

# APPLICATION OF THE URBAN REALMS MODEL TO ISTANBUL

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## *Abstract*

The sprawling masses of cities like Los Angeles, Chicago and Istanbul, driven by car-culture, need a model that accounts for the car, mass transportation and, in Istanbul's case, marine links. Urban realms model provides this descriptive and interpretive framework and replaces the models used to address the characteristically single-centered metropolis of prewar decades. In the urban realms model, these urban realms are large self-contained areas: within which a mix of land uses is such that daily life can be carried on without normal resort to external locations in other realms. There will always be a turning to other realms for some purposes by those living or working near the boundaries between realms. Istanbul is unique because its urbanization rate is higher than almost anywhere else in the world. Human behavior, transportation initiatives, and governmental policy have all been instrumental in their effect on the urban morphology of Istanbul. In this paper, the urban realms model is employed as an analytical framework for Istanbul.

**Key words;** Istanbul, Transportation, Urban realms model, Urban geography.

## I. INTRODUCTION

Basically, the urban realm is the geographical unit of daily living. Certainly, to permit realms to come into existence, with their wide range of activities sufficient to permit enclosure within a boundary of a daily action system, there had to be a dispersal of formerly central-area functions like specialized high-end shopping or financial services.

As cities grew, transportation and accessibility to the traditional Central Business district was no longer feasible or practical. In addition, job displacement resulted and employment had to be available in outlying bands in order to serve the limited resources of all growing metropolitan areas. The outward shift of wholesaling and manufacturing served, along with retailing and office functions, to provide that employment (Vance, 1990).

The influence that the rise of urban realms exerts on urban morphology is widespread: once a realm emerged, there will be a very strong tendency for each of those realms to have examples of all of the major land uses, even those that in the era of the single-centered city were located at a single place within the metropolitan city. Consequently, the spread of central business district-like shopping centers in a number of places within the metropolis tends to be evident, and grows in size and complexity.

In the last twenty years, the size and complexity of the larger realm centers has increased (Hacısalıhoğlu, 2000). Two or more department stores are essential in the regionally dominant center, and specialty shops have become more diversified in retailing. Office functions have taken on increasingly important roles.

Since at least 1980, Turkey has been undergoing a transformation of significant proportions. This transformation is closely related to the realignment of the structure of Turkey's relations with the regional and global economies. Domestically, significant changes are observable in the economic, political, sociological and demographic spheres. Throughout

the world, where new technology and the circulation of property and capital are occurring instantaneously, some cities and regions are acquiring new roles and meanings. Some cities and regions are finding greater importance with their new roles in the process of globalization, while others are suffering. Urban morphology has also been transforming rapidly during this period (Sönmez, 1996).

## **II. URBAN TRANSPORTATION OF ISTANBUL**

Typically, the transportation linkages in the urban realms model have been highway-based. However, with Istanbul, marine transportation is important to commuting and to the realization of business activities and commerce. The existence of seaports contributes to urban morphology by linking seaside locations and increasing the marketability of realm centers located near or adjacent to commuting seaports (e.g., Bakırköy).

The urban transportation system should be assigned this crucial role in a model whose purpose is demonstrate the distribution of persons and the value of land in the urban region, which is certainly consistent with what is known about the impact of transportation innovation on the spatial organization of the city. Looking at larger Turkish cities over the first thirty years (1920-50) of the *automobile age*, it appears that the cities which grew the most during this period tend toward substantially lower gross densities than those whose major growth took place before the impact of the automobile began to be experienced.

The shoreline is a source providing a variety of utilization possibilities, both in terms of its land and its sea uses. It is both natural and inevitable that seaside cities like Istanbul should have development patterns that stretch along its shorelines. The shore is an important source with the simultaneous potential of being used as a high-quality recreational area. In addition to the importance of the shore as a settlement area, the potential that the shore carries for providing public transportation must also be taken into consideration alongside inner-city solutions. Realistic solutions can be found if the inner-city transportation is based on proposed solutions built on hard facts (Kılınçaslan, 1996).

