealing natures.

A. HISTORICAL BACKGROUND, Political Handicaps

In the eighteenth century no real incentive for warfare remains. Great Wars with great tributes are gone and as a result there is a decline in military techniques of the fighting forces, *Sipahi* fiefs and Janissaries alike. On the other side the new enemy armies equipped with more scientific and more advanced technology emerge. Therefore during much of the eighteenth century avoids defeats and cessions of land and remains to all interests and proposals as strong, with no longer agressive state.[23] A series of attempts to deliberate peace are undertaken in spite of the elementary scales in diplomacy.[24] In a nutshell in eighteenth century the traditional military order has lost its whole meaning.[25]

23. J. MESKILL and J, MESKILL, *The Noneuropean World,* London: 1972, p. 12.

24. Even though in this century permanent consulates are opened in European countries, a system of resident ambassadors abroad and a linguistically equipped diplomatic service had taken a long time to be realised.

25. J. MESKILL AND J. MESKILL, *The Noneuropean World,* London: 1972, p. 13.

However, more crucial than the military weakness is the decline in the calibre of their commanders in chief, the Sultans themselves. The decline is slow and imperceptible before 1700, increasingly obvious thereafter.[26]

26. Crownprinces are stripped of the potential for the Sultanate, short of military and administrative experience. They are also psychologically inept, because of constant fear of assasination, along with the heavy pressure of the court intrigues.

27. The structure of the State is such that the Sultan is obliged to share his power with the Şeyhülislam and the Grand Vezir. See: C. KUTAY, *Türkiye Tarihi,* vol. 2, No.: 8, İstanbul, 1957, s.1003.

28. J. MESKILL and J. MESKILL, *The Noneuropean World,* London, 1972, p.12.

The eighteenth century Grand Vezirs appear to be the administrative heads, to whom the royal power has shifted.[27] Yet, the Grand Vezirs are not able to compensate for the impotence of the royalty.[28] On the average prime ministers do not live long, resignation is almost *l'ordre du jour* and to get killed is also a part of the game. With very few exceptions they are not impressive at all, if compared to the long-tenured and competent Grand Vezirs of Süleyman's era.

The beginning of eighteenth century marks the treaty of Karlowitz, a complete military failure which brings two important results:

i. European countries dare to seek intervention in the affairs of the *Porte Sublime* for the sake of their joint interests.
ii. The Ottoman Empire gives up for good the dream of the lost territories. Turns inward and tries to develop peaceful weapons such as education, modernisation and innovations based on European skills and technology.[29]

29. A REFİK, *Lâle Devri,* İstanbul, 1932, pp. 8-13.

In spite of the antimilitaristic outlook of the eighteenth century Ottoman Sultans, European aggressions make wars inevitable. Since the wars end usually in defeat, their economic burden is too heavy to carry, not to speak of their *social cost.*

During this century the State cannot make long-range plans and programs. Events happen rapidly and unexpectedly, and crisis planning called upon, which on its turn displays not dynamism but instability.

B. DEMOGRAPHIC ASPECTS

30. O. ERGIN, *İstanbul'da İmar ve İskan Hareketleri,* İstanbul, 1938, p.57.

After Osman Ergin, Constantinople upon its conquest had 60,000 population.[30] Right after the conquest some people

31. D. KUBAN, "İstanbul'un Tarihi Yapısı", *Mimarlık*, No. 79, p. 31, Mayıs 1970.

32. D. KUBAN, "İstanbul'un Tarihi Yapısı", *Mimarlık*, No. 79, p. 33, Mayıs 1970, p. 48, footnote 31.

33. O. ERGIN, *İstanbul'da İmar ve İskan Hareketleri*, İstanbul, 1936, p. 58. The food shortage occurs in spite of the fact that not only sea routes but also land roads carry commercial volume, for example Edirnekapı is the custom gate for goods coming from the Balkans. According to a German diplomat, "Man hat vorgezogen, die meisten Waren auf dem Landweg nach Konstantinopel zu befördern". H. SCHEEL, *Preussens Diplomatie in der Türkei, (1721-74)*, Berlin, 1931, p. 24.

34. Mantrand calculates the non-muslim subjects in 1690-91 as being 68,000 households which amounts, according to him, to 250,000-300,000 people. (D. KUBAN, s. 35) The percentage of non-muslim population by Mantrand is 40%, for the same figure Cristobal de Vilanon comes up, in sixteenth century, with 42.3%, and Barkan again, in sixteenth century, calculates the same percentage as 47.7%(D. KUBAN, s.35) Assuming that these percentages prevail throughout the seventeenth century, -700,000-800,000 people.

35. M. AKTEPE, *Patrona İsyanı(1730)*, İstanbul: İ.Ü. Edebiyat Fakültesi Yayını, No: 808, 1958, p.9; and M. AKTEPE, "İstanbul'un Nüfus Meselesine Dair Bazı Vesikalar", *Tarih Dergisi*, Vol: IX, No.13, pp. 3-9, 1958; and C. ORHONLU, *Kayıks in the Ottoman Period*, (Unpublished paper), Princeton, 1974.

36. D. KUBAN, "İstanbul'un Tarihi Yapısı", *Mimarlık*, No. 79, Mayıs 1970, s. 47. A population census of 1876 reveals the figure of 873,565 for the entire city. Also see: C. KUTAY, *Tarih*, Vol. II, Aralık 1957, p. 1050. The population of İstanbul at the time of Selim III amounts to 800,000.

37. Until 17th century the state emphasizes a settlement policy which systematically encourages migration. After 17th century migration flows reach such magnitudes that they have to be stopped. For more information see M. AKTEPE, "İstanbul'un Nüfus Meselesine Dair Bazı Vesikalar", *Tarih Dergisi*, Eylül 1958. For a relative assessment refer to INCİCİYAN, *XVII. Asırda İstanbul*, İstanbul 1956. İnciciyan claims that in the seventeenth century because of Celali uprisings 40,000 Armenian households migrated to İstanbul.

