

# Exploration of the pyramid complex of King Djedkare: season 2018

Mohamed Megahed – Peter Jánosi – Hana Vymazalová

## ABSTRACT

During the latest fieldwork in the pyramid complex of King Djedkare in the 2018 season, the Egyptian mission focused on cleaning and documentation of the central and northern parts of the king's funerary temple, including the open courtyard (T.e), and the north court (T.o). In addition, archaeological exploration was pursued in the area between the king's northern portico, the northern massif, and the south wall of the queen's pyramid (T.g area), which had not been explored previously. Thus, this area constitutes a valuable source of evidence showing that this area was used as a dump during the late Old Kingdom and First Intermediate Period and as a burial ground from the late Second Intermediate Period probably until the Ptolemaic and Roman times. Besides the burials, remains of the architecture of the king's and queen's precincts were documented, which allowed us to distinguish precisely between the king's and the queen's funerary temples; also, many relief fragments were uncovered, revealing not only details of the queen's decorative program but also her name and titles, which had been unknown to scholars until now.

Finally, one of the main tasks included the consolidation work in the substructure of the king's pyramid, focusing on the north walls of its antechamber and burial chamber.

## KEYWORDS

Old Kingdom – South Saqqara – Djedkare – pyramid complex – open court – north court – queen's precinct

## استكشاف المجموعة الهرمية للملك جدكارع: موسم 2018

محمد مجاهد – بيتر يانوشى – هانا فيمازالوفا

### ملخص

خلال العمل الميدانى الأخير فى المجموعة الهرمية للملك جدكارع فى موسم 2018، ركزت البعثة المصرية أعمالها على تنظيف وتوثيق المناطق المركزية والشمالية من المعبد الجنائزى للملك، بما فى ذلك الفناء المفتوح (T.e)، والفناء الشمالى (T.o). بالإضافة إلى ذلك، تم الكشف عن المنطقة الواقعة بين الرواق الشمالى للملك والمبنى المصمت الشمالى من جهة والجدار الجنوبى لهرم الملكة (T.g) من جهة أخرى، وهى المنطقة التى لم يتم الكشف عنها من قبل. وبالتالي تشكل هذه المنطقة مصدرًا قيمًا للأدلة التى تبين بعد الكشف عنها أنها كانت تستخدم مكانًا لإلقاء المخلفات الأثرية خلال أواخر عصر الدولة القديمة وعصر الانتقال الأول، وكذلك كمكان للدفن منذ أواخر عصر الانتقال الثانى، وربما حتى العصر اليونانى الرومانى. وإلى جانب الدفونات، تم توثيق بقايا العناصر المعمارية لكل من المجموعة الهرمية للملك والملكة، وهو الأمر الذى مكننا من التمييز بدقة بين المعبدین الجنائزین للملك والملكة؛ كذلك تم الكشف عن العديد من بقايا المناظر، والتى لم تكشف فحسب عن تفاصيل برنامج المناظر الخاص بالمجموعة الهرمية للملكة، بل أيضًا كشفت عن اسمها وألقابها لأول مرة، والتى لم تكن معروفة للدارسين حتى الآن. تضمنت المهام الرئيسية للبعثة أيضًا أعمال الترميم والتدعيم للبناء السفلى لهرم الملك، والتى تركزت هذا الموسم بالجدار الشمالى لكل من حجرة الدفن والحجرة الأمامية.

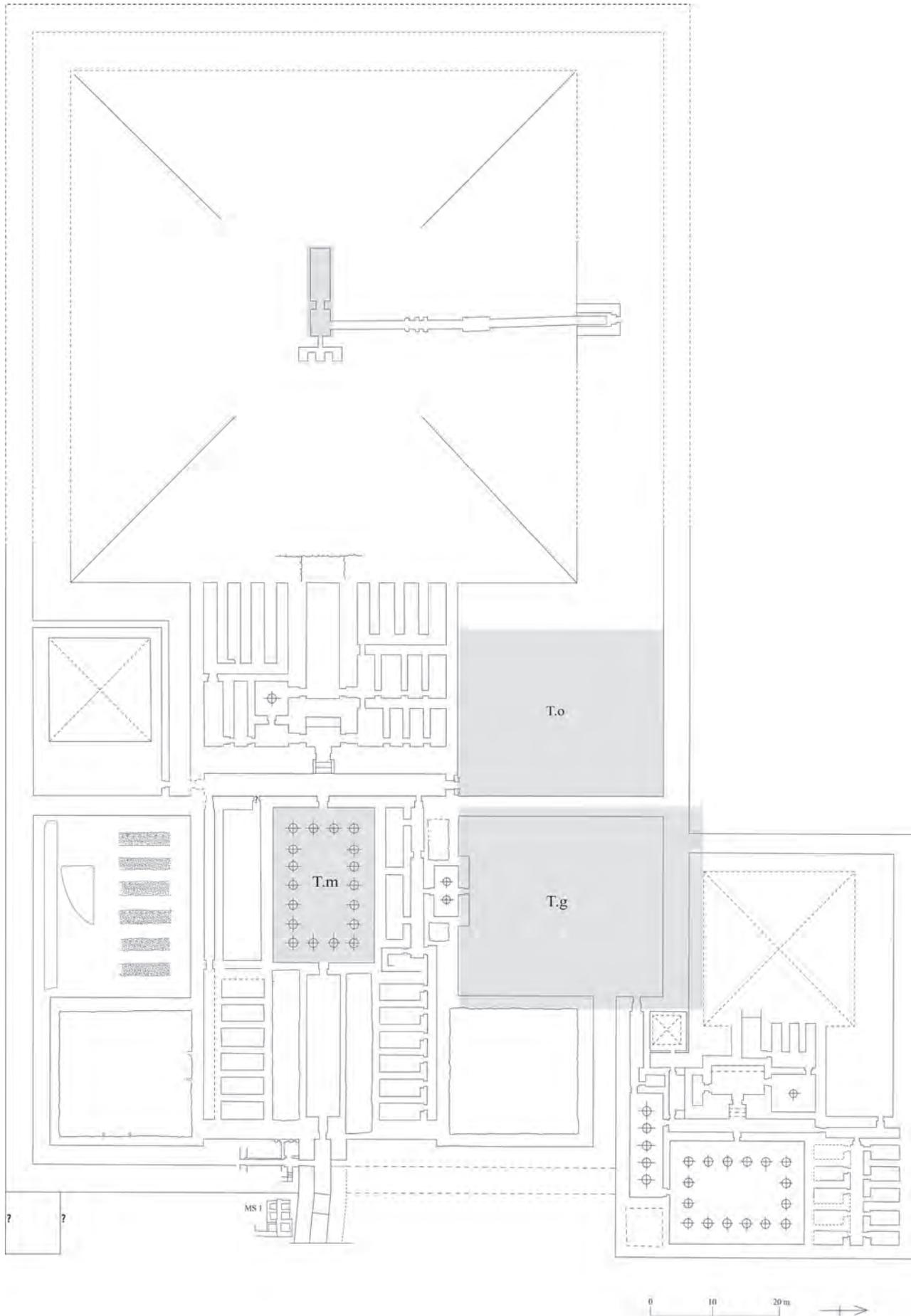


Fig. 1 Plan of the pyramid complex of King Djedkare according to Maragioglio and Rinaldi, with the areas explored in 2018 marked in grey colour (drawing M. Megahed, after Maragioglio – Rinaldi 1977: tav. 16, fig. 1)

The project of the documentation and exploration of the pyramid complex of King Djedkare at South Saqqara continued in 2018 with two seasons:<sup>1</sup> the spring season lasted from 3<sup>rd</sup> February to 15<sup>th</sup> March, and the fall season from 1<sup>st</sup> September to 31<sup>st</sup> October 2018.

The work concentrated both in the pyramid substructure where the consolidation of the burial chamber and antechamber continued, and in the funerary temple where another part of the architecture continued to be exposed and documented. This year's work focused on the north and north-east parts of the funerary temple.<sup>2</sup> The plan of the complex published by Vito Maragioglio and Celeste Rinaldi in their eighth volume of the *Piramidi menfite* series (Maragioglio – Rinaldi 1977: tav. 16, fig. 1) did not provide a clear reconstruction of the north-eastern area of the pyramid complex, especially the area between the king's funerary temple and the access into the queen's precinct (for their plan see fig. 1). The debris covering most of this area (T.g) had never been explored in the past. The current mission thus had the opportunity not only to complete the plan of the complex but also to understand more about the site's history.

### CONSOLIDATION OF THE PYRAMID SUBSTRUCTURE

The heavily damaged substructure of Djedkare's pyramid has been consolidated over several seasons (Megahed – Jánosi – Vymazalová 2017a: 48–50; Megahed – Jánosi – Vymazalová 2017b, 2018a and 2018b). During the 2018 season, the rest of the missing walls of the subterranean chambers were reconstructed, including the north wall of the antechamber, north, south and west walls of the burial chamber and the dividing wall between the two chambers.

Before the consolidation works, masons' marks and hieratic builders' inscriptions on the exposed masonry of the walls, floor and foundation blocks were documented. Some inscriptions mention work gangs and phyles as, for instance, *wr*-phyle and *w3dt*-phyle (fig. 2); names of officials were attested in other inscriptions, including, for instance, a *smr-w<sup>c</sup>ty Pth-šps*, “sole companion Ptahshepses”, and geographical information were documented on some blocks, e.g. *mḥ*, “north” on a block of the north wall of the burial chamber.

Only very little survived of the walls' casing in the king's burial chamber; a few casing blocks survived in the western end of the north and south walls, while most of the casing of the west wall was still preserved.

The consolidation work included filling of a missing part of the core above the entrance to the antechamber, a missing part of the core behind the west wall, and the missing masonry where the dividing wall once joined the core in the north and south walls, with limestone blocks and chips. The volume of the missing masonry was previously documented in a 3D model, which reflects the state of the monument before the reconstruction works (Megahed *et al.* 2016).

At the same time, the missing parts of casing were reconstructed of smoothed white limestone blocks with mortar (see also Megahed – Jánosi – Vymazalová 2017a: 50). The restored parts of the walls of the antechamber and the burial chamber are clearly distinguishable from the original parts of the wall (fig. 3). The dividing wall between the chambers was also rebuilt, following the measurements of the original substructure, which were clearly visible on the surviving blocks and checked with the published measurements of the substructure by Maragioglio and Rinaldi (1977: 66–74, tav. 10).

### THE NORTH COURT (T.O AREA)

During the fall season, the large open court surrounding the north-east part of Djedkare's pyramid was cleared and documented (fig. 4). It was covered with many large blocks of limestone, which originate from the architecture of the temple, the stone enclosure wall, as well as the casing of the king's pyramid (especially in the west part of the court). The debris covering the court consisted of a thin layer of yellow sand with few limestone chips and no finds or pottery fragments, clearly indicating that this part of the complex was already fully excavated in previous times.

