

Original article

COMBINED MOSQUES STYLES IN ARCHITECTURAL STRUCTURES IN
CENTRAL ASIA DURING THE 8TH-9TH CENTURY A.H. / 14TH-15TH A.D.

Roshdy, M.

Islamic dept., Faculty of Archaeology, Cairo Univ., Cairo, Egypt.

E-mail: mahmoud_roshdy50@yahoo.com

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Abstract

Mosques have had major interest and great care by sultans, princes, princesses, and khans, as they made contributions in constructing diverse mosques' styles, varying between congregational and compact mosques in architectural structures of miscellaneous functions. Studies have tackled the congregational mosques that were built in Samarkand, Bukhara, and Khiva, yet, have gone short on dealing with the second style of mosques; combined mosques, which had several styles and different architectural units and elements. In fact, the influence of these styles extended beyond Central Asia's borders. This study, in turn, aims at identifying these styles and their main architectural units and elements, revealing their influence outside the geographical range of Central Asia.

Keywords: *Central Asia, Bukhara, Samarkand, Mosque, Funereal Dome, Iwan, Arch*

1. Introduction

Central Asia [1] was known in the Timurid Era (771-912 A.H. / 1370-1506 A.D.) [2] for its several combined mosques in architectural structures, whether they were funereal dome [3] or Madrasa [4], in order to assess the five prayers, like: The mosque annexed to Al-Qothm bin Abbass funereal dome (805 A.H. / 1402 A.D.) [5] in Shah-I-Zinda Congregation [6] in Samarkand [7], pl. (1-a), which was designed in a triple linear division extending from East to West. The first Western section is a rectangular space covered with a shallow dome projected on spherical triangle

pendentive overlooking the central section of the mosque with a pointed arch. This rectangular space is surrounded by two rectangular entrances from both the northern and southern sides, each covered by a small shallow dome projected on spherical triangle pendentive. The central section: is a squared space covered by a huge dome projected on Turkish triangles surrounded by rectangular entrances at the northern and southern sides attached by a pointed arch. The third Eastern side: exactly resembles the first western section in the internal triple division as well, as it consists of a rect-

angular space covered with a dome both the northern and southern sides, each covered by a shallow dome projected on spherical triangle pendentive, fig. (1-a). The mosque annexed to Toman Aqa funereal dome (808 A.H./1405 A.D.) [8] in Shah-I-Zinda congregation in Samar-kand, pl. (1-b), with a triple cross-cut division. From the north to the south of the western and eastern sides three rectangular holes extend attached by a pointed arch. The middle entrance is the widest centered by the prayer niche at the western wall, while the opposite eastern one is centered by the entrance. The three holes in each of the western and eastern walls are covered by arches parallel to the prayer direction with an arch over each hole. As for the northern and southern sides, they are each centered by a rectangular hole with a pointed arch filled with stalactites. Each part of the third section is covered by a shallow dome projected on Turkish triangle pendentives, the biggest of which is the central dome in the middle section, fig. (1-b). Another example is Ulugh Beg Madrasa [9] (820-823 A.H. / 1417-1420 A.D.) in Samarkand, pl. (1-c), where the mosque is situated behind the main iwan (prayer direction iwan). It is designed in a rectangular space extending from north to south, in which each of its eastern and western sides has five rectangular holes attached with a pointed arch. The middle hole is centered by the prayer niche, while the eastern middle hole is centered by the mosque entrance, where the middle hole is also surrounded by four holes; two at each side. During construction, the mosque was covered with small shallow domes projected on Turkish triangle pend-

entives, except for the bigger central dome. Accordingly, the mosque followed the same ceiling system of that annexed to Toman Aqa funereal dome for the resemblance in their designs, taking into consideration that Ulugh Beg mosque was the most spacious. However, now, it is covered with a wooden ceiling, fig. (1-c). Moreover, there is Ulugh Beg madrasa (820 A.H. / 1417 A.D.) in Bukhara [10], pl. (1-d), in which the mosque is located at the left side of the college. It is designed in a central hall covered with a shallow dome projected on squinches inclination overlooking four iwans, one at each side. The most important iwan is the western one centered by the prayer niche, while the opposite iwan includes the main entrance to the mosque, fig. (1-d). Also, there is Ulugh Beg madrasa (837 A.H. / 1433 A.D.) in Gjduan [7] in Bukhara, pl. (1-e), in which the design of its mosque resembles that of the mosques annexed to Toman Aqa congregation and Ulugh Beg madrasa in Samarkand. The difference was only in the location of the mosque which was located at the right side of the main entrance of the madrasa. It is designed in a triple division space extending from north to south, in which each of its eastern and western sides has three holes. The Middle Western hole is centered by the prayer niche, in which it is sided by two holes; one at each side. On the other hand, at the eastern side, the middle and northern holes are centered by doors that externally open, in which each part of the triple division is centered by a shallow dome projected on Turkish triangle pendentives, fig. (1-e).

