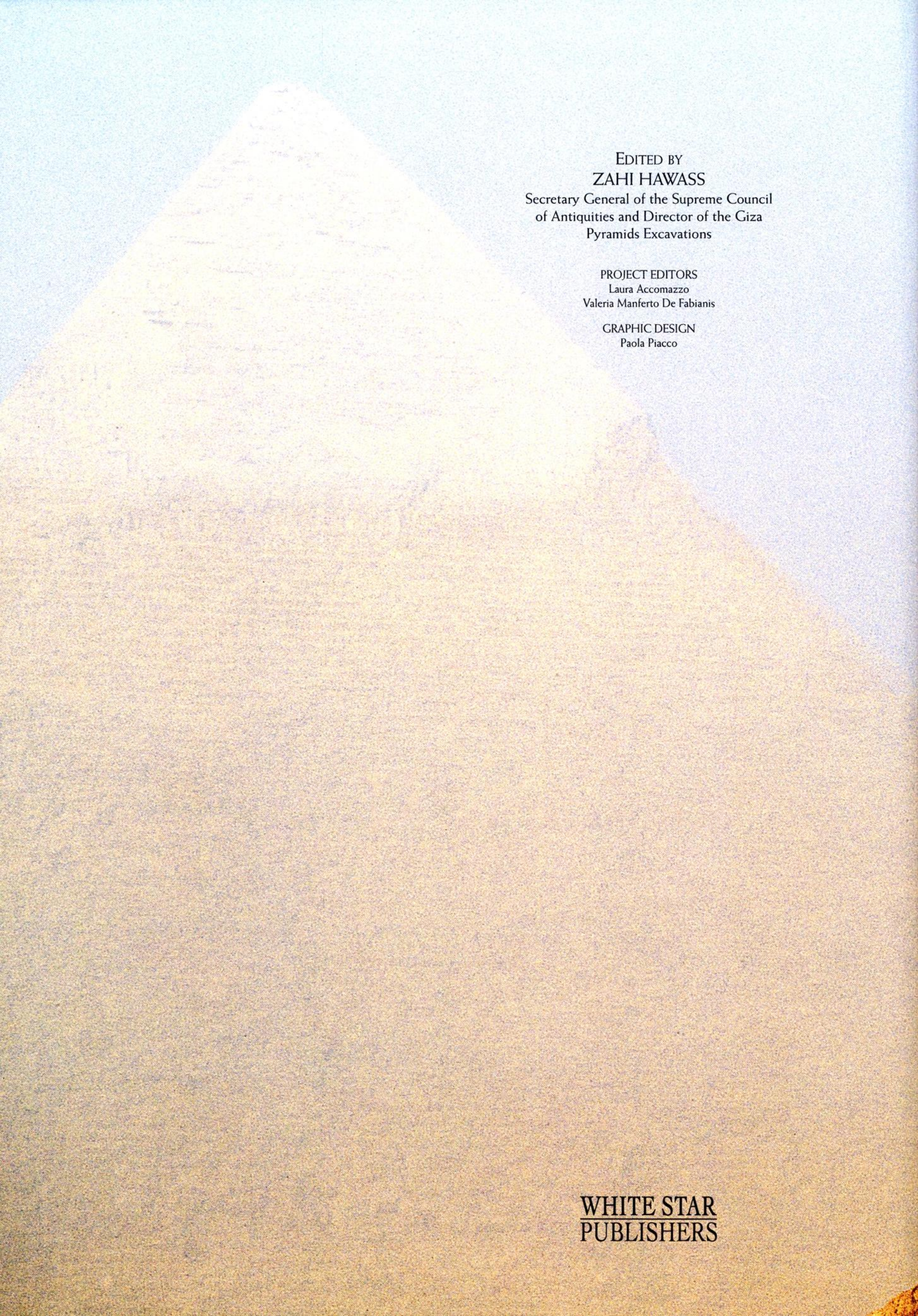


An aerial photograph of the Great Pyramids of Giza in Egypt. The pyramids are constructed from dark, weathered stone blocks, showing significant erosion and some missing sections. The Great Pyramid of Giza is the largest, followed by the Pyramid of Khafre and the Pyramid of Menkaure. In the background, a dense urban area with many buildings is visible under a clear blue sky. The foreground shows the desert landscape with some smaller structures and debris.

