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SECONDARY BURIAL GROUND IN THE PYRAMID COMPLEX OF KING DJEDKARE: A PRELIMINARY REPORT ON BURIALS WITH GRAVE GOODS

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ABSTRACT: The exploration of the pyramid complex of King Djedkare at south Saqqara in 2018 revealed a large number of secondary burials. These burials were found between the north part of the king's funerary precinct and in the south part of his queen's precinct in an area which had not been previously excavated. This brief preliminary study presents the archaeological frame together with the results of the osteological examination of a small group of burials which contained grave goods. This study shows that at this burial ground, grave goods were associated mostly with immature individuals, and in a smaller number of cases with adult women, while no adult male burial with grave goods was documented in this group.

KEY WORDS: Saqqara – Old Kingdom – Fifth Dynasty – pyramid complex – Djedkare – secondary burial – osteology

1. Introduction

The pyramid complex of King Djedkare, which is situated in south Saqqara has been systematically explored since 2010 by an Egyptian archaeological mission headed by M. Megahed (Megahed 2011a, b; 2014; 2016; Megahed – Jánosi 2017; Megahed – Jánosi – Vymazalová 2017; 2018). The aims of this mission include above all the protection of the monument, as well as documentation of the funerary complex of the king, of which a large part was excavated previously in the 1940s and 1950s, but the excavation has never been concluded or published (Megahed 2016: 66–70).

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In addition to this effort, in 2018 the current mission uncovered the north part of the precinct, which has not been uncovered by the previous excavators. This so-called T.g area lies between the north portico of the king's precinct, the so-called north massif, and the queen's pyramid [see Plan 1]. The results of the 2018 season brought to light not only a plan of the T.g area including the entrance to the queen's funerary temple, but also revealed new evidence about the queen herself, whose identity has puzzled scholars until now (Megahed – Jánosi – Vymazalová 2019 forthcoming; Megahed – Vymazalová forthcoming).

2. The Burial Ground in the T.g Area

During the exploration of the T.g area in 2018 [Fig. 1], a large number of human interments as well as scattered human remains was discovered, which attest to intensive burial activities in the shadow of Djedkare's pyramid during the centuries and millennia after the king's death (Megahed – Jánosi – Vymazalová 2019 forthcoming). The majority of these burials were simple, but they show a certain variety of burial customs with all types of orientation. Many of the deceased were buried simply in the sand, but some were placed in burial pits, others in small tombs constructed of limestone pieces and slabs, while yet other burials were surrounded only by a few pieces of stone or mud bricks. Many burials included remains of burial containers made of reed and wood, which usually disintegrated. Pottery coffins also were well attested on this site (Megahed – Jánosi – Vymazalová 2019 forthcoming). Only a small number of the documented burial remains included any kinds of grave goods. The majority of these consisted of beads made of faience, stone and bone, and amulets made of faience and stone, as well as a few rings (Megahed – Jánosi – Vymazalová 2019 forthcoming). The around 150 documented burial contexts comprised a much higher number of individuals. Some contexts contained several primary individuals buried in a group, while the majority of the contexts also included an intrusion of a bone or a few bones of secondary remains which came from the surrounding debris. The burials were of all age-groups and both sexes.

The osteological analysis of the discovered human remains started in the fall of 2018 and is still ongoing. In the fall of 2018, a small group of the finds was selected for a detailed analysis: human remains with associated grave goods.

3. The Burials with Grave Goods from the T.g Area

The selection criteria for the 2018 osteological analysis were rather simple: burials which were associated with beads, amulets, rings and similar objects were selected as the first group to be studied in detail. Burials placed in burial containers of pottery, reed or wood but associated with no other grave goods were not included, and will be studied in the following seasons.

The above-mentioned selection does not result in a "representative sample" of all the documented burials, but rather, focuses on a particular type of burial, that is relatively well preserved and one that perhaps is representative of a specific socio-economic and religious group.[2]

[2] This selection, however, also to some extent reflects the state of preservation: many of the documented burials were looted already in antiquity, and therefore more deceased may have originally had adornments which are lost to us today. The selected group thus includes only those burials where the grave goods were preserved.

The objects that were associated with the studied group of burials are often simple and hard to date by themselves. Therefore, the types of the surrounding debris and the study of the stratigraphy of the site was essential for their dating. Excavations of the T.g area revealed several major types of debris that are datable from ceramic finds, which further reflect dating of the interments (for more information, see Megahed – Jánosi – Vymazalová 2019 forthcoming): (1) a grey dust "trash" layer at the bottom level of the west part of the T.g area, dating to the late Old Kingdom and First Intermediate Period; (2) brown sand with numerous pebbles, dating to the late Second Intermediate Period and early New Kingdom; (3) yellow to yellow-brownish sand with limestone chips, dating to the 2nd and 1st millennium BC; (4) limestone chips and block fragments along the south wall of the queen's pyramid resulted from the destruction of the monument.

The various types of debris were not clearly distinguished in vertical stratigraphy, due to intensive activities on the site. For instance, the central part of the T.g area as well as the sector near the queen's pyramid contained the yellow debris (3) until the ground level, attesting to later activities in these parts of the T.g area. On the other hand, the brown debris (2) was documented in lower levels mostly in the east part and the grey trash layer (1) formed the lower level in the west part, both reflecting earlier activities on the site. At the same time, the chips from the pyramid (4) have accumulated along the south wall of the monument during the time, and do not reflect any clear dating (see also Megahed – Jánosi – Vymazalová 2019 forthcoming). Therefore, in general, the elevation of individual burials does not necessarily reflect their earlier or later dates. To estimate the date of a burial we need to evaluate its elevation together with the position within the T.g area and the type of surrounding debris. The pottery analysis from the different parts of the debris which can further help us with the dating is yet unfinished.[3] The other preserved grave goods are often simple beads and amulets which are difficult to date to a specific period.

