Antiquity

A QUARTERLY REVIEW OF ARCHÆOLOGY



Edited by

O. G. S. Crawford, F.S.A., and Roland Austin, F.S.A.

MARCH 1935

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Roland Austin, F.S.A.

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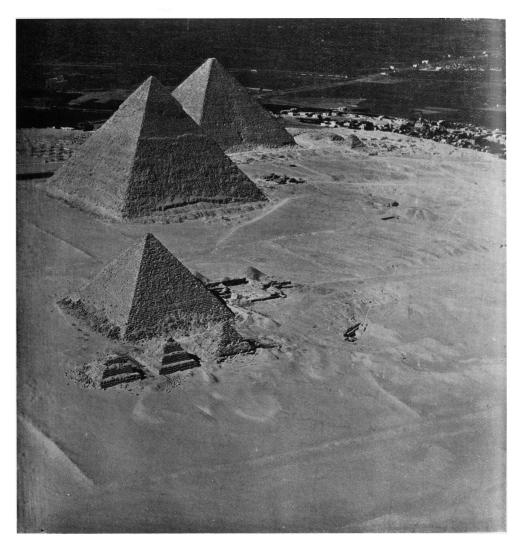
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PLATE II



THE PYRAMIDS AT GIZA, FROM THE AIR (See p. 8)

Pyramids and their Purpose

by Noel F. Wheeler

THE main object of these articles is to examine the evidence on the subject of Pyramids in general and the Great Pyramid of Khufu (Cheops) in particular; and to see if a reasonable conclusion can be reached as to the purpose for which the Great Pyramid was erected.

It is necessary to do this because the general reader is often at the mercy of what he reads, and unable without some guidance to distinguish between journalistic rubbish and scientific statements. He is apt to judge the importance of a document rather by the forcefulness of its dogmatism, the extent of its publicity, or the 'interest' of its theories, than by the scientific value of its content; and while there are some publications dealing with the Great Pyramid which are worth reading, there are many which are not, though they attract much more attention. After reading these articles the reader will be in a position to decide for himself whether he should accept without question the wild and fantastic theories current, or whether he should keep to ordinary commonsense and archaeological evidence.

In order to provide a background to the subject, I propose to discuss first the Pyramid Age and to consider for a moment what sort of people were the Egyptians of that time. After that (in a second article) I shall describe the Great Pyramid in some detail, in the light of recent excavations around it, and try to arrive at a commonsense solution of its many problems. Finally (in my third article) I shall touch briefly on some of the wilder theories, but shall treat them no more seriously than they deserve.

THE PYRAMID AGE

What is usually described as the Pyramid Age is the period of the third, fourth, fifth and sixth dynasties, covering approximately 500 years in time from 3000 to 2500 B.C. The actual dates attributed by

different writers to the kings of this period vary so much that their only significance in the present connexion is relative. The initial date of 3000 B.C. may well be as much as 100 years out in either direction; and it is not until one comes to the next period, the Middle Kingdom, about 2000 B.C., that dates can be fixed with any degree of certainty.

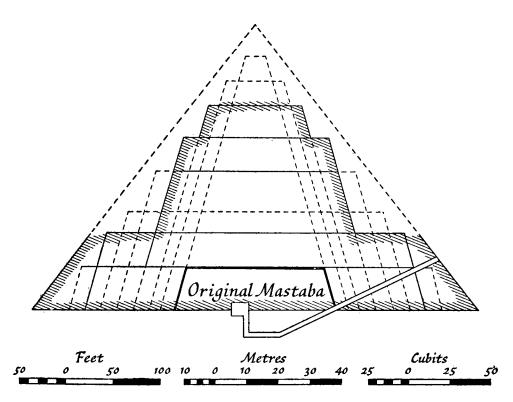
The third dynasty, which began and ended around 3000-2900 B.C., included the well-known king Zoser (variously written Thoser, Zeser, etc.), who was the builder of the step-pyramid at Sakkara (where the Egyptian Government has excavated during recent years some of the most interesting architectural works ever found in Egypt); and king Huni (Nefer-ka-Re Huni), the presumed father of the great king Seneferu who began the fourth dynasty. Seneferu may be met with in various writings as Snofru, Snefru, Seneferuw, Soris (Manetho), and other versions even further from his true name which is in the hieroglyphic 'S-nfr-w'. During the fourth dynasty, which begins with Seneferu, there were the Pyramid kings of Giza—Khufu (Cheops, Sufis, Khnum-Khufu, etc.); Re-dedef (Rhatioses, Dedefre, etc.); Khafré (Sufis, Chephren, etc.); Menkauré (Menkheres, Mykerinos, etc.); and Shepses-kaf (Bikheris, etc.).

The fifth dynasty includes the Pyramid kings of Abusir—User-kaf (Userkheres, Weser-kaf, etc.); Sahuré (Sefres); Nefer-ir-ka-ré (Neferkheres, etc.); Nefer-ef-ré (Kheres, etc.); Ne-user-ré (Rhathures, Ra-en-user, etc.); Isesy (Ded-ka-re Assa, Tankheres, Isosy, etc.); and Unas (Wenis, Onnos, Unnos, etc.). Among the kings of the Sakkara Pyramids (sixth dynasty) were Tety (Teta, Othoes, etc.); User-ka-re; Mery-Re Pepy (Fiops, Pepy 1); Merenre (Methusufis,

etc.); Nefer-ka-re Pepy (Pepy II, Fiops, etc.); Merenre II.

