

The Friday Mosque of Golpayegan Summary Report of the 1387/2008 Campaign

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Intentions of research on the Friday Mosque of Golpayegan and findings of the first campaign (1385/2007)

The development of religious architecture in Islamic Iran took a decisive turn during the Saljuq period (11-12th cent.) with the introduction of a new building type, characterised by the monumental dome chamber in front of the mihrab and a large courtyard with iwans. While the Great Mosque of Isfahan forms the earliest and best known example of this development, other buildings can help to elucidate the process and answer the question how the new building type developed. The Friday Mosque of Golpayegan, with a dome chamber dated to 508/1114-15, is one of the major important mosque buildings of the period. A close examination of its structural history - a case study of its own value - can contribute to the history of Iranian mosque architecture at large.

The research project on the Friday Mosque of Golpayegan addresses several questions. A rather general aim is to determine the various phases of construction, enlargement, and changes to the building from its foundation as a mosque to the present. In particular, it should be proved whether the dome chamber was erected on bare ground, or whether it was inserted into an existing mosque. It should also be determined which kind of structures surrounded the dome chamber before the existing Qajar parts of the mosque were built. A secondary aim was to explain how the Friday Mosque was located in the urban fabric

During the first campaign in 2007, the mosque building was measured and an exact ground plan was drawn. In addition to the major building phases, known from earlier publications, some details of the structural history of the mosque were explored. Concerning the urban setting, a mapping of the area surrounding the mosque was begun, referring mainly to the age of built substance, conservation and current use, in the surrounding quarters.

Archaeological research on the mosque was undertaken with five soundings within the dome chamber, in the adjacent southeastern part of the prayer hall, and outside the qibla wall. From the stratigraphy and the evidence of architectural remains, it became clear that earlier buildings had existed on the same spot. In particular, foundations of a pillar construction, apparently of the same orientation as the present mosque, led to the conclusion that an older hypostyle mosque had preceded the dome chamber of 508/1114-15. Structures of beaten clay and mud brick could be interpreted as remnants of even more ancient constructions. Besides, the soundings revealed details of the construction of the dome chamber and the adjacent vaulted halls. The large amount of ceramics from the soundings presented difficulties of interpretation because of the lack of comparable data. However, it proved characteristic of the stratigraphy that, proceeding from the later to the earlier layers, the scope of ceramics narrowed down from a wide range of different glazed and unglazed wares to a limited array of mainly unglazed ceramics. The finds included

various small objects, among them a few coins and an ivory button with dot-and-circle engravings.

Aims of the 1387/2008 campaign

The campaign of 2008 focused on archaeological work, since mapping of the ground plan of the extant mosque had been completed in 2007. Besides, the technical provisions and staff for the continuation of architectural documentation (elevations of the dome hall interior in particular) in more detail were not available.

The major aim of archaeological excavation in the 2008 campaign was to gain more exact information on the pre-Saljuq buildings of which traces had been discovered in 2007. In particular, our intention was to find at least another pillar foundation of the kind which had been excavated in Area 1 during the first campaign, in order to determine the width of bays in the pre-Saljuq hypostyle mosque. If possible, the outer walls of the pre-Saljuq construction should also be detected. Besides, the unsolved question of the dating of the “iwan” had to be tackled.



Golpayegan, Friday Mosque: View from NW

The 1387/2008 Campaign

Like the first campaign, the 2008 campaign was a success, considering the limitations of labour force and time. Exploration of the architecture and the earlier structural history of the mosque building continued to an extent which allows to give more detailed answers to questions of structural and typological history. In particular, the shape of the pre-Saljuq mosque building can now be described with more certainty, and the stratigraphic sequence can be understood better than before.

The success of our work was made possible through the smooth cooperation with ICHHTO, and through the commitment of the team members, who took great pains to cooperate with the local authorities.

As an event of minor importance for the overall results, it should nevertheless be mentioned that one of our team members was extremely lucky to get away with a bit of scare when he broke into a hidden, 8 m deep well while working in Area 7. This demonstrates that even under a mosque the ground may contain surprises which may endanger the life of the archaeologist.

Team

Our team consisted of three Iranian and five German members. The Department of Archaeology of ICHHTO had named an experienced archaeologist, Mr. Kazem Arab, while the Department of Architecture and Urbanism was represented by a committed young scholar, Mrs. Shaqayeq Hourshid.

