Old Kingdom, New Perspectives
Egyptian Art and Archaeology
2750–2150 BC

edited by
Nigel Strudwick and Helen Strudwick
OLD KINGDOM, NEW PERSPECTIVES

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Foreword

There can be no academic subject for which the general public has such an inexhaustible appetite as Egyptology, and no period more so than the age of the pyramids. But the popular writings in this area are notoriously variable. While there is no shortage of reliable and accessible surveys by leading scholars in the field, neither does one have to look far on book lists to find an abundance of 'pyramidology' and other nonsense which also finds a wide audience. It was therefore a very welcome opportunity that arose when Helen Strudwick proposed that the 2009 Old Kingdom Art and Archaeology conference be held at the Fitzwilliam Museum in Cambridge so as to coincide with our annual Glanville Lecture on Egyptology, thus bringing the fruits of recent excavation and research by leading scholars to a wide general audience. The resulting event, held on 20–23 May 2009, consisted of a three-day meeting of specialist researchers, followed by a day of talks by some of the foremost experts in the Old Kingdom, to which the public was also invited, all culminating that evening in the Glanville Lecture delivered by Dr Jaromir Malek on 'A city on the move: Egypt's capital in the Old Kingdom'. This volume publishes all but three of the twenty-seven papers presented at the conference, plus one additional offering.

The Fitzwilliam Museum is fortunate to have one of the most important collections of Egyptian antiquities in the UK and thus provides a very appropriate setting for the OKAA conference. The earliest Egyptian object to arrive—a very fine Third Intermediate Period coffin set—was given in 1822, only six years after the bequest of Viscount Fitzwilliam created the museum, and a quarter century before the building erected to house its collections first opened its doors. Since then the Museum's Egyptian collection has grown to nearly 17,000 objects, of which some one thousand are on display. The Egyptian galleries were refurbished in 2006 and remain the most popular in the museum.

Stephen Glanville, after whom the lecture is named, was Professor of Egyptology at Cambridge (1946–1956), as well as being Chairman of the Fitzwilliam's Syndicate and Honorary Keeper of Antiquities. Glanville saw it as essential that the Museum's Egyptian collections were actively used in teaching—as is still the case today—and that they continue to grow through acquisition. His commitment to engaging the public in the fascinating discoveries of professional Egyptologists has been continued by the Museum by the holding of a lecture bearing his name since 1977. We were delighted that Jaromir Malek accepted the invitation to give the 2009 lecture; and that so many distinguished scholars of Old Kingdom Egypt were able to attend the conference with which it was paired.

Special thanks are due to Helen Strudwick, at the time Senior Assistant Keeper, Antiquities, and Nigel Strudwick, the organisers of the conference, who have also edited the papers published here.

Timothy Potts
Director
The Fitzwilliam Museum
Cambridge
Introduction

This volume presents twenty-five of the twenty-seven papers presented at the 2009 Conference Old Kingdom Art and Archaeology, generously hosted by the Fitzwilliam Museum in Cambridge. The history of these Old Kingdom meetings was admirably summarised by Miroslav Bárta in his Foreword to the proceedings of the 2004 conference, held in Prague, and it would be superfluous to repeat it here. The contents of the present volume show the wide range of subjects which this research group now embraces, from the Pyramid Texts through site reports, from the analysis of statue orientation to attempts to study the spatial arrangement of Old Kingdom cemeteries. Some of the papers are substantially the same as those presented at the meeting, but the editors have encouraged authors, where they feel it is necessary, to expand upon their ideas and to take them beyond the limited range of material which can be presented in a twenty-minute talk. One further paper which could not be presented at the conference is also included.

We were delighted to welcome to Cambridge colleagues from all over the Egyptological world, and they fairly represent where the Old Kingdom is studied most. We are delighted to be able to include the paper from Abdou el-Kerety (better known to his friends and colleagues as Hatem); visa problems meant that he was regrettably unable to be present at the conference, despite our best efforts with the UK authorities, but his contribution was read and appreciated in his absence. The paper of Gabriele Pieke could not be presented at the conference but we are happy to be able to include it. The longest paper presented here is by Mark Lehner and his co-authors and is a report on progress of his excavations at Giza; this has turned into a substantial publication and analysis and it is a great pleasure to be able to include it in this volume.

The final day of the conference was open to the public, focusing more particularly on papers relating to the archaeology and monuments of the Memphite region. This, and indeed the conference as a whole, formed a precursor to the thirty-third Stephen Glanville Memorial Lecture. This annual event, hosted by the Fitzwilliam Museum, has been an important fixture in the Cambridge and UK Egyptological calendar since 1977. In 2009, the Lecture was given by Dr Jaromír Malek on the subject 'A city on the move: Egypt's capital in the Old Kingdom'.

The editors would like to thank many persons without whose help and assistance the 2009 Old Kingdom Art and Archaeology meeting could not have taken place. First and foremost, we are deeply indebted to Dr Timothy Potts and all the staff of the Fitzwilliam Museum for enabling the events to take place so successfully, and for ensuring the efficient operation of everything from computer projectors through to the teas and coffees which sustained us. We also thank our colleagues whose enlightening papers and discussion made the meeting the success it was, and we acknowledge their efforts in enabling the completion of the manuscript just over two years since the meeting.

