

STYLISTIC EVOLUTION OF OTTOMAN MOSQUE FACADES IN SINAN'S ERA

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The following conclusions on the stylistic evolution of Ottoman mosque facades were derived from the study of 25 mosques, dating from 1540–1585, most of them belonging to Architect Sinan. These examples were chosen from İstanbul and its vicinity, because, although Sinan's era was a period of great building activity throughout the Ottoman provinces, stylistic coherence can be more easily detected around the capital which was less subject to diverse local influences.

The study was conducted along three different lines of investigation; 1) Facades were grouped and analysed according to their orientation. Here common characteristics became apparent in the treatment of facades of different orientations due to functional, structural and symbolic reasons. 2) Facades were studied in relation to the structural theme of the mosque. This type of analysis revealed the extent to which structure played a role in the final exterior composition. 3) Facades were examined according to building dates, which showed that although stylistic effects depended closely on structural solutions, Sinan had clear preferences about types of structure, according to his intentions for the exterior facades. Within the distinct stylistic periods of his era certain plan and cover schemes were used in preference.

When Sinan took over the office of architect of the Capital in 1537, the Ottoman Empire extended from the Balkans in the west to the Caspian Sea in the east, to the north of Crimea and into Africa and India in the south. A large part of the Mediterranean was under Ottoman control. It was a time of continuous campaigns over land and sea, and diplomatic relations with European powers began to assume an important role even in internal politics. The Capital, İstanbul, was still for a time to be the source of much of the scholarly interest of Renaissance humanism. Against such a background, Ottoman architecture gained a self-awareness that was to elevate it to a level of world importance.

Great Islamic mosques are mostly noted for their rich decoration and the atmospheric effects of their interiors. On the other hand, the Ottoman mosques, due to their commitment to architectonic and engineering concerns throughout their evolution, clearly stand apart among all other Islamic examples. Therefore, it is not surprising to find that their study has generally been devoted to the investigation of their structural characteristics. However, a close inspection of exteriors show that for Sinan, facade compositions were not only of great importance, but that his structural manipulations usually took into consideration stylistic expressions. The fact that in his late years he channeled his interests towards overcrowded spaces and facade designs, and experimented with unusual manneristic effects clearly testifies to his concern for style. This change of interest took place after his great engineering achievements such as in Süleymaniye and Selimiye. The reign of Suleiman the Magnificent (1520–1566) was the Golden Age of Ottoman Architecture. Sinan's period of activity between 1540 and 1585 overlaps Suleiman's reign and continues into those of

Selim II and Murat III. During the 45 years that he was active, Sinan not only monumentalized the Ottoman mosque, but also revised all the formerly attempted plan schemes and resolved them in a more sophisticated manner, within and beyond the stylistic principles of his time.

By 1557 he had completed the Süleymaniye complex in İstanbul. Although his classical approach continued to find expression in some of his works, and reached its climax in Selimiye (Edirne, 1574), with the Süleymaniye Mosque the classical chapter of Ottoman architecture was basically at an end. After the 1560's, Sinan began to develop a new style, with new articulations in plan and facade details. By 1570's, both his facades and his interior compositions assumed a completely new character, which can even be defined as Mannerist. Although Selimiye is believed by most critics to be the most perfect example of the classical period, a close analysis of this building would point to obvious 'Baroque', if not Mannerist, tendencies, and bring to view certain novelties that had never been tried in Ottoman architecture before. Although Sinan's earlier period produced monumental buildings, his late works of 1570-1585 are just as interesting from the point of view of architectural style developments. Each of these later mosques are individual experiments of new plan and facade concepts. The fact that they have not been treated with due importance by critics is due to the fact that this new approach did not last long enough to attain maturity. After Sinan, this new direction that Ottoman architecture had taken was forgotten as an isolated and temporary adventure.

Sinan's Periods of Change

The analysis of facade treatments and the study of common style characteristics of Sinan's era can be facilitated with a chronological classification. Although changes did not occur rapidly and that the differences are more visible within long periods of time, with a chronological study it is possible to note new articulations, new details, more mature solutions to floor plans and covers from mosque to mosque.

The fact that some of the mosques took several years to be completed, sometimes, comma creates difficulties in assessing the initial changes. However, chronologically classified buildings generally contain an overall coherence in terms of stylistic intentions and show no odd examples. These distinct periods can be termed as Pre-Classical (1540-1555), Classical (1555-1570), and Post-Classical (1570-1585).

The three mosques that Sinan built before Süleymaniye (Üsküdar Mihrimah 1540-1548, Şehzade 1543-1548, Edirnekapi Mihrimah 1550) are heavy, voluminous, and static in exterior design. The use of minimum variation in terms of proportions and shapes, and the accentuation of horizontal elements that make the tectonic forces visible, result in a stylistic archaism. The walls of the facades read as thick massive volumes, rather than as thin planar boundaries. The interruption to these planes are kept at a minimum, creating a monumental but heavy look. In all three buildings the exterior composition evidently relies on the relationship of basic geometries such as the square and the circle resulting in dominant themes and in a simplicity of balance. The structural system and the aesthetic form depend on the relationship of the cube to the sphere and of the square to the circle. In all the three mosques the dome is carried on the square

base. This creates planar and curvilinear contrasts in the passage areas from body to cover.

These early but monumental experiments culminate in a highly refined classical expression after 1555. Like all classical periods of art history, Sinan's classic era characterizes a purification and sophistication in shapes, relationships, and in the overall design. Such a maturity in style is only possible for very short periods, and for Ottoman architecture it is best exemplified by the Süleymaniye Mosque dated 1557.

In this mosque concentricity, symmetry, frontality, hierarchy in the order of elements and relationships, rhythmic sequence, the concept of frame and container and the complementary use of contrasting elements are all important aesthetic principles. There is a strong effort to compose all elements and details within the complete rectangle of the facade and abrupt changes between sections are avoided with the use of transitional elements.

Most of these attributes can be partly observed in most mosques built between 1555—1570. However, other than Süleymaniye, none of these were sultan mosques, and their relatively small scale did not offer an equal opportunity for surface articulations.

The majority of mosques built between 1555—1570 have the hexagonal base for the dome. The hexagon is reflected on the east and west facades in two facade partitionings, with the structural arch visible. The grouping of windows also create the silhouette of an arch. This kind of window grouping dependent on structure became a typical style characteristic with Ottoman architecture. However, Sinan used it at a minimum in his late work. The smaller hexagonal based mosques built between 1555—1570 are also interesting because they show recurrent tendencies of new inventions in elements such as the mihrab niche extending outward on the southern facade, or the various types of porticos, (Son Cemaat Yeri).

Mosques built after 1570 have individual exterior characters and reflect the versatility of Sinan's design concepts. Although possessing common traits such as complexity, repetitiousness, dissimilarity of facade elements, accentuation of verticals and an eccentric order of composition, very few of them appear to be alike in their exterior articulation. In most, the octagonal base is used to support the dome. The completion of the octagon to a rectangular or square floor plan, creates a facade wall that is almost independent of the structure. The only visible result of the structure seem to be the three facade sections that appear in all four directions. It is with these types of facades that Sinan has been most inventive in terms of new shapes and relationships.

In the Selimiye of Edirne (1574) built for Selim II, the unity of the octagon (base), the square (plan), and the circle (dome) create an articulate example of structural and functional efficiency and formal originality. On the other hand, the use of elements on the facades of this mosque deny classical principles. The post-classical principles that Selimiye reflect on its facades evidence a new aesthetic approach. This approach roughly paralleled that of Mannerism in Italy, at an earlier date, and Ottoman architecture begun to reveal similar stylistic tendencies.

