OLD KINGDOM, NEW PERSPECTIVES

Egyptian Art and Archaeology 2750–2150 BC

edited by

Nigel Strudwick and Helen Strudwick

OXBOW BOOKS
Oxford and Oakville
Old Kingdom Art and Archaeology Conference (2009 : Cambridge, England)
Old Kingdom, new perspectives : Egyptian art and archaeology 2750-2150 BC / edited by Nigel Strudwick and Helen Strudwick.

Includes bibliographical references.
1. Egypt--Antiquities--Congresses. 2. Excavations (Archaeology)--Egypt--Congresses. 3. Egypt--Civilization--To 332 B.C.--Congresses. I. Strudwick, Nigel. II. Strudwick, Helen. III. Title.
DT60.O65 2009
932.012--dc23
2011034091

Cover: © Milan Zemina. Used by permission of Miroslav Verner

Printed in Great Britain by
Short Run Press, Exeter
## Contents

Foreword  
*Timothy Potts*  
v  
Introduction  
*Nigel Strudwick and Helen Strudwick*  
vii  

1 Recent work in the tomb of Nebkaubor at Saqqara  
*Abdou el-Kerety*  
1  

2 A new Old Kingdom rock-cut tomb from Abusir and its Abusir-Saqqara context  
*Miroslav Bártta*  
9  

3 Mastaba core structure: new data from fourth dynasty elite tombs at Abu Rawash  
*Michel Baud and Eric Guerrier*  
22  

4 The art of Egyptian hieroglyphs as seen by the Akhmim painters  
*V.G. Callender*  
33  

5 Two cemeteries for one provincial capital? Deir el-Bersha and el-Sheikh Said in the fifteenth Upper Egyptian nome during the Old Kingdom  
*Marleen De Meyer*  
42  

6 Blocks from the Unas causeway recorded in Černý's notebooks at the Griffith Institute, Oxford  
*Andrés Diego Espinel*  
50  

7 A spatial metaphor for chronology in the secondary cemeteries at Giza  
*May Farouk*  
71  

8 The decorative programmes of the pyramid complexes of Khufu and Khafre at Giza  
*Laurel Flentye*  
77  

9 Reading the Menkaure Triads: Part II (Multi-directionality)  
*Florence Dunn Friedman*  
93  

10 The death of the Democratisation of the Afterlife  
*Harold M. Hays*  
115  

11 A new specific tomb type in Abusir?  
*Jaromír Krejčí*  
131  

12 An afterworld for Netjerykhet  
*Kamil O. Kuraszkiewicz*  
139
<table>
<thead>
<tr>
<th>No.</th>
<th>Title</th>
<th>Authors/Editors</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>Re-examining the Khentkaues Town</td>
<td>Mark Lehner, Daniel Jones, Lisa Yeomans, Hanan Mahmoud and Kasia Olchowska</td>
<td>143</td>
</tr>
<tr>
<td>14</td>
<td>Searching for an undistorted template (digital epigraphy in action)</td>
<td>Jolana Malatkova</td>
<td>192</td>
</tr>
<tr>
<td>15</td>
<td>The ‘Reserve Heads’: some remarks on their function and meaning</td>
<td>Massimiliano Nuzzolo</td>
<td>200</td>
</tr>
<tr>
<td>16</td>
<td>The evidence of images: art and working techniques</td>
<td>Gabriele Pieke</td>
<td>216</td>
</tr>
<tr>
<td>17</td>
<td>The concept of <em>hprr</em> in Old Kingdom religious texts</td>
<td>Joanna Popielska-Grzybowska</td>
<td>229</td>
</tr>
<tr>
<td>18</td>
<td>Twisted Kilts: variations in aspective representation</td>
<td>Ann Macy Roth</td>
<td>234</td>
</tr>
<tr>
<td>19</td>
<td>And where are the viscera...? Reassessing the function of Old Kingdom canopic recesses and pits</td>
<td>Teodozia I. Rzeuska</td>
<td>244</td>
</tr>
<tr>
<td>20</td>
<td>Fixed rules or personal choice? On the composition and arrangement of daily life scenes in Old Kingdom elite tombs</td>
<td>Nico Staring</td>
<td>256</td>
</tr>
<tr>
<td>21</td>
<td>Village, town and barracks: a fourth dynasty settlement</td>
<td>Ana Tavares</td>
<td>270</td>
</tr>
<tr>
<td>22</td>
<td>An Old Kingdom bakery at Sheikh Said South: preliminary report</td>
<td>Stefanie Vereecken</td>
<td>278</td>
</tr>
<tr>
<td>23</td>
<td>Why was the Fifth Dynasty cemetery founded at Abusir?</td>
<td>Miroslav Verner and Vladimír Brůna</td>
<td>286</td>
</tr>
<tr>
<td>24</td>
<td>The economic connection between the royal cult in the pyramid temples and the sun temples in Abusir</td>
<td>Hana Vymazalová</td>
<td>295</td>
</tr>
<tr>
<td>25</td>
<td>The Ancient Egypt Research Associates settlement site at Giza: the Old Kingdom ceramic distribution</td>
<td>Anna Wodzińska</td>
<td>304</td>
</tr>
<tr>
<td>26</td>
<td>zšš <em>wrid</em> scenes of the Old Kingdom revisited</td>
<td>Alexandra Woods</td>
<td>314</td>
</tr>
</tbody>
</table>
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 Jaromír 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 Jaromír 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
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 Jaromir 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
Twisted Kilts: variations in aspective representation in Old Kingdom mastaba chapels

Ann Macy Roth

One of the most common articles of apparel worn by Egyptian men in Old Kingdom reliefs and sculpture was the wrapped kilt.1 It was a simple piece of white linen wrapped around the hips with its loose end swept up in a graceful curve and tucked into a waistband or belt. It could be worn by all classes, and to distinguish the more elite wearers, the end of the kilt that swept up into the belt was sometimes pleated and stained yellow.