4. Osteological Analysis of the Burials with Grave Goods from the T.g Area

The aim of the osteological analysis of the selected group of burials from the T.g area focused on the determination of a demographic profile of the assemblage, based on the assessment of sex, age and stature, as well as metric and non-metric traits and pathological conditions from which the individuals may have suffered. This information further indicates the occurrence of disease types and age-related changes. It is also conclusive for recognizing the impact of the sex, labour, lifestyle and diet, as well as the role of different age groups in ancient Egypt.

4.1 *Methodology*

The osteological analysis and recording system followed the standards for data collection from human skeletal remains as defined by Buikstra and Ubelaker (Buikstra – Ubelaker 1994). Many of the studied remains, especially the primary burials, were in good state of preservation. Where possible, the following features and details were documented for further analysis:

- Metrics providing an estimation of sex based primarily on pelvic and cranial morphology, according to standard osteological methods (Buikstra – Ubelaker 1994; Bass 1995; White

[3] Most of the pottery contexts from the T.g area have been studied and evaluated by Ashraf El-Senoussi, some other selected contexts have been studied and evaluated by Nermeen Aba Yazeed.

– Folkens 2000; Brothwell 1981; Novotny 1982); or of stature (Bass 1995);

- The pelvic or skull dimorphic traits using the standard based on Buikstra and Ubelaker (1994);
- Age assessment using standard osteological methods, especially dental development (Al Qahtani – Hector – Liversidge 2010; Ubelaker 1978: 64), epiphyseal closure (Brothwell 1981: 66), long-bone length for non-adult individuals (Schaefer – Black – Scheuer 2009), and pelvic morphology using the changes at the pubic symphysis for adult individuals (Todd 1920; Brooks – Suchey 1990; Lovejoy et al. 1985; Acsádi – Nemeskéry 1970; Scheuer – Black 2000).

Although the dental attrition was also recorded it was not used for age estimation because the application of this method on ancient populations is rather problematic (Brickley – Berry – Western 2006).

The analysis and documentation of the selected group of human remains also included detailed photographic documentation, and the field records of the archaeological contexts. The material was analysed through visual examination and where necessary with the aid of a magnifying glass for detailed identification purposes. The osteological examination was carried out without the knowledge of the associated artifacts so that the assessment remained as objective as possible. Osteological analysis was carried out to ascertain the following:

- The condition of bone present;
- The completeness of the skeleton;
- The inventory of the skeletal material;
- The metric and non-metric traits;[4]
- The skeletal pathology;
- Dental health.

During the examination of the selected group of burial contexts, the minimum number of individuals (MNI) was stated, which depends on calculation per feature based on the number of repeated skeletal elements by sex and age in the same context. In many cases more than one individual was identified in the same context [see Table 2], including a more complete skeleton of a primary individual, and fragmentary remains of the secondary individual(s) whose bone(s) were mixed with the debris around the primary burial(s).

5. Preliminary Information on the Burials with Grave Goods from T.g Area

The following overview summarizes the archaeological and the osteological evidence for the different groups of burials according to the archaeological circumstances. The focus is on the primary burials that belonged to individual contexts, while the secondary intrusive remains are only briefly mentioned here. The following overview includes mostly information about the grave goods, age and sex (if possible) as well as some selected results of the osteological examination.[5] More complete information on the position of the body, its elevation, etc. is given in Table 2. The position of the individual burials under discussion is marked in Plan 2.

[4] Non-metric traits (cranial, post cranial and dental) were not studied in detail during this preliminary examination of the skeletons; they are, however, planned to be fully evaluated in the future.

[5] A more detailed osteological report is under preparation by Zeinab Hashesh.

5.1 Burial in the Grey Dust "Trash Layer"

Of the several burial pits, which were cut into the grey dust "trash layer" in the west part of the T.g area (see the "trash layer 1" in Megahed – Jánosi – Vymazalová 2019 forthcoming), only one was associated with grave goods. This heavily plundered context included two individuals (DJ-F189-2018/sk.22–23),[6] which belonged to an older child 10 years old and an infant 1–2 years old, based on dental development (Al Qahtani – Hector – Liversidge 2010) and femur length (Maresh 1970). Their bones were scattered in a north-south oriented pit, together with fragments of a disintegrated wooden chest, a pottery jar, remains of two wooden female statuettes, faience disc beads, and lid of a calcite vessel. Considering the size of the burial pit and the skull fragments found in situ, the older child was the primary individual buried in this context. However, the similar degree of preservation of both skeletons in this context (ca 50% of both skeletons), as well as their young age, lead us to a speculation whether these two children may have been buried together.

5.2 Burials in the Debris of Brown Sand with Numerous Pebbles and Mud Brick Destruction

Four burials with grave goods were found in the layer of brown sand with very numerous pebbles in the east sector of the T.g area. These burials can be dated to early New Kingdom period, based on the archaeological situation, pottery finds[7] and epigraphic evidence from the grave goods. All of the four burials were oriented north-south and placed extended on their backs, except for the youngest one which was contracted on its side. None of these burials had any intrusive remains.

A young child 2–3 years old (DJ-F45-2018/sk.1) was found together with faience beads and a *wedjat*-eye amulet on its chest, which bears incised decoration on its flat bottom side (for comparison, see Hornung – Staehelin 1976: 350). An older child 7–8 years old (DJ-F67-2018/sk.3) was buried with a round shaped stamp seal of dark green stone, with an incised decoration on the flat side (see Hornung – Staehelin 1976: 373), and beads made of bone, red stone and blue faience. Remains of braided hair may indicate female sex, which however cannot be confirmed from the bones. Localised enamel hypoplasia on its teeth indicates poor nutrition and health during early childhood.

