I. Introduction

Urban planning has always been one of the most important concerns of emperors and sultans. A well planned city indicates the wealth and posterity of an empire. All emperors and sultans wanted to construct their ideal cities as they ruled their empires. Those people are still remembered through the cities they planned and built. People remember Constantinople with the Emperor Constantine, Baghdad with Abbasid caliph al-Mansur. We cannot think of these important and well known cities without their planners and rulers. Building a city meant building a civilization and a culture. Therefore; urban planning was a means of constructing a civilization that would affect the whole world.

The Ottoman Empire was one those civilizations, stretching across three continents: Asia, Europe, and North Africa. The Ottoman sultans were also keen on constructing cities with monumental works of art. Süleyman the Magnificent was one of those sultans who appointed architect Sinan as the urban planner of his vast empire. Sinan, with the support of Süleyman, became the most successful urban planner of the 16th century. He was well known and respected not only in the Ottoman Empire, but also in Europe since his contemporaries admired his genius and called him “Great Sinan” out of respect for him as a professional and as an appreciation of his works (Kuran, 1986). He was the most successful urban planner of his age and pioneer of Classical Ottoman Architecture. He adorned the empire with his beautiful monuments from Europe to Syria without repeating himself.

Contemporary architects and urban planners are still trying to understand his works and they greatly admire the techniques he applied in the 16th century. He is also regarded as one of the most intelligent engineers of human history. This article focuses on Sinan’s life, his contribution to Classical Ottoman Architecture and one of his most popular monumental works, the Büyükçekmece Bridge.

II. Sinan: The Sultan of the Architects and the Architect of the Sultans

Sinan was the sultan of the architects with his genius, aesthetic taste, engineering and monumental works. He was taken to the imperial city, Istanbul, during the reign of Yavuz Sultan Selim. We assume that he may have been born between 1494-1499 in Ağırnas in Kayseri, in central Turkey (Günay, 2006). He lived a fairly long life and witnessed the reign of four Ottoman sultans. We do not have a detailed biography of Sinan since he attempted to write his autobiography several times, but he could not manage to complete it by himself. His first attempt was an index of his works. R. Melûl Meriç named it “Adız Risâle” meaning
'book without a title or name’ (literally) since it was not titled by Sinan. His second attempt was called “Risâletü’l Mimâriye” (a book from an architect.) His third attempt was “Tuhfetü’l- Mi’marîn”. Unfortunately, he could not complete any of these autobiographies. We can fairly assume that he could not find enough time to write as he was extremely productive and was constantly supervising his projects. Finally, Sinan dictated his life to his close friend, Sai Mustafa Çelebi, when he was sick in bed and named his autobiography “Tezkiretü’l - Bünyan and Tezkiretü’l – Ebniye”. The words “bünyan” and “ebniye” are Arabic and are translated as building and construction respectively. From the title of his autobiography, it would be accurate to presume that Sinan did not divulge much about his private life.

Sinan had sharpened his skills in building bridges during his military service as a Janissary, the elite troops for the Sultan. His chief responsibility was carpentry. He built numerous bridges during the campaigns of Yavuz Sultan Selim and Süleyman the Magnificent. As he travelled every part of the Ottoman Empire, he got to know the architecture of other cultures. He synthesized the architecture of other cultures and formed his own method and architecture. The Prut War was the turning point in Sinan’s career since he built an extremely strong bridge on Prut River in a short time. Due to this project and his extraordinary skills, he was recognized by Ottoman Pashas and promoted to the Chief Architect of Ottoman Empire in 1538. He became the Chief Architect of the empire when he was 50 years old, and went on to construct mosques, traveler lodges (caravanserais), Turkish baths, tombs, aqueducts, palaces, and bridges across the entire Empire. However, he was not only an architect, but also an accomplished engineer. Technology was advanced in the 16th century in the Ottoman Empire and Sinan was the most famous and respected architect of his century.