The east and north sides of the court are marked by the enclosure wall of the king's temple, of which only the core masonry survived, while the casing as well as the floor blocks beneath the casing were entirely removed by stone robbers in antiquity. In addition, also the floor blocks along the north side of the inner (intimate) temple were missing.

A substantial part of the original pavement of the court is, however, still preserved. The area was paved with mostly large blocks of roughly rectangular shape (1.4 × 1.8–2.5 m, 17–29 cm thick) of various quality; some of the blocks exhibit crumbling, powdery surfaces while others preserved well-worked and nicely smooth upper surfaces. In this regard, the court differs markedly from the majority of the rooms of

<sup>1</sup> The team would like to thank the inspectors of the Ministry of Antiquities, Ahmad Afifi, Marwan Abu Bakr, Mounira Hussein, Emira Hamdy Murtaga and Maisa Rabia for their kind support during the field work. We appreciate the expertise of our conservators, Alexandra Kosinová, Abdo Masoud and Ahmad Abdel Azim. Our thanks go also to the foremen, Mohamed Antar, Abdel Halim El Hamzawy, Marai Abu el-Yazeed and Amer El Hamzawy, as well as to all the workmen without whom our work would not be possible. Our team also included Mohamed Fathy (documentarist), Ashraf el-Senussi (pottery specialist), Zeinab Hashesh (anthropology specialist), Věra Nováková, Veronika Chudobová and Matouš Mokrý (students in training).

<sup>2</sup> For preliminary results of the previous archaeological seasons, see e.g. Megahed (2011b and 2014); Megahed *et al.* (2016); Megahed – Jánosi (2017); Megahed – Jánosi – Vymazalová (2017a and 2017b). For the 2018 season, see also the extended German report: Megahed – Hashesh – Jánosi – Vymazalová (2019).

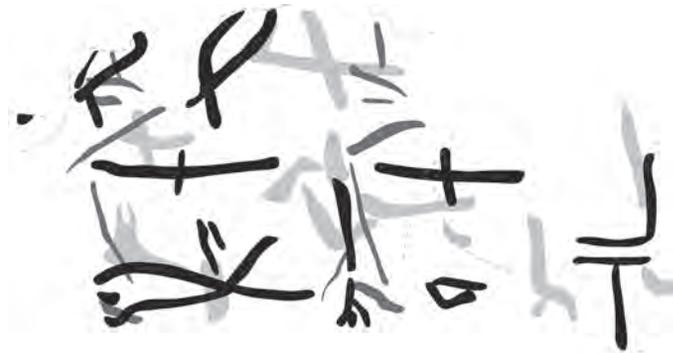
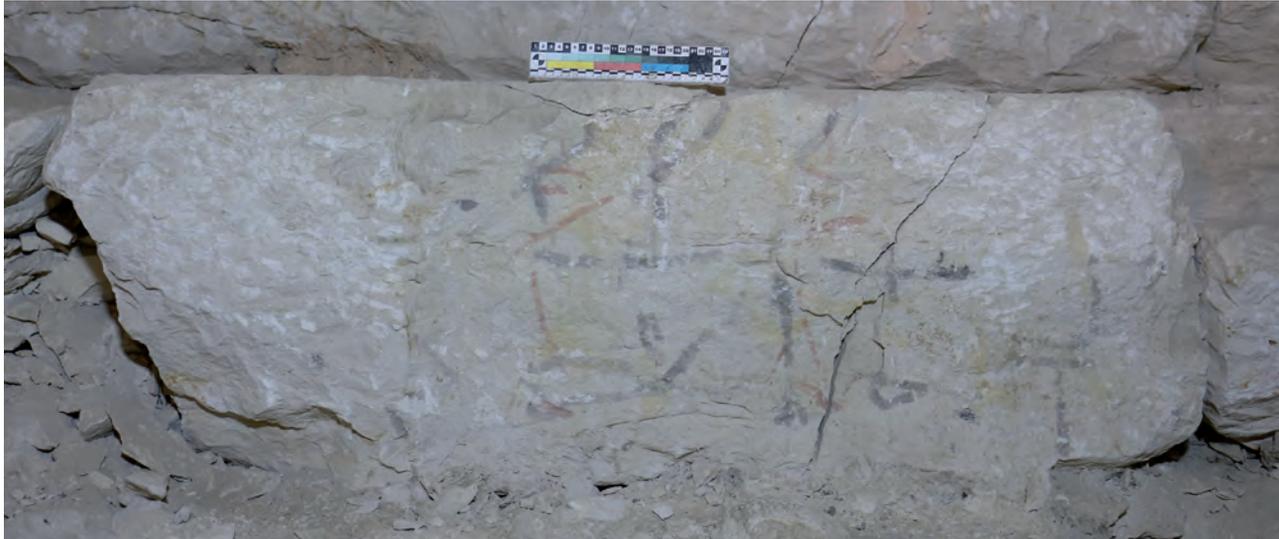


Fig. 2 Hieratic inscription positioned upside down on a foundation block *in situ* in the burial chamber, mentioning the *wr-* and *w<sup>3</sup>dt-*phyles (photo and drawing H. Vymazalová)

the temple, which usually have floors made of smaller blocks with many patch stones. In the court only a few patch stones were used for the pavement, and they are generally longer than those in the other parts of the temple. The pavement slabs rest on foundation blocks, which are visible in some parts of the area. Since the documentation of the king's temple yielded a large number of drainage systems in the floor, a similar device was expected in this part of Djedkare's precinct as well (compare the drainage installations in the pyramid courts of Sahure and Nyuserre, Borchardt 1907: 97, Bl. 28; Borchardt 1910: 29, 75, Abb. 100, Bl. 16). Despite a meticulous search, however, no such installations could be detected thus far.

The western part of the north court has not been cleaned entirely yet and many large loose blocks coming from the king's pyramid and his funerary temple still cover the area. This part of the north court is planned to be documented in the coming season.

### THE OPEN COURTYARD (T.E AREA)

Another part of the funerary temple that was documented in detail in fall, 2018, was the open columned courtyard, the *wsh*, in the centre of the



Fig. 3 The burial chamber of Djedkare's pyramid substructure after the reconstruction and consolidation works in 2018 (photo P. Košárek)



Fig. 4 The north court of Djedkare's funerary temple during the cleaning in 2018 (photo P. Jánosi)

precinct (figs. 1 and 5).<sup>3</sup> Although Maragioglio and Rinaldi (1977: 76) succeeded in correctly establishing the size of the court (see below), their documentation and reconstruction regarding the number of columns, which once adorned the court, remained ambiguous. Because of the many fragments found in that place there was no doubt about the columns' form, which were rendered as palmiform columns made of red granite, like in the pyramid complexes of Sahure and Unas (Maragioglio – Rinaldi 1962: 30; Maragioglio – Rinaldi 1977: 76). As for the number of columns, the Italian architects refrained from giving any details in their earlier publication (no columns were indicated in their plan Maragioglio – Rinaldi 1962: tav. 6, fig. 1), but stated with confidence in the later publication “by comparison with other peripteral courtyards” that originally 18 columns were set up in the court (Maragioglio – Rinaldi 1977: 76, tav. 16, fig. 1; see here fig. 1). That the surveyors were in fact not able to really see and document the court's ruined condition (most probably because of the already accumulated debris and sand since Fakhry's excavation) becomes evident in their 1:200 plan of the outer part of the precinct, where 16 columns are shown (Maragioglio – Rinaldi 1977: 76, tav. 13).

The recent exploration revealed that the courtyard indeed only contained 16 columns, of which six were arranged along the north and south sides while two more were added along the east as well as the west side. This number accords with the number of columns found in the funerary temples of Sahure and Nyuserre. Several fragments of the red granite columns survived in the courtyard, one of them bearing remains of an inscription in sunken relief, showing the names of King Djedkare. The signs in this inscription face left, thus indicating that the fragment comes from one of the columns in the north half of the courtyard.

As already accomplished in other parts of the temple precinct, also in the courtyard, the large blocks still covering the place were documented before being moved from the site. Two very large limestone blocks decorated with stars were left as found since they were once certainly part of the roofing of the sides of the courtyard. In clearing the site, we could observe that the uppermost layer (walking surface) of the debris contained yellow sand mixed with small stones. Underneath followed a dense and hard layer of debris of varying thickness that contained a large number of limestone chips, crushed limestone, many calcite fragments of various sizes, as well as a large number

<sup>3</sup> A test trench was dug in the north-west corner of the courtyard by the present mission already in 2015 to check the court's condition (Megahed – Jánosi 2017: 243).



Fig. 5 General view of the open courtyard from the pyramid (photo P. Jánosi)

of granite and quartzite fragments of different sizes. In removing this hard layer down to the intact (original) foundation construction, charcoal, and larger pieces of burnt wooden fragments, but very few sherds were also observed in various places. This hard debris layer seems to be the remains of ancient activities (probably the destruction of the temple) and had not been cleared by Fakhry's work force. It therefore seems that the previous excavators cleaned the surface of the courtyard randomly, but not to the level of the foundation, sub-foundation and the remaining column pits.

The courtyard had a rectangular layout measuring  $15.70 \times 23.45$  m ( $30 \times 45$  cubits). It was heavily damaged when the stone robbers removed not only the columns and their bases but also the walls and most of the pavement of the courtyard, and large parts of its foundation. The floor was originally paved with calcite slabs (so-called Egyptian alabaster).<sup>4</sup> Only a few pieces of calcite pavement survived *in situ*, still fixed to the foundation limestone slabs by means of grey mud mortar. The choice of material in this part of the monument is unusual, as dark stones, mostly basalt, were usually used to pave the open courtyards in Old Kingdom pyramid complexes (Khufu, Userkaf, Sahure, Nyuserre, see *e.g.* Arnold

2007: 27–28). Calcite was also used for the floor in other parts of Djedkare's funerary temple, especially in the main offering room, in the transverse corridor, in the entrance hall, the corridor leading to the north portico and the west end of the causeway (see *e.g.* Maragioglio – Rinaldi 1977: 76; Megahed 2016: 79–80, 84, 85; Megahed – Jánosi 2017: 240, 243). The preference of calcite in many parts of Djedkare's funerary temple must be connected with its symbolic meaning as “pure material” (Arnold 2007: 7; Nicholson – Shaw 2000: 21–22; Klemm – Klemm 1993: 199–223).