ZAHÍ HAWASS

THE TREASURES OF THE PYRAMIDS



EDITED BY
ZAHİ HAWASS
Secretary General of the Supreme Council
of Antiquities and Director of the Giza
Pyramids Excavations

PROJECT EDITORS
Laura Accomazzo
Valeria Manfredi De Fabianis

GRAPHIC DESIGN
Paola Piacco

**WHITE STAR
PUBLISHERS**

THE TREASURES OF THE **PYRAMIDS**





Contents

INTRODUCTION	Page	5		
by H.E. Mrs. Suzanne Mubarak				
THE PYRAMIDS	Page	12		
by Zahi Hawass				
CHRONOLOGY	Page	18		
CHAPTER 1				
WHY A PYRAMID? PYRAMID RELIGION	Page	22		
by James P. Allen				
CHAPTER 2				
THE ADMINISTRATION OF THE PYRAMID	Page	28		
by Vassil Dobrev				
CHAPTER 3				
BUILDING AN OLD KINGDOM PYRAMID	Page	32		
by Mark Lehner				
CHAPTER 4				
THE ARCHITECTURAL DEVELOPMENT OF THE EGYPTIAN ROYAL TOMB	Page	46		
by Zahi Hawass				
CHAPTER 5				
THE ARCHITECTURAL COMPONENTS OF THE PYRAMID COMPLEX	Page	50		
by Zahi Hawass				
CHAPTER 6				
THE PREDYNASTIC PERIOD	Page	54		
by Renee Friedman				
CHAPTER 7				
THE TOMBS OF THE FIRST AND SECOND DYNASTIES	Page	62		
AT ABYDOS AND SAQQARA				
by Günter Dreyer				
			CHAPTER 8	
			THE ROYAL MORTUARY ENCLOSURES OF ABYDOS AND HIERAKONPOLIS	
			by Matthew Adams and David O'Connor	Page 78
			CHAPTER 9	
			THE STEP PYRAMIDS	
			by Ali Radwan	Page 86
			CHAPTER 10	
			THE PYRAMIDS OF THE FOURTH DYNASTY	
			by Rainer Stadelmann	Page 112
			CHAPTER 11	
			THE QUEENS' PYRAMIDS OF THE FOURTH DYNASTY AT GIZA	
			by Zahi Hawass	Page 138
			CHAPTER 12	
			THE SATELLITE PYRAMID OF KHUFU	
			by Zahi Hawass	Page 150
			CHAPTER 13	
			THE MYSTERY OF HETEPHERES	
			by Zahi Hawass	Page 152
			CHAPTER 14	
			THE SECRET DOORS INSIDE THE GREAT PYRAMID	
			by Zahi Hawass	Page 156
			CHAPTER 15	
			THE PYRAMIDION	
			by Zahi Hawass	Page 160
			CHAPTER 16	
			THE ROYAL BOATS AT GIZA	
			by Zahi Hawass	Page 164
			CHAPTER 17	
			THE SPHINX	
			by Mark Lehner	Page 172



CHAPTER 18

THE TOMBS OF THE HIGH OFFICIALS AT GIZA

by Peter Der Manuelian

Page 190

CHAPTER 19

THE 'UNFINISHED' PYRAMIDS OF THE FOURTH DYNASTY

by Michel Valloggia

Pag. 224

CHAPTER 20

THE PYRAMIDS OF THE FIFTH DYNASTY

by Miroslav Verner

Pag. 236

CHAPTER 21

THE SURPRISING ABUSIR BLOCKS

by Zahi Hawass and Miroslav Verner

Pag. 260

CHAPTER 22

THE PYRAMIDS OF THE SIXTH DYNASTY

by Audran Labrousse

Pag. 264

CHAPTER 23

THE DECORATIVE PROGRAM OF THE OLD KINGDOM PYRAMID COMPLEXES

by Zahi Hawass

Page 282

CHAPTER 24

THE TOMBS OF THE FIFTH AND SIXTH DYNASTIES AT SAQQARA

by Karol Mysliwiec

Page 286

CHAPTER 25

THE PYRAMIDS OF THE MIDDLE KINGDOM

by Dieter Arnold

Page 326

CHAPTER 26

THE TOMBS OF THE NOBLES IN THE MIDDLE KINGDOM

by David P. Silverman

Page 348

CHAPTER 27

ROYAL AND PRIVATE STATUES OF THE OLD AND MIDDLE KINGDOMS

by Hourig Sourouzian

Page 366

INDEX AND BIBLIOGRAPHY

Page 392

The Publisher would like to thank:

H.E. Farouk Hosny - The Egyptian Minister of Culture,
Nabil Osman - President of the Egyptian Information Center,
Attiya Shakran - General Director of the Cairo Press Center,
M. El-Damaty - Director of the Egyptian Museum, Cairo,
Mena House Oberoi Hotel, Cairo,
Gamal Shafik of the Cairo Press Center,
The curators and assistants of the Egyptian Museum, Cairo,
Rajiv Kaul,
Guido Paradisi and Fabio Calamante - photographers' assistants.

The Editor would like to thank Mark Linz and Neil Hewison of the American University in Cairo Press. He also wants to thank Essam Shehab of the Giza Inspectorate, and Mohamed Ismail, Mohamed Megahed, Brook Myers, and Sabar Mabrouk from the Technical Office of the Supreme Council of Antiquities.

10-11

Scene showing the 'Meidum geese',
Egyptian Museum Cairo, Old
Kingdom.

© 2003 White Star S.r.l.
Via C. Sassone, 22/24
13100 Vercelli, Italy
www.whitestar.it

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without written permission from the publisher.

