

A comparison of the domes of the St. Peter's Basilica (Rome) and the Suleymaniye Mosque

(Istanbul)

(Chicago Style)

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Course title

## Outline

- Main objective: assess the similarities and differences of the domes and why they differ
- Body of text:
  - Some similarities and influences
  - St.Peter's Basilica
  - Suleymaniye differences with St. Peter's
- Conclusion: Better to see both domes as illustrations of architectural genius rather than as typifications of styles (Renaissance, Turkish, etc.)

Many textbook introductions to architecture contrast Western styles with a so-called Ottoman style.<sup>1</sup> Bloom, for example, refers to Sinan's work as being part of "a concerted Ottoman policy of establishing sovereignty through the erection of distinctive buildings in a distinctly Ottoman style."<sup>2</sup> Carneal, however, argues that, after the conquest of Constantinople, a "balance between the traditional Ottoman building practices of Bursa and Edirne with the styles found in Byzantium and the West"<sup>3</sup> emerged. This purpose of this essay is, by comparing the domes of St. Peter's Basilica and the Suleymaniye Mosque, to assess the extent to which the domes have things in common, and to what extent they differ.

#### Some similarities and influences

Both domes were conceived during the period known as the Italian Renaissance. Both look back at earlier classical structures. In the case of St. Peter's Basilica, the models for inspiration are the Pantheon and the Basilica of Maxentius (the Temple of Peace) in Rome;<sup>4</sup> in the case of the Suleymaniye Mosque, the Hagia Sophia. But there is an, often repeated, argument that so-called Islamic architecture is simply a revamping of the past; that, unlike the Italian Renaissance, it goes into decline. The Fletchers, for example, characterize Turkish architecture, along with other, non-Western styles as being "non-historical", i.e., stuck in time.<sup>5</sup> But the Hagia Sophia was, originally, a Christian church, and it was later altered to make it look Islamic. So when Sinan "copied" the overall structure, he was in fact copying a

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<sup>1</sup> Necipoğlu, "Creation of a National Genius."

<sup>2</sup> Blair and Bloom, *The Art and Architecture of Islam, 1250–1800*, 277.

<sup>3</sup> Carneal, "Origins of Imperial Ottoman Architecture in Istanbul."

<sup>4</sup> Moore, *Character of Renaissance Architecture*, 49.

<sup>5</sup> Fletcher and Fletcher, *A History of Architecture on the Comparative Method for the Student, Craftsman, and Amateur*.

Christian structure. St. Peter's Basilica, ironically, does the opposite. As a "copy" of the Pantheon it is a copy of pre-Christian structures, but that is the fundamental idea behind the Renaissance – a revival of the art of ancient Rome and Greece.

### St. Peter's Basilica

Bramante's original design for St. Peter's Basilica is an attempt to diverge from the traditional basilica plan whereby, after Constantine's modifications, the floor plan takes the

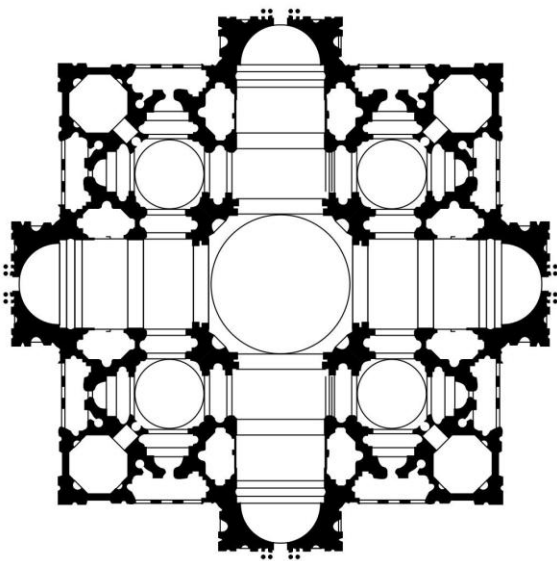


Figure 1 Bramante's floor plan

form of a Christian cross. Bramante adopted a Greek cross floor plan<sup>6</sup> where, in keeping with the fascination with contemporary knowledge of geometry, a square encloses a set of five domes – one large dome surrounded by four smaller ones over the chapels (Figure 1). But whereas the dome of the Pantheon arises from the massive drum structure below the external cornice, Bramante sought to give prominence

to the dome by making it higher. It now reaches a height of 136.57 m (including the lantern), and has an inner diameter of 42.56 m.<sup>7</sup>

