research and restoration
season 2010
Report on research and restoration activities
Season 2010

- Research and excavation in al-Qasr.
- Conservation, restoration and reconstruction of private houses in al-Qasr.

In its ninth season, the activities of the Qasr Dakhleh Project (QDP) focused especially on the completion of the kitchens and bathrooms in the restored and reconstructed houses in the Shihabiyya quarter of al-Qasr, including the installation of running water, sewers and electricity in order to adapt these restored houses for a modern function. At the same time, excavations of the rediscovered Roman fortress continued, as well as other partial studies.

There were no administrative delays and the field activities of the 2010 season started promptly on January 19th.

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As in the previous seasons, the activities of the 2010 season of the QDP were subdivided into the two distinct, but not completely separate parts of research and restoration/reconstruction.

Research.

The archaeological field activities of the 2010 season focused on the earlier periods. The excavation of the trench near the southwestern part of the castra wall continued and new trenches were opened in and next to the ruined old mosque.

Besides the archaeological research other studies continued. Wolf Schijns completed the drawings of the Shihabiyya quarter. These drawings will be finalised in the coming months. A complete set of the plan of the quarter before and after the restoration and reconstruction will thus soon be available. Rudolf Peters continued his study of the legal documents. Manfred Woidich continued his linguistic studies.
Clearing, testing and excavation in the Shihabiyya quarter and its wider surroundings, especially in the neighbourhood of the old source and ruined old mosque.

Our 2010 archaeological field season began on 30/1/2010 and ended on 9/3/2010. The excavations proper took place from 8/2/2010 till 27/2/2010. The rest of the period was used for preparation of the sites, study and backfilling after the excavations.

The objectives of this season’s excavations were the following:

- Finishing the excavation of trench nr. 4 (executed by and under the direction of Anetta Łyżwa-Piber) situated to the east of the Shihabiyya quarter and west of the old mosque of al-Qasr, where a section of the southeastern part of the ancient Roman wall was discovered last season.

- Opening two new trenches at the old mosque of al-Qasr: trench 5 (executed by and under the direction of Maia Matkowski) outside the mosque and trench 6 (executed by and under the direction of Anetta Łyżwa-Piber and Maia Matkowski) inside the prayer hall.

The reports of Anetta Łyżwa-Piber and Maia Matkowski are as follows:

**Excavation of a part of the western wall of the castra.**

*Trench 4, at the southwestern part of the castra.*

During this season the excavation of trench 4 continued. Sondage A, situated inside the ruined house which is located near the southwestern corner of the original Roman castra, was reopened with the aim to reach the bottom of the foundation of the Roman wall that had been found during the previous season (structure B, see QDP report 2009, p. 7).

For the protection of the archaeologists and the workers, a temporary support for the freestanding eastern wall of the ruined house was made. For the same reasons, a temporary protective mud brick wall reinforced with wooden beams was fixed against the southern part of the trench between both features: Structure B - the Roman wall and Structure A - the Islamic wall.

The excavation continued more or less at the same level where it was stopped last season; approximately 2.40 m below the floor of the room. The continuation of the Sondage A in this season was centrally situated (south-north) across the width of the trench, up to the above mentioned protective wall, between both features: Structure B - the Roman wall and structure A - the Islamic wall. Its dimensions are approximately 2.30 x 1.30 m.
A pocket of limestone was unearthed there and about 20 cm below, across the area of the trench, a layer of crushed mud bricks were found. Below this layer sand and soil deposits containing charcoal and ashes were discovered. At this level, a Coptic ostracon (fig. 1) was found. Most of the late Roman pottery was found in these deposits.

Approximately 3.30 m below the level of the floor of the room and across the whole area of the trench a compact mud level resembling a floor was discovered. In the western part of the trench a 0.30 m wide trenchlike pit for the foundation was found along the Roman Wall (fig. 2).

2. Trench 4. Original floor level outside the western wall of the Roman castra and a pit for the foundation of the Roman wall.
Under the above mentioned floor level a fill of red tafl, mixed with brown sand and small stones began to occur. It continued along the whole height of the foundation. Because of the lack of space, a window of 0.60 x 0.35 m was opened in the southeastern corner along the foundation and one below of 0.35 x 0.20 m in order to be able to reach the lowest part (fig. 3). Very few fragments of late Roman pottery came from this window.