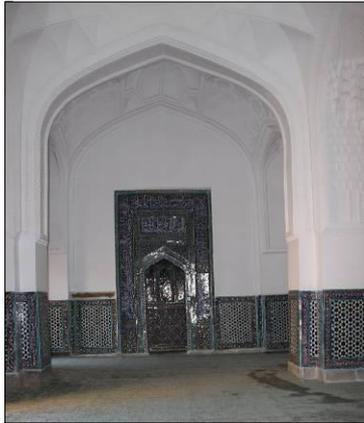


Plate (1-a) Shows the mosque annexed to Al-Qothm bin Abbass funereal dome in Shah-I- Zinda Congregation in Samarkand

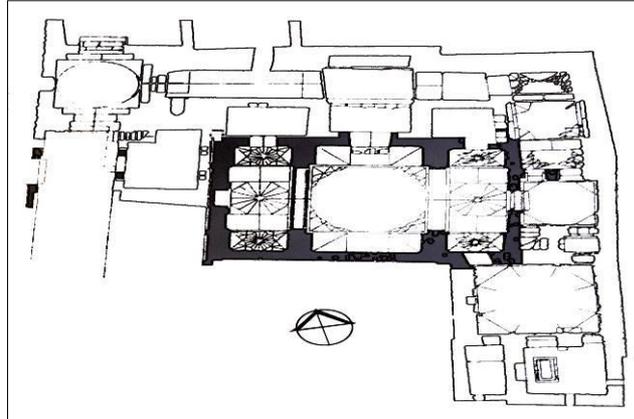


Figure (1-a) Shows the plan of the mosque annexed to Al-Qothm bin Abbass funereal dome in Shah-I- Zandh Congregation in Samarkand



Plate (1-b) Shows the mosque annexed to Toman Aqa funereal dome in Shah-I- Zinda

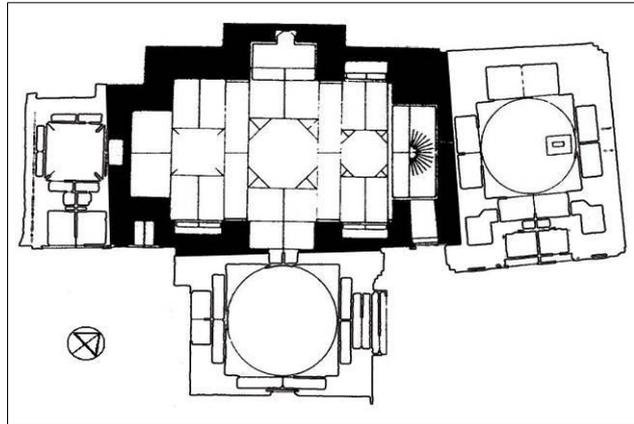


Figure (1-b) Shows the plan of the mosque annexed to Toman Aqa funereal dome in Shah-I- Zinda congregation in Samarkand.



Plate (1-c) Shows the plan of the mosque annexed to Ulugh Beg madrasa in Samarkand