After the entire clearance of the courtyard, it became evident that nowhere did an original column base remain in place. Because of the heavy destruction in antiquity, the pits, which once contained the column bases, only indicate the approximate position of each column, but do not give a clear picture as to the original size and forms of the pits themselves. All the pits vary in size, shape and depth and only remains of the sub-foundation masonry was preserved at their bottoms. One of the largest pits was circular and was 2.5 m in diameter, while another one was oval and measured  $1.80 \times 2.75$  m. Thus, no certain conclusions can be drawn as to the size of the column bases. They

<sup>4</sup> For the so-called Egyptian alabaster and its identification as calcite, see for instance Klemm – Klemm (2008: 147–166, esp. 147) preferring the term “calcite alabaster”; *contra e.g.* Harrell (1990) who prefers the identification as travertine.

were certainly not as big and high as the base still *in situ* in the *antichambre carrée* (Megahed – Jánosi 2017: 244).

However, the careful clearance revealed that a water drain was once installed in the court running east-west along the axis of the courtyard. The drain was built of reddish quartzite blocks, which were set into a carefully prepared foundation construction. Only a small part of the trench was investigated, since it soon became clear that the installation was entirely destroyed, leaving only

an “empty” trench with pieces of quartzite, limestone fragments and sand. The trench was *ca.* 0.6 m deep, and its width at the preserved top level was *ca.* 1.3 m and *ca.* 0.8–1 m at the bottom. An accumulation of almost clean yellow sand indicated that it must have been partly uncovered by the previous missions of Hussein and Fakhry,<sup>5</sup> who, however, did not document or even mention its existence.<sup>6</sup> Parts of this drain were already documented in other areas of the temple in the previous seasons; in 2016, a short section in the foundation at

**Fig. 6** The T.g area (a) before and (b) at the end of the 2018 season (photos H. Vymazalová)



<sup>5</sup> For these missions and their work, see the text further below, and note 7.

<sup>6</sup> In consequence, Maragioglio and Rinaldi were also unaware of its existence and did not include it in their publications (Maragioglio – Rinaldi 1962: 30; Maragioglio – Rinaldi 1977: 76). This confirms the previously made conclusion (see above) that these two scholars were not able to study the court's remaining architecture in detail because of its sanding up.

the west end of the causeway (see Megahed – Jánosi – Vymazalová 2017a: 42) and in 2017 another section was confirmed underneath the room with the five chapels.

Several fragments of the calcite altar, which was once situated in the open courtyard, were uncovered in the debris. These fragments are rather small but they show delicately incised relief, including parts of inscriptions and figures. Several fragments of the altar were already found by the previous Egyptian missions of Hussein and Fakhry, and the design of the altar has been discussed recently (Megahed 2014: 56–62). The newly uncovered fragments thus complement the previously known evidence on Djedkare's calcite altar.

#### AREA BETWEEN THE KING'S FUNERARY TEMPLE AND THE QUEEN'S PRECINCT (T.G AREA)

During both seasons in 2018, the previously unexplored north area of the pyramid complex was uncovered. This so-called T.g area constitutes a large rectangular area between the west side of the northern massif, the north portico of the king's funerary temple, its enclosure wall on the west side and the queen's pyramid complex to the north (figs. 1 and 6a–b).

This area was never explored by previous excavators and was almost entirely covered with original debris. Only a small section around the king's northern portico was excavated in the late 1980s by Mahmoud Abdel Razeq; his photographs show mud brick structures in the south-west part of the area, which are almost gone today (Leclant 1982: 67[q]; Megahed 2016: 80).

The plan of the area under discussion was presented only in hypothetical form in the publications of Maragioglio and Rinaldi, on which the plans presented by other scholars are based (*cf.* Maragioglio and Rinaldi 1962: 38–43, *tav.* 5; Maragioglio and Rinaldi 1977: *tav.* 13, 16). It was, however, clear that this area required proper cleaning and documentation.

The major part of the T.g area was still covered with the original debris, which had an average height of *ca.* 4 m in the southern part and gradually increased in height towards the south side of the queen's pyramid (fig. 6a). At the highest point of the pyramid's south side the debris reached up to 6 m high, fully covering the south face of the pyramid. Exploration of this area and its original debris gave us the opportunity to study and understand the history of this part of the pyramid complex to a larger and better extent than it was possible in its previously explored parts.<sup>7</sup>

Due to the presence of the high debris, it was not possible without complete clearance to distinguish

where the king's precinct ended and the queen's precinct began. This distinction was only possible at the end of the season, when the original floor level of the late Fifth Dynasty was entirely revealed. Therefore, the whole area was initially designated as the T.g area during the 2018 work. On the ground level, however, T.g. only designates the rectangular area between the king's and the queen's precincts (see below).

#### THE T.G AREA – UPPER LEVEL

The previously explored parts of this area were apparent due to the presence of clean yellow wind-blown sand, which also constituted the uppermost layer of the debris (1). The major part of the accumulated debris covering the area consisted of yellow or mixed yellow and brown sand with a smaller or larger addition of limestone chips and pieces. The middle and lower levels of the debris (2, 3) seem to be original, providing not only pottery fragments dating to different periods of the pharaonic history but also finds attesting to the development of this area from the late Old Kingdom onwards.

The middle level (2, see above) of the debris consisted of yellow sand with some, but not too numerous limestone chips, with not many finds except for pottery fragments. This level (elevation around 47 m a.s.l.) contained several burials in ceramic coffins as well as burials in small, simple structures constructed of irregular stones. The ceramic coffins were oval shaped and had lids composed of two or three flat slabs with raised edges; similar examples are known for instance from Abusir (Borchardt 1909: 80, nos. 23–24; Cotellet-Michel 2004: 270). Some of the coffins had the lid decorated with a human face (compare *e.g.* Borchardt 1909: 79–80, *Abb.* 90), but their shape differs from ceramic coffins with flat lids decorated with human faces that are known from other parts of the south Saqqara necropolis, *e.g.* from an Aramaic cemetery near the pyramid complex of Khendjer (Jéquier 1929: 160; Jéquier 1930: 112–113, *pl.* IV). Other similar examples have been documented in other sites all over Egypt (Cotellet-Michel 2004: 272–287).<sup>8</sup>

Most of the coffins were found empty or with scant remains of burials. The burials were east-west oriented, and the bodies were placed in an extended position on the back. Most often (but not always) the burials in ceramic coffins had the head to the east.

The stone tombs ranged from very simple structures, consisting of several stones or slabs placed next to or around the body to nicely built structures. Some bodies

<sup>7</sup> The archaeological situation in the previously explored parts of Djedkare's pyramid complex remains unknown; the documentation from the work of the Egyptian missions pursued in the 1940s and 1950s has not been fully available and the results of those seasons have never been published (brief information in Drioton 1947: 520–521; Montet 1948: 48; Varille 1947: 1–2; Varille 1954: 13, 17; Fakhry 1959: 10). The authors would like to thank the colleagues from the Oriental Institute of the University of Chicago and Università degli Studi di Milano for providing them with access to some of the photographs from Hussein's and Fakhry's excavations, taken by Alexander Varille and Klaus Baer.

<sup>8</sup> These flat lids with faces are different from the examples of New Kingdom tubular ceramic coffins with faces known, for instance, from Tell el-Dabaa or Tell el-Yehoudiya and other sites (see *e.g.* Hulková 2013: *Pl.* 11; Cotellet-Michel 2004: 230–269).



Fig. 7 Ceramic coffin DJ-F286-2018 with a lid decorated with a face was placed in a structure of limestone blocks and contained an intact burial (photo H. Vymazalová)

had only one or two stones placed usually on the east side of the head and/or chest. In other burials, the upper part of the body was surrounded with stones, most often irregular limestone pieces. More elaborate structures were constructed of limestone slabs that formed rectangular tombs to contain the body, covered with lids of limestone slabs, which were bonded with a hard mud mortar. Such examples are also known from other royal cemeteries, *e.g.* from Abusir (Schäfer 1908: 116, Sp. 5 by Userkafankh's tomb, Abb. 187).

The majority of these burials were disturbed and incompletely preserved but several tombs situated in the north-west part of the T.g area, near the corner of the king's enclosure wall, were better preserved. Some of the tombs were constructed along and even within the king's enclosure wall, at a time when the wall was already damaged and after it had lost its casing. One larger structure in this group incorporated a well-preserved ceramic coffin with a lid decorated with a human face, which contained an intact burial (fig. 7). The limestone slabs, which tightly surrounded the coffin, included part of a casing block of the queen's pyramid.

The burials in the stone structures were oriented east-west and had their heads mostly to the west; however, head to the east is also attested, at least in the structure with the ceramic coffin; the position of the body could not be determined in about half of the cases. It is worth mentioning that except for very few examples no additional finds and only very few fragments of pottery were found with the burials in the stone structures

and ceramic coffins. A juglet dating to the Twenty-Sixth Dynasty was found in one of the stone structures (DJ-F101-2018);<sup>9</sup> the analysis and evaluation of the pottery finds from the surrounding debris has not been concluded yet.

#### THE T.G AREA – BOTTOM LEVEL

The bottom layer of the debris (elevation around 45–46 m a.s.l.) differed in the west and east parts of the explored area. They were separated by a strip of the debris corresponding to the upper level, which attests to the later activity in this central sector.

#### THE WEST SECTOR

The west sector, which extends between the king's enclosure wall and a north-south running mud brick wall (see fig. 18), was covered with a *ca.* 1–1.2 m thick layer of very fine dark grey dust, which included a large number of pottery fragments, small fragments of animal bones, fragments of clay *cretulae* with seal impressions, fragments of small, rough offering tables and libation basins, gaming pieces, beads, and many other usually small sized finds. This layer (trash layer 1) was the result of waste accumulation from the period of the late Old Kingdom and First Intermediate Period. The finds from trash layer 1 have been only partly evaluated and the study will yet continue.

For the stratigraphy of the site, it is worth mentioning that many of the above-mentioned stone structures

<sup>9</sup> The pottery finds referred to in this preliminary report have been studied and dated by Ashraf el-Senussi.



Fig. 8 A juglet (a) and part of a wooden statuette (b) found with a burial of Second Intermediate Period date, which was placed in a pit hewn within the waste layer in the west sector of T.g area (photos A. Damarany, P. Košárek)

were constructed on top of this waste layer, confirming the earlier date of the waste deposit. Only very few burials were found within trash layer 1, of which the most interesting is a burial pit (elevation *ca.* 46 m a.s.l.) with remains of a human burial, fragments of two wooden female statuettes and other finds. A complete pottery jar of the Tell el-Yehoudiya ware<sup>10</sup> that was found with this burial confirms its date to the Second Intermediate Period (fig. 8a–b). Not very numerous pottery fragments from the Second Intermediate Period and early New Kingdom were mixed within trash layer 1, which most probably indicate the burial activities in pits hewn in the trash layer.