The bottom of the foundation was reached approximately 4.90 m below the level of the floor of the room. Beneath the foundations a solid substratum of red tafl was found.

The height of the foundation is approximately 1.60 m and it projects outward 0.26 m from the wall above it and it has 14 courses of bricks. The brick pattern from the bottom upwards was: headers, stretchers, headers, 3 x stretchers, shiners (i.e. bull stretchers or vertical stretchers), stretchers, shiners, stretchers, shiners, stretchers, 2 x headers. The average size of the used Roman bricks was: 0.34 x 0.16 x 0.08 m.
It is clear that the foundation of the wall of the Roman castra that was found in trench 4 was built in the same way as the part of the Roman wall that was discovered in 2006 near the old mosque. The pit/trench for the foundation was cut directly in the red *tafl* along the wall of the castra. The material that was dug out was later used to fill the pit. The excavated material was moist at this lowest level of excavation.

It is probable that the discovered floor level (3.30 m below the floor level of the room) was the original floor level outside the western wall of the castra.

The pottery that was found in trench 4 was mostly retrieved from the contexts above the original floor level. All indicate a Roman date. Although a more precise dating has still to be done, it would appear that most of the pieces indicate dates of the fourth and fifth to the eight centuries. Among others, fragments of cooking pots, bowls and dishes occurred.

**Excavations in and near the old mosque.**

The old mosque, which according to its rediscovered stone lintel was renovated in 1129 AH/1717 CE, is situated to the east of the Shihabiyya quarter. It is partially ruined, but its overall architectural structure is more or less intact. It has a simple plan: The mosque proper has an open outer enclosure, or *ziyada*, on the south (fig. 5) and the
west. Usually a ziyada is an enclosure on all sides of a mosque, except on the side of the qibla wall. The mosque proper is nearly quadrangular and is oriented fairly accurately towards the qibla. It has two rows of three columns and thus forms three naves. The mihrab, which indicates the qibla, i.e. the direction of Mecca on the east side, is on a slightly different axis, more to the south. The mihrab is here a simple niche in the qibla wall (fig. 7). The tower/minaret is located at the west of the building (fig. 6). It is quadrangular at the base and leads to a more or less circular platform. A series of open stairs (fig. 8) gives access to this small platform, which is surrounded by a parapet. A rather abrupt change of orientation in relation to the tower/minaret and the southern ziyada can easily be noticed. The minaret's quadrangular base of dressed stone is oriented north-south/east-west and the walls of the mosque are at an angle of about 15° to this orientation (figs. 9, 10). This may be an indication that the tower/minaret is the oldest part and that the mosque and its enclosure have been added at a later stage.

The location of the mosque is one of the oldest parts of al-Qasr and it appears to have been built on a small natural tafl hill. Like many of the traditional houses, the foundations of the mosque consist of roughly hewn limestone blocks laid out in regular courses (fig. 11). The walls are then built up with mud bricks covered with a coating of mud plaster which here is painted in white.

The archaeological investigations of previous years have enabled us to know a large part of the layout of the massive mud brick wall of the Roman castra, which apparently is the origin of the Islamic town of al-Qasr. The old mosque was built at the southeastern corner of the Roman wall. The foundations of the southwestern corner of the ziyada are in fact directly built on the remains of the lower part of the Roman wall
These remains disappear under the southern ziyada of the mosque to emerge again behind the qibla wall (fig. 13). There the remains of the wall still stand to a considerable height and it is easily imaginable that the building of the mosque and the disappearance of this section of the wall are correlated (fig. 14).

7. Prayer hall with columns facing the mihrab.  8. Open stairs of the minaret.

9. Plan of the old mosque with the position of the trenches 5 and 6.

We decided on the one hand to open a trench (TR 5) on the northwest of the main entrance of the mosque, along the tower/minaret, with the aim to understand the lay-
out of the external structures of the mosque. On the other hand, we have opened another trench (TR 6) inside the mosque, facing the mihrab, crossing the mosque from north to south with the aim to look for possible earlier structures and the foundations of the Roman wall (fig. 15).