The German team consisted of Dr. Anja Heidenreich (archaeologist), Philipp Schramm (archaeologist), Ms. Ilse Sturkenboom and Mr. Baris Ciftci (students of Islamic art and archaeology), and Prof. Dr. L. Korn.

Two workers from Golpayegan were employed permanently in the excavation.



Golpayegan: Iranian-German team

Duration and conditions of work

On 20 September, the German team arrived in Tehran. Mostly due to the fasting month, five days were needed for co-ordination with the Iranian partners and other arrangements. The team travelled to Golpayegan on 26 September. However, work could only on 30 September, after the necessary permits had arrived. The campaign lasted until 15 October, with six working days a week. On 17 October, the German team returned to Bamberg.

Cleaning and drawing on the exterior of the mosque hill was conducted in periods with little wind and dust, while weather conditions were not of primary importance for work inside the mosque. Similarly to the previous campaign, the mosque administration and ICHHTO provided an office on the precincts of the mosque, as workspace and store for tools, where meals could also be taken. In contrast to 2007, the local authorities were not in a position to offer sufficient

accommodation for the whole team. For the first week, the tourist inn of Golpayegan served as lodging. For the second and third week, a flat was rented through the real estate market for the German team, while the Iranian team was accommodated through local authorities.

Cooperation with the Iranian institutions was generally smooth. The district president (*farmandar*) of Golpayegan and the preacher showed interest in the findings and visited the site twice; they paid particular attention to the deep well which was found in Area 7 and which had stimulated the imagination of many onlookers. A regional TV station conducted extensive interviews with Iranian and German team members.