ISBN 88-8095-233-1

Reprints:

1 2 3 4 5 6 07 06 05 04 03

Printed in Italy by Officine Grafiche De Agostini
Color separation by Fotomec, Turin

The Mystery of Hetepheres

by Zahi Hawass

One of the most spectacular discoveries at Giza was made in 1925 by Mohamadien Ibrahim, the Egyptian photographer who worked with the Reisner Expedition from the Boston Museum of Fine Arts. One day, while Reisner was on vacation in the United States, Ibrahim was getting ready to take photographs on the east side of the Great Pyramid when one of the legs of his tripod hit an unusual patch of plaster. When he investigated this patch, he found that it served to seal off the entrance to a subterranean stairway. He reported the discovery to Alan Rowe, Reisner's assistant, who in turn sent a telegram to Reisner, who returned immediately.

The stairway, twelve steps long, led to a vertical shaft, about 27.5 m deep, which was filled to the top with limestone plaster blocking. This shaft, labeled G 7000x, took ten years to excavate. The shaft follows two vertical fissures in the rock; its walls were left rough. Various artifacts and pottery sherds were mixed with the fill, and near the bottom was a sealing bearing the name of Khufu's mortuary workshop. A niche in the west wall of the shaft, which had been blocked with plaster masonry, contained the remains of an offering: three leg bones of a bull wrapped in a reed mat; a horned skull that had been crushed; and two wine jars. Also mixed in with these remains were a limestone boulder, two chips of basalt, and some charcoal, which were probably not part of the original offering.

In the burial chamber at the bottom of the shaft, also left unfinished, were many beautiful objects. There were several items made of gilded wood, including a portable pavilion, a bed, two armchairs, and a carrying chair. There were also a curtain box, a leather case for walking sticks, several wooden boxes, some copper tools, and numerous other small objects, including twenty silver bracelets inlaid with turquoise, lapis lazuli, and carnelian. An alabaster sarcophagus

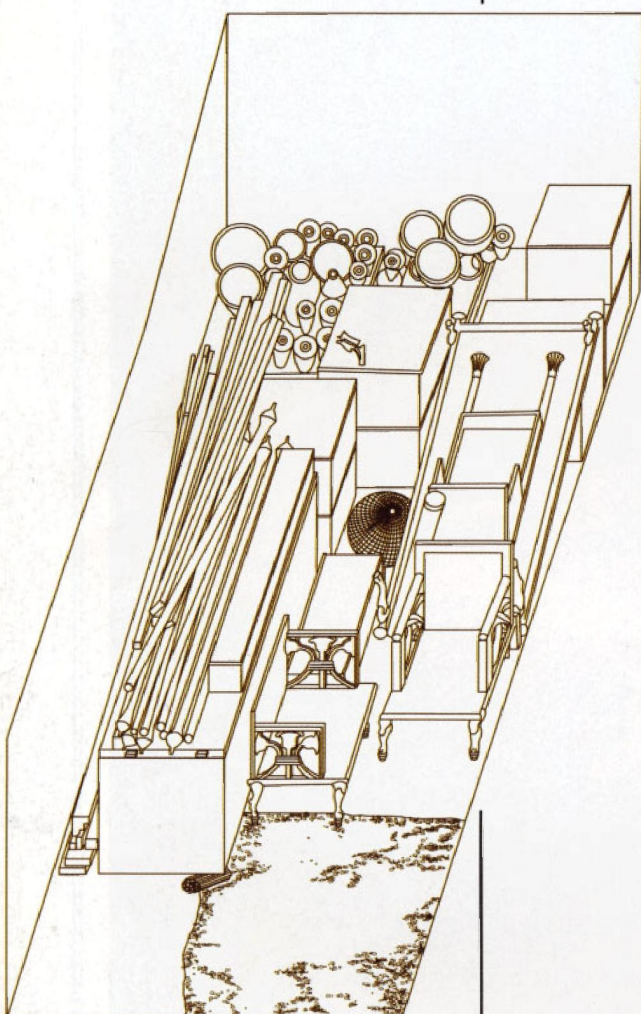
lay against one wall of the chamber, but to everyone's great disappointment, it was empty.

Various inscribed objects from the tomb bore the names and titles of Sneferu and of Hetepheres, whose principal title was 'Mother of the King of Upper and Lower Egypt.' Mud sealings bearing the name of Khufu were also found in some of the boxes; the obvious conclusion is that Hetepheres was the wife of Sneferu and the mother of Khufu.

A sealed recess in the west wall of the burial chamber contained an alabaster canopic chest on a small wooden sledge. It was divided into four compartments, three of which contained packages lying in a solution of natron and water; the fourth compartment contained dried organic material. A mud sealing, protected by a small pottery lid, was found on the lid of this box.

