

CHAPTER XI

THE FAMILY OF MYCERINUS

THE discovery of the tombs of Hetep-heres I, the mother of Cheops, and of Meresankh III, one of his granddaughters, and the excavation of the royal cemetery of Cheops east of his pyramid have made so much fresh material available in the last four years that the history of the royal family of Dynasty IV has had to be rewritten. The tomb of Hetep-heres I gave the connection between Dynasty III and Dynasty IV, and established the parentage of Cheops. The tomb of Meresankh III revealed the fact that Hetep-heres II, a daughter of Cheops, was fair-haired or red-haired and yielded the family relations of her line. Behind the names which have come to us, we see obscurely evidence of strife between the different branches of the family, marriages and deaths, intrigues in the harems of succeeding kings, and bitter enmities. It may never be possible to work out all the details of the intricate family affairs of the dynasty, but the main outline has become much clearer than before 1924.

The chief cause of strife arose undoubtedly from the plural marriages of King Cheops. Each king married a number of wives of different standing with regard to the blood royal and a number of concubines. The custom of brother and sister marriages was well established. No woman might ascend the throne, and in the whole course of Egyptian history down to Ptolemaic times only two queens became king — Sebek-neferuw of Dynasty XII and Hatshepsut of Dynasty XVIII. Nevertheless it was through his mother or his wife that a king established his strongest claim to the inheritance of the throne when the lady in question was herself of the blood royal. Of course, the accession of a king was not solely by inheritance, but depended from time to time on the character and personal qualities of the man or on harem intrigues of a type familiar to the historian, so that the kingship was in fact open to minor members of the royal family or even to other persons entirely outside the family. The accession of a person not in the direct line was usually counted as the beginning of a new dynasty, and almost invariably the founder of a dynasty sought to stabilize his *de facto* sovereignty by marrying a woman of the direct line of the blood royal. Thus by tradition, or legally if one may use such a term, the order of claims to the throne was as follows:

- (a) That of a king's son born of a marriage between a king and his sister, both being of the full blood royal.
- (b) That of a king's son born of a marriage between a king not of the full blood royal and a king's daughter of the blood royal.
- (c) That of a king's son born of a marriage between a king of the blood royal and a woman not of the full blood royal.
- (d) That of a strong man married to a king's daughter of the full blood royal.

It is always the descent on the mother's side which is significant for the strength of the heir's claim to the throne.

The order of the legitimate kings from the end of Dynasty III to Shepseskaf is now firmly established:

- (1) HUNI, last king of Dynasty III; father of Hetep-heres I, wife of Sneferuw and mother of Cheops.
- (2) SNEFERUW, first king of Dynasty IV; probably not of the full blood royal, but possibly a son of Huni by a minor queen; married Hetep-heres I; father of Cheops.
- (3) CHEOPS, son of Sneferuw and Hetep-heres I; father of Radedef and Chephren.
- (4) RADEDEF, son of Cheops.
- (5) CHEPHREN, son of Cheops; married his full sister, Khamerernebti I.
- (6) MYCERINUS, son of Chephren and Khamerernebti I; married his full sister, Khamerernebti II.
- (7) SHEPSESKAF, son of Mycerinus.

In the list of kings in the temple of Abydos, Weserkaf, the first king of Dynasty V, succeeds Shepseskaf; but in the Saqqarah list there appear to be four cartouches, one of which had contained the name of Shepseskaf, between Mycerinus and Weserkaf. The Turin Papyrus seems also to give three kings,

whose names are lost, at the end of Dynasty IV, while the list of Manetho presents two names, Bicheris and Thamthis. Thus the history of the second half of the dynasty is still obscure. The poverty manifest in the latter part of the life of Chephren, the short reigns of Mycerinus and of Shepseskaf, the transfer of the tomb of Shepseskaf to Dahshûr, where he received only a mastaba (not a pyramid), and the large unfinished tomb east of the Mycerinus pyramid at Giza, all indicate a troubled period during which other claimants to the throne, perhaps descendants of Radedef, may have set themselves up as independent kings for short periods. No doubt it was this condition of public affairs which gave Weserkaf the opportunity to seize the throne.

The story of Hetep-heres I, the mother of Dynasty IV, and the tragic plundering of her tomb is told in another place.¹ She carried the blood royal through from Dynasty III to Dynasty IV, and it was her son Cheops who came to the throne, and not the eldest son, Prince Kanofer of Dahshûr. No great difficulty appears to have arisen, and Cheops is shown to have been an extremely wealthy and powerful king by his great pyramid, with the three pyramids of queens and the two great fields of mastabas laid out in streets and rows, a veritable city of the spirits of the dead. The subsequent troubles arose out of his marriages and in particular out of two of them. His four chief wives are known from their tombs as follows:

- (1) The favorite queen was undoubtedly the lady buried in the first small pyramid G I-a, whose name has escaped us; she alone of the queens had a sun-bark buried beside her pyramid; she was, I imagine, a daughter of Sneferuw and Hetep-heres I, a full sister of Cheops and the source of the main branch of his family.
- (2) The queen buried in the second small pyramid, G I-b; this pyramid is in line with the first pyramid and equal to it in every way except that it is second in the line; her name also has not been found; I imagine that she was the Libyan (?) lady who brought the fair hair into the family (Hetep-heres II) and would thus be the mother of the secondary branch of the family.
- (3) Queen Henutsen, buried in the third small pyramid, G I-c; she was a daughter of Sneferuw; her pyramid stands a meter or so back from the line of the first two, although equal to them in construction; in Dynasty XXII she was identified with Isis and called Isis-henut-meruw ("Isis-Mistress-of-the-Pyramids"). I consider her to have been a half-sister of Cheops.
- (4) Queen Nefertkauw, the eldest daughter of Sneferuw, buried in mastaba G 7050; her mastaba is in the line of the pyramids but set back several meters from the line of pyramid G I-c, and is decidedly inferior to the mastabas of the sons and daughters of Cheops in the adjacent cemetery. Her relation to Cheops is not absolutely certain.²

These four tombs are on the western side of Queens' Street in the great royal cemetery of Cheops east of his pyramid. At least two other ladies are mentioned in inscriptions, but their tombs have not been identified:

- (5) Queen Meryt-yetes, who passed from the harem of Sneferuw into that of Cheops and was still alive in the reign of Chephren; she was probably only a beautiful concubine of no importance for the subsequent history.
- (6) Queen Sedyt, the mother of Prince Merib (of mastaba G 2100), who was a king's daughter, but whether married to Cheops or to one of his two sons is uncertain.

As far as I can now judge, it was the queen of pyramid G I-a who mothered the chief and direct branch of the family, Chephren and his descendants, while the queen of pyramid G I-b was the foreign lady who was the ancestress of the secondary line, Radedef and his descendants. The fourth queen, Nefert-kauw, was the mother of Prince Neferma'at of Giza and the grandmother of Neferma'at's son Sneferuw-khaf; but neither of these appears to have attained importance in the family. They may be dismissed after the fact is noted that in the three inscriptions found in their mastabas they derived their descent from Sneferuw and never mention Cheops, the probable husband of Nefert-kauw.

A certain number of enlightening facts are known, some of them since many years and others from the recent excavations. King Radedef succeeded his father Cheops. If my reconstruction is correct, his claim by birth was not so great as that of the eldest son Ka-wa'ab (mastaba G 7110 + 7120) or Chephren (pyramid G II). He left the royal cemetery at Giza, where his father had already provided two great

¹ See *Bulletin of the Museum of Fine Arts*, Boston, May, 1927.

² See *Ä. Z.*, 64, pp. 97-99.

cities of mastabas for his family, as if he wished to separate himself from his brothers and sisters and start a new royal cemetery at Abu Roash. Chephren, who followed Radedef, returned to Giza to build his great pyramid, to carve the Sphinx, and to place himself with the rest of the family of Cheops. The fair-haired Hetep-heres II, whom I take to have been a daughter of the Libyan queen and a full sister of Radedef, was married three times — first to Ka-wa'ab, her eldest half-brother, second to Radedef, her full (?) brother, and third to the great noble, Ankh-haf. Probably Ka-wa'ab was already dead when Radedef came to the throne. His granite sarcophagus was very roughly finished and the burial pit for his wife (in mastaba G 7110) was never completed. And Radedef was certainly dead when Hetep-heres II passed to Ankh-haf. In the tomb of her daughter, Meresankh III, the blond Hetep-heres inscribes herself as "daughter of the King of Upper and Lower Egypt, Cheops," an unusual procedure which can mean only that Cheops was long dead and another king on the throne. Her daughter, Meresankh III, was probably married to Chephren; and Hetep-heres II imitated her half-brother and son-in-law Chephren in adding her tomb to the cemetery of Cheops at Giza, where her mother was buried, as well as her first and third husbands, to both of whom she had borne children. By this act she appears to have separated herself definitely from the party of Radedef, which held no doubt to the cemetery at Abu Roash.

Another son of Cheops whose tomb suggests a tragic fate was the wise man Hordedef (mastaba G 7210 + 7220), known from the drinking song of King Yentef and from the story of Cheops and the magician Dedi. The granite coffin in which he had been buried stood unfinished in the burial chamber with the red lines of the stone masons and the incomplete saw-cuts plainly visible. And in his tomb chapel, all the inscriptions and reliefs had been chiseled away by an enemy.

Tentatively, I would group the chief sons and daughters of Cheops as follows:

(a) The main branch of the family:

- (1) Prince Ka-wa'ab, mastaba G 7110 + 7120; first husband of his half-sister, the blond Hetep-heres.
- (2) King Chephren, pyramid G II; married Khamerernebti, his full sister; Meresankh III, his niece, and other ladies.
- (3) Prince Hordedef, mastaba G 7210 + 7220; whose inscriptions were destroyed.