



The Pyramid of Queen Setibhor at South Saqqara

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Abstract: This paper aims to present the preliminary results of the 2021 season of the Djedkare Project mission (DJP), which is dedicated to the exploration and documentation of Djedkare’s royal cemetery at south Saqqara. The main focus of the article is the queen’s pyramid, situated to the north-east of the king’s pyramid and to the north of his funerary temple. The 2018 exploration of the area between the king’s temple and the queen’s pyramid not only revealed the name of the owner, Setibhor, but it also confirmed that the two pyramid complexes were not architecturally connected, as previously presumed, and that further work is needed to clarify the plan of the queen’s monument. In 2021, the investigations focused on the pyramid of the queen; its substructure had never been entered and documented in the modern period. Cleaning the substructure resulted in a detailed documentation of its inner rooms. It used to be accessed through a descending and horizontal corridor and it comprised a burial chamber and a so-called *serdab*. The innovated layout of Setibhor’s pyramid substructure apparently inspired later queens, who continued to follow this pattern in their monuments during the Sixth Dynasty.

Keywords: Old Kingdom Egypt, Saqqara, pyramid, Djedkare, Setibhor, burial chamber, *serdab*

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The pyramid complex situated to the north-east of King Djedkare’s pyramid at south Saqqara was known until 2018 as the pyramid of an ‘anonymous’ or ‘unknown’ queen.¹ It was first explored by Ahmed Fakhry in 1952, when the funerary temple to the east of

¹ For the pyramid complex, see, for instance: Fakhry 1959: 31; Maragioglio, Rinaldi 1962: 38–43; 1977: 98–107; Stadelmann 1991: 183–184; Verner 2002: 329–332.

the pyramid was cleared within one month of work.² The name of the owner was not found at that time, and only a few relief fragments were published later by Mohamed Moursi.³

Even though anonymous and not fully excavated at that time, the pyramid complex attracted the attention of scholars. The size of the monument is remarkable and the funerary temple on the east side of the pyramid contains specific architectural features, which, according to Peter Jánosi, showed that the architecture of this temple combined both royal and queenly elements.⁴ For instance, an entrance vestibule with columns, a square antechamber,⁵ an open courtyard of unusual size and layout with limestone papyrus columns instead of pillars, were not usually included in queenly pyramid complexes in that period.⁶ We can add the granite palmiform columns in the portico, discovered in 2018, which were rather untypical for a queen's monument as well.⁷ Not only do these features underline the great importance of the owner in late Fifth Dynasty history,⁸ but they also emphasise the significant role of her monument in the development of the architecture of Old Kingdom queenly monuments.⁹

Even though this pyramid complex is significant,¹⁰ it has not been fully excavated until recently. Therefore, detailed exploration and documentation of this monument became one of the priorities of the current mission working at Djedkare's royal cemetery.¹¹ The aim of the Djedkare Project (DJP) is not only to correct the imprecise plans of this monument presented previously,¹² but also to fill the gaps in the available documentation and to evaluate the architectural, epigraphic and iconographic evidence from this pyramid complex within the wider context of the late Fifth Dynasty.

In 2018, the Djedkare Project mission cleared the area between the south side of the queen's pyramid and the funerary temple of King Djedkare, which was untouched by earlier excavators (**Fig. 1**). This area was previously presumed to have belonged to the king's precinct¹³ but the current project work showed that another part of the queen's funerary

² Fakhry 1959: 31; Megahed 2011: 617–619.

³ Moursi 1987.

⁴ Jánosi 1989.

⁵ For the meaning, function, and development of this space in the funerary temples of the Old Kingdom, see: Megahed 2016b.

⁶ Jánosi 1989: 201–202.

⁷ Megahed, Jánosi, Vymazalová 2019: 28.

⁸ For the discussion on the queen and her role in the late Fifth Dynasty, see, for instance: Baer 1960: 298–299; Callender 2011: 187–191; Megahed 2011; Megahed, Vymazalová 2020.

⁹ For the development of the architecture of queen's pyramid complexes in the Old and Middle Kingdoms, see above all: Jánosi 1996.

¹⁰ See also the discussion in: Maragioglio, Rinaldi 1977: 98; Jánosi 1989; Megahed 2016a: 56–58.

¹¹ The mission's work between 2011 and 2018 mostly focused on the documentation of the pyramid temple of King Djedkare and the consolidation of the substructure of his pyramid. For the work of the mission, see above all: Megahed, Jánosi 2017; 2020; Megahed, Jánosi, Vymazalová 2017; 2018; 2019.