Another child ca 11–12 years old (DJ-F76-2018/sk.5), had bone-disc beads on the right wrist and a scarab was found on its left hand. The flat side of the scarab bears incised hieroglyphic signs reading: *Ḏsr-kꜣ-Rꜥ* 'Djeserkare', i.e. the name of Amenhotep I. The scarab therefore constitutes a *terminus post quem* for the internment of this individual[8] [Fig. 2]. The first two children (DJ-F45-2018/sk.1 and DJ-F67-2018/sk.3) showed traces of poor nutrition, while the third one (DJ-F76-2018/sk.5) had a congenital

[6] Each burial is designated with an *excavation number*, which includes the DJ+Find-Number+Year-of-Excavation, and a *skeleton number*, which is added behind the slash "/" and refers to the total of the individuals identified in the excavated contexts (MNI). See also the numbering of the burials and individual skeletons in Table 2.

[7] The analysis of these pottery contexts contains numerous late Second Intermediate Period-early New Kingdom types of vessels. The detailed analysis is under preparation by Ashraf El Senoussi.

[8] This seems to correspond to the dating of the pottery finds from this type of debris, see the previous note.

disease, namely sacral spina bifida occult in s2 s4-s5 segment[9] resulting from a combination of genetic predisposition and triggers of environmental factors.

The only adult burial with grave goods in this group belonged to a female about 35–39 years of age (DJ-F75-2018/sk.4). A single tubular faience bead and a stamp seal with incised decoration on the flat bottom side were found together with the body (for comparison, see e.g. Hornung – Staehelin 1976: 397). Some of her braided hair was still preserved. The osteological analysis revealed among other, osteoarthritis, osteophytes growth, enamel hypoplasia and eburnation. These features are associated with increasing age, as well as mechanical stress, lifestyle and nutrition (Larsen 1997; Roberts – Manchester 2007).

5.3 Debris of Yellow or Mixed Yellow-brownish Sand with Limestone Chips

The largest number of burials with grave goods were placed in the debris of yellow sand (sometimes mixed yellow and brown sand near the debris discussed in the previous section) with limestone chips. The quantity of the limestone chips in the debris was not high in the south sector of the explored area, but it increased near the queen's pyramid due to the gradual falling off of stones from the queen's monument and due to its destruction. Many of these burials in the lower parts of the debris were placed near or between large blocks which came from the queen's funerary temple. Due to Ramesside activities, which are well attested on the basis of Khaemwaset's restoration inscription on the queen's pyramid (see Megahed – Jánosi – Vymazalová 2019 forthcoming), the burials near the queen's pyramid are situated at a lower level compared to those further south, which rest upon earlier debris.

The burials in this group can be roughly dated to the 2nd and 1st millennium BCE, including above all the Third Intermediate Period, Late Period, and possibly up until the Ptolemaic and Roman eras. It is rather difficult to date these burials to a specific period due to the absence of grave goods that provide a clear chronology. The ceramic analysis from this area, which may give us some more dating clues, is still in progress.

The burials in this group show a larger variety of orientation: both north-south and east-west, with heads most often to the west, but also to the north and east. The deceased were placed on the back as well as the sides [see Table 2].

The youngest (in age) burials in this group included three infants buried together (DJ-F342-2018/sk.33–35). One of them (DJ-F342-2018/sk.35) was only 6–9 months old and was placed in a small tomb of mud bricks and limestone together with two little vessels, one of pottery and one of unburned clay sealed with mud stoppers.[10] Two other infants, both 9–12 months of age, were placed along the north side of this small tomb, side by side (DJ-F342-2018/sk.33–34) [Fig. 3]. A ca 15mm long barrel shaped bead made of red stone was found near the bones of the northern of these two infants. The archaeological context as well as the same age, measurements of long bones and dental measurements seems to confirm strongly suggest that these two infants were twins. A close family relationship to skeleton 35 may be posited based on proximity of the burials.

[9] This is a defect in the spinal cord which leads to a failure in the development of neural canal in addition to incomplete development of the elements of the neural arch of one or more vertebrae. Sometimes this case leads to paraplegia.

[10] Documentation and analysis of these pottery vessels were done by Nermeen Aba Yazeed.

Yet another infant 9–12 month of age was buried in a well-preserved reed basket, together with ball and barrel shaped stone beads, and a tiny frog-amulet of a red stone (DJ-F143-2018/sk.18). The amulet undoubtedly refers to the goddess Heket, who was associated with fertility and was closely connected with childbirth and child protection [Fig. 4a–b].

Five other burials belonged to young children between 1 and 3 years of age. Two were buried with a *wedjat*-eye-amulet of faience (DJ-F197-2018/sk.26; DJ-F267-2018/sk.29), another one with coloured beads of stone and glass and a copper bracelet (DJ-F123-2018/sk.6), one child was buried with faience beads and calcite earring (DJ-F54-2018/sk.2), and yet another one with a bracelet (DJ-F195-2018/sk.25). Evidence of malnutrition or nutritional disorders were noticed on two last mentioned burials, indicated by Cribra orbitalia [see Table 2].

Of the individually buried older children in this group of contexts, the youngest was an 11–12 years old child (DJ-F129-2018/sk.9) buried with eight faience amulets of Taweret and Bes, and two scarabs, one inscribed with the name of god *Ỉmn-Rᶜ* 'Amun-re' and the other with a stylised depiction of a god. Another child, 12–13 years old (DJ-F149-2018/sk.21), was adorned with beads and amulets of multiple shapes and materials, including ball, tubular and disc shaped beads of faience, bone and stone; many of the faience beads have simplified stylized shapes of amulets as well as ancient Egyptian gods (e.g., Taweret, baboon of Thoth, *wedjat*-eye, *ankh*-sign, heart, etc). This individual suffered from malnutrition, indicated by Cribra orbitalia and enamel hypoplasia.[11]

The group included two adolescent deceased buried individually. One of these belonged probably to a female 15–16 years old (DJ-F124-2018/sk.7) and it was found scattered near a pottery deposit dating from the Twentieth Dynasty[12] (DJ-F121-2018), together with amulets in the shape of a sun disc with horns and a sun disc with horns on a boat, fragments of a faience ring with a small *wedjat*-eye decoration, and two metal rings with an oval part bearing hardly visible incised decoration. In addition, a small sized imitation of a stirrup jar of stone incised with simple patterns was also found with this burial.[13] These finds seem to correspond to the Ramesside period of the pottery deposit or slightly later, i.e., the early Third Intermediate Period. The other adolescent burial in this group probably belonged to a male 14–18 years old (DJ-F190-2018/sk.24) and remains of textiles as well copper bracelets were found with it. The former individual suffered from a fracture of femur and spine bifida occulta in S2-S5 segment while the latter showed signs of enamel hypoplasia, malnutrition and had a healed fracture of right ulna and radius [Figs. 5–6].