As Engelbach noted already in 1929,2 the wrapped kilts worn by non-royal male statues from the Old Kingdom almost without exception wrap around to the front from the right, in a counter-clockwise direction from the point of view of the wearer, while in the Middle Kingdom they wrap the other way. Put another way, in a statue of an Old Kingdom man, the curved sweep of the kilt’s final wrapped end is visible from the right side of the statue, while in the Middle Kingdom, the sweep would be visible from the left. In an article with a somewhat different focus, W. K. Simpson pointed out that the royal shendyt kilt wraps from the left in all periods, what he called the ‘royal fold’ as opposed to the ‘private fold’. He argued that the change of direction in Middle Kingdom non-royal statuary was in fact a usurpation of royal prerogative.

Nicholas Reeves also discussed the direction of wrapping of kilts, arguing that the rare examples in which kings’ kilts are wrapped from the right (that is, backwards, for the shendyt kilt) are subtle indications that the king so represented was left-handed.4 In passing, he suggested that the change in private statues in the Middle Kingdom to a wrap from the left, Simpson’s ‘royal fold’, may derive from an association of the wrap from the right with the dead and the wrap from the left with the living,5 and hence also with the king, who is eternally living even in mortuary contexts. He proposed that the Middle Kingdom adoption of the clockwise, ‘living’ direction of wrap by non-royal individuals was yet another aspect of the ‘democratisation of the afterlife’.6

Despite their variance on other points, Engelbach, 

1 The arguments presented here formed the second part of the paper I presented at the Ninth Conference on Old Kingdom Art and Archaeology in May 2009, entitled ‘Notes on a Scattered Cemetery: Three Mastaba Chapels in the Metropolitan Museum of Art’. Variations of that talk were also presented for the ANSHE annual lecture at Johns Hopkins University (March 2009), for the Chicago Chapter of the American Research Center in Egypt (November 2009), and under the title ‘Twisted Kilts and Second Thoughts’, for the Fellows Colloquium at the Metropolitan Museum of Art, as well as to two smaller groups associated with the Egyptian Department at the MMA. I am grateful to the audiences of all of these talks for their attention and comments, which have considerably refined my ideas. I am also very grateful to Dorothea Arnold for giving me the opportunity to work on the tombs that inspired these ideas and to Marsha Hill for bibliographical suggestions that saved me significant amounts of time. Much of my work on this question was done during a sabbatical leave from New York University when I held the J. Clawson Mills Fellowship in Egyptian Art at the Museum; I am indebted to both institutions for their generous support.


5 Reeves cites a parallel from pre-modern Japan, where kimonos wrapped in one direction to show the kimono’s owner alive and in the other direction to show him dead.

6 Reeves, in Leahy and Tait (eds), Studies on Ancient Egypt, 250 n. 13.
Twisted Kilts: variations in aspective representation in Old Kingdom mastaba chapels

Fig. 1: Simplified drawings from the panels flanking the third dynasty false door recess of Khabausokar in the Egyptian Museum (CG 1385). These panels are perpendicular to the false door, with the figures facing away from it. Their positions have been reversed here so that the orientation of the figures is comparable to the orientation of those in the later examples. The image labelled (a) is actually on the right and (b) on the left (drawing by the author)

Simpson and Reeves all agreed that the direction in which the kilt wraps in two-dimensional art is not significant, since there the direction of the wrapping depends upon the orientation of the wearer. This is indeed often the case. The artist who is rendering a figure in the two-dimensional aspective view must often compromise accuracy for completeness of representation or for a natural appearance, and most commonly, wrapped kilts are shown wrapped to the front, with the line of the hem sweeping up to the belt visible on the side, regardless of whether it is the right side, in which case the direction of wrap shown would be that customarily shown on Old Kingdom three-dimensional statues, or the left side, in which case the kilt would be depicted wrapped as if it were wrapped in the opposite direction.

The phenomenon is akin to that which H. G. Fischer has termed 'reversals.' In his discussion of the relationship between two-dimensional representations and hieroglyphs, he noted that a human figure facing to the right, the direction of a human hieroglyph in the prevailing right-to-left direction of writing and reading, is usually shown correctly, while a 'reversed' figure is often distorted. He argues that for this reason the rightward orientation is normally used for the most prestigious figure in a composition. In discussing two-dimensional art here, then, I shall use the term 'normal' to indicate a rightward facing figure, and 'reversed' to indicate a leftward facing figure.

A clear example of the often unsatisfactory choices made necessary by a reversal can be seen in the two panels flanking the false door of Khabausokar, simplified drawings of which are shown in Fig. 1. The left drawing (a) shows the tomb owner facing right, the dominant orientation. He holds his sceptre in his right hand and his tall staff in his left. In the drawing on the right (b), he is shown reversed. His sceptre is again in his right hand and his staff in his left, although his arms have been attached to the wrong shoulders in order to achieve this, or alternatively, the front of his torso is shown where the back would be more logical. The sceptre passes behind his body, since it is meant to be held at the right (non-visible) side. Such distortions are not errors; the Egyptian artist was surely aware of the problem, but the aspective mode of representation required him to decide upon his priorities. It was in this case clearly thought important to show these symbols of power and status in the correct hands and in the correct relation to the body, even at the cost of an unnatural arrangement of the limbs.