The various organizations providing transportation services to the Istanbul metropolitan area include the following:

1. The Haydarpaşa-Gebze and Sirkeci-Halkalı suburban lines of the State Railways.
2. The Maritime lines providing water transport along the Bosphorus and the Sea of Marmara.
3. The General Directorate (İETT) of buses, funicular railways (e.g., Tünel) and trams.
4. The Municipal Company (İDO) in charge of the sea buses.
5. The Transport Company responsible for the metro system and tram between Aksaray and Airport.

### **Suburban Rail Transport**

The Anatolian Suburban Lines consist of a stretch of the main railway line connecting Istanbul to Anatolia and is approximately 44 km in length, beginning from Haydarpaşa to Gebze. Of the twenty-eight stations in this section of the line, Haydarpaşa, Erenköy, Bostancı, Maltepe, Kartal, Pendik, Tuzla and Gebze are equipped with superior services. The European Suburban line consists of a stretch of the main railway line connecting Istanbul to Europe and suburban urban realms, and is 27 km in length. There are eighteen stations on this part of the line. Of these, Sirkeci, Kumkapı, Yedikule, Zeytinburnu, Bakırköy, Yeşilköy, Florya and Halkalı are have fully equipped stations while the others are merely stops (Keskin, 1996).

## **Sea-Based Transportation**

The most important share of water transport falls to the traditional transport system represented by the ferryboats and steamboats of the metropolitan lines. These are operated by the Turkish Maritime Lines Metropolitan Transport attached to the Ministry of Transport. Currently, there are fifty-two landing-stages belonging to the Metropolitan Lines, with 90% of passengers using this service beginning their journey from one of the following six: departure points: Emnönü, Karaköy, Beşiktaş, Üsküdar, Haydarpaşa and Kadıköy (Keskin, 1996).

### **The Metro**

The metro or subway system connects Aksaray and Airport. Work is in progress on increasing the efficiency of the high speed tram service by extending the route in the direction of the E-5 highway along the edge of the London asphalt and connecting it to the Atatürk Airport. Ataköy emerged as a growth center because of the metro.

A number of “nuclear settlements” also emerged within Istanbul’s field of expansion. The populations of these areas are of different geographical origins and have different socio-economic structures. The following examples will clarify this point. Since the Ottoman Empire, there were villages subsisting on fishing and agriculture, especially gardening, around Istanbul and the Bosphorus, particularly on the bays along the coastline. Originally, communication along the sea coast was achieved by means of row-boats. Later, however, a steam-boat service was installed and summer resort houses were built in these areas. After the 1950s, roads were constructed along the coast and on the low elevation plateaus. So, Istanbul’s growth towards the Bosphorus took place on the flatlands of the plateaus on both the European side and Asian sides.

Especially on the European side, growth was along creek valleys parallel to the Bosphorus. A typical example is the growth of Kağıthane village towards the north and in the valley parallel to the Şişli-Büyükdere road on the plateau. This development caused the ancient village of Kağıthane and other ancient villages (e.g., Ayazağa, Mecidiyeköy) to become urbanized (Tümertekin, 1996). Many villages were consumed in this manner. Eventually, from some of these village centers, a number of urban realm centers began to emerge. That means it is arguable that these villages laid a foundation for the eventual expression of the urban realms model. In this and other senses, the urban realms model is appropriate for Istanbul.