38. D. KUBAN, "İstanbul'un Tarihi Yapısı", *Mimarlık*, No. 79, Mayıs 1970, p. 47.

39. A talk with scholars like, Ünver and Ayverdi reveals that these scholars are of opposite opinion.

fled, so that İstanbul starts with a $P_0 \sim 40,000$-$60,000$.

The systematic settlement policy exercised by Mehmet II bears fruit and at the end of eighteenth century Arnold von Harff evaluates the city as a big city,[31] so that it amounts to 200,000.

In sixteenth century according to the number of households counted by Barkan as 80,000[32], the population of the city must have reached the half a million. It is really a big city by that time and face serious food and water shortages.[33] In seventeenth century the city witnesses further growth. Consulting Mantrand in a rather indirect way 720,000 appears to be the total sum of the inhabitants of İstanbul.[34]

By the time we reach eighteenth century we have no such figures. Several scholars suggest in general terms the possibility of further increase in population.[35] If the supposition is true it should have reached the 1,000,000 range. Yet at the end of nineteenth century the population of the capital city is 900,000.[36]

If we analyse the triggering forces behind the seventeenth century population boom, and the economic difficulties; brigandage, lack of security, change in land regime, Anatolians migrate to İstanbul. As to the influx from the Balkans, the major reason is the insecurity on the European borders of the Empire. In the eighteenth century the exodus from Rumelia escalates and the peasants from the Balkan territories escape from the excessive tax-burdens in hope of changing their occupation from cultivation into crafts and trade in the big city. Concerning the eighteenth century demography, scholars like Aktepe, Ergin, Ahmet Refik and others call attention to the immigration-prohibiting-laws,[37] which are based on the pressure created by the shortage of food and water supply, lack of housing, jobs and urban security. In seventeenth century with presumably 700,000-800,000 population the walled city still encloses large open spaces, picnic grounds, gardens and parks, exposing a relatively low overall density. Yet, more and more people move across the sea. The Golden Horn area increases in population, Eyüp is annexed to the city and Galata also acquires Turkish population, while the predominantly Turkish population of Scutari becomes more concentrated.

Beyond these limits Bosphorus is expanding. The so-called "Boğaziçi type" settlement pattern emerges, loose and surrounded by ample green. The small villages in the hinterland, also grow in size and density. Yet they are still encircled by large fruit orchards and vegetable gardens, a set up which will continue basically throughout the nineteenth century.[38]

In the seventeenth century those parts of the city across the sea are not yet integrated, still the sea route is already a part of urban life, as well as an important promoter of the imposing harbor. The harbor of İstanbul, even in the economic life of the developing European states of seventeenth century, is already meaningful.

What changes in eighteenth century is primarily the integration of the Golden Horn and the Bosphorus along with Scutari. These districts act as real pull centers for population. By now the old city must have lost a certain portion of its inhabitants,[39] and within the old city walls added to the

vegetable growing allotments and gardens are new open areas caused by the devastating fires.

Calculated by the number of eighteenth century *mescits* and fountains, as well as the amount of increase in the number of *kayıks* and their respective jetties, the shift of demographic gravity to the coast of the Bosphorus and Golden Horn and the Marmara Sea becomes evident.

C. SOCIAL INSTITUTIONS

We have to realise that Ottoman society safeguards its medieval characteristics long beyond 1500. In eighteenth century the social institutions are still heavily conservative, intellectually timid and highly resistant to progress and innovations. Hence it becomes clear why the dominant and real confrontations with the West[40] during the respective era cannot be optimised. Because royal incentive is weak[41] and insufficient, private enterprise nonexistent, scientific curiosity superficial[42] and sporadic religious impulse commercialised, and above all the concept of nationalism unknown. Yet, all of these limitations set in the period of decline not only make reform difficult but turn the members of the social institutions into reactionaries.

In eighteenth century the *reaya* are unhappy. They are landless and incapable of paying evergrowing taxes.[43] Either they join the brigandage, take to the mountains or migrate to the city to find no job or or house; so they become an easy prey for the İstanbul mob and the racketeers.

The guild members are unhappy. Their economic status is shaky, their capacity to pay the increasing taxes even more so. Some of the Anatolian and Rumelian businessman succeed to infiltrate the market[44], yet free commerce is handicapped. The result is a clash between the new and the old commercial groups.

The Janissaries are unhappy. It is by now a functionless, parasitic, aggressive and mischiveous group. They resent any intervention into their "city mafia"like extramilitary activities and interests. They also resent the establishment of the newly trained regular army, which treathens to put them out of business.[45]

The *Ulema* are unhappy. This group resents the modernisation movements. New educational systems and innovations like printing threaten to reduce the gulf between the literate and the illiterate masses; hence threating to undermine their social prestige and economic interests.

The people of İstanbul are unhappy. Life is expensive and full of burden, yet incomes are insecure. The gap between the populace and the court is growing more than ever. Accumulated wealth in few hands is invested for the wrong ends. On one side are the burned down houses of İstanbul and on the other, the beautiful *konaks* and kiosks and serails, staging wasteful luxury.[46] However for the reactionary undertakings important is the union of the book and the sword, the *ulema* and the Janissaries, fanaticism, violence and economic insecurity.

D. ECONOMIC BOTTLENECKS

In eighteenth century the state treasury is empty. The economy suffers from the growing European industrialisation. In the seventeenth century the import-export relations are still in favor of export. In the eighteenth century the import of

40. Until then contacts are marginal, in war, trade or diplomacy alike.

41. In Selim III's evaluation no power exists without the army and no army without sufficient sources of revenue, no revenue without justice and prosperity among the subjects. H. INALCIK, "The Nature of Traditional Society", *Political Modernisation in Japan and Turkey*, Princeton: University Press, 1964, p. 49; All these are on shaky grounds in Selim's Ottoman State.