It was also clearly less important to show the correct direction of the wrap of the kilt than it was to show the pleated sweep of the kilt's end. When reversed, the sweep of Khabausokar's kilt would have been on the right side of his body like his sceptre, turned away from the viewer and not visible, but the artist has instead shown the pleated sweep on the left hip, as if the kilt were wrapped in a clockwise direction, from the left. With regard to the kilt, then, the reversed figure is truly a mirror image, while the staff and sceptre are adjusted so that they appear in the proper hands and in their proper positions with respect to the torso.

The frequency with which this mirroring of the wrapped kilt is seen in two-dimensional art makes it unlikely that the direction of wrap in three-dimensional art signalled royal status or life versus death. If the direction of wrap held such significance, it would hardly be so cavalierly reversed. It seems more likely that the direction of wrap was, as Reeves also suggested, a matter of right- or left-handedness. The difference in the direction of wrap may parallel the gender difference in the wrap of Western men's shirts and ladies' blouses. Men's shirts wrap from the left, to make it easier for right-handed men to button them. Ladies blouses, however, wrap from the right because they were originally buttoned by ladies' maids. Kings would also have been dressed by servants, and their kilts would wrap left for the

---


L. Borchardt, Denkmäler des Alten Reiches I (Berlin 1937), no. 1385.
servants’ convenience. The Middle Kingdom development of a clockwise wrap might have signalled an increase in the number of high officials who were dressed by personal servants, or who hoped to suggest that they were.

Another factor that seems to have been overlooked even in three-dimensional representations is that different styles of kilts apparently wrapped in different directions. Slightly different from the standard wrapped kilt was a kilt with a longer flap, which wrapped around from the left, but continued further around to the right side, where the top of the flap was folded back and tucked into the front of the waistband, leaving a triangular flap pointing toward the right hip. (Fig. 2 shows this kilt in three dimensions on a statue in the Metropolitan Museum. 9) This kilt wraps in the opposite direction, from the left side (clockwise, from the point of view of the wearer). However, because it continues farther around to the right side, where the details of the fold of this kind of kilt, like the sweep of the ordinary wrapped kilt, would be visible from the right side and not from the left.

It seems possible, in fact, that for both the simple wrapped kilt and this kilt with the folded-back flap, the direction of wrap in three-dimensional sculpture was actually determined by the aspective representation in two dimensions. As Fischer has pointed out with regard to the extended left leg of standing statues and the objects carried by statues of offering bearers, 10 the assumption was that any important features of the figure should be visible from the statue’s right side, which is the side visible in an aspective representation of a figure facing in the dominant canonical direction. This would not have been a factor with the royal shendyt kilt, since that kilt, like the triangular kilt, was normally twisted to be shown frontally in two-dimensional representations, so that the wraps over both hips as well as the central tab are visible.

However, despite the assumption made by scholars writing about the direction of wrap in kilts on statuary, the mirror-image solution for the representation of wrapped kilts in reversed two-dimensional figures (‘Pattern I’) is not universal. In the course of my current research on the three Old Kingdom mastaba chapels in the Metropolitan Museum of Art of New York, 11 I have noted two additional solutions, the second of which also occurs in two variant patterns that, oddly, compound the problems created by reversals in aspective representations.

The five patterns are summarised in Fig. 3; their implications for the direction of wrap and the questions of aspective representation will be discussed further below. No clear reason for the final two variants has yet emerged; however, they may have chronological implications, at least for the part of the Saqqara cemetery from which these three tomb chapels come, the area north of the Step Pyramid complex and south of the Djoser ‘moat’, where most of the tombs date to the late fifth dynasty. 12 Because these chronological implications are still somewhat hypothetical and may be quite limited, I have preferred the term ‘pattern’ to ‘phase’.

Both of the solutions to the aspective problem are attested in the chapel of Raemkai, originally built and decorated for a man named Neferiretenes, which has been dated to just before the reign of Djedkare Izezi in the late fifth dynasty, but which may be somewhat earlier. 13 Either

---

9 MMA 62.200, published as ‘27. Standing Man’ in Egyptian Art in the Age of the Pyramids (New York, 1999), 207.

10 Fischer, Orientation of Hieroglyphs, 6–8.

11 These three chapels, belonging to Neferiretenes usurped by Raemkai (MMA 08.201.1), to Nikauhor and Sekhemhathor (MMA 08.201.2), and to Perneb (MMA 13.183.3), are being published as a group because they come from the same cemetery. A fourth chapel, that of Kaemsenu, 26.9.2, PM III, 541, dated to the early fifth dynasty, is part of a different sub-cemetery, surrounding the Teti pyramid, although it apparently predates that pyramid.

12 The three Metropolitan Museum tomb chapels from this area, as well others removed entirely or in part from the same area to the Ny Carlsberg Glyptotek in Copenhagen, the Ägyptisches Museum in Berlin, and the Egyptian Museum in Cairo, were published briefly by their excavator, J. E. Quibell, Excavations at Saqqara (1907–1908) (Cairo 1909), 22–26, 79–88, 115, and pls 60–62.

13 The original decoration of the chapel for Neferiretenes included the estate name ‘Mound of Izezi’, albeit with no cartouche. K. Baer, Rank and Title in the Old Kingdom. The Structure of the Egyptian Administration in the Fifth and Sixth Dynasties (Chicago 1960), 292.
Pattern I

Pattern II

Pattern III

Pattern IV

Pattern V

Fig. 3: A graphic summary of the five patterns observed in the representation of wrapped kilts in the Old Kingdom (drawing by the author)
the original owner or the artist to whom he had entrusted
the decoration of his tomb chapel clearly rejected the idea
of showing kilts wrapping in the wrong direction in the
relief decoration. No kilts are shown with details of their
wrapping in mirrored fashion on reversed figures.