Along the east side of the still existing core of the royal limestone enclosure wall marking the west end of the T.g area, a *ca.* 1 m wide trench filled with wind-blown yellow sand was detected. This sand-filled trench is the product of the activities of the stone robbers, who ventured to take out the outer (eastern) blocks of the enclosure wall made of fine limestone (see fig. 17). This pillaging took place after trash layer 1 had already accumulated, but before the stone tombs were built alongside the still remaining parts of the enclosure wall (fig. 9). It seems possible (but is not confirmed yet) to attribute this robbery to the Ramesside period.

#### THE EAST SECTOR

The debris in the east sector of the T.g area consisted of brown sand with a large number of pebbles, with

an addition of mud brick destruction especially in the south-east corner of the sector. This debris contained a large quantity of pottery fragments and even complete vessels, mostly small cups, dating to the late Second Intermediate Period and early New Kingdom.<sup>11</sup>

At many places, especially in the north and west part of the east sector (north and central parts of the T.g area), yellow sand debris with limestone chips, corresponding to the upper level, had penetrated into the lower level of earlier debris. There was no clear separation between the two kinds of debris, and their intermixing seems to be a clear indication that the area was quite actively used over a long period of time with amounts of older debris removed and replaced by the later.

Both kinds of debris contained a large number of burials placed near and over each other (at an elevation of 45.3–46.0 m a.s.l.). The burials displayed a great variety in their orientation, placement of the body and the associated equipment. Some had an east-west orientation while others had a north-south orientation; the heads could be directed towards the east, west, north and south. The majority of the burials were placed in an extended position on the back with the hands on or beside the pelvis, but several burials, mostly of small children and babies, were in a contracted position on the left or right side. Remains of coffins of wood, reed and palm were found with many burials; and two burials of babies were placed in baskets.

<sup>10</sup> The analysis of the pottery finds is under preparation by el-Senussi, and will provide further information on this pottery jar, its dating and chronological implications.

<sup>11</sup> Dating of these pottery finds by el-Senussi.



Fig. 9 The west part of the T.g area showing the remains of the core masonry of the limestone enclosure wall of the king's funerary temple. Along this wall stone, tombs dating to a later period (probably the Late Period) were built, partly resting on top of dark grey trash layer 1 of the late Old Kingdom and First Intermediate Period and partly on yellow accumulated sand along the wall (photo P. János)

Remains of ornaments were uncovered with some of the burials (see Vymazalová – Hashesh 2019), including mostly faience beads but also amulets and seals of faience and semi-precious stones, as well as metal (copper or bronze) bracelets and rings. Some of the amulets in the shape of scarab beetles and the *wedjat*-eye show incised inscriptions on their bottom sides; these suggest that the respective burials (all from the debris of brown sand with pebbles) date to the reign of Amenhotep I or slightly later during the early Eighteenth Dynasty (fig. 10).

Some of the burials in this cemetery layer were found intact while a smaller number of them were disturbed or only partly preserved. The dense accumulation of the burials and their placement near to as well as above each other indicate that the cemetery in the east part of the T.g area was very intensively used.

In the north part of the east sector, three deposits of pottery vessels were uncovered in a debris of yellow sand with a smaller content of limestone chips and almost no addition of mud bricks. Burials were found next to or underneath these deposits, and a connection between these burials and the pottery is presumed (fig. 11). The burials as well as the deposits were placed between intentionally arranged limestone blocks, which most likely came from the queen's monument (see further below). This indicates their date follows the



Fig. 10 A faience scarab amulet bearing the name Djoserkare, the throne name of Amenhotep I, and disc beads made of bone, were found with a burial of a child (DJ-F76-2018) in the T.g area (photo H. Vymazalová)



Fig. 11 One of the pottery deposits found in the north part of the T.g area (DJ-F110-2018) (photo H. Vymazalová)

destruction of the temple, when also parts of the earlier debris of brown sand with pebbles were apparently removed. The ceramic vessels of the three deposits were mostly intact, only a few of them were found broken or cracked. Many still bore the original mud stoppers (with no seal impressions) and their original contents, including organic plant material and reptiles, which is yet to be analysed.

#### THE T.G AREA GROUND LEVEL AND MUD BRICK INSTALLATIONS

The ground level of the T.g area consisted of a dense mud layer (elevation 45.4–45.5 m a.s.l.) with remains of several mud brick walls and installations and small parts of mud floors preserved near them; the walls were almost entirely gone and the layout of these structures can be only partly reconstructed.

This dense mud layer spreads out in the area between the king's and queen's precincts. It was applied onto a *ca.* 20–30 m thick layer of dense mud brick and mud fragments with additions of small limestone chips, charcoal, and some pottery fragments. This layer rested on top of the sub-foundation blocks, which were documented in several burial pits (see below) and circular holes. It seems that the builders laid out the foundation for both the king's and queen's precincts and in between them; later the foundation and floor blocks were removed either by stone robbers, or the area between the

two precincts was not paved with limestone but finished with a simpler version of a mud floor.

Multiple burial pits were cut into the mud ground layer at a later point in time (fig. 12); they reach *ca.* 0.2–0.4 m deep to the level of the foundation blocks of the funerary temple. The burial pits contained perhaps the earliest burials in the area, while the above-described cemetery was later, since it was found in the higher level above the mud floor.

The mud brick installations presumably date to the period of Djedkare's funerary cult (late Fifth Dynasty to the First Intermediate Period), and most likely can be associated with trash layer 1 in the west part of the T.g. area. Evidence from the ground level is yet to be analyzed and therefore the date of this mud brick stage remains somewhat uncertain.

#### THE SOUTH PART OF THE QUEEN'S PRECINCT (TQ)

After cleaning the T.g area that extended between the king's and the queen's funerary temples, it became easy to distinguish where the former ended and the latter started. The previously published plans of this area were unclear and mostly theoretical (Maragioglio – Rinaldi 1977: tav. 16, fig. 1;<sup>12</sup> Moursi 1987: 188, Abb. 2;<sup>13</sup> Jánosi 1989: 198, Abb. 1). Archival photographs, which were kindly provided to the authors by the Oriental Institute of the University of Chicago, reveal that the previous Egyptian mission headed by Ahmad Fakhry partly cleaned

<sup>12</sup> The plan of Maragioglio and Rinaldi formed the basis for plans in other publications (see *e.g.* Stadelmann 1985: 183, fig. 59; Lehner 1997: 153; Verner 2002: 327).

<sup>13</sup> Mohamed Moursi's article features the plan of the complex by the excavator Fakhry. For a comparison of the plans of Fakhry versus Maragioglio and Rinaldi, see Megahed (2011a: 624, Fig. 7).



Fig. 12 The mud ground layer with burial pits and remains of mud brick structures in the east sector of the T.g area (photo P. Jánosi)

the south-east corner of the queen's pyramid but the whole T.g area to the south side of the pyramid remained untouched (fig. 13a–b). Thus, the current mission brought about the first documentation of this area.

The south side of the queen's precinct (TQ) was extensively covered with debris. The south side of the pyramid (PQ) was almost entirely hidden under limestone destruction layers consisting of numerous large limestone blocks, fragments and chips with almost no sand addition. Further away from the wall, the debris consisted of yellow and brownish sand with limestone chips, larger fragments and blocks, which were particularly numerous in the bottom 2.5 m thick layer of the debris. The debris also contained many blocks fallen from the core as well as the casing of the queen's pyramid (see below).

Like in the T.g area discussed above, the middle and bottom level of the debris in the south side of the queen's precinct contained burials. Some burials were placed in stone structures with an east-west orientation, in which the bodies were usually placed in an extended position on the back with head to the west. These burials are rather similar to those in the upper layer of the T.g area, however, they are found on a lower level of debris, even as low as 45.48 m a.s.l., *i.e.* approximately on the level of the pavement of the funerary complex. Two of the larger structures, which were built only slightly

above the ground level of the precinct, contained oval shaped ceramic coffins. One of them had a flat lid while the other bore a face shape on its lid (compare to the coffins from T.g above and to examples from other sites, Cotellet-Michel 2004: 270–287). The position of these tombs on the ground level indicates that in the period corresponding to this type of burial, the area along the south side of the queen's pyramid was not covered to the same height as the T.g area located south of it. At the same time, the pyramid complex was by then already heavily damaged, and one of these structures was built over the small remains of the core masonry of the queen's enclosure wall, while the other one (fig. 14) was situated above the foundation of the statue chamber (see below). During the construction of these tombs, however, the remains of the original Fifth Dynasty structures were most likely not visible, and these tombs were built within pits that were hewn in debris covering the area, and they were then covered with the debris again.

Also, other types of burials were discovered in the area, including remains of wooden coffins with inscriptions and painted decoration found on the ground level as well. Fragments of a badly damaged black painted coffin with light beige hieroglyphic inscription seems to correspond to the early Eighteenth Dynasty burials of the T.g area (see above).<sup>14</sup>

<sup>14</sup> For the black coffins of the New Kingdom, see, for instance, Sartini (2015) with further bibliography.



Fig. 13 Photograph of the explored area between the king's funerary temple and the queen's pyramid (a) from Fakhry's excavations from the archive of Klaus Baer (courtesy of the Oriental Institute of the University of Chicago) and (b) after the 2018 season (photos H. Vymazalová)



Fig. 14 Structure DJ-F263-2018, which contained a pottery coffin with a flat lid decorated with a face and an intact burial with preserved body tissues, was constructed above the remains of the statue chamber of the queen's precinct (photo V. Chudobová)



Fig. 15 The south side of the queen's pyramid showing a casing block still *in situ* in the central part. In front of the casing, the outlines of the south corridor with the dark floor surface are clearly discernible. In later times, the west end of the corridor was blocked with a mud brick installation ("A") (photo P. Jánosi)

At two places, deposits of waste accumulated in the queen's precinct when its walls were still standing; one of these waste layers was found in the central part of the corridor running along the south wall of the pyramid (trash layer 3), while the other waste layer was situated in the street between the queen's and king's enclosure walls (trash layer 2) (see below for the description of the architecture). These two layers of waste contained numerous pottery fragments, fragments of animal bones, beads and other faience objects, objects of clay and limestone, *etc.* We presume that these waste deposits may have originated from the same period as the waste deposit in the T.g area (trash layer 1), and can be dated to the late Old Kingdom and First Intermediate Period; the finds from these layers have yet to be examined. The waste deposits survived removal of the walls by stone robbers, and therefore they constitute the "negative" space of the once existing rooms.