Yet another older child and another adolescent were buried in a group burial context together with an adult individual (DJ-F139-2018/sk.14–20). The bottom individual belonged to an adult female 20–21 years old (DJ-F139-2018/sk.14) who was wearing

[11] Enamel hypoplasia occurs in the dental enamel during amelogenesis and can be ascribed to a number of reasons. Most commonly, it is the result of episodic nonspecific metabolic and nutritional insults (Goodman et al. 1987; White – Folkens 2012: 455–456). Recently, studies of modern populations assumed that a correlation can be found between nutritional stress and enamel hypoplasia (Goodman et al. 1987; Kaiser 2018).

[12] According to Ashraf El Senoussi's analysis of this pottery deposit.

[13] We would like to thank Dr. Jana Mynářová for sharing her expertise on this subject with us. For the Egyptian imitations of the stirrup jars, see e.g. Ayers 2015: 1938–1944; also e.g. Sparks 2007: 39–40.

a copper ring on her right hand. Traces of several diseases, including osteoarthritis and a compression fracture of the fifth lumbar vertebra, as well as congenital features including non-union of the posterior arch were noticed on her bones. In addition, degenerative joint disease indicates that this individual used to carry heavy loads on her head. Two more skeletons were placed above the female, with a slightly different orientation. The older of these two individuals was a skeleton of an adolescent female 15–18 years of age (DJ-F139-2018/sk.17) with a pottery jar (with no stopper) placed on her belly. An older child 6–7 years old was placed by the side of the adolescent (DJ-F139-2018/sk.16), with its head on her lower chest area, and with its legs over the belly and pelvis of the adult female [Fig. 7]. The relationship between the three primary skeletons of this context can be estimated based on their close proximity. We presume that the older child and the adolescent female were highly likely related as the head of the former was placed on the chest of the latter. The estimated age of the child and the adolescent suggest that they could be probably siblings. The relationship of these two individuals to the adult female remains unclear.

5.4 Debris of Limestone Chips and Pieces with an Addition of Sand

One burial context with grave goods was documented in close-proximity to the south wall of the queen's pyramid, situated in the debris which consisted of the limestone destruction. The elevation of this burial shows that it was located at a higher level than most of the other examined burials. Its date is, however, rather difficult to specify; it can be dated to the 1st millennium, but currently undatable any further. This burial context included a younger child 2–3 years old (DJ-F227-2018/sk.27) with whom fragments of a bracelet made of copper or bronze were found. The skeleton shows clear indications that it suffered from malnutrition, indicated by Cribra orbitalia [Fig. 8].

5.5 Limestone Installations in Debris Yellow Sand with Limestone Pebbles

Several of the 1st millennium BCE burials were surrounded with limestone installations. One of these was placed partly on top of a large limestone block that came from the funerary temple of the queen. The body was of an adult female 35–39 years old (DJ-F131-2018/sk.12), buried with faience and stone beads and a bone amulet in the shape of a Taweret with double faces facing the opposite ways. Her burial was partly surrounded by limestone and quartzite fragments. The osteological analysis revealed traces of osteoarthritis, eburnation on sacrum and a healed fracture, among other features listed in Table 2, as well as poor dental health [Fig. 9a–b].

A better constructed small, rectangular limestone tomb still sealed with a lid consisting of a limestone slab included a burial of an infant 6–9 month of age (DJ-F284-2018/sk.30), with hypoplasia on zygomatic mandibular eminence and maxilla, which can be a sign of malnutrition or a genetic disorder. It was originally wrapped in textile, and adorned with stone and glass beads and faience and frit *wedjat*-eye and *tiyet* amulets found among the bones. This little tomb was a part of a larger group of stone installations, one of which contained a little jug of the 26th Dynasty date. This ceramic find indicates a similar date for the infant burial.

6. Conclusion

The selected sample of burials with grave goods from the T.g area of the pyramid complex of King Djedkare totalled 31 individuals, of which 24 constituted the primary burials while the other seven were secondary intrusions [see Table 2].

Although the selected burials cannot be taken as a representative sample of all the burial contexts found in the T.g area, they cover different stages of the development of the T.g area, starting with late Second Intermediate Period and continuing at least to the Late Period and most likely even later.

The osteological analysis showed that of the 24 primary burials, a large proportion belonged to infants and young children, while only very few primary burials were of adult individuals. The age determination of the primary burials (according to Baker – Dupras – Tocheri 2005; Buikstra – Ubelaker 1994) can be summarized as follows [Table 1]:

Age Group	Number of Individuals	Burial Contexts
Infant (0–1 years)	5	F143, F284, F342, F342, F342
Young child (1–6 years)	7	F45, F54, F123, F195, F197, F267, F227
Older child (6–12 years)	5	F67, F76, F129, F139, F189
Adolescent (12–20 years)	4	F124, F139, F149, F190
Young adult (20–34 years)	1	F139
Middle adult (35–49 years)	2	F75, F131
Old adult (50+ years)	0	

Table 1

Sex determination was not possible in infants and children. The three adult individuals were all female (DJ-F75-2018, and DJ-F139-2018/sk. 14, DJ-F131-2018), while one male and one probable male were among the adolescent individuals (DJ-F124-2018, DJ-F190-2018).