The solution most commonly adopted here (‘Pattern
II’) was a simple one, which was merely to show the left
side of the kilt, when it faces the viewer (that is, when
the wearer is facing to the left) as a blank surface. This is
particularly clear on the entrance passage, where files of men
on both sides apparently wore the kilt with the folded-back
flap shown on the statue in Fig. 2. The folded-back flap
should be visible when the wearer faces right, as indeed
it is in this passage (Fig. 4a); but the reversed figures on
the wall opposite wear kilts with no flap visible (Fig. 4b).
This pattern continues throughout the daily-life scenes on
the interior of the chapel, with the exception of a single

right-facing man on the west wall, whose kilt is also shown
as a blank surface.

The other solution used in this chapel (‘Pattern III’) is
shown only on the panels flanking the false door. Unlike
the men elsewhere in the chapel who wear kilts with folded-
back flaps, the offering bearers shown here wear the simple
wrapped kilt. The curved sweep of the wrap is visible, as it
should be, on the offering bearers on the left panel, who
face right (Fig. 5a). But for the reversed left-facing figures
on the right panel, the artist has solved the problem by
twisting the right-wrapped kilt around the man’s body so
that it is tucked in at the back (Fig. 5b).

Again, this solution exemplifies the sort of compromise
that the aspective mode of representation constantly required
of the artists who used it. It was clearly important to show
that the kilt is wrapped, but here it was also thought
important to show that it was wrapped from the right. A
kilt pulled tight across the man’s abdomen and thighs and
tucked in at the back is never shown in statuary, and it seems
unlikely that the kilt was ever worn in this way. Nonetheless,
an unrealistic point of closure was found less troubling to the
viewer than to show the kilt wrapped in a clockwise direction
or to omit the curve of the wrapping. This preference for
showing the wrap and showing it in the correct direction is
not because the curved end was pleated and conveyed higher
status, because the wrapped area is not shown as pleated in
this chapel, and the wearers of the backwards-wrapped kilts
in are not identified by name or title. Nor is the owner of
this tomb shown wearing this kind of kilt.

In understanding this solution, it is perhaps significant
used this circumstance to argue that Izezi was about to come to
to the throne when the tomb was first decorated. However, according
to H. Jacquet-Gordon, Les noms du domaines funéreaux (BdE 34;
Cairo 1962), 62, this estate name occurs only with gods and private
individuals, and not with kings; it thus seems more likely that this was
a non-royal estate and has no bearing on the date of the tomb. It is
thus possible that the original decoration of the tomb was somewhat
earlier in the fifth dynasty, as the style would seem to suggest. The
dating of the rededication to Prince Raemkai in the reign of Izezi is
largely based on the presence of other princes of the era in the same
sub-cemetery.

Fig. 4: Examples of offering bearers on the south (a) and north (b)
entrance thickness of the chapel of Neferiretenes/Raemkai (drawing
by the author)

Fig. 5: Examples of offering bearers from the outer side panels
south (a) and north (b) of the false door of Neferiretenes/Raemkai
(drawing by the author)
that the backwards wrap is shown only on the false door of this chapel. The kilts with folded flaps, shown elsewhere in the tomb chapel, could not easily be wrapped backwards. By using a simple kilt, wrapped to the back to preserve the direction of wrap, the artist distinguished the false door from the other walls of the chapel and marked it as the cult place. Alternatively, the twisted kilts may have been an innovation of Raemkai, the second owner of the tomb. Although erasures can be found throughout the chapel, only the false door shows any evidence of recarving. The change would have been a simple one: the carving of a line on each previously blank kilt. In fact, the lines of the kilts on the two sides of the false door differ somewhat: those on the left are a thin sharp line, while those on the right are bevelled on the right side, more clearly suggesting the overlap of the material. However, this does not necessarily show a temporal difference; it could also be attributed to different artisans being responsible for each side of the false door (as seems likely from other differences in the figures). If the lines showing the backwards wrap were added later; however, the temporal difference might explain the fact that the artist who carved the backwards wrap has gone to such unrealistic extremes to indicate that the kilt was wrapped, whereas elsewhere in the tomb, it was thought more important to show the direction of wrap and the place where the kilt was tucked in correctly.

The solution of the back-wrapped kilt was not original with this artist. It can be found as early as the fourth dynasty and continues to be used sporadically in later periods. In royal contexts, while the back wrapped kilt could clearly be used for officials, in the Sahure and Pepy II complexes, the back-wrapped kilt seems most typical of minor divinities, such as nome gods. It does not occur with major gods or with the king, and reversed offering bearers tend to be shown with the mirrored direction of wrap in royal contexts. This pattern extends at least into the Middle Kingdom, where it can be seen in the White Chapel of Senwosret I at Karnak. There, the kilt of a reversed personification of the royal ka is shown with his kilt wrapped to the back, while the reversed figure of the god Amun-Re on the same pillar is shown with his kilt wrapped in the wrong direction, in the same mirror-image solution shown in the drawing of Khabauskar (Pattern I).

In private contexts, the back-wrapped kilt seems to have been quite common beginning in the early fifth dynasty. In the recent publication of the large tombs in Cemetery 2100 at Giza, for example, three tombs (Merib: G 2100-1; Kanefer: G 2150; Kaninisut I: G 2155) all show a similar pattern of decoration, in which the tomb owner is shown reversed on the west wall, his back to the secondary northern false door, wearing a kilt wrapped to the back. The important position of these figures seems designed to highlight the use of this direction of wrap. All these tombs date to the very early fifth dynasty, while earlier decorated mastaba chapels from the same cemetery do not show back-wrapped kilts in this orientation: that of Nefer (G 2110) avoids the use of this type of kilt when male figures are reversed, and that of Khentka (G 2130) and the anonymous mastaba chapel of G 2220 show the kilt of the reversed tomb owner in the mirrored manner, that is, as if it were wrapped from the left. In the early examples, back-wrapped kilts were often depicted on the tomb owner himself, but in the later Fifth and the Sixth Dynasties, it is more commonly found on offering bearers. This may be attributed in part to the greater variety of status-conveying kilts that could be worn by the tomb owner, particularly the popular triangular kilt, which, like the royal shendyt kilt, tends to be shown from the front.