The type of royal tomb in vogue before the introduction of the pyramid was the mastaba—a rectangular structure of masonry whose length was usually a little more than twice the breadth, flat-topped, and with the outer faces rising at a slope of about 7 to 14 on one. (The actual angles of slope at Giza vary from 74° 4′ to 80° 57′). The mastaba tomb continued in use alongside the later pyramid throughout the Pyramid Age, and varied in size from the very small mud-brick mastabas of the poorer people, a few feet square, to the large royal mastabas at Giza, of which the largest has a length nearly one half of the side of the Great Pyramid. (See FIGURE opposite).

During the third dynasty the pyramid idea began to develop out of a series of superimposed 'mastabas'; and the step-pyramid of Zoser at Sakkara, the step-pyramid at Meydum, a pyramid at Zawiet-el-Aryan



SECTION OF THE PYRAMID OF MEYDUM, SHOWING DEVELOPMENT FROM ORIGINAL MASTABA PRESENT OUTLINE SHADED (Petrie, 'History of Egypt' vol. 1)

possibly of king Kha-ba and possibly a step-pyramid (between Giza and Abusir), and an unfinished pyramid at the same place possibly of king Neb-ka, all belong to this transitional period. Together with the pyramids of Seneferu and Huni (?) at Dahshur (south of Sakkara) and at Meydum (further south), none of these were true pyramids, but merely structures of a generally pyramidal form consisting of superimposed mastabas, which gave the appearance of steps. The slope of the faces of these steps was approximately that of the normal mastaba, and the whole was cased in fine limestone, still keeping the step form.

The first true pyramid, designed as such from the beginning, was that built by Khufu at Giza, known as the Great Pyramid (PLATE II). The other pyramids at Giza, and all subsequent pyramids not only at Giza, but at Sakkara and Abusir of the fifth and sixth dynasties, and of later periods at Dahshur, Lahun, Lisht, Hawara, Gurnah, Abydos and in the Sudan, were all true pyramids in the same sense and presumably directly descended from the Great Pyramid. The largest of all these, and the finest in workmanship, was the Great Pyramid, with a base side of 440 Egyptian cubits. With the exception of the Second Pyramid at Giza (of Khafre), and of two of the Dahshur pyramids, all the others are of much smaller dimensions. Confining ourselves to the true Pyramid Age the smallest recorded is that of Sahure's Queen at Abusir, which has a base side of only 30 cubits. The value of this cubit, and other matters concerning units of measurement will be considered in more detail later. (I cubit = 20.59 inches or 52.3 cms.).

The publications on the subject of the Great Pyramid have been so numerous and so widely read that the non-archaeological reader might well forget that, besides the other Giza pyramids, there are a vast number of pyramids in Egypt alone—not to mention those in the Sudan. In order to give a clearer idea of them as a whole a list is given in the appendix (pp. 15-21), numbered consecutively, and it is by these

numbers that they are referred to in the text.

It will be seen from the list that the first pyramids were built at Sakkara and Meydum, with two exceptions at Zawiet-el-Aryan—a few miles south of Giza. The change of site to Giza was made by Khufu, and he was followed there by the remainder of his dynasty, except Dedefre, who for some unknown reason went ten miles further north to Abu Roash for his pyramid. The fifth dynasty again shifted to Sakkara and Abusir, a few miles north of Sakkara; the eleventh dynasty moved up to Gurnah in Upper Egypt; the twelfth returned



AN UNDISTURBED BURIAL OF THE PYRAMID AGE. (See p. 9) The stone-slab lid of the rock-cut sarcophagus, the offering-jars, and the alabaster jars behind, are still in place

north to Lisht, Dahshur, Lahun and Hawara—none of them very far south of Sakkara, the farthest being about forty miles.

In addition to Egyptian pyramids, there were Roman pyramids, the Pyramid of Cestius at Rome being 116 feet high; the pyramidal mounds of early Chinese emperors; and many 'freak' pyramids all over the world. Copernicus built one over a well at his house in Frauenburg near the mouth of the Vistula. There is one, of very small dimensions, in the Dean cemetery, Edinburgh. The pyramidal temples in America, which have been often described as pyramids, belong to quite a different family from the Egyptian Pyramids: they are stepped, have a very shallow slope, and were surmounted by a temple—showing that their purpose was entirely different. The Egyptian pyramid was essentially the superstructure of a tomb, which was nearly always cut in the rock beneath, the entrance being in one face of the pyramid or in the rock outside it (PLATE III).

There may have been other pyramids at Abusir, Abu Roash, and at Gurnah, all trace of which has now gone. Either they are buried under débris in unexcavated areas, or they have been razed to the ground by plunderers and the elements.

It is possible to get very close to an understanding of the people of the Pyramid Age; but to do so one must see such of their handiwork as remains to us, scattered through the museums of the world, and study the literature of the subject. In order to familiarize oneself with their handiwork there is no better method than to spend a long period on the site of their activities.

