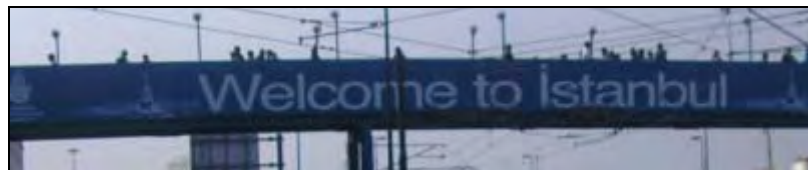




ISTANBUL: 100-MILE CITY

FAST FACTS		Similar To
Metropolitan Area Population	11,500,000	Chicago, Rio de Janeiro
Urban Area Population	10,500,00	Shanghai, Rio de Janeiro, Los Angeles, Paris
Urban Land Area: Square Miles	430	Charlotte, Vancouver, Marseille, Riyadh, Seoul-Incheon
Urban Land Area: Square Kilometers	1,110	
Population per Square Mile	24,400	Ho Chi Minh City, Sao Paulo, Nairobi
Population per Square Kilometer	9,400	
*Continuously built up area		



18 April 2006

Istanbul is one of the world's great historic cities. In the beginning, it was called Byzantium, and was later renamed Constantinople, in honor of the emperor who ordered the Roman Empire converted to Christianity. The city was taken by the Ottoman Turks in the 15th century and became Muslim as a result. The name was later changed to Istanbul.

Urban Form

Istanbul sits at a strategic position astride Europe and Asia. It is the world's only major city spanning two continents. The western or European side is separated from the eastern or Asian side by the Bosphorus, the strait that connects the Black Sea to the Sea of Marmara and the Mediterranean Sea. Approximately 65 percent of the population of the urban area lives on the European side and 35 percent on the Asian side.

This is a picturesque location, rivaling the setting of Hong Kong, Sydney, Seattle, Cape Town or Halifax. The old city itself juts out from Europe to form the southern most western shore of the Bosphorus. The northern shore of the peninsula is the Golden Horn, one of the world's great natural harbors. To the north of the Golden Horn, dense urbanization continues up the European

side approximately two-thirds of the way to the Black Sea. The Asian side is across the Bosphorus, with urbanization extending nearly as far north as on the European side.

A wall, much of which remains visible today, surrounded the old city on the peninsula. Throughout the 15th to 19th centuries, approximately 700,000 people lived within the confines of the six square mile walled city. The population has fallen to approximately 500,000 today.

More than a decade ago, a book appeared called *The 100 Mile City*. It is doubtful that the authors had Istanbul in mind. But, in fact, this ancient urban area is closing in on a breadth of 100 miles. Admittedly, this is due to the oblong shape of the urbanization, oriented along the Sea of Marmara coast. To the west (Europe), development is continuous for approximately 50 miles and averages approximately seven miles of depth from the Marmara coast, narrowing to a coastal strip at the extreme. To the east (Asia), continuous development extends nearly 40 miles, and is from five to eight miles wide nearly to the eastern end in Gebze. Along the Bosphorus, development runs approximately 13 miles to the north.

Yet, despite this expansive urbanization, Istanbul has one of the most dense urban cores in the world. The fully developed districts (district municipalities) on the European side comprise an area equal to that of the ville de Paris, with 25 percent more population and a population density of 70,000 per square mile. Adding the fully developed districts on the Asian side, the core covers 1.75 times the area of the ville de Paris, at approximately the same density (more than 55,000 per square mile). The hyperdensity of the core extends beyond the fully urbanized districts, but is masked by large undeveloped tracts in other districts.

The city itself is the Metropolitan Municipality of Istanbul, which like Beijing and Shanghai, has provincial status. The Metropolitan Municipality is divided into district municipalities.

Istanbul is growing very rapidly. The State Institute of Statistics estimates that the population increased more than 1,000,000 from 2000 to 2004. This does not include the rapid growth in the Gebze area, outside the Metropolitan Municipality to the east (Kocaeli province) and more modest growth to the west in Tekirdag province.