When Mehmet II conquered Constantinople, Hagia Sophia had long since been recognized as one of the greatest architectural gems of the age. Its dome was so massive that no architects of the day were able to surpass its grandeur. The Ottoman Sultans admired it greatly, thus converting it from a church into a mosque for their daily prayers. They also continued its maintenance. Sinan added two minarets to Hagia Sophia and supervised further preservation efforts. The dome of Hagia Sophia was one of the inspirations for his mosques. His mosques based on that of Hagia Sophia became the model for subsequent architects. Later the type of dome initiated by Sinan would be called Classical Ottoman Dome Architecture. Before Sinan, Ottoman Sultans gazed admiringly at the dome of Hagia Sophia. When Sinan became the Chief Architect of the empire, his domes started to adorn the skies of İstanbul. The Sultans started to admire his work and Sinan succeeded to have his name mentioned along with Süleyman the Magnificent. They both became some of the most lauded men of the 16th century. Yet Sinan’s architecture was admired far even beyond his own century. At the service of four sultans: Yavuz Sultan Selim, Süleyman the Magnificent, Selim II and Murat III, Sinan remained as the Chief Architect till his death on the 9th of April in 1588. He made a very humble tomb for himself at the corner of Süleymaniye Complex. Even in death, he desired to be associated with his patron and friend, the Sultan Süleyman. Today, these two great men of 16th century are still together on one of the hills of İstanbul.

There is no doubt that Sinan was a genius and honed his skills during his service to Süleyman the Magnificent. Both Süleyman and Sinan were fortunate to meet in the same century with such great opportunities and wealth. Süleyman was the tenth sultan of Ottoman Empire and the first Ottoman sultan to have the status of Caliph (leader of the
Muslim world). His father Yavuz Sultan Selim fought against the Memluks and headed the Caliphate in 1517. When Süleyman became the sultan of the empire in 1520, he was therefore both the Sultan of Ottoman Empire and the Caliph of the Muslim World. He was the most powerful and wealthy ruler of his century. Sinan benefited greatly during Süleyman's reign due to the sultan's active patronage of artists and architects. He instructed Sinan to build magnificent mosques and complexes to celebrate his reign and wealth. The Ottoman Empire was the wealthiest empire in the world at this time and Sinan had enough resources to build marvelous buildings in the 16th century (Kuban, 1997). One of those monumental works of Sinan is the Büyükçekmece Bridge regarded by him as the masterpiece.

III. Major Works of Sinan

Urbanization started with complexes built in the Ottoman Empire. A complex consisted of a mosque, madrasah (school), hospital, bath, library, travelers’ lodge, fountain and kitchen. A complex was the center of a district and all of those facilities were at the service of the residents of that district. Sinan’s construction of complexes enlightens us about his urban planning. He constructed many complexes which were crucial part of urbanization. Sultans, grand viziers, pashas and other wealthy people of the Ottoman Empire were very keen to commission mosques and complexes for the sake of the people. Sinan built many complexes in various parts of the empire. The most famous complexes of Sinan are indicated in the table below:

<table>
<thead>
<tr>
<th>Complex Name</th>
<th>Year</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Üsküdar Mihrimah Sultan Mosque &amp; Complex</td>
<td>1543-1547</td>
<td>İstanbul</td>
</tr>
<tr>
<td>Şehzade Mehmet Mosque &amp; Complex</td>
<td>1544-1548</td>
<td>İstanbul</td>
</tr>
<tr>
<td>Süleymaniye Mosque &amp; Complex</td>
<td>1550-1557</td>
<td>İstanbul</td>
</tr>
<tr>
<td>Beşiktaş Sinan Paşa Mosque</td>
<td>1555</td>
<td>İstanbul</td>
</tr>
<tr>
<td>Hagia Sophia Hürrem Sultan Bath</td>
<td>1556</td>
<td>İstanbul</td>
</tr>
<tr>
<td>Eminönü Rüstem Paşa Mosque</td>
<td>1561</td>
<td>İstanbul</td>
</tr>
<tr>
<td>Edirnekapi Mihrimah Sultan Mosque &amp; Complex</td>
<td>1562-1565</td>
<td>İstanbul</td>
</tr>
<tr>
<td>Kanuni Sultan Süleyman Tomb</td>
<td>1566</td>
<td>İstanbul</td>
</tr>
<tr>
<td>Büyükçekmece Bridge</td>
<td>1568</td>
<td>İstanbul</td>
</tr>
<tr>
<td>Selimiye Mosque &amp; Complex</td>
<td>1569-1575</td>
<td>Edirne</td>
</tr>
</tbody>
</table>

Table 1: The Chronology of Sinan’s Works (Can, 2006)

Sinan regarded Büyükçekmece Bridge as his masterpiece although he built many monumental mosques for his sultans. The table above will be helpful to understand the chronology of Sinan’s work and the significance of the Büyükçekmece Bridge in his profession. As indicated in the table, the Büyükçekmece Bridge was built before Selimiye Mosque and Complex which was commissioned by Süleyman’s son Selim II. The bridge is one of the most beautiful works of Sinan. He built Selimiye Mosque when he was 80 years
old and he did not consider himself the master of architecture until the construction of Selimiye Mosque. Sinan remained as the Chief Architect of Ottoman Architecture until his death in 1588 and he has been admired and appreciated for five centuries.