The tomb chapel of Nefereretenes (and later Raemkai) is one of the earliest chapels from the area just north of the Step Pyramid complex. Another chapel from the same area, that of Kaemrehu, now in Copenhagen, may illustrate the same pattern. These are the last of the chapels in the cemetery in which the pattern of wrapping and backwards wrapping kilts makes logical sense. The other chapels show backwards-wrapped kilts in greater numbers, but they occur in variant patterns for which the rationale is far less clear.

Back-wrapped kilts can also be seen in the Metropolitan Museum’s tomb chapel of Nikauhor and his wife Sekhemhathor. Only the west wall of this chapel was brought to

17 P.D. Manuelian, Mastabas of Nucleus Cemetery G 2100 (Giza Mastabas 8; Boston, 2009), 40, fig 2.13 gives a summary of the decoration at a very small scale. Larger scale representations of the kilts can be seen in figs 4.31–59 (Merib), 12.87–97 (Kanefer), and 13.49–60 (Kaninisut I).
18 Ibid., 46.
19 Ibid., 40, fig. 2.13; 256, fig. 8.50; and 453, fig. 16.53.
20 M. Jorgensen, Ny Carlsberg Glyptotek: Catalogue Egypt 1 (3000–1550 B.C) (Copenhagen, 1996), 64–79. I am grateful to Dr Jorgensen for allowing me access to old photographs of the chapel held by the Glyptotek and to Dr Tina Bagh for helping me there. The offering bearers on the base of the false door panels clearly show Pattern I; however, the reversed offering bearers in the table scene left of the false door wear back-wrapped kilts. It is difficult to discern the direction of wrap on the normally-orientated offering bearers in the table scene right of the false door, but one may wear a front-wrapped kilt. Kaemrehu held a priesthood in the mortuary temple of Niuserre, so his tomb can date no earlier than that king.
New York. On the wall between the two false doors, a row of offering bearers is depicted, carrying food towards the husband's false door. The kilts are all wrapped to the back, which is appropriate since their wearers are reversed, facing left. The offering bearers to the north of the wife's false door, which were rendered in paint only, also wear reversed kilts.

Only four of the offering bearers on the west wall face right, in two surviving registers to the left of the principal false door. The upper two have no visible folds in their kilts at all, but the two men in the lower register show backwards-wrapped kilts, despite the fact that they are facing in the normal direction. So while reversed offering bearers have kilts that wrap (wrongly) to the back but (correctly) counter-clockwise, normally oriented figures have kilts that wrap (wrongly) clockwise, and (wrongly) to the back, as well ('Pattern IV'). The chapel of Nikauhor and Sekhemhathor was not the only chapel in this area of the cemetery to show this pattern. The chapel of Netjeruser, now in Chicago, clearly showed the same variant.

The reason for the adoption of Pattern IV is difficult to imagine. The backwards-wrapped kilt may have had positive connotations because it was associated with greater accuracy or propriety of representation, even when it was used in a way that was less accurate. It may also have conferred status to use this backwards wrap for offering bearers, because of the fact that this wrap was used (albeit usually correctly) for minor deities in royal mortuary temples. The reversed offering bearers, for whom the backwards wrap allowed accuracy in the direction of wrap, would tend to outnumber the normal offering bearers, because the offering bearers tend to face the southern false door on the long west wall in the typically L-shaped fifth dynasty chapels. But the existence of the normally-oriented offering bearers with back-wrapped kilts is difficult to explain except as over-enthusiasm of some sort.

One revealing circumstance, however, is the upper two (normal) offering bearers to the left of the false door of Nikauhor, whose kilts are blank rather than reversed. If this is to be attributed to the same cause as the blank kilts in the chapel of Raemkai, that is, that the sweep of the kilt is on the far side of the wearer and not visible to the viewer, their kilts, like those of the lower offering bearers with back wrapped kilts, can be assumed to wrap from the left (clockwise), that is, backwards, but to be tucked in to the front, a variant of Pattern II where reversed figures are shown with blank kilts. It would suggest that the salient point here is that the direction of wrap is mirrored, not simply that kilts wrap to the back. Oddly, this is the exact reverse of the earliest mirrored solution to the problem, where all kilts wrap to the front, so that the direction of wrap is determined by the orientation, just as it is here.

A circumstance supporting this connection between the mirroring of Pattern IV and that of Pattern I is the double tomb of Niankhkhnum and Khnumhotep, dating to the latter half of the fifth dynasty. There the tomb owners are shown with kilts wrapped to the front regardless of their orientation (Pattern I), while the offering bearers are shown with back-wrapped kilts (Pattern IV).

Even more difficult to explain is the pattern found in the third and largest mastaba chapel at the Metropolitan Museum, that of Perneb. While the other two chapels are L-shaped, Perneb's chapel is one of the earliest east–west offering chapels, and the mirrored rows of offering bearers typical of this chapel type would seem an excellent opportunity for artists to find a satisfactory solution to the problem of reversed figures with wrapped kilts. Indeed, in the sixth dynasty, when this chapel type becomes almost universal, the mirrored, front-wrapped kilt (Pattern I) again becomes the standard. However, the pattern in this chapel makes even less sense than that in the chapel of Nikauhor and Sekhemhathor.