The style of the objects found in the tomb, including many fragments of pottery found scattered throughout the chamber, confirmed a Fourth Dynasty date. After the artifacts were restored by Hagg Ahmed Youssef, our great Egyptian conservator, they were divided between the Egyptian Museum in Cairo and the Museum of Fine Arts in Boston. The Egyptian Museum objects now form one of the Museum's most important collections, the contents of the oldest intact royal tomb to be discovered in Egypt.

Reisner attempted to account for the condition of the burial chamber, the broken and scattered pottery, the chips from the sarcophagus found strewn about the chamber, the lack of a superstructure, and the lack of a body, with the following hypothesis: Hetepheres died during the first part of Khufu's reign (as indicated by sealings from his mortuary service) and was



152

Plan of the funeral equipment found inside the shaft of Hetepheres. Giza, Old Kingdom. Drawing from Reisner and Smith.

153 top

Gilded wooden chariot, part of the funeral furniture found in the shaft of Hetepheres, Egyptian Museum, Cairo, Old Kingdom.

153 bottom

Gilded wooden chair from the shaft of Hetepheres, Egyptian Museum, Cairo, Old Kingdom.





154-155
Gilded wooden bed from the shaft of
Hetepheres, Egyptian Museum, Cairo,
Old Kingdom.

154 bottom
Wooden box with beautiful inscriptions
from the shaft of Hetepheres, Egyptian
Museum, Cairo, Old Kingdom.

originally buried by him at Dahshur, near her husband Sneferu. At some point in Khufu's reign, her tomb was broken into and her body was stolen. Khufu found out that the tomb had been disturbed and had the burial dismantled and the remaining contents moved secretly to Giza, where shaft G 7000x was hastily dug to receive it. As further support for his theory, Reisner notes that the side of the alabaster sarcophagus against the wall of the burial chamber was damaged, which he believes could not have happened in G 7000x. He also believes that the contents of the Giza tomb were in the reverse order of their original positions at Dahshur. The equipment found in the body of the shaft would represent items that were forgotten and then thrown into the shaft at the last minute. Since an offering was made at this new tomb, Khufu presumably did not know that the body of the queen was missing. These events would have occurred while Khufu's upper temple was in the process of being paved, accounting for basalt fragments found in the offering niche.

Mark Lehner objects to this interpretation on a number of grounds. He thinks that robbers would have smashed the lid of the sarcophagus rather than lifting it carefully, and that they are unlikely to have

missed easily portable valuables such as the silver bracelets. He believes that if Hetepheres had originally been buried at Dahshur (a theory for which there is absolutely no evidence), the reburial should also have been made there. He also objects to the idea that such a deep shaft could have been dug in secret, and points out that it is hard to imagine Khufu knowingly allowing his mother to be reburied with broken pottery and violated equipment.

As an alternative scenario, Lehner has suggested that Hetepheres died early in her son's reign and was buried in this hastily dug shaft. It was dug in the style of the Third Dynasty, then still current. A superstructure that would have overlain this shaft was started, again in the style of the Third Dynasty, but then abandoned when Khufu's cult was changed and the plan of the eastern field was modified because Khufu's upper temple would have interfered with it. Instead, the three small pyramids, G 1a, b, and c, were built. The queen mother's body was then taken from G 7000x and reburied with new funerary equipment inside either G 1a or G 1b.

Lehner deals with each of the points raised by Reisner, and comes up with alternative explanations that fit his new theory. For example, he suggests that

the basalt fragments found in the offering niche might be tools, and proposes that the limestone boulder might have been thrown into the niche to crush the skull and invalidate the offering. Lehner suggests that the copper tools found in the burial chamber were left by the workmen, who pried off the lid of the sarcophagus and removed the body of the queen. He disagrees with Reisner's assessment of the damage to the sarcophagus, noting that the chipping of the lid is not just on the east side, but runs all the way around, and could easily have been done in G 7000x.

Both of these theories are very attractive, but neither accounts for all of the evidence. If the queen was originally buried at Dahshur, where is her first tomb? How could her burial equipment have been moved all the way from Dahshur to Giza in secret? If G 7000x represents the original burial, why was it left in such disorder? Why was the queen mother buried in such haste? Why would Khufu's officials have needed a completely new set of funerary equipment? Most importantly, why would Khufu's mortuary officials take the queen's body but leave her canopic material behind?

I believe that Hetepheres was originally buried in G 1a, the northernmost of the small pyramids. Lehner



has pointed out that the portable canopy and furniture found in G 7000x would have fit almost perfectly into the burial chamber of G 1a, which makes more sense if it was originally designed to go there rather than thrown hurriedly into G 7000x. But how and when was it moved into its final resting place?

We know that a great deal of vandalism was carried out on the Giza plateau during the upheaval of the First Intermediate Period—there is a lot of evidence suggesting that much of Khufu's complex was destroyed during this tumultuous time. It is likely that Hetepheres' burial was disturbed at this time, and perhaps her body was taken by thieves looking for jewels. Priests loyal to Khufu's cult might then have moved what remained of the burial equipment to hide it from pillagers. The architectural style of G 7000x points to a date in the Second or Third Dynasty, and this shaft could easily have been dug much earlier and abandoned before Khufu's complex was begun. Thus the priests would have found and used this ancient shaft to protect what was left of the burial of this important queen.