Egyptian craftsmanship had been developing rapidly from the time of the first dynasty, with a leap to stone building at Sakkara in the third; and it reached its zenith in the fourth and fifth; in the sixth dynasty the first signs of retrogression appear. Of Egyptian art at its zenith the late Mr Arthur Weigall says '[it] had now reached a level which, in certain respects, can hardly be said ever to have been excelled in that country. . . .' (Ancient Egypt, Benn, 1928). Petrie, in Revolutions of Civilisation (Harper, 1922), describes the art of Seneferu as 'almost perfect'. Referring to architecture, sculpture and painting, Terence Gray writes in his chapter on Khafré in Mrs Brunton's Kings and Queens of Ancient Egypt (Hodder and Stoughton, 1924), 'Under Khafré these things, evolving uncertainly during the preceding centuries, burst suddenly into a glorious first blossoming whose virile simplicity and primitive untrammelled inspiration have

left them from the lifetime of Khafré until today among mankind's most masterly artistic achievements'. Concerning their literature we read in Professor Blackman's translation of the *Literature of the Ancient Egyptians of Erman* (Methuen, 1927), 'As far back as we can trace it, the Egyptian language displays signs of being carefully fostered. It is rich in metaphors and figures of speech, a "cultured language" which "composes and thinks" for the person who writes. One at least of the old books of proverbs may even have been composed during the Old Kingdom, in the time of the fifth dynasty (c. 2700 B.C. or earlier), which is known to us as an age in which the plastic art was at a particularly high level'.

There is no doubt that the Egyptians of the Pyramid Age were a very remarkable people, and that they had developed exceptional technical and artistic skill; but it is not possible to realize just how remarkable were their achievements without acquiring some first-hand familiarity with them. They possessed many qualities well developed which we today do not associate with 'the Orient'-which in fact belong nowadays solely to some of the northern races; and, certain though it be that the ancient Egyptians possessed these qualities, it is equally certain that the same qualities are entirely absent in the East today. They were clear and logical thinkers, systematic in all they did; they were persevering and remarkably accurate in executing plans given them, being in no way satisfied with 'near enough '—it had to be as exact as their instruments and knowledge would allow; they were in no way afraid of tackling the most difficult mediums in which to work, and preferred them at this time (the Pyramid Age) to the more easily worked materials. They had a simple, refined and restrained taste in art, being not at all fond of the elaborate over-decoration which characterized later work, and their eye for correct detail was wonderful.

Those who are familiar with the art of the Pyramid Age consider that it reached a level unsurpassed by the art of the Middle Kingdom, the New Kingdom, or that of Saite and Ptolemaic times. The interesting objects from the eighteenth dynasty tomb of king Tut-ankh-amen, though amongst them are some beautiful things, do not reveal the same taste and refinement as the products of the Pyramid Age.

Undoubtedly a people who were capable of such masterpieces as we can still see must have had very orderly minds, and much the same ideals of art and conduct as the most advanced of modern peoples. They had a deep knowledge of nature in all her aspects, and their

representations of country scenes, animals, birds, and fish, would lead us to expect that their feelings for animals more nearly approximated to our own than to those of their modern descendants. Another very surprising aspect of their art, in view of its antiquity and expected primitiveness, is its cleanness; there are no signs of immoral or perverted tendencies, and the only representations seen which we are not accustomed to see in public today had an obviously religious, magical, or natural significance. We can be sure that much to which we are accustomed today would have shocked them as entirely improper.

In the matter of their religion we are apt to be misled by the prejudiced views of the Hebrews in their writings. There is no doubt that the Egyptians and the Israelites did not love one another; but whereas the Egyptians did not consider the Israelites of sufficient importance to warrant more than casual mention, the Israelites attributed every conceivable unpleasant quality to the Egyptians. At the time of the pyramids the Egyptian religion was not so complicated and inconsistent as it became later, mainly through the effort to combine a

number of different beliefs.

It will be desirable here to mention some of the outstanding

monuments of the period.

Of the third dynasty the most striking find is the complex of temples around the step-pyramid of Sakkara (King Zoser). This was the first big architectural adventure which the Egyptians made; they translated into stone the age-long building methods of mud-brick, timber and reeds. The step-pyramid area was being excavated by the Egyptian Government under the direction of the late Mr Cecil Firth when the latter died about two years ago. Since then the work has halted. The ordinary visitor, with no great knowledge of Egyptian work, finds it hard to believe that these buildings are not Greek! The simplicity, grace and technical skill is astounding.

Of the time of Seneferu (fourth dynasty), there are in the Cairo Museum two very fine painted limestone statues, life-size, of Prince Rahotep and Princess Nefert (PLATE I, frontispiece). These two statues are remarkably life-like and the colouring is in very good condition; the statue of Nefert in particular shows extreme freedom in handling. They were found by Daninos, in the time of Mariette, in one of the

¹ See Antiquity, 1928, 11, 461-3.

mastabas near the Meydum Pyramid, which itself shows a standard of

skill in building scarcely exceeded later.

