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

# OLD KINGDOM, NEW PERSPECTIVES 

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edited by
Nigel Strudwick and Helen Strudwick

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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.

## 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 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

# The decorative programmes of the pyramid complexes of Khufu and Khafre at Giza 

Laurel Flentye

The decorative programmes of the pyramid complexes of Khufu and Khafre at Giza reflect different approaches to the royal structures that were built to ensure the rebirth of the king in the afterlife. ${ }^{1}$ Although the decorative programmes are mostly destroyed and reconstructed through subsequent pyramid complexes, a study of the associated relief decoration and statuary suggests that significant developments occurred in the half-century between the construction and decoration of Khufu's temples and causeway and those of Khafre in the fourth dynasty. ${ }^{2}$ Through an analysis of the materials, iconography, style and overall ideology, the decorative programmes may indicate how concepts of kingship and its codification in the afterlife were evolving during this period. A major factor of the mid-fourth dynasty was the increasing influence of the sun god Re , finding expression in the king's name and also in the decoration of the pyramid complexes. Thus, the decorative programmes of the pyramid complexes of Khufu and Khafre may not only express the king's identity and his relationship to the evolving concept of kingship but also how the integration of the Two Lands (Upper and Lower Egypt) with solar ideology

[^0]influenced ideas of rebirth throughout the Giza Necropolis during the fourth dynasty.

## Khufu's Pyramid Complex

The reconstruction of Khufu's decorative programme at Giza is problematic as his pyramid complex is mostly destroyed (Fig. 1). However, it can be reconstructed from reliefs excavated at Giza, as well as tentatively from the blocks reused in the pyramid of Amenemhat I at Lisht. Through this evidence, it is possible to assign certain scenes or iconography to different parts of the pyramid complex based on the layouts of fourth through sixth dynasty pyramid complexes.

The remains of Khufu's pyramid temple measure $40.4 \times$ $52.5 \mathrm{~m}^{3}$ (Fig. 2). It has an open court with basalt paving similar to the pyramid temples of the fifth dynasty, including those belonging to Userkaf, Sahure, and Niuserre, ${ }^{4}$ and bases for granite pillars that once surrounded the court. ${ }^{5}$ The surrounding colonnade was presumably decorated with fine limestone reliefs which, based on the available wall space, is calculated as roughly 100 running metres. ${ }^{6}$ The causeway, measuring 825 m in length and 14 m in width, ${ }^{7}$

[^1]

Fig. 1: Plan of the Giza Necropolis. Drawing by Tamara Bower after Jánosi, Giza in der 4. Dynastie, 78, Abb. 1
was probably also decorated with reliefs (see Fig. 1). ${ }^{8}$ Its route extended eastward and then turned northwards, ${ }^{9}$ culminating in the valley temple. ${ }^{10}$ Basalt paving exposed in Nazlet el-Samman is presumably the remains of Khufu's

Ancient Egyptian Kingship (PdÄ 9; Leiden•New York•Köln 1995), 226. Also, see M. Lehner, 'The Development of the Giza Necropolis: The Khufu Project', MDAIK 41 (1985), 119, 120 (B6), fig. 3B.
8 For Herodotus' account of the decoration, see Histories II, 124.
9 The route of the causeway turns 32 degrees to the north (Hawass, in O'Connor and Silverman (eds), Ancient Egyptian Kingship, 226). ${ }^{10}$ The route of the causeway was exposed not only during Goyon's excavations in the 1960 s, but also during the project to install a sewer system in Nazlet el-Simman in the late 1980s (G. Goyon, 'La chaussée monumentale et le temple de la vallée de la pyramide de
valley temple, ${ }^{11}$ which could also have been decorated with fine limestone reliefs.

## Reliefs: Provenance and Iconography

The attribution of royal reliefs excavated at Giza to the pyramid complexes is based primarily upon their provenance, subject matter, and style. The excavated reliefs at Giza attributed to Khufu's and Khafre's pyramid complexes are generally carved in low relief from fine quality limestone. ${ }^{12}$

[^2]Small relief fragments were excavated by George Andrew Reisner and the Harvard University-Boston Museum of Fine Arts Expedition from the debris of Khufu's causeway and the queens' pyramids in the 1920 s and $1930 \mathrm{~s},{ }^{13}$ and were tentatively assigned to Khufu's pyramid temple and the chapels of the queens' pyramids (Fig. 3). ${ }^{14}$ Some of these small fragments were found near the entrance to the pyramid temple, ${ }^{15}$ and depict a variety of subjects that may pertain to the decoration of the pyramid temple. ${ }^{16}$

A relief fragment from the debris north of Queen's Pyramid GI-a (MFA 24-12-57, size $14 \times 15.3 \mathrm{~cm}$ ), is assigned to either Khufu's pyramid temple or a queen's chapel (see Fig. 3, top row, third from left). ${ }^{17}$ It depicts a female and male identified as Khufu [...] and Hor [...], who were thought to be children of Khufu, Hordjedef possibly being the owner of mastaba G 7210/7220 in the Eastern Cemetery (G 7000) (see Fig. 1). ${ }^{18}$ They may actually be Khufu's grandchildren based on a female figure in the mastaba of Akhethetep and Meretites (G7650) in the

[^3]Eastern Cemetery (G7000) with the partially preserved name of Khufu [...], who is Meretites' daughter. ${ }^{19}$ If this fragment comes from the pyramid temple, it would suggest that family members were included in Khufu's decorative programme. By comparison, the remains of statues of Djedefre's children were discovered in his pyramid temple at Abu Rawash. ${ }^{20}$ Scenes showing family members in relief decoration are also assigned to the pyramid temples of Sahure, ${ }^{21}$ possibly Neferirkare, ${ }^{22}$ and also Niuserre. ${ }^{23}$

Several fragments discovered near the queens' pyramids depict ships or boats, and may be assigned to Khufu's pyramid temple. ${ }^{24}$ One of these fragments (size $41 \times 23 \mathrm{~cm}$ ) depicts a boat with the $p r-n z r$ (MFA 24-11-546), ${ }^{25}$ the state sanctuary associated with Buto (see Fig. 3, top row,

19 For fragments of relief with Khufu [...], the name of Meretites' daughter, see a block assigned to the southern section of the embrasure (no MFA number) and MFA 29-7-22 which is part of MFA 37.2620 assigned to the northern section of the east wall in the chapel. Also, a block in the Calouste Gulbenkian Museum, Lisbon has the partially preserved name of Khufu [...], which is assigned to the northern section of the west wall (M.H. Trindade Lopes, 'Relief Block from the 'Tomb of Princess Merit-ites and Akhti-hetep', in K. Baetjer and J. D. Draper (eds), "Only the Best": Masterpieces of the Calouste Gulbenkian Museum, Lisbon (New York 1999), 24 (6)).
${ }^{20}$ E. Chassinat, 'A propos d'une tête en grès rouge du roi Didoufrî (IVe Dynastie) conservée au Musée du Louvre', MonPiot 25 (Paris 1921-1922), 57, 64, fig. 1; Smith, History of Egyptian Sculpture and Painting, 33, pl. 10d. Also M. Baud, Famille royale et pouvoir sous l'Ancien Empire égyptien. I (2 vols, BdE 126; Cairo 1999), 232, 372. ${ }^{21}$ L. Borchardt, Das Grabdenkmal des Königs Sashu-rer II. Die Wandbilder (WVDOG 26; Leipzig 1913), 29-30, Abb. 16. Also, see Baud, Famille royale et pouvoir I, 232-233.
22 P. Posener-Kriéger, Les Archives du temple funéraire de Néferirkarêkakaï (Les papyrus d'Abousir), Traduction et Commentaire, vol. II (BdE 65/2; Cairo 1976), 530-531, fig. 34; M. Verner, Abusir III: The Pyramid Complex of Khentkaus, Excavations of the Czech Institute of Egyptology (Prague 1995), pl. 32, fig. 82; See also Baud, Famille royale et pouvoir I, 233.
23 L. Borchardt, Das Grabdenkmal des Königs Ne-user-rer (WVDOG 7; Leipzig 1907), 72 (3, 2; 4, 1; 5; 6), 76, Abb. 51b; Baud, Famille royale et pouvoir I, 233; II, 621-622 [273].
${ }^{24}$ See Reisner and Smith, Giza II, 4-5 for a discussion of these fragments. Two relief fragments, one depicting a band of water with paddles (MFA 24-12-14; now MFA 24.2686) discovered north of Queen's Pyramid GI-a (Reisner and Smith, Giza II, 5 n. 6 (10), fig. 7) and another showing the blades of two oars (MFA 24-11-889; now MFA 24.2658) found west of Kawab's mastaba (G 7110/7120) (Reisner and Smith, Giza II, 5 n. 6 (9), fig. 7), may indicate that boats were an important aspect of Khufu's pyramid complex if the fragments come from there. Boats with paddles do occur in the pyramid temple of Userkaf (A. Labrousse and J.-P. Lauer, Les complexes funéraires d'Ouserkafet de Néferhétepès (2 vols, BdE 130; Cairo 2000), I, 70-72 (Doc. 14) and II, 43-44, figs 80, 81).
25 Reisner and Smith, Giza II, 4-5, 5 n. 6 (12), fig. 7; Ćwiek, Relief Decoration, 94 n. 372, 197.