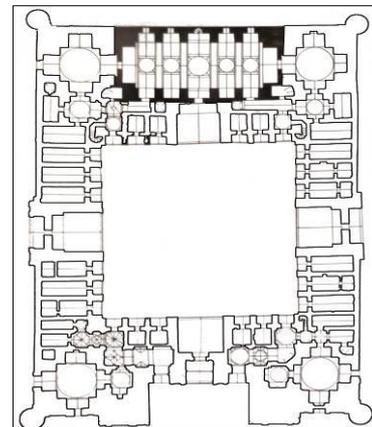


Figure (1-c) Shows the mosque annexed to Ulugh Beg Madrasa in Samarkand



Plate (1-d) Shows the plan of the mosque annexed to Ulugh Beg Madrasa in Bukhara

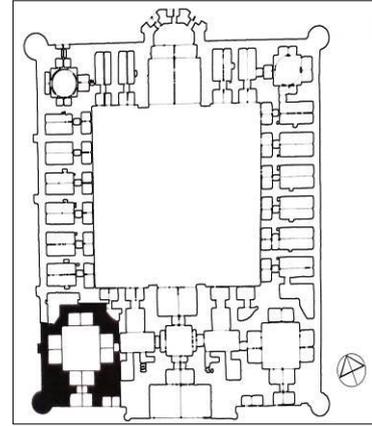


Figure (1-d) Shows the mosque annexed to Ulugh Beg Madrasa in Bukhara



Plate (1-e) Shows the mosque annexed to Ulugh Beg Madrasa in Gjduan

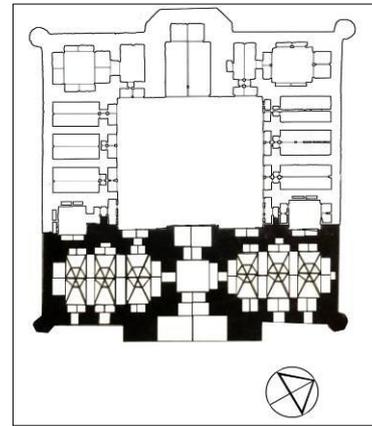


Figure (1-e) Shows the plan of the mosque annexed to Ulugh Beg Madrasa in Gjduan

2. The Analytical Study

2.1. The design

The design of these mosques belongs to the dome mosque style [11] in which the essence of its design was based on a square space covered with a dome projected on squinches or spherical triangle pendentives.

2.1.1. The first style

It consists of a squared space covered with a dome projected on Turkish triangle pendentives. In each of the eastern and western sides, there are two iwans in which each of them is a rectangular space divided into three spaces covered in shallow domes projected on Turkish triangle pendentives, as is the case in the mosques annexed to Qothm bin Abbass funereal dome and

triangle pendentives, where the western side is headed by the prayer niche. The mosques under study do not include minarets or pulpits, as the design varied between the three following styles:

to Toman Aqa funereal dome in Shah-I-Zinda congregation. The mosque annexed to Ulugh Beg College in Gjduan follows the same design, except that the architect divided the space into three rectangular spaces all covered with shallow domes projected on spherical triangle pendentives. The coverage of these mosques and funereal domes was distinguished by using domes and vaults, as the middle

square spaces were covered by Samarkand huge domes of two layers with different heights and diameters. These domes are distinguished by being high upon which long necks are fixed with lower diameters than those of the body itself. The roundness of the domes starts internally from the neck window, while externally, on the vast space, it begins from the mentioned window tip, which was intentionally done to lower the pressure. Thus, these domes are distinguished by dual construction; an internal dome with a semi-circle sector projected on a medium neck, and an external dome with a pointed sector projected on an extended height neck, as it begins in the middle of the windows [11]. While the rectangular spaces were covered by shallow domes, the transition zones of both the domes and vaults were with spherical and Turkish triangle pendentives. Among the oldest remaining styles that followed the same design is Talkhtan Baba Mosque that dates back to the end of the 5th century A.H. / 11th A.D. or the beginning of the 6th century A.H. / 12th A.D., which is situated 30 km away from Merv city, Bamiyan Mosque in Afghanistan in the 6th century A.H. / 12th A.D., Rustam Chalabi Mosque (Kodok Mannar) in Toqan dating back to the first half of the 9th century A.H. / 15th A.D., Alogwat Mosque (the small chamber) inside Tobqaa Galatasaray Palace

2.1.2. The second style

It consists of a squared area covered by a dome projected on squinches, in each of its four sides, there is a shallow iwan, this iwan overlooking the middle area through four pointed arches enclosed a transition zone consists of squinches, like the mosque extended to Ulugh Bag college in Bukhara. Some remaining types of this kind of mosques, Orhan Gazi mosque in Bilecik (757-776 A.H / 1356-1374 A.D), Hoca Yadigar mosque in Inonu (776 A.H / 1374 A.D), the ancient mosque (Iski Jam'e) in