We are delighted to acknowledge the help and assistance offered by Oxbow Books in taking this publication into their archaeological series. To our editor, Clare Litt, and the head of production, Val Lamb, go our profound thanks for their advice and support.

Nigel Strudwick
Helen Strudwick
And where are the viscera...?
Reassessing the function of Old Kingdom canopic recesses and pits

Teodozja I. Rzeuska

Introduction
There are ideas in archaeology which spring from hunches or a belief that things 'should or could have been like this', frequently without clear and irrefutable evidence. They were then repeated uncritically by following generations of scholars, long enough to become imbued with a life of their own. They are no longer theories, but dogma beyond any need for reconsideration. These ideas tend to become as permanent and irrefutable as the names that stand behind them. Meanwhile research has moved forward and archaeological methodologies have changed extensively, prompting and even obliging researchers to revise their views on the subject of many apparently dogmatic ideas.

An ideas worth reconsideration is the recesses and canopic pits found in some Old Kingdom mastabas. The recesses, which are encountered mainly in tombs of the early fourth dynasty, are small rectangular rock-cut niches, mostly in the south walls of burial chambers, nearer to one of the two corners, on the level of the floor or just under the ceiling (Fig. 1). Canopic pits are just as small, rectangular in shape, cut into the floor in the southern or south-eastern part of the burial chambers, next to the sarcophagus (Fig. 2a). The commonly accepted idea is that recesses were the first to appear and were replaced over time with canopic pits.¹ Such changes are indeed observable, but one should note the hybrid mastaba of Seshemnefer III in Giza (see further below), which is furnished with both a recess and a pit (Fig. 2b). Both features are thought to have served as special repositories for the viscera removed from dead bodies during the mummification process (see below). The point is, however, that there has never been a shred of evidence coming from the caches as such to support this idea – no remnants of mummification and no canopic jars. Considering the numbers of canopic containers that have survived from the Old Kingdom, it does seem strange that not one was found inside any of these pits allegedly made to hold them. Let us then take a closer look at this intriguing architectural feature of Old Kingdom tombs and reanalyse the finds and the conceptions behind their function, all the more so since three of Egyptology's luminaries – Petrie, Reisner and Junker – are involved.²

Recesses in the Maidum mastabas and the confusion around the mysterious packages
Petrie was the first to raise the issue of recesses in mastabas and their possible function. He had discovered 21 canopic recesses in the south wall and four canopic pits in the floor of mastabas from the times of Sneferu in Maidum.³ In the recesses in the mastabas of Rahotep (mastaba 6) and Ranefer (mastaba 9), he found some mysterious packages of wrappings and more bundles of wrappings in a recess in the mastaba of Nefermaat (mastaba 16). Here is a quote from Petrie's report on the mastaba of Ranefer:

In the recess in the south end, similar to that in Rahotep's chamber, there were parts of the internal organs embalmed, forming lumps of resinified matter wrapped round in linen, and fragments of such were in Rahotep's recess. Some insect had lived on it for generations, and the place was deep in the cast skins. There was no sign of these organs having been in jars or enclosures; and it seems as if these recesses in the tombs were

² To avoid any misconceptions all relevant authors will be cited in extenso.
And where are the viscera…? Reassessing the function of Old Kingdom canopic recesses and pits

One can easily follow Petrie's line of reasoning in this respect. He seems to have assumed that since the chamber contained the almost undisturbed mummy of Ranefer and there were 'lumps of resined matter wrapped round in linen' in the recess, and four of them for that matter, then in keeping with the knowledge of the times—after all there were four canopic urns—these four packages must have contained the embalmed internal parts of the deceased. Petrie assumed this idea a priori, without actually analysing the contents of the packages, and this led him straight to the next assumption that since packages of embalmed viscera were found in the recesses, then ergo the recesses were presumably intended to hold the internal parts. He failed to note some circumstances which refuted his idea from the start, although it is true that he never stated his theory as anything more than just a possibility.

What did these mysterious packages actually contain? Other finds can be helpful in determining the contents, such as the five packages in mastaba 17 in Maidum (Fig.

Fig. 2: a) Mastaba IIa from Giza with a canopic recess in the floor (Junker, Giza I, 204), b) burial chamber of Sesemnefer III from Giza with both recess and canopic pit (Junker, Giza III, 197)

intended to lay the internal parts after embalming, before the use of jars for such was introduced. 4

Fig. 1: Examples of burial chambers from Maidum with recesses: a) under the ceiling in mastaba 6 of Rahotep (Petrie, Medum, pl. VII) and b) at floor level in anonymous mastaba 69 (Petrie, Meydum and Memphis III, pl. XVII)
3), even though they come from the sarcophagus and not a recess, which are described as

The wrappings are of fine gauze, soft and smooth as silk, measuring on the warp and woof: 155 x 60 threads to the inch, 102 68, 140 60, 128 73, 123 62. A few fragments of very coarse loosely woven cloth were also found in the coffin.\(^5\)

The three packages which were found in the sarcophagus were examined by Dr. Ruffer, Director of the Quarantine Dept. Alexandria, who reports the contents to be only vegetable matter. Parallel to this is his report, that the packages, which were returned to the body, generally contain only a part of the organ, the rest of the package being filled out with vegetable matter and mud.\(^6\)

The wrappings are currently in the collection of the Petrie Museum of the University College London.\(^7\) It should be noted that the burial chamber of mastaba 17 was not furnished with a recess and this must have been the reason why the packages were placed directly in the sarcophagus. Can it be assumed that the packages in the recesses of the mastabas of Rahotep and Ranefer and those in the sarcophagus of mastaba 17 are of the same kind? There is much in favour of this, although complete certainty will always be lacking. More importantly, however, the only examined packets from Maidum, which were supposed to contain viscera, contained nothing of the kind.