One of the finest pieces of work of this date (Seneferu) is the painting on plaster of six geese, removed many years ago by Vassalli Bey from one of the Meydum mastabas, and now in the Cairo Museum. The geese are feeding, and the detail of drawing and colour are very good. Also in the Cairo Museum are three wooden panels from the 'falsedoor' of Hesi-Ra at Sakkara, carved with the figures of Hesi and his name and titles in hieroglyphics in slightly raised relief. The style is extremely delicate and fine, with perfect detail. The panels have often been published.

In the next reign, that of Khufu, the best known work is the Great Pyramid of Giza, whose boldness of conception and meticulous care in execution cause it to stand out from all other monuments of Egypt. To the same date belong inscribed and uninscribed sarcophagi of granite, alabaster and limestone, in the Cairo, Boston and British Museums. They vary in style, from that of Khufu-nekht in Cairo, and others like it, with intricate panelling design, to the absolutely plain and undecorated alabaster sarcophagus of Khufu's mother (Cairo). There is an ivory figure of Khufu in the British Museum which is interesting mainly because we are very badly off for representations of

this king.

By far the greatest find of this reign, however, was the intact secret tomb of Khufu's mother Hetep-heres at Giza.2 This tomb was found and excavated by the Harvard-Boston Expedition during 1925-1926; and the present writer shared the work of excavation and record with Dr G. A. Reisner, the Director of the Expedition. No intact royal tomb of this age had been found before, and the richness of the furniture and other objects, together with the perfect taste of the designs and decoration make this collection in the Cairo Museum the most remarkable to be found there. The chairs, bed, canopy and jewel-box were not covered with thin gold-leaf, as much of the later work was, but with heavy gold sheeting; the gold was decorated with a mat pattern in relief, and the hieroglyphics on the pillars of the canopy are in raised relief on the gold, executed with almost perfect detail. On the 'carrying chair 'solid gold hieroglyphics were set in ebony strips. There is not a scrap of superfluous decoration, everything is in perfect taste, and the workmanship is first-class. (PLATES IV-V).

² See Antiquity, 1927, 1, 216-8.

Of the reign of Khafré, who built the second Pyramid of Giza, the finest remaining work is the diorite statue of the king in the Cairo Museum. It was discovered by Mariette in the well of the granite valley-temple along with the débris of eight other statues of Khafré (also in Cairo). It is a wonderfully executed piece of work in one of the hardest and most difficult of stones. All the detail is rendered with marvellous vigour and truth to nature, and the whole figure expresses dignity, repose and power in a remarkable degree. Petrie writes in his History of Egypt: 'The statues of Khafra have brought us face to face with him, and caused his features to be almost as well known in our times as in his own reign. The great diorite statue is a marvel of art, the precision of the expression combining what a man should be to win our feelings, and what a king should be to command our regard. The subtlety shown in this combination of expression—the ingenuity in the over-shadowing hawk, which does not interfere with the front view, the technical ability in executing this in so resistant a material—all unite in fixing our regard on this as one of the leading examples of ancient art'. There is also, among the other statues of this king in Cairo, a very fine green basalt figure, found in the same place as the diorite statue, and an alabaster statue which is of fine work and was found at Sakkara.

In the reign of Menkauré, the king of the third Giza Pyramid, fragments of whose bones and sarcophagus are in the British Museum, by far the finest objects are the portrait statues and the triads in slate, found by the Harvard-Boston Expedition in excavating the valley temple of the king's pyramid (PLATE VI). There are no more beautiful objects from Egypt than these slate triads of the king, Hathor, and different nome-deities; and the slate pair-statue of Menkauré and his queen Kha-merer-nebty II. Slate is not a material to choose for ease of working, yet the execution of these statues is almost perfect and they have to be seen to be believed. Of the triads three are in Cairo and the remainder in the Boston Museum; the slate pair is in Boston; and there is a fine alabaster statue in Cairo. These have been illustrated in several publications, but should be looked for in Reisner's Mycerinus (Harvard University Press, Cambridge, Mass., 1931). The basalt sarcophagus of Menkauré was very fine, decorated with panel design, but unfortunately when Howard Vyse had removed it nearly a century ago it was lost at sea on its way to the British Museum.

Coming next to the fifth dynasty; in the reign of Nefer-ir-ka-ré we have the tomb of the great noble Ty, the walls of which are covered

with very fine coloured relief scenes. In the Cairo Museum is the standing statue of Ranofer in painted limestone, one of the best examples

of the work of this period.

The 'Precepts of Ptah-hetep' were probably written in the reign of Dedkaré-Issy, though the earliest surviving papyrus is of the Middle Kingdom. Ptah-hetep may have been an aged tutor of the king. The 'Prisse Papyrus' in the Bibliothèque Nationale was bought from one of the fellahin by M. Prisse d'Avennes and published in 1847; it is over 23 feet long and about 6 inches wide. Also from this reign is the Palermo Stone, a fragment of a list of kings from the first to the fifth dynasty, broken out of the centre of a large slab of diorite. This has been in Palermo since 1877.

In the reign of Unas there was a change in customs. The Sun-Temples, built by the preceding kings, came to an end; and the Pyramid Texts began. These latter were religious texts inscribed on the walls inside the pyramids and are exceedingly interesting though difficult to

interpret.