¹² The plan of this monument was first presented in: Maragioglio, Rinaldi 1962: 38–43, Pl. 5; 1977: Pl. 16, Fig. 1. Another version of the plan based on Fakhry's work was published in: Moursi 1987: 197, Fig. 1. For the discussion on the differences between the two published plans, see: Megahed 2011: 624.

¹³ See the plan in: Maragioglio, Rinaldi 1962: Pl. 5; 1977: Pl. 15, Fig. 1.



1. The pyramid of Queen Setibhor in 2018 with the cleaned core masonry on its southern face; in front of the pyramid are the remains of the portico giving access to the southern part of the funerary temple (Phot. H. Vymazalová; © Djedkare Project).

temple was situated in this area, including the entrance portico.¹⁴ During this work, the identity of the owner of the monument was revealed on blocks with relief decoration and a granite column inscribed with the queen's titles and name: *m33 Ḥr Stḥ wrt ḥts wrt ḥzt ḥmt nzwt mrt.f St-ib-Ḥr*, 'She who sees Horus and Seth, the great one of the *ḥts*-sceptre, greatly praised, king's wife, his beloved Setibhor'.¹⁵

This new evidence on the owner of the largest pyramid complex built for a queen in the Old Kingdom confirms the importance for further exploration of her monument. The present article discusses the preliminary results of one season of this long-term project, showing for the first time the details of the substructure of the pyramid. Cleaning and documentation of other parts of the pyramid complex are planned to continue in the near future.

THE CLEANING AND DOCUMENTATION OF THE SUBSTRUCTURE

In 2021, the field work of the Djedkare Project mission focused on the pyramid of Queen Setibhor with the aim of uncovering the substructure of the pyramid and documenting its layout for the first time (**Fig. 2**). The substructure of the pyramid started to be cleaned

¹⁴ Megahed, Jánosi, Vymazalová 2019: 23–33.

¹⁵ Megahed, Jánosi, Vymazalová 2019: 32.



2. The preserved top of the pyramid of Queen Setibhor, showing a large pit and missing masonry in the centre, above the burial apartment. Djedkare's pyramid is in the background (Phot. H. Vymazalová; © Djedkare Project).

by Ahmed Fakhry on November 28, 1952. According to his notes, which have been kept at Cairo University,¹⁶ his team cleaned the entrance passage to the substructure, did the necessary consolidation work in the horizontal corridor, and removed a lot of the stone debris that kept falling from inside the burial chamber. He, however, stopped his work before cleaning the burial chamber itself, probably with the aim of returning the following season. His description of the situation was the following: ‘The core of the pyramid was completely destroyed and resembled a large pit. The granite roof of this [horizontal] corridor was overlaid with limestone, which was broken where it joined granite. ... The roof of the corridor was broken before the granite blocks and the stones from the disintegrated rubble above were threatening to fall through that broken roof. The rubble had to be removed before proceeding further under the granite blocks. The work inside the pyramid was transferred to the pit from above, because it became very dangerous to clean it from inside before making a protection. ... In the dangerous point, under the hole in the roof inside the pyramid, two masons began to build columns to bear a roof of beams, in order to prevent rubble and stones from collapsing in the entrance of the granite corridor. Masonry inside

¹⁶ The authors thank Prof. Ola El-Aguizy who has kindly sent them Ahmed Fakhry's notes as well as to Ann Macy Roth and the Oriental Institute in Chicago for their kind assistance in providing access to the archive of Klaus Baer, who worked with Fakhry on the site in 1952.

the pyramid was finished in the afternoon of Monday, the 15th of December 1952, and a ceiling of beams was put over the break in the corridor and the work of clearing continued. The labourers, now safe from any danger, were able to remove a great quantity of rubble and stones from the pyramid. The limestone overlying the granite had turned out to be a part of the walls of the chamber to which the granite door gave access. That wall was not inscribed, so the whole chamber was probably un-inscribed. We decided on the 21st of December to stop the work inside the pyramid because it would take too much time to remove that huge mass of rubble and stones and no hope of great advance was possible as yet'.¹⁷

THE ENTRANCE PASSAGE INTO THE SUBSTRUCTURE

The Djedkare Project mission cleaned the entrance passage to the pyramid in 2021 and documented it in detail. As previously cleared by Fakhry, the original archaeological context was not preserved in this part of the substructure. The mission was, however, able to follow Fakhry's footsteps, uncovering his reconstructed masonry and wooden beams over the broken ceiling of the corridor. In addition, some trash and pieces of newspapers were found that come from that time.