#### THE SOUTH WALL OF THE QUEEN'S PYRAMID (PQ)

The south side of the queen's pyramid was entirely exposed during this season. Many loose casing blocks and fragments were found in various levels of the debris. The casing blocks are made of fine white "Tura" limestone and exhibit a slope of *ca.* 57–58°. Only one of the casing blocks survived *in situ* approximately in the centre of the south side of the pyramid (fig. 15), which allowed us to confirm that the intended slope of the queen's pyramid was about 57°, corresponding to the ancient Egyptian *skd* of approximately 4 palms and 2 fingers. Thus, the pyramid once attained a height of *ca.* 32.5 m (for the base length of the pyramid see below).<sup>15</sup>

The exposed core of the south wall of the queen's pyramid showed the same method of construction that was previously noticed along the east side (Megahed 2011a: 621; also Maragioglio – Rinaldi 1977: 98). The

<sup>15</sup> The inclination of over 63° given by Maragioglio and Rinaldi cannot be ascertained at the moment (Maragioglio and Rinaldi 1962: 39; Maragioglio and Rinaldi 1977: 98, 104, tav. 15, fig. 2 [note that in the drawing the inclination is rendered as 62°]). Such a steep angle would have resulted in a height of the pyramid equalling its base length (80 cubits) and thus being only *ca.* 10 m smaller than its royal counterpart. Since this steep inclination was measured on a corner block found displaced in the temple area, it could have very well belonged to the casing of the queen's satellite pyramid, which has entirely vanished today (for this structure see below). The dimensions of the corner block (69 × 56 × 42 cm) also speak in favour of this conclusion.

core was constructed of large blocks of grey limestone between which smaller blocks and roughly cut stones were placed. This method of construction was perhaps faster than adjusting the large blocks right next to each other (see fig. 15).

Only a few of the core blocks bear hieratic builders' inscriptions, mostly in black paint with a few examples in very faded red paint. The clearest example was documented on a large block of the south wall, which shows two overlapping black paint inscriptions mentioning the *w3dt*-phyle and its *wr*-section, and a *smr-w<sup>r</sup>ty*-official.

As mentioned above, the casing blocks of the pyramid were almost entirely displaced and therefore its corners were not preserved in situ. The pavement at the south-east corner of the pyramid, however, clearly shows traces of the outline of the once existing corner casing block (fig. 16). Although no such clear traces survived at the south-west corner of the pyramid, the preserved pavement blocks allowed an educated estimate of the length of the pyramid's south side as *ca.* 41.5 m (80 cubits).

#### THE CORRIDOR AROUND THE PYRAMID

The corridor that runs around the pyramid, the *phr*-passage, was uncovered along its south side. Its outlines are clear on the surviving pavement of the precinct (see further below). The corridor is 1.75 m (3.5 cubits) wide in the eastern part near the south-east corner of the pyramid. The surface of the corridor in this area is not flat but sloped slightly from the sides to the centre, thus forming a shallow surface drain; its depth in the centre is *ca.* 5–6 cm. To the south of this corridor the southern part of the queen's temple is situated (see below).

The west part of the *phr*-passage is much narrower than its east part; it is only 0.51–0.57 m (*ca.* 1 cubit) wide. At the point where the corridor became narrow, a mud brick installation ("A") blocked both its wider and narrower parts (see fig. 15). Due to the existence of this installation, it is not possible to document the

floor between the two parts of the corridor. The north side of this installation was attached to the casing of the pyramid, which is today missing, but is still indicated by the angle of the mud brick wall. Its south side has an angle of *ca.* 88°, which corresponds to the slope of the south wall of the corridor. It was preserved to a height of 1.88 m and the wider corridor to the east of the installation was partly filled with an accumulation of dark grey deposits, labelled as trash layer 3 (see above).

At the south-west corner of the queen's pyramid, the narrow corridor opened into the west court of the pyramid. The outlines on the pavement showed that the width of this court was about 3 m. Except for the excavation and documentation of the south-west corner of the pyramid's core and the surrounding court, work did not continue further along the west side of the pyramid in 2018.

The outline of the queen's enclosure wall can be well traced on the preserved pavement blocks in the west part of the corridor. A small part of its core survived, 0.6–0.9 m wide and 4.5 m long, but it was originally 1.5 m thick including its casing. The two precincts were not connected but each had its own enclosure wall leaving a narrow passageway/pathway between them. This passageway perhaps provided a communication between the king's north portico (T.g area) and the cemetery situated to the west of the queen's monument, which thus far remains entirely unexplored. The floor/foundation blocks in this area indicate the thickness of the casing of both enclosure walls, which is missing today. The passageway itself, which was *ca.* 1.5 m wide, was not paved.

#### THE SOUTH PART OF THE QUEEN'S PRECINCT (TQ)

Unlike the above-mentioned pyramid casing, which was almost entirely removed, many of the pavement blocks by the south side of the queen's pyramid are well preserved. These blocks show clear traces of wall outlines, indicating the existence of rooms and corridors in this part of the

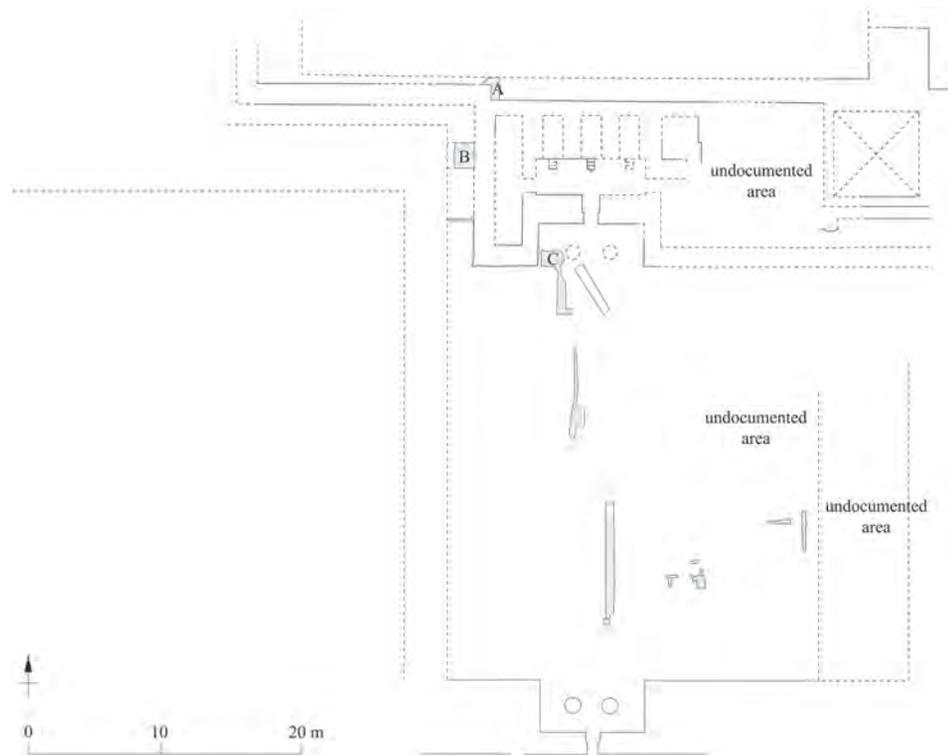


Fig. 16 The south-east corner of the queen's pyramid with outlines of the casing block clearly visible on the pavement blocks (photo H. Vymazalová)

Fig. 17 View of the area south of the queen's pyramid and the explored T.g area between the north massif in the east and the king's enclosure wall in the west (photo P. Jánosi)



Fig. 18 Preliminary plan of the southern part of the queen's precinct (drawing H. Vymazalová)



precinct (figs. 17 and 18). The floor is composed of finely smoothed white limestone blocks, with only a few patch stones. In this regard, the queen's monument differs from the king's temple, where the floor as well as parts of the sidewalls of the temple exhibit a large number of patch stones of small sizes.

### THE PORTICO

The entrance into the queen's precinct was from the south, and it was located opposite the king's north

portico (see fig. 18). It was  $7.7 \times 3.0$  m (ca.  $14.6 \times 5.7$  cubits) large and originally contained two palmiform columns of red granite. The shaft of the western column was preserved, fallen on the ground; it is 4.1 m long and the bottom base, which features a round hole for a tenon in the centre, measures 76.3 cm in diameter. The eastern column and both column bases are missing (fig. 19). Only two deep holes in the portico's pavement indicate the former position of these two columns. At the upper end of the shaft, traces of the bands of the palmiform capital are preserved, while the capital is completely lost. The side of the column bears



Fig. 19 The portico of the queen's precinct, showing the two pits for the column bases (now missing), the fallen western column and the offering tables and basins carved in the floor blocks (photo P. Jánosi)

a rectangle with hieroglyphic inscription in sunken relief facing right, naming the titles and the name of the queen (see further below). This column is the first attestation of a queen using inscribed granite columns, which was a prerogative of the monarch only.

At a later stage, probably during the (late?) Sixth Dynasty, the portico received additional mud brick walls. Remains of a mud brick installation "C" are still preserved in the portico's west side, reaching today up to a height of *ca.* 0.88 m (thickness *ca.* 2.5 cubits). At the east side of the portico, this wall has completely vanished. However, the northern part of the portico was covered with a 40–45 cm thick layer of mud brick destruction, which comprised the same type of mud bricks as found in the standing wall ("C"). Due to the destruction, however, it is not clear whether the portico was completely closed or whether these mud brick walls closed only the spaces between the columns and the portico side walls, while the narrow entry between the two columns remained open.<sup>16</sup>

Another mud brick wall running north-south was built directly against the south side of the installation "C". This thin wall (0.5 to 1 brick in width) seems to have functioned as a kind of fence or division in area T.g. and was built directly on the accumulated rubble in this part of the complex. While the area north of this wall was obviously used as a dumping place (trash layer 1), the space south of it seems to have guaranteed the unhindered communication between the king's temple and the queen's complex. In this area, the remains of more mud brick structures were noticed, which have not been entirely excavated yet (see below).

A secondary mud floor was partly preserved between this mud brick wall and the fallen column, which most likely disturbed it. In this mud floor, several small offering tables were placed, one of which was inscribed with an offering formula for a *shd zš Iri* "inspector of scribes, Iri" (DJ-F253-2018). In addition, a badly damaged limestone block with partly preserved sunken relief showing three female figures, identified as *rht-nzwt hm(t)-ntr Hwt-Hr*, "king's acquaintance, priestess of Hathor", was also found in this area (DJ-F253-2018); it was set in the mud brick wall running to the south from mud brick installation "C".

The south part of the portico was covered with debris of brown sand with many pebbles, limestone chips and blocks, which continued further south and east; and it contained numerous burials of later periods (see above the T.g area).