There are a number of objects from the fifth dynasty which cannot be placed definitely in any one reign. Of these the best known and finest are two statues, the 'Sheikh-el-Beled' and the 'Seated Scribe'. The 'Sheikh-el-Beled' (a name invented since its discovery) is a wooden statue found by Mariette at Sakkara, and now in Cairo. It represents a noble called Ka-aper. This statue ranks with the diorite Khafré and is a very fine piece of work; Maspero in his Histoire générale de l'Art: Egypte (Hachette, 1912), says: 'Le Cheikh-el-Beled marque l'apogée de l'art memphite, et, si l'on ouvrait quelque part un salon des chefs-d'œuvre du monde entier, il est un de ceux que j'y enverrais pour l'honneur de l'art égyptien'. The second of these two statues, the 'Seated Scribe', is in the Louvre and ranks in the same class: the expression and attitude are both perfect. There are a number of other statues of seated scribes in the Cairo Museum, but not one can be compared with that in the Louvre.

Of the time of Teti, sixth dynasty, there is a fine bronze statue of the king in the Cairo Museum which was found at Hierakonpolis. The bronze was originally on wood, but the wood has completely decayed and the statue was found in fragments of bronze sheet and has been

reconstructed.

Innumerable monuments of these dynasties are not mentioned, since I have only intended to give some idea of the artistic achievements of the Pyramid Age.

APPENDIX

LIST OF PYRAMIDS IN EGYPT AND THE SUDAN

The dates are only relative and approximate, and the dimensions are given in Egyptian cubits, hands, and fingers. (The cubit contains seven hands, and the hand four fingers). The angle of slope of the pyramid-face is given in the manner of the Egyptian method of stating a slope, namely of a vertical rise of one cubit on a horizontal base of so many hands and fingers. For example, a slope of 5-2 signifies a rise of one cubit on a base of five hands and two fingers, or an angle as we express it today of 51° 51'. Under the 'base' and 'height' columns the measurement is given as 92.2.1, meaning 92 cubits, 2 hands, and 1 finger; sometimes, when the fraction is exact, the measurement is given as 195½, etc., meaning 195½ cubits.

No.	Date B.C.	Place	Description and Owner	Dynasty	Base c. h. f.	Height c. h. f.	Slope h. f. deg. min.
I	2840?	Sakkara	Step-pyramid Zoser	111	205.0.3 and	112?0 0	2.1 72.30
					225.5.3		
2		MEYDUM	>>	III	274.0.0	_	2.0 73.30
3		Zawiet-	,,,,	III	158.0.0	$195\frac{1}{2}$	2.3 68
		el-Aryan	Kha-ba?				
4		,,	Unfinished. Neb-ka?	III			
5	2824	Dahshur	North Stone. Huni				
•			or Seneferu	III-IV	408?0.0		7.1 43.40
6	ĺ	,,	South Stone.		-		
			'Blunted Pyramid'		360.0.0	168.0.3	7.2 43. $1\frac{1}{2}$
7	2824	Meydum	'False pyramid'				
•	·		' El Haram el Kaddab'	IV	275.0.0	175.0.0	5.2 51.51
8	2800	Giza	Great Pyramid.	[,5	, ,	3 3 3
		*	Khufu	IV	440.0.0	280.0.0	5.2 51.51
9	2800	,,	A queen of Khufu	IV	92.6.0		3 3
10	2800	,,	A queen of Khufu	IV	92.2.1		
11	2800	,,	Queen Henutsen	IV	88.1.2	56.5.0	5.13 52.10
12	2770	ABU			1	33	34 3
	-,,-	Roash	Dedefré	IV	1		
13	2760	GIZA	2nd pyramid. Khafré	IV	410.0.0	272.0.0	5.1 53.8
14	2760		A queen of Khafré	iv	40.0.0	26 1	5.1 53. 8
15	2750	,,	3rd pyramid. Men-		40.0.0	202	3.1 33. 0
-3	2/30	,,	kauré	IV	200.0.0	124.2.0	5.3 51.10
16	2750		Menkauré's queen,	14	200.0.0	124.2.0	5.3 51.10
10	2/30	,,		IV	08 2 2	60.4.2	6 2 57
17	2750		Khamerernebty II	IV	98.2.0	60.4.3	6.2 51
18	2750 2750	"	A queen of Menkauré				
19	2700?	,,	A queen of Menkauré	IV			
20	2680		Queen Khent-kau-es	IV			
20	4000	Sakkara	'HaramelMaharbish'				
			Userkaf	v		ļ	<u></u>