The largest variety of grave goods was found in the heavily plundered burial context of the late Second Intermediate Period, which included an older child and a very young child (DJ-F189-2018). Their grave goods comprised not only beads but also a pottery juglet, a calcite vessel of which only the lid survived, and two wooden female statuettes, which may have been representations of their mother, other females, or simply their dolls.

The four burials of the early New Kingdom date, which were placed in the lower level in the east sector of the T.g area, all included beads as well as stamp seals or scarabs with an incised decoration (DJ-F45-2018, DJ-F67-2018, DJ-F75-2018, DJ-F76-2018).

Burials situated in the central and northern sectors of the T.g area were placed mostly in the debris of the 2nd and 1st millennium BCE, which contained a higher number of burials with grave goods, because this debris covered a much longer period of Egyptian history. Therefore, also a larger variety of grave goods was found in these burial contexts. These included beads of faience, stone and bone which were found with most of these individuals, but also a calcite earring (DJ-F54-2018), amulets in shape of sun discs (DJ-F124-2018), Taweret and Bes (DJ-F129-2018), frog symbolizing Heket

(DJ-F143-2018), *wedjat*-eyes (DJ-F197-2018, DJ-F267-2018), and beads in shapes of simplified amulets and gods (DJ-F149-2018). One burial context included a single bead of red stone (DJ-F342-2018). In addition, scarabs with incised decoration on the bottom (DJ-F129-2018), rings (DJ-F124-2018, DJ-F139-2018), bracelets (DJ-F190-2018, DJ-F195-2018) and pottery jars (DJ-F139-2018, DJ-F342-2018) were included in these burials.

Similar debris also hosted the two burials in stone installations, which contained beads and amulets in shape of a Taweret with two faces (DJ-F131-2018) and amulets in shape of *wedjat*-eyes and perhaps a *tyet*-knot (DJ-F284-2018).

The selected group discussed in this paper constitutes only a very small portion of all the burial contexts documented in the T.g area of Djedkare's pyramid complex. In general, the archaeological situation on the site together with the simple character of the burials and the associated objects clearly indicates that these burials belonged to members of the lower strata of the population of their respective times. Some of the deceased were placed in badly preserved wooden, reed or pottery burial containers, while others were only wrapped in textiles, today mostly disintegrated. Their bodies were simply placed in shallow graves in the debris and covered with sand. Only a small number of the burials was placed in simple stone or brick tombs (DJ-F131-2018, DJ-F284-2018, DJ-F342-2018). The low status of the deceased individuals is further confirmed by a closer study of the selected group of burial contexts, which contained grave good other than burial containers. The most precious objects included in these contexts were made of copper or semi-precious stones while most were of faience or bone.

In addition, the osteological analysis of these burial contexts revealed the poor state of health of many of these individuals. A high percentage of the examined children featured traces of nutritional deficiencies, and/or diseases which affected their development. This was indicated in several ways in our selected group of burials: in many cases a single infant or child skeleton showed a different age when estimated from the teeth and from the long bones; such a difference could be 1–2 years in most cases. In addition, a number of young individuals featured cribra orbitalia and congenital disorders, while the adults often showed osteoarthritis and fractures. The bones of the adults in this group bore traces of heavy work, also corresponding to the low status of this population. The most common pathological conditions documented in the selected group of burials were dental disease, including overbite, calculus, periodontitis, crowding, antemortem loss, abscess as well as caries and enamel hypoplasia.[14]

It has been noticed above that the burials with grave goods from the T.g area belonged to children and women. No adult male individual was included in this group; this may on the one hand indicate that the ancient people of the 2nd and 1st millennium reserved adornments for their deceased children as well as females; however, on the other hand, it may also be a coincidence. We cannot entirely exclude that some of the many other documented burial contexts (including males) on the site were originally also accompanied by precious objects but were robbed. However, it is worth mentioning that the choice of amulets in the shapes of Taweret, Bes and a frog symbolising the goddess Heket were closely associated with children, childbirth, and above all child protection (Pinch 1994: 120–132; Wilkinson 2007: 102–104, 185–186, 229; Strouhal – Vachala – Vymazalová 2014: 168–170); this further corresponds to the prevalence of children and women in the examined group.[15]

[14] Many of these features can be generally found in various strata of ancient Egyptian population, and they are not exclusive to the low class burials.

[15] For comparison, a different situation was documented in a group of secondary burials from the mastaba of Ptahshepses at the royal cemetery of Abusir, where the ratio of the youth and adults was almost balanced, see Strouhal – Bareš 1993: 70.

The high rate of child burials at this site is consistent with the generally high child mortality rates in the ancient Egyptian society (see e.g. Strouhal 1994: 256). At the same time, however, the percentages of children burials are usually interpreted as biased due to earlier excavation practices, an incomplete analysis of the material, unequal preservation, or differential burials (Grauer 1991; Buckberry 2000).[16] In addition, children were often interred either in a separate area of the cemetery or completely away from it. At settlement sites for example, it is quite common to find young children (between 1-6 years) buried under the floor of houses (Baker – Dupras – Tocheri 2005: 12). In the T.g area many children and infant burials were documented among burials of adolescents and adults; to assess the possibility of differential burials, however, will only be possible after completing the archaeological and osteological analysis of all the documented burials in the T.g area. The congenital diseases such as spina bifida occulta and growth up disorders in addition to the high child mortality documented in the studied sample may indicate that this community practiced marriages between relatives over generations. This presumption is planned to be further discussed in the future after the completion of the study of non-metric traits.

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[16] In addition, the burial habits related to infants and small children might have changed in the course of time and it can be stressed out that the later periods of Egyptian history with their larger population naturally resulted in a higher number of burials in comparison to earlier periods.