The current urban area population is estimated at 10,500,000, but could rise to more than 15,000,000 by 2015 at the current rate of growth. This would make Istanbul the largest urban area, by far, in the European Union, assuming Turkey's accession at that date. Even if much of the new development is lower density detached housing, as occurred as Barcelona, Athens and Lisbon were becoming more affluent, Istanbul seems likely also to be, by far, the EU's most dense urban area.

While most of the residential development in Istanbul is multi-story and multi-unit, detached housing is being built on the periphery, especially to the east (in Gebze) and the west (Silivri in the Metropolitan Municipality, spilling over into Tekirdag province). In Istanbul, like urban areas around the world, many who can afford it prefer a detached house in the suburbs.

Holy of Holies

The old city has among the most sacred sites in the world. The place is the Sultanahmet, a square that includes Justinian's great St. Sophia Church and the large "Blue Mosque" (Sultan Ahmet Mosque). The two are less than 1,500 feet apart (less than 500 meters). They are separated by attractive gardens and an area with many backless benches, which allows visitors to choose whether to sit looking at the church or at the mosque.

In fact, the church is a museum and before that spent much of the last 500 years as a mosque. The church was built by Justinian in the 6th century and served as the seat of the Patriarch of Constantinople until the Ottomans came. It was variously in disrepair, damaged by earthquakes and for a time under the control of the western (Roman Catholic) church. The Ottomans converted St. Sophia's to a mosque when they conquered Constantinople and over the course of time added four minarets. Nevertheless, for all its tribulations, St. Sophia's is one of the principal sites of Christendom. This is not to discount its importance to Muslims during its time as a mosque. The museum has both Muslim and Christian features. The admission charge is 10 Turkish Lira (YTL), or approximately \$7.50 (April 2006).

The Blue Mosque was constructed in the 17th century. Its general design is similar to that of St. Sophia's. It was designed with six minarets, which caused concern because this equaled the number at the mosque in Mecca. Another minaret was added in Mecca as a result. The Blue Mosque is, like St. Sophia's, very large. The name comes from the faint blue decorations of the inside. The Blue Mosque represents a clear reflection of 1,000 years of advance in construction compared to St. Sophia's, with cleaner lines and greater precision in design. Admission to visitors is free, though donations are requested (though not with any pressure) at the exit.

However, the Blue Mosque is not the only large mosque in Istanbul. Just on the peninsula, there are a number of Mosques that appear to rival the Blue Mosque in size. However, they lack the large front courtyard defined by the fifth and sixth minarets. There are also many large mosques in other parts of the city, nearly all with designs similar to that of the Blue Mosque.

Transport

Residents rightly warn of intense traffic congestion and for good reason. This is to be expected in any urban area with such high density. Istanbul's roadway system is generally good, but is simply not up to the task of accommodating the need of people to travel by car. Even what may be the highest petrol prices in the world (approximately \$8 per gallon) does little to control the congestion. Istanbul's most daunting traffic problem is that it is divided by a waterway. The nearly 20-mile length of the Bosphorus has only two crossings, suspension bridges that carry the O-1 and O-2 freeways. There are a few other freeways and a number of wide arterial streets. The road pattern is complicated by the many hills, which appear to have limited the connectivity of the arterial roadway and street system.

The dense core is not well served by public transport. This is illustrated by comparison to the ville de Paris, which is well served by public transport. In the ville de Paris, Metro stations are located within 400 meters of virtually everywhere, Not so in Istanbul. In addition to the Metro,

the ville de Paris is served by a high-capacity regional Metro, the RER. In Istanbul, the rapid transit system includes only a comparatively short Metro system and a commuter rail line on both the European and Asian sides (the new tramway cannot be considered rapid transit).

The enormity of the area of high density illustrates the problem of relying on public transport for mobility. Rapid transit coverage is sparse and will remain so even when all proposed extensions of the rapid transit system are completed. The density of coverage will by no means approach that of the ville de Paris, which is probably the minimum coverage level that can make public transport competitive with the automobile. While densities of 50,000 or 70,000 per square mile are high, they are well below the densities of the historic walking or public transport urban areas. Public transport is capable of providing high levels of mobility at Istanbul densities, but only for a much smaller area.