2.1.3. The third style:

It consists of a rectangular area each of its eastern and western sides

in Istanbul dating back to the 9th century A.H. / 15th A.D., and Ahmed Pasha Mosque in Bakr Homeland (995-999 A.H. / 1586-1590 A.D.) [12]. This design was also used in the construction of the mosques annexed to the madrasas, like the one annexed to Morjanya madrasa in Baghdad (728 A.H. / 1356 A.D.), the mosque annexed to the Major Ashrafiyya madrasa in Taiz in Yemen (800-803 A.H. / 1397-1400 A.D.), the mosques annexed to some colleges in Aleppo in Syria like Abu Fares College in Maart Noaman (595 A.H. / 1198 A.D.), Shara-fiyya madrasa (640 A.H. / 1242A.D.), and Camellias madrasa dating back to the first half of the 7th century A.H. / 13th A.D. Among the other mosques is Majahada Mosque in Mosul (572–576 A.H. / 1176–1180 A.D.), Katunah Mosque in Mgnesh (Mancia) (896 A.H. / 1490 A.D.), and Mustafa Beg Mosque in Cirrus (Greece) (925 A.H. / 1519 A.D.). This style was common in the early Islamic Funerary Architecture as the case is in Aswan Cemetery dating back to the Wali Era in Egypt (254 A.H. / 868 A.D.), and this style continued till the Fatimid Era like cemetery in Aswan, south Egypt (494-504 A.H. / 1100-1110 A.D.), Khadra al-Sharifa Cemetery in the main cemetery (501 A.H. / 1107 A.D.), and Mrs. Roqaya Cemetery (527 A.H. / 1132 A.D.) [13].

Yambol in Bulgaria, which may be dated in the last quarter of the eighth A.H / fourteenth A.D century, or the first decade of the ninth A.H / fifteenth A.D century [12]. This type also belongs to some mosques which go back to the Timurid era in Iran, for instance: Mawlana Taybad mosque located in the south of Khorasan, constructed in (848 A.H / 1444 A.D), and Shah Valhi mosque located in Yazd dated in approximately year of 700 A.H / 1300 A.D. [14].

have five rectangular recess-niches vaulted with a pointed arch, the mosque

was covered with shallow domes except the main central dome which was projected on Turkish spherical pendentive like Ulugh Beg Madrasa in Samarkand [15]. One of the oldest types which applied this plan was the mosque added to Qothm bin Abbass funereal dome (805 A.H / 1402 A.D), which was the first example of this type, followed by the mosque annexed with Ahmed Al-Ysawy compound in Turkistan (801 A.H / 1398 A.D) [16], then there is the mosque annexed to Tuman Agha funereal dome (808 A.H / 1405 A.D) as the onset of this type came late [17]. The mosques attached to architectural buildings came to function as a mosque, to assess the five daily prayers, as we find some architects inflicting mosque to colleges so that the imam and students can set up a prayer during winter time, like what we find in Ulugh Beg College in Bukhara the Gjduan College in Samarkand. As for the mosques

annexed to Qothm bin Abbass funereal dome and Toman Aqa dome in Shah-I Zinda Compound in Samarkand; the mosque was used only to pray in the time of visiting the dead person, especially for the funereal domes which are far from the congregational mosques [18]. The type of mosques annexed to architectural compounds were found in Iran, but it was not that popular, as the idea of compounds came in Iran to serve only one function which is the mosque and the college. Rarely, complete compounds can be found like Ardistan Mosque in Esfahan, which was built in the end of the second A.H / eighth A.D century, and Taky El-Din Dada compound in Bandrabad which was built in the ninth A.H / fifteenth A.D century, and finally Sheikh Abd-Samad Bentenz compound in Esfahan region which was built in 704 A.H / 1304 A.D. [14].

3. Conclusion

After studying the subject: (Combined Mosques Styles in Architectural Structures in Central Asia during the 8th-9th century A.H. / 14th-15th A.D), some important facts and results can be reached as follows:

- * This study confirms that the plan of the annexed mosques belong to the type of the dome mosque, which was planned as a squared area covered with dome subjected on squinches or Turkish spherical pendentives.*
- * The study proved that the plan of these mosques was divided into three different types; the first plan: It consists of a squared space covered with a dome projected on Turkish triangle pendentives. In each of the eastern and western sides, there are two iwans. The second plan: It consists of a squared area covered by a dome projected on squinches, in each of its four sides, there is a shallow iwan. The third plan: It consists of a rectangular area each of its eastern and western sides have five rectangular recess-niches vaulted with a pointed arch, the mosque was covered with shallow domes except the main central dome which was projected on Turkish spherical pendentive.*
- * This study clarified that the mosques which were annexed to the architectural building were structured so that the five prayers could be held on, as for the mosque annexed to Madrasa were held for the imam and students to pray in during winter, also, for the mosques annexed to domes, which were built to pray in while visiting the dead person where the congregational mosques are far.*
- * This study confirmed that the idea of annexing mosques to architectural buildings firstly appeared in central Asia, and then spread all over the world. This was confirmed by Talkhtan Baba Mosque that dates back to the end of the 5th century A.H. / 11th A.D. or the beginning of the 6th century A.H. / 12th A.D. which is situated 30 km away from Merv city.*

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