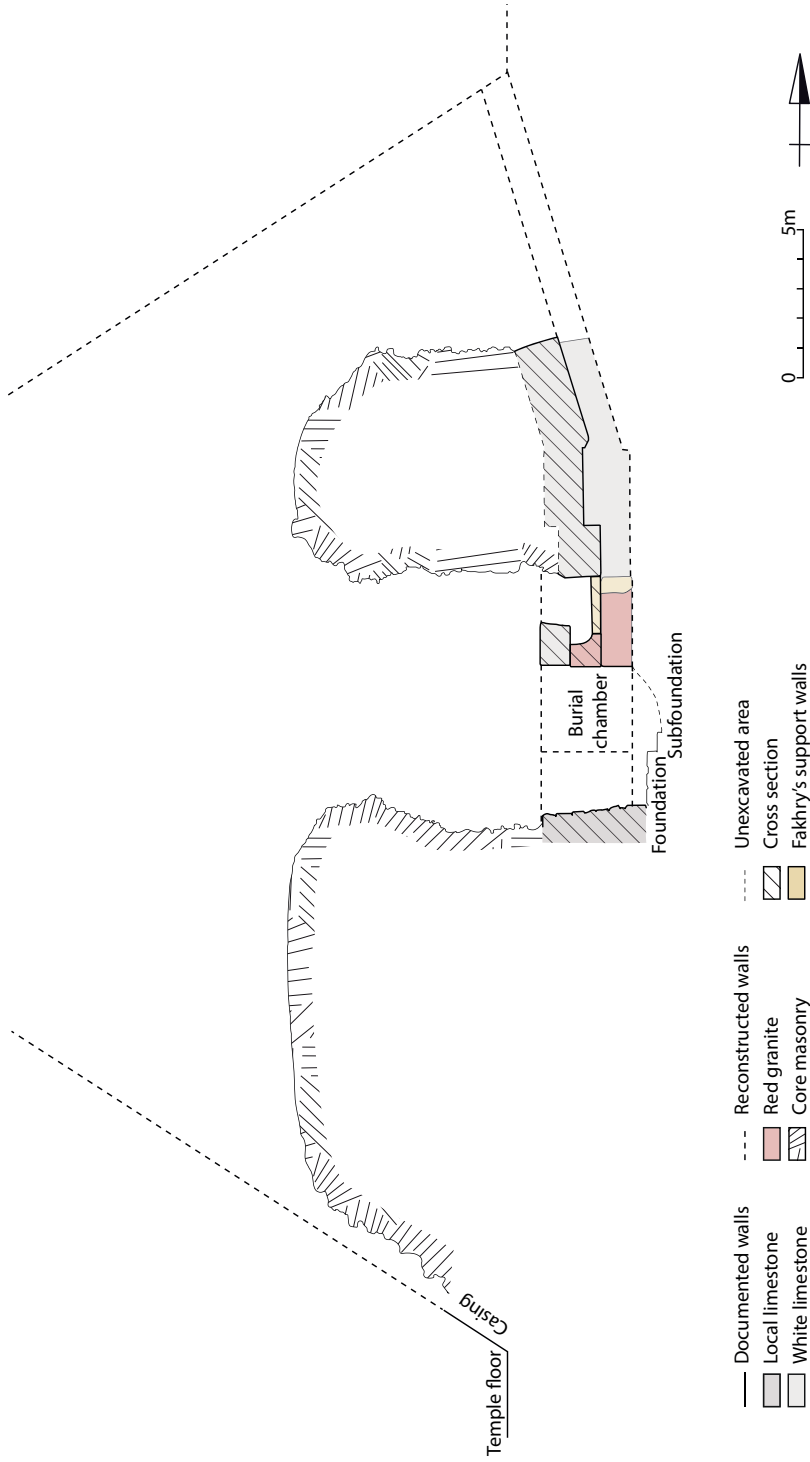
The entrance passage to the substructure consists of a descending corridor, a vestibule, and a horizontal corridor (**Fig. 3**). The entrance that was situated at the north side of the pyramid has completely disappeared. The north part of the descending passage is badly damaged; some white limestone blocks of its side walls are still *in situ*, but the ceiling blocks and the core masonry above them are no longer present. The south part of the descending corridor is in better condition, and we can notice here a roofing block 2.70m wide and 1.30m high resting on the side walls of the corridor and supporting the core masonry built of small blocks joined with grey *mouna* mortar. The current maximum length of the descending corridor from the vestibule to the preserved side-wall blocks is 10.10m, but it was originally *c.* 13.50m long. The south part of the corridor is 1.05m wide (2 cubits), but its height remains unknown because the floor of this corridor is missing.

The vestibule measures 2.65m in length, 1.75m in width and probably 1.55m in height (*c.* 5 × 3.3 × 3 cubits). Its ceiling is formed of a single limestone block, similarly to the vestibule in the king's pyramid substructure.¹⁸ The horizontal corridor is 4.65m long and was most likely 1.05m in both width and height.