At the same time, an under construction Metro tunnel will link the old city and the Asian side. This is likely to be well patronized, because of the barriers to crossing the Bosphorus. The result is likely to produce significant numbers of new waterway crossings, just as opening the Metro induced significantly greater cross-harbor traffic in Hong Kong. However, given the larger size of Istanbul, its greater physical extent and the fact that the tunnel will not directly serve the largest business center, the effects, are likely to be less pronounced than in Hong Kong.

The rail and large bus systems do not serve much of the urban area, and will not even when all of the proposed extensions are completed. Private minibuses and taxis appear to be the principal mode of public transport in much of the area. There are also a plethora of ferry services, most of which operate from the peninsula (Eminonu) and Karikoy (Beyoglu). There is frequent service and passenger fares are 1 YTL (approximately \$0.75).

Istanbul's transport dilemma is that, despite its high density, it is too sparsely populated for public transport to provide mobility throughout the urban area. At the same time, the intensity of urban development makes it impossible to provide the road capacity that would be required to optimally serve the ever-increasing share of travel that will be by car. Inasmuch as greater mobility is associated with greater economic production, this does not portend well for the development of the city and the affluence of its residents.

Commercial Centers

The largest office centers of Istanbul appear to be well outside the old city. The largest is Levant, which is located *outside* the O-1 beltway (ring road). The office towers of Levant are all comparatively new, and their broad spacing from one-another is akin to that of a U.S. "edge city." Thus, even though Levant has Metro service, unusually long walks are required from the stations to offices. In this regard, Levant is similar to Louis Berrini in Sao Paulo, where the planned Metro would effectively serve only a part of the business center, because so many offices will be far from the station. Moreover, the rail transit system does not radiate from Levant. Rather, *Levant* is simply a couple of stations on the line, which like others, radiates from the old city. There are also other large centers, including one north of Levant and *outside* the second beltway (the O-2).

There are also large shopping malls, both of the enclosed and strip variety. In some malls, it is necessary to pass through metal detectors to enter.

Europe and Asia

There appear to be cultural differences between the European and Asian sides of Istanbul. This is illustrated by the women's apparel on either side of the Bosphorus. Generally, on the European side, women dress just like their counterparts further west in Europe. Many women wear scarves, but few wear the full length black robes and veils typical of Muslim Middle Eastern countries. Some high school girls wear uniforms that include a skirt cut slightly above the knee and young women will often be seen wearing "jeans" or other typical western attire. However, on the Asian side, many women wear the full-length robes and veils. This difference reflects the higher income of the European side and the fact that rural migration is greater to the Asian side, which is, of course, closer to Turkey's larger Asian geography.

Parallels

Istanbul is uniquely a place where east meets west. There is much European culture. Yet, the five-times daily calls to prayer from Mosques provide a constant reminder that this is not Western Europe. Istanbul has many more hills than Rome or San Francisco. Istanbul has smog that may be as bad as Los Angeles in the 1960s and world-class traffic congestion. Like most of Europe, American and British popular music can be easily found on the radio. At the same time, the sounds of middle-eastern music are more prominent, both on the radio and in public places.

<http://www.rentalcartours.net>

<http://www.demographia.com>

<http://www.publicpurpose.com>



Peninsula (Eminonu)