## **III. THE URBAN REALMS OF ISTANBUL**

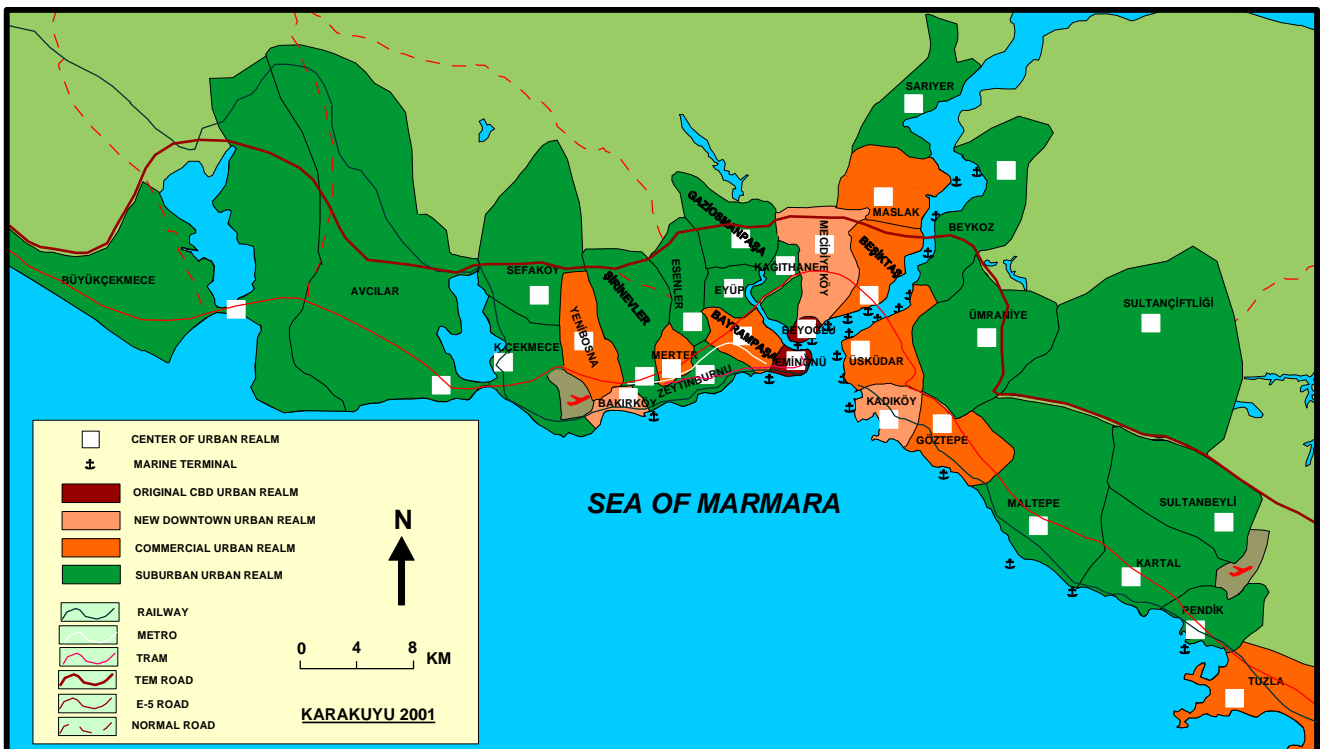
### **The Original Central Business District Urban Realm**

Using the urban realms model criteria, Istanbul can be divided into 31 realms (Figure 1). These urban realms are identified primarily according to commuting behavior for shopping and business activities, plus population size and available transportation infrastructure. Historically, two realms can be identified as the *Original Central Business District* urban realm, which are located alongside the Golden Horn (i.e., the historic peninsula and Galata). Although these areas continue to function as significant commercial areas, the emphasis on their centrality to metropolitan Istanbul is diminishing.

In fact, a number of targets have been set for the historic peninsula and Galata with respect to urban functions and transport, as well as visual, structural and spatial layout, taking into consideration the extensive area covered the visual context of the aims and objectives and the on-going process of conservation and development. The fundamental aim of recent planning efforts, for example, has been the emancipation of the historic peninsula from its role as a business centre and a focus of urban concentration. Rather, concern has been for the creation of a living historical, cultural, touristic, commercial and recreational space, integrated with a local population of restricted dimensions (Özdeş, 1993).

Now, the emerging realm centers of Istanbul have become closer in function to the traditional central business district, but still differing from it in a number of significant ways. First, the new realm centers express a slightly different morphology since they are functionally disaggregated from the original CBD. And, they are not serving the entire metropolitan area. Instead, they serve their own capture areas (i.e., just their own realm or part of a realm in those realms with large populations themselves). Architectural detail will also be a consideration in comparing new realm centers with the historic peninsula/Galata original. The newer realm centers will also have architectural detail that demonstrates when they emerged as economic contenders in the metropolitan game.

Yet another comparative point involves the sectoral specialization demonstrated in Istanbul's original CBD. For example, Eminönü can be regarded as being comprised of a number of different cells (e.g., Mahmutpaşa is noted for textiles, Sirkeci is noted for electronic instruments, and the Grand Bazaar is famous for gold, silver and leather). At the same time, Karaköy is also noted for large electronic establishments (e.g., for TVs, laundry machines, etc.). And, Beyoğlu is noted for its shopping centers, hotels and office buildings.