Many floor blocks of the portico exhibit rectangular cuts and depressions along their southern edges, some regular in shape while others rather rough. These depressions take the form of simple basins and offering tables, which are hewn directly into the pavement of the queen's complex (see fig. 19). Similar examples are known from the entrance of Unas' queen Khenut at Saqqara (Munro 1993: 49, 119, pl. 2). Additionally, many offering tables of various sizes, shapes and designs were discovered in the vicinity of the portico, in addition to those mentioned above that were installed in a secondary mud floor in the portico itself. Some of these tables bear inscriptions, while others were uninscribed. This evidence clearly attests to the so-called memorial cult of private individuals in the late Old Kingdom and First Intermediate Period,<sup>17</sup> and

<sup>16</sup> For a similar blocking installation, see the side entrance in Sahure's pyramid complex (*cf.* Borchardt 1910: 98–100).

<sup>17</sup> This practice, which highlights the personal cult, started in the Sixth Dynasty when individuals established multiple cult places of various types, and continued until the Middle Kingdom with its emphasis on ancestral cults and cults of "saints" (Legros 2016: 170–172, and *passim*).

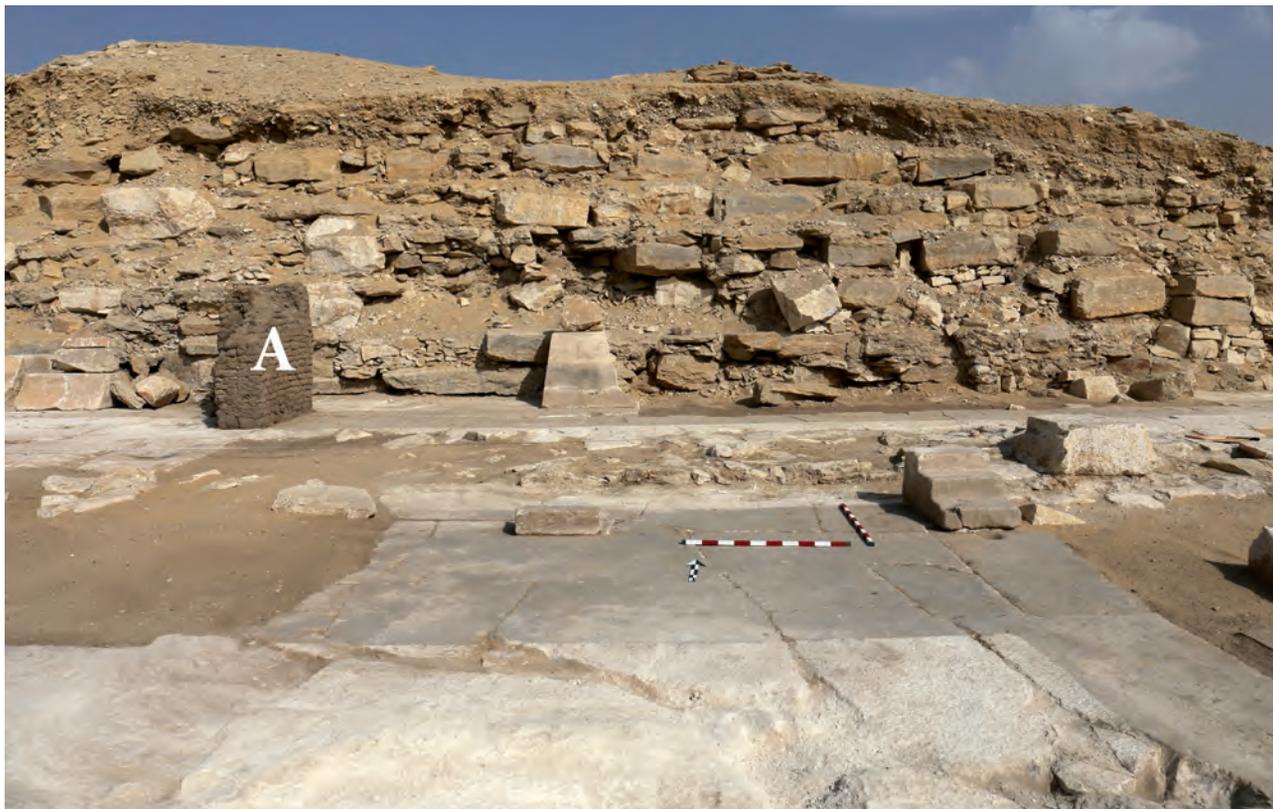


Fig. 20 The so-called statue chamber in the south part of the queen's precinct, showing the remaining two staircases and one block of the elevated rooms in the north part (photo P. Jánosi)

indirectly thus to the frequent activity related to the queen's own funerary cult during that time. The most extensive evidence of this type has been documented in the pyramid complexes of the queens of Pepy I (Legros 2016; Dobrev – Leclant 1998: 143–157), but examples are also known from other sites (e.g. Daoud 2005: 167–173, pls. 5, 100–107; Legros 2010: 157–163; Legros 2016: 51–52; for dating criteria of such offering tables, see Legros 2008).

### THE STATUE CHAMBER

A short corridor leads from the portico to the north; the floor block in front of this corridor had an incised *snt*-game marking the place where ancient guards spent their time playing (for parallels from the pyramid complexes and tombs of high officials of the Old Kingdom, see Munro 1993: 49; Pusch 1979: 169–177; Collombert, *forthcoming*). This corridor gave access to a rectangular room (fig. 20) with sets of short stairs consisting of three steps; the central stair (52.5–55.0 cm wide, 76 cm long, 45 cm high) was completely preserved and one step survived of the other stairs located 3.75 m to its west (55 cm wide). The east part of the room did not survive but another, third set of stairs is presumed to have existed there. The stairs lead to the north to a room or probably to three individual rooms (chapels) of unknown dimensions situated *ca.* 0.55 m higher than the entrance room. Only the foundation and one

floor block of this upper structure survived. It can be inferred that the stairs gave access to three chapels with statues. The floor in front of the central, best-preserved staircase, features a circular depression, which perhaps attests to rituals of purification.

The installation of three niches is a well attested feature in queens' pyramid complexes of the Old Kingdom (Jánosi 1996: 146–149); however, the position of such a room at the south side of the pyramid is unique. The presence of this room behind the entrance portico certainly attests to specific ritual activities related to statues (so-called "Verehrungskult" – probably showing the king with his favourite queen). The statues that were placed in these niches faced south towards the king's funerary temple and thus probably "welcomed" the king's soul as well as the priests who performed the cultic rituals. The layout of the queen's precinct thus confirms a strong connection between the king's and queen's funerary cults (indicated already by the location of the queen's portico directly opposite the northern exit from the king's temple).

### THE AREA TO THE WEST OF THE STATUE CHAMBER

The area to the west of the portico and statue chamber is badly preserved. Outlines on the preserved blocks indicate that one or more rooms existed in this part of the temple but their sizes and layouts cannot be specified. A mud brick installation ("B") was preserved in this part of the temple, which once blocked the passageway

between the room(s) and the queen's enclosure wall (see fig. 18). This mud brick installation reached 1.5 m in height. Its east side was built against the slope of the façade of the queen's temple while its unpreserved west side was once built against the inner face of the king's enclosure wall. The top of the installation "B" corresponds to the level on which the group of the rectangular limestone structures were constructed (see above T.g area). This installation also marks the north end of the large trash layer 1, which accumulated in the west side of the T.g area (see above).

#### THE AREA TO THE EAST OF THE STATUE CHAMBER

To the east of the statue chamber are outlines of several more rooms and corridors. The floor blocks are, however, only partly preserved and, therefore, the layout of this area cannot be completed at the moment.

Several individual rooms can be reconstructed but large spaces between them show no floor blocks and, therefore, the rooms and corridor cannot be connected.

A rectangular room 2.51 × 3.16 m (*ca.* 5 × 6 cubits) was situated to the east of the statue chamber, which was accessed through an entrance in the east end of the south wall, where the floor blocks shows traces of a single leaved door.

Further east of the entrance portico a small area of the queen's precinct was also cleared. This part features an east-west oriented corridor (2.08 m, *i.e.* 4 cubits wide). At its west end, traces of probably two doors were found, while its east end had a door in its north wall leading into a side chamber. The south end opened into a large columned entrance hall (not yet documented), which seems to connect the south and east parts of the queen's temple (see Maragioglio – Rinaldi 1977: 100, tav. 15, fig. 1). To the north of this corridor, another 0.53 m narrow "corridor" was found, which seems to be part of the south

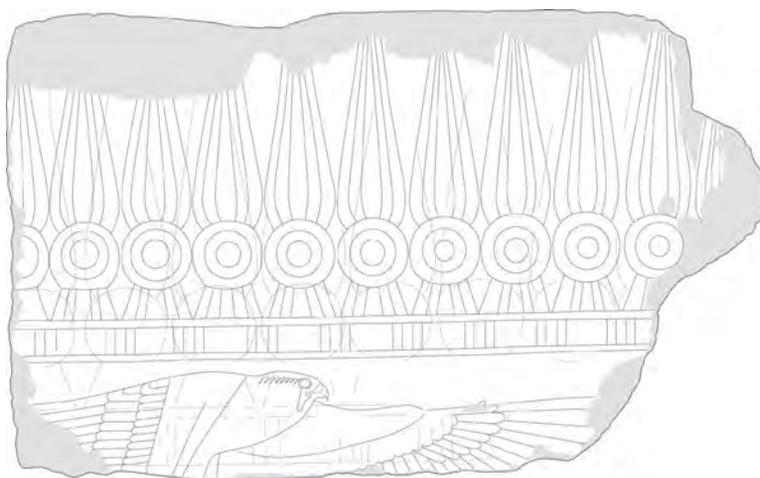


Fig. 21 Block DJ 297 with the re-worked frieze of *hkrw* and the falcon (photo A. Damarany, drawing E. Majerus)

court of the anticipated cult pyramid. This suggestion is only inferred from the few traces documented thus far and the description given by the two Italian architects (Maragioglio – Rinaldi 1977: 104). The floor blocks to the east and west of this part of the temple did not survive. The area of the supposed cult pyramid exhibits no masonry at all, but it is planned to entirely clear and document this part in the near future.

In addition to the many well-preserved pavement blocks of the queen's temple, many loose blocks of the temple walls were uncovered during the exploration of this area. These loose blocks included some architectural features, as, for instance, a doorjamb with holes for door bolts, which was found near the rectangular room south of the statue chamber. In addition, several large limestone blocks with low relief and many smaller relief fragments were found in this area. It seems more likely that these blocks and relief fragments came from the queen's precinct and not from the king's funerary temple, which is situated further south.