Fig. 2: Plan of Khufu's pyramid temple. Drawing by Tamara Bower after D. Arnold, in Shafer (ed.), Temples of Ancient Egypt, 50, fig. 13


Fig. 4: Relief showing Khufu wearing the Red Crown. After Reisner and Smith, Giza II, fig. 5


Fig. 3: Relief fragments discovered in Khufu's causeway and around the queens' pyramids. After Reisner and Smith, Giza II, fig. 7
second from left). ${ }^{26}$ Inscriptions with the $p r$-nzr decorate the pillars in the statue-cult temple of Sneferu's Bent Pyramid at Dahshur, ${ }^{27}$ and refer to the king's visit to the sanctuaries of Upper and Lower Egypt, a ceremony connected with the heb sed. ${ }^{28}$ The iconography of Khufu's fragment appears to have no comparanda, based on later pyramid complexes. ${ }^{29}$

A fragment with a goat's head with twisted horns (MFA $37-3-4 \mathrm{~b}$, size $10 \times 8 \mathrm{~cm}$ ) was also discovered in the area of Khufu's causeway (see Fig. 3, middle row, second from right). ${ }^{30}$ Its left-facing position might suggest that it was placed on a north wall. Another relief (MMA 22.1.20), reused in the pyramid of Amenemhat I at Lisht, shows two goats facing right, and was assigned to the south half of Khufu's pyramid or valley temples by comparison with that depicting cattle (MMA 22.1.3) on the north half. ${ }^{31}$ Images of goats and/or sheep are assigned to Sahure's pyramid temple ${ }^{32}$ and Unas' valley temple as booty, ${ }^{33}$ while they are products of a particular nome in Unas' causeway. ${ }^{34}$ This combined evidence suggests that goats and sheep might have decorated both the pyramid temple and causeway of Khufu. They are also a feature of the tombs in the Eastern Cemetery (G7000), such as the mastaba of Djaty (G7810), one of the mastabas located north of Ankh-haf's mastaba ( $G 7510$ ), whose proximity to Khufu's complex may have been a factor in the tomb's decoration (see Fig. 1).

Additional reliefs were discovered by Selim Hassan in the area of Khufu's pyramid temple, causeway, and boat pits in

[^4]the late 1930s. ${ }^{35}$ Hassan assigned an image of Khufu wearing the Red Crown and a scene related to the heb sed, excavated in the upper area of Khufu's causeway, to his causeway, ${ }^{36}$ although Reisner and Smith placed these blocks within the court of the pyramid temple. ${ }^{37}$ The depiction of Khufu wearing the Red Crown, measuring $110 \times 112 \mathrm{~cm}$, shows the king dressed in an unusual ceremonial garment with a scarf, which Hassan believed to be connected with the visit to Heliopolis, a ritual associated with the heb sed (Fig. 4). ${ }^{38}$ Scholars have alternatively suggested that the scene refers to $h b-b d t$ or the Feast of the White Hippopotamus based on the scarf. ${ }^{39}$ A block now in the Bab el-Futtûh in Cairo depicting a hippo, which is interpreted as a statue based on the reed pedestal, may be part of an inscription relating to a scene of $b b-b d t$ and from the pyramid complexes at Giza, possibly the decoration in Khufu's pyramid temple court. ${ }^{40}$ In Hassan's reconstruction of Khufu wearing the Red Crown, the king is shown standing, which is reinforced by superposed registers behind. ${ }^{41}$ Based on the subject matter in addition to scenes of the king enthroned located at the upper end of the causeway, the image of Khufu wearing the Red Crown is more likely to have been located within the court of the pyramid temple. ${ }^{42}$

[^5]The relief with a heb sed scene, measuring $27 \times 175 \mathrm{~m}$, shows Khufu's head facing left with a smaller-scale, seated image of the king behind facing right. ${ }^{43}$ The head facing left wears the khat headdress with a small hawk, possibly Horus, placed at the juncture between the headdress and tail. ${ }^{44}$ This is most likely a decorative element referring to the royal aspect of the individual and his connection to that god. A similar type of image occurs on an Egyptian alabaster fragment discovered south-east of Khafre's pyramid temple. ${ }^{45}$ The inscription on the left mentions the sht bwfw 'horizon of Khufu', that is, Khufu's pyramid, ${ }^{46}$ with a standing figure on a register in front also facing left. A fragment with a partial inscription oriented to the right, possibly $3 h t$ [bwfw], was also discovered by Hassan in Khufu's northern boat pit. ${ }^{47}$ Its inscription might also refer to the name of Khufu's pyramid. Several fragments from Sneferu's statuecult temple make reference to 'pyramid' or the name of Sneferu's pyramid, that is, brj snfrw, ${ }^{48}$ suggesting that the inclusion of the pyramid's name was integral to the layout of the decorative programme. Behind Khufu's cartouche on the relief with a heb sed scene, Khufu wears a heb sed robe and holds a flail, and he is enthroned in a chapel. Similar images probably decorated Sneferu's statue-cult temple ${ }^{49}$ as well as Sahure's valley temple and Unas' pyramid temple. ${ }^{50}$ This evidence suggests that the two scenes discovered by
temple, see Borchardt, Ne-user-rer, 85, Abb. 62a. For Unas' pyramid temple, see A. Labrousse, J.-Ph. Lauer, and J. Leclant, Le temple baut du complexe funéraire du roi Ounas (BdE 73; Cairo 1977), 85 (Doc. 29), fig. 55, pl. XXXI; 86 (Doc. 31), fig. 57, pl. XXXI; 86 (Doc. 32), fig. 58, pl. XXXI; 87 (Doc. 33), fig. 59; 87 (Doc. 34), fig. 60, pl. XXXI; 87 (Doc. 35), fig. 61, pl. XXXI; 112 (Doc. 79), fig. 105, pl. XXXVI. Also, see Ćwiek, Relief Decoration, 111, 123, 128, 237. ${ }^{43}$ Reisner and Smith, Giza II, 4, figs 6a-b; Hassan, Gîza X, 23, pl. VIB; Ćwiek, Relief Decoration, 233-234.
${ }^{44}$ For a discussion of the headdress and the attached hawk, see C. H. Roehrig in Arnold et al., Egyptian Art, 254 (57).
${ }^{45}$ L. Borchardt, 'Einzelfunde', in U. Hölscher, Das Grabdenkmal des Königs Chephren (Leipzig 1912), 103 (59), Abb. 143; R. Krauspe, Katalog Ägyptischer Sammlungen in Leipzig I, Statuen und Statuetten, (Mainz am Rhein 1997), 39-40 (87), Taf. 29, 1. Although Borchardt and Krauspe believe the fragment belongs to a queen and the decorative element to be a vulture, Cwiek has alternatively suggested that the fragment belonged to a statue of Khafre, and the small element is a falcon holding $\check{s} n$ rings in its claws based on the shape of the tail (Relief Decoration, 234 n .993 ). However, the braiding of the individual's hair on the Egyptian alabaster fragment is more indicative of a female statue, suggesting a queen.
${ }^{46}$ Reisner and Smith, Giza II, fig. 6a; Hassan, Gîza X, 23, pl. VIB.
47 Hassan, Giza X, 35, fig. 7, pl. VIIB.
${ }^{48}$ For the fragments that mention 'pyramid' or the name of Sneferu's pyramid, see Fakhry, The Monuments of Sneferu at Dahshur II.1, 155, 157, figs 234, 235.
${ }^{49}$ Fakhry, The Monuments of Sneferu at Dabshur II.1, 107, 108, fig. 111.
so Respectively, Borchardt, Śashu-rerII, 54-57, 115-116, BI. 45-47;

Hassan are most likely to belong in the court of Khufu's pyramid temple.

Two fragments with Khufu's torso, discovered in the upper area of the causeway, show the king facing right wearing a ceremonial bssw apron with a tail. ${ }^{51}$ Hassan assigned the torso to the northern wall of the causeway. ${ }^{52}$ Although he believed that the scene showed Khufu performing a 'ritual dance' based on the swinging forward of the beads, ${ }^{53}$ it has also been suggested that it comes from a smiting scene. ${ }^{54}$ A similar image decorates a fragment from Unas' pyramid temple ${ }^{55}$ in addition to the valley temple in Niuserre's pyramid complex, ${ }^{56}$ but the beads are hanging straight down and not at an angle on these fragments. A fragment from one of the pillars in Sneferu's statue-cult temple at Dahshur has been reconstructed with Sneferu wearing an apron with a tail, with the front panel of the apron at an angle as if in movement. According to Fakhry, the scene depicts $[p] b r r \underline{b}[p]$ 'going round of the Apis bull', a ritual associated with the heb sed and rejuvenation. ${ }^{57}$ This evidence suggests that the two joining fragments showing Khufu's torso with a beaded apron do represent some type of movement, most likely from a ritualistic scene.