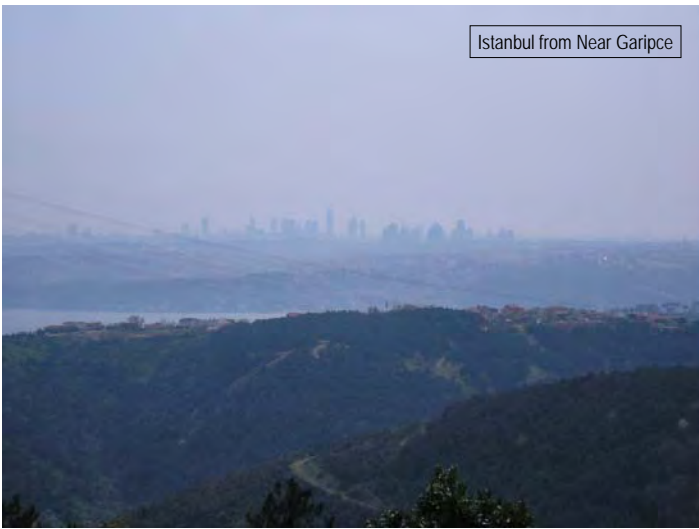
Istanbul Urban Area



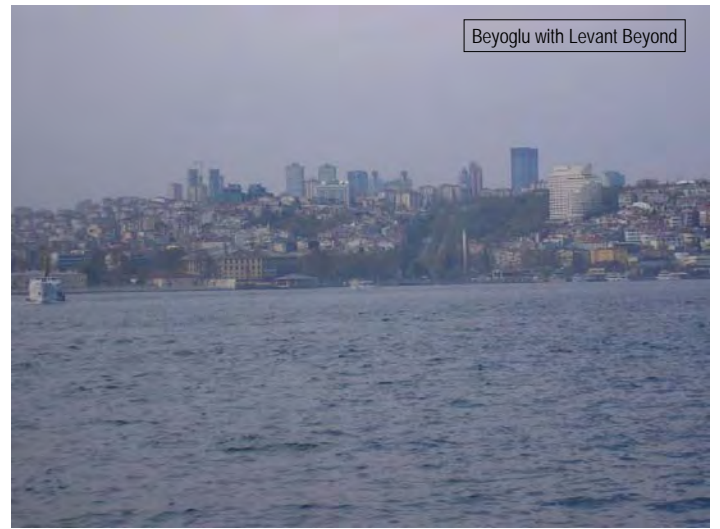
Bosphorus Toward First Bridge (O-1)



Beyoglu (North of Peninsula)



Istanbul from Near Garipce



Beyoglu with Levant Beyoğlu

Bosphorus Toward Entrance to Black Sea



Bosphorus Toward Black Sea



Exurban Housing: West (Hadimkoy)



Exurban Multi-Unit Housing: West (Hadimkoy)



Exurban Housing: West (Catalca)



Suburban Housing: West (Silivri)



Suburban Housing: West (Silivri)



Suburban Housing: West (Silivri)



Suburban Housing: West (Silivri)



Suburban Housing: Near West (Buyukcekmece)



Suburban Housing: East (Gebze)



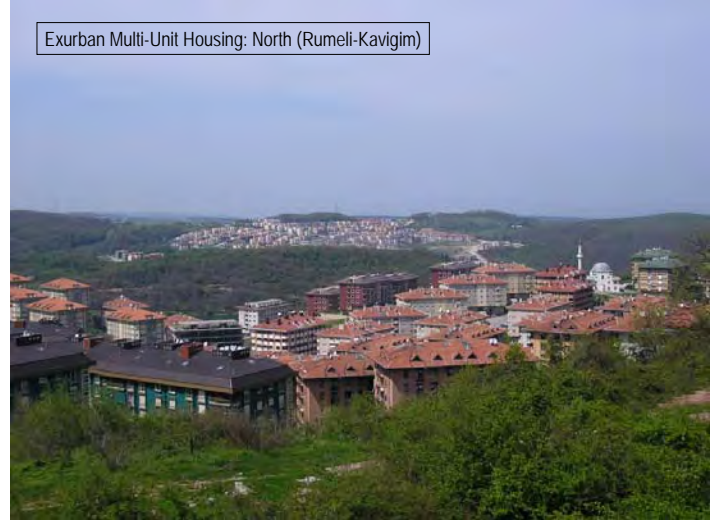
Suburban Multi-Unit Housing: East (Gebze)



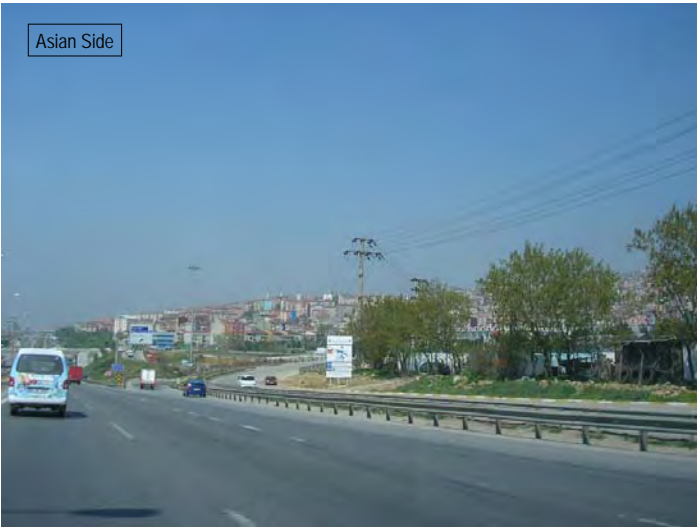
Exurban Housing: North (Rumeli-Kavigim)