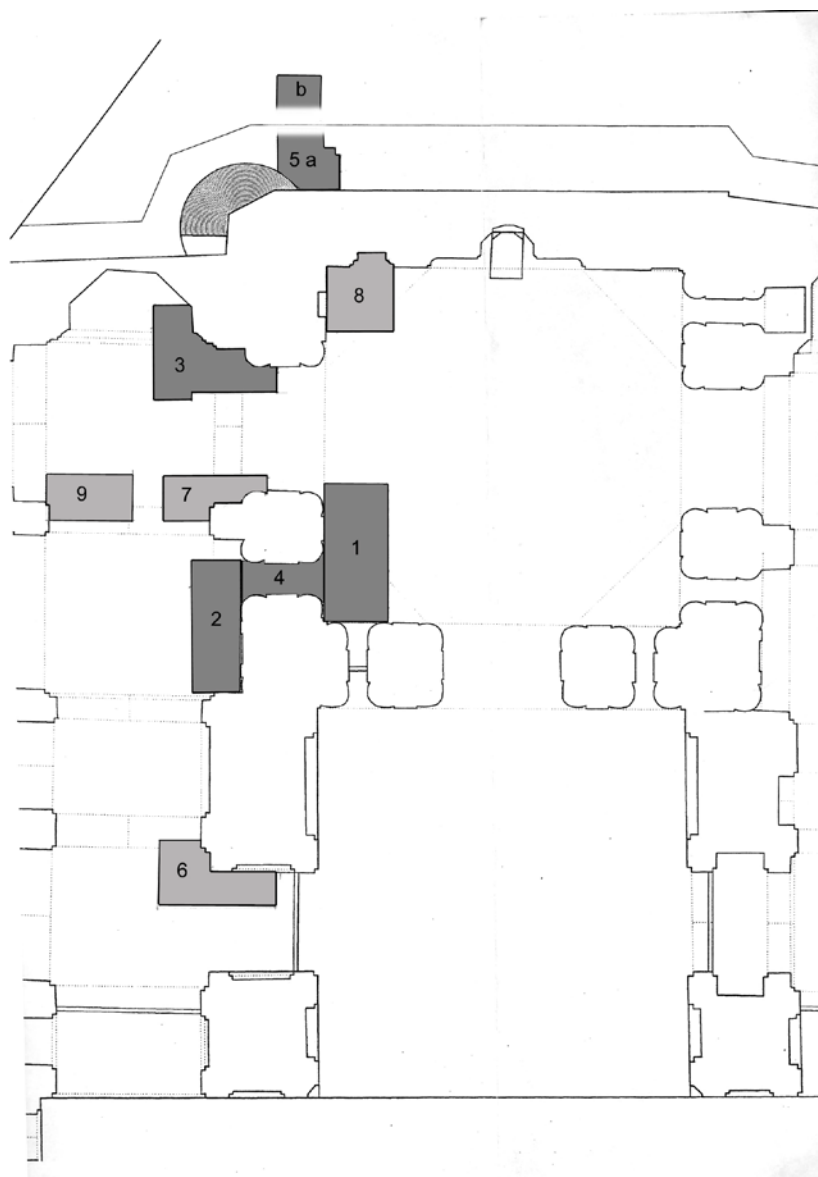


Golpayegan, Friday Mosque: Filling of trenches after documentation

Methods

Four soundings were brought down in the interior of the mosque, one within the dome hall, and three in the adjacent part of the prayer hall to the East. The position of the trenches was intended to supplement the information gained from the excavations in 2007. The soundings were excavated in layers according to the evidence of the 2007 excavations. Where this was not possible, artificial layers were created. At the end of the campaign, excavated surfaces were covered with rough textile to mark them clearly. All trenches were filled with grit and the floor re-paved using the old bricks.

All kinds of finds were registered and kept; at the end of the campaign, they were given to the care of the Isfahan office of the ICHHTO. Six copper coins and some samples were taken to the central offices of ICHHTO in Tehran for cleaning and analysis. Four samples of charcoal were taken to Bamberg and sent to the laboratory for radio carbon analysis.



Golpayegan, Friday Mosque, detail of ground plan with areas of excavation hatched.
Dark grey = 1385/2007, light grey = 1387/2008

Ceramic record

The ceramic record of the Great Mosque of Golpayegan is, generally speaking, characterised by the level fill containing ceramics of various preceding periods. Like at most Islamic sites in Iran, only the glazed ceramics can be dated with some certainty. Unglazed common wares are nearly impossible to date due to the lack of comparative stratified material. This deficit is not healed by the “collected” material which had been used for levelling inside the mosque, e. g. during the Qajar period. Some help can be expected from the excavations in the Friday mosque of Isfahan, where a vast amount of ceramics (ca. 1/2 million sherds) has been recorded and is being analyzed. A visit to the archaeological workshop of the Isfahan mosque took place during the campaign. The presentation by the leaders of the joint Iranian-Italian mission showed that significant progress with the common wares can be expected in the near future.



Golpayegan: Typical ceramic collection from upper stratum, consisting mostly of glazed sherds



Golpayegan: Typical ceramic collection from lower stratum, containing few glazed sherds (upper left)

Results

Margin of the mosque hill

Along the north-western side of the mosque, a vast pit had been excavated already in 2004, preparing the building site of a new commercial and/or religious centre which is since being constructed. Archaeological exploration of the mosque hill took advantage of a section of the pit margin which had not been buttressed with a concrete wall next to the West corner of the mosque. Cleaning and drawing of the

profile made it clear that the mosque hill is largely of natural origin and that only the topmost layer of c. 100-150 cm can be considered cultural debris.



Golpayegan: Edge of Friday Mosque hill after cleaning

Area 6

Located next to the wall of the “iwan” in the eastern vaults of the prayer hall, area 6 was intended to yield information on the pre-history of the side walls of the iwan. In a place where the course of the wall is interrupted by an arch, layers of brick fragments were found to continue in the direction of the wall, at a level of 50-100 cm below the present floor level. The brick layers were found to rest upon a single layer of stones, which in turn had been laid on a ground of firm clay.

A structure of roughly worked stones and a brick layer on top was found lying next to the “iwan foundations” to the South-East. It can only be hypothesized that this structure is a remnant of the hypostyle mosque, like the pillar foundations in Areas 1 and 9.

Ceramics from between the layers of the foundations and next to the foundations were not easy to date, but did not contain obviously late material which would speak against a dating to the Saljuq period or even earlier. Nevertheless, the interpretation of the architectural finds still causes problems. It seems clear that the different layers were part of a single construction and should be seen as a kind of foundation. If they were intended to bear side walls of an “iwan” like the present structure, erected during the Qajar period in a similar layout, it can be assumed that they date from the same period as the dome chamber, or perhaps slightly later. The question of a possible iwan vault, however, remains unsolved by these finds.