The fifth set of wrappings was discovered by the Polish-Egyptian mission of the Polish Centre for Mediterranean Archaeology, University of Warsaw, when excavating a necropolis situated to the west of the pyramid of Netjerykhet in Saqqara.\(^8\) This set is somewhat later in date as it originates from the end of the sixth dynasty. The wrappings had been placed inside a wooden chest along with two red-slipped bowls and the box was left in burial chamber C2/10 of Corridor 2 behind the east façade wall of the ‘Dry Moat’ of Netjerykhet. The chest stood in the south-western corner of the chamber, between the sarcophagus and the south wall of the burial chamber, in a position similar, if not identical to that of the recess with regard to the sarcophagus.

\(^5\) Petrie, Meydum and Memphis III (London 1909), 16, pl. XI, 5.
\(^6\) Petrie, Meydum and Memphis III, 16.
\(^7\) Inventory number UC 30896 (http://www.accessingvirtualegypt.ucl.ac.uk/detail/details/index_no_login.php?objectid=UC_30896__&accesscheck=%2Fdetail%2F details%2Findex.php, accessed 21 February 2011). The exact provenance is not given, but the label seen in the photo reads ‘Mastaba 17’, making it highly likely that the wrappings come from mastaba 17 in Maidum.
\(^8\) Three test pits were excavated in 1987; regular excavations commenced in 1996. For a full list of references concerning the site and its exploration, see K. Myśliwiec et al., The Tomb of Merefueb (Saqqara I; Warsaw 2004) up to 2004, M. Radomská et al., The Upper Necropolis (Saqqara III, Warsaw 2008) for 2005-2008, K. Myśliwiec et al., The Tomb of Nyankhnefertum, (Saqqara IV, Warsaw 2010) for 2009–2010.
Made of cedar wood, it measured 69 cm by 34 cm and was 22 cm high. At the time of discovery it had fallen to pieces, the pegs once holding it together evidently having decayed. The front of the box had dropped forward and separated into three pieces, the sides had fallen to the right and left, and the back, preserved whole, was left leaning back against the rock wall. The lid remained in place but was broken into three parts. The underside, which could not be seen at the time of discovery, stood on two pieces of wood 9 cm wide, attached parallel to the shorter sides. Both faces, inside and outside, of the box walls were painted with white gypsum paint. Once the fragments of the lid were removed, the contents were revealed: two broken ceramic vessels and four packages of linen wrappings. The broken bent-sided bowls, including one with a spout-rim, could be fully reconstructed. The vessels represent forms and surface treatment typical of the late Old Kingdom. One of the wrappings was very badly damaged, but the remaining three were intact and measured respectively 18–20 cm in length, 11–12 mm in width and 4–5 cm in thickness (Plate 12). The packages are light brown in colour on the outside and dark brown to black on the inside, leaving the impression that they had been used as wrapping for some substance. Isolated layers of bandages can still be discerned, although they are so fragile that they disintegrate under the touch.

Like Petrie before them, the excavators assumed that the packages contained embalmed viscera. However, DNA analysis of remains on the outer and inner wrappings revealed no presence of human or animal tissue and anatomopathological examination also gave negative results. On the other hand, a FTIR (Fourier Transform Infrared Spectroscopy) analysis demonstrated the presence in all four samples of organic substances: oil, resin, protein, polysaccharides—plant gums. Traces of non-organic substances, gypsum and calcium carbonate, were also observed, these presumably coming from the coat of gypsum whitewash on the walls of the box.

Based on the results of these examinations there can be no doubt that the packages contained not embalmed viscera, but bundles of linen cloth soaked with substances, like oil and resin, that are associated with the embalming process. Were the wrappings from Maidum also devoid of any embalmed viscera? If the wrappings from mastaba 17 in Maidum and those from Saqqara were empty, the same could be true of the other wrappings from Maidum, although it should be reiterated that there can never be any certainty as to this. Added to the sets of wrappings already described above are some remains of textiles found in a recess of the mastaba of Nefermaat in Maidum:

From the walled-up recess in the south wall came: some pieces of board about 3/4 inch thick, neatly shot at the edges; evidently from some small box. A small shield-shaped piece of wood with dowel holes in it, which apparently had been used for patching a bad place in the coffin. A largish piece of wood, bearing a dovetail 1.7 inch wide. And a small twist of fairly fine linen. But no signs of embalmed organs were found, here or anywhere else.10

Quite obviously yet another recess in a burial chamber did not yield any packages or embalmed remains. This find, as well as the results of examinations made on the wrappings from mastaba 17, should have been sufficient for Petrie to reconsider his theory about the role of recesses. Yet he did not.