After Sinan, building activities stagnated, and for a long time no significant architectural work was completed. Till the 18th Century noted for efforts in Westernisation, the style of the Ottoman mosque showed no noteworthy developments. Generally, formal schemes of Sinan's classical era were copied, rigid principles began to rule, and size and decoration took precedence over structural and aesthetic concerns.

General Characteristics and Changes of Facades

The typical classical Ottoman mosque, which Sinan set out to perfect and to monumentalize, was suited to deal only with incidental facade problems. The development of monumental architecture since the Seljuks showed an interest mainly in the elaboration of the portal as a symbolic element. With time, specific elements such as secondary doors, windows and arches attained an interest made evident through decoration. With the 16th Century, due to the sophistication of structure and plan, the exteriors and interior surfaces began to present possibilities for a more articulate composition, beyond decorative details. On the other hand, portals continued to maintain their symbolic and decorative priority. However even with the monumentality and sophistication of the early 16th Century classical mosque, the space composition that depended so greatly on the relationship of the concentric plan to the dome, left minimum possibility for two-dimensional surfaces. Due to the character of the baldachin structure, above the first row of arches surfaces had to be curvilinear.

Interior space had to be enlarged without being divided. Thus, beyond the confines of the central dome, space expansions no comma were made by additional rows of arches that were lower the further they were from the center. On the exterior, secondary domes had to be lower on the outer perimeter of the buildings.

In this type of building there was little possibility for planes both on the inside and the outside. An eye-level view, from a close distance at an early mosque of Sinan, only reveals the lower structure of the building. It is only from an appropriate distance that the monumental mosque of the classical era assumes an impressive totality in a pyramidal shape, towered by the dome. Sinan was well aware of the disunity of facade planes caused by the expansion of the interiors. In the Üsküdar Mihrimah mosque, he concentrated on creating a unified facade effect by the use of the double portico on the north. With the Mihrimah Mosque at Edirnekapi, he took the opportunity with the position of the site, to give visual unity to the exterior by making the dome and its base visually dominant. The cubic base of the dome is articulated by richly windowed tympanum on all four sides, and is one of the most perfected design solutions to formal and structural concerns.

With Şehzade Mosque, the problem of planar divisions on facades is solved more directly. On the East and West sides of the building an arched gallery is added onto the exterior period. The double arch openings of this gallery create a rich visual effect. Thus, the whole facade is brought into unity at the lower level, and is composed with receding layers of planes that rise up to the level of the domes. To accentuate the axis of the dome, the central arch of the galleries is accentuated as a portal. The importance given to the totality of exterior design is also evident in the profuse use of marble carving and colored stone, creating a unifying visual effect.

The most sophisticated solution of assembling the whole facade in a single compositional whole is reached with Süleymaniye. Here, there is a precise hierarchy in the ordering of all the elements and planes from the level of the ablution fountains to the level of the dome. Three-dimensional volumes, curvilinear surfaces, and two-dimensional planes and sections are in continuous juxtaposition. The proportion of the dome conditions the proportions of all the elements. All divisions and subdivisions are perceived in their relation to the total. The basic structural relation of cube to sphere is made apparent in all shape making. Proportions are used with view of the human scale: at lower levels a reduction in size and proportional differences, and at higher levels greater proportional variety is apparent.

After the 1570's the approach to facade treatment changed. New types of structures, such as the use of vaulting in the cover made larger two-dimensional surfaces on facades possible. However, the enormous size of Selimiye, built in 1574, still required some ingenious device for the unification of facades into a compositional whole. Here, the whole of the East and West facades were united on a single plane up to the tympana, the whole height of the buttresses. In this mosque, the recession between the planar sections are not as great as in the former large mosques. This visible unity in the totality of volumes is due to the great size of the dome and its octagonal base, which leave little auxiliary space between the central space and the exterior wall boundaries. As he assembled the East and West facades in one stretch of planar surface, Sinan arrived at the visual effect of a cantilever structure. This effect was created by using ogival arches of various proportions to support the expansion of interior space with second storey galleries. The result is a two-dimensional wall surface on the exterior, level with the tympana.

This two-dimensionality and planar height of the East and West facades marks a new stylistic intention and development, which was initially implied in Sinan's smaller mosques.

The Sokullu Mosque at Kadırga, İstanbul, built upon a hexagonal base, evidences on its kibla wall the intention of a two-dimensional facade surface. Here, contrary to groupings of windows that repeat the silhouette of the arch, windows are placed in a row on the upper level. This linear placement clearly refers to the sharp linear edge of this facade. The domes are set in recess; thus, the traditional elaborate passage from cover to body, with juxtaposing elements of small domes and cubic volumes, is no longer in use. This new concept of prismatic building and two-dimensional facade first makes its appearance in this mosque, in 1570-1571, on the South facade.

In fact, the south (kibla) walls of mosques did not go through much change, due to functional reasons. They are more favorable in terms of structure to a two-dimensional wall rising till the dome level. The mihrab niche is placed in this direction and the close relationship between the mihrab and the central dome, necessary for symbolic and functional reasons, did not make the expansion of interior space necessary in the south direction. Therefore, it became a common practice to use the south wall, usually strengthened by buttresses, as a support for the dome or the semi-dome. Most south facades have a planar height that is missing on other facades, although their unity, till Sinan became aware of new facade concepts, was interrupted by massive buttresses.

The south facades were treated as the back of the building and usually faced the cemetery. Only in the Selimiye Mosque at Edirne, the South facade is treated with equal compositional interest as the other facades. Galleries that have become almost a tradition on the east and west facades of large mosques, are used uniquely on the South facade of Selimiye. Selimiye is treated as a building to be seen from all directions, and the entry on the south, through the cemetery, between the colleges, is a clear evidence of a totality in design intentions.

Among other mosques that were built after 1570, some are particularly interesting as being unique realizations, and as clear examples of new tendencies. In the Sokollu Mosque at Azapkapı (1577, 1578) the facades rise up to the level of the cover, uninterrupted in their unity. Their height is augmented, due to the use of a basement elevation which begins to be common at this time. The new concept of the building as a tall prismatic volume, rather than a pyramidal hierarchy of volumes, is clearly expressed. The use of new types of covers alongside the central dome is also an effort to strengthen the two-dimensionality of facades. Beyond the confines of the central dome, instead of excedras and secondary domes, auxiliary spaces are usually spanned with vaults and have flat roofs. Thus, the earlier baldachin system, that would result in a predominance of arches and arch forms on the exterior, is now used only for the support of the central dome. By abandoning the use of arches that were required to carry secondary spherical covers, Sinan acquired a freedom in facade compositions. He could now use windows almost wherever he wanted, and in groupings that no longer reflected the silhouette of the arch. In most of these late buildings, windows are placed in horizontal rows and they parallel the sharp separation between cover and body. On the upper sections, windows now tend to have straight beams, or are in low arches, again reflecting the sharp straight line of the facade's upper edge. With the new prismatic character of the building, both the groupings of elements and the individual elements assume more rectangular shape characteristics.

In most buildings of this era, not only the new addition of a basement which heighten the building, but also the indication of different storeys, by the use of mouldings, accentuate the new character of buildings. As opposed to the traditional use of vertically growing space, the concept of horizontal layers of space, built upon one another, is totally new for Ottoman architecture. This concept comes about by using second storey galleries on the inside, and also helps with the heightening of facades on a unified plane. Thus, the increase of arches in the interior, to support the galleries, results in an increase in the numbers or sizes of windows to provide the abundant daylight that Ottoman mosques always required.