Three fragments depicting hawks (or vultures) and possibly a hoopoe's head were also found in the area of the causeway. ${ }^{58} \mathrm{~A}$ bird holding an ankh sign, measuring $16 \times$ 11 cm , facing right was assigned to the northern wall of the causeway by Hassan. He believed that its iconography resembled fragments from Sneferu's statue-cult temple at Dahshur. ${ }^{59}$ Fragments from the statue-cult temple do show similar imagery with a bird holding an ankh, ${ }^{60}$ suggesting a continuation of this type of royal representation since they usually occur above an image of the king. Another fragment shows the head of a hawk with a wing above, which was assigned by Hassan to the southern wall of the causeway; in his assessment, the hawk may be perched on a serekh. ${ }^{61}$ Fragments from Sneferu's statue-cult temple show similar

[^6]iconography with the head of a hawk with a wing above, one of which is assigned to a pillar (Pillar B, side no. 1). ${ }^{62}$ Hassan believed that the fine modelling of the Giza fragment with the hawk and a wing above is characteristic of the reliefs from Sneferu's statue-cult temple, even suggesting the same group of artisans carved both complexes. ${ }^{63}$

A fragment with a bird's head, measuring $9.5 \times 5.6 \mathrm{~cm}$, facing right was also discovered in the area of the causeway, which Hassan believed was a hoopoe with an erect crest. ${ }^{64}$ However, the shape of the head might also indicate another type of bird within a marsh setting. Fragments from Sneferu's statue-cult temple at Dahshur show scenes of the fowling or netting of birds in the marshes, ${ }^{65}$ indicating that this scene type was already present in the iconography of his pyramid complex and possibly influenced Khufu's decorative programme. Clapnet scenes or scenes in the marshes in the tombs at Maidum, such as those belonging to Nefermaat and Atet, ${ }^{66}$ might have also contributed to the scene types in the royal pyramid complexes and vice-versa. Fragments from Userkaf's pyramid temple also indicate that the iconography of the king hunting in the marshes was integral to its decorative programme. ${ }^{67}$

Additional blocks with and without royal cartouches were discovered berween 1906 and 1934 by the Metropolitan Museum of Art's Egyptian Expedition, reused in the pyramid of Amenemhat I at Lisht, ${ }^{68}$ and may also be tentatively assigned to Khufu's pyramid complex ar Giza. ${ }^{67}$ However, it is also suggested that the reused Lisht blocks are not only from temples belonging to pyramid complexes but

[^7]could also be from as yet unknown deity temples, ${ }^{70}$ placing the blocks in a more uncertain category in relation to the pyramid complexes at Giza.

The head of a female personification of an estate (MMA 22.1.7, size $30 \times 22 \mathrm{~cm}$ ) reused in the pyramid of Amenemhat I at Lisht is shown with Khufu's cartouche on her head, which forms part of her name, nfr bufw 'perfect is Khufu'. ${ }^{71}$ Parts of two scenes, personified estates bringing offerings and the royal palace (MFA 58.321, size $43 \times 123 \mathrm{~cm})^{72}$ depict a chapel with the Golden Horus name of Khufu below on the right. ${ }^{73}$ Presumably, an image of the seated king was located below the falcon facing to the right. ${ }^{74}$ On the left are three estates facing left. ${ }^{75}$ The two females wear garments with an unusual tie for the straps at their shoulders. ${ }^{76}$ Based on subsequent pyramid complexes, ${ }^{77}$ it is suggested that the head of a female personification of an estate (MMA 22.1.7) belongs in the south half of either Khufu's pyramid temple or the upper section of his causeway facing inwards. ${ }^{78}$ Both reliefs depicting estates (MMA 22.1.7 and MFA 58.321), however, are also assigned to the valley temple based on the decoration

[^8]of Sneferu's statue-cult temple. ${ }^{79}$ In addition, they are also reconstructed in the causeway approaching an enthroned image of the king based on other pyramid complexes, such as those belonging to Unas and Pepy II. ${ }^{80}$ In this respect, the reliefs showing estates may belong to the pyramid temple or the upper section of Khufu's causeway.

Another block found reused in the pyramid of Amenemhat I at Lisht is a depiction of cattle (MMA 22.1.3, size 46 $\times 137.5 \mathrm{~cm}$ ), which shows three long-horned cattle in single file facing left. They are considered to be offerings for the king's funerary cult, ${ }^{81}$ based on their singular representation rather than overlapping. ${ }^{82}$ The relief is to be placed in the north half of Khufu's pyramid temple or valley temple, ${ }^{83}$ based on the pyramid temple of Sahure and Unas' valley temple. ${ }^{84}$ However, the relief is also reconstructed in the causeway due to scenes of royal offerings in the valley temple and foreigners in the causeway. ${ }^{85}$ Herodotus mentions Khufu's causeway as being 'covered with carvings

[^9]of animals'. ${ }^{86}$ In the Eastern Cemetery (G7000), Smith reconstructed a file of cattle on the west wall in Ankh-haf's mastaba (G7510). ${ }^{87}$ Based on the proximity of Khufu's pyramid temple and causeway, it is possible that Ankhhaf's mastaba ( G 7510 ) was influenced by such scenes (see Fig. 1).

## Statuary

Several fragments of statuary were also discovered at Giza that may be attributed to Khufu's pyramid complex. ${ }^{88}$ A greywacke head possibly wearing the White Crown (MFA 24.2796) was found in the Eastern Cemetery (G7000); however, Florence Friedman now suggests that the head probably belongs to a triad of Menkaure. ${ }^{89}$ An Egyptian alabaster nemes headdress with an open-winged falcon (MFA 27.1466) was also discovered in the Eastern Cemetery (G7000), and may belong to Khufu's statuary programme; ${ }^{90}$ however, Khafre's statue with the openwinged falcon (CG 14) may indicate that the Egyptian alabaster headdress originally came from his complex. Several Egyptian alabaster bases with Khufu's cartouche (MFA 13.3448 and 24.2711), belonging to small-scale statues, were also found in the Western and Eastern Cemeteries respectively. ${ }^{91}$ It is evident both from Khafre's and Menkaure's corpora of statuary that small-scale statues were also a feature of the decorative programmes in their pyramid complexes. ${ }^{92}$

[^10]
## Khafre's Pyramid Complex

The pyramid complex of Khafre is somewhat better preserved than Khufu's (see Fig. 1). Certainly, the statuary associated with Khafre's complex enhances our knowledge of the range of statue types associated with a royal pyramid complex. ${ }^{93}$ The main materials are 'Chephren diorite' or anorthosite gneiss, Egyptian alabaster, and greywacke. According to Reisner, the total number included 22 or 23 life-size statues in the valley temple, 'probably as many more' in the pyramid temple, in addition to smaller statues making a total of between 100 and 200 statues. ${ }^{94}$ The abundance of statues may indicate that statuary was much more of a feature of Khafre's decorative programme than Khufu's; ${ }^{95}$ however, excavation of Khufu's valley temple may increase our knowledge of his statuary.

## Pyramid Temple

Khafre's complex was cleared by Uvo Hölscher in 1909. ${ }^{96}$ The pyramid temple, measuring $56.2 \times 111.2 \mathrm{~m},{ }^{97}$ had red granite walls and pillars, as well as an Egyptian alabaster floor (Fig. 5). ${ }^{98}$ It has both wide and deep halls in a T-formation supported by granite pillars, similar to the valley temple. Hölscher believed that the deep hall may have had enthroned statues as well as standing figures of the king, in addition to group statues that included the king and either the queen or goddesses. ${ }^{99}$ He also placed over

[^11]life-size granite statues in the long rooms off the wide hall, which he called serdabs. ${ }^{100}$ The court of the pyramid temple had twelve colossal statues, possibly granite, based on the rectangular pits in the floor. ${ }^{101}$ According to Hölscher, these were standing statues, possibly six metres high, and in Osiride form. ${ }^{102}$ Herbert Ricke, however, reconstructed the court with seated statues of Khafre wearing the nemes. ${ }^{103}$ He also reconstructed a reused architrave in the pyramid of Amenemhat I at Lisht in the court of Khafre's pyramid temple. ${ }^{104}$ The architrave shows the king's cartouche with outward-facing falcons on the ends that may have protected statues of the king in the court; the king's Horus name would have continued vertically down the pillars below based on the seated falcons behind the outward-facing ones. ${ }^{105}$ Ricke believed that the statues, in coordination with the architraves depicting falcons with outstretched wings and the sockets in the floor, could not be higher than 3.75 m. ${ }^{106}$ Dieter Arnold, however, has shown that Ricke's reconstruction of the architrave spanning the doorways between the piers may be inaccurate based on the measurements, which led Arnold to conclude that the architrave might have belonged in the court of Khafre's pyramid temple or in a similar location in another temple, as yet undiscovered. ${ }^{107}$ In the Eastern Cemetery (G7000), an intriguingly similar arrangement of vertical titles is located on the piers separating the statue niches in Minkhaf's exterior chapel (G 7430) (Fig. 6). Mark Lehner has also suggested that the statues in the court of the pyramid temple could have been striding, and refers to a model of a king (GPMP 175) discovered in the so-called 'Workmen's Barracks', west of Khafre's pyramid: the model is painted in imitation of granite, 'wearing the crown of the south, with a back pillar

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Fig. 5: Plan of Khafres pyramid temple. Drawing by Tamara Bower after D. Arnold, in Shafer (ed.), Temples of Ancient Egypt, 53, fig. 15
painted to imitate granite'; the back pillar and projecting roof resemble the colonnade in the court. ${ }^{108}$ Lehner also mentions striding statues wearing the White Crown usurped by Ramesses II, and whose bases seem to fit the sockets in the floor of the court of the pyramid temple. ${ }^{109}$ Certainly, striding statues of Khafre are known, such as the life-size greywacke statue (CG 16), and small-scale statues (for example JE 72213) (Fig. 7). ${ }^{110}$ Relief decoration was also possibly located in the inner walls of the court of the pyramid temple, depending upon wherher the granite was only at dado level. ${ }^{111}$ However, it is suggested that only the westernmost areas (the storerooms and narrow halls) had limestone lining their walls. ${ }^{112}$ Beyond the west wall of the court were the five chambers that contained either statues or possibly other ritualistic objects. ${ }^{113}$