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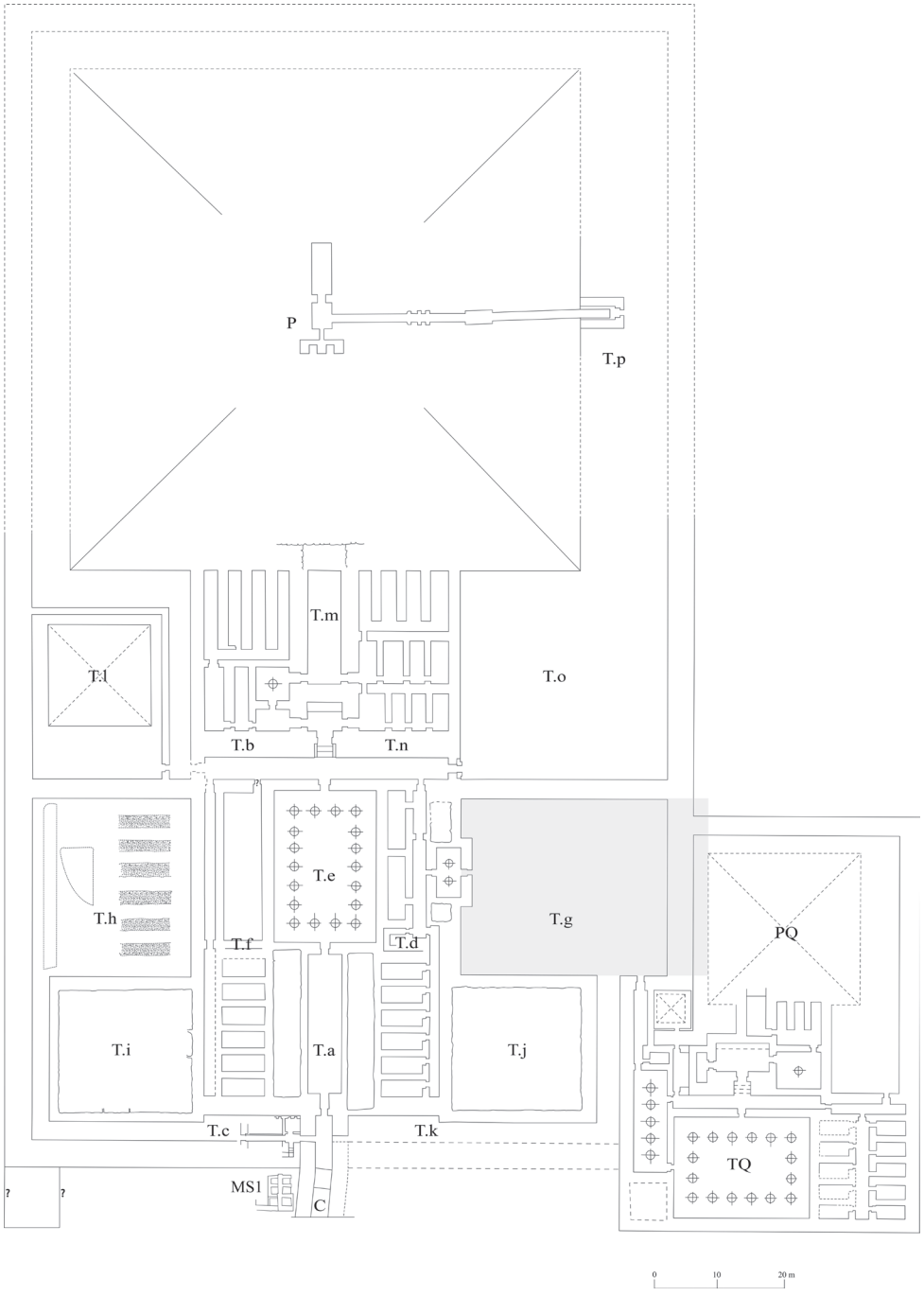
Excavation No.	Skeleton No.	Primary/ Secondary	Elevation	Body Orientation	Burial Container	Grave Goods	Sex	Age	Non Metric	Pathology
Late Second Intermediate Period – situated in a pit hewn in "trash layer 1"										
DJ-F189-2018	22	primary	46.03m	N-S head north	wood	two wooden figurines, pottery jug, calcite object, beads	/	10 years	Non metric	Calculus, slight porotic hyperostosis
DJ-F189-2018	23	secondary?		N-S head north?	wood		/	1–2 years		N/A
Early New Kingdom – situated in debris of brown sand with numerous bbles										
DJ-F45-2018	1	primary	45.48m	N-S head south, contracted on the left side with face to the west	–	a jaspis *wedjat* amulet with incised bottom; disc beads; tubular bead	/	2–3 years		Cribra orbitalia
DJ-F67-2018	3	primary	45.77m	N-S head north, extended on the back	–	stamp seal with incised bottom, beads of bone, red stone and faience	/	7–8 years		Enamel hypoplasia, periodontal diseases, crowding
DJ-F75-2018	4	primary	45.32m	N-S head south, extended on the back	wood	stamp seal with incised bottom, faience bead and a fruit of a doum palm	F	35–39 years	Non metric	Eburnation, osteoarthritis, osteophytes growth, enamel hypoplasia, calculus
DJ-F76-2018	5	primary	45.61m	N-S head north, extended on the back	reed	scarab with the name of Djeserkare, beads	/	11–12 years		Congenital disorders, spina bifida occulta

2nd–1st millennium BCE – situated in debris of yellow or mixed yellow-brownish sand with imestone hips										
DJ-F54-2018	2	primary	46.64m	SW-NE head south, on the left side with face to west	long reeds tied with rope and knots	disk coloured beads and a calcite (ear)ring	/	2–3 years		Malnutrition
DJ-F123-2018	6	primary	45.88m	E-W head west, extended on the back	–	colored beads and bearded man face, bracelets and stone beads	/	1.5 years		N/A
DJ-F124-2018	7	primary		E-W head west	–	amulets in shape of sun discs with horns, and a boat with a sun disc, two rings	F	15–16 years		Congenital disorders, spina bifida occultaa, fracture of femur, enamel hypoplasia, periodontal disease
DJ-F124-2018	8	secondary		N/A			F	20–21 years	Non metric	Enamel hypoplasia, caries, calculus
DJ-F129-2018	9	primary	45.55m	N-S head south , on the left side face to west	–	amulets in shape of Taweret and Bes, a scarab with figural incised decoration, a scarab with the name of Amunre, many beads	/	11–12 years		N/A