The symmetry based on the dominance of the dome's axis is also no longer a compositional principle; the concentricity of order is lost. Rather, the composition is no longer a closed and concentric system, and the choice in the number and form of elements is not evidently a structural one, no matter how much structural concerns may still determine the design. This apparent freedom of parts and details results in creating an exterior that is not necessarily indicative of the interior layout. One of the important characteristics of the classical form was the coincidence of interior and exterior features. The new facade does not explain the interior; instead, it is treated as the boundary to exterior space. It is conceived as a landmark of urban space, rather than an autonomous volume.

As opposed to the concept of the building growing from a central inner core, the new approach of viewing it from the exterior creates new considerations for its immediate environment. In Sinan's mosques, or religious complexes of earlier years, the surrounding exterior space is treated according to the same design concepts that govern the structure and the floor plan. Alleys, arcades, secondary buildings, all conform to the general symmetry, concentricity, and the axial dominance of the dome. In buildings after 1570 the exterior space is treated with new concepts of form. In the Azapkapı Sokollu Mosque the space on the North is reduced almost to minimum size, resulting in the accentuation of the height of the facade. In the late Kılıç Ali Paşa Mosque at Tophane, İstanbul, the North court again makes its narrowness felt, with the ablution fountain that stands between the portico arcade and the court wall. The vertical dominance of facades, and the limited breath of space around them charges the atmosphere with a tension that is very similar to what we see in the Mannerist overcrowdedness of space, in Italian architecture. With the new handling of the immediate environment of the mosque, the entrance on the north, and the traditional portico begin to be treated in new ways. Although new types of designs on the north do not become a recurrent practice, several outstanding examples serve to make new intentions apparent. Among these, the North facade of the Sokollu Mosque at Azapkapı presents the most noteworthy application. In this mosque the traditional portico (Son Cemaat Yeri), serving as a semi-closed prayer space for late-comers, is transformed into a closed and narrow rectangular space, accessible through stairs, on the second floor. On the outside, a tall facade with rows of paired windows replaces the traditional arcade.

In the small Kadiasker Hacı İvaz Efendi Mosque, dating from 1585, instead of a central entrance to the mosque, two doors are placed on each side of the North facade, and the traditional and symbolic portal no longer exists. In the Piyale Paşa Mosque of 1573, again the traditional portal and portico are missing, and there are two entries on each side of the North facade, with a vaulted and arched recess. The Piyale Paşa Mosque is another novel example of Sinan's late era, reminding one of a fortress from the Middle Ages.

Structure and Facade Relationships

Besides the transformative effect of new cover schemes and new cover elements towards the later years of Sinan, the types of structures used to carry the dome also prove to be extremely important for offering possibilities for stylistic evolutions. Sinan's mosques can also be classified according to the kind of bases that are used to support the dome. The square base, the hexagonal base, and the octagonal base were all used in all possible varieties in plans and covers. But, it is obvious that each was preferred for different facade possibilities, at different periods.

The first mosques of Sinan all had the cubic base. For smaller mosques this proved to be a logical solution that created no excess space to be covered by auxiliary domes. Besides, throughout the development of early Ottoman architecture, the cubic base had become a traditional feature, and the strong contrast of cube and sphere had grown to be a visual characteristic of the mosque. Since it proved to be equally convenient for the large mosques with concentrically growing space, the cubic based structure provided a rich potential for a variety of facade and cover articulations which culminated in the maturity

of the classical style, and which also proved fertile for post-classical forms. In the classical style, the baldachin, which was used both for the central space covered by the dome, and for the auxiliary space expansions around it, necessitated a predominance of arched forms. As has been indicated before, in large cubic based structures, at the outer stretches of the building, secondary domes descend down to the lowest levels, resulting in a pyramidal silhouette. In the center the cubic base and the dome rose with formal dominance. Edirnekapı Mihrimah, Şehzade and Süleymaniye mosques have used the three possible expansion schemes for the floor and cover plans. In the Süleymaniye, the addition of semi-domes in the North and South axis, has resulted in the elongation of space in this direction. This elongation, which was not necessary for the function of the mosque, was compensated for by adding secondary domes on lower supports on the east and west directions. In interior space, the continuity of height from north to south, and its diminishment on the east and west directions inevitably result in a strong spatial thrust which does not completely fulfill the classical principle of Ottoman architecture. However, on the exterior, the size variations in the secondary domes, visible on East and West facades, plus the elongation of these facades due to the addition of semi-domes on the south and north, gives this facade a rich play of two-dimensional and three dimensional forms of differing proportions and sizes. In the Edirnekapı Mihrimah Mosque, the overall dominance of the central dome is kept both on the exterior and the interior, by adding only smaller and lower domes in the east and west directions. In the Şehzade, expansion is provided by the addition of semi-domes in all four directions. This results in a homogeneity of space in the interior, which was ideal for the classical Ottoman mosque. However, on the exterior of the Şehzade Mosque the classic order had not yet attained its maturity. In all these examples facade compositions contain shapes that are the result of basic geometrical relationships. In all large mosques of the cubic based structure, the tympana on the sides of the base stand out as the most expressive visual feature. The window groupings on these tympana present rich possibilities of order.

Because of its versatility for plan, cover and facade possibilities, the cubic base has also been used in the late post-classical era of Sinan, most notably in the two individualistic mosques, Zal Mahmut Paşa (Eyüp 1566 or 1580), and Kılıç Ali Paşa (Tophane, İstanbul, 1580). The plan of Zal Mahmut Paşa is an elaboration upon the square unit, with the addition of vaulted space expansions covered with flat roofs on three sides of the building. Thus, in the cover, the uniqueness of the dome is protected, and the absence of auxiliary domes over the side facades give these a two-dimensional planar character, augmented with rows of windows. This application shows the manipulation of the cubic base according to post-classical principles. In the Kılıç Ali Paşa Mosque, besides the north-south expansion of space, with the use of semi-domes, the additional space on east, west and north sides is spanned by vaults, and covered by a flat roof. This new approach to cover design, eliminating auxiliary domes, also results in a interior space overcrowded by columns. The facades begin to be partitioned into smaller sections by vault bearing buttresses, and the composition ends up in a repetitious order. Our contention here is that this whole change in cover and floor plans is a means for new facade intentions. However, these changes also result in a spatial order that is much similar to that of European architecture at the time. It involves the use of rectangular shapes, vaults, arches and entablature.

While the enlargement of space in the cubic base structure presupposed a variety of interior heights, because additions to the cubic base had to be made by arches lower in height than those carrying the dome, the hexagonal base solved this problem through the adaptability of auxiliary domes level with the height of the base. This created a space that was interrupted by only two columns, and resulted in equal heights on all four sides of the building. However, the hexagonal base could only be used for mosques of medium size. This height constancy was convenient for Sinan as he set out to develop a new facade concept based on a prismatic body with planar surfaces.

During the high-classical era, apart from the monumental example of Süleymaniye, it is the hexagonal base that is most commonly used. This type of structure helps the evolution of a typical classic facade feature, such as the grouping of windows within the shape of an arch. It is also open to some minor variations and inventions. One of these is the treatment of the mihrap niche as a protruding spatial volume on the south wall. The first example appears in the Semiz Ali Paşa Mosque (1561–1565) near Edirne.

The exterior visibility of the baldachin in the hexagonal structure, especially in the double arched sections on east and west facades, might also have been influential in the development and establishment of certain facade orders. These established orders, along with some other traditional uses of the classic approach, were to become a generality of Ottoman religious architecture after Sinan.