42. The first printing machine is installed in 1727 in the private house of Müteferrika. First published books are history books and dictionaries. İ. H. UZUNÇARŞILI, *Osmanlı Tarihi*, Ankara: TTK, 1956, p. 157.

43. Not only the amount of taxes but the corrupt system of collecting taxes aggravates social restlessness.

44. M. AKTEPE, "İstanbul'un Nüfus Meselesine Dair Bazı Vesikalar," *Tarih Dergisi*, Vol. IX, No: 13, 1958, p. 28.

45. A. REFİK, *Lale Devri*, İstanbul, 1932, p. 120.

46. M. AKTEPE, *Patrona İsyanı(1930)*, İstanbul, İ.Ü. Edebiyat Fakültesi Yayını, No: 808, 1958, p. 41.

47. İ.H. UZUNÇARŞILI, Osmanlı Tarihi, Ankara: TTK, 1959, p. 559.

48. Especially in the army, an army, composed of men, not assigned to render military service really. Result is the discontented Janissaries.

49. Rules such as obligation to work for the master, prohibition of the opening of new shops, stiff examination of the apprentices.

50. Von MOLTKE observes: Soveit das Auge reicht nichts als fläche rote Häuser und hoche Kuppel. Zustände und Begebenheiten in der Türkei, von 1835 bis 1839, Berlin, 1839, p. 30.

51. D. KUBAN, "İstanbul'un Tarihi Yapısı", Mimarlık, No: 79, Mayıs 1970, p. 47.

52. D. KUBAN, "İstanbul'un Tarihi Yapısı", Mimarlık, No: 79, Mayıs 1970, p. 35.

53. Even in the beginning of the nineteenth century, von Moltke observes such picturesque effects. Von MOLTKE, Zustände und Begebenhaiten in der Türkei von 1835 bis 1839, Berlin, 1839, p. 102.

54. In the beginning of nineteenth century von Moltke records that the street from Bahçekapı to the office of the Serasker is steep and the houses and shops on it, all in wood, only the hans are in stone. The residence of the Serasker is large but also in wood. von MOLTKE, Zustände und Begebendheiten in der Türkei von 1835 bis 1839, Berlin, 1839, p. 102.

55. Die Häuser in diesem Lande sind eigentlich überall von Holz. See: von MOLTKE, Zustände und Begebenheiten in der Türkei von 1835 bis 1839, Berlin, 1839, p. 102.

56. S. ÜNVER, "18. Yy Ortasında bir Ahşap Yangın Kulesi", Hayat Tarih Mecmuası, No.9, 1971, p. 36.

military goods and luxury items has a devastating effect.[47] More significantly, the agricultural surplus declines because of territorial losses and the dissolution of the tımar regime resulting in the rise of large estates. In further aggravation of the situation taxes are increased while salaries cannot be paid.[48]

The economic status of the market is not less lamentable. The members of the guild suffer from the fluctuating value of the Ottoman money, prices go up, resulting in annoyed producers, distributors and consumers.

Also the strict rules of the Lonca Order and the prohibiting fermans for commercial activities constrain economic liveliness,[49] turning commercial and artisanal activities into a very difficult and highly conditional profession.

E. PHYSICAL PULL AND PUSH FACTORS

Eighteenth century İstanbul has regular urban problems such as inadequate housing and insufficient infrastructure.

HOUSING: The old city has a persistently horizontal skyline.[50] Exposing one or two storey detached, semi-attached or attached to buildings, interspersed with large green areas. İstanbul has been until the end of nineteenth century a garden city with spotwise concentration of neighborhoods.[51] In its initial phase, typical houses could be built in rubble stone and wood frame or even in mudbrick, the good Anatolian style.[52] The upper class dwellings in the central and outlying areas are built in stone and/or wood. This situation prevails until the end of the sixteenth century. In the seventeenth century wood is the predominant building material used in domestic architecture. Whether this approach is imported from Rumelia or the Black Sea region, remains to be seen. In the urban scene of seventeenth century İstanbul, wood-frame houses filled with masonry in colored version with red, blue, yellow wash or print still intermingle.[53]

In the eighteenth century, Ottoman housing is constructed predominantly in wood.[54] Yet seventeenth century fires have taken great tolls. Still construction follows on the same spot in the same style using the same building material, namely wood. In this connection one is tempted to speculate on the great preference for wood. Again after von Moltke[55] it is more pleasant to live in a wooden house since the stone ones are continuously damp and stripped of light and sun. Furthermore it is easier to build a wooden house with elevations containing extensive window surfaces, up to three fourths of the total. After E.H. Ayverdi it suits the best to "Ottoman way of life". After S. Eyice fear of earthquake is dominant. The sixteenth century disasters are still remembered. One must ask ultimately about the fire hazards, in more realistic terms. A further consideration is the maximum use of the building lot. Especially in the case of small ones, still with some provision for a garden. Or profiting from the simple, inexpensive[56] and quick way of construction can also be argued; namely, pieces of wood for construction are standardised and prices fixed. Wood comes from the İzmit area as well as from the Black Sea. Following this line of thought, another justification is that it is easier to supply the construction field with wood in view of the narrow and crooked streets. Furthermore, taxes on wood are less than on brick, mortar and stone, and construction workers are used and trained in wood construction techniques.

57. Ahmet Refik in his book *Türk Mimarları*, İstanbul, 1936, p. 61, underlines the increase in wages in eighteenth century, most probably because of the frequent fires. The wage for an urban worker is fixed around 25-45 akçe; on the black market it amounts to 80 akçe.

58. To rent a house is difficult after von Moltke, since the rents are very high. The reason why being the danger of fire, which forces to rebuild a house every 10/15 years.