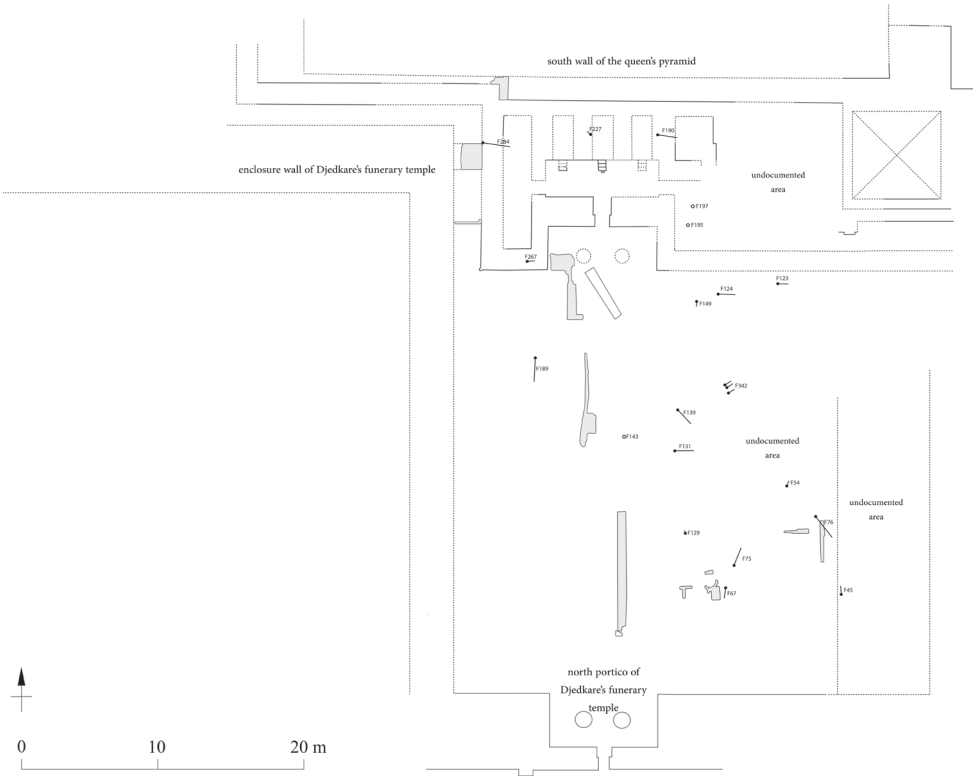
DJ-F139-2018	14	primary	45.80m	E-W head west, extended on the back	–	ring	F	20–21 years	Non metric	Osteoarthritis on articular facet of cervical vertebra, compression fracture in fifth lumber vertebrae, with sacrum ,Shmolar's nods in thoracic vertebra, spine bifida occulta, abnormal bone formation on right clavicle.Congenital non-union of the posterior arch, degenerative joint disease (DJD) on cervical vertebra, slight periodontal diseases and slight calculus in lingual incisors and as well as caries.
DJ-F139-2018	15	secondary	45.64m	N/A			?	adult		N/A
DJ-F139-2018	16	primary	45.73m	E-W head west	–		/	6–7 years	Non metric	Cribra orbitalia
DJ-F139-2018	17	primary		E-W head west	–	pottery jar	Female	15–18 years		Crowding on mandibular canine, calculus, resorbed root PM2, antemortem loss
DJ-F139-2018	19	secondary		N/A			/	10–11 years		N/A
DJ-F139-2018	20	secondary		N/A			/	10–15 years		N/A

DJ-F143-2018	18	primary	45.91m	E-W head west, contracted on the right side with face south	–	beads of stone and amulet in shape of a frog with sign of life incised on the bottom	/	9–12 months		N/A
DJ-F149-2018	21	primary	45.63m	N-S head noth, contracted on the left side face to east	–	beads of faience and stone, beads in shapes of amulets and gods	F?	12–13 years		Enamel hypoplasia, periodontal diseases, calculus, malnutrition, cribra orbitalia
DJ-F190-2018	24	primary	46.68m	E-W head west, extended on the back	–	bracelets	M	14–18 years		Enamel hypoplasia, periodontal disease, calculus, malnutrition, spina bifida occulta, healed fracture of right ulna and radius
DJ-F195-2018	25	primary		N/A	–	bracelet	/	1 year		Cribra orbitalia
DJ-F197-2018	26	primary		N/A	–	amulet in shape of *wedjat*-eye	/	1.5 year		N/A
DJ-F267-2018	29	primary	46,26m	E-W head to east missing	–	amulet in shape of *wedjat*-eye, fragment of a copper object	/	2–3 years		N/A
DJ-F267-2018	32	secondary		N/A			?	6–9 months		N/A
DJ-F342-2018	33	primary		E-W head to west, extended on the back	–	bead of red stone	/	9–12 months		N/A
DJ-F342-2018	34	primary		E-W head to west, extended on the back	–		/	9–12 months		N/A