Exurban Multi-Unit Housing: North (Rumeli-Kavigim)



Asian Side



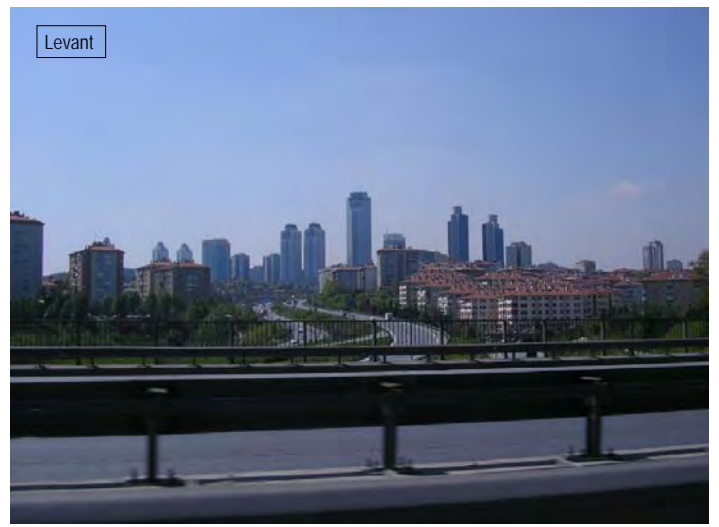
Near West Shopping Mall



Near West Shopping Mall

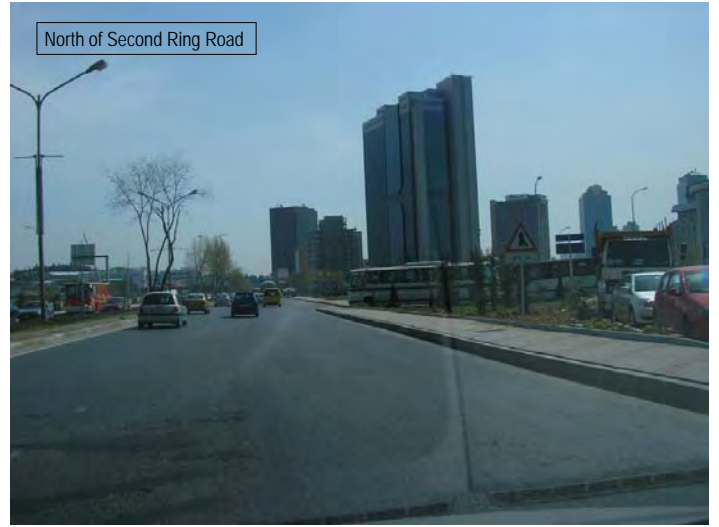


Levant





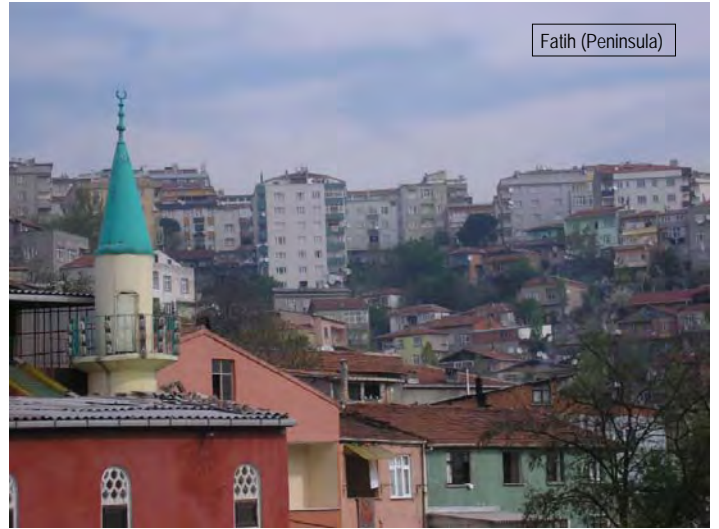
Levant



North of Second Ring Road



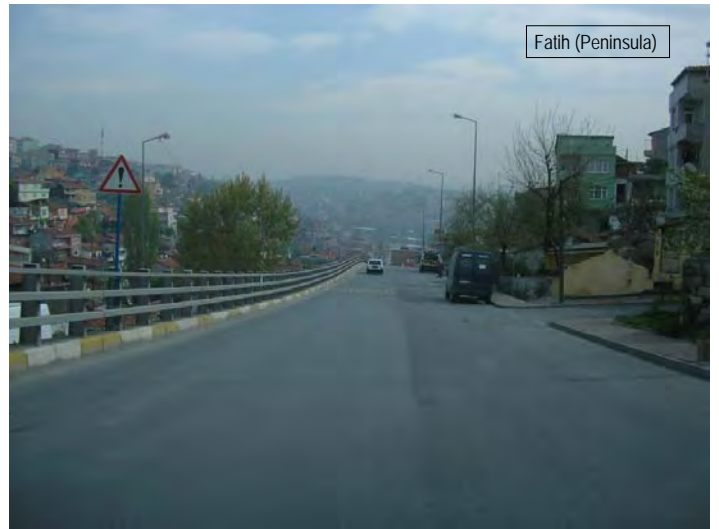
Besiktas (Near North)



Fatih (Peninsula)