**Figure 1:** Application of the urban realms model to Istanbul.

### New Downtown Urban Realms

In the second phase of outlying center development, New Downtown Urban Realms emerge. Over the last twenty years, and particularly with the existence of the realm centers, the area of centers has grown so enormously that the original pattern of spread-out, single-story shops no longer makes sense. These new downtown urban realms are being characterized by tall, heavily-massed buildings that consume most of the available footprint on a parcel of land.

Actually, commercial activity has fanned out from Istanbul's original CBD. Many banks, for example, are now located in Mecidiyeköy's new downtown realm. Furthermore, it has many companies and agencies. In this category for new downtown urban realms, there are three good examples in Istanbul: Mecidiyeköy, Kadıköy, and Bakırköy. It is worth noting that they were all villages in the past, and that they are located at considerable distance from each other.

Mecidiyeköy is located to the north of the original Beyoğlu CBD and near the Bosphorus Bridge I (E-5 Road). These two things affect the emergence of the Mecidiyeköy new downtown urban realm. So, proximity to the TransEuropean Motorway and to the original CBD reflects original factors influencing the emergence of this new downtown realm. In fact, this particular urban realm is larger than the other new downtown urban realms (i.e., in other words, it is the main new downtown urban realm). In the Mecidiyeköy urban realm, 60% of bank headquarters, 50% of leasing companies and 46% of factoring companies are located (Hacısalıhoğlu, 2000).

Kadıköy is located on the Anatolian side of Istanbul. Like Mecidiyeköy, a transportation locus has affected the emergence of the Kadıköy new downtown urban realm. Kadıköy is located at the southern portion of the Haydarpaşa harbor, and at the end of the Anatolian railway system. Furthermore, it has a marine terminal for passengers. It has many holding company centers. In particular, the Bağlarbaşı-Altunizade axis has many company headquarters and offices. The center of Kadıköy has many small agencies, small businesses and shopping centers. Larger shopping centers are located in the eastern part of the Kadıköy new downtown urban realm.

Bakırköy is the final new downtown urban realm. It is superimposed on top of the E-5 Road, on the railway, along the metro and at a seaport. Like Kadıköy, it has a high-volume marine terminal for passengers and commuters. In the downtown, it has a long pedestrian mall for shopping which starts at the Bakırköy railway station and runs to the Bakırköy marine terminal. The pedestrian environment is analogous to that demonstrated on İstiklal in Taksim and has similar consumer intensities although lower rents.

Bakırköy has a unique place all of its own in the overall urbanization pattern of Istanbul. For example, it is one of the oldest counties of the city (administratively a county center since 1926). And, Bakırköy has attempted to preserve its character as a resort town for a long time (Tümertekin, 1996). The fact that the railroad line connecting Istanbul to Europe, built in 1871, passed through Bakırköy facilitated original linkages with the city. As a result of this, settlement, which had earlier concentrated along the Marmara coastline and its surroundings, began to spread towards the north. Another factor that induced accelerated development towards the north was the E-5 highway. But real growth and the advent of the present spatial and socio-economic character of the Bakırköy came about after 1950. Here, the decisive factor was the development of outlying industrial and commercial locations in the area (Tümertekin, 1996).

### **Commercial Urban Realms**

Eight commercial urban realms can be identified in the Istanbul Metropolitan area. Actually, although most of them can be found alongside the coastal zone, Yenibosna, Merter, and Bayrampaşa are located in in-land areas (although nevertheless in proximity to the Sea of Marmara). Tuzla is not in Istanbul province, but is within the borders of the Istanbul Metropolitan area. For that reason, Tuzla is included in this application of the urban realms model. It is far from the new downtown urban realms and original central business district. Nevertheless, it is a very important commercial realm because of its transportation relevance. It has a harbor and it is near to the E-5 highway. Furthermore, many chemical industries are located there because of proximity to the Tüpraş refinery.

Göztepe is in the eastern part of Kadıköy, and stretches out to the Marmara coastline. Kadıköy's new downtown urban realm affects this realm. Proximity to a new downtown has encouraged the growth of adjacent commercial and industrial establishments. Therefore, it is arguable that Göztepe's commercial realm emerged because of available transportation linkages (e.g., the E-5 highway, the Anatolian railway) and its location (i.e., nearness to Kadıköy).