IV. Sinan’s Masterpiece: Büyükçekmece Bridge

Büyükçekmece Bridge was built by Sinan during the reign of Süleyman the Magnificent. According to Sinan’s autobiography, Tezkiretü‘l- Bünyan and Tezkiretü‘l – Ebniye, Süleyman visited Büyükçekmece and observed that people were experiencing difficulty crossing from one side of the Büyükçekmece Lake to the other. Subsequently, he instructed Sinan to survey the land and build a bridge under his authority. Sinan did a detailed survey, presented his findings and the draft plan for a new bridge to the Sultan. Previously, there was another bridge at the same place, but it collapsed due to the faulty engineering techniques of its architect. After the land survey, Sinan had come to the conclusion that the previous bridge, which was built on the lake side, composed mostly of marshes, offered unstable soil for the foundations of a new structure. Thus, he decided to build his bridge on the side nearest the sea where the land was solid and suitable for that type of work. Süleyman the Magnificent concurred with Sinan concerning the plan for the new bridge. Soon afterwards, the Sultan started a new campaign in Europe to expand the Ottoman Empire, expecting that upon his return to Istanbul that he and his troops would be riding over the new bridge.

Ten years before the order of Süleyman to Sinan to construct a new bridge, Ogier Ghiselin de Busbecq, a diplomat from the Holy Roman Empire to the Sublime Port or Topkapi (the official resident of the sultans in Istanbul) from 1554 to 1562 observed the natural beauty of the area surrounding the lake and pondered that some ‘architectural/artistic adornments would enhance this location. Busbecq wrote four long letters to his friend about his experiences while a diplomat to the Ottoman Empire. It is one of several original sources from the time period, although Busbecq spends a good portion of his letters commenting on events in Europe. Yet in one of the letters, he described his journey to İstanbul. Visiting Büyükçekmece and Küçükçekmece as he traveled to İstanbul he noted: “As we neared Constantinople, we crossed by bridges over two lovely arms of the sea. It is a district the like of which for beauty could not, I think, be found anywhere, if only it were cultivated and art gave a little assistance to nature” (Busbecq, 2005). (We can perhaps presume that Busbecq had been influenced by the Renaissance landscaping of European royal estates which within them contained pavilions, bridges, palaces etc.) He crossed over the bridge which later collapsed due to the architectural failures. Sinan, the founder of Classical Ottoman Architecture, would fulfill Busbecq’s vision and build the Büyükçekmece Complex with its exquisite bridge, a mosque, a minaret, a fountain and a travelers’ lodge (caravanserai.) The Büyükçekmece Bridge is the most attractive structure of the complex. Other structures of the same complex are Büyükçekmece Caravanserai (a travelers' lodge), Sokullu Mehmet Pasha Mosque and its minaret, and a fountain dedicated to sultan Süleyman.

When Süleyman wanted to conquer more lands in Europe, the road that connects İstanbul to Belgrade became strategically important. This road was called “The Sultan's Road”, “Istanbul Road” or “The Grand Road”. Sinan built most of his bridges on “The Sultan Road”. The various names of the road also indicate the crucial role of the road for Ottoman Empire and its European policy. According to his autobiography, the bridges of Sinan on The Sultan Road are:
Büyükçekmece Bridge  
Sokullu Mehmet Pasha Bridge in Silivri  
Kapıağı Bridge in Haramidere  
Odabaşı Bridge in Halkali  
Sokullu Mehmet Paşa Bridge in Lüleburgaz- Tekirdağ  
Sokullu Mehmet Pasha Bridge in Babaesi-Tekirdağ  
Mustafa Pasha Bridge in Edirne  
Sokullu Mehmet Pasha Bridge in Bosna (Çelebi, 2002).