Golpayegan, Friday Mosque: Area 6, from E

Area 7

Mirroring Area 3 of the 2007 campaign, Area 7 was opened just outside the dome chamber, next to one of its pillars and the adjoining pillar bearing the Qajar vaults of the south-eastern shabestan. Similar to the evidence gathered in Area 3, more or less regular brick structures were found sitting on top of the foundation of the dome chamber, with its typical grey stones topped by a layer of special mortar (*saru*). The Qajar pillar had apparently been built on a rather flimsy support of re-used bricks which were laid out diagonal to the cardinal directions of the mosque. These bricks could be interpreted as remnants of the pre-Saljuq mosque because of their characteristic wedge-shape. 8-10 of these bricks form a ring of 95-100 cm outer diameter and 45-50 cm inner diameter, which is clear evidence that they were made for the construction of columns. This confirms, again, that the pre-Saljuq mosque had brick columns in its prayer hall and/or riwaqs. Besides, it indicates that these bricks were still available for the builders of the Qajar prayer hall, i. e. that at least some of the brick columns had not been destroyed and their material dispersed until the Qajar period. The interpretation of the floor uncovered in the space between to dome hall pillars in the 2007 campaign (Area 4) is changed by this find, because the wedge-shaped bricks which were re-used in this floor do not necessarily indicate that the floor should be dated to the Saljuq period; it appears now conclusive to date it to the Qajar period.

South-east of the Qajar period foundations, a block consisting of some roughly dressed stones was uncovered, occupying a level of c. 50 to 90 cm below current floor level. The irregular shape of the stones and the clay mortar in between speak against an interpretation as part of a wall. Due to its position, with a south-western limitation at 1006.20 m, it appears in the same line with the pillar foundation which had been uncovered in Area 1 (2007 campaign).

While digging into the clay fill in front of the mentioned block, one of our team members broke down (luckily, only with one leg) into a deep well, measuring 7.9 m in depth (from the present opening to the surface of fallen earth) and 70 cm in diameter. Since the well in the mosque courtyard measures 12 m from the margin of the

wellhead to the water surface, it can be supposed that the newly discovered well is plugged with c. 4-5 m of fallen earth.



Golpayegan, Friday Mosque: Area 7, from SW.
Note the opening of the well in the lower right area

Area 8

In the South corner of the dome hall, the excavation of Area 8 was intended to yield information on the the qibla wall of the pre-Saljuq mosque building. Besides, the context of the niche in the south-eastern wall of the dome chamber was to be examined for traces of a former access to the minaret. Similar to the evidence uncovered in Area 1 in 2007, a clear picture of the foundations of the dome chamber emerged. It was clearly visible that the trenches for the dome chamber had been dug into a compact layer of clay. Evidence of the pre-Saljuq qibla wall was, however, missing. It can be assumed that it had been extinguished by the large Saljuq-period foundations.

A small hoard of six copper coins of the Il-Khanid period was uncovered in the later strata of Area 8.



Golpayegan, Friday Mosque, Area 8, from NW

Area 9

Next to the outer wall of the Qajar period south-eastern shabestan, Area 9 was excavated in order to uncover another pillar foundation of the pre-Saljuq mosque. The foundation was unearthed in a depth of c. 55 cm below present surface level. Quite similar to the foundation discovered in 2007 under the floor of the dome chamber (Area 1), it consisted of one layer of roughly dressed stones with two layers of bricks on top. Its size of nearly one meter square fits the dimensions of the columns which could be reconstructed from the wedge-shaped bricks (see above). Adjacent to the pillar foundation and on a slightly lower level, other remnants of stone and brick were found which could be interpreted as foundations. However, their irregular shape and the small area uncovered prevented far-reaching conclusions. The position of the pre-Saljuq foundation matched the alignment of the foundation discovered in 2007 (Area 1) and that of the possible foundation in Area 7.



Golpayegan, Friday Mosque: Area 9, from SW.
The measure stick lies on top of the pillar foundation

Questions to be addressed in possible further campaigns

Further research campaigns on the Friday Mosque of Golpayegan could concentrate on the following questions:

For the structural history of the building and the local history, it would be interesting to know the exact dimensions of the pre-Saljuq hypostyle mosque and to determine the position of its entrances. Besides, the exact character of the “iwan” belonging to the foundations excavated in 2008 should be determined. In some places, more pre-mosque structures might be discovered. For such a comprehensive archaeological investigation, however, large surfaces would have to be excavated. This would definitely infringe regular use of the mosque. Under the present circumstances, this appears impossible. Besides, it would be doubtful whether the importance of expected results would justify a large-scale excavation at this place.

For the overarching history of Saljuq dome chambers, it would be useful to complete the architectural documentation with elevations of the qibla wall and other interior surfaces of the dome chamber. A laser scan of the dome chamber would offer itself as a most suitable technical approach. Whether this can be achieved under the present circumstances remains to be tried.

Acknowledgements

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All participants of the second campaign deserve that their personal commitment be especially highlighted.