10. Change of axis between the minaret and the northern wall of the mosque.

11. Detail of the stone foundation of hewn stone.

12. Southwestern angle of the ziyada built on the base of the Roman wall.

13. View of the location of the mihrab niche on the left and the Roman enclosure to the right.

15. Aerial photograph with the location of the ancient mosque (in green) and the layout of the Roman castra (in blue).
Trench 5, north of the tower/minaret.

Trench 5 (4,60 x 3,50 m) is situated outside the northern wall of the mosque between its main entrance and along the northern facade of the tower/minaret.

The natural substrate (tafl, C 5) was quickly reached, but also the remnants of a mud brick wall (C 2), the foundations of which are relatively deep (about 1 m) and are made of roughly hewn limestone (C 12) (figs. 16, 19). This wall runs more or less east-west. After excavation, a good part of it has collapsed and fallen towards the south (fig. 20). The bond of the mud bricks and their measurement (app. 22 x 10 x 5 cm), as well as the pottery found in the different stratigraphical layers linked to that wall show that it is a late Islamic construction, most probably of the end of the Mamluk period, or of the beginning of the Ottoman period. The foundation of this wall is much deeper on its northern side, as on the southern side the wall rests directly on the natural substrate (tafl, C 5) (figs. 17, 18, 20).

This mud brick wall with stone foundations is constructed in a similar way as the rest of the building and, more exactly, as the tower/minaret (figs. 11, 23). Assuming that the tower/minaret is the oldest architectural element of the mosque it would appear that the mud brick wall of trench 5 is also part of this first stage of the construction. Its orientation is indeed the same as the one of the tower and does not seem to follow the change of the axis of the northern wall of the prayer hall. We think therefore that this wall may correspond to an earlier enclosure wall of the mosque or its predecessor (figs. 24, 25).

We have also located hewn limestone blocks, which jut out, along the northern facade of the tower/minaret (in the southern part of the trench); they underpin the foundation of the tower (C 7) (figs. 21, 22). This structure goes together with a small wall with a north-south axis, which connects with the mud brick wall (C 2). This ensemble of remains - mud brick wall east-west, jutting out foundation and little north-south connecting wall - seem to form a doorway (from west to east). Have we discovered here part of the original northern ziyada of the mosque with its doorway (fig. 24)? During next season in 2011 this may be confirmed.
16. Trench 5, phase 1 of the excavation.
17. Trench 5, phase 2 of the excavation.
18. Trench 5, phase 3 of the excavation.
19. Overview of trench 5, phase 1 of the excavation.

20. Overview of trench 5, phase 3 of the excavation (with partial collapse of the wall).
21. Foundation blocks of the minaret and small mud brick wall and stones forming a doorway (overview).

22. Foundation blocks of the minaret and small mud brick wall and stones forming a doorway (view towards the east).
23. Detail of the wall C2: foundation of hewn limestone blocks and mud brick elevation (wall).

24. Plan of the mosque with registration of the structures of trench 5: wall C2 (coloured part) as a probable section of the wall of the original enclosure of the northern ziyada.
In red: tower/minaret and mud brick wall of trench 5 as parts of a structure, which pre-
ceded the construction of the present mosque. The present mosque apparently dates from
the Ottoman period.
Trench 6, inside the mosque.

Trench 6 (7.90 x 1.50 m app.) was opened inside the mosque (figs. 26, 27). It crossed the prayer hall from north to south and was situated in front of the mihrab, between the two first rows of columns. On the one hand the aim was to find structures from before the existing mosque, assuming it was built on older remnants; on the other hand to find part of the Roman wall on the southern side of the trench, as its layout crosses the mosque in a southwestern to northeastern direction.

The stratigraphy (fig. 28) shows a level of compacted clay of 5 to 10 cm thickness, the surface level of the mosque (current floor level, C 1 and C 13). This floor level rests on a fill largely consisting of red gravel (tafl) originating from human excavation of the natural substrate and a brown sediment in which ceramic sherds from the late Mamluk and Ottoman period were found.

The presence of this fill corresponds to the filling of the foundation trench of the mosque itself. This trench partially cuts through the natural substrate (tafl, C 9 and C 21). In the north it is about 0,50 m deep, in the south of the trench 1,20 m (figs. 28, 29, 30). No building remains have been found in this trench, not even of the Roman wall. The trench is deeper on the southern side of the trench where the Roman wall is supposed to have been. This shows that the foundations of the Roman enclosure have been razed when the mosque was built.

