1116-51-398   **Mamoun Sakkal, Ph.D.*** (`mamoun@sakkal.com`), Sakkal Design, 1523 175th place SE, Bothell, WA 98012. *Intersecting Squares: Geometric Compositions of Square Kufic Calligraphy in Bibi Khanum Mosque, Samarkand.*

The colossal Bibi Khanum mosque built by Timur in Samarkand is a showcase of Square Kufic calligraphy at the beginning of the 15th century. Its exterior walls are covered with multiple designs that demonstrate geometric concepts used as basis for constructing calligraphic surface patterns. In this paper, I will present designs based on different arrangements of squares, and will detail one of these schemes, the Double Square, where two squares intersect each other on their diagonal axes.

After a brief historical overview of Square Kufic and the geometric principles of its square designs, the Square Kufic patterns in Bibi Khanum mosque are presented in a catalogue of compositions. Although the octagon-based designs seem to follow already established and commonly used patterns, several of those based on squares are original schemes uniquely appropriate for Square Kufic calligraphy. The square-based compositions can result from placing the squares adjacent to each other, or intersecting the squares on their sides or their diagonals.

A versatile and widely used pattern in Timurid architecture is the Double Square design, which will be analyzed in detail. This design is an exceptional case of union between calligraphy and geometry in the arts of medieval Islam. (Received September 01, 2015)