The decades of 1550s and 1560s seem to have been especially fertile for the establishment of the classic orders, and also for the birth of new inclinations. The Rüstem Paşa Mosque (İstanbul 1561) is the first execution of the octagonal base. Many of its facade attributes are prototypes for the post-classical applications of Sinan's late era when the octagon becomes a repeated structural theme. In the Rüstem Paşa, the side aisles in the interior are vaulted, although the use of auxiliary domes are still in practice on the cover. The mosque is elevated on a basement and the northern portico is reached by a staircase. The resulting high facades in east and west directions will become common in the post-classical era. A new type of window in the form of a semi-circle is used here for the first time, and can be considered as an introduction to Sinan's later window shapes. What has been most talked about in this mosque is the elaborate and profuse tile decoration. For Sinan, who never before and after this mosque, used decoration beyond a means for accentuation, this new direction in surface treatment seems strange. However, if this building is seen as the first example of a concern with two-dimensional planes and planar facades, the fact that he used an abundance of tile covering on the walls seems logical. This decorative execution is the first expression of his interest in surfaces, and in a crowded atmospheric effect, as opposed to his classic interests in structure, volume and simple and homogeneous space. In the Mesih Mehmet Paşa Mosque, dating from 1585, with plan and cover similar to Rüstem Paşa, and whose architect is a matter of controversy, the treatment of the facades show the natural evolution upon the original source of Rüstem Paşa.

Facades, Cover and Body Relationships, and the Treatment of Wall Surfaces

As has been incidentally touched upon previously, another structural influence on the execution of facades is the configuration of the cover, where

it is closest to the body wall. The use of cover structures over those areas show an evident change through time, and parallel the changes in the treatment of load bearing elements on walls. The choice of secondary domes, or vaults seem to have been an almost arbitrary one from the point of view of basic floor plans. As seen with Kılıç Ali Paşa Mosque, except for the crowded use of columns, the fact that the side aisles are vaulted does not create a significant change in the floor plan from that of Süleymaniye which uses the same plan but with secondary domes. Similar examples on the different use of covers indicate that, after a certain period, for Sinan, stylistic concerns lay in the direction of facades and of interior effects.

The classical use of a hierarchic order of domes resulted not only in a pyramidal silhouette, but also in the effectiveness of the arch on the exterior shapes. The gradual transition from body to cover, with a play of two-dimensional and curvilinear forms was lost as soon as the domes were avoided on the sides. The facade walls in the late buildings rose up to the cover level and ended with a sharp horizontal moulding. As Sinan's intentions to flatten the facade and to unite it on a single plane became more marked, the buttresses and supportive protruding verticals were solved within or on the inside of the wall. This was the effect of placing the secondary domes (if they were used at all) in recess, and not tangent with the wall surface. After the 1570's, the sharp prismatic effect of the body was augmented due to the absence of visible supports. Except for the mouldings, all kinds of relief and voluminous elements were eliminated.

Another typical mosque from the late era, Muradiye of Manisa (1585), which Sinan planned but did not personally execute, is an evidence of the liberty that could be taken with covers during this period. The elongated vault that Sinan had sometimes previously used over the central arch of the portico, is in this case the cover of the side aisles. Its silhouette is a sloping curve, and rather than joining the visual effect of the central dome, it is basically seen as the continued plane of the two-dimensional facade, containing rows of windows.

Facade Elements and Their Formal Transformation

Facade elements used on mosques comprise basically of portals, doors, windows, and a decorative execution of niches and mouldings. Of these, it is the window that has been most effective on facade compositions, and that has gone through a most evident transformation of form.

The types of windows used on different facades may slightly vary. However, the variations are more visible due to grouping than to the types of windows used. During the pre-classical and classical eras of Sinan, there was also a strict rule on the types of windows used on each level. Sizes proportionally diminished with height and the placement of windows usually reflected structural concerns. At lower levels rectangular windows with tympanum, on middle rows arched windows, and at higher levels circular or small arched windows would be placed. At maximum, three rows of windows were used on mosque facades in the classical era. The complex window types began to be used after 1560, and in abundance after 1570. Although these did not show a great variety in terms of basic shapes, we see that their grouping possibilities created rich visual effects.

In the executions of later years, such as Azapkapı Sokullu, Kılıç Ali Paşa, and Mesih Paşa Mosques, the exterior of the building indicates two separate storeys

as opposed to the earlier execution of a single homogeneous interior space. On the facades of these, there is usually a lower and an upper set of windows, each lighting a different layer of space, and they are usually repetitious or show very slight variations in treatment.

The overcrowded compositions of later years are basically due to a repetitious and abundant use of windows. The general visual effect, also with the added height of buildings, is one of strong verticality. However, in the late era, one cannot say that a single principle dominated the execution. Windows could be grouped within arches; could be set in vertical or horizontal rows. The dome's axial dominance, not symmetry, was the conditioning factor.

Conclusion

This paper has tried to account for facade transformations of Sinan's era, through the analysis of basic structural properties and facade elements of mosques. Mosques being the most socially significant edifices of the time, these transformations indicate the changing attitudes towards space, structure and meaning of buildings and the stylistic changes of Ottoman architecture at large, during the second half of the Sixteenth Century. A detailed analysis of the external influences that have brought about these changes have not been attempted at. However, one can generalize that the basic formation of Ottoman architecture relied on the fact that it developed in Anatolia, a cradle for many cultures. Although Mediterranean influences may be more obvious, one can trace the individual features of the Ottoman mosque back to many regional precedents. The specific developments during Sinan's time, and the gradual evolution from a pre-classical and classical style to an almost mannerist one, makes one think that this may also reflect the first conscious and obvious attempt at Westernization in Ottoman culture. And, in a sense, Sinan's formal inclinations show an understanding of western building concepts that is much more comprehensive than the merely decorative applications of western forms on buildings, during the Eighteenth Century, the period which is formally described as the era of Westernization. The changes Sinan executed within the interior space envisage a new approach to perspective and environmental effects, and his exterior compositions show that he began to regard his buildings and their details as parts of the greater urban order.

The Sixteenth Century was almost internationally an era of cultural and aesthetic evolutions. Because of the evidences of new aesthetic, social and urban considerations in Sinan's late executions, we can conclude that in the latter part of the Sixteenth Century Ottoman architecture began to participate within a larger European cultural development. This trend that had begun with the conquest of Constantinople ended with the death of Sinan and so did the classic era of Ottoman architecture.

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ÖZET

MİMAR SINAN DÖNEMİ CAMİ YÜZLERİNDE BİÇİM GELİŞMELERİ

Bu yazı Sinan dönemi camilerinde yüzlerin biçim ve düzen ilkelerini ve bunların yapı, örtü, ve planlardaki değişmelerle ilişkili olarak gelişimi ve dönüşümlerini incelemektedir. Farklı yapı tarihlerine ve farklı yapı şemalarına göre yüzey bölümleri, yüzey öğeleri, ve ilişkileri, biçim bütünlüğü ve estetik biçim anlayışı açısından çözümlenmeye çalışılmıştır.

İncelenen 25 cami daha çok klasik biçimin arı olduğu İstanbul çevresinden ve 1540–1585 yılları arasındaki örneklerden seçilmiştir. Camiler yapı tarihlerine göre incelendiğinde cephe düzenlerinin belirli dönemlerde farklı özellikler gösterdiği ortaya çıkmıştır. Bu özellikler belirli biçim farklılıkları yaratacak kadar kesin olup Sinan çağı yüzlerinin Erken, Klasik ve Klastik–Sonrası gibi üç ayrı dönemde çözümlenmesini gerektirmiştir. Sinan'ın ilk üç yapısı olan Üsküdar Mihrimah, Edirnekapı Mihrimah ve Şehzade camilerinde ağırlık, kütsellik, sadelik, çeşit azlığı, oranlarda benzerlik gibi özellikler henüz klasik biçimin olgunluğa erişmediği bir 'arkaizm' belirlerler. 1540–1555 yılları arasındaki uygulamalar için böyle bir genelleme yapmak olasıdır. Bu denemelerden sonra Süleymaniye Klasik dönemin en olgun yapısı olarak, merkezilik, simetri, çerçeve ve sınır belirginliği, kademeli düzen, oranlarda yaklaşıklık, temel biçimlerin kullanımı gibi özellikler gösterir. 1570'lerden sonra 1585'e kadar, akıcı ve yapısal olmaktan çok, yüzey ve iç mekan etkilerine öncelik veren bir yaklaşım belirginleşmiştir. Çerek dış yüzeylerde, gerek iç mekanda sıkışıklık, tekrarlama, dişey çizgilerin egemenliği, türlerin fazlalığı, parçaların bütünden kopukluğu gibi özellikler göze çarpmaktadır.