Seeing that the finds from Maidum presented above are the sole grounds for the theory about the role of recesses and pits, one is logically obliged to reconsider their function. If architects planned them and builders made them, then they must have served some specific purpose. There is little to suggest that these recesses were made for keeping internal organs and since none of the packets found in them were examined, they cannot be used as evidence. Those that have been examined did not contain any traces of human tissue. Let us then take a closer look at the other finds from recesses in the hope that they can help in solving the mystery.

When theory turns into dogma

The next scholar to discuss recesses and pits, their function and especially evolution, was Reisner, and it is he who is directly responsible for the longevity of the theory concerning these caches. During his extended excavations in the Giza necropolis Reisner discovered 59 different 'receptacles' which he classified accordingly:

- 'canopic pit' in the south-eastern corner of the burial-chamber (45 examples);
- 'canopic recess' near the south-eastern or the south-western corner (eleven, of which seven in the south-eastern and four in the south-western corner);
- 'built canopic chests' (three examples).11

In his monumental publication of Old Kingdom funerary architecture Reisner devoted a whole chapter to this issue. We read:

Another feature that has some interest is the cubical niche in which the wrapped packages of entrails were deposited, the canopic receptacle. This first appears, as far as we know, in the early open-trench and pits tombs at Medum. In these it was a niche in the south wall of the burial-chamber near the SE corner at floor-level. This type of canopic niche in the SE corner continued in use in the shaft tomb, particularly in

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11 G. A. Reisner, *A History of the Giza Necropolis* 1 (Cambridge MA 1942), 160. He also distinguished a fourth type, the canopic chest of queen Hetepheres I, but failed to include it in the general statistics.
those of the far western cemetery. But in three corbel-roofed chambers of Neferma'at (no. (19) of the list), Rahotep (No. (22)), Ranaro or Khent (No. (23)), the canopic niche was high up in the south wall under the corbel, mere variation of the older position. In the shaft tombs of the far western cemetery in four cases the canopic niche in the south wall was replaced by a canopic pit of about the same size sunk in the floor near the SE corner. In the Cheops tombs at Giza in the early cemeteries of the western field, the canopic receptacle was always a pit also sunk in the floor near the SE corner. In the eastern field in the tombs made near the end of the reign of Cheops and those from the first half of the reign of Chephren, there was a reversion to the older and probably traditional type of canopic niche in the south wall at floor-level near the SE corner. Thereafter the canopic niche was shifted in a certain number of tombs (see particularly G 7050–7070) to the south wall near the SW corner, but still at floor-level. Most of the tombs from the end of Dyn. IV and later had neither canopic niche nor canopic pit, but as many of these contained limestone canopic jars, the canopic receptacle must have been a small chest. The canopic packages of Queen Hetepheres I were placed in an alabaster box containing four compartments, and a similar compartment chest may have been used in some of the later private mastabas. The canopic packages were probably laid simply wrapped in linen in the canopic niches and pits of Giza and Medium. The limestone jars may have been placed in wooden chests.12

He summarised his views a little later, in the first volume of the Giza necropolis publication:

The removal of the viscera and brain was an essential part of the process of true mummification. The first dated evidence is that given by the canopic chest of Queen Hetepheres I found in the secret tomb at Giza. The internal organs had been made into four packages wrapped in linen, and these packages had been placed each in one of the four compartments of the alabaster chest and covered with a solution of natron in water. The tightly fitting lid had been tied on with a thin cord which had been sealed with a lump of mud bearing impressions of the seal of the waht of Cheops. The chest was walled up in a rough recess in the western wall of the burial-chamber. (...) The evidence is given not only by the length of the coffin (of the queen), but more particularly by the canopic pit or recess made to take the canopic packages or, alternatively, a small wooden box containing those packages. The canopic pit in the SE corner of the burial-chamber and the canopic recess in the south wall are seen definitely developed in the sloping-passage tombs of Medium (reign of Sneferu); see Tomb Development, Ch. IX (quoted above). It is to be assumed that both these types of canopic receptacle were closed with a limestone lid or slab as was the case at Giza. (...) It is further to be noted that canopic niches or pits do not occur in any of the burial-chambers of kings down to the end of the Old Kingdom. It is to be presumed that in the royal chambers of Dyns. III–VI the canopic packages were contained in stone boxes set on the floor of the chamber.13

The function of the chest of Hetepheres I was explained in an identical manner in the second volume of the Giza publication:

Inside, the box was divided into four compartments by narrow walls and one dry compartment was 26.2 cm deep. This dry compartment contained a mass of decayed organic matter, but amazingly enough, the other three compartments retained about 5 cm of yellowish liquid which was found by Lucas to consist of a 3 per cent solution of natron in water. In this lay the remains of the canopic packages which contained the entrails of the queen; all that has survived of the mortal remains of the mother of Cheops.14

These quotes leave no doubt that Reisner had assumed with full conviction the idea that ‘canopic’ recesses and pits contained ‘wrapped packages’ with entrails, despite the fact that he never once reported finding any wrapped packages in the said recesses and pits. In describing the mastabas which he explored in Giza, he used the following words: ‘There was a canopic pit in the chamber intended to take some sort of receptacle for the canopic packages.’15 Junker particularly mentioned the absence of finds of this kind from Giza:

Nach der zurückhaltenden Äussersung Reisners (Annales, i.e., S. 234) zu schließen (‘The hole may have contained the entrails’) muss angenommen werden, dass sich auf seiner Konzession kein klares Beispiel einer solchen Verwendung fand, auch in seinem Bericht über die späteren Grabungen auf den Chepren-Friedhof wird nichts über einen solchen Fund erwähnt.16

Reisner grounded his whole theory in what Petrie found in the recesses and pits of the tombs in Maidum, ignoring completely any doubts that Petrie may have expressed concerning their function. Petrie in fact seems to have been much more cautious in expressing this idea than Reisner, who went a step too far in his reasoning. He not only accepted as a certainty that the recesses contained organs extracted in embalming, but based on this conviction, he jumped to the conclusion that the chest of queen Hetepheres actually contained the viscera. However, Lucas, who was involved in the examination of the content of this chest and who analysed merely the solution of natron in water, had this to say about the packages:

In each compartment of the box is a flat package wrapped in woven fabric (presumably linen) that almost certainly contains viscera. Summary: If it be accepted [emphasis by the present

12 Reisner, Development, 220–221.
13 Reisner, Giza Necropolis I, 155–156.
15 Reisner and Smith, Giza Necropolis II, 50; the remark concerns shaft A of mastaba G 1457.
16 H. Junker, Giza I (Wien und Leipzig 1929), 52.
And where are the viscera...? Reassessing the function of Old Kingdom canopic recesses and pits

author) that the packages contain viscera, it is proved that in the fourth dynasty the viscera of a royal personage were preserved in a natron solution.17

Lucas quite obviously does not know that the packages contained the viscera of the queen; he only assumes this and never once does he say that he actually examined the packages to prove that they contained the entrails. Neither does Reisner, as a matter of fact, reporting only that he himself recognized the canopic wrappings:

The compartment on my right hand which I saw first contained a flat-topped deposit of organic matter which I at once recognized as a Canopic packet wrapped in linen, that is, a package containing viscera of the queen which had been removed in the process of mumification. (...) Never before had any liquid been found of this amazing antiquity. A week later Mr. Lucas drew off samples from each of the two compartments and analyzed them. Both were practically the same—a three per cent solution of Egyptian natron on water. (...) The yellow color of our fluid is due to the presence in solution of a small quantity of organic matter from the Canopic packages.18

Despite there being no analyses of the wrappings, a whole generation of Egyptologists after Reisner accepted in good faith that the chest contained the queen's viscera. Suffice it to mention just one article on the evolution of canopic recesses and pits that refers to the chest of Hetepheres:

Le coffre à canopes de la reine Hétep-hérès I, en albatre, était divisé en quatre compartiments par des parois étroite. L'analyse des restes de matérière organique qui se trouvaient encore dans les compartiments a permis d'établir le contenu du coffre; il s'agit bien organes internes, qui furent placés dans quatre paquets et enveloppés dans de la toile.19

This is an excellent illustration of how assumptions and theories turn into scholarly axiom—it is no longer the liquid that had been analysed, but the organic remains and these were proven to be the queen's viscera.

A similar opinion was presented in the summary of mumification during the Old Kingdom in the catalogue of the exhibition 'Mumien: Der Traum vom ewigen Leben':

Die für eine Chronologie der Mumifizierungstechnik wichtigen Belege stammen aus dem königlichen Umfeld. Um 2600 v. Chr. wird für die an Residenzfriedhöfen bestatteten Verwandten und hohen Beamten das Entfernen der inneren Organe üblich und somit eine Weiterentwicklung der künstlichen Mumifizierung offenkundig; die Toren wurden jetzt ausgestreckt begraben. Für die Anfangszeit der 4. Dynastie lässt sich die Eviszeration nur indirekt durch Grabwandnischen mit je vier Vertiefungen nachweisen; darin dürften die vier Arten der Eingeweide—Magen, Gedärmen, Lunge und Leber—depotiert gewesen sein, ein Verfahren, das später noch angewendet wurde, wenn nicht Kanopen, das sind besondere Krüge für inneren Organe, oder Kästen zum Einsatz kamen. Das früheste Zeugnis eines Eingeweidebehälters fand man im Grab der Hetepheres I, der Mutter des Cheops, deren in Leinen gehüllte innere Organe in einem viergeteilten Alabasterkasten aufbewahrt waren. Eine dem Leinen anhaftende Flüssigkeit erwies sich als dreiprostentige Natronlösung: einer der weni-

The paradox is that even as he over-interpreted his discovery, Reisner was in possession of data that, had he looked at them, would have permitted him to view the recesses and pits in a different light.

Blessed doubts

Junker, who worked in the Giza necropolis at the same time as Reisner, was much more cautious in his opinions on the function of the recesses and pits. In the first volume of the series devoted to the necropolis in Giza, he described the pits which he had found and proposed to interpret them as receptacles for either the reserve heads or the entrails of the individual interred in the burial chamber.21 The first possibility was suggested by the need to have in a tomb a special place to keep these priceless heads, in similarity to the statues deposited in the serdab. Following a detailed explanation and a consideration of the arguments for and against, he decided against the idea and naturally moved on to the other one, that the recesses and pits were intended for human viscera.