The side walls and the preserved ceiling blocks of the entrance passage are cased with white limestone blocks, while the south end of the horizontal passage at the entrance to the burial chamber was reinforced with red granite blocks. The south end of the horizontal corridor was partly missing, including sections of the east and west walls and the ceiling. Fakhry consolidated this part of the corridor with newly built support walls on the sides and completed the missing part of the roof with strong wooden beams, as mentioned in

¹⁷ An excerpt from Ahmed Fakhry's handwritten notes (in English).

¹⁸ For the vestibule in the king's pyramid, see: Maragioglio, Rinaldi 1977: 66; Megahed 2016a: 74.



3. Cross-section through the queen's pyramid and its substructure (Drawing: H. Vymazalová; © Djedkare Project).



4. The substructure of Setibhor's pyramid after the cleaning (Phot. P. Košárek; © Djedkare Project).

his notes. The horizontal passage in pyramid substructures of the Old Kingdom usually contained blocking systems, and this was also the case in the substructure in Djedkare's pyramid.¹⁹ Due to the missing parts of masonry in Setibhor's corridor, it however remains unknown whether this part of the corridor originally contained any blocking mechanisms.

Two granite blocks are still *in situ* at the end of the corridor, including a large block in the west wall and another block resting on it in perpendicular position, forming the lintel of the entrance to the burial chamber (**Fig. 4**). Interestingly, the back sides of these two granite blocks have the shape of a cavetto cornice, and both were placed upside down for better stability. These blocks were of same height of 1.05m (2 cubits) and both were 0.77m wide at the upper end and 1.12m at the lower one. The 2.95m-long lintel has the east end damaged. The north end of the west wall block is currently 2.50m long and the rest is covered by Fakhry's support wall. The two granite cornice blocks attest to the reuse of architectural elements in the queen's pyramid substructure. As they bear no inscriptions, it is not possible to assess today whether these blocks originally came from another part of the queen's complex, from the kings' pyramid complex, or from other monuments in the Memphite area. The reason for their use in the substructure is also unknown – perhaps the builders made use of the carved blocks that were already available in the vicinity of

¹⁹ Maragioglio, Rinaldi 1977: 68. The south end of the horizontal passage was not preserved in Djedkare's pyramid substructure.

the monument. Even though Fakhry reached the entrance to the inner rooms during his work, he did not mention this feature in his notes, and it thus remains unknown whether it was noticed at that time.

THE INNER ROOMS OF THE SUBSTRUCTURE

The inner rooms of the substructure of Setibhor's pyramid were previously unexcavated, and they were cleaned between September 18 and October 6, 2021. The rooms were badly damaged by ancient stone robbers (**Fig. 4**). The side walls and the ceiling of the rooms, once made of fine white limestone blocks, are completely missing today except for several blocks preserved in the north-east corner and above the entrance. In addition, a few white limestone floor slabs have survived in the west side, whereas the rest of the floor is also missing. Due to the missing walls, the inner rooms became one large space, open to the sky. Its sides are the inner walls of large local grey limestone blocks, which were exposed due to the missing casing of the substructure. At some places, also parts of backing walls of smaller stones and mortar survived, which once filled the space between the inner walls and the casing blocks. The inner walls of the space supported the core masonry; the central part of the core above the substructure is missing today. The core was built of small- to medium-sized irregular stones and grey *mouna* mortar and was surprisingly stable during our work. Due to the missing floor slabs, a large part of the foundation has been revealed. It was made of larger slabs in the west part and smaller slabs in the east part of the area. Sub-foundation (or second level of foundation) blocks are visible in the central part immediately south of the entrance. The bedrock below the construction of the substructure was not reached during the work.

The debris that filled the inside of the pyramid consisted mostly of stones. The upper part of the fill on the level of the missing core masonry contained stones of medium and small sizes with the addition of sand, which had seeped through the open top of the pyramid. The lower the work continued, the smaller the sand addition was. Animal and human bones were found scattered in this debris. The north-east part of this fill was removed by Fakhry during the consolidation works at the south end of the entrance passage. This area was later refilled mostly with windblown sand and smaller stones; the fill included plastic trash and newspaper pieces from the 1960s and 1970s.