Osmanlı mimarisinde yüzey sorunları strüktürden ayrı olarak düşünülmemiştir. Nitekim Sinan dönemindeki yüz biçimi değişmelerinin de gerek farklı strüktür şemaları ile gerekse örtü, duvar ve taşıyıcı öğeler ile ilişkili olduklarını görüyoruz. Ancak, incelemeler şunu göstermiştir ki, Sinan'ın ayrımlı dönemlerde uyguladığı farklı strüktürel şemalar biçim amaçları doğrultusunda yeğlenmişlerdir. Farklı dönemlerde kare, altıgen veya sekizgen kaidelerin kullanılması farklı yüzey uygulamaları ile sonuçlanmıştır.

1561 Tarihli Rüstem Paşa Camii Sinan'ın ilk kez sekizgen kaideyi kullandığı bir örnek olup, 1570–1585 yılları arasında yoğunlaşan dış yüz biçimlerinin ilk denemesidir. Burada yapı tabandan yükseltilmiş böylece dış yüzlerde örtüye kadar yükselen 2 boyutlu bir düzlem sağlanmış, örtü ve gövde ilişkisi düzlem ve küre arasındaki ani bir değişme ile kesinleştirilmiş, pencere biçim ve gruplaşmaları alışlagelmiş kemer silüeti biçimindeki gruplaşmadan farklı uygulanmıştır. Sinan'ın bezemesel çini kaplamayı en yoğun olarak kullandığı bu cami dekoratif bir ilgiyi kanıtlamaktan çok, Sinan'ın geç döneminde pekiştireceği yüzey ilgilerine ışık tutmaktadır.

1570–1585 yılları arasında genellikle sekizgen kaide uygulayarak yaptığı camiler salt dış yüzeylerinde değil, iç mekanlarında da yeni bir anlayışı ortaya koyarlar.

Yan sahnaların tonozla örtülmesi ve dıştan genellikle düz çatı kullanılması, iç mekan genişlemesinin iki kat galeri kullanılarak yapının tüm iç mekan yüksekliğine yansması içte ve dışta yepyeni görünümler sağlamıştır. Dışta piramid bir silüet ile sonuçlanan kademeli bir yükselme yerine düzlemsel yüzler, içte kolonlarla daha sıkışmış ve bölünmüş bir mekan, bunun sonucu olarak ışık sağlamak üzere sık bir pencere düzeni gelişmiştir. Erken ve Klasik dönem yapılarında söz konusu olan iç mekan ve dış yüz ilişkisi geç dönem yapılarında çok zayıflamıştır. Yapıya dışarıdan bakıldığında, iç düzenin anlaşılması zordur. Geç dönem yapıları merkezden ve kubbeden hareket edilerek tasarlanmış bütünlük olmaktan çok, hiç değilse dış görünümü bakımından, kent yapısının bir parçası olarak düşünülmüşlerdir; yüzler dış mekânın bir sınırı olarak düşünülmüştür.

Bu gelişmeler Avrupada Onaltıncı Yüzyıl ortalarına doğru pekişen Manyerist yaklaşım ile bir biçim paralelliği göstermektedir. Bu, yaklaşık zamanda Osmanlı İmparatorluğunun Duraklama Dönemi'ne girmesi ile gelişen sosyo—ekonomik gerginliğin doğal bir sonucu olabilir.

Bu incelemede Sinan dönemi biçim dönüşümlerinin dış etkileri üzerinde durulmamıştır. Ancak, Osmanlı Mimarisinin Onaltıncı Yüzyıl'ın ikinci yarısında kazandığı biçimsel yenilikler Anadolu ve Akdeniz kökenli etkiler sonucu olarak yorumlanabileceği gibi, Osmanlı kültürünün Batı'ya ilk bilinçli açılımı olarak da değerlendirilebilir. Nitekim, Sinan'ın geç camilerinde iç mekanda ve dış yüzlerde gördüğümüz özellikler, Onsekizinci Yüzyıl'da Batılılaşma hareketleri sonucu Osmanlı mimarisine aktarılan yüzeysel özelliklerden çok daha bilinçli ve köklü bir Batı anlayışı kanıtlamaktadır.

Bu bakımdan, Sinan dönemi Osmanlı mimarisi uluslararası bir kültür gelişiminin bir parçası olarak değerlendirilmelidir. Fatih Sultan Mehmet'in İstanbul'u fethi ile başlayan ve kapsamlı uluslararası ilişkilerle de olgunlaşan Osmanlı kültürünün klasik çağı, Sinan döneminin sona ermesi ile bitmiştir.

ILLUSTRATIONS

Fig. 1 Üsküdar Mihrimah Sultan Mosque,
1540 - 1550

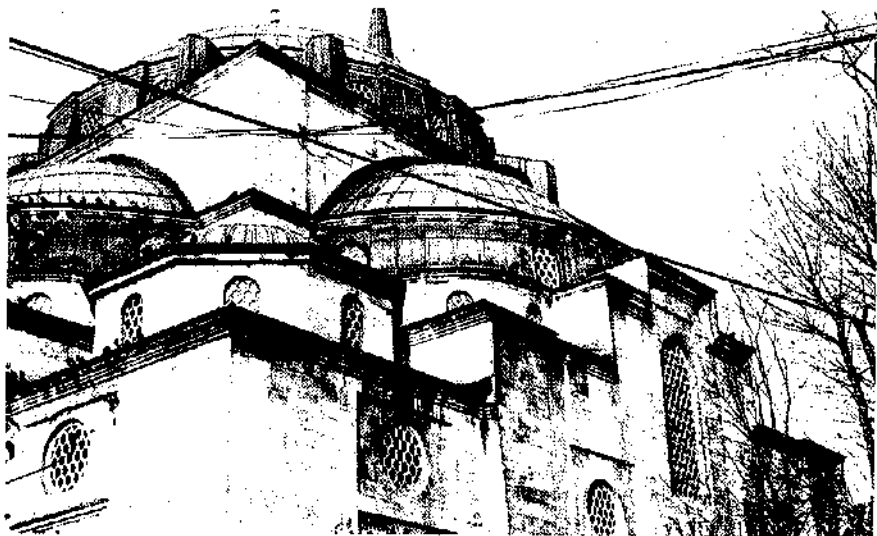
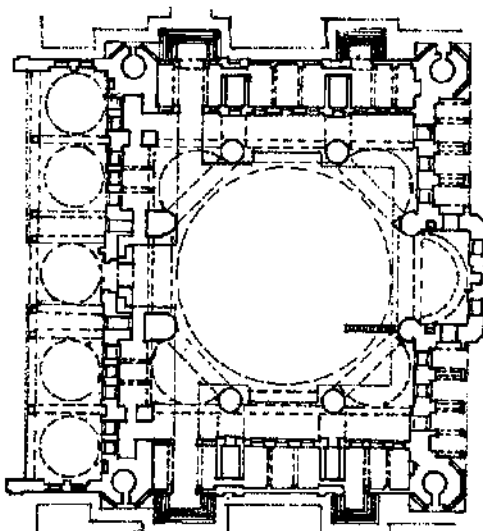