59. O. ERGİN. *İstanbul'da İmar ve İskan Hareketleri*, İstanbul, 1938, p.15. The Seljuk cities of Sivas and Amasya expose an original street width of 7 m.

60. O. ERGİN, *İstanbul'da İmar ve İskan Hareketleri*, İstanbul,1938, p. 20.

61. O. ERGİN, *İstanbul'da İmar ve İskan Hareketleri*, İstanbul, 1938, p. 141.

62. The Byzantine street plan of Constantinople is Hellenistic. The successive Fora express the Roman touch. In reality the Byzantine city outside the capital does not bring an orderly plan, more a load bearing street skeleton. It does not provide for large town squares either. The same observation is also valid for the Seljukid cities and Ottoman provincial towns where the formation of public squares stem from much later dates.

63. D. KUBAN, "İstanbul'un Tarihi Yapısı", *Mimarlık*, No: 79, Mayıs 1970, p. 38.

64. Die Bevölkerungstatistik des Orients isn nicht zuverlässig. Für Pera, Galata, Stanbul rechnet man zetzt(1835/1839) etwa 630,000 Einwohner; für die beiden ufern des Bosporus, Skutari, Kadıköy etwa 240,000-870,000. For this information see von Moltke p. 27. Another source of estimation is offered by Osman Ergin in the following way: In 1828 on the occasion of hunger crisis in İstanbul, for the distribution of bread a population count has been undertaken. It reveals for the city within the walls the figure of 359,089. It can even be less. O. ERGİN, *İstanbul'da İmar ve İskan Hareketleri*, İstanbul, 1938, s. 60.

Finally, it is more feasible to furnish the interiors with continuous wooden *divans*, wall closets; a setting much more proper for a close to floor indoor living.

As a result of over demand in wood two provisions are taken: a. All boats have to carry wood as 50% of their cargo, b. It is not permitted to build new bathhouses, because of their excessive consumption of wood for heating purposes.

Since wooden houses, on small lots, are too close to each other. The roof proportions too long, the streets too narrow and the wood used too dry, the city *burns like a candle* during seventeenth and eighteenth centuries. The only difference between the two centuries is that in the first one damages are repaired, in the latter, ugly holes are left untouched, since the population of the old city does not have the human energy, or the economic means necessary for redevelopment.[57] People prefer to move out.[58]

THE STREET PATTERN: During the initial years Byzantine streets are kept in width and direction. Evaluation on the basis of a few original examples, reveals that the Byzantine street measure 8-10 *arşın* = 6-7 m.[59] On the other hand, the Islamic tradition brings 7 *arşın* as the minimum width of a street, good for two animals or even carriages.[60]

During the period after the conquest, the Byzantine streets are fully used. Subsequently, the existing width of the street network must have been for the prevailing transport technology and population densities quite insufficient.[61] Throughout the centuries with the increasing number of inhabitants, built up areas become more compact, squares reduce and streets narrow down. The sites of the old Byzantine Fora[62] are taken by major public structures. The street system is subdivided and becomes disorderly. Perhaps with the exception of the *mesé* directions, Ottoman streets in İstanbul are organic, discontinuous and narrow passages. These crooked and tight streets[63] and the frequent *cul-de-sacs* are no doubt one of the major causes of the easy and quick spread of seventeenth and eighteenth century fires; other reasons being perhaps the exclusively wooden housing and the lack of fire protection systems. Nevertheless, in spite of all the *fermans* advocating and demanding masonry work for housing and the enlargement of the existing streets, the situation will remain unsolved until the first part of the nineteenth century.

Obviously in a time when justice is being done by the sword or the Janissaries or both by all parties involved, who would care about the size of the streets or the aesthetics of the houses.

URBAN DIFFUSION : All the above cited factors act in encouraging or discouraging direction in regard to the urban diffusion. At times accelerating the speed, at times hindering and slowing down the motion but not ever being able to stop it.

İSTANBUL IN THE EIGHTEENTH CENTURY
c a s e   s t u d y

Greater İstanbul in the eighteenth century has a population of approximately 800,000.[64] Compared with previous centuries more of the shore line is settled. The little villages along the two sides of the Bosphorus gain in size by eating up slowly the vineyards, gardens and forests. The spaces in between are being filled more and more with elegant mansions

Plan 1 ———— Major communication links.
1+2+3+4   Concentrated neighbor-
          hoods in the city
          intramuros.
I+II+III+IV Spaces in which
          important decisions of
          eighteenth century are
          made.

This plan mirrors the spatial
distribution of the decision
making mechanisms in eighteenth
century İstanbul. Interesting
is the fact that decision
making generates in the Neal
square by the New Barrack of
the Janissaries and flows in
oneway direction along Divan-
Yolu. The flow of information
is fed by subdivisions
generated in the other two
squares and the market area
and finally reaches the two
administrative centers of the
Porte Sublime, and Üne Royal
Office at Topkapı as an
imposition.