26. Floor level of the mosque.

27. End of excavation of trench 6 and its extension: foundation trench of the mosque in the natural substratum.
28. Stratigraphy of trench 6 and its extension.
Archaeological artefacts.

The stratigraphy of the trenches 5 and 6 has provided an important volume of Islamic ceramics from the end of the Mamluk or early Ottoman periods as well as modern finds. The local production of the Dakhla oasis and more exactly al-Qasr correspond essentially to the common simple pottery with sometimes some painted decorations (fig. 37), like the *qullas* for water. Very little glazed pottery is found in the oasis and what is found is from Cairo of which some samples have been found. Also decorated Ottoman pipes have been found (figs. 31, 32); they are also Cairene import, the local products are much simpler. The pottery of the 2010 excavations will be studied more in detail by Anetta Łyžwa-Piber.

A few fragments of glass bracelets have been found of which the production, type of decoration and used colours can be dated to the late Mamluk or early Ottoman periods (figs. 33, 34, 36). A wooden comb (fig. 35) and a decorated ornament (fig. 38) for a traditional dress were also found.
33 and 34 TR 5 C 1: Fragments of Mamluk bracelets.

35. TR 5 - C7: Fragment of a wooden comb.

36. TR 6 - C 7: Fragment of a bracelet (late Mamluk/early Ottoman).

37. TR 6 - C 6: Common pottery with red decorations.
After the completion of this season’s excavations all wooden supports in trench 4 were removed and all trenches were backfilled.

38. TR 6 - C 13: Decoration piece for a traditional dress.
Restoration and reconstruction.

Conservation, restoration and reconstruction of the Shihabiyya quarter and surroundings.

Work on reconstruction etc. in the Shihabiyya quarter started on 19/1/2010 and ended on 11/3/2010. The main aim of this season was to complete the sanitary installations in the kitchens and bathrooms, including sewage and water pipes, and to complete the introduction of electricity in the restored and reconstructed houses in the Shihabiyya quarter of al-Qasar in agreement with the revised proposal which was approved by the Permanent Committee on 2 March 2008 (see QDP report 2009, p. 12). At the same time some restoration and reconstruction work was carried out.

The following parts of the ongoing restoration and reconstruction were executed:

a. Continuation of the restoration and reconstruction of the Bayt Abu Yahya and Bayt Al ʿUthman.

The stairs of Bayt Abu Yahya and the room on the first floor adjacent to Bayt al-Qadi were completed (fig. 39). Only the parapet remains to be built. The reconstruction of the stairs from the ground floor to the first floor of Bayt Al ʿUthman was completed.

b. Completion of the introduction of electricity.

Electrical wiring was installed inside plastic isolation tubes that were sunk into the walls. Sockets, switches and lamps were installed in all rooms and on all the floors in the southern part of the annex to Bayt al-Qurashi and in Bayt Al ʿUthman. Thus a con-
tinuous block of four houses (fig. 40) is now ready to be connected to the municipal electricity grid.

c. Completion of the installation of sewage and water pipes.

The trench of concrete on which work had begun during last season was completed (fig. 41). This trench was continued in the street for about 25 meters. All the necessary sewage and water pipes were put in these trenches that are coated on the inside with bitumen. After the completion of the installation of the pipes the trenches were covered with specially made armoured concrete covers (fig. 41). The whole system is ready to be connected to the municipal system.

d. Completion of the kitchens and bathrooms.

The floors of the three kitchens and the three bathrooms were protected against water spillage by a insulating layer of cement covered with tar cloth and coated with bitumen. All the connections from the sanitary installations to the main water and sewage pipes in the trench were fitted above this insulating layer. On top of this, a thick layer of sand was applied. The bathroom floors were then tiled and the kitchens provided

40. Plan of the restored and reconstructed houses.
with a cemented floor. The kitchens are equipped with a sink and the bathrooms have a simple toilet, a washbasin and a shower (fig. 42). All the walls of the kitchens and the bathrooms have a protective wall of red brick, coated with bitumen. The walls are plastered with cement and are whitewashed.