Fig. 2 East Façade of Şehzade Mosque,
1543 - 1548



Fig. 8 Plan of Selimiye Mosque, Edirne 1574



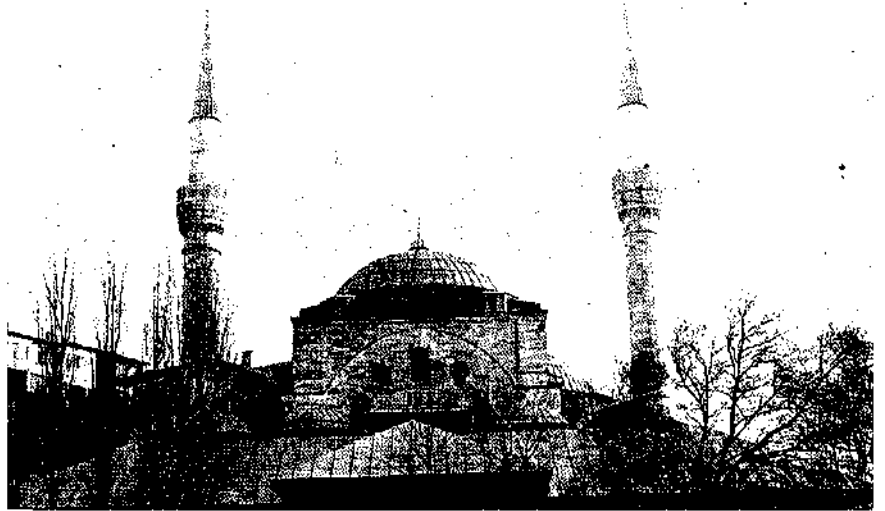


Fig. 4 Üsküdar Mihrimah Sultan Mosque North view with double portico (Photo by Fatih Tayşu)