Michelangelo adopted Bramante's original plan by increasing the size of the four, 16m piers so that they could support the weight of the central dome. He also adopted Brunelleschi's method of constructing the Duomo of Florence Cathedral i.e., by building an

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<sup>6</sup> The only surviving record that Bramante adopted the Greek cross is half of a parchment plan which belonged to Vasari. So we can only assume symmetry (Lotz, *Architecture in Italy, 1500-1600*, 18).

<sup>7</sup> Vatican City State, "The Dome."

inner and an outer shell of brick and stone, thereby avoiding the necessity of scaffolding. Seen from the outside, the dome rises from a drum surrounded by pairs of Corinthian pillars interspersed with blind windows, and is crowned by a lantern with a ball and cross on top. Following Brunelleschi's model, Michelangelo designed a system of ribs which align with the buttresses of the drum. The interior of the dome is decorated with mosaic figures depicting Jesus, the saints and the 16 popes buried in the basilica,<sup>8</sup> lit up by 16 windows. The prevailing belief in the Catholic Church was that religious images served to remind the faithful of the bible stories.

#### The Suleymaniye Mosque – differences with St. Peter's Basilica

The juxtaposition of the layout plans for the Hagia Sophia, the Beyazit Mosque, and the Suleymaniye Mosque clearly shows the influence of the Hagia Sofia on the later designs (Figure 2<sup>9</sup>), but Freely points out how the Suleymaniye dome differs from the Hagia Sophia:

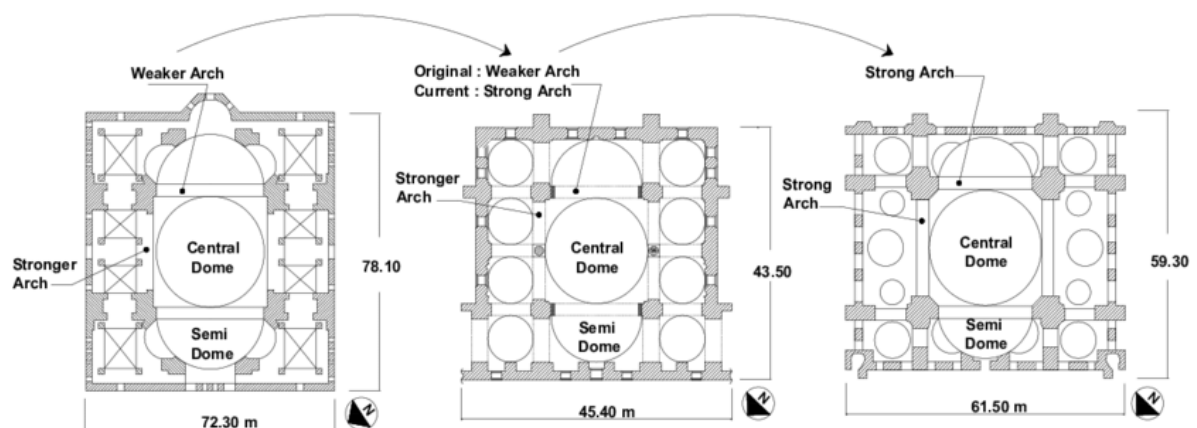


Figure 2 Left to right Hagia Sophia, Beyazit Mosque, Suleymaniye Mosque

<sup>8</sup> “St. Peter's - The Dome.”

<sup>9</sup> Sadan, Bal, and Smyrou, “Structural Analysis of Istanbul Beyazit II Mosque Retrofitted by Mimar Sinan.”

“the vast space is not cut up into sections as at Haghia Sophia but is centralized and continuous.”<sup>10</sup> Kostof points to (among other things) “the springing line of the pendentives, the half-domes, and the niches”<sup>11</sup> which show how far Sinan strayed from the Byzantine model. The goal of the open space was to provide “a much extended prayer hall to accommodate large numbers of worshipers” while minimizing the “number of structural barriers on the ground level,”<sup>12</sup> marking a significant difference with the Christian style of St. Peter’s Basilica.