No.	Date B.C.	Place	Description and Owner	Dynasty	Base c. h. f.	Height c. h. f.		lope leg. min
21	2670	Abusir	North pyramid.					
			Sahuré	v	150.0.0	89.2.3	5.3	50.36
22		"	Sahuré's queen	V	30.0.0	. 21.3.0	4.3	55.50
23	2660	,,	Nefer-ir-ka-ré	v	200.0.0	133.3.0	5.1	53.8
24	 	,,	Khent-kau-es, queen					
			of Nefer-ir-ka-ré	V				
25		"	Unfinished. Nefer- ef-ré					
26	2640		Ne-user-ré. Called	v				
20	2040	"	pyramid of Riga, or					
			Abu Gurob	v	150.0.0	05 2 2		#T #1
27	2660	Sakkara	Unas	v	130.0.0	95.3.2	5.2	51.51
28	2640	ABUSIR	Ne-user-ré's queen	v	120.			
29	2570	Sakkara	Teti	vi	122.3.0			
30	2570	,,	Teti's queen?	VI	122.3.0			
31	1371	"	Queen Yput, mother					
3		,,	of Pepi I	vı				
32	2510	,,	Pepi i	VI	146?			
33		,,	Merenré	VI	•		·	
34		,,	'Haram el Shawaf'	?				
35		,,	Рері п	VI				
36		,,	Queen Wezebten,				ļ	
			wife of Pepi 11	VI	31.4.0			
37		"	Queen Yput	VI				
38	2625	,,	Neith, queen of					
			Pepi 11	VI				
39		~ "	Kakaré Yby	VII				
40	2500?	Gurnah	Yntef I	XI				
41	,	,, T	Mentuhotep III	XI			Ì	
42	2040 :	Lisht	North pyramid.					
	2000		Amenemhat I	XII				
43	2000	"	South pyramid. Senwesert 1	XII			4 1	.0
	1		Small pyramid	XII ?			$6.\frac{1}{2}$	48.53
44		**	1	XII?				
45 46		,,) , , , , , , , , , , , , , , , , , , ,	XII?				
47	2000	"	Queen of Senwesert I					
48	1938	", Danshur	'White pyramid'.	All			ł	
T	-930		Amenemhat II	XII			İ	
49	1906	Lahun	Senwesert II	XII			$9.\frac{1}{2}$	42.35
50	1887	Dahshur	North Brick pyramid				3.5	4~.33
J -	-,		Senwesert III	XII	204?			

No.	Date B.C.	Place	Description and Owner	Dynasty	Base c. h. f.	Height c. h. f.	Slope h. f. deg. min.
51	1849	Dahshur	South Brick, or				
			' Black Pyramid.' Amenemhat III	XII	200?		
52	1849	Hawara	Amenemhat III?	XII	200:		6.1/2 48.45
53	1049	Dahshur	A queen's pyramid	?			5.31 50
54		Sakkara	Userkaré Khenzer	XII			3.32 30
55	1850?	GURNAH	Nub-kheperé Yntef	XVII			
56		,,	Sekhemré Upmaat				
			Yntef	XVII			4.0 60
57		"	Sekhem-Shedtawy-				•
			Sebekemsaf	XVII			
58		**	Sekenenré Ta-a	XVII			
59		**	Sekenenré Ta-a-a	XVII			
60	1700?	,,	Waz-Kheperré Kames	XVII	15.2.0	17.1.1	$3.\frac{1}{2}$ 66
61	1700?	Abydos	Ahmes I	XVIII			
62	1640	,,	Queen Tetisheri	XVIII			
63	750	Kurru	No. 8. Kashta	XXV			
64	744	"	No. 17. Piankhy	XXV			
65	710	"	No. 15. Shabaka	XXV			
66	700)) NT	No. 18. Shabataka	XXV	0.6		
67 68	688 688?	Nuri	No. 1. Taharka	XXV	98.6.0	128.5.0	2.23/69
	688		No. 21. A queen	XXV			
69	663	Kurru	No. 35. A queen? No. 16. Tanutaman	XXV			60.3
70 71	653	Nuri	No. 20. Atlanersa	XXV XXV	22.0.0	26.3.0	68 ? 66 1
72	653		No. 36. Queen	AA V	23.0.3	20.3.0	002
/~	933	"	Atakhibasken	xxv			
73	643	,,	No.3. Senkamanseken		52.5.1	59.1.2	66
74	640?	"	No. 41. Queen	1212 4	32.3.1	39.1.2	00
- ' '	' '	,,	Mara-?n	xxv			
75	?	,,	No. 42.	xxv			
76	?	,,	No. 43.	XXV			
77 78	623	,,	No. 6. Anlaman	XXV	53.6.2	46.4.3	60
78	623	,,	No. 22. Queen of				
			Anlaman	XXV			
79	623	,,	No. 23. Queen			ĺ	
			Maslaya	XXV			
80	593	,,	No. 8. Aspalta	XXV	53.1.1	49.6.3	62
81	593	,,	No. 24. Queen				
82			Nansalsa	XXV			
02	593	,,	No. 27. Queen				
			Madigan	XXV			