The lower part of the fill, on the level of the inner rooms, was untouched by Fakhry except for the area just by the entrance to the burial chamber, where the stones kept falling into the entrance passage during his work. The fill of the inner rooms was of stones, mostly fragments of fine white limestone that may have come from the walls, ceiling and floor of the substructure. This fill contained no addition of sand, but it included dust and powder from the limestone itself. It is thus clear that the ancient stone robbers broke the Tura blocks inside the substructure and then removed smaller-sized blocks for reuse in other buildings. Such activities are attested by a dolerite poulder with white powder stuck on its sharp side (**Fig. 5**), which was found on the ground level in the east part of the substructure. The south-west part of the fill included more carefully placed stone pieces, which formed steps



5. The dolerite poulder found in the eastern part of the substructure (Phot. P. Košárek; © Djedkare Project).

allowing the ancient stone robbers access from the top of the pyramid. Such evidence has been recorded in other Old Kingdom pyramids as well.²⁰

The fill included animal bones, horns and hooves, and also human bones, sometimes with remains of textiles. These remains were all scattered in the area, and no detectable intentional burials (or their parts) were recorded in the fill, which is an indication that these remains were probably dumped inside the stone fill. On the ground level, a concentration of animal bones with textiles was recorded south of the entrance to the burial apartment, where the foundation is missing. The human and animal remains are to be analysed in the near future.

Only very few objects were discovered during the cleaning of the substructure that once belonged to the queen's burial equipment. They were all found near the ground level and included small fragments of canopic jars of calcite alabaster, stone vessels, and a copper miniature vessel. Some pieces of red granite were found in the fill, which might have come from the missing blocks from the corridor. Two very small fragments of a dark stone, perhaps greywacke, were found in the fill. They may have come from the sarcophagus, but this cannot be confirmed.²¹

Even though the original walls of the inner rooms are missing, their position is attested on the preserved floor blocks in the form of red lines and pink mortar outlines, and on the walls of grey limestone blocks in the form of vertical red lines left by the builders. With

²⁰ Philippe Collombert, personal communication.

²¹ The sarcophagus of King Djedkare was made of the same stone. It was destroyed by ancient stone robbers, who probably removed larger pieces of the stone for reuse but left behind thousands of small pieces in the king's pyramid substructure.



6. The ground plan of the substructure of Setibhor's pyramid showing the reconstructed layout of the burial chamber and the *serdab* (Drawing: H. Vymazalová; © Djedkare Project).

this evidence, it has been possible to reconstruct the original layout of the inner rooms with a high degree of certainty.²² The area was divided into two rooms: the queen's burial chamber on the west and a smaller room to the east (Fig. 6). The entrance from the access passage was in the north-east corner of the burial chamber, which was east–west oriented. The outlines on the floor slabs show it was 2.80m wide, and the lines on the masonry indicate that it was 7.12m long and 3.10m high (about $13.5 \times 5 \times 6$ cubits). The only blocks that remained from the original inner walls of the burial chamber are the granite blocks of the entrance and one white limestone block resting upon the granite lintel (see Fig. 4). Some of the backing stone walls, which filled the space between the grey limestone walls and the casing blocks of the chamber, are preserved along the north, west and south sides. Although

²² For similar evidence, see, e.g.: the pyramids of Queens Inenek/Inti and Behenu at the cemetery of Pepy I (Labrousse 2005; Collombert 2015).

the sarcophagus is missing, its position is indicated by rough areas on the preserved floor slabs. At the south-east corner of the presumed sarcophagus is a partly preserved canopic pit. It was $0.86 \times 0.88\text{m}$ large and 0.78m deep, with the sides lined with limestone slabs (see **Fig. 4**). The floor slab of the canopic pit is partly preserved, but the stone cover that once closed it is missing.

The east wall of the burial chamber, today completely missing, gave access to the east room, which was north–south oriented.²³ The size of the entrance corridor between the two chambers is unknown. The side walls of the east room and its floor are not preserved, but the general layout of the room was marked by vertical red lines painted on the grey limestone masonry and by a mortar imprint on one preserved ceiling block. Even though these pieces of evidence do not necessarily provide precise dimensions of the room, we can estimate that the room was about 4.50m long and 1.50m wide, and the preserved ceiling block in the north-east corner shows the height of 2.10m (4 cubits) for this room.

SETIBHOR'S PYRAMID SUBSTRUCTURE AS A TURNING POINT

Setibhor's pyramid appears to constitute a turning point in the history of the architecture of queenly pyramid complexes of the Old Kingdom. It seems to have been the first queenly monument to include the east room, so-called *serdab*,²⁴ accessed from the burial chamber. The pyramid complexes of earlier queens have different substructures.²⁵ The Fourth Dynasty queens' pyramids at Giza contained two inner rooms: an antechamber accessed from the entrance passage and a burial chamber situated to the west of it, sometimes at a slightly lower level.²⁶ The early Fifth Dynasty pyramid of Queen Neferhetepes also shows an antechamber and a burial chamber, but this time built on the same level.²⁷ The pyramid of Khentkaus II, on the other hand, has only one room in the substructure.²⁸

Following Setibhor's pyramid, the Sixth Dynasty queens' pyramids incorporated the east room, probably as a rule. The queens' pyramids at the cemetery of Pepy I, situated only a few hundred metres north-west of Djedkare's cemetery, feature burial chambers giving access to an additional rectangular room, which is often situated to the east, and exceptionally to the south.²⁹ Similar layouts are also attested in the pyramids of the queens of Teti and Pepy II.³⁰

²³ The room seems to have been rectangular as the area shows not enough space for niches, which were part of the *serdab* in Djedkare's pyramid substructure.