In the chapel of Perneb, the offering bearers on one wall have kilts wrapped to the back, while those opposite are wrapped to the front. However, it is the reversed figures whose kilts wrap to the front, and the normal figures whose kilts wrap to the back, with the consequence that all kilts wrap clockwise, the 'incorrect' direction ('Pattern V'). This is an inversion of Pattern III, in which all kilts wrap correctly in a counter-clockwise direction. I can suggest no reason at all for this variant except perhaps the desire of the artist to play with the conventions and ring all the possible changes on this way of rendering the kilt. The backwards-wrapped kilt has clearly moved far beyond solving the problems of aspirative representation and become a signal of something else. That meaning, however, is difficult to imagine.

It might be thought that the consistent clockwise direction of wrap is an early example of the adoption of

---

21 Quibell, *Excavations at Saqqara* (1907–1908), pls 62–66. All the walls are published in drawings, but the details of the kilts are shown inconsistently, so only the west wall will be considered here.
23 A. M. Moussa and H. Altenmüller, *Das Grab des Nianchchnum und Khnumhotep* (AV 21; Mainz am Rhein 1977), pls 51, 90, and 73 show the two tomb owners depicted with kilts wrapped to the front regardless of orientation in the mirrored Pattern I. In ibid, pls 52, 86, and 89, ka-priests are shown wearing wrapped kilts that are wrapped to the back, again regardless of orientation, as in Pattern IV. The compositions in plates 51 and 52, where the two patterns are juxtaposed in the thicknesses of the entrance to the rock-cut chambers, make it especially clear that this is an intentional distinction between the tomb owners and the functionaries of their mortuary cults.
24 'The name is almost certainly to be read Perenenebi, 'My lord has gone forth for me', as James P. Allen has pointed out to me. However, in deference to a century's tradition, the better known form of the name will be used here.
Both the naturalistic twist closing and the uniformly left-wrapped kilts are also attested in Chicago's chapel of Netjeruser, in the doorway leading into the inner chapel. Netjeruser and Perneb, as well as Rashepses, the owner of a nearby tomb, clearly belong to the same family. The chapel of Rashepses depicts an eldest son called Netjeruser; Perneb's eldest son is called Netjeruser and another son is called Rashepses; and Netjeruser has an eldest son named Rashepses and a second son called after himself. Such naming patterns usually indicate family relationships. Since the tomb of Perneb seems to be archaeologically subsequent to that of Rashepses, and since those of Perneb and Netjeruser both use the new east–west chapel style, it seems most likely to posit that Rashepses was the father of both Netjeruser and Perneb. In this case, Netjeruser was clearly the elder brother (according to the inscriptions of Rashepses), so his tomb can be assumed to have been started first. The fact that his main chapel, probably the first part of the tomb chapel to be decorated, depicts offering bearers with kilts wrapped according to Pattern IV, while the later corridor is decorated according to Pattern V, like his younger brother's chapel, suggests that Pattern V is a development out of Pattern IV (as would seem logical). Similarly, Pattern III, in which the turning of the kilt is a rational solution to the problem presented by aspective representation, can be presumed to precede the two variants. Supporting this, Pattern III occurs on one wall in the tomb of the father, Rashepses, which otherwise follows Pattern I.

Some indication that the development can be chronological elsewhere may also be seen in the Cemetery 2100 tombs at Giza discussed above. That of Merib (G 2100-I), the chapel walls of which illustrate Pattern III, has a doorway thickness that shows Pattern IV, while the tomb of his daughter, Nisedjerkei (G 2100-II) has only one pair of pillars showing male figures (her father Merib), and these show Pattern V. Again the patterns appear sequentially in
Table 1: A summary table of the five patterns observed

<table>
<thead>
<tr>
<th>Pattern</th>
<th>Direction of wrap on normal figures</th>
<th>Direction of wrap on reversed figures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pattern I</td>
<td>normal people wrap right reversed people wrap left</td>
<td>counter-clockwise to front</td>
</tr>
<tr>
<td>Pattern II</td>
<td>normal people wrap right reversed people wrap right</td>
<td>counter-clockwise to front</td>
</tr>
<tr>
<td>Pattern III</td>
<td>reversed people wrap back normal people wrap front</td>
<td>counter-clockwise to front</td>
</tr>
<tr>
<td>Pattern IV</td>
<td>normal people wrap left reversed people wrap right</td>
<td>clockwise to back</td>
</tr>
<tr>
<td>Pattern V</td>
<td>reversed people wrap front normal people wrap back</td>
<td>clockwise to back</td>
</tr>
</tbody>
</table>

The characteristics shown in boldface and underlined in the two right columns are those that are 'incorrect', contradicting the way the kilt is wrapped in contemporary statuary.

a group of tombs, although the Giza tombs have been dated somewhat earlier than those north of the Step Pyramid.

As suggested above, then, there are five ways of dealing with wrapped kilts. The basic pattern, Pattern I, which in the group of tombs just north of the Step Pyramid seems to be attested in most of the tomb chapel of Rashepses,31 father of Netjeruser and Perneb, is the consistently front-wrapped kilt. It is used not only in earlier tombs, but also in the contemporary tombs of Akhethetep and Ptahhotep I and II, just across the 'dry moat' to the west, and continues as the predominant pattern in later periods. Pattern II, in which reversed figures are shown with blank kilts, is difficult to identify, because the lack of visible details in the kilt may be attributable to lost paint. It can only be identified with certainty in chapels like that of Neferiretenes/Raemkai, where there are significant numbers of normal and reversed figures following the same pattern.