Dagegen lassen sich für die andere Deutung, nach der in den Vertiefung die Eingeweide beigesetzt wurden, verschiedene

17 A. Lucas, 'The Use of Natron in Mummification', JEA 18 (1932), 127. Lucas also analysed the royal Canopic chest from Lisht which, like that of queen Hetepheres, was filled with a water solution, but which contained no traces of human organs.
18 G. A. Reisner, 'The Empty Sarcophagus of the Mother of Cheops', BMEH 26 (1928), 81.
19 M. Rogouline, 'Evolution des receptacles a canopes', BIFAO 63 (1965), 243.
21 Junker, Giza I, 50–54.
Indeed, there does not seem to be any real evidence for proper embalming with the use of natron and the removal of entrails from the Old Kingdom.28 This leads us to question—slightly outside the scope of this article—for what the canopic jars in the Old Kingdom were intended, if not for the viscera that were not removed from the body. The question is all the more intriguing, considering that none of these jars was found to contain internal organs, and that many of them are actually dummy vessels.29 In only one case was it reported by Hassan that the four canopic jars he had found contained ‘original’ material, whatever that means, because it could be wrappings just as well as the *dakka*, which is deposited in the burial chamber.30

Let us consider at this point the atypical mastaba of Seshemnefer III (Fig. 2b) discovered by Junker in Giza. It is a hybrid, containing both a recess and a pit:

In the Südoestecke des Raumes ist im Boden eine Vertiefung angebracht, 0,60 x 0,70–0,45 m; es ist der überliefertere Platz für die Unterbringung der Eingeweidekrüge. Außerdem aber findet sich eine Nische von 0,55 m Breite und 0,25 m Tiefe in der Südwestecke gegenüber der Sargmitte; solche Wändnischen finden sich gelegentlich statt der Bodenversenkung (…). Ob in unserem Falle Nische und Vertiefung die gleiche Bestimmung hatten, je für einen Teil der Kanopen?31

This particular solution seems unlikely; it is possible that even as the burial chamber was being prepared, work on one form of the cache was aborted in favour of a new conception.

Last but not least, it is noteworthy that Selim Hassan prudently did not comment on the function of these recesses and pits. He mentioned them on only one occasion, describing one of the burial chambers in Giza where there was ‘a small niche,(…) probably to contain the canopic jars’ in the eastern corner.32

If not canopic, then what?

It is difficult to avoid the impression that not enough attention was paid to what was actually found in these caches, concentrating instead on what should have been there. Most certainly no canopic jars were found in them; moreover, it seems to have been the rule than when canopic jars were

24 In other words, recesses and pits.
26 Junker, *Giza I*, 52.
30 S. Hassan, *Excavations at Giza VII. Season 1935–1936, The Mastabas of the Seventh Season and Their Description* (Cairo 1953), 9, pls X–XI.
And where are the viscera...? Reassessing the function of Old Kingdom canopic recesses and pits

Fig. 4: a) Plan of mastaba and section through the shaft of burial chamber 294 in Giza and b) reconstructed vessels found in a recess in the burial chamber (Hassan, Giza II, figs. 171 and 174; a) is redrawn from Hassan)

...present, the recesses and pits were missing. This does not seem to be a mere coincidence and should prompt thought. Indeed, the present writer is only echoing doubts about Reisner’s scenario that have been voiced among scholars in recent years. For example, Grajetzki, who also had doubts about the purpose of canopic pits, wrote:

In the floor there is a rectangular hole, which may once have contained Canopic jars, although this is not certain. 33

Let us then go back to the beginning and take a collective look at the finds from the caches, especially as their importance as a source is emphasised by the apparent connection with what has been found in so-called ‘false’ shafts. ‘False’ or ‘unfinished’ shafts, meaning shafts without burial chambers at the bottom, are an extremely interesting architectural element of funerary complexes of the late Old Kingdom. 34 They are visibly shallower than the burial shafts, being mostly from 1–2 m deep, and are, on the whole, not cut in the rock, but made in the superstructure of the mastaba. They are also smaller than the burial shafts in terms of the size of the opening and are located usually in the southern section, south or south-west of the burial shaft, which is always in the central, and only occasionally in the northern, part of a funerary complex. 35 Estimating the mutual position of the shafts and the size of their mouths gave robbers a quick orientation in the overall layout of the Old Kingdom funerary structures. Since they also knew that there was nothing of value to them in the shafts without burial chamber, paradoxically they left some of these deposits undisturbed for the scholars of today.

The list of finds in such examples includes:

a) packages from recesses in three tombs, of Rahotep, Ranefer and Nefermaat in Maidum—resinated bandages which were not examined, hence it is not known whether they contained anything;

b) 'broken bones together with a few pieces of charcoal' from a recess in tomb C of the Great Western Tombs in Maidum; 36

c). finds from the recess of a mastaba of shaft 294 in Giza (Fig. 4):

In the niche which is cut in the southern wall of the chamber: Five bowls of fine red ware. The last two bowls were found intentionally broken into two pieces, as we can see from the stone placed over these pieces. Undoubtedly this was done for a religious purpose (...) From No. 4, twenty-seven pieces were found, while from No. 5 only eight pieces still remain and the rest is lacking. 37

Not too much at first glance, but when considered in the light of the objects found in the various ‘false’ shafts, these finds take on new meaning.