²⁴ The name *serdab* is also used for rooms housing statues in superstructures of the pyramid complexes and non-royal tombs. The function of *serdabs* in the substructure of pyramids is, however, quite different. See for instance: Lehmann 2000.

²⁵ For an overview of the architecture of the pyramids of Old Kingdom queens, see above all: Jánosi 1996.

²⁶ For the substructures of the pyramids of the queens of the Fourth Dynasty, see: Jánosi 1996: 105–111.

²⁷ Labrousse, Lauer 2000: 145, Figs 343–349.

²⁸ Jánosi 1995: 145–148. Other monuments of Fifth Dynasty queens had the form of a mastaba.

²⁹ For instance: Collombert 2011; 2015; Labrousse 1999; 2010; 2012.

³⁰ For the pyramids of Teti's queens, see: Hawass 2000 with further references; for the queens of Pepy II, see: Jéquier 1928; 1933. For a summary of the information on the Sixth Dynasty queens and their monuments, see, e.g.: Callender 2011.

The east room was maintained as a part of the burial apartment layout after introduction of the *Pyramid Texts* in queenly monuments in the mid-Sixth Dynasty.³¹ The function of the east room, however, remains unclear.³² Its walls did not bear the *Pyramid Texts*, which may indicate that this room played a practical function, perhaps as a storeroom. Jánosi has suggested, based on finds from the pyramid of Queen Neith, that this room was a predecessor of the treasury room for the storage of the furniture, adornments, and other burial equipment.³³ Bernard Mathieu, on the other hand, has suggested that the room may have had a specific religious function during the deceased's journey from the *duat* (burial chamber) to the realm of Osiris before ascending to the northern sky, as indicated by later *Pyramid Texts*.³⁴ It remains an open question as to whether Setibhor's eastern room can be understood as an early sign of the later introduction of the *Pyramid Texts* of the queens of the Sixth Dynasty.

Setibhor's pyramid thus appears to be a turning point in the history of the architecture of queenly pyramid complexes of the Old Kingdom. It seems to have been the very first queenly monument to include this new element in its substructure. This, together with other untypical architectural features in Setibhor's funerary temple pointed out above,³⁵ further stresses her special status during Djedkare's reign.

The innovations in the architecture at that time were, however, not limited to the monument of the queen. Djedkare's own pyramid complex also included new features. His pyramid substructure contains the first attested *serdab* in a king's pyramid, which consists of a rectangular room with three niches.³⁶ Even though some scholars speculated that *serdabs* may have occurred earlier, in some form even in the late Fourth Dynasty,³⁷ no such evidence is available from the Fifth Dynasty at this moment. The bad state of preservation of Menkauhor's pyramid explored by Zahi Hawass³⁸ prevents the drawing of any final conclusions. The substructures of the even earlier three main pyramids at Abusir were not cleaned by their excavator, Ludwig Borchardt; nevertheless, his plans of these pyramids do not include *serdabs* in the substructures.³⁹ This feature has also not been detected in Raneferef's unfinished pyramid.⁴⁰ Recent work inside Sahure's pyramid, however, has proved that Borchardt's plans are not precise. The mission headed by Mohamed I. Khaled has documented several rooms that were situated to the east of Sahure's burial chamber.⁴¹ Since the burial chamber itself has not yet been cleared, the precise

³¹ See, for example: Verner 2002: 33.

³² See also: Jánosi 1996: 112.

³³ Jánosi 1996: 112.

³⁴ Mathieu 1997: 292.

³⁵ Jánosi 1989; Megahed, Jánosi, Vymazalová 2019.

³⁶ Maragioglio, Rinaldi 1977: 68–70; Stadelmann 1991: 180; Megahed 2016a: 75–76.

³⁷ Stadelmann 1991: 180.

³⁸ Hawass 2010: 157.

³⁹ Borchardt 1907: 99–108, Figs 81–85, Pl. 17; 1909: 39–48, Figs 45–55, Pl. 2; 1910: 68–73, Figs 92–96, Pl. 12.

⁴⁰ Verner *et al.* 2006.

