

12 feet in height. The solid masonry base on which it rested was 4 feet 8 inches high and built of sun-dried bricks, measuring on the average 16" x 8" x 4-5", with layers of clay six inches thick intervening between the courses. The same bricks were used in the side walls of the chamber up to a height of about 4 feet 2 inches from the floor, where its square plan was reduced to an octagon by means of squinches set over the corners. On the octagon there rested the dome, constructed of corbelled (horizontal) courses of bricks, of which the lowest started at a height of 6 feet 4 inches above the floor. The bricks used in the dome and in the vaulting of the squinches were burnt, and measured 16 by 8 inches, with a thickness of three and a half inches.

The use of burnt bricks alone would suffice to make the small ruin remarkable at this site. But even more interest is to be found in the constructive method employed for effecting the transition from the square to the circle. The use of the squinch (the *trompe* of French architectural terminology) as a 'means of setting the dome upon a square base' is abundantly attested in Syria, Asia Minor, and other parts of the Near East from the fourth century A.D. onwards. Thence it was carried by Byzantine architecture into the West. But all the leading authorities are agreed that this architectural feature is only one of the characteristic loans which Byzantine art had made from the Middle East, and that the use of the squinch is of Persian origin and far earlier date.<sup>11</sup> This is not the place, nor is there any need here, to discuss its constructive nature and function. But I may point out that the insertion of windows by the side of the squinches, such as Fig. 126 shows to have existed in the small domed chamber of M. x, is also illustrated by what seems the earliest extant Persian instance of the use of the squinch, in the palace of Sarvistān, and is quite common.<sup>12</sup>

Considering how vast the distance is which separates our modest, small ruin by Lop-nōr from that probably Sassanian palace,<sup>13</sup> every detail in the former deserves our attention as a further possible point of contact with the architectural methods of Western Īrān and the Near East. Therefore I may specially mention that the vaulting in the squinches of M. x has been effected by voussoirs of burnt bricks which are set so as to form a succession of pointed arches, each gradually reduced in height and width. It is certainly the earliest instance known to me in Eastern Turkestan of vaulting with voussoirs instead of corbelled courses. It is also of interest to note that the squinches and the dome above are built with burnt bricks, the rest of the structure being of sun-dried bricks. A similar distinction in the materials used, clearly due to constructive reasons, is also met with not unfrequently in early Persian domed structures, e.g. in the palace of Sarvistān, where the dome of burnt bricks is set by means of squinches over square walls built of roughly-hewn stones.<sup>14</sup>

Here I may conveniently take occasion to point out how that connexion with architectural forms, familiar to Western Asia in the early centuries A.D., which we have just traced in the case of M. x, may help us to recognize also the true significance and relationship of the structural features observed in the shrines M. III and M. v. The plan of the circular cella which these ruins exhibit was equally well known both to the late heathen-antique and to the Early Christian architecture of the Near East. There is abundant archaeological evidence to support the view taken by very

Squinch  
used below  
dome.

Voussoirs of  
burnt bricks  
in squinches.

Circular  
cellas in  
Western  
Asia.

<sup>11</sup> Cf. Diehl, *Manuel d'art byzantin*, pp. 89, 160 sq.; Strzygowski, *Amida*, pp. 177 sqq., 183 sqq.; and particularly the illuminating summary of Miss Gertrude L. Bell in *The Thousand and One Churches*, pp. 440 sq.

<sup>12</sup> Cf. Strzygowski, *Amida*, p. 180. For an early Anatolian example of the same arrangement, in the Church of Sivri Hissar, cf. *The Thousand and One Churches*, p. 381,

Fig. 305.

<sup>13</sup> The dates ascribed to the palaces of Sarvistān and Firūzābād vary from the Achaemenidian (Dieulafoy) to the Sassanian period (Flandin and Coste); cf. Miss G. L. Bell's note in *The Thousand and One Churches*, p. 311.

<sup>14</sup> See Strzygowski, *Amida*, p. 180 with illustration.