GREATER ISTANBUL

0 500 1000 2000   5000
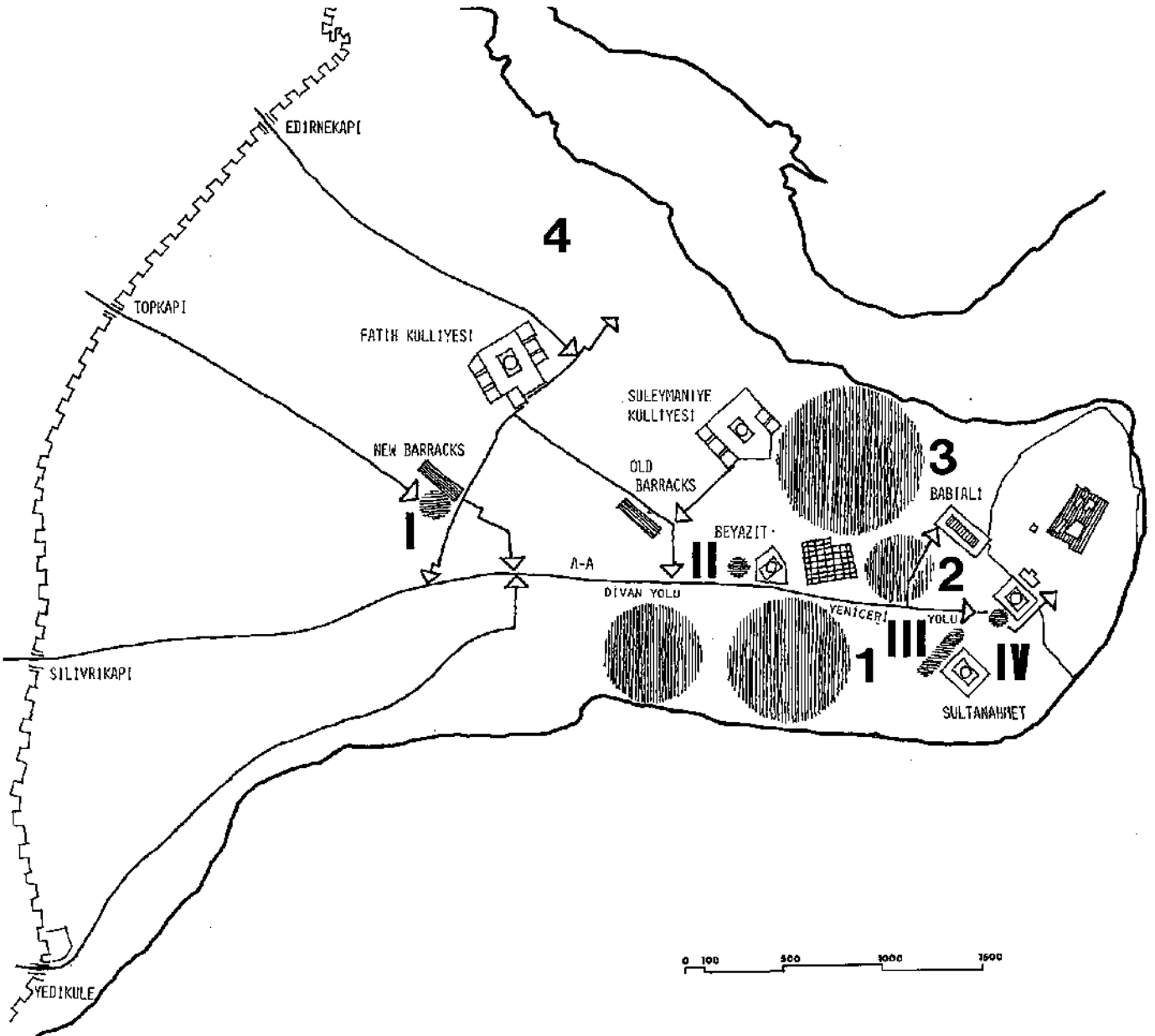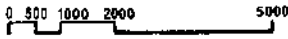
Plan 2 A+B+C Neighborhoods of Eyüp,
     Pera, Scutari:
     Biladi Selase.
   1+2+3 Boundaries of upper,
     lower and middle
     Bosphorus.
   ———— Land routes.
   ------- Sea connections.

This plan explains the sea and
land connections in eighteenth
century greater İstanbul. The
land road on one side of the
Bosphorus is not articulated
enough. The sea acts as the
major link, offering perhaps
not very favorable time but
decent axis. The size and
density of development in
lower, middle and upper Bosphorus
is justified by the absolute
limit in travel time.

1

2

3

A

B

C
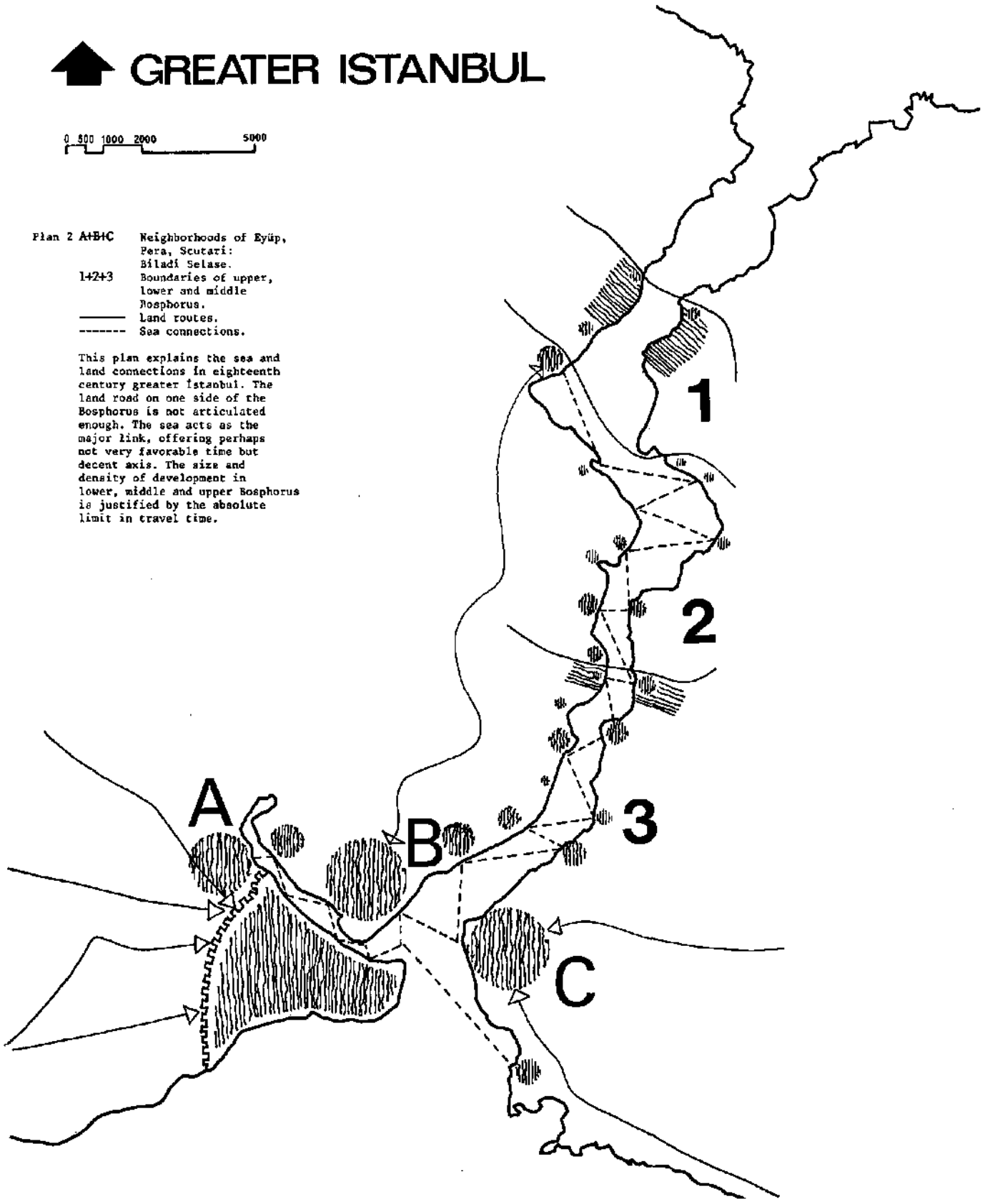
65. See von MOLTKE, *Zustände und Begebenheiten in der Türkei von 1835 bis 1839*, Berlin, 1839, p. 22. Auf beiden Ufern des Bosporus reiht sich eine Wohnung an die andere, ein Ortschaft folgt der anderen. Die ganze drei Meilen weite Sträche von Konstantinopel bis Büyükdere bildet eine fort gestetzte Stadt aus zierlicher Landhäusern und Grosherrschaftlicher Palasten, Fischerhütten, Moscheen, Cafées, alten Schlössern und reizenden Kioska. Von Moltke considers Scutari as a "Vorstadt mit 100,000 Einwohnern", p. 27.