⁴¹ Khaled 2021.

layout of the substructure is still not clear and its interpretation is not yet fully possible.⁴² Besides the substructure, innovative elements can also be found in Djedkare's funerary temple. These include, for instance, the so-called massifs in the north-east and south-east corners of the temple,⁴³ and a building with five long rooms situated in the south part of the precinct, not known from other Old Kingdom royal monuments.⁴⁴

The current state of research thus seems to indicate that significant changes in architecture occurred during King Djedkare's reign. These were followed in the architecture of the pyramid complexes, both for kings and queens, in the later part of the Old Kingdom. The role of Queen Setibhor in this development and introduction of the above-discussed architectural innovations remains an open question.

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References

- Baer, K. 1960: Rank and Title in the Old Kingdom. The Structure of the Egyptian Administration in the Fifth and Sixth Dynasties, Chicago
- Borchardt, L. 1907: Das Grabdenkmal des Königs Ne-user-Re^c, *Ausgrabungen der Deutschen Orient-Gesellschaft in Abusir 1902–1908*, vol. 1, *WVDOG* 7, Leipzig
- Borchardt, L. 1909: Das Grabdenkmal des Königs Nefer-ir-ke³-Re^c, *Ausgrabungen der Deutschen Orient-Gesellschaft in Abusir 1902–1908*, vol. 5, *WVDOG* 11, Leipzig
- Borchardt, L. 1910: Das Grabdenkmal des Königs S'a³ḥu-Re^c, vol. I: Der Bau, *Ausgrabungen der Deutschen Orient-Gesellschaft in Abusir 1902–1908*, vol. 6, *WVDOG* 14, Leipzig
- Callender, V.G. 2011: In Hathor's Image I. The Wives and Mothers of Egyptian Kings from Dynasties I–VI, Prague
- Collombert, Ph. 2011: Découvertes récentes de la mission archéologique française à Saqqâra (Campagnes 2007–2011), *CRAIBL* 155/2, 921–938
- Collombert, Ph. 2015: Découvertes récentes dans la nécropole de Pépy I^{er} à Saqqâra, *Pharaon* 21, 10–18
- Fakhry, A. 1959: The Monuments of Sneferu at Dahshur I. The Bent Pyramid, Cairo
- Hawass, Z. 2000: Recent Discoveries in the Pyramid Complex of Teti at Saqqara, [*in:*] Bárta, M., Krejčí, J. (Eds), *Abusir and Saqqara in the Year 2000*, *ArOr-Suppl.* 9, Prague, 413–444

⁴² The authors thank Mohamed I. Khaled for kindly sharing with them some previously unpublished information about his work in Sahure's pyramid.

⁴³ For the massifs and an overview of their interpretations, see: Megahed 2016a: 85–86.

⁴⁴ For this building, see the T.h area of the pyramid complex (Megahed, Jánosi, Vymazalová 2018: 36–40).