34 Reisner classified the shafts without burial chamber as his type 7x cf Reisner, Giza Necropolis I, 98, 139 ff.
35 H. Junker expressed his opinion on the subject of false shafts, pointing out that shafts of insignificant depth tend to appear in the south-eastern part of mastabas, cf Junker, Giza III, 217–218.
36 Petrie, Meydum and Memphis III, 24, pl. XIV–XV.
37 S. Hassan, Giza II, 144–145, fig. 171 and 174.
Shafts without burial chambers have been studied in Egyptology on a number of occasions. In the late Old Kingdom West Saqqara necropolis excavated by archaeologists from the Polish Centre of Mediterranean Archaeology of the University of Warsaw, sealed ceramic deposits were discovered in five of the shafts without burial chambers. These deposits mostly consist of broken red-slipped plates and bowls. Let us consider as an example the deposit from false shaft 34 situated in the mastaba of Pehi (Fig. 5). The shaft was just 1.60 m deep and was filled with limestone chips. At the bottom there was a deposit composed of fragments of a wooden chest, broken red vessels, including a lid, four Maidum bowls, one plate, nine bent-sided bowls of which three were spouted, four miniature beer jars, fragments of textiles, shells, flint tools and unspecified organic remains (Fig. 7). All the vessels were made of Nile silt B1 or B2 and were red-slipped (Fig. 6, Plate 13).

The compact mass of limestone chips in the false shafts has no aeolic sand mixed in, demonstrating that the filling occurred at one time, very likely during the funeral ceremony. The deposits are also occasionally accompanied by shreds of textiles, wooden boards, which could be part of chests, organic remains, shells, flint tools and miniature beer jars made of unfired clay. However, not once were all of the above-listed categories found together in a single deposit. Similar deposits in false shafts were found in other cemeteries at Saqqara and Maidum. At least two such deposits were discovered by Reisner himself in Giza. The one found in mastaba G 6052 came from 'false' shaft B situated in its south-western part; the shaft was 2.25 m deep (Fig. 8). The deposit found in it consisted of at least 31 vessels. All were red-slipped. The deposit was interpreted by the excavators as being of a secondary nature.

Vessel sherds appear as a component of all of the 'false' shaft deposits. The circumstances of discovery and the fact that these vessels are usually restorable constitute proof that the pottery had been broken on the spot, shortly before being placed in the shaft; indeed, it could have been broken simply by throwing down into the shaft. The red colour of the vessels and the fact that they were all broken brings to mind the ritual of 'Breaking of the Red Vessels'. In the Old Kingdom, this ritual is not confirmed in any of the known iconographical sources, but it is mentioned in the lists of offerings, where it appears as one of the activities completing the ritual of offerings. Papyrus Ramessum E

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39 T. Rzeuska, Late Old Kingdom Pottery, Funerary Pottery and Burial Customs (Saqqara II; Warsaw 2006), 492–511.
40 J. E. Quibell, Excavations at Saqqara (1905–1906) (Cairo 1907), pl. III. The pottery depot came from shaft 213, which was most probably secondarily constructed within a third dynasty stone mastaba.
41 Petrie, Medamid, 18, pl. XXX.
42 A. M. Roth, A Cemetery of Palace Attendents, Including G 2084–2099, 2230–2231 and 2240 (Giza Mastabas 6; Boston 1995), 155–159, figs 86 and 88; Hassan, Giza I, 46–47, fig. 48; K. R. Weeks, Mastabas of G 6000, including G 6010 (Neferhabu); G 6020 (Iymery); G 6030 (Ity); G 6040 (Shipreseskaankh) (Giza Mastabas 5; Boston 1994), 95–98, 132–134.
43 Weeks, Giza Mastabas 5, 95.
Fig. 6: Pottery found in shaft 34

mentions 'bearers of red vessels'. The term *dsr-t* has been assumed to refer to small biconical vessels with a rounded bottom, like those found in shaft G 7000 by the pyramid of queen Hetepheres. Yet none of the vessels found in the shafts without chambers recalls this 'classic' small *dsr-t* vessel in shape. It should be taken into account that in the case of Hetepheres we are dealing with royalty (mother and wife of a king), while the tombs in the necropolis in West Saqqara belonged to the middle class. It is possible that in the Old Kingdom some vessel shapes, like this *dsr-t*, could have been reserved for the royal family. This is suggested by the absence of this type of vessel from the private cemeteries in Saqqara, as well as Giza. On the other hand, the word seemingly refers to the colour, and not the shape of the vessel, and could possibly designate other types of red-slipped clay vessels. The determinative used in recording the ritual on lists of offerings also points to this; a broken, slender jar...
lying horizontally is usually depicted in the offering lists. Also of significance for the interpretation of these deposits is a find from the undisturbed burial chamber of shaft 294 at Giza (see above n. 34) (Fig. 4b).

