VISION AND REPRESENTATION OF URBAN SPACE

It has become a commonplace to affirm that perspectival vision of space was extraneous to both the Islamic and Ottoman sensibility. Perspective, in the serial orchestration of its sequence, obliges the spectator to occupy a determinate space, saying to him in effect, "You must see the object like this and in no other way." All of this contributes to accentuating the monumental and ceremonial effect of the edifice, and to determining its scenographic effect. The axes of symmetry are usually those of the visual cone. As the observer moves along the axis he enters a system of expectations which corresponds to a stable series of discoveries. In as much as he is guided by the architect's will, the observer is an actor on the scene: he becomes the centre of the architecture which seems to obey him. None of this happens in the Ottoman mosque. Taking for example the külliye, we can see if we examine its ground plan that the buildings which host the religious institutions surrounding the enclosure of the mosque are disposed along Cartesian axes which are also those of the mosque, ordered so as to form a second enclosure. There are no perspectival foils, no circulatory fulcrums. In the Külliye of Mohammed the Conqueror the planimetric order is absolute, but the vision is always partial. The Koranic verse, "Sojourning in gardens where they will," is herein transcribed to, "They will enter the House of God from wherever they want." The passageways through the enclosure are small, numerous, widely dispersed and without primary and secondary entrances. In the külliye of the mosque of Süleyman the Magnificent, the buildings housing the religious functions do not even form a pedestal, given the area's particular topography. The faithful, swarming like bees at a hive, arrive for services, departing from all over. The movement is incessant, and intensifies at the canonical hours of prayer. The gathering of the People of God is neither orderly, processional nor constrained within fixed paths of approach. From the door of the external enclosure to the door of the mosque there are multitudes of oblique paved paths which to our sensibilities appear disorderly. The mosque does not dominate or impart order to the surrounding streets, but instead dominates the city as a whole and must be visible to the approaching traveller as if to guide him from a distance. The enclosure isolates, but it does not orient: it defends the sacred space of the mosque from the frenetic urban life of the surrounding city.

The avlu or closed court serves as gathering place for those faithful who are to find seats during the larger functions. It is a kind of open hall of prayer, with its mihrabs under the main portico. The font for ablutions is placed at the centre, its visual mass acting to impede a complete view of the facade to those entering from the door on axis with the mosque — the door, that is, on the symmetrical axis facing Mecca. Like the lateral doors of the mosque, the other doors are not disposed along particular axes of symmetry, and are thus not conceived according to laws of perspective. The avlu functions as an expansion of the covered mosque, but it is not merely a duplicate or mirror-image. The font is placed squarely at the centre, and the main portico blocks the view of the facade — comprehensible strategies, given that a full view of the facade would overly emphasize one's extraneousness to the mosque. If the conception of space underlying the mosque is absolute and unified, it follows naturally that the prayer hall must not be gradually revealed to the onlooker, but must appear suddenly, in its absolute totality. Similar to this non-gradual and non-perspectival spatial concept is the Ottoman idea of three-dimensional representation.

In the famous manuscript of Matraki from 1537 there is a drawing of Istanbul made for Süleyman the Magnificent. The city is pictured within its walls, with all the monuments of that time clearly detailed. The mosques of Sinan have not yet been constructed, but all the works of Mohammed the Conqueror are represented. The importance of this document is not merely historic. All the buildings shown are drawn in elevation or in axonometric projection. Of the three axes of projection, two, at right angles, lie on the plane of the representation, while the third, indicative of depth, veers often to the right and sometimes to the left of the observer, serving to clarify the position of the buildings. The enclosure of the Fatih mosque is drawn in axonometric projection, with the mosque itself nearly a mere prospect, and depth supplied by the cupolas. The walls towards Usküdar are shown in elevation, those towards Pera and the Golden Horn (foreshortened with respect to the viewer) are turned inward to show the door to the harbour, while those towards the sea of Marmara undergo a curious axonometric torsion which makes them appear to hang suspended over the water. Istanbul seems as if painted, dimensionless, on a wall; several
buildings seem on the point of falling out of the picture, and the walls of the Golden Horn form an independent view, a picture within a picture.

Many miniatures conserved at the museum of Topkapi employ the same instruments of representation: the prospect drawn parallel to the edges of the image, flattened prospect with irregular angles and pure axonometry. Of all of them, the most interesting is doubtless "Audience of the King of Erdelj with Süleyman."