No.	Date B.C.	Place	Description and Owner	Dynasty	Base	Height	Slope h. f. deg. mir
	ь.с.		Owner		c. h. f.	с. п. т.	n. i. deg. mir
83	593	Nuri	No. 38. Queen				
			Aaqata	XXV			1
84	3	,,	No. 39.	xxv			
85		,,	No. 40.	xxv			
86	563	,,	No. 9. Amtalqa	XXV	53.0.1	65.4.0	68?
87	563	,,	No. 26. Queen				
			Amantakaya	XXV			
88	553	"	No. 5. Malenaqan	XXV	53.1.0	65.5.0	68?
89	553	,,	No. 25. Princess				
			Maletalen?	XXV	1		
90	553	,,	No. 28. Queen				
-			Henut-Takhabit?	XXV			
91	538	,,	No. 18. Nalma'aya	XXV	20.3.0	25.2.3	68?
92	533	,,	No. 10. Netaklaba-	XXV	54.0.0	46.5.2	60
			taman				
93	513	,,	No. 7. Karkaman	XXV	53.0.0	45.6.1	60
94	513	,,	No. 30. Queen?	XXV			
95	503	,,	No. 2. Astabarqa-				
			man	XXV	332 & 51		59
96	500?	,,	No. 29. Queen				
-	_		Piankh-har?	XXV			
97	473	,,	No. 4. Sa'asheriqa	XXV	51.4.0	63.5.1	68?
98	458	,,	No. 19. Nasakhma	XXV	18.4.1	22.6.I	68?
99	453	,,	No. 11. Malewiya-				
			man	XXV	51.2.0	52.4.0	64
100	453	**	No. 31. Queen?	XXV			·
101	453	,,	No. 32. Queen?	XXV			
102	423	,,	No. 16. Talakhaman	XXV	23.1.0	28.4.2	68?
103	418	,,	No. 12. Amanheri-		51.0.2		
			nutarik	XXV	&62.1.0		62
104	418	,,	No. 33. Queen?	XXV			
105	418	,,	No. 34.	XXV			
106	398	,,	No. 17. Baskakeren	XXV	23.6.2	29.3.3	68?
107	350?	,,	No. 37. Queen?	XXV		, , ,	
108	350?	,,	No. 48. Queen?	XXV			
109		,,	No. 49.	XXV			
110	3	,,	No. 50. ?	XXV			
111	?	,,	No. 51. ?	XXV			
112	?	,,	No. 52. ?	XXV	1		
113)	(Nineteen small pyra-)			
to	} }	-,, {	mids of Royal Ladies,	xxv	23?		
131	J	ţ	south of No. 1]			

	,		i .	1			
No.	Date B.C.	Place	Description and Owner	Dynasty	Base c. h. f.	Height c. h. f.	Slope h. f. deg. min.
132	397	Nuri	No. 13. Harsiotef	xxv	51.2.3	63.3.1	68?
133	397	,,	No. 44. Queen		5-1-15	-3.3	
-33	37.		Banhaly	XXV			
134	3	,,	No. 45.	XXV			
135	?	,,	No. 46.	XXV			
136	}	,,	No. 47.	XXV			
137	362	Kurru	No. 1. Piankhalara	XXV			
138	342	Nuri	No. 14. Akhratan	XXV	50.6.2	62.6.2	683
139	328	_ ,,	No. 15. Nastasen	XXV	50.2.3	62.1.3	68?
140	308	Barkal	No. 11 ?	Na-1			
141	300	Begara-					
	_ :	WIYAH	No. S6. Arikakaman	KM			
142	2 80		No. S5. Yesruwaman				
143	275	BARKAL	No. 14.	Na-1			
144	265	Begara-					
	_	WIYAH	No. S10. Kaltaly	KM			
145	265	BARKAL	No. 15.	Na-1	1		
146	255	n	No. 18.	Na-1			
147	255	Begara-	No. N4. Aman-?-				
		WIYAH	tekha	KM	1		
148	245	BARKAL	No. 7. ?	Na-1			
149	242	Bagara-	NT- NT 3				
		WIYAH	No. N53. ?	KM			
150	225	,,	No. No. Ergamenes	KM			
151	200	,,	No. No. Azagraman	KM			
152	180 160	,,	No. N8. Nahirqa? No. N11. Nahirqa?	KM			
153		"	No. N11. Namique.	KM			
¹ 54	150	"	zekheté	773.6			
155	125		No. N13.	KM KM			
156	125	Barkal	No. 6.	Na-2			
157	100	BEGARA-	110. 0.	114-2			
-37	100	WIYAH	No. N20.	км			
158	85	BARKAL	No. 4. ?	Na-2		į	
159	80	Begara-	110. 4.	110 2			
37		WIYAH	No. N21. ?	км			
160	65	BARKAL	No. 2.	Na-2			
161	60	BEGARA-		- '		j	
- 1		WIYAH	No. N14. ?	км			
162	45	,,	No. N2. Amanta-			ļ	
			bale?	KM			
163	45	BARKAL	No. 9. ?	Na-2		Ì	

No.	Date B.C.	Place	Description and Owner	Dynasty	Base c. h. f.	Height c. h. f.	Slope h. f. deg. min
164	45	Barkal	No. 10. ?	Na-2			
165	45	Begara-	No. N6. Aman-	ł			
,	'3	WIYAH	shakhéte	KM			
166	25	,,	No. W5. Queen ?	КМ			
167	15	,,	No. N22. Netekaman	KM			
168		,,	No. N1. Queen				
			Amantère	KM			
169	15	,,	No. N10. Sherakarer	км			
170	20	,,	No. 15. ?	км			
171	40	,,	No. Nr6. Akhyes-	j :			
•		"	teme?	км			
172	50	,,	No. N17.				
•]	"	Amanitenmemize	км			
173	75	,,	No. N18.				
75	13	"	Amankhanewel?	км			
174	100	,,	No. N40.	KM			
175	105	,,	No. N34.				
,,,		"	Artanyeszeme	KM			
176	130	,,	No. N28.				
,		"	Tameqerze-amani	KM			
177	150	,,	No. N41. ?	KM			1
178	160	,,	No. N29.	1		}	
•		1	Takizemani	KM	16 1	21.5.3	$2.2\frac{1}{2}$ 72
179	180	,,	No. N30. ?	KM	_		
180	200	,,,	No. N19.				
			Tarekenizel?	KM			,
181	200	,,	No. N32.	KM			
182	225	,,	No. N55. ?	KM		İ	1
183	225	,,,	No. N37.	KM	1		
184	235	,,	No. N38 ?	KM			
185	250	,,	No. N36.	į			
-			Maniterara	KM	İ		
186	270	,,	No. N35.	KM			
187	270	,,,	No. N51. ?	KM		}	
188	290	,,	No. N24. ?	км			
189	310	,,	No. N27. ?	KM			
190	330	,,,	No. N26.	KM			
191	340	,,	No. N25.	KM	1		
192	•	,,	No. N5.				
-			Prince Arik-Kharer	KM]		