The equally logical Pattern III is known from the royal sphere, and many non-royal tombs at Giza and Saqqara, mostly of fifth dynasty date. In royal contexts it occurs initially among officials, and later can be seen with minor divinities as well. It is never used with major divinities or kings. In non-royal contexts, it occurs initially with tomb owners themselves, but is later usually limited to offering bearers, perhaps in imitation of the royal usage. Pattern IV, the first of the two illogical patterns, is also found consistently in the tomb of Niankhkhnum and Khnumhotep.

31 The one exception is the uppermost register of offering bearers bringing wine (LD II, pl. 61a), who are reversed and are all shown with back-wrapped kilts (Pattern III).

as noted above, except for the two tomb owners who are represented in Pattern I. It is here used to distinguish the tomb owners from their cult functionaries. It also occurs in several tombs in the Unas cemetery; and the even more peculiar Pattern V occurs in the tomb of Unas's queen, Nebet.32 In the sixth dynasty Teti cemetery, the original Pattern I, of mirrored front-wrapped kilts, seems to be the general rule, and Pattern III is used only intermittently. There are sporadic occurrences of back-wrapped kilts throughout the rest of the sixth dynasty, and, as noted above, the phenomenon continues to appear in royal contexts into the Middle Kingdom and was occasionally revived in even later periods.33

The wrap of a kilt clearly held some importance. It was thought significant enough to show it incorrectly mirrored (Pattern I) so that the wrap was visible when the figure was reversed. In other cases, the direction of wrap was given greater weight, either by showing the left side blank in reversed figures (Pattern II) or by showing it wrapped in the correct direction, but turned back-to-front when the figure is reversed, so that the wrap was visible (Pattern

32 P. Munro, Das Doppelgrab der Königinen Nebet und Khenut (Mainz am Rhein 1993). The pattern is seen in room C of Nebet (pls 17–20), though it is inconsistent elsewhere. The less well preserved tomb of Khenut may have had a similarly inconsistent pattern.

33 The lunette of the British Museum's stela of Tjaemhotep (EA 147), which is dated to year 10 of Cleopatra VII, shows Anubis and Horus at left, oriented normally but wearing back-wrapped kilts. (For a detailed photograph, see G. Robins, The Art of Ancient Egypt, (2nd rev. ed.; Cambridge, MA 2008), 248 fig. 298.
III). The unrealistic back-wrapped kilt then seems to have developed a significance of its own and was used in variant patterns (Pattern IV and Pattern V) that were unrelated to the problems posed by aspective representation. What that significance was remains obscure. One wonders whether the reversal of the normal that is associated with the realm of the dead (the demonic and threatening women with faces turned backwards, for example) might be alluded to by these backwards kilts. But such a hypothesis is not susceptible of proof and must remain speculative.

The direction of wrapping of kilts seems to have been used for a number of other purposes by Egyptian artists in the late Fifth and the Sixth Dynasties. In the tomb chapel of Idut (usurped from the vizier Ihy), 34 for example, these patterns were used to distinguish different parts of the chapel. Offering bearers throughout the tomb wear front-wrapped kilts (Pattern I), but on the walls of the most important room, the false door chamber (E), the offering bearers, regardless of orientation, wear back-wrapped kilts (Pattern IV). An exception was made for the offering bearers shown flanking the false door, who follow Pattern V: the reversed bearers wear front-wrapped kilts, while those with normal orientation wear back-wrapped kilts with pleats. A different kind of function is illustrated in the case of the chapels of Neferseshemptah 35 and Nikauisesi, 36 both in the Teti pyramid cemetery, where front and back wrapped kilts alternate, apparently for purely aesthetic reasons, to set up a kind of rhythmic variation in the wall decoration. 37 Yet another way in which the depiction of the wrap of kilts was used is demonstrated in the chapel of Akhethetep in the Louvre. There, the predominant pattern is pattern IV, and most kilts wrap to the back regardless of the wearer's orientation; however, the kilts of the two statues of the tomb owner wrap to the front, marking them as representations of representations. 38

The direction in which kilts wrap in tomb chapel decoration tells us nothing about the daily life of Old Kingdom Egyptians or the way they viewed the world; it does not even offer dependable evidence for the way they wrapped their kilts. However, these patterns illustrate the way that an apparently uninteresting detail can serve to unify a mortuary neighbourhood and perhaps become a subject of discussion and innovation among the artists decorating its tomb chapels. The fact that at one point it was thought sufficiently important to show the direction of wrap that they were willing to sacrifice other realities to the extent of turning the entire kilt front to back, and that these backwards kilts then developed other meanings and purposes, leading to ever more unrealistic patterns of representation, tells us something about the way Old Kingdom artists dealt with the constraints of their mode of representation and suggests the fertility of the system of meanings that they construed from everyday objects.