Fig. 5 Süleymaniye Mosque, 1657 View from the West Facade



Fig. 6 Selimiye Mosque, Edirne 1574 West Facade

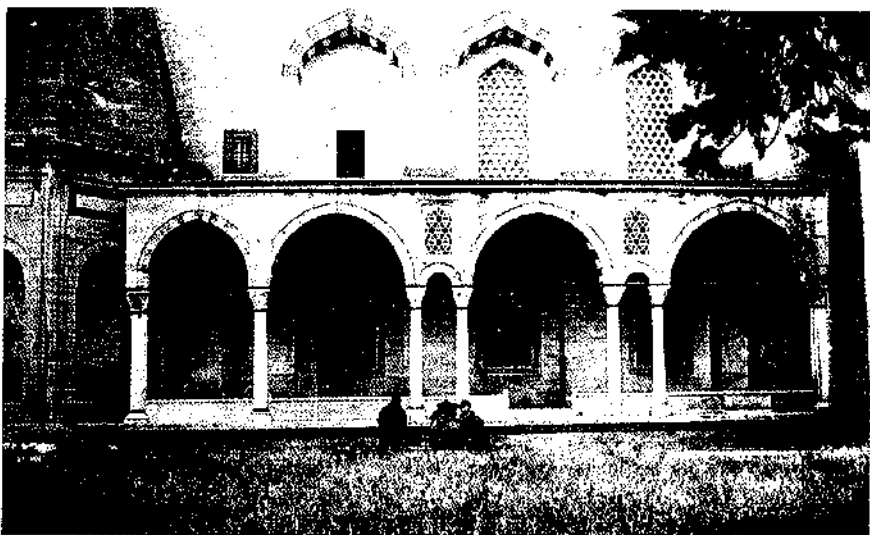


Fig. 7 Selimiye Mosque, Edirne 1574 View of the entrance towards the Kibla wall



Fig 8 Azapkapı Sokullu Mosque, Istanbul, 1577



Fig. 9 Kadiasker Hacı İvaz Efendi Mosque



Fig. 10 Piyale Paşa Mosque, Istanbul 1573
View from the North Facade

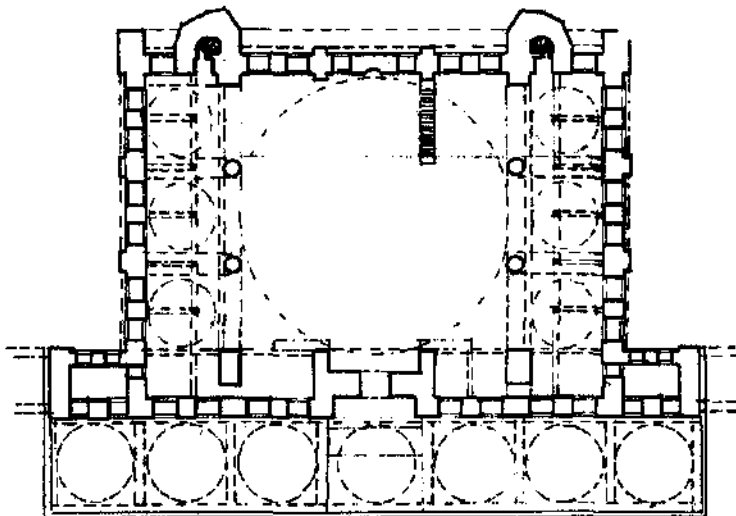


Fig. 11 Plan of Mihrimah Sultan Mosque,
Edirnekapi, Istanbul

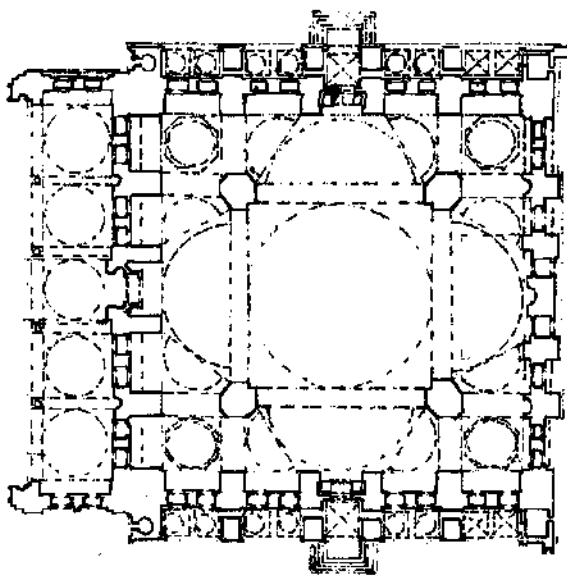


Fig. 12 Plan of Şehzade Mosque, Istanbul,
1543 - 1548

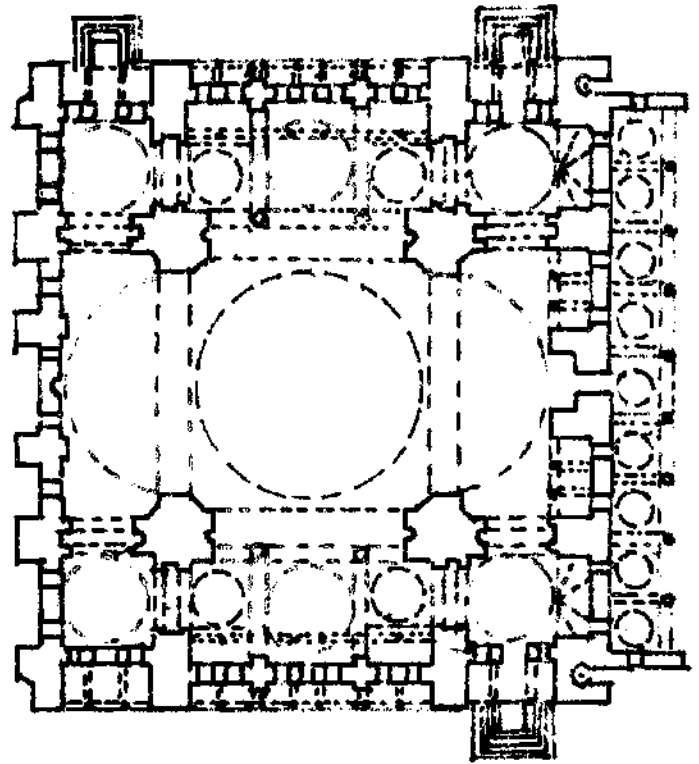


Fig. 13 Plan of Süleymaniye Mosque, İstanbul, 1557

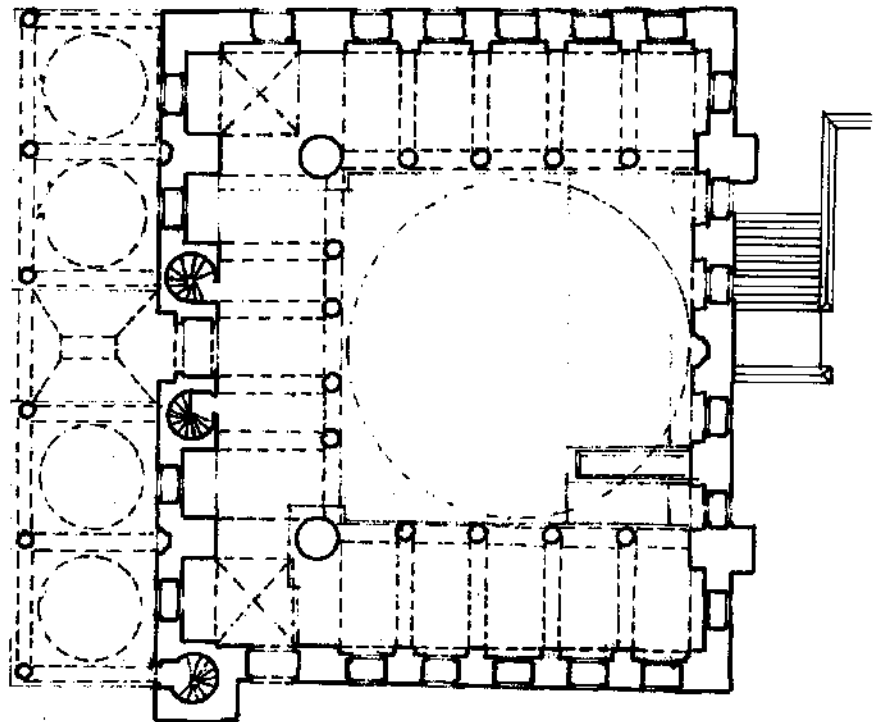


Fig. 14 Plan of Zai Mahmut Paşa Mosque, 1566 - 1580

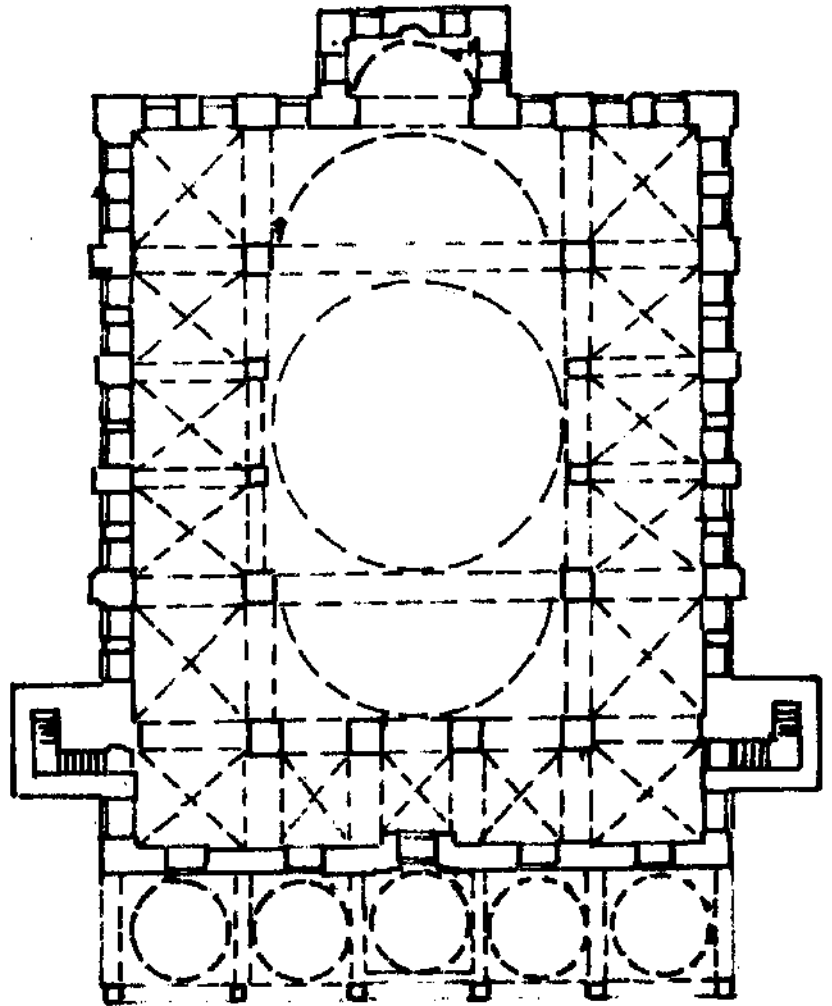


Fig. 15 Plan of Kılıç Ali Paşa Mosque, Istanbul, 1580

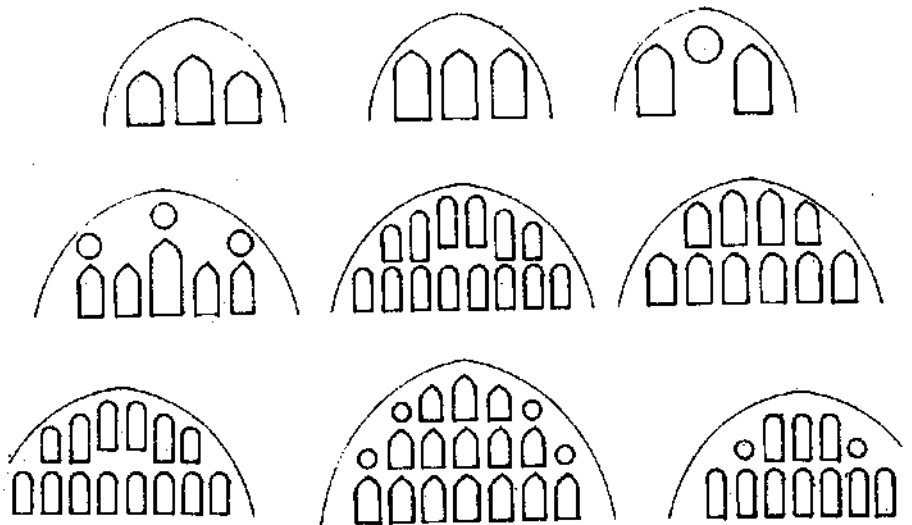


Fig. 16 Window groupings within the shape of the arch.