If my theory is correct, it accounts for a number of problems. As Reisner himself pointed out, the

objects in G 7000x were reversed, as if the equipment had been moved from one place to another. This reversal makes more sense if those responsible for the reburial were moving the equipment over a short distance, such as the distance between the burial chamber of G 1a and G 7000x. The offering in the niche would have been transferred hastily from its original location, and would have been disturbed in the process. The basalt chips found with this offering are most likely fragments from the destroyed pavement of Khufu's upper temple, and the limestone debris is probably residue from his vandalized temples. A later reburial would also account for the lack of an official seal over the entrance to the shaft.

This hypothesis still does not completely account for the fact that the queen's body is missing. As Lehner has pointed out, robbers are more likely to have broken the lid open than to have chipped around the edges. The priests responsible for the reburial must have known that the body was missing, yet they still took the trouble to move the queen's equipment, including her empty sarcophagus. Perhaps future discoveries on the Giza Plateau will someday shed more light on this ancient mystery.

155 top
Bracelets discovered with the funeral equipment of Hetepheres, Egyptian Museum, Cairo, Old Kingdom.

155 bottom
Gilded wooden bowls, part of the funeral goods found in the shaft of Hetepheres, Egyptian Museum, Cairo, Old Kingdom.

Krejci, J., "The Origins and Development of the Royal Necropolis at Abusir during the Old Kingdom," in M. Bárta and J. Krejci (eds.), *Abusir and Saqqara in the Year 2000*, Praha, 2000, pp. 477, figs. 2 and 4.

Lauer, J.-Ph., *La Pyramide à Degrés, I-III*, Cairo, 1936-1939.

---, "Histoire Monumentale des Pyramides d'Égypte I: Les Pyramides à Degrés (IIIe Dynastie)," *BdÉ* 39 (1962).

---, "Les petites pyramides à degrés de la IIIe dynastie," *Rev. archéologique* (1962), pp. 5-15.

---, "Recherche et découverte de tombeau sud de L'Horus Sekhem-Khet san son complexe funéraire à Saqqarah," *BIE* 48/49 (1969), pp. 121-131.

---, *Saqqara: The Royal Cemetery of Memphis*, London, 1976.

Leclant, J. and G. Clerc, "Fouilles et travaux en Égypte et au Soudan," *Orientalia* 57, no. 3 (1988), pp. 336, figs. 40, 41.

Lehner, M., "Z 500 and the Layer Pyramid of Zawiyet el-Aryan," in P. der Manuelian (ed.), *Studies in Honor of W.K. Simpson II*, Boston, 1996, pp. 507-522.

---, *The Complete Pyramids*, London, Cairo, 1997.

Lesko, L. H., "Seila 1981," *JARCE* 25 (1988), pp. 215-235.

Müller, H. W., "Lowenskulpturen," *MJbK XVI* (München 1965), pp. 20.

---, "Gedanken zur Entstehung, Interpretation und Rekonstruktion ältester ägyptischer Monumentalarchitektur," in *Ägypten-Dauer und Wandel*, in DAIK, Sonderschrift 18, Mainz 1985, pp. 7-33.

O'Connor, D., "New Funerary Enclosures (Talbezirke) of the Early Dynastic Period at Abydos," *JARCE* 26 (1989), pp. 51-86.

Otto, E., "Die Religion der Alten Ägypter," in *Handbuch der Orientalistik*, Abt 1, Bd VIII, 1, Leiden 1964, p. 55.

Parra Ortiz, J. M., "Houni et Snérou: Les Pyramides de Meïdoun et Dahschour," *GM* 154 (1996), pp. 77-91.

Radwan, A., "Recent Excavations of the Cairo University at Abusir: A Cemetery of the 1st Dynasty," in D. Kessler and R. Schultz (eds.), *Gedenkschrift für Winfried Barta*, in *MÄU* 4 (1995), pp. 312, n.11.

---, "Mastaba XVII at Abusir (First Dynasty): Preliminary Results and General Remarks," in M. Bárta and J. Krejci (eds.), *Abusir and Saqqara in the Year 2000*, Praha, 2000, pp. 509-514, fig. 2.

---, "Some Remarks Concerning the Superstructure of Some Mastabas at Abusir," in Z. Hawass (ed.), *Egyptology at the Dawn of the Twenty-First Century. Proceedings of the Eighth International Congress of Egyptologists*, Cairo 2000, Cairo, 2002.

Ricke, H., "Bemerkungen zur ägyptischen Baukunst des Alten Reiches I," *Beiträge*, Bf 4 (1944).