- Hawass, Z. 2010: The Excavation of the Headless Pyramid, Lepsius XXIX, [in:] Hawass, Z., Der Manuelian, P., Hussein, R.B. (Eds), *Perspectives on Ancient Egypt: Studies in Honor of Edward Brovarski*, Cairo, 153–170
- Jánosi, P. 1989: Die Pyramidenanlage der “anonymen Königin” des Djedkare-Isesi, *MDAIK* 45, 187–202
- Jánosi, P. 1995: The Reconstruction and Evaluation of the Pyramid Complex of Queen Khentkaus, [in:] Verner, M., *The Pyramid Complex of Khentkaus*, *Abusir* III, Prague, 143–164
- Jánosi, P. 1996: Die Pyramidenanlagen der Königinnen: Untersuchungen zu einem Grabtyp des Alten und Mittleren Reiches, *Österreichische Akademie der Wissenschaften, Denkschriften der Gesamtakademie* 13, Wien
- Jéquier, G. 1928: La pyramide d’Oudjebten, *Fouilles à Saqqarah*, Le Caire
- Jéquier, G. 1933: Les pyramides des reines Neit et Apouit, *Fouilles à Saqqarah*, Le Caire
- Khaled, M.I. 2021: Paradigmenwechsel. Neue Befunde aus dem Pyramidenkomplex des Sahure in Abusir, *Sokar* 39, 40–63
- Labrousse, A. 1999: Les pyramides des reines. Une nouvelle nécropole à Saqqâra, Paris
- Labrousse, A. 2005: Les tracés directeurs dans la pyramide de la reine Inenek/Inti, [in:] Jánosi, P. (Ed.), *Structure and Significance. Thoughts on Ancient Egyptian Architecture*, *Österreichische Akademie der Wissenschaften, Denkschriften der Gesamtakademie* 33, Vienna, 407–414
- Labrousse, A. 2010: Huit épouses du roi Pépy I^{er}, [in:] Woods, A., McFarlane, A., Binder, S. (Eds), *Egyptian Culture and Society: Studies in Honour of Naguib Kanawati* 1, Cairo, 297–314
- Labrousse, A. 2012: Recent Discoveries at the Necropolis of King Pepy I, [in:] Evans, L. (Ed.), *Ancient Memphis: ‘Enduring Is the Perfection’*. Proceedings of the International Conference Held at Macquarie University, Sydney on August 14–15, 2008, Leuven, 299–308
- Labrousse, A., Lauer, J.-Ph. 2000: Les complexes funéraires d’Ouserkaf et de Néferthétepès, *BiEtud* 130, Le Caire
- Lehmann, K. 2000: Der Serdab in den Privatgräbern des Alten Reiches, unpublished PhD thesis, Universität Heidelberg, Heidelberg
- Maragioglio, V., Rinaldi, C. 1962: Notizie sulle Piramidi di Zedefrà, Zedkarâ Isesi, Teti, Torino
- Maragioglio, V., Rinaldi, C. 1977: L’architettura delle piramidi menfite VIII. La piramide de Neuserrâ, la “small pyramid” di Abu Sir, la “piramide distrutta” di Saqqara ed il complesso di Zedkarâ Isesi e della sua regina, Torino
- Mathieu, B. 1997: La signification du serdab dans la pyramide d’Ounas : l’architecture des appartements funéraires royaux à la lumière des Textes des Pyramides, [in:] Berger, C., Mathieu, B. (Eds), *Études sur l’Ancien Empire et la nécropole de Saqqâra dédiées à Jean-Philippe Lauer*, *OrMonsp* IX/2, Montpellier, 289–304
- Megahed, M. 2011: The Pyramid Complex of “Djedkare’s Queen” in South Saqqara. Preliminary Report 2010, [in:] Bárta, M., Coppens, F., Krejčí, J. (Eds), *Abusir and Saqqara in the Year 2010*, vol. 2, Prague, 616–634

- Megahed, M. 2016a: The Pyramid Complex of Djedkare-Isesi at South Saqqara and Its Decorative Program, unpublished PhD thesis, Charles University in Prague, Prague
- Megahed, M. 2016b: The *Antichambre Carrée* in the Old Kingdom. Decoration and Function, [in:] Landgráfová, R., Mynářová, J. (Eds), Rich and Great: Studies in Honour of Anthony J. Spalinger on the Occasion of his 70th Feast of Thoth, Prague, 239–258
- Megahed, M., Jánosi, P. 2017: The Pyramid Complex of Djedkare at Saqqara-South, Recent Results and Future Prospects, [in:] Bárta, M., Coppens, F., Krejčí, J. (Eds), Abusir and Saqqara in the Year 2015, Prague, 237–256
- Megahed, M., Jánosi, P. 2020: Exploration of the Pyramid Complex of King Djedkare: 2019 Fall Season, *PES* 25, 90–102
- Megahed, M., Jánosi, P., Vymazalová, H. 2017: Djedkare's Pyramid Complex: Preliminary Report of the 2016 Season, *PES* 19, 37–52
- Megahed, M., Jánosi, P., Vymazalová, H. 2018: Djedkare's Pyramid Complex: Preliminary Report of the 2017 Season, *PES* 21, 34–44
- Megahed, M., Jánosi, P., Vymazalová, H. 2019: Exploration of the Pyramid Complex of King Djedkare: Season 2018, *PES* 23, 12–36
- Megahed, M., Vymazalová, H. 2020: Notes on the Newly Discovered Name of Djedkare's Queen, [in:] Kamrin, J., Bárta, M., Ikram, S., Lehner, M., Megahed, M. (Eds), Guardian of Ancient Egypt: Studies in Honor of Zahi Hawass 2, Prague, 1023–1041
- Moursi, M. 1987: Die Ausgrabungen in der Gegend um die Pyramide *des DD-K3-R^c «ISSJ»* bei Saqqara, *ASAE* 71, 185–193
- Stadelmann, R. 1991: Die ägyptischen Pyramiden: vom Ziegelbau zum Weltwunder, *KAW* 30, Mainz a/Rhein
- Verner, M. 2002: *The Pyramids: Their Archaeology and History*, London
- Verner, M., with contributions by Bárta, M., Benešová, H., Vlčková, P., Callender, V.G., Landgráfová, R., Kočár, P., Svoboda, J., Strouhal, E., Němečková, A. 2006: The Pyramid Complex of Raneferef: The Archaeology, *Abusir IX*, Prague

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