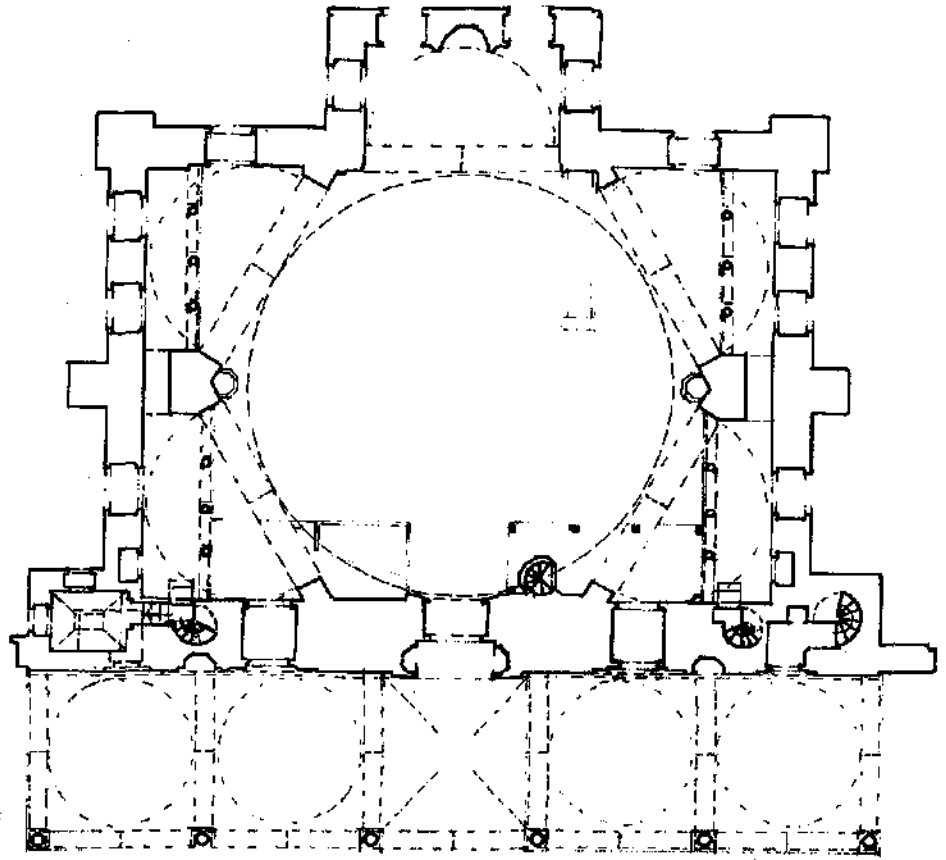


Fig. 17 Plan of Semiz Ali Paşa Mosque, Babeski, 1561

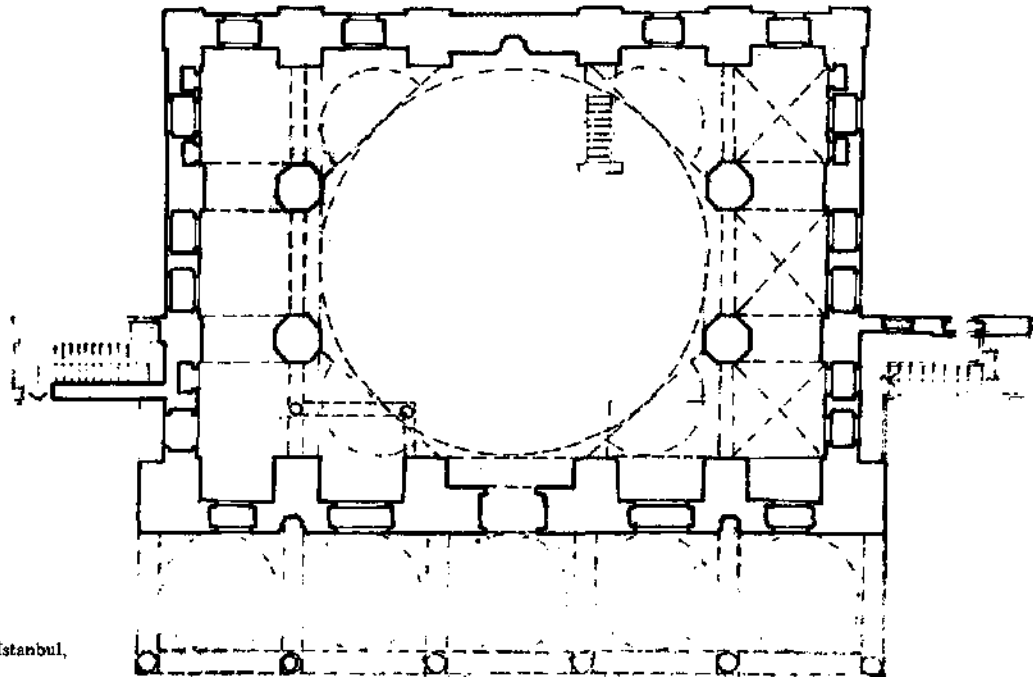


Fig. 18 Plan of Rüstem Paşa Mosque, Istanbul, 1561

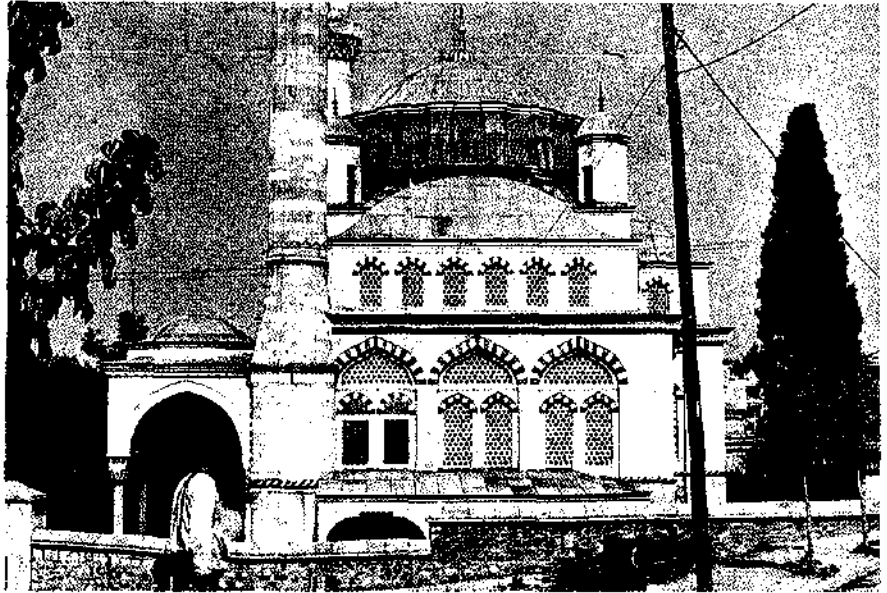


Fig. 19 Muradiye Mosque, Manisa 1685

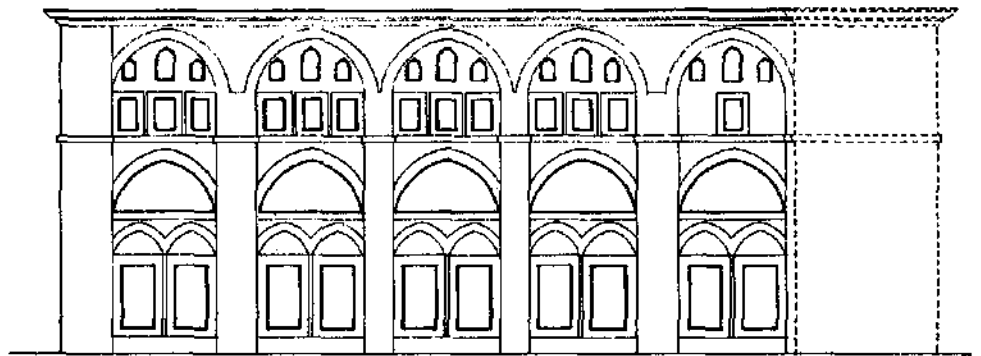


Fig. 20 Kılıç Ali Paşa Mosque, 1580