Süleyman is seated before his tent on a throne represented in axonometric projection. The floor of the tent extends behind the throne and parallel to it. The carpet beneath the throne is on the same plane as the miniature; the walls of the besieged city are crooked and without depth; a baldachin that protects the dignitaries is seen in axonometric projection from below. Behind this "flying" baldachin rise the mountains which close off the upper portion of the miniature. We do not know the techniques of representation used by Sinan for his projects. It is certain that they did not differ appreciably from those just described, principally as far as the plane and the rotated vertical sections are concerned. Axonometric projection was not necessary because the wooden model represented the mosque three-dimensionally.

That axonometry was an idea congenial to Ottoman culture more for reasons of spiritual predisposition than as a practical tool, is fairly comprehensible. Axonometric vision freezes the object; it is an abstract species of representation far less earth-bound than perspective. To see things as they are seen with our eyes presupposes a realistic, nearly materialistic conception, thoroughly out of keeping with the theological vision of the Islamic world.

The axonometric view when seen from below projects the object into space, removing it from the influence of gravity, detaching it from the picture and leading it away from its earthly dimensions. The same path was followed by me in redesigning the four mosques. The tools used are the simplest: plane, section, axonometric section and, as derived from these, the simultaneous projection of several views.
Sacred Above Profane Space: the Rüstem Pasha Mosque of Istanbul (1561-62).

Constructed above the stores and warehouses of the market at Eminonu which serve it as pedestal, raising above the frenetic swirl of surrounding life, the mosque of Rüstem Pasha is vivid proof of the mastery of Sinan, and it is at the same time a demonstration of the limits inherent in the planning of the urban Ottoman mosque. I have already explained that it was not in the cultural interests of the Ottoman architect of the mosque to deviate from his designs for the purposes of urban reorganization. The mosque does not directly influence the construction of streets or piazzas, and should not be seen in such terms. Neither does the mosque play a role in the local urban zone, so much as it does in the overall skyline and spatial orientation of the city. The mosque, in other words, must rise above the city, dominating its most elevated points to be seen, as it must, from far away. And while it exists as the only kind of piazza possible in an Ottoman city, it is certainly not a piazza conceived of in our terms — for example as an intersection of traffic. The enclosure that isolates the mosque from the surrounding urban elements seems to affirm it: the profane space stops at its border, and the divine one begins. However, there is one case in which this rule is betrayed: superimposing the two spaces, constructing an artificial ground above the plane of commercial and rigidly separating the two. The fascination of the Rüstem Pasha, in fact, resides in this very caesura or vertical schism: quiet and concentration artificially superimposed at the same time as, together, they are counterposed to the frenetic activity of the market. The enclosure does not exist; neither does the green interval of the garden. Two stairways closed within small buildings function as vestibules for those mounting to the sacred space. Let us suppose that Sinan had developed a particularly evolved urban sensibility, and that it was specifically with this building, immersed as it is in the very centre of an urban tissue composed of quadrangular warehouses and orthogonal streets, that he decided to adapt his project to the needs of
THE SELIMIYE MOSQUE AT EDIRNE. AXONOMETRIC VIEW
the particular urban site under reconstruction. Let us suppose, again, that he attempted to articulate the torsion of the mosque in respect to this fabric; that he attempted an adaptation, as he had already done with the bath and the madrasa alongside. What prevented him from doing it? One thing only: the symbolic and liturgically binding statue of the Ottoman mosque which had frozen the architectonic "type" as a non-articulated unicum.

Let us think for example of the torsion of the mosque of Shah at Isfahan. This celebrated monument has a hinge that enables its rotation: the vestibule behind the northern Ivan of the court. The hinge is door, building and vestibule together—a strong presence tying the rotated mosque to the royal piazza. The northern Ivan is dimensionally equal to that of the southern; the direction of Mecca is their stability.

In the case of the Rüstem Pasha, nothing is sufficiently strong to act as hinge for the torsion, given that the entrances to the court must not be dominant urban elements. From here the brusque rotation is poorly resolved by gardens and stores on the western wall of the mosque. But the ill-conceived rotation does not weaken the suggestion of the raising of the terrace-court and neither does it disturb the sensation of quiet, amplified by the contrast with the tumult of the underlying quarter. The mosque, however, is not visible from a distance. No external stairs extend an invitation to climb them. It is necessary instead to push open a door to enter it. Its symmetry remains absolute, even if the lateral fronts lie along streets of differing importance. The urban effect is only appreciable from a certain distance. Though knowing that my affirmation may appear categorical, I believe that Sinan considered the urban fabric endlessly modifiable, planimetrically ambiguous and volumetrically ductile and plastic for which reason it was not worthwhile to establish within it those rapportos or ratios which would then, with time, be betrayed. In that continuous morphological ebullition which is the fabric of the Islamic city, the külliye, the caravanserais and the baths are the unvariable fixed points, as well as constants of institutional value.