## Causeway

Khafre's causeway, 494 m in length, ${ }^{114}$ leads down to the valley temple (see Fig. 1). Several relief fragments are assigned to Khafre's causeway. A relief fragment depicting a goddess facing left, measuring $30 \times 40 \mathrm{~cm}$, and holding a sceptre in her right outstretched hand and an ankh in her left (Pelizaeus Museum, Hildesheim 3185) was discovered in the G I S Cemetery and assigned by Junker to Khafre's causeway. ${ }^{115}$ Karl Martin, however, places it either in Khufu's or Khafre's causeway, since it bears iconography relating to a king's or a god's temple rather than imagery associated with a private tomb. ${ }^{116}$ Fragments from Unas'

[^13]

Fig. 6: Exterior chapel with statue niches (G 7430) in Minkhaf's mastaba, Eastern Cemetery (G 7000). Photo L. Flentye
causeway depict similar iconography, confirming Khafre's causeway as a possible context for the goddess relief. ${ }^{117}$ Another relief depicting a royal scene with a foreign captive, discovered by Hölscher in the debris of Khafre's valley temple and measuring $50 \times 70 \mathrm{~cm},{ }^{18}$ is generally assigned to that king's pyramid temple or causeway based on the granite construction of the valley temple. However, it is also believed that it may have originated in Khufu's pyramid complex. ${ }^{119}$ Images of 'bound' foreigners are associated with Sahure's causeway and valley temple. ${ }^{120}$ In Unas' causeway, reconstructed scenes close to the valley temple show Egypt's triumph over foreigners, including Libyan and Asiatic prisoners. ${ }^{121}$ Based on this evidence, Hölscher's relief could have originated in Khafre's causeway.

[^14]
## Valley Temple

Khafre's valley temple measures $45 \times 46 \mathrm{~m}$, and has granitelined walls, granite pillars and architraves, and an Egyptian alabaster floor (Fig. 8). ${ }^{122}$ In the façade are two doorways with associated inscriptions; the northern doorway was inscribed with $m r$ b bsstt inb dt. ${ }^{123}$ The goddess Bastet is considered to be the mother of the king in the Pyramid Texts, and is associated with Bubastis in the north. ${ }^{124}$ The southern doorway bears the text $m r j$ bwt-hr $\left[\begin{array}{lll}n b & d t] .{ }^{125}\end{array}\right.$ Hathor is considered to be both a mother and wife of the king as well as Horus, and is associated with Dendara in the south. ${ }^{126}$ On either side of the doorways, there is evidence for statues of sphinxes or lions. ${ }^{127}$ Scholars have suggested that the dyad of Khafre and Bastet (CG 11) was located in the recess of the northern doorway, corresponding with the doorway inscription (Fig. 9). ${ }^{128}$ Although partially

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Fig. 7: Striding statue of Khafre (CG 16), greywacke, Egyptian Museum, Cairo. Photo L. Flentye
preserved, the statue's reconstructed width would fit the niche (Fig. 10). ${ }^{129}$ It is also suggested that this dyad was counterbalanced in the southern niche by a dyad of Khafre and Hathor, ${ }^{130}$ corresponding with the inscription associated with this doorway. However, fragments of a large, black granite baboon were found in the southern entrance. ${ }^{131}$ The height of these niches is $2.10 \mathrm{~m},{ }^{132}$ and would indicate a large, probably standing statue rather than a seated one.

The interior of the valley temple consists of a vestibule

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Fig. 8: Plan of Khafre's valley temple. Drawing by Tamara Bower after D. Arnold, in Shafer (ed.), Temples of Ancient Egypt, 52, fig. 14
and a T-shaped hall with sixteen granite pillars (see Fig. 8). Twenty-three statues lined the walls, based on the sockets in the floor of the T-shaped hall in a pattern of 3-7-3-7-3, with smaller statues placed among the 23 (Fig. 11). ${ }^{133}$ Auguste Mariette discovered a number of statues in a pit in the valley temple in 1860, ${ }^{134}$ and Hölscher also found fragments of Egyptian alabaster statues in the statue emplacements. ${ }^{135}$ Hölscher believed that the statues stood 10 to 20 cm from the wall, and their bases were on average $110 \times 60 \mathrm{~cm} .{ }^{136}$ However, it is apparent that the statue bases do vary. CG 17, a greywacke cubic seat statue, has a base with a width of only $36.5 \mathrm{~cm} .{ }^{137}$

Matthias Seidel has reconstructed the statuary prog-

[^17]

Fig. 9: Khafre's valley temple, detail of northern doorway on east façade. Photo L. Flentye


Fig. 10: Dyad of Khafre and Bastet (CG 11), anorthosite gneiss, Egyptian Museum, Cairo. Photo L. Flentye
ramme of Khafre's valley temple with CG 14 in the central position on the west. ${ }^{138}$ This is an anorthosite gneiss statue, with the open-winged falcon and Khafre's Golden Horus name; to its right, he places CG 9, ${ }^{139}$ another anorthosite gneiss statue, with a standing falcon with closed wings perched sideways above the serekh with Khafre's Horus name, similar to a statue of Pepy I (Brooklyn Museum 39.120). ${ }^{140}$ A corresponding statue was placed to CG 14's left. In the central position on the north and south walls, he places CG 13, an anorthosite gneiss statue, and a (now lost) corresponding statue. This reconstruction is based on the fact the king of CG 13 is not shown wearing the nemes but presumably in coordination with the opposite facing statue wore either the crown of the north or south. ${ }^{141}$

However, Seidel's reconstruction does not stress how the materials might relate to the geography of Egypt, nor the relevance of the titles. When combining these two factors, it is apparent that the title $z z r^{r}$ or the epithet mi $r^{\circ} \subset n b d \underline{d} t^{142}$ occur on the preserved greywacke statues (CG 15-17): this material is associated with the Eastern Desert ${ }^{143}$ and these statues may possibly have had an easterly facing position in the temple connected to the rising sun (Fig. 12). In this respect, the choice of material might be related to the wall or direction within the valley temple: Egyptian alabaster against the north wall facing south, 'Chephren diorite' or anorthosite gneiss against the south wall facing north, and greywacke in the wide hall with statue emplacements facing to the east. Against this, Hassan also discovered an Egyptian alabaster base from a statue east of the valley temple with the title $z 3 r$ r, but without a cartouche. ${ }^{144}$ Possibly the statues mentioning Re were located in the wide hall or vestibule facing east. However, this leaves the west wall without an associated material. It is apparent that the central niche on the west wall is the largest, ${ }^{145}$ and perhaps CG 14 was placed

[^18]

Fig. 11: Khafre's valley temple, detail of statue emplacements in the wide hall. Photo L. Flentye
in this niche. Further research coordinating the size of the statue bases with the statue emplacements should provide additional information regarding the layout of Khafre's statuary programme.

Two other important factors regarding the statuary programme in Khafre's valley temple are the types of statues and the design of the Sematawy emblem. Firstly, with regard to the types of statues, there are two distinct categories among the preserved 'Chephren diorite' or anorthosite gneiss statues found in the valley temple: 1) statues with lion-legged thrones and back supports (CG 9, 13, and 14) and 2) statues with cubic seats (including CG 10 and reconstructed CG 12) (Fig. 13, Fig. 14). This would suggest that there were distinct groups of statues, despite the similarity of material. Secondly, there are variations in the design of the Sematawy emblem on the sides of the seat. The first variation depicts the lily (lotus) to the front and the papyrus to the back on the sides of the 'Chephren diorite' or anorthosite gneiss lion-legged thrones (including CG 9, 13, and 14). ${ }^{146}$ On

[^19]

Fig. 12: Back of striding statue of Khafre (CG 16), detail of inscription, Egyptian Museum, Cairo. Photo L. Flentye


Fig. 13: Seated statue of Khafre with open-winged falcon (CG 14), anorthosite gneiss, Egyptian Museum, Cairo. Photo from Catalogue Général

CG 10, an anorthosite gneiss cubic seat statue, their positions differ: on the right side of the throne, the papyrus is depicted to the front and the lily is to the back; while, on the left side, the lily is to the front and the papyrus to the back. ${ }^{147}$ On the greywacke cubic seat statues (CG 15 and 17), there are also differentiations between the right and left sides of the throne. On CG 15, the papyrus is shown to the front and the lily to the back on both sides; while, on CG 17, the lily is to the front and papyrus to the back on the right side, and the papyrus is to the front and the lily is to the back on the left. ${ }^{148}$ Additionally, on the back

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Fig. 14: Seated statue of Khafre (CG 10), anorthosite gneiss, Nubian Museum, Aswan. Photo L. Flentye
of CG 10, the papyrus is on the left and the $\check{s} m\ulcorner w$ plant on the right; the $\check{s m}{ }^{〔} w$ plant also occurs on the left side of the dyad of Khafre and Bastet (CG 11) in the frontal position with the papyrus in the back. ${ }^{149}$ The position of the lily, papyrus, and $\begin{gathered} \\ m \\ \\ w\end{gathered}$ plant may be connected to the physical placement of the statue within the overall programme and its relationship to north and south, or at the very least connects groups of statues together.