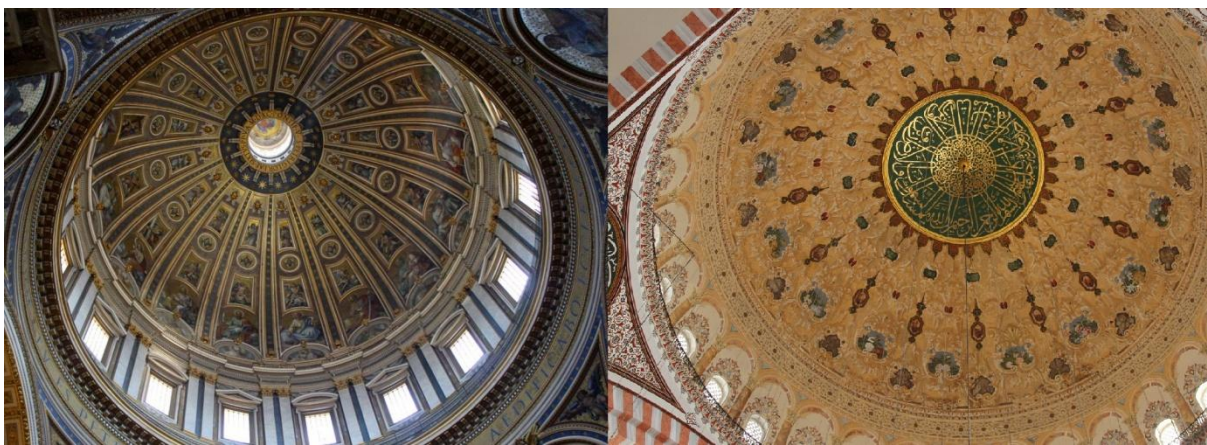


Figure 3 Decoration in St. Peter’s Basilica (left) and Suleymaniye Mosque

Another difference between the Hagia Sophia and the Suleymaniye Mosque is that, in the former, there are religious images dating from Christian times; in the latter, there are no religious images as a *hadith* indicates that only Allah can create human beings, and religious images of human beings attempt to usurp the work of Allah (Figure 3). There is an argument that, in the Islamic world, architecture and decoration are at odds with each other. Blair and

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<sup>10</sup> Freely, *A History of Ottoman Architecture*, 251.

<sup>11</sup> Kostof, *A History of Architecture*, 462.

<sup>12</sup> Almughrabi, Prijotomo, and Faqih, “Suleymaniye Mosque: Space Construction and Technical Challenges,” 349.

Bloom argue that the interior decoration of the mosque was deliberately minimal,<sup>13</sup> and Kuban writes of Sinan's "radical subordination of decoration to architectural form."<sup>14</sup>

The dome of the Suleymaniye Mosque forms a semi-sphere as its height is half of its diameter.<sup>15</sup> It rises to 53 m above sea level, and has a diameter of 26.5 m,<sup>16</sup> which makes it much smaller than St. Peter's Basilica (136.52 m and 42.56 m, respectively), and is lit up by 32 windows. "Two semi domes along the central axis lead to the qibla, but the sides are broken into a grander cascade of domes, including five on either side of the main dome following the central axis."<sup>17</sup>

In conclusion, although there are clear differences between the domes of St. Peter's Basilica and the Suleymaniye Mosque which result from different religious attitudes (most notably regarding decoration and floor space plans), rather than classifying them as "types", it is better to see them as individual creations of extraordinarily talented architects.

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<sup>13</sup> Blair and Bloom, 224.

<sup>14</sup> Kuban, "The Style of Sinan's Domed Structures," 96.

<sup>15</sup> Almughrabi, Prijotomo, and Faqih, "Suleymaniye Mosque: Space Construction and Technical Challenges," 354.

<sup>16</sup> Almughrabi, et al, 348.

<sup>17</sup> Carneal, 89.

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