Sinan registered his eight bridges in his autobiography; however, Kazım Çeçen claims that there are four more bridges of Sinan that share the same structural features with other bridges of Sinan. Those bridges are:

- Kanuni Sultan Süleyman Bridge in Edirne  
- Yalnızgöz Bridge in Edirne  
- Kanuni Sultan Süleyman Bridge in Gebze  
- Kırkgöz Bridge in Bolvadin- Afyon (Çeçen, 1999).

The Büyükçekmece Bridge, which has been admired by many travelers, was referenced as “the bridge built in Büyükçekmece” in Sinan’s autobiography. It is 36 km to Istanbul and connects Büyükçekmece to the village of Mimarsinan. The village obtained its name from Sinan (in Turkish, this means the Architect Sinan) and the bridge is also called the Mimar Sinan Bridge among the local people. As previously mentioned, Sinan selected the site for his bridge on the seaside rather than the lakeside. He built four separate bridges and connected them with three artificial islands. The bridge is 635.57 meters long and 7.17 meters wide. It has 28 arches in varying sizes. The bridge beauty led Sinan to consider it his masterpiece. Sinan’s best friend, Sai Mustafa Çelebi, was in such admiration of the bridge, that he had it noted on the tablet of Sinan’s Tomb. He praises the bridge and writes, “The grand arch he had built on Büyükçekmece Bridge is the mirror of the sky in Milky Way” (Günay, 2006).

Sinan built four separate bridges and connected them with three artificial islands. Sinan built two benches on the first bridge for travelers to relax and have a view of both the sea and the lake. The fourth bridge is the biggest one and it has two tablets. The tablets are made in order to give information to the visitors about the work. The information includes the name of the sultan, the architect (Mimar Sinan) and the date of the construction. The passengers of the bridge find a space to rest at the end of the bridge in front of the tablets. Prayers of gratitude are made for the sultan and the architect who made it possible to pass over the water safely. The tablets of the bridge were built on the European side symbolizing that the aim of Süleyman, the Magnificent, was to conquer land in Europe. The tablets and their location underscore that the purpose of the bridge was to provide for secure passage for the armies of the Ottoman Empire to conquer additional land for the Ottoman Empire in Europe.

As we walk from the east side (the direction to İstanbul) to the west (the direction to Europe and near the end of the bridge, the tablet on the left is Turkish and the one on the right is Arabic. The artist of both tablets is Ketebehu Derviş Muhammed. The poem on the Turkish
tablet was written by Poet Hüdai. Architect Sinan carved his signature on the Arabic tablet of the fourth bridge as “amel-i Yusuf b. Abdullah”. This is remarkable because his signature was not found on any of his other works (Çeçen, 1999). However, in 1960s his signature was vandalized by treasure hunters, thinking that within the tablet under his signature were gems, gold or other items that would be valuable for reselling (Eyice, 1992). His signature was carved again during the restoration in 1970 (Yücel, 1994). In 1988, the United Nations proclaimed the year “International Sinan Year” and his bridges were closed to traffic (Öziş, 2007). Büyükçekmece Bridge was restored from 1986 to 1988 by the General Directorate of Highways (Sezgin, 2001).

V. Conclusion

Why do we admire Sinan? This question has many answers. Sinan worked very diligently and never repeated himself in his works. He was the most successful urban planner and architect of his age. He knew how to use the land beneficially as he built his constructions. In his autobiography, he said that he had the opportunity to investigate the architecture in the East and West when serving in the army as a Janissary. These experiences improved his skills and he sought for originality and perfection in each of his work. We can say that Sinan’s architecture, form and aesthetics were universal and global. His interpretation and synthesis of the Western and Eastern architecture form the Classical Ottoman architecture was showed great insight that is still valued and appreciated.

The architecture of this century still duplicates Classical Ottoman Architecture but cannot have the original and authentic forms of its own (Özkeçeci, 2004). All these reasons are why Sinan has been considered a genius for centuries. He has achieved immortality with his monumental works that survived despite the earthquakes in 1766 and 1894 in Istanbul. The destructive earthquakes could not destroy Sinan’s art at the Süleymaniye and Şehzade Complexes, proving his foresight and ingenuity far ahead of his time. His skill in architecture and engineering were the heart and his aesthetics taste and form reflect the spirit of the age. His great effort and brilliance made him “the architect of the Sultans and the Sultan of the architects”.

REFERENCES