66. People in Beyoğlu and Galata would do their substantial shopping in the walled city bazaar. İNCİYAN, *XVII. Asırda İstanbul*, İstanbul, 1956,p.84.

67. The fountains dating from the eighteenth century indicate the shift of population. Namely 63% of the total locates itself in Galata, Scutari, Bosphorus and the Golden Horn area. The ratio of the newly built mosques and mescits in this century also supports this supposition.

68. Land condition is not in any better condition, J. PARDOE, *Yabancı Gözü ile 125 Yıl Önce İstanbul*, İstanbul, 1967, Ş. KUTLU, *Bu Şehr-i İstanbul ki*, İstanbul, 1972, s. 38. İstanbul-Büyükdere trip takes 3 hrs- if one travels by land in a carriage.

69. Von MOLTKE, *Zustände und Begebenheiten in der Türkei von 1835-1839 von 1835 bis 1839*, Berlin, 1839, p. 100.

70. C. ORHONLU, *Kayıks in İstanbul in the Ottoman Period*, (Unpublished paper), Princeton, 1974.

71. C. ORHONLU, *Kayıks in İstanbul in the Ottoman Period*, (Unpublished paper), Princeton, 1974.

72. C. ORHONLU, *Kayıks in İstanbul in the Ottoman Period*, (Unpublished paper), Princeton, 1974.

73. Some of the *kayıks* were donated by philantropic individuals as *vakıf* to a mosque, school or other charitable organisations. There are also the big bazaar *kayıks*-the omnibus, carrying the low income group to the market. Von MOLTKE, *Zustände und Begebenheiten in der Türkei von 1835-1839*, Berlin, 1839. On other type is the *dolmuş* collective boat. The bazaar *kayık* has a capacity of 50-60 passengers running at a rate of 2-4 trips a day, von Moltke, *ibid*.

74. See: H. CİN, *Miri Arazinin Mülk Haline Dönüşü*, Ankara, 1969, p. 221. The question is, upon the founding a village or town on state-owned land, what happens to the ownership pattern. This is a contraversial issue according to the opinion presented by Ali Haydar and Atıf Bey; a piece of land has to be sold by the Sultan, so that it can be converted into private ownership. With a town being founded, it needs the permit of foundation and the declaration, that for the sake of common interent land hass been transferred into the private sector. (Whether the Sultan only says that or collects some money for it, is not clear.) The counter idea is advocated by H. Eşref: It is inherent in the act of foundation that all land within the limits of the settlement fall into private ownership. Hence the state gives up his rights about it. Then it is added, that the state might not do so since, all land belongs to him. Now the question rises; what was the real procedure in practice in

and large residences as well as new living quarters [65] with mosques, squares and fountains. As to the already settled areas like Eyüp, Scutari or Galata, which are considered in the previous centuries as suburban towns[66] they now become large neighborhoods within the system of the greater city complex.[67] The old city has lost some of its inhabitants. More than 30% of the population lives outside the walls and on the other side of the city.[68] It can be said that in this century diffusion gains acceleration as to incorporate the Bosphorus, the Golden Horn and the shores of the Marmara Sea. But the scattered development pattern creates serious traffic problems[69]; in other words new urban expansion occurs in spite of the indirectness of the sea connection. It is the dilemma of a sea route becoming the major line of transportation in spite of the prevailing rudimentary level of transport technologies. A trip of three miles from İstanbul to Büyükdere amounts to 1 1/2 hours with the current and 3 1/2 hours against the current.