## Conclusion

An analysis of the decorative programmes of the pyramid complexes of Khufu and Khafre at Giza suggests that they differ in their overall approach. The first major distinction is materials: basalt is used for Khufu's pavement and Egyptian alabaster for Khafre's. Scholars have suggested that basalt is a reference to the earth with the roofed area of the temple decorated with stars in imitation of the sky. ${ }^{150}$ By contrast, Egyptian alabaster paving may be connected to

[^21]ritualistic aspects, particularly as there were so many statues in Khafre's complex. The use of Egyptian alabaster for the pavement also occurs in the inner chapel of Sahure's pyramid temple, including the floor of the five statue niches. ${ }^{151}$ Lehner has suggested that Egyptian alabaster is a material associated with purification, ${ }^{152}$ which might connect with the ritualistic aspects of the statuary programme. Certainly, the limited lighting was probably enhanced by the shining alabaster floor. The use of 'Chephren diorite' or anorthosite gneiss for statuary also characterises Khafre's reign, possibly an ideological factor, in the same manner as Djedefre's use of red quartzite. ${ }^{153}$

The second major distinction is the overall programmatic layout of the complexes. The reliefs associated with Khufu's complex reflect traditions from the third dynasty to the reign of Sneferu, such as the iconography of the heb sed. ${ }^{154}$ Although Khafre's programme may have had such scenes, his layout emphasises the king's image through threedimensional representation based on the finds of statuary associated with the pyramid and valley temples, as well as the statue emplacements. It is theorised that the twenty-

[^22]three statues in the valley temple may relate to the divinised parts of the king's body. ${ }^{155}$ Theories concerning these statues divide the two main halls in the valley temple into different rituals with the statues in the 'broad hall' involved in a mummification ritual, while those in the 'deep hall' took part in an Opening of the Mouth ritual. ${ }^{156}$ Certainly, there are other factors involved, namely the differentiation of the statues through their materials, iconography, and titles. The valley temple itself functions as an entity to ensure the king's identity and rebirth. The entrance inscriptions establish the king's divine descent, including possibly a distinction between north/Lower Egypt and south/Upper Egypt; the statues reaffirm the king's right to rule over Egypt, based on his various titles and epithets, which are fused with solar ideology. Lehner has suggested that the valley temple itself symbolises two different realms: the chthonic below and the solar above with the small courtyard on the south side of the roof. ${ }^{157}$ If this were the case, then the temple itself becomes both a horizontal and vertical representation of creation and rebirth in the afterlife.

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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 lesserknown 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.

Containing papers presented at a conference at the Fitzwilliam Museum, Cambridge in May 2009, this book continues a series of publications of the latest research presented at previous meetings in Paris, Berlin and Prague.

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.



[^0]:    1 I am grateful to Dr Zahi Hawass, Minister of State for Antiquities, and the Supreme Council for Antiquities (SCA) for permission to publish the photographs taken at Giza and in the Egyptian Museum, Cairo and the Nubian Museum, Aswan.
    ${ }^{2}$ For the reign lengths of Khufu through Khafre, see M. Verner, 'Contemporaneous Evidence for the Relative Chronology of Dyns. 4 and 5', in E. Hornung, R. Krauss, and D.A. Warburton (eds), Ancient Egyptian Chronology (Handbook of Oriental Studies. Section 1. The Near and Middle East; Leiden 2006), 127, 131-134. Recent theories, however, have proposed a longer reign length for Djedefre ( $M$. Valloggia, 'Le complexe funéraire de Rêdjédef à Abou Rawash: état des travaux après dix campagnes (1995-2004)', BSFE 161 (2004), 13).

[^1]:    ${ }^{3}$ D. Arnold, The Encyclopaedia of Ancient Egyptian Architecture, S. H. Gardiner and H. Strudwick (trans.) and N. and H. Strudwick (eds) (London 2003), 126.
    4 For the basalt paving, see J.K. Hoffmeier, 'The Use of Basalt in Floors of Old Kingdom Pyramid Temples', JARCE 30 (1993), 118-119; Arnold, Encyclopaedia, 27-28.
    5 For the court and granite pillars, see M. Lehner, The Complete Pyramids (Cairo 1997), 109.
    ${ }_{6}$ Do. Arnold in Do. Arnold et al., Egyptian Art in the Age of the Pyramids (New York 1999), 98.
    Z. Hawass, 'The Programs of the Royal Funerary Complexes of the Fourth Dynasty', in D. O'Connor and D.P. Silverman (eds),

[^2]:    Khéops', BIFAO 67 (1969), 49-69; also Hawass, in O'Connor and Silverman (eds), Ancient Egyptian Kingship, 226).
    ${ }^{11}$ Hawass, in O'Connor and Silverman (eds), Ancient Egyptian Kingship, 224-225.
    12 W.S. Smith, A History of Egyptian Sculpture and Painting in the

[^3]:    Old Kingdom (London 1946; reprint, New York 1978), 157 n. 1, 158, 361; S. Hassan, Excavations at Gîza X. Season 1938-39, The Great Pyramid of Khufu and its Mortuary Chapel (Cairo 1960), 17, 23. Also, see L. A. Flentye, The Decorated Elite Mastaba and Rock-cut Tomb in the Eastern and GIS Cemeteries at Giza and their Relationship to the Development of Art during the Fourth Dynasty (PhD diss., New York University 2006), 243, 245.
    ${ }^{13}$ Smith, History of Egyptian Sculpture and Painting, 158; G.A. Reisner and W.S. Smith, A History of the Giza Necropolis, vol. II, The Tomb of Hetep-heres The Mother of Cheops (Cambridge, Mass. 1955), $4-5$, figs $2-4,7$. For a list of the fragments, see Reisner and Smith, Giza II, 4 n. 5, 5 n. 6. Also, see A. Oppenheim, 'Decorative Programs and Architecture in the Pyramid Complexes of the Third and Fourch Dynasties', in P. Jánosi (ed.), Structure and Significance: Thoughts on Ancient Egyptian Architecture (DGÖAW 33; Vienna 2005), 466, 468. For the excavation dates of the fragments discovered in the area of Khufu's causeway and the queens' pyramids, see P.D. Manuelian in Arnold et al., Egyptian Art, 147-148. Also, see http:// www.gizapyramids.org, accessed 28/01/10.
    14 Reisner and Smith, Giza II, 5. The fragments found in the area of the three queens' pyramids are assigned by Zahi Hawass to the chapels of these pyramids rather than Khufu's pyramid complex. For this attribution, see Z.A. Hawass, The Funerary Establishments of Khufu, Khafra and Menkaura during the Old Kingdom (PhD diss., University of Pennsylvania 1987; UMI), 44-45.
    15 Reisner and Smith, Giza II, 4, 5 n. 6, fig. 7.
    ${ }^{16}$ Other fragments found north of Queen's Pyramid GI-b and in the area of the causeway include: a red granite fragment with a hawk in sunk relief (MFA 24-11-548), a partial representation of a vulture protecting the king (MFA 37-3-4c), a hawk from an inscription (MFA 37-3-4d), and a man carrying a half-sky sign (MFA 37-3-4h) (Reisner and Smith, Giza II, 5 n. 6 (1-8), fig. 7. Also, see A. Ćwiek, Relief Decoration in the Royal Funerary Complexes of the Old Kingdom (PhD diss.,Warsaw University 2003), 94 n. 372).
    ${ }^{17}$ This fragment is now MFA 24.2709 (Reisner and Smith, Giza II, 5, 5 n. 6 (14), fig. 7).
    ${ }^{18}$ Reisner and Smith, Giza II, 5 n. 6 (14).

[^4]:    ${ }^{26}$ For the pr-nzr and Buto, see A. Fakhry, The Monuments of Sneferu at Dahshur, vol. II, The Valley Temple, part I, The Temple Reliefs (Cairo 1961), 61; LÄ IV, col. 932-933.
    ${ }_{27}$ These inscriptions occur on Pillar B, side no. 1; Pillar D, side no. 2; and fragments (Fakhry, The Monuments of Sneferu at Dabshur II.1, $71,73,74,85,88,90,91,165,166$, figs $48,52,72,77,270$, pl. XXVA; Ćwiek, Relief Decoration, 196, fig. 55).
    28 Fakhry, The Monuments of Sneferu at Dahshur II.1, 91.
    ${ }^{29}$ Ćwiek, Relief Decoration, 197.
    ${ }^{30}$ Reisner and Smith, Giza II, 4, 5 n. 6 (6), fig. 7.
    ${ }^{31}$ For the relief showing two goats (MMA 22.1.20), see H. Goedicke, Re-used Blocks from the Pyramid of Amenemhet I at Lisht (Publications of the Metropolitan Museum of Art Egyptian Expedition 20; New York 1971), 133-134 (80); Do. Arnold in Arnold et al., Egyptian Art, 227-228 (42). Differences in the representation of the goat on the Giza fragment (MFA 37-3-4b) as compared with the goats on the reused Lisht relief (MMA 22.1.20) were noted, particularly the presence of a tuft of hair on the goat's neck on the Giza fragment (MFA 37-3-4b)(Oppenheim, in Jánosi (ed.), Structure and Significance, 468).
    32 These images are located in the 'Säulenhof' (Borchardt, S'ashu-re' II, 13, 17, Bl. 1, 4).
    ${ }^{33}$ A fragment discovered near the valley temple at the beginning of the causeway depicts a herd of goats and sheep (A. Labrousse and A. M. Moussa, Le temple d'accueil du complexe funéraire du roi Ounas (BdE 111; Cairo 1996), 97-98 (Doc. 57), fig. 98, pl. XV).
    34 A. Labrousse and A. Moussa, La chaussée du complexe funéraire du roi Ounas (BdE 134; Cairo 2002), 53 (Doc. 55, A-C), 157, fig. 71, pl. XIb.