Bayt al-Qadi, Bayt al-Qurashi and the annex to Bayt al-Qurashi are now fully equipped for a modern function. In Bayt Al-`Uthman no kitchen or bathroom has been installed, because the location of this house makes it rather difficult to introduce running water in a safe way. Moreover, the house is too small. It will, on the other hand, be relatively easy to have a kitchen and bathroom installed in Bayt Abu Yahya. Also in the annex to Bayt al-Qurashi an extra kitchen may be easily and safely installed.

41. Laying of pipes (left) and covers (right).

42. Kitchens and bathrooms.
e. Plastering.

After the installation of electricity in the southern part of the annex to Bayt al-Qurashi and in Bayt Al `Uthman all the insulation tubes were covered and plastered. The as yet unplastered walls of these two houses were also plastered.

Conclusion.

With the completion of the kitchens and bathrooms in the restored and reconstructed houses in the Shihabiyya quarter of al-Qasr, an important stage of the restoration and reconstruction activities of the Qasr Dakhleh Project has come to an end. A whole block of restored and reconstructed houses (fig. 40) is now ready for a suitable modern function. The realisation of such a modern function is an important guarantee for the continued preservation and maintenance of these buildings. The implicit endorsement of this principle by both the Permanent Committee and the central authorities of the SCA have been of great significance in overcoming all kinds of opposition and obstacles in the course of this stage of the project. It is with great expectation that the QDP looks forward to the moment that these magnificent homes will again be used.
In the 2010 season which lasted from 14 January till 13 March the QDP team consisted of Mrs. Verena Leemhuis-Obrecht (14 January – 13 March), Mrs. Anetta Łyżwa-Piber MA (7 February – 2 March), Mrs. Maia Matkowski MA (7 February – 1 March), Prof. Dr. Frederik Leemhuis (14 January – 13 March), Prof. Dr. Rudolf Peters (27 January - 20 February), Dr. Ir. Wolf Schijns (10 - 25 February) and Prof. Dr. Manfred Woidich (20 February – 5 March) and was completed by our Egyptian colleague, Mr. Rizq Abdel-Hay Ahmad (19 January - 13 March).

The activities with respect to restoration, reconstruction and excavation were executed with the help of and in close cooperation with the local collaborators of the QDP-team. These local collaborators consisted in 2010 of some 30 (average) workmen from al-Qasr and surroundings. Many of those have worked with the project for many seasons and have become very experienced. Their restoration and reconstruction work was executed under supervision of and in cooperation with the master craftsmen Mr. Ahmad Salih Mohammed, Mr. `Abd-al-Ghaffar Mohammed, Mr. Mus`ad Faris Mohammed and Mr. Ahmad `Ali Mahdi, who all have worked on the project before and whose experience has been crucial, because of their expertise and the way they have shared it.

As in all previous seasons, the above mentioned very skilful, experienced and indispensable Mr. Rizq Abdalhay Ahmad, director of restoration for Islamic Antiquities of the SCA in Dakhla, was charged with the day-to-day management and coordination of the restoration and reconstruction. His knowledge of traditional expertise and its local availability have been invaluable for the success of the project.

The supervising inspector of the SCA was Mr. Ali Ahmad Mahfuz, who also shared his ample restoration experience and so provided valuable insights and advise. The QDP expresses its gratitude for the encouragement and assistance of Mr. Hamdi `Uthman, director for Coptic and Islamic Antiquities of the SCA for West Dakhla and for the support of Mr. Kamil Bayyumi, director for Coptic and Islamic Antiquities of the SCA for East Dakhla and Mr. Magdi Mohammed `Abdallah, inspector for al-Qasr of the SCA. The interest and involvement of the general director for Islamic and Coptic Antiquities of the SCA in the New Valley, Mr. Ahmad Salim, is duly recognised.

The QDP is greatly indebted to Mr. Mohammed Abd al-Rasul, General Director for Islamic and Coptic Antiquities of Middle Egypt, whose endorsement has been crucial for the final success the restoration and reconstruction stage of the project.
The support and active interest of Dr. Zahi Hawass, secretary general of the SCA and Mr. Farag Fadda, head of the Islamic and Coptic Sector of the SCA is gratefully acknowledged.

The QDP owes much gratitude to the various above-mentioned people. Their support and interest and especially the dedication of the local collaborators of the team has made that the work of this season has again been such an interesting and enjoyable experience.

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Field director QDP