With a base of shops and of storehouses constructed with massive arches and barrel vaults, the mosque of the Grand Vizier Rüstem Pasha supports its powerful structure. There is correspondance, even if imperfect, between the upper and lower structures. As on other occasions, Sinan subdivides the large artificial grounds with an astute reasoning based on the Egyptian triangle of sides 3, 4, 5. This reasoning which in other cases could seem purely instrumental, and therefore not inherent in the successful completion of the project, is actually very much a part of his overall logic, because the ground itself is also planned. This time it is the prayer hall that is the guiding dimensional force of the project's net measures, which correspond to the cathetuses of the Egyptian triangle in which the hall is inscribed. With the module of the triangle established at 8 cubits, the hall measures 8 x 3 or 24 cubits (about 18 m) deep, and 8 x 4 or 32 cubits (about 24 m) wide. As usual, the minor cathetus lies in the direction of Mecca, and the major in the direction of the qibla.

Turning over the triangle around cathetus 4, the measure of the court (including the wall of the mosque) is obtained; if one adds to the depth thus obtained (24 cubits for the court and 24 for the prayer hall excluding the final wall) the thickness of the wall of the qibla (2 cubits), the side of the square which inscribes all the mosque with the court is obtained: 50 cubits (37.5 m), a measurement that corresponds, is the point, to the width of the terrace on the main path. The procedure can continue, reasoning always from net or gross measurements as for the thickness of the wall. The hall is 9 cubits away from the lateral extremes of the terrace, including the walls of the hall which are of 2 cubits. The net measure to reach the stairs of the women's galleries is of 7 cubits, exactly a third of the diameter of the cupola which is of 21 cubits (about 15.75m).

The exclusion or inclusion of the thickness of the walls, while leaving to be resolved on-site the laying down of the constructive mass, brings with it problems in the sizing of the minor structural elements: for example the pilaster strips and the visible pilasters. The order decided by the cupola and imposed on the supporting elements requires that the visible measurements be maintained net, as in the intrados of the cupola. In the case of the Rüstem Pasha, the hemisphere inscribed on the cupola has its center suspended at a distance from the soil equal to its diameter. Its radius (10.5 cubits) measures the distance from the prayer floor to the impost of the first series of arches. Its demiradius (5.25 cubits) measures the summit of the window crown beyond which
begins the blind vault of the cupola, a vault, as usual, high two-thirds its radius. The mosque of Rüstem Pasha employs, under the cupola, an octagonal baldachin which, as is its nature, acts to shorten the passage between it and the underlying solids. This type of baldachin brings with it the presence of four free pilasters in the rectangular hall that divide it in three parts, isolating the women's galleries. To avoid this shortcoming and maintain the unity of the room, Sinan employs an intelligent trick: he scales the apertures according to their distance from the center and the existing ties. This architectural device is decisive to any understanding of the mosque. It is necessary, however, to explain the nature of the ties to the apertures of the windows. The critical side is that of the portico, because the mosque has two porticoes side by side: the usual one of five cupolas and one of three pitches. In this wall, on both sides of the entrance, Sinan opens two large windows of the unusual height of 8 cubits (around 6 m). The light, partially attenuated, enters the hall and is scattered by two symmetrical tribunes for muezzins, before illuminating the qibla. Something analogous takes place in the women's galleries: the tympanums of the five arches above the galleries are nearly completely perforated, the light which enters removes them from their isolation. The region of the baldachin consents to few apertures; a three-mullioned window on each side of the octagon parallel to the walls of the hall; in the other four sides the semi-cupolas are too small to host open windows. The cupola, finally, completes the illumination with the 24 apertures at its impost.

The character of the Rüstem Pasha does not depend only on the unusual mode in which light is permitted to enter, but also on the way of reflecting it and of letting it colour the internal space. The mosque is in fact covered in majolica in all the zones beneath the first series of arches. The tiles of gaudy red and intense turquoise cover the walls, the pilaster strips, the four pilasters, the eight pendentives, and the niche of the mihrab. It is the mosque of a collector, the greedy Rüstem, wealthy financier of the Sultan, and the profusion of majolica is certainly his doing. These majolica decorations do not follow a precise design: the pilasters do not all maintain the same pattern. The red tulip is a recurrent theme, though in different shapes. The designs, however, are so tiny that some change is necessary, as with flowers in a garden. A sense of restorative oasis pervades the hall, around which the agitated chaos of life is isolated. The mosque is a "built truce" which five times a day dispenses quiet.

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1 See Octay Aslanapa. Turkish Art and Architecture. London, 1971, Pl. XXVIII "Reception of the King of Ertel by Süleyman I".