Gebze (Asian Side)



Fatih (Peninsula)



Minibus



Near West (O-3)



Northwest (O-2)



Near West



Ferry



City Wall (Eminonu)



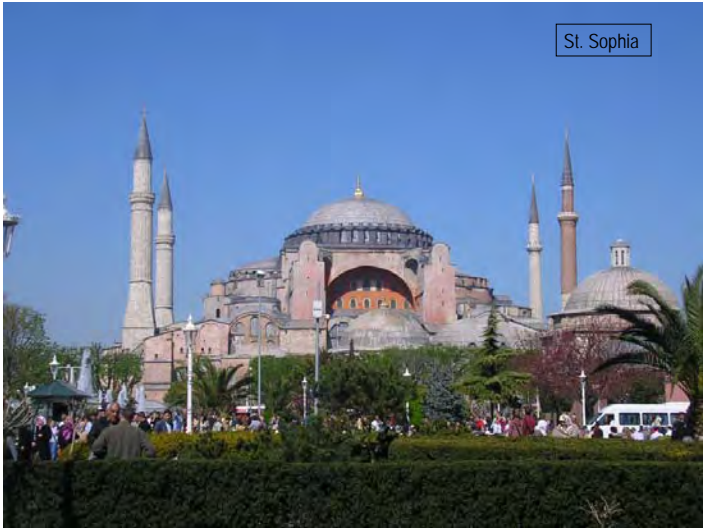
Roman Acqueduct: Peninsula (Eminonu)



St. Sophia →

Blue Mosque →

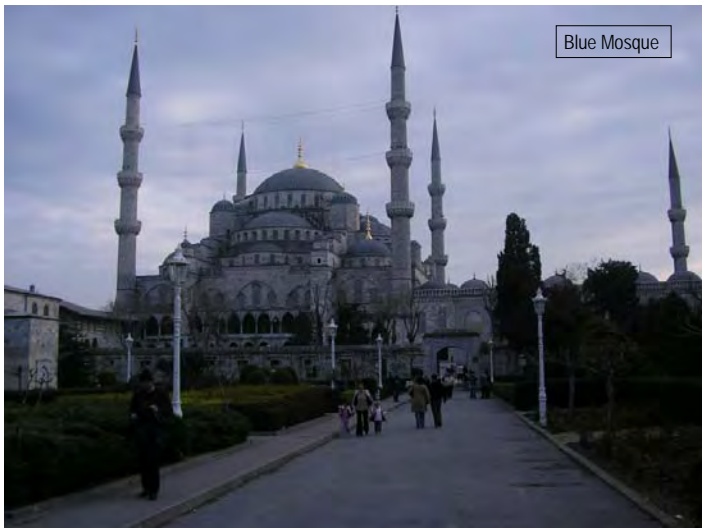
Length: 1,462.02 Feet



St. Sophia



St. Sophia



Blue Mosque



Blue Mosque