[^5]:    ${ }^{35}$ For reliefs excavated by Hassan, see Reisner and Smith, Giza II, 4, figs 5, 6; Hassan, Gïza X, 17, 20-24, 34-35, figs 2-4, 7-8, pls V-VII, VIIIB.
    ${ }_{36}$ Hassan, Gîza X, 20, 21-24, fig. 4, pl. VI.
    ${ }^{37}$ Reisner and Smith, Giza II, 4, figs 5, 6. Hawass also reconstructs the beb sed scenes in the pyramid temple (Hawass, Funerary Establishments, 514 (1), 803, plan 35).
    ${ }^{38}$ Hassan, Giza X, 21-22, fig. 4, pl. VIA. Also, see W.M. F. Petrie, The Palace of Apries (Memphis II) (BSAE 15; London 1909), 11, pls VII, IX; Cwiek, Relief Decoration, 94 n. 374; Oppenheim, in Jánosi (ed.), Structure and Significance, 466, 467, fig. 5.
    ${ }^{39}$ For $b b-b d t$, see Ćwiek, Relief Decoration, 94 n. 374, 196-197, particularly 197 n. 813. Also, see A. Behrmann, Das Nilpferd in der Vorstellungswelt der Alten Ägypter, part I, Katalog (Europäische Hochschulschriften, Reihe XXXVIII, vol. 22; Frankfurt am Main-Bern-New York•Paris 1989), Dok. 62.
    ${ }^{40}$ For the Bab el-Futtûh relief, see M.S. Drower, 'Egyptian Fragments', in 'Notes and News', Antiquity 9 (1935), 350, pl. VIII; J. Capart, 'Le Caire', in 'Nouvelles', CdE 11 (1936), 468-469; Behrmann, Das Nilpferd I, Dok. 63. Hawass reconstructs the Bab el-Futtûh relief in the portico of Khufu's pyramid temple based upon its appearance in the pr-wrw 'house of the great ones' of Pepy II (Hawass, Funerary Establishments, 515, 519, 803, plan 35).
    ${ }^{41}$ Hassan reconstructed the two registers behind Khufu with two figures each (Hassan, Gîza X, 22, fig. 4). Reisner and Smith, however, placed only one figure on each register (Reisner and Smith, Giza II, fig. 5).
    42 beb sed scenes are located in the pyramid temples of Userkaf, Sahure, Niuserre, and Unas. For Userkaf's pyramid temple, see Labrousse and Lauer, Ouserkaf I, 120-123 (Doc. 191-196) and II, 82-83, figs 263a-b - 268a-b. For Sahure's pyramid temple, Ćwiek, Relief Decoration, 115, 230, 237-238, fig. 71. For Niuserre's pyramid

[^6]:    Labrousse, Lauer, and Leclant, Le temple haut du complexe funéraire du roi Ounas, 86 (Doc. 31), fig. 57, pl. XXXI.
    ${ }^{51}$ Hassan, Gîza X, 20, 34, pl. VIIA. The two fragments measure 35 $\times 30 \mathrm{~cm}$ when joined.
    ${ }_{52}$ Hassan, Gîza X, 34.
    53 Hassan, Giza X, 34, pl. VIIA.
    ${ }_{54}$ Cweik, Relief Decoration, 94 n. 374.
    ${ }^{55}$ Labrousse, Lauer, and Leclant, Le temple haut du complexe funéraire $d u$ roi Ounas, 88-89 (Doc. 37), particularly 89 n. 1, fig. 63, pl. XXXII.
    ${ }^{56}$ Borchardt, Ne-user-rer, 38-39, Abb. 18.
    ${ }_{57}$ Fakhry, The Monuments of Sneferu at Dabshur II.1, 98, 99, figs 96-98; Ćweik, Relief Decoration, 243-244.
    ${ }^{58}$ Hassan, Gîza X, 20-21, 35, figs 2, 3, 8, pls V, VIIIB.
    ${ }^{50}$ Hassan, Gîza X, 20.
    ${ }^{60}$ Fakhry, The Monuments of Sneferu at Dahshur II.1, 151, 152, 164, figs 217, 219, 265, pl. XXXB.
    ${ }^{61}$ Hassan, Gîza X, 21, fig. 3, pl. VB.

[^7]:    ${ }^{62}$ Fakhry, The Monuments of Sneferu at Dahshur II.1, 71-72, 147, figs 48-50, 200.
    ${ }^{63}$ Hassan, Gîza X, 21.
    ${ }^{64}$ Hassan, Gîza X, 20, 35, fig. 8, pl. VIIIB.
    ${ }^{65}$ Fakhry, The Monuments of Sneferu at Dabshur II.1, 110, figs 117a-c, 118, pl. XXIXA.
    ${ }^{66}$ Y. Harpur, The Tombs of Nefermaat and Rahotep at Maidum: Discovery, Destruction and Reconstruction (Egyptian Tombs of the Old Kingdom I; Oxford 2001), 63, 64, 80-81, 82, 86, 87, figs 75, 81, 82,86 , pls $6,18,19,20,23,35$.
    ${ }^{67}$ Labrousse and Lauer, Ouserkaf I, 77 (1.2.1), 78-79 (1.2.1.2) (Doc. 35) and II, 49-50, 52, figs 99-100, 104a, b (Doc. 35). For marsh scenes in the pyramid complexes of Sahure and Niuserre, see Do. Arnold in Arnold et al., Egyptian Art, 94 and Ćwiek, Relief Decoration, 221, 222-223 (Sahure); ibid, 223 (Niuserre).
    ${ }^{68}$ For the dates of the expedition, see Goedicke, Re-used Blocks, 1. ${ }^{69}$ For recent discussions of the decorative programmes of the royal pyramid complexes and the Lisht reliefs, see Hawass, Funerary Establishments, 514-522; Hawass, in O'Connor and Silverman (eds), Ancient Egyptian Kingship, 231-232. For the Lisht reliefs, see Goedicke, Re-used Blocks; Do. Arnold in Arnold et al., Egyptian Art, 222-28 (38-42); A. Oppenheim in ibid, 228-29 (43). Also, see D. Stockfisch, Untersuchungen zum Totenkult des ägyptischen Königs im Alten Reich: Die Dekoration der königlichen Totenkultanlagen 2 (Schriftenreihe Antiquitates 25; Hamburg 2003), 4.2.5-4.2.11.

[^8]:    ${ }^{70}$ For a discussion of the reused Lisht blocks, see Oppenheim, in Jánosi (ed.), Structure and Significance, 464-465, particularly 465 n . 38, 468.
    ${ }^{71}$ Goedicke, Re-used Blocks, 16-17 (3); Do. Arnold in Arnold et al., Egyptian Art, 226 (41).
    ${ }_{72}$ Goedicke, Re-used Blocks, 13-16 (2).
    73 An inscription at the top refers to the Upper Egyptian shrine and 'coming forth from the horizon', Ćwiek, Relief Decoration, 160-161.
    ${ }^{74}$ Caiek, Relief Decoration, 160.
    75 According to Ćwiek, they are wearing $j 3 t$-standards on their heads, a feature designating them as nomes (Relief Decoration, 160). However, Dorothea Arnold states that images on standards represented both nomes and estates from the third dynasty; however, figures replaced the poles, personifying the estate itself (in Arnold et al., Egyptian Art, 226). Finally, Dr Mohamed Ismael of the SCA has suggested that gods and goddesses wear the $j 3 t$-standards on their heads, and do not represent nomes (Mohamed Ismael, personal communication).
    ${ }^{76}$ For these ties, see E. Staehelin, Untersuchungen zur ägyptischen Tracht im Alten Reich (MÄS 8; Berlin 1966), 168, particularly nn 7-8, pl. XLIII, fig. 69. Staehelin cites examples with these ties from the fifth dynasty, e.g. Sahure's pyramid complex (Borchardt, Śasbu-ree II, $10-15,18-21,38,41-42,43-45$, Bl. 1, 5, 20, 25, 28, 29). However, they also appear earlier in Sneferu's statue-cult temple at Dahshur (Fakhry, The Monuments of Sneferu at Dabshur II.1, 71, 75, 97, 113, 114, figs 48, 54, 91, 93, 122, pl. XVIA).
    ${ }^{77}$ See Borchardt, Sashu-rer II, 43-45, 46, Bl. 28, 31; Do. Arnold in Arnold et al., Egyptian Art, 227 n. 7 for other comparanda.
    ${ }^{78}$ Do. Arnold in Arnold et al., Egyptian Art, 226. See D. Arnold, 'Royal Cult Complexes of the Old and Middle Kingdoms', in B.E. Shafer (ed.), Temples of Ancient Egypt (Ithaca 1997), 51 for the fragments assigned to Khufu's pyramid temple in relation to the decoration in Sneferu's statue-cult temple.