Passengers are carried in *kayıks* and *peremes*; goods and cargo of all kinds, in *mavnas*. According to statistics, there are in 1680 a total sum of 1295 row boats.[70] Evliya Çelebi counts in the same century 15,000 *kayıkçı*,[71] if this information is not too exaggerated, the rowboat business appears to be a regular profession. At the end of the eighteenth century (1802) the number of boats amounts to 6572[72] which means an annual increase of 44 boats during the 120 year period. It seems to be also a profitable commercial enterprise.[73]

The location of jetties, the schedule of trips, the rules and regulations, as well as fixed tariffs of the row boat business degenerate in the nineteenth century.

The new developments across the sea display, with few exceptions, the same urban weakness caused by the undefined land ownership,[74] inefficient and insufficient building codes[75], inadequate infrastructure,[76] etc. The net result is an unplanned street layout, an organic housing pattern, built in the same perishable building material, which is wood.

With the exception of the few new neighborhoods across the sea, İstanbul in the 18th century exposes an urban tissue, where lines of communication, streets are underplayed and houses individually highlighted, but they are definitely lacking in overall cohesion. What is emphasized is nature with its green gardens, vineyards, orchards, vegetable allotments, cemeteries, picnic grounds and water pools, ponds, fountains, cascades and shores. It is a case of the mixture of a sincere but fashionable nature appreciation and love of landscape.

The humble and unpretentious, almost transitionary character of 18th century İstanbul housing has been observed and evaluated by two lady travelers in a similar way. Lady Montague and Jane Pardoe comment on the unclear nature of private ownership and its hereditary extension.[77]

No doubt it is the era of Kiosks in gardens, large open spaces, grand outdoors, in contrast to the low and fragile structures in or around them.

During the process of the emergence of the eighteenth century urban environment, new building activities[78] create new jobs. The beginning of this trend is during the contraversial *tulip time*. The Grand Vezir builds numerous serails,

eighteenth century in Istanbul? In the
same source on page 11, it says that
the Sultans usually divided their lands
into portions and one portion was
either given away and donated to
individuals or sold against a certain
sum. The lots of the shops are
parcelled by the state and given to
the keeper against a ground fee,
hokir, an annual tax.

75. For the existing rules see: A.
REFİK, Türk Mimarları, İstanbul,1936,
p. 58. These rules so far seek to
control the height of the buildings,the
distance between the fortress walls and
the building lines, as well as to
prohibit non-muslim housing next to a
mosque, or sale of land and houses of
the same to the muslims.

76. A. REFİK, Türk Mimarları, İstanbul,
1936, p. 59f. The streets were narrow,
side walks worn out yet they would be
repaired with stone. With the increase
in stone prices, side walks were also
abondoned.

77. LADY MONTAGUE, "Mektuplar", in
32ci Türkiye Tarihi, C. KUTAY, ed.,
cilt: 3, pp.1470-1472, İstanbul, 1958,
and J. PARDOE, Yabancı Gözü ile 125
Yıl Önce İstanbul, İstanbul, 1967,
p. 179.

78. The time of the great construction
fields is over, gone are the days of
the long term building activities, on
the sites of the sixteenth century
Külliyes. Yet, nineteenth century
brings some animation in the
construction sector.

79. M. AKTEPE, Patrona İsyanı(1730),
İstanbul, İ.Ü. Edebiyat Fakültesi
Yayını, No: 808, 1958, p. 60.

80. Innovations such as newspaper,
books, formal educations and all kinds
of technological progress, all
leading to a basis for public opinion
are nonexistent.

81. The same lack of coherence is
reflected in the eighteenth century
ideas and events with respect to
İstanbul(a city abstracted from its
society). This singularity is
expressed by the following factors.
- Protest and resistance to change
and improvement leading to revolt.
-. Mass migration form the provinces
in spite of the entry-prohibiting-laws.
- Stagnation of the economic basis.
- Modernisation, only in military
field and in the building sector
(barracks, garrisons, arsenals,
palaces, gardens and picnic
grounds). Westernisation pushed by
the state is supported only by the
bureaucrats, thus an artificial
movement in jumps.
A. TOYNBEE, Türkiye, İstanbul, 1971,
pp. 56-58. (The Western military
aspects are the least progressive and
educating one.) As a whole
modernisation attempts in eighteenth
century do not go beyond being a
mal de siécle; usul cedit, nizam-ı
cedit, irad-ı cedit, etc.

1 = High tax rates
 5
1 = Fire hazards
 6
1 = Break with the walled city and the
 7 mosque and medrese, which by now
   are not important any more.

82. M. AKTEPE, Patrona İsyanı(1730),
İstanbul, İ.Ü. Edebiyat Fakültesi
Yayını, No: 808, 1958, p. 56.

83. M. AKTEPE, Patrona İsyanı(1730),
İstanbul, İ.Ü. Edebiyat Fakültesi
Yayını, No: 808, 1958, p. 51.

pavillions, parks and gardens, in doing so he is not only expressing the royal taste for the French Renaissance and Baroque, mixed with the Safevid architecture, but in more practical terms, he is also employing a certain portion of the unskilled migrants thus keeping them out of hunger and mischief.[79]

The eighteenth century İstanbul diffusion demonstrates the case of a special diffusion, not fed by the waves of innovations in new ideas, information, skills, and techniques,[80] so that it is bound to create an environment, adorned with individual highlights but lacking in overall urban coherence.[81]

Urban growth is induced by Royal decisions, but site selection remains arbitrary.[82] For example a new palace is built in the Bebek garden, followed by a mosque,bathhouse and shops. The empty lots around, are sold to the people and a new neighborhood emerges by the name of *Humayun Abad*.[83] Another example: land on both sides of the *Kağıthane valley* is given to the government employees, as property, under the condition that it is to be developed in one year.[84] However no plans are provided. Likewise the garden of *Emirgan* is parcelled and distributed to the people. Then comes the Mosque on its square and the fountain and the bathhouse, finally the coastal houses around, so a new neighborhood arises.[85]

CONCLUSION

The urban diffusion in the eighteenth century İstanbul is a mixed phenomenon, which is spatial and relocational at the same time. A great number of incentives, motivations and expectations encourage diffusion in spite of great barriers. These barriers include: Long distances to travel and a low level of transportation and communication technologies, along with economic instability, the shaky power structure and the ever obstructing social institutions.