This ritual appears to be imbued with a number of different meanings. Firstly, the vessels that were broken were used in the funeral ceremony and thus belonged to the sacrum. Their use in the sphere of the profanum, at home for instance, was unthinkable. By breaking the vessels, the ancient Egyptians made sure that no profanation would occur. The colour of the vessels, red, also appears to hold deep meaning. Red was associated with Seth, and personified the negative characteristics of this god; it also brought to mind the desert. Thus, breaking red vessels had the symbolic meaning of rendering harmless the enemies of the dead man. As a whole, it appears to be the last stage in the tripartite rites of passage—the 'ritual of incorporation'

recall the shape of the small vessels called *dir*, cf Borchardt, *ZAS* 64 (1929), passim.

50 Taboos concerning the necropolis are common to most religions, including the monotheistic ones. There are strong beliefs current in many societies that nothing in any way connected with the cemetery should ever be brought home, e.g. flowers or candles and so on.


Fig. 7: Deposit from false shaft 34 upon discovery

Fig. 8: Plan of mastaba G 6052 and reconstructed pottery found in false Shaft B (Weeks, *Giza Mastabas 6*, pl. 2, figs 132–134) (rites agrégation) according to Arnold van Gennep’s classic conception.
And where are the viscera...? Reassessing the function of Old Kingdom canopic recesses and pits

contained produce consumed during the banquet. This would explain the presence of many of the elements of these deposits, especially the wooden boards, which were, as in the case of the deposit from our shaft 34, elements of the chest, as well as the shells, bones, lumps of charcoal and textiles. Another important element found in a few deposits consists of textiles, usually carelessly bundled or even 'casually' thrown into the shaft. It is possible that these were bandages used in preparing the body for burial. They, too, are soaked through with a brown resinous substance.

The conclusion seems obvious enough. The shafts without chambers were not unfinished burial shafts abandoned for whatever reason during the digging; they were planned from the start not as places of burial, but as a kind of 'cache'.

The similarities are striking between the objects from the recesses and those from the 'false' shafts, especially in the case of the vessels. The vessel types found in situ in the recess of shaft 294 may be earlier than those from shaft 34 of Pehi's mastaba in Saqqara and shaft B of mastaba G 6052 in Giza, but they are identical. It is not likely to be a coincidence, especially if we take into account the position of each one of these shafts with regard to a sarcophagus (recesses and pits) or main burial shaft (false shafts).

Summary

To sum up, the Old Kingdom burial chambers contained three different kinds of caches: recesses, pits and 'cheats'. For years they have been believed to be receptacles for the entrails removed from the body during the embalming process and for canopic jars. The theory, however, has many weak points, being based, as it is, on untested assumptions. The scant remains found in these caches not only do not uphold the idea, but they actually support a different scenario. They also point directly to the so-called 'false' shafts, which were not unfinished but were intended as caches for all kinds of objects used during the burial ceremonies, especially if they had become soiled by contact with the dead body during its preparation for the funeral. It now seems very probable that all of the caches served this same purpose: they were Old Kingdom caches but for entirely different objects rather than the canopic jars.

Were these caches a local Memphite phenomenon? There is much to suggest this conclusion, but until more excavations are conducted, the question will have to remain open. Most of the data on recesses and pits come from Giza, which is an extraordinary burial ground; archaeological research there has been going on almost incessantly for a century, although it has been limited largely to the fourth dynasty mastabas and Maidum. Other sites, like Saqqara, not to mention sites from Middle and Upper Egypt, are much more poorly represented in this respect. Their historical topography is not as well known and there is still much unexplored territory within their boundaries.

The present article does not take up issues concerning the origins of the caches or their later development, but it was deemed important to identify their function based on the finds coming from these places, as well as to determine their role in the funeral ceremonies. It is purely a side effect that in doing so the author has demonstrated yet again how misconception, if repeated frequently enough, turns into binding theory—in Egyptology as much as in everyday life.

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Plate 11: The deviation of the alignment of the north-west corners of the Abusir pyramids from the obelisk of Senwosret I in Heliopolis (Verner)

Plate 12: One of the packages found in a chest in a burial chamber in Corridor 2 in West Saqqara (photo: author). (Rzeuska)

Plate 13: Selected pottery from shaft 34 (Rzeuska)
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Recent research on all aspects of the Old Kingdom in Egypt is presented in this volume, ranging through the Pyramid Texts, tomb architecture, ceramics, scene choice and layout, field reports, cemetery layout, tomb and temple statuary. The contributions also show how Egyptology is not stuck in its venerable traditions but that newer forms of technology are being used to great effect by Egyptologists. For example, two papers show how GIS technology can shed light on cemetery arrangement and how 3D scanners can be employed in the process of producing facsimile drawings of reliefs and inscriptions.

The authors cover a wide range of sites and monuments. A large part of the work presented deals with material from the great cemeteries of Saqqara and Giza of the Old Kingdom capital city of Memphis but all the smaller sites are discussed. The book also includes a paper on the architecture of mastabas from the lesser-known site of Abu Roash. The provinces are by no means overlooked, with articles on material from Deir el-Bersha, el-Sheikh Said and Akhmim. Between them, the authors discuss material from the milieu of the king right down to that which concerned the tomb workmen and those who supplied their basic needs, such as bakers, brewers and potters.


Helen Strudwick currently works at the Fitzwilliam Museum, Cambridge; Nigel Strudwick has worked at the British Museum and is presently teaching at the University of Memphis. They have carried out fieldwork together at Luxor since 1984 and are the authors of Thebes in Egypt.