[^9]:    79 Goedicke, Re-used Blocks, 16 (2), 17 (3); Hawass, Funerary Establishments, 516, 803, plan 35.
    ${ }^{80}$ Ćwiek, Relief Decoration, 160-161, particularly 160 nn 644 and 645, 266-267 n. 1156. Reconstructions of the upper end of Unas' causeway show the king enthroned and processions of estates (Labrousse and Moussa, La chaussée du complexe funéraire du roi Ounas, 48-50 (Docs. 46, 47), 82-84 (Doc. 91), 131, 153-154, 173,174 , figs $9,60-63,114,115$, pls VIIIa, XVIc). Jéquier also reconstructed fragments found at the upper end of the south wall of Pepy II's causeway with the king enthroned facing processions of personifications of the funerary domains (G. Jéquier, Le monument funéraire de Pépi II, vol. III, Les approches du temple, Fouilles à Saqqarah (Cairo 1940), 14-16, pls 19-20).
    81 Above the cattle are perhaps the names of the estates from which the offerings originated combined with the cartouche of Khufu (Smith, History of Egyptian Sculpture and Painting, 157, pl. 39 (lower)).
    82 When the cattle are overlapping, the iconography is more representative of booty from military campaigns (Do. Arnold in Arnold et al., Egyptian Art, 222 (38)).
    83 Dorothea Arnold assigns the relief to Khufu's pyramid or valley temples (Do. Arnold in Arnold et al., Egyptian Art, 223). Hans Goedicke assigns the relief to Khufu's valley temple (Goedicke, Re-used Blocks, 19). 84 For Sahure's pyramid temple, see Borchardt, Sashur-rer II, 65, BI. 55. For Unas' valley temple, see Labrousse and Moussa, Le temple d'accueil du complexe funéraire du roi Ounas, 78 (Doc. 26), fig. 63, pl. XI. Also, see Do. Arnold in Egyptian Art, 223 n. 9. Relief fragments with cattle were also discovered in the pyramid temples of Userkaf and Niuserre (respectively, Labrousse and Lauer, Ouserkaf I, 92-93 (Doc. 75-77) and II, 57, 58, 63, 64, figs 122, 123, 147a-b, 148a-b, 149; Borchardt, Ne-user-rer, 80, Abb. 55).
    85 Hawass reconstructs the relief showing cattle in the causeway. He believes the scene depicts the 'royal offerings that came through the royal domain of the foreign countries' (Funerary Establishments, 517). Files of cattle are also assigned to the north wall of Unas' causeway (Labrousse and Moussa, La chaussée du complexe funéraire du roi Ounas, 52-53 (Doc. 53), 156, fig. 69, pl. Xb).

[^10]:    ${ }^{86}$ Herodotus, Histories II, 124.
    ${ }^{87}$ See MFA photo A8294_NS for Smith's reconstruction.
    ${ }_{88}$ During Hassan's excavation of the northern boat pit in Khufu's pyramid complex, he discovered a granite fragment from a statue, possibly representing Khufu (Hassan, Gîza X, 37, pl. XIA).
    ${ }^{89}$ Smith originally described the head as basalt (Smith, History of Egyptian Sculpture and Painting, 31 (2b)). For Friedman's attribution, see F.D. Friedman, 'The Menkaure Dyad(s)', in S.E. Thompson and P. D. Manuelian (eds), Egypt and Beyond: Essays Presented to Leonard H. Lesko upon his Retirement from the Wilbour Chair of Egyptology at Brown University, June 2005 (Providence 2008), 131, particularly nn 80, 82.
    ${ }^{90}$ Smith, History of Egyptian Sculpture and Painting, 20 (4), pl. 5a; W.K. Simpson, The Mastabas of Qar and Idu: G 7101 and 7102 (Giza Mastabas 2; Boston 1976), 19, pl. XIVd, fig. 43; C.H. Roehrig in Arnold et al., Egyptian Art, 254 (57) for the nemes headdress.
    91. Smith, History of Egyptian Sculpture and Painting, 20 (1, 2).

    92 In Khafre's corpus of statuary, see, for example, JE 72213 (S. Hassan, Excavations at Giza IX. Season 1936-37-38, The Mastabas of the Eighth Season and their Description (Cairo 1960), 82 (1), pl. XXXVIIA, B; R. Stadelmann, 'Formale Kriterien zur Datierung der königlichen Plastik der 4. Dynastie', in N. Grimal (ed.), Les critères de datation stylistiques à l'Ancien Empire (BdE 120; Cairo 1998), 355, 374, Foto 2a-c); Ägyptisches Museum, Universität Leipzig 1947 (C. Ziegler in Arnold et al., Egyptian Art, 260 (62)); and a small head of a king, probably Khafre, in the Collection of Nanette B. Kelekian, New York (Do. Arnold in Arnold et al., ibid, 261-262 (63)). In Menkaure's corpus of statuary, see MFA 11.280a-b (G.A. Reisner,

[^11]:    Mycerinus: The Temples of the Third Pyramid at Giza (Cambridge, Mass. 1931), 37 (Jan. 27), 114 (48), pl. 63 (g-j)).
    ${ }^{93}$ The variety in the portrayal of Khafre throughout his pyramid complex was probably influenced by Djedefre's statuary programme, in which there was also a range of sizes as well as types. The seated image of Khafre with his right hand placed vertically on his lap holding an object and his left hand laid flat on his left thigh derives from the statuary of Djedefre, as well as from statues of Khufu's reign (for example, that of Hemiunu). Like Khafre, Djedefre also had standing images with an inscribed back support. For Djedefre's statuary, see Smith, History of Egyptian Sculpture and Painting, 31-32; Stadelmann, in Grimal (ed.), Les critères de datation stylistiques à l'Ancien Empire, 354-355, 358, 368, 369, 371, 372, 378, 384, Abb. 3, 6a, Fotos 8a-b, 19a-b; M. Baud, 'Études sur la statuaire de Rêdjedef, 1. Rapport préliminaire sur la collection de l'IFAO', in C. Ziegler and N. Palayret (eds), L'Art de l'Ancien Empire égyptien (Paris 1999), 37-61.
    ${ }_{94}$ Reisner, Mycerinus, 126.
    ${ }^{25}$ I am grateful to Dr Mohamed Ismael of the SCA for our discussions in which he concurred with the idea that Khufu's complex concentrated more on relief decoration than a statuary programme as in Khafre's pyramid complex.
    \% Manuelian in Arnold et al., Egyptian Art, 146.
    ${ }^{97}$ Arnold, Encyclopaedia, 121.
    ${ }^{98}$ Hölscher, Chephren, 25-30; Lehner, The Complete Pyramids, 124-125.
    ${ }^{99}$ Hölscher, Chephren, 26. According to Dieter Arnold, the wide and deep halls probably had statues of the king along their sides (Arnold, Encyclopaedia, 121).

[^12]:    ${ }^{100}$ Hölscher, Chephren, 26.
    ${ }^{101}$ For the statues in the court of the pyramid temple, see H. Ricke, Bemerkungen zur ägyptischen Baukunst des Alten Reichs II (BeiträgeBf 5; Cairo 1950), 48; Lehner, The Complete Pyramids, 125; D. Arnold in Arnold et al., Egyptian Art, 42-43.
    ${ }^{102}$ Hölscher, Chephren, 27-28, Abb. 16, Bl. VI; Ricke, Bemerkungen II, 48. The absence of fragments of these statues is explained by their later reuse (Ricke, Bemerkungen II, 48).
    ${ }_{103}$ Ricke, Bemerkungen II, 50-52, Abb. 17, 19, Taf. 2.
    ${ }^{104}$ Ricke, Bemerkungen II, 50-51, Abb. 17-19. For the architrave, see Goedicke, Re-used Blocks, 23-24 (7). Goedicke also assigns the architrave to Khafre's pyramid temple.
    ${ }^{105}$ Goedicke, Re-used Blocks, 24; D. Arnold in Arnold et al., Egyptian Art, 264. A red granite fragment with a hawk in sunk relief (MFA 24-11-548), discovered near Khufu's pyramid temple, was believed by Reisner and Smith to have surmounted the Horus name of the king on a column in the court of Khufu's pyramid temple (Reisner and Smith, Giza II, 5 n. 6 (1), fig. 7).
    ${ }^{106}$ Ricke, Bemerkungen II, 51-52.
    ${ }^{107}$ D. Arnold in Arnold et al., Egyptian Art, 264. I am grateful to Peter Jánosi for emphasizing the inaccuracies related to Ricke's reconstruction.