#### FRAGMENTS OF RELIEF DECORATION

Numerous small or large fragments of relief decoration were uncovered in the T.g area during the 2018 season, especially in its north part and in the south part of the queen's precinct. Many bore the star-pattern typical for the ceiling blocks, and parts of the *hkrw*-frieze that once decorated the top of the inner walls. Other blocks bore the remains of relief decoration with parts of figures of deities, parts of the queen's figure but also, for instance, men on boats and herdsmen with animals, *etc.* One almost completely preserved block bears a *hkrw*-frieze with a falcon underneath (fig. 21). The falcon is only partly preserved, facing right, with its wings open. This was one most likely a protective falcon above a scene of the queen, which itself did not survive. It is worth mentioning that the *hkrw*-signs were re-carved to be made smaller, while the falcon exhibits no re-carving. The alteration of the relief thus may reflect either erroneous planning of the artists' work or, perhaps more likely, a change in the design of the whole scene (for instance, the inclusion of the falcon above the queen's figure) due to reasons which we do not fully understand at this stage of the research. Similar evidence of re-carving (making smaller) of only part of the decoration was also documented on other relief fragments from this area.

Some of the uncovered blocks proved to be of special historical importance, as they provided us with inscriptions containing the name and titles of the queen. Two incomplete inscriptions were uncovered already in the spring season; these mention [*hmt nzwf*] *mrt.f St-ib-Hr*, "[king's wife], his beloved, Setibhor" (block DJ 249),



Fig. 22 Inscription on the granite column from the queen's portico (photo A. Damarany)

and [*hmt nzwf*] *St-ib-Hr*, "[king's wife], Setibhor" (block DJ 258) (for details, see Megahed – Vymazalová, *forthcoming*).

Another confirmation of the name and status of the owner of this unique monument was found in the fall part of the season on the red granite column in the portico. It was carved in sunken relief in a rectangle, situated *ca.* in the middle of the column's height. It reads: *m<sup>33</sup> Hr St<sup>h</sup> wrt hts wrt hzt hmt nzwf mrt.f St-ib-Hr*, "She who sees Horus and Seth, the great one of the *hts* sceptre, greatly praised, king's wife, his beloved Setibhor" (fig. 22).

The blocks and the column thus revealed the name of the queen who was the owner of the until now anonymous pyramid complex located by the north-east part of the king's funerary temple (for the previous discussions on the possible owner, see among others Baer 1960: 299; Maragioglio – Rinaldi 1977: 98–106; Seipel 1980: 220; Baud 1999: 624, no. 276; Verner 2002: 330; Callender 2011: 187–191; Megahed 2016: 56–58).

This previously unattested queen, Setibhor,<sup>18</sup> played an important role during Djedkare's reign, and her

<sup>18</sup> The name Setibhor was attested previously in the names of funerary domains in the tombs of Akhtihotep and Ptahhotep at Saqqara; however, the evidence did not show that this name belonged to the queen of Djedkare (for the funerary domains, see Davies 1901: pls. 10–11, 13–14; Paget – Pirie – Griffith 1898: pl. 34; Jacquet-Gordon 1962: 387, no. 2, 390, no. 16, 392, no. 22, 395, no. 34, 399, nos. 3–4, 402, no. 17; for the name, see Ranke 1935: 428, no. 15; Scheele-Schweizer 2014: 631 [2996]).

titles confirm that she was “king’s wife” while the title of “king’s mother” is not attested for her in the so far available evidence. Her unusual pyramid complex attests to the owner’s great importance (see *e.g.* Jánosi 1989; Baud 1999: 624; Callender 2011: 189–190; Megahed 2016: 56–58) and therefore Queen Setibhor probably played a significant role in Djedkare’s legitimisation (suggested *e.g.* by Maragioglio – Rinaldi 1977: 98). It seems very likely that she linked him to the main branch of the royal family of the Fifth Dynasty after the death of Menkauhor (see also Megahed 2016: 56–57; for further discussion on the queen, see Megahed – Vymazalová, *forthcoming*).

It is worth noting that one of the above discussed inscriptions with her name shows clear signs of re-carving of the title but not of the name. Such re-carving was previously noticed on reliefs and inscriptions from the queen’s pyramid complex (Moursi 1987: 189–190, figs. 3, 7; Megahed 2016: 263) and other examples of them were uncovered during our work as well (see above). The reasons for this alteration is, however, not clear at the moment, but so far no indications of re-carving the name of the owner of this monument have been found.

Among the most striking finds from this area are several fragments of the pyramid’s casing, which bear an inscription written in large hieroglyphs in sunken relief. There is no doubt that these fragments come from a restoration inscription of Khaemwaset, which must have been placed on the south wall of the queen’s pyramid (fig. 23). Only a small part of this inscription survived on the fragments, and surprisingly, the inscription contains a cartouche with the name of Pepy. This seems to be an indication that the monument was ascribed to the wrong owner in the Ramesside period (see further in Megahed, *in preparation*).

#### PRELIMINARY SUMMARY OF THE HISTORICAL DEVELOPMENT OF THE EXPLORED AREA

The 2018 season exploration of the area between the king’s funerary temple and the south wall of the queen’s pyramid provided us with rich archaeological and epigraphic evidence which is yet to be fully examined. A high number of pottery finds and over 150 burials, many of which include more than one individual, were uncovered in this area. This stage of our study allows us to suggest a preliminary reconstruction of the development of the site, which will later be further complemented and elaborated in more detail.

The basic stages of the development of the T.g area of the king’s pyramid complex and the south part of the queen’s precinct can be suggested as follows:

1. Construction of the pyramid complex of the king and his queen as two neighbouring precincts with porticos facing each other. Both precincts seem to have been planned together and probably constructed at the same time. The funerary cults of the king and his queen were undoubtedly closely connected;
2. Activity associated with the funerary cults and probably a small habitation area of the late Old Kingdom and First Intermediate Period date. The accumulation of the waste deposits in the west and north parts of the area (trash layers 1–3) attest to long-term use of the site. Numerous offering basins were installed by private individuals along the façade of the queen’s portico;
3. The earliest burials in burial pits hewn in the ground level between the king’s and queen’s temples date most likely to the time when the funerary cults were abandoned;



Fig. 23 The largest of the discovered fragments of the inscription of Khaemwaset, which was found at the south side of the queen’s pyramid (photo A. Damarany, drawing E. Majerus)

4. Burial(s) of the Second Intermediate Period within trash layer 1, including the burial with wooden female statuettes and a Tell el-Yehoudiya jug;
5. Many burials of the late Second Intermediate Period and/or early New Kingdom date in the eastern sector of the area, to the west of the north massif;
6. Restauration inscription of Khaemwaset on the south side of the queen's pyramid; destruction of the temples, removal of the casing blocks of the king's enclosure wall, as well as the queen's pyramid and temple; the south part of the queen's precinct was cleaned to the ground level in many parts;
7. Continuous burial activity in the whole area. Some of the burials and pottery deposits were placed between the relocated limestone blocks during the Late Period. Other burials were placed in stone structures, some of which were built on top of trash layer 1 after the removal of the casing of the king's enclosure, while still others were constructed slightly above the floor in the queen's precinct; they were surrounded by debris of mixed yellow and brown sand with many limestone chips. At least three of these structures contained ceramic coffins, two with flat lids and one with a flat lid decorated with a face. Many ceramic coffins and their fragments, sometimes with small remains of burials were found in the upper layer of the debris, which consisted of yellow sand with a small quantity of limestone chips, perhaps dating to the latest parts of the pharaonic period.

The exploration of the T.g and TQ areas will continue in the coming season; the aim is to clean the ground level in the eastern and central sectors of the T.g and to document the remains of the mud brick structures along the west side of the north massif.

## ACKNOWLEDGMENTS

This paper was written within the project "Transformation of the Ancient Egyptian Society in the Late Fifth Dynasty According to the Evidence from Djedkare's Pyramid Complex", supported by the Czech Science Foundation (grant no. GA18-03708S).

## BIBLIOGRAPHY:

- Arnold, Dieter  
2007 *The Encyclopaedia of Ancient Egyptian Architecture*, London – New York: I. B. Tauris & Co. Ltd.
- Baer, Klaus  
1960 *Rank and Title in the Old Kingdom: The Structure of the Egyptian Administration in the Fifth and Sixth Dynasties*, Chicago: University of Chicago Press.
- Baud, Michel  
1999 *Famille royale et pouvoir sous l'Ancien Empire égyptien*, Le Caire: Institut français d'archéologie orientale [Bibliothèque d'étude 126].
- Borchardt, Ludwig  
1907 *Das Grabdenkmal des Königs Ne-user-re*, Leipzig: Hinrichs'sche Buchhandlung [Wissenschaftliche Veröffentlichungen der Deutschen Orient-Gesellschaft 7; Ausgrabungen der Deutschen Orient-Gesellschaft in Abusir 1902–1904. Bd. 1].  
1909 *Das Grabdenkmal des Königs Nefer-ir-ke-re*, Leipzig: Hinrichs'sche Buchhandlung [Wissenschaftliche Veröffentlichungen der Deutschen Orient-Gesellschaft 5; Ausgrabungen der Deutschen Orient-Gesellschaft in Abusir 1902–1904. Bd. 5].  
1910 *Das Grabdenkmal des Königs Šꜥ3ḥu-re*. Bd. I *Der Bau*, Leipzig: Hinrichs'sche Buchhandlung [Wissenschaftliche Veröffentlichungen der Deutschen Orient-Gesellschaft 14; Ausgrabungen der Deutschen Orient-Gesellschaft in Abusir 1902–1908. Bd. 6].
- Callender, Vivienne Gae  
2011 *In Hathor's Image I. The Wives and Mothers of Egyptian Kings from Dynasties I–VI*, Prague: Charles University in Prague, Faculty of Arts.
- Collombert, Philippe  
*forthcoming* "Circulations et jeux de senet dans la nécropole de Pépy I<sup>er</sup> à Saqqara", in: Legros, Rémi (ed.). *Dans les pas d'Imhotep. Mélanges offerts à Audran Labrousse*.
- Cotelle-Michel, Laurence  
2004 *Les sarcophages en terre cuite en Égypte et en Nubie de l'époque prédynastique à l'époque romaine*, Dijon: Faton.
- Daoud, Khaled  
2005 *Corpus of Inscriptions of the Herakleopolitan Period from the Memphite Necropolis*, Oxford: British Archaeological Reports [British Archaeological Reports. International Series 1459].
- Davies, Nina de Garis  
1901 *The Mastaba of Ptahhetep and Akhetetep at Saqqareh, Part II: The Mastaba, the Sculptures of Akhetetep*, London: Archaeological Survey of Egypt [Ninth Memoir].
- Dobrev, Vassil – Leclant, Jean  
1998 "Les tables d'offrandes de particuliers découvertes aux complexes funéraires des reines près de la pyramide de Pépy I<sup>er</sup>", in: Grimal, Nicolas (ed.). *Les critères de datation stylistique a l'Ancien Empire. Rencontre internationale, Institut français d'archéologie orientale, Le Caire, 10–13 novembre 1994*, Le Caire: Institut français d'archéologie orientale [Bibliothèque d'étude 120], pp. 143–157.
- Drioton, Étienne  
1947 "Les travaux archéologiques du Service des antiquités de l'Égypte en 1946–47", *Comptes rendus de l'Académie des inscriptions et belles-lettres* 91, pp. 519–527.
- Fakhry, Ahmed  
1959 *The Monuments of Sneferu at Dahshur. I. The Bent Pyramid*, Cairo: General Organization for Government Printing Offices.
- Harrell, James A.  
1990 "Misuse of the term "alabaster" in Egyptology", *Göttinger Miszellen* 119, pp. 37–42.
- Hulková, Lucia  
2013 *Ein Ramessidischer Friedhof zwischen Tell el-Dab'a und 'Ezbet Helmi*, Wien: Universität Wien (unpublished Master's thesis).