Ritner, R. K., O. "Gardiner 363: A Spell Against Night Terrors," *JARCE* 27 (1990), pp. 37f., fig. 5

Schraff, A., "Die Ausbreitung des Osiriskultes in der Frühzeit und während des Alten Reiches," *SBAW* Heft 4, (1948).

Seidel, M., and D. Wildung, in C. Vandersleyen (ed.), *Das alte Ägypten* (Propyläen Kunstgeschichte 15), Berlin, 1975, pp. 218-220.

Seidel, M., "Die königlichen Statuengruppen I," *HAB* 42, 1996, pp. 5-9.

Sourouzian, H., "Inventaire iconographique des Statues en Manteau Jubilaire," in *Hommages à J. Leclant*, *BdÉ* 106, vol.1 (1994), pp. 50ff.

---, "L'iconographie du roi dans la statuaire des trois premières dynasties," in *Kunst des Alten Reiches*, *DAIK*, Sonderschrift 28 (1995), pp. 133ff.

---, "Concordances et Écarts entre Statuaire et Représentations à deux dimensions des Particuliers de L'Époque Archaïque," in N. Grimal (ed.), *Les Critères de Datation Stylistiques*, *BdÉ* 120 (1998), pp. 305ff.

Stadelmann, R., "Pyramiden," *LÄ* IV (1982), pp. 1205ff.

---, "Das vermeintliche Sonnenheiligtum im Norden des Djoserbezirks," *ASAE* 69 (1983), pp. 373-378.

---, "Die Oberbauten der Königsgräben der 2. Dynastie in Sakkara," *Mélanges G. E. Mokhtar II*, *BdÉ* 97/2 (1985), pp. 295-307.

---, *Die ägyptischen Pyramiden - vom Ziegelbau zum Weltwunder*, Mainz, 1985.

---, *Die großen Pyramiden von Giza*, Graz, 1990.

--- "Zur Baugeschichte des Djoserbezirks, Grabschacht und Grabkammer der Stufenmastaba," *MDAIK* 52 (1996), pp. 295-305.

---, "Origins and Development of the Funerary Complex of Djoser," in P. der Manuelian (ed.), *Studies in Honor of W. K. Simpson*, Boston, 1996, pp. 787-800.

---, "Représentations de la famille royale à l'Ancien Empire," in Chr. Ziegler (ed.), *L'Art de l'Ancien Empire*, Paris: Musée du Louvre, 1999, p. 174, fig. 5.

Sténon, J., "El-Kolah," *Chronicle d'Égypte* 59 (1950), pp. 43-45.

Swelim, N., "Additional Views Concerning the Monument Called Sinki," *MDAIK* 38 (1982), pp. 94f.

---, *Some Problems on the History of the Third Dynasty*, Alexandria, 1983.

---, *The Brick Pyramid at Abu Roash, Numbered I by Lepsius*, Alexandria, 1983.

---, "Some Remarks on the Great Rectangular Monuments of Middle Saqqara," *MDAIK* 47 (1991), pp. 389-402.

Tray, L., *Patterns of Queenship in Ancient Egyptian Myth and History*, Uppsala, 1986, pp. 56ff.

Verner, M., *The Pyramids: The Mystery, Culture and Science of Egypt's Great Monuments*, Cairo, New York, 2002.

Westendorf, W., *Das Alte Ägypten*, Baden-Baden, 1968, p. 30.

Wildung, D., "Die Rolle ägyptischer Könige im Bewusstsein ihrer Nachwelt," *MÄS* 17 (1969).

---, "Imhotep" *LA* III (1980), pp. 145-148.

---, "Two Representations of Gods from the Early Old Kingdom," *Miscellanea Wilbouriana* I (1972), pp. 145ff.

Wilson, J. A., "Buto and Hierakonpolis in the Geography of Egypt," *JNES* 14 (1955), pp. 209-236.

Ziegler (ed.), Chr., *L'art égyptien au temps des Pyramides*, Cat. Paris, 1999, pp. 34-51; 148-165.

Photo credits:

86 Oriental Institute of The University of Chicago

87, 88, 89, 90, 91, 92, 93 Araldo De Luca/Archivio White Star

94-95 Marcello Bertinetti/Archivio White Star

95 top Giulio Veggi/Archivio White Star

96 Marcello Bertinetti/Archivio White Star

98, 99 Araldo De Luca/Archivio White Star

100, 101 Giulio Veggi/Archivio White Star

102, 102-103, 103 bottom left Marcello Bertinetti/Archivio White Star

103 bottom right Giulio Veggi/Archivio White Star

104 top Marcello Bertinetti/Archivio White Star

104-105, 106-107, 107 bottom Marcello Bertinetti/Archivio White Star

107 top, 108 top, 109 bottom right Giulio Veggi/Archivio White Star

108-109, 109 bottom left Marcello Bertinetti/Archivio White Star

110 top Araldo De Luca/Archivio White Star

110 center and bottom Giulio Veggi/Archivio White Star

111 Miroslav Verner

THE PYRAMIDS OF THE FOURTH DYNASTY
Text by Rainer Stadelmann

Born October 24, 1933 in Oettingen/Bavaria as son of a professor of classical languages, he studied Egyptology at the Universities of Munich and Heidelberg. He first visited Egypt between December 1955 and April 1956 and participate in excavations at the Sun Temple of Userkaf at Abusir. Completed his PhD in spring 1960 with a thesis on "Syrisch-Palästinensische Gottheiten in Ägypten" and became Assistant Lecturer of Egyptology at the University of Heidelberg. In 1967 he completed a second Ph.D., Habilitation, in Heidelberg with a thesis on: "Altägyptische Bauinschriften und Namen von Bauteilen" and became Assistant Professor. In April 1968 he became Scientific Director of the German Institute of Archaeology in Cairo and Honorary Professor at the University of Heidelberg. In 1989 he became First Director of the German Institute of Archaeology in Cairo. He has at Elephantine Island and the Mortuary temple of Sety I at Gurna and the Pyramids of Sneferu at Dahshur. Newest excavation and conservation work at the Temple of Amenhotep III and the Colossi of Memnon. He has published several books about the pyramids and ca. 100 scholarly articles in German, English, and French in international periodicals.

Bibliography:

Edwards, I. E. S., *The Pyramids of Egypt*, London, 1985.

Fakhry, A., *The Monuments of Sneferu at Dahshur*, vol. I-II, Cairo, 1959.

Hawass, Z., *The funerary establishment of Khufu, Khaefra and Menkaura*

Lauer, J. Ph., *Le Mystère des Pyramides*, 1988.

during the Old Kingdom, Pennsylvania, 1987.

Lehner, M., *The Complete Pyramids*, 1997.

Stadelmann, R., *Die Großen Pyramiden von Giza*, ADEVA, 1990.

---, *Die Ägyptischen Pyramiden*, Mainz, 1997.

Vercoutter, J., *L'Égypte et la vallée du Nil, NOUVELLE CLIO Tome I, Des Origines à la Fin de l'Ancien Empire*, Paris, 1992.

Photo credits:

112 Araldo De Luca/Archivio White Star

113 Private collection

114-115 Marcello Bertinetti/Archivio White Star

114 bottom Araldo De Luca/Archivio White Star

115 Giulio Veggi/Archivio White Star

116-117, 117 top Marcello Bertinetti/Archivio White Star

117 bottom Giulio Veggi/Archivio White Star

118, 119, 120-121 Marcello Bertinetti/Archivio White Star

121 Marcello Bertinetti/Archivio White Star

122-123 Marcello Bertinetti/Archivio White Star

122 bottom Giulio Veggi/Archivio White Star

123 top Araldo De Luca/Archivio White Star

124 top Giulio Veggi/Archivio White Star

124 bottom Araldo De Luca/Archivio White Star

126-127 Giulio Veggi/Archivio White Star

128-129, 129 bottom Marcello Bertinetti/Archivio White Star

129 top Giulio Veggi/Archivio White Star

130 Araldo De Luca/Archivio White Star

131, 132-133, 133 Marcello Bertinetti/Archivio White Star

132 bottom left Giulio Veggi/Archivio White Star

132 bottom right, 134, 135, 136 bottom left and right Araldo De Luca/Archivio White Star

136-137, 137 Marcello Bertinetti/Archivio White Star

THE QUEENS' PYRAMIDS
OF THE FOURTH DYNASTY AT GIZA
Text by Zahi Hawass

Bibliography:

Badawy A., *History of Egyptian Architecture I*, Giza, 1954.

Borchardt, L., *Das Grabdenkmal des Königs Sabu-Re II*, Leipzig, 1913.

Edwards, I. E. S., *The Pyramids of Egypt, rev. ed.*, New York, 1985.

Fakhry, A., *The Pyramids*, Chicago and London, 1969.

Hawass, Z., *The Funerary Establishments of Khufu, Khafra, and Menkaura During the Old Kingdom*, Ph.D. Dissertation, University of Pennsylvania micro-film, Ann Arbor, MI, 1987.

---, update in W. M. F. Petrie, *The Pyramid and Temples of Gizah*, London: Histories & Mysteries of Man, 1990.

Lehner, M., *The Pyramid Tomb of Hetep-heres and the Satellite Pyramid of Khufu*, Mainz am Rhein, 1985.

Maragioglio, V. and C. Rinaldi, *L'Architettura della piramidi menfite*. Vols. 2-8, Turin and Rapello: Tip. Artale, 1963-77.

Reisner, G. A., *A History of the Giza Necropolis, vol. II: The Tomb of Hetepheres, Mother of Cheops*, Cambridge, MA, 1955.

Riser, E., *Der Königliche Harim im alten Ägypten und seine Verwaltung*, Vienna, 1972.

Simpson, W. K., *The Mastabas of Kawab, Khafsekhufu I, II, and III*. Boston, 1978.

Stadelmann, R., *Die ägyptischen Pyramiden*, Mainz, 1985.