APPENDIX-cont.

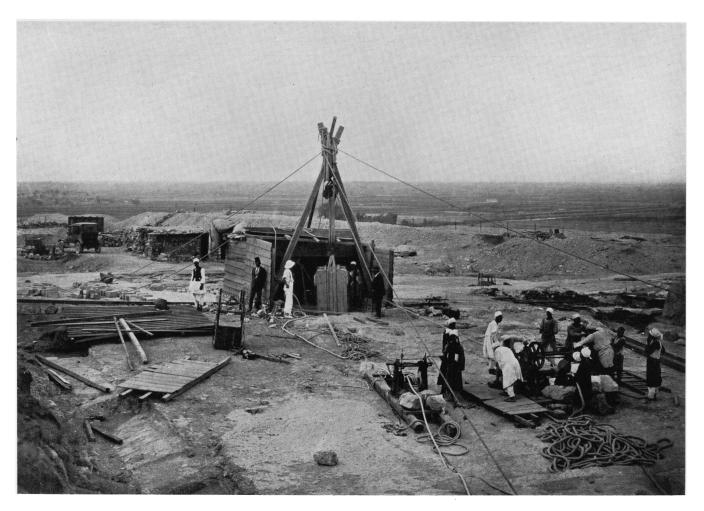
The dynasties from pyramids no. 140 to 192 in the list are indicated by the following abbreviations:—

Na-1 st Meroitic dynasty of Napata Na-2 2nd Meroitic dynasty of Napata KM .. . Kingdom of Meröe

Pyramids 1 to 39 properly belong to the 'Pyramid Age'; 40 to 54 to the 'Middle Kingdom'; 55 to 62 to the 'New Kingdom'; and the remainder to the Ethiopian dynasties

ruling at Napata and Merce in the Sudan.

The Middle Kingdom pyramids are poorer than anything of the earlier period and those of the New Kingdom are mostly very small indeed and of very poor workmanship. The Ethiopian pyramids are quite a new departure. They have a much steeper angle of slope than the earlier examples, are quite small, and bear little resemblance to the great works of the Pyramid Age.



THE ALABASTER SARCOPHAGUS OF HETEP-HERES, MOTHER OF KHUFU (CHEOPS) CASED IN WOOD COMING OUT OF HER TOMB. (See p. 12) Dr Reisner is standing at the right hand of the derrick



SOLID GOLD HIEROGLYPHS SET IN EBONY STRIPS ON THE BACK OF THE CARRYING-CHAIR OF HETEP-HERES, MOTHER OF KHUFU (CHEOPS), CAIRO MUSEUM. (See p. 12)

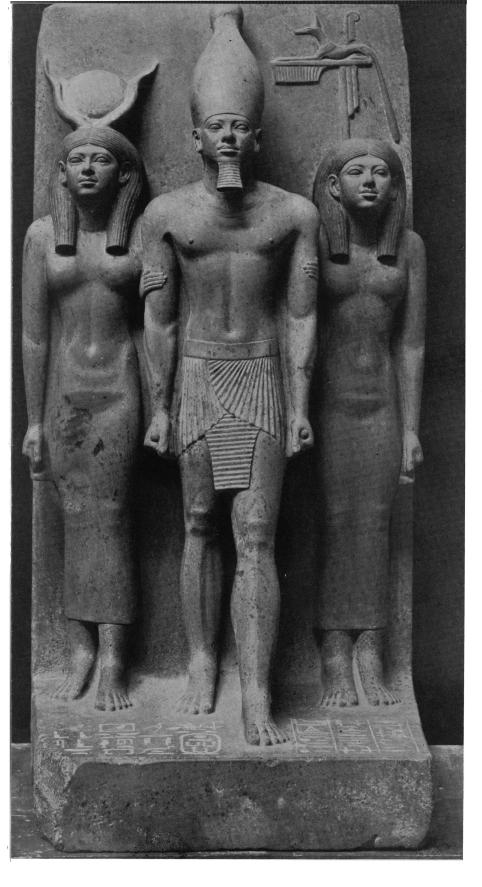


PLATE VI

ONE OF THE SLATE TRIADS SHOWING MENKAURÉ WITH HATHOR AND THE GODDESS OF THE JACKAL - NOMES, CAIRO MUSEUM. (See p. 13).

Service des Antiquités, Cairo