Üsküdar is located in the northern part of Kadıköy and along the eastern shore of the Bosphorus. Proximity to Kadıköy, the presence of a marine terminal, the construction of the Bosphorus Bridge, and bisection by the TransEuropean motorway and the existence of the Haydarpaşa Harbor all combine to explain the emergence of Üsküdar. Üsküdar has many holding companies, headquarters and agencies. Furthermore, 10% of Istanbul's insurance industry is concentrated in this commercial core (Hacısalıhoğlu, 2000).

Maslak is located north of Mecidiyeköy and is also on the western shore of the Bosphorus. Maslak emerged because of Mecidiyeköy. While it doesn't have a marine terminal, it is near the TEM Highway. The Maslak commercial realm formed during the decentralization of Istanbul's industry, and it has many of Istanbul's tallest buildings (e.g., the İşbank headquarters). Traditionally, building heights are an important factor concerning the discrimination of where commercial centers are located (Rubenstein, 1999). Furthermore, the medical industry is concentrated in this realm along with Istanbul Technical University—both of which contribute to Maslak's performance as a growth pole for tertiary and quaternary economic activities.

Beşiktaş is located along the eastern portion of Mecidiyeköy and the northeastern part of Taksim. Like Maslak, it is along the Bosphorus. Unlike Maslak, it is an important marine transportation hub. Beşiktaş links with Üsküdar and Kadıköy by ferry (along with other connections). The commercial area is concentrated around Beşiktaş center and towards Ortaköy. Beside this, Yıldız Technical University is found in this realm. Although it doesn't have especially tall buildings, it has a high concentration of offices and businesses.

Bayrampaşa is located in the northwestern part of Eminönü and next to the E-5 highway. Eminönü emerged because of the Metro and the E-5. As well, covered marketplaces are found in this realm. Bayrampaşa was able to become a center of the food industry. It has many commercial establishments that are centrally located and well-connected by marine transport. The Topkapı industrial zone is also found in this realm.

**Table 1:** Suburban urban realms and their sub-realms.

<b>Suburban Urban Realms Name</b>	<b>Sub-realms</b>	<b>Reasons Underlying Emergence</b>
Avcılar	Büyükşehir, Parseller, İhlas Marmara, Cihangir, Esenyurt, Kıraç, Esenkent, Bahçeşehir.	E-5 highway
Beykoz	Anadolu Kavağı, Tokatköy, Yalıköy, Kavacık, Kanlıca, Çubuklu, Gümüşsuyu	TEM, marine terminal
Büyükçekmece	Çatalca, Kumburgaz, Beykent, Gürpınar, Mimaroba	E-5
Esenler	Bağcılar, Davutpaşa, Kemer, Habipler, Turgut Reis, some part of Haznedar, Güngören	TEM
Eyüp	Topçular, Kara dolap, Yeşilpınar, Çırçır, Güzeltepe, Alibeyköy	E-5 and marine terminal
Gaziosmanpaşa	Habipler, Cebeci, Karadeniz, Gazi, 50. Yıl, Yıldız Tabya, Zübeyde Hanım	TEM
Kağıthane	Çağlayan, Seyrantepe, Talatpaşa, Gürsel, Rıffat Paşa, paşa	E-5
Kartal	Orhantepe, Cevizli, Esentepe, Yakacık, Kurfalı, Çavuşoğlu, Karlık tepe	E-5 and railway
Küçükçekmece	Florya, Halkalı, Cennet, Altınşehir,	E-5 and railway