34 R. Macramallah, Le mastaba d'Idout (Cairo 1935), passim.
35 J. Capart, Une Rue de Tombeaux à Saggara (Brussels 1907), pl. 81 and A.B. Lloyd, A.J. Spencer, and A. el-Khouli, Saggara Tombs III. The Mastaba of Neferseshemptah (ASE 41; London 2008), pl. 9 shows four registers of paired, normal (right facing) offering bearers. In the upper register, both wear front-wrapped kilts. In the second register, the first man wears a kilt wrapped to the back while the second wears a front-wrapped kilt. In the two lowest registers, the first man wears a front-wrapped kilt, while the second man wears a kilt wrapped to the back. Similarly, in the lowest register of the scene shown in pls 99–100, ten men are shown moving rightwards in normal orientation. The first five of them carry forelegs and use kilts wrapped to the front; the last five bring live poultry, and wear kilts wrapped to the back.
36 N. Kanawati, The Teti Cemetery at Saggara VI. The Tomb of Nikauisesi (ACE Report 14; Warminster 2000), pl. 64 shows offering bearers in the lowest register with front-wrapped kilts, while those in the register above it are shown with their kilts wrapped to the back. All face right, that is, are normally oriented. Unfortunately the wrap of the kilts in the higher registers are not clear.
37 This use of an unrealistic iconographic distinction, which has meaning in other contexts, to create a graphic rhythm is reminiscent of the use of variant skin colours noted by Deborah Vischak at al-Hawawish (D. Vischak, paper to be published in the proceedings of the conference Artists and Painting in Ancient Egypt', held in Montepulciano, Italy, Aug 23–24, 2008. The same paper was presented at the conference published in this volume).
38 C. Ziegler et al., Fouilles du Louvre à Saggara I. Le Mastaba d'Akhethetep (Louvain and Paris 2007), fig. 34, shows the tomb owner and four offering bearers, all reversed, wearing back-wrapped kilts, that of the tomb owner being elaborately pleated. The two men censing before the statues, who are normally oriented also wear back-wrapped kilts, while the statues, in reversed orientation, wear kilts that are wrapped to the front. Aside from their location in statue shrines, the statues are not otherwise distinguished from the men represented. While kilts are shown wrapping to the front in daily life scenes in this chapel, those men shown bringing food directly to the tomb owner (figs 38 and 39) are shown with back-wrapped kilts.
Addresses of authors

Abdou el-Kerety  
Supreme Council of Antiquities  
Saqqara  
Egypt  
miroslav.barta@ff.cuni.cz

Miroslav BártA  
Czech Institute of Egyptology  
Faculty of Arts, Charles University  
nám. Jana Palacha 2  
116 38 Prague 1  
Czech Republic  
miroslav.barta@ff.cuni.cz

Michel Baud  
Département des antiquités égyptiennes  
Musée du Louvre  
Porte des Arts  
75058 Paris cedex 01  
France  
michel.baud@louvre.fr

V. G. Callender  
7 Beresford Road  
Thornleigh  
New South Wales,  
Australia  2120  
vgcallender@yahoo.com

Marleen De Meyer  
Katholieke Universiteit Leuven  
Faculteit Letteren, Oude Nabije Oosten  
Blijde-Inkomststraat 21 – bus 3318  
BE-3000 Leuven  
Belgium  
Marleen.DeMeyer@arts.kuleuven.be

Andrés Diego Espinel  
Centro de Ciencias Humanas y Sociales – CSIC  
C/ Albansaz 26-28  
28037 Madrid  
Spain  
andres.diego@chcs.csic.es

May Farouk  
Faculty of Tourism and Hotels  
Sadat city  
Egypt  
mayfarouk21@yahoo.com

Laurel Flentje  
Chicago  
USA  
LaurieatGiza@gmail.com

Florence Friedman  
Rhode Island  
USA  
ffriedman@verizon.net

H. M. Hays  
Oude Culturen van de Mediterrane Wereld  
Universiteit Leiden  
postbus 9515  
2300 RA Leiden  
The Netherlands  
H.M.Hays@hum.leidenuniv.nl

Jaromír Krejčí  
Czech Institute of Egyptology  
(see BártA for full address)  
Jaromir.Krejci@ff.cuni.cz

Kamil O. Kuraszkiewicz  
Department of Egyptian and Nubian Archaeology  
Institute of Archaeology, University of Warsaw  
ul. Krakowskie Przedmieście 26/28  
00-927 Warszawa  
Poland  
k.o.kuraszkiewicz@uw.edu.pl

Mark Lehner  
Ancient Egypt Research Associates, Inc.  
P.O. Box 382608  
Cambridge, MA 02238-2608  
USA  
marklehner@aol.com

Jana Malatkova  
Czech Institute of Egyptology  
(see BártA for full address)  
Jaromir.Krejci@ff.cuni.cz

Massimiliano Nuzzolo  
Massimiliano Nuzzolo  
University of Naples “L’Orientale”  
Pza S. Domenico Maggiore 12  
80134 Napoli - Italy  
masimiliano.nuzzolo@libero.it

Gabriele Pieke  
Staatlichen Museen zu Berlin  
Germany  
g.pieke@googlemail.com

Joanna Popielska-Grzybowska  
Institute of Anthropology and Archaeology  
The Pułtusk Academy of Humanities  
17, Dzyarskiego st.  
06-100 Pułtusk  
joannapopiel@sko@hotmail.com

Ann Macy Roth  
New York University  
New York  
USA  
ann.macy.roth@nyu.edu

Teodozja I. Rzeuska  
Institute for Mediterranean and Oriental Cultures  
Polish Academy of Sciences  
Warsaw  
Poland  
teo dozjarzeuska@wp.pl

Nico Staring  
Leiden University  
Zamenhofstraat 22  
2312 NV Leiden  
The Netherlands  
n.t.b.staring@umail.leidenuniv.nl

Ana Tavares  
Ancient Egypt Research Associates, Inc.  
(see Lehner for full address)  
tavares.ana.2008@gmail.com

Stefanie Verecken  
Katholieke Universiteit Leuven  
(see De Meyer for full address)  
Stefanie.Verecken@arts.kuleuven.be

Miroslav Verner  
Czech Institute of Egyptology  
(see BártA for full address)  
Jaromir.Krejci@ff.cuni.cz

Hana Vymazalová  
Czech Institute of Egyptology  
(see BártA for full address)  
Jaromir.Krejci@ff.cuni.cz

Anna Wodzińska  
Department of Egyptian and Nubian Archaeology  
(see Kuraszkiewicz for full address)  
annawodzińska@uw.edu.pl

Dr. Alexandra Woods,  
Department of Ancient History,  
Faculty of Arts,  
Macquarie University  
Sydney  
Australia  
alex.woods@mq.edu.au
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 Roasch. 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.