[^13]:    ${ }^{108}$ Lehner, The Complete Pyramids, 125, 238, 239; N.J. Conard and M. Lehner, 'The 1988/1989 Excavation of Petrie's "Workmen's Barracks" at Giza', JARCE 38 (2001), 39, 43 (3), 47, 59, fig. 16, tab. 1.
    ${ }^{109}$ Lehner, The Complete Pyramids, 125; H. Sourouzian, 'Standing royal colossi of the Middle Kingdom reused by Ramesses II)', MDAIK 44 (1988), 229-254.
    110 For CG 16, see L. Borchardt, Statuen und Statuetten von Königen und Privatleuten im Museum von Kairo, Nr. 1-1294, part 1 (Catalogue Général des Antiquités Égyptiennes du Musée du Caire, vol. 53; Berlin 1911), 17, Bl. 4 (16); Stadelmann, in Grimal (ed.), Les critères de datation stylistiques à l'Ancien Empire, 355, 374, Foto 1a-c. For JE 72213, see Hassan, Giza IX, 82 (1), pl. XXXVIIA, B; Stadelmann, op. cit., 355,374 , Foto $2 \mathrm{a}-\mathrm{c}$.
    ${ }^{111}$ Lehner, The Complete Pyramids, 125; Oppenheim, in Jánosi (ed.), Structure and Significance, 470.
    ${ }^{112}$ Oppenheim, in Jánosi (ed.), Structure and Significance, 469.
    ${ }^{113}$ Hölscher, Chephren, 28; Lehner, The Complete Pyramids, 125; Oppenheim, in Jánosi (ed.), Structure and Significance, 469.
    ${ }^{114}$ Arnold, Encyclopaedia, 46.
    ${ }^{115}$ The fragment was discovered adjacent to Kaemnefret's mastaba (G II S: H. Junker, Gîza X. Grabungen auf dem Friedhof des Alten Reiches bei den Pyramiden von Gîza, vol. X, Der Friedhof südlich der Cheopspyramide. Westteil (DÖAW 74,1; Vienna 1951), 38-40, Abb. 17, Taf. XVIa). For a discussion of the relief, see Oppenheim, in Jánosi (ed.), Structure and Significance, 475.
    ${ }^{116}$ K. Martin, Reliefs des Alten Reiches, part 2 (CAA, PelizaeusMuseum, Hildesheim, Lieferung 7; Mainz 1979), 118-120.

[^14]:    ${ }^{117}$ Labrousse and Moussa, La chaussée du complexe funéraire du roi Ounas, 94 (Doc. 102), 95 (Doc. 103), 96 (Doc. 104), 96-97 (Doc. 105 A-D), 171, 180, 182, 183, 192, figs 110, 130, 134-136, 137, 157, pls XVIIIb, c.
    ${ }^{118}$ G. Steindorff, 'Die übrigen Fundstücke', in Hölscher, Chephren, 110-111, Abb. 162, 163; Do. Arnold in Arnold et al., Egyptian Art, 265; Oppenheim, in Jánosi (ed.), Structure and Significance, 469-470.
    ${ }^{119}$ Goedicke, Re-used Blocks, 10. I agree with Dorothea Arnold that this relief does not belong stylistically to Khufu's complex but is originally from Khafre's complex (Do. Arnold in Arnold et al., Egyptian Art, 267 n. 13).
    ${ }^{120}$ Borchardt, Sáshu-rer II, 18-23, Bl. 5-7 (causeway); 8 (valley temple); Do. Arnold in Arnold et al., Egyptian Art, 94.
    ${ }^{121}$ Labrousse and Moussa, La chaussée du complexe funéraire du roi

[^15]:    Ounas, 19-20, 131, 134, 135, figs 9, 14, 15.
    ${ }^{122}$ Hölscher, Chephren, 42-46; Arnold, Encyclopaedia, 121.
    ${ }^{123}$ Hölscher, Chephren, 15, 16-17, Abb. 5, 7-8; the northern doorway appears on pp 16-17, Abb. 8.
    ${ }^{124}$ PT 508, §1111; LÄ I, col. 628-629.
    ${ }^{125}$ Hölscher, Chephren, 16-17, Abb. 7.
    ${ }^{126}$ R.H. Wilkinson, The Complete Gods and Goddesses of Ancient Egypt (Cairo 2003), 140, 141, 143; LÄ II, col. 1024.
    ${ }_{127}$ Hölscher, Chephren, 15, 16, Abb. 5; Lehner, The Complete Pyramids, 126; Arnold, Encyclopaedia, 121.
    ${ }^{128}$ Borchardt, Statuen und Statuetten I, 11-12, Bl. 3 (11); M. Seidel, Die königlichen Statuengruppen, vol. I: Die Denkmäler vom Alten Reich

[^16]:    bis zum Ende der 18. Dynastie (HÄB 42; Hildesheim 1996), 19-20, 21, Abb. 9, Taf. 4a. The material chosen for this statue, 'Chephren diorite' or anorthosite gneiss, is a stone from the south - as opposed to the northerly association of Bastet.
    ${ }^{129}$ The niche's width is 1.60 m (Hölscher, Chephren, 42; Seidel, Die königlichen Statuengruppen I, 20).
    ${ }^{130}$ Seidel, Die königlichen Statuengruppen I, 20.
    ${ }^{131}$ Fragments of the baboon were also found in front of the façade of the valley temple as well as in the causeway (Hölscher, Chephren, 42). The Pyramid Texts mention the baboon god Babi, a 'guardian of the sky', to whose power the king aspires in the afterlife ( $P T$ 320, \$515-516; Wilkinson, The Complete Gods and Goddesses of Ancient Egypt, 196).
    132 Hölscher, Chephren, 42; Seidel, Die königlichen Statuengruppen I, 20.

[^17]:    ${ }^{133}$ D. Arnold in Arnold et al., Egyptian Art, 41.
    ${ }^{134}$ Borchardt, Statuen und Statuetten I, 9-19, Bl. 3-5 (9-17); PM III ${ }^{2}, 21-23$. Fragments of statues were also found in various parts of the Giza Necropolis, including the area around the valley temple (PM III², 23-25).
    ${ }^{135}$ Hölscher and Borchardt, in Chephren, 44, 96 (14), Abb. 96.
    ${ }_{136}$ Hölscher, Chephren, 44.
    ${ }^{137}$ The statue emplacements are rectangular shaped, although CG 10, now in the Nubian Museum in Aswan, has a base with a rounded front, confirming that not all the statue bases are identical.

[^18]:    ${ }^{138}$ Seidel, Die königlichen Statuengruppen I, 21, 22, 23, 24, Abb. 9, 10, 11. Also, see E. Blumenthal, 'Den Falken im Nacken: Statuentypen und göttliches Königtum zur Pyramidenzeit', ZÄS 130 (2003), 2, 20, 24, Taf. I.
    ${ }^{139}$ Seidel, Die königlichen Statuengruppen I, 21, 22, 23, 24, Abb. 9, 10, 11. Also, see Blumenthal, ZÄS 130 (2003), 20, Taf. V.
    140 J. F. Romano, 'Sixth Dynasty Royal Scultpure', in Grimal (ed.), Les critères de datation stylistiques à l'Ancien Empire, 240-242, 288-290, figs 8-19. Also, see Blumenthal, ZÄS 130 (2003), 19-20, Taf. IV.
    ${ }^{141}$ For CG 13, see Seidel, Die königlichen Statuengruppen I, 21, 22, 23, 24, Abb. 9, 10, 11.
    ${ }^{142}$ For the titles and epithet with Re, see Borchardt, Statuen und Statuetten I, 16-19 (15-17), Bl. 4-5 (15-17). See H. W. Müller, 'Der Gute Gott Radjedef, Sohn des Rê', ZÄS 91 (1964), 131-133, Taf. III (6) for fragments from Djedefre's complex with similar inscriptions. ${ }^{143}$ For the location of greywacke quarries, see B. G. Aston, J.A. Harrell, and I. Shaw, 'Stone', in P.T. Nicholson and I. Shaw (eds), Ancient Egyptian Materials and Technology (Cambridge 2000), 57-58.
    ${ }^{144}$ Hassan, Gîza IX, 39 (8, top), pl. XIV.
    ${ }^{145}$ Discussed in Lehner, The Complete Pyramids, 126.

[^19]:    ${ }^{146}$ For a discussion of the sides of the thrones of CG 9, CG 13, and

[^20]:    CG 14, see Borchardt, Statuen and Statuetten I, 9-10, 13-16, Bl. 3 (9), 4 (13, 14).
    ${ }^{147}$ For CG 10, see Borchardt, Statuen and Statuetten I, 10-11, Bl. 3 (10). In contrast to CG 10, TR 25.11.18.4, a gneiss cubic seat statue discovered in Fustat, has the same design for the Sematawy emblem as the statues with the lion-legged thrones, with the lily to the front and the papyrus to the back (Stadelmann, in Grimal (ed.), Les critères de datation stylistiques à l'Ancien Empire, 359-360, 379, Foto 9a-c). ${ }^{148}$ Borchardt, Statuen und Statuetten I, 16-17, 18-19, Bl. 4 (15), 5 (17).

[^21]:    ${ }^{149}$ Borchardt, Statuen und Statuetten I, 10-12, BI. 3 (10, 11).
    ${ }^{150}$ Hoffmeier, JARCE 30 (1993), 122, 123.

[^22]:    ${ }^{151}$ L. Borchardt, Das Grabdenkmal des Königs Sashu-rer I, Der Bau (WVDOG 14; Leipzig 1910), 21; Lehner, The Complete Pyramids, 144.

    152 Lehner, The Complete Pyramids, 126.
    153 I am grateful to Vassil Dobrev for discussions regarding Djedefre's use of red quartzite and its solar connotations.
    154 See Oppenheim, in Jánosi (ed.), Structure and Significance, 455-464, 474 for a discussion of the development of the decorative programmes of the third and early fourth dynasties.

[^23]:    155 Ricke, Bemerkungen II, 98.
    ${ }^{156}$ Ricke, Bemerkungen II, 96-99; S. Schott, Bemerkungen zum Ägyptischen Pyramidenkult (BeiträgeBf 5, no. 2; Cairo 1950), 178-180; D. Arnold in Arnold et al., Egyptian Art, 49 particularly n. 13.
    ${ }^{157}$ The solar aspect is created through the rooftop arrangement (Lehner, The Complete Pyramids, 126).