DJ-F342-2018	35	primary		E-W head to west, extended on the back	mud brick tomb	pottery vessel and mud vessel	/	6–9 months		N/A
Probably 26th Dynasty – burials in limestone installations in debris of yellow sand with limestone chips										
DJ-F131-2018	12	primary		E-W head west	stone installation	Taweret with double faces, beads	F	35–39 years		Osteoarthritis on femur, thoraic vertebrae, eburnation on sacrum, clavical, schmolar nods, healed fracture, osteophytes, clavicular joint sternal arthritis, poor dental health, calculus, abscess, enamel hypoplasia, extensive attrition
DJ-F131-2018	13	secondary		E-W head west			/	adult		N/A
DJ-F284-2018	30	primary		E-W head west, extended on the back	stone tomb	small coloured beads and beads of various stones, amulets in shape of *wedjat*-eye of frit and faience and *tiyet* (?) of faience		6-9 months		Enamel hypoplasia shown on zygomatic mandibular eminence and maxilla probably malnutrition or genetic disorder
Probably 1st millennium BCE – placed by the side of the queen's pyramid in debris of limetone chips and pieces with addition of sand										
DJ-F227-2018	27	primary	47.64m	SE-NW head south, contracted on the left side	–	bracelet	/	2–3 years		Cribra orbitalia, malnutrition



Plan 1
Plan of Djedkare's pyramid complex with the T.g area in the north part, explored in 2018 (after Maragioglio – Rinaldi 1977: tav. 16, fig. 1; drawing Mohamed Megahed).



Plan 2
Preliminary plan of the explored T.g area with the position of the selected group of burials (drawing Hana Vymazalová, after Megahed – Jánosi – Vymazalová forhtcoming).

Fig. 1 The T.g area after its exploration in 2018 (photo Hana Vymazalová).

Fig. 2 The grave goods found with the burial of an older child (excav. no. DJ-F76-2018, skeleton 5) (photo Hana Vymazalová).

Fig. 3 Probable twins (left and middle) were buried besides the small tomb of another, younger infant (right) (excav. no. DJ-F342-2018, skeletons 33–35) (photo Ahmed Gabr).

Fig. 4a–b Infant buried in a basket with an amulet of a frog (photo Peter Jánosi, Petr Košárek).

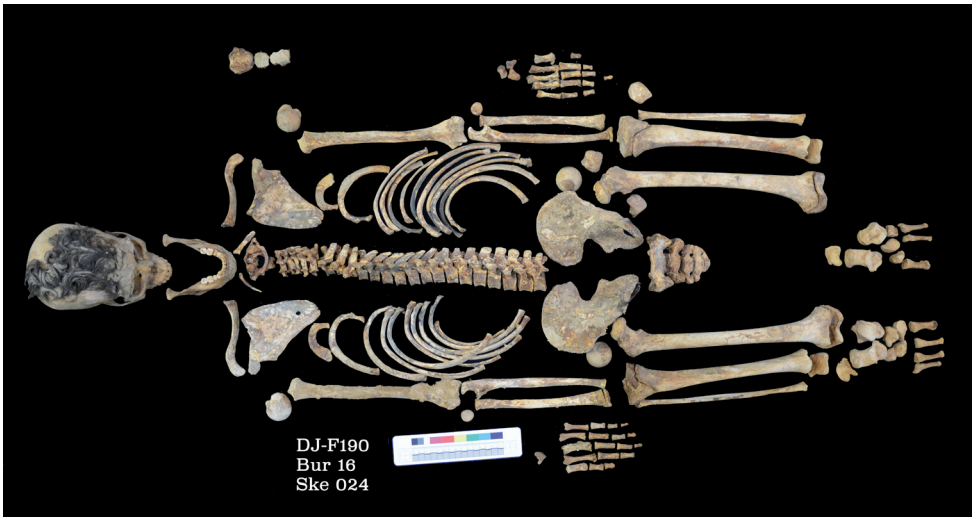


Fig. 5 Skeleton of an adolescent probable male (excav. no. DJ-F190-2018, skeleton 24) (photo Zeinab Hashesh)

Fig. 6 Detail of the linear enamel hypoplasia of the adolescent (excav. no. DJ-F190-2018, skeleton 24) indicating malnutrition (photo Ahmed Gabr)

Fig. 7 Burial of an older child and adolescent female show a close connection of the two deceased individuals, and another adult individual underneath (excav. no. DJ-F139-2018, skeletons 14, 16–17) (photo Peter Jánosi)

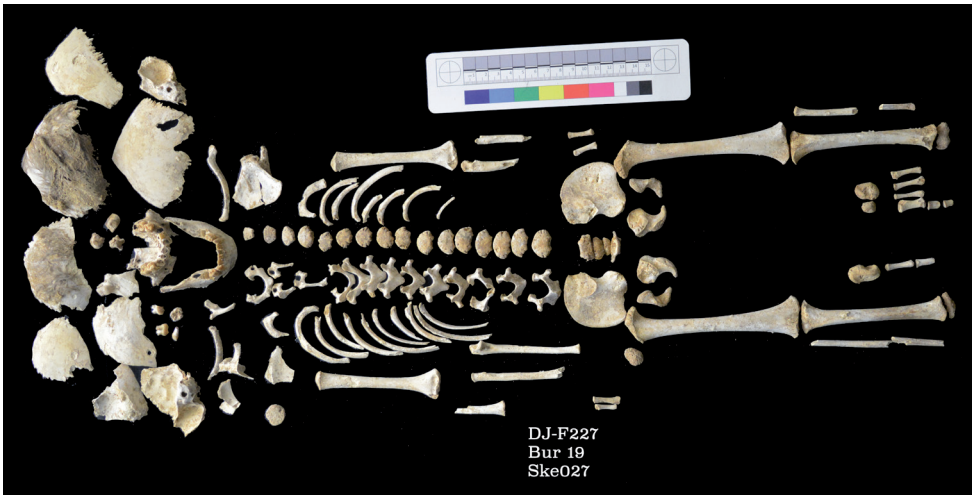


Fig. 8 The well-preserved skeleton of a younger child (excav. no. DJ-F227-2018, skeleton 27) (photo Zeinab Hashesh)

Fig. 9a–b Detail of the jaws of the adult middle aged female (excav. no. DJ-F131-2018, skeleton 12) showing a generally poor dental health including ante-mortem loss of teeth (photo Ahmed Gabr)