- Jacquet-Gordon, Helen  
1962 *Les noms des domaines funéraires sous l'Ancien Empire égyptien*, Le Caire: Institut français d'archéologie orientale.
- Jánosi, Peter  
1989 "Die Pyramidenanlage der 'Anonymen Königin' des Djedkare-Isesi", *Mitteilungen des Deutschen Archäologischen Instituts, Abteilung Kairo* 45, pp. 187–202.  
1996 *Die Pyramidenanlagen der Königinnen. Untersuchungen zu einem Grabtyp des Alten und Mittleren Reiches*, Vienna: Verlag der Österreichischen Akademie der Wissenschaften [Untersuchungen der Zweigstelle Kairo des Österreichischen Archäologischen Instituts 13; Denkschriften der Gesamtsakademie 13].
- Jéquier, Gustav  
1929 "Rapport préliminaire sur les fouilles exécutées en 1928–1929 dans la partie méridionale de la nécropole memphite", *Annales du Service des antiquités de l'Égypte* 29, pp. 150–161.  
1930 "Rapport préliminaire sur les fouilles exécutées en 1929–1930 dans la partie méridionale de la nécropole memphite", *Annales du Service des antiquités de l'Égypte* 30, pp. 105–116.
- Klemm, Rosemarie – Klemm, Dietrich D.  
1993 *Steine und Steinbrüche im Alten Ägypten*, Berlin: Springer.  
2008 *Stone and Quarries in Ancient Egypt*, London: British Museum Press.
- Leclant, Jean  
1982 "Fouilles et travaux en Égypte et au Soudan, 1979–1980", *Orientalia* 51/1, p. 67[q].
- Legros, Rémi  
2008 "Approche méthodologique pour une datation des tables d'offrandes de la Première Période intermédiaire", *Bulletin de l'Institut français d'archéologie orientale* 108, pp. 231–252.  
2010 "La disparition d'une élite? Les cultes privés de la nécropole de Pépy I<sup>er</sup> à Saqqâra", in: Moreno García, Juan Carlos (ed.). *Élites et pouvoir en Égypte ancienne*, Villeneuve d'Ascq: Université Charles de Gaulle-Lille 3 [Cahier de recherches de l'Institut de papyrologie et d'égyptologie de Lille 28], pp. 157–176.  
2016 *Stratégies mémorielles. Les cultes funéraires privés en Égypte ancienne de la VI<sup>e</sup> à la XII<sup>e</sup> dynastie*, Lyon: Maison de l'Orient et de la Méditerranée [Travaux de la Maison de l'Orient et de la Méditerranée 70].
- Lehner, Mark  
1997 *The Complete Pyramids*, London: Thames and Hudson.
- Maragioglio, Vito Giuseppe – Rinaldi, Celeste Ambrioglio  
1962 *Notizie sulle piramidi di Zedefrà, Zedkarà Isesi, Teti*, Torino: Artale.  
1977 *L'architettura delle piramidi menfite VIII*, Torino: Artale.
- Megahed, Mohamed  
2011a "The Pyramid Complex of 'Djedkare's Queen' in South Saqqara: Preliminary Report 2010", in: Bárta, Miroslav – Coppens, Filip – Krejčí, Jaromír (eds.). *Abusir and Saqqara in the Year 2010/2*, Prague: Charles University in Prague, Faculty of Arts, pp. 616–634.  
2011b "Neue Forschungen im Grabbezirk des Djedkare-Isesi", *Sokar* 22, pp. 25–35.  
2014 "Die Wiederentdeckung des Pyramidenbezirks des Djedkare-Isesi in Sakkara-Süd", *Sokar* 28, pp. 6–19.  
2016 *The Pyramid Complex of Djedkare-Isesi at South Saqqara and Its Decorative Program*, Prague: Charles University (unpublished Ph.D. thesis).  
*in preparation* "A newly discovered inscription of Khaemwaset".
- Megahed, Mohamed – Hashesh, Zeinab – Jánosi, Peter – Vymazalová, Hana  
2019 "Neue Ausgrabungen im Pyramidenkomplex des Djedkare-Isesi", *Sokar* 38, pp. 24–49.
- Megahed, Mohamed – Jánosi, Peter  
2017 "The Pyramid Complex of Djedkare at Saqqara-South, Recent Results and Future Prospects", in: Bárta, Miroslav – Coppens, Filip – Krejčí, Jaromír (eds.). *Abusir and Saqqara in the Year 2015*, Prague: Czech Institute of Egyptology, Faculty of Arts, Charles University in Prague, pp. 237–256.
- Megahed, Mohamed – Jánosi, Peter – Vymazalová, Hana  
2017a "Djedkare's pyramid complex: Preliminary report of the 2016 season", *Prague Egyptological Studies* XIX, pp. 37–52.  
2017b "Neues von der Pyramidenanlage des Djedkare-Isesi. Grabungs- und Forschungsergebnisse 2015–2016", *Sokar* 34/1, pp. 36–63.  
2018a "Djedkare's pyramid complex: Preliminary report of the 2017 season", *Prague Egyptological Studies* XXI, pp. 34–44.  
2018b "Der Pyramidenbezirk des Djedkare-Isesi. Konsolidierung, Grabungen und Dokumentationen 2017", *Sokar* 37, pp. 48–67.
- Megahed, Mohamed – Vymazalova, Hana  
*forthcoming* "Notes on the newly discovered name of Djedkare's queen", in: Kamrin, Janice – Bárta, Miroslav – Ikram, Salima – Lehner, Mark – Megahed, Mohamed (eds.). *Guardian of Ancient Egypt: Studies in Honor of Zahi Hawass*.
- Megahed, Mohamed – Vymazalová, Hana – Brůna, Vladimír – Marek, Zdeněk  
2016 "Die Pyramide des Djedkare-Isesi in 3-D, Neue Methoden zur Dokumentation der Königlichen Grabkammer", *Sokar* 32/1, pp. 38–49.
- Montet, Pierre  
1948 "Saqqarah Fouilles de Service des Antiquités", *Chronique d'Égypte* 23/45–46, p. 48.
- Moursi, Mohamed  
1987 "Die Ausgrabungen in der Gegend um die Pyramide des *DD-K3-R<sup>c</sup>* 'ISSJ' bei Saqqara", *Annales du Service des antiquités de l'Égypte* 71, pp. 185–193.
- Munro, Peter  
1993 *Der Unas-Friedhof Nord-West 1. Topographisch-historische Einleitung. Das Doppelgrab der Königinnen Nebet und Khenut*, Mainz: Philipp von Zabern.
- Nicholson, Paul T. – Shaw, Ian  
2000 *Ancient Egyptian Materials and Technology*, Cambridge: Cambridge University Press.
- Paget, Rosalind – Pirie, Annie – Griffith, Francis Llewellyn  
1898 *The Tomb of Ptah-Hetep*, London: Quaritch.

- Pusch, Edgar B.  
1979 *Das Senet-Brettspiel im Alten Ägypten: Das inschriftliche und archäologische Material*, München: Deutscher Kunstverlag [Münchner Ägyptologische Studien 38/2].
- Ranke, Herman  
1935 *Die ägyptischen Personennamen. Bd. 1., Verzeichnis der Namen*. Glückstadt: J. J. Augustin.
- Sartini, Lisa  
2015 "The black coffins with yellow decoration: a typological and chronological study", *Egitto e vicino oriente* 38, pp. 49–66.
- Schäfer, Heinrich  
1908 *Priestergräber und andere Grabfunde vom Ende des Alten Reiches bis zur Griechischen Zeit vom Totentempel des Ne-User-Rê*, Leipzig: J. C. Hinrichs [Ausgrabungen der Deutschen Orient-Gesellschaft in Abusir 1902–1904; Wissenschaftliche Veröffentlichung der Deutschen Orient-Gesellschaft 8].
- Scheele-Schweitzer, Katrin  
2014 *Die Personennamen des Alten Reiches. Altägyptische Onomastik unter lexikographischen und sozio-kulturellen Aspekten*, Wiesbaden: Harrassowitz [Philippika. Marburger altertumskundliche Abhandlungen 28].
- Seipel, Wilfried  
1980 *Untersuchungen zu den ägyptischen Königinnen der Frühzeit und des Alten Reiches: Quellen und historische Einordnung*, Hamburg: Universität Hamburg (unpublished Ph.D. thesis).
- Stadelmann, Rainer  
1985 *Die ägyptischen Pyramiden. Vom Ziegelbau zum Weltwunder*, Mainz am Rhein: Philipp von Zabern [Kulturgeschichte der Antiken Welt 30].
- Varille, Alexander  
1947 *À propos des pyramides de Snéfrou*, Cairo: Schindler.  
1954 "À propos des pyramides de Snéfrou", *Le Musée vivant* 3, série C, pp. 13–18.
- Verner, Miroslav  
2002 *The Pyramids: Their Archaeology and History*, London: Atlantic Books.
- Vymazalová, Hana – Hashesh, Zeinab  
2019 "Secondary burial ground in the pyramid complex of King Djedkare: Preliminary report on burials with grave goods", *Annals of the Náprstek Museum* 40/1, pp. 75–101.

**Mohamed Megahed**

Czech Institute of Egyptology, Faculty of Arts, Charles University  
mohamed.megahed@ff.cuni.cz

**Peter Jánosi**

Institute of Egyptology, University of Vienna  
peter.janosi@univie.ac.at

**Hana Vymazalová**

Czech Institute of Egyptology, Faculty of Arts, Charles University  
hana.vymazalova@ff.cuni.cz