The centrifugal movement of eighteenth century seeks not an optimal location to live but a relatively satisfactory location, which provides protection against the city riots, fire hazards, offers proximity to nature, better housing conditions(house with garden), new job opportunities[88] and more administrative autonomy. All in all, what is looked for is, a certain degree of self sufficiency and self identification with the new environment.

So the edge of the built up area moves into the countryside by the principle of the least effort; along the seashore. In the expansion of the city, the decision makers see a unique opportunity to control the population of the enwalled city and to keep out the footloose, unskilled migrants. They represent a constant danger, as potential rioteers.

At the same time it gives them the incentive to control the fire hazards, caused by high densities and the low level of construction technology and substandard fire protection techniques.

However the decision makers also profit from the occasion, to realise their concept of modernisation. They build monumental barracks for the new army, well equipped with modern warfare devices. In non-military terms modernisation is reflected by the landscaping of large green areas, around elegant kiosks, in the renaissance or baroque styles.[89]

84. M. AKTEPE, *Patrona İsyanı(1730)*, İstanbul: İ.Ü. Edebiyat Fakültesi Yayını, No: 808, 1958, p. 54.

85. A further example is the site of the old serail in *Beylerbeyi*. In the middle of eighteenth century it is destroyed, the site is sold to the people. Towards the end of the century a mosque is built to complete the new neighborhood.

86. In the eighteenth century the Ottoman state is represented by the *ulema*, the *medrese*, the Janissaries, the army and the *ayans*, the local authorities, all competing with the royal institution.

87. It is significant that only the bureaucrats support reform; with special reference to the era of Selim III and Mahmut II. N. ISKOWITZ, "18th Century Ottoman Realities", *Studia Islamica*, vol. XVII, 1962, p. 93.

88. The new job opportunities are first of all in the sectors of agriculture, commerce, then construction and finally services. The last one offers the possibility of finding positions in the newly built *konaks*; only, such a position can discontiue any time. in the case, when the owner dies or even during his lifetime, through the confiscation of his property. S. KUMBARACILAR, "İstanbul Konakları", *Hayat Tarih Mecmuası*, no: 12, 1970, p. 441.

89. Eighteenth century Ottoman society imports western architectural approaches but it is still capable of cultural adaptation. So that it assimilates the exogeneous influences to produce the eighteenth century Ottoman milieu. From nineteenth century on, the situation changes and direct copying takes place.

In erecting a military complex on the outlying areas, the Sultan acts as an urban growth generator. Actually laying out the site in an almost planned way he opens up new neighborhoods Namely Selim III builds the impressive barracks on the site of the old serail complex and the land next to it, he subdivides in a grid-iron plan. The subdivision is given to the high executives, one of the very few examples of planned development in this era.

In building the various *konaks* and *serails* on the shores of Bosphorus and the Golden Horn, growth poles are injected into the environment, to channel and intensify diffusion.

For the newcomers , the diffusion zone is the only possible area to settle down, in many ways, the only area on this side of the survival threshold.

For the old city dwellers, the diffusion movement is more of an escape. Ironically enough the walls of the old city cannot provide protection anymore. On the contrary, they symbolise a highly insecure and hostile environment.

Two ideas underlie the phenomenon of urban diffusion in eighteenth century İstanbul.

1. The traditional society stresses the primary activities like agriculture, forestry, fishing and mining; along with marginal activities like construction and services.
2. The royal house abondons the old city, with its insoluble problems.

In the eighteenth century the capitol echoes the swansong of the traditional Ottoman institutions and their desperate resistance to change. Need for space pushes people apart and need for services and jobs pulls them together. This movement occurs within the framework of an economic dilemma. The dilemma of high rate of consumption and low rate of production. And this creates unemployment, disrupture in urban services and an increasingly substandard physical environment. These negative factors turn the walled city into a highly explosive and dangerous entitiy, which no Sultan is brave or strong enough to handle.

Hence the city diffuses outward, urban functions disperse and the urban environment undergoes changes of perhaps a weak and unsteady nature, yet to a certain degree an urban transformation sets in.

ONSEKİZİNCİ YÜZYIL OSMANLI KENTİNDE KENTSEL DEĞİŞİM

ÖZET

Kentsel değişim yapısal değişimleri gerektirir. Bu nedenle de, tüm kentlerde onsekizinci yüzyılda böyle bir değişimden söz edilemez. Ayrıca, bu konuyu içeren kuramlar henüz tam gelişmemiştir. Bu nokta gözetildiğinde yapılan araştırmayı kuramsal bir tabana oturtmak amacı ile değişim(*transformation*) ile yayılım(*diffusion*) olguları arasında bir analoji kurmak yoluna gidilmiştir. Üstelik, değişim matematik kavram olarak böyle bir benzetmeye olanak sağlamaktadır. Böylece, yayılım kuramından yararlanmak geçerli olmaktadır.

İstanbul'un onsekizinci yüzyıldaki mekansal yayılımı 100 yıllık bir zaman süreci içinde ele alınarak fizik çevreye yansıtılmıştır. Yayılımı iten ve kösteklyen etmenler birer birer tartışılmakta ve o çağın politik, toplumsal ve ekonomik özelliklerinin ışığı altında eleştirilmektedir.

Bu yöntemi izlerken araştırmanın amacı yayılım örüntüsünün (*diffusion pattern*) tarafsız bir değerlendirmesini yaparak hareket noktalarındaki değişimleri ve varış noktasındaki yayılımları inceleyip yorumlamaktır.

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