Maltepe	İstasyon, Fatih, İstasyon Büyükbakkalköy, Bağlarbaşı, Başbüyük, Zümrüt evler, Gülsuyu, Esenkent, Cevizli	E-5 and railway
Pendik	Şeyhli, Yayalar, Velibaba, Kavacık, Kaynarca, Yayalar, Rumeli Kavağı, Maden, Tarabya, Büyükdere, Yeniköy, Reşitpaşa, Çayırbaşı, Emirgan, Rumelihisarı, Derbent	E-5 and railway
Sarıyer	Çavuşbaşı, Yakacık, Gümüşpınarı, Soğanlık Mehmet Akif, Atatürk, İkitelli, Bahçelievler, Ataköy, Kocasinan, Soğanlı, Bağcılar	marine terminal and location
Sultanbeyli	Çavuşbaşı,	TEM
Sultançiftliği	Yakacık, Gümüşpınarı, Soğanlık	TEM
Sefaköy	Mehmet Akif, Atatürk, İkitelli,	TEM
Şirinevler	Bahçelievler, Ataköy, Kocasinan, Soğanlı, Bağcılar	E-5 and Metro
Ümraniye	Dudullu, Çekmeköy, Çakmak, Kazım Karabekir, İnkılap,	TEM
Zeytinburnu	Maltepe, Seyit Nizam, Merkez Efendi, Kazlıçeşme, Telsiz	E-5 and railway

Merter is located directly on the E-5 highway and has evolved into a textile center. Its proximity to the metro and the tramway have also influenced its growth. Not far away, Yenibosna is located near the airport and between two important roads: the TEM and the E-5. Yenibosna stretches out from the airport to the TransEuropean Motorway. Güneşli and İkitelli are among the most important industrial zones in Istanbul. Furthermore, İkitelli is the result of a Planned Industrial Region (Istanbul Büyükşehir Belediyesi, 1995). Some commercial areas emerged because of the airport in this realm. Furthermore, many printing (especially newspapers) and broadcast companies are found in this realm as well. In fact, many companies moved their operations from crowded Eminönü to the Yenibosna commercial realm (Hacısalıhoğlu, 2000). In the meantime, many large shopping centers are found in this area because of transportation and shipping advantages.

### **Suburban Urban Realm**

Nineteen suburban realms can be identified in Istanbul (Figure 1 and Table 1). These suburban realms can be divided into many sub-realms. These sub-realms are districts or quarters (e.g., Gazi) (Table 1). The key element of the realms model is the emergence of large self-sufficient suburban sectors each focused on a central city. In Istanbul, these suburban realms are stretched out from east to west along two lines: the coastline (which the E-5 follows on the European side) and the TEM. Along the north-south meridian, suburban realms are found along the Bosphorus. Like other urban realms, the suburban realms emerged because of transportation advantages related to accessibility. What is unique about Istanbul is the ongoing importance of sea-links to commuting. Pendik, Kartal, Maltepe, Beykoz, Sarıyer, Avcılar, Küçükçekmece, Kağıthane, Eyüp, Avcılar and Büyükçekmece emerged because of marine transportation links and the E-5 highway. Furthermore, Şirinevler emerged based on the E-5, and Esenler, Sefaköy, Gaziosmanpaşa, Ümraniye, Sultançiftliği and Sultanbeyli emerged because of the TEM. These are found along the second (inner part) line, which is older than the others.

### **IV. CONCLUSION**

On the basis of this analysis of the evolving morphology of the Istanbul, the urban realms model provided a new way to look at how the city has been shaped during the Modern Period. In particular, the urban realms model worked particularly well because it was amenable to the

introduction of marine transportation linkages into seeking an explanation for how growth poles emerged. Vance (1990) uses an area criterion for the delimitation of urban realms. However, he was working in the American context where residents are more mobile because of higher per capita incomes and subway systems operating at greater intensity (e.g., more stops, more frequent service) than that available in Istanbul. More specifically, in Istanbul, marine transportation is essential to the functioning of the metropolitan economy because of its affordable cost in terms of distance traveled, and because it is an alternative to the oppressive gridlock experienced on both bridges across the Bosphorus. For this reason, the area criterion for an urban realm was relaxed.

In conclusion, first, the transportation network was analyzed as the primary determinant of urban morphology using this model. Second, the original central business districts were determined. These realms were Eminönü and Beyoğlu. Third, new downtown urban realms were determined as Mecidiyeköy, Kadıköy and Bakırköy. The entire Istanbul metropolitan area becomes reorganized into a set of independent urban realms according to this conceptualization. Suburban urban realms were determined according to three criteria:

1. Terrain, especially topographical and water barriers.
2. Overall size of the metropolitan area. And,
3. The amount and diversity of economic activity contained within each realm.

Then, nineteen suburban urban realms were identified according to these criteria (Vance, 1990).

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