Vyse, H., *Operation carried on at the Pyramids of Giza 2*, London, 1841.

Photo credits:

132 bottom left Giulio Veggi/Archivio White Star

132 bottom right, 134, 135, 136 bottom left and right Araldo De Luca/Archivio White Star

136-137, 137 Marcello Bertinetti/Archivio White Star

138, 139 Giulio Veggi/Archivio White Star

140, 141 Marcello Bertinetti/Archivio White Star

142, 143, 144, 145 right Giulio Veggi/Archivio White Star

145 left Marcello Bertinetti/Archivio White Star

146, 148-149, 149 bottom Giulio Veggi/Archivio White Star

149 top Marcello Bertinetti/Archivio White Star

THE SATELLITE PYRAMID OF KHUFU
Text by Zahi Hawass

Bibliography:

Hassan, S., *Excavations at Giza 10. The Great Pyramid of Khufu and its Mortuary Chapel*, Cairo, 1960.

Hawass, Z., "The discovery of the Satellite Pyramid

of Khufu, GID" in P. Der Manuelian (ed.), *Studies in Honor of William Kelly Simpson*, Boston: Museum of Fine Arts, 1996.

---, *The Funerary Establishments of Khufu, Khafra, and Menkaura During the Old Kingdom*, Ph.D. Dissertation, University of Pennsylvania micro-film, Ann Arbor, MI, 1987.

---, update in W. M. F. Petrie, *The Pyramid and Temples of Gizah*, London: Histories & Mysteries of Man, 1990.

---, "The Discovery of the Pyramidion of the Satellite Pyramid of Khufu (GID)," *Iubilate Conlegae: Studies Memory of Abd Aziz Sadek, Part I, Varia Aegyptiaca*, Vol. 10, (1997).

Lauer, J. P., *Pyramide à degrés I*, Cairo 1935.

Lehner, M., *The Pyramid Tomb of Hetep-heres and the Satellite Pyramid of Khufu*, Mainz am Rhein, 1985.

Maragioglio, V. and C. Rinaldi, *L'Architettura della piramidi menfite*, vols. 2-8, Turin and Rapello: Tip. Artale, 1963-77.

Reisner, G. A. A., *History of the Giza Necropolis, vol II: The Tomb of Hetepheres, Mother of Cheops*, Cambridge, MA, 1955.

Reisner, G. A., *Mycerinus: The Temples of the Third Pyramid at Giza*, Cambridge, MA, 1931.

Smith, W. S., *The Art and Architecture of Ancient Egypt*, Harmondsworth, 1981.

Stadelmann, R., "Die Pyramiden des Sneferu in Dahschur: Erster Bericht über die Grabungen an den nördlichen Steinpyramide," *MDAIK* 38, 1982.

---, *Die ägyptischen Pyramiden*, Mainz, 1985.

Vyse, H., *Operation carried on at the Pyramids of Giza 2*, London, 1841.

Photo credits:

151 Giulio Veggi/Archivio White Star

THE MYSTERY OF HETEPHERES
Text by Zahi Hawass

Bibliography:

Lehner, M., "The Development of the Giza Necropolis: the Khufu project," *MDAIK* 41 (1985).

Hawass, Z., *The Funerary Establishments of Khufu, Khafra, and Menkaura During the Old Kingdom*, Ph.D. Dissertation, University of Pennsylvania micro-film, Ann Arbor, MI, 1987.

Photo credits:

153, 154, 155 Araldo De Luca/Archivio White Star

THE SECRET DOORS INSIDE
THE GREAT PYRAMID
Text by Zahi Hawass

Bibliography:

Hawass, Z., M. Waters, and C. Sandreal, "The Recent Investigation of the so-called doors inside the great pyramid"

Stadelmann, R. with the contribution of R. Cantenbrink, "Die Sogenanntem Luftkanle der kheopspyramide. Modellkorridore für den Aufstieg des Kings Zum Himmel," *MDAIK* 50 (1994), pp. 285-294.

Photo credits:

157, 158 Kenneth Garrett

THE PYRAMIDION
Text by Zahi Hawass

Bibliography:

Arnold, D., "Rituale und Pyramidentempel," *MDAIK* 33 (1977).

Badawy A., *A History of Architecture*, I Berkeley: University of California, 1966.

Edwards, I. E. S., *The Pyramids of Egypt, rev. ed.*, New York, 1985.

Fakhry, A., *The Pyramids, 2nd ed.*, Chicago: University of Chicago Press, 1974.

Hawass, Z., "The discovery of the Satellite Pyramid of Khufu, GID" in Peter Der Manuelian (ed.) *Studies in Honor of William Kelly Simpson*, Boston: Museum of Fine Arts, 1996.

---, *The Funerary Establishments of Khufu, Khafra, and Menkaura During the Old Kingdom*, Ph.D. Dissertation, University of Pennsylvania micro-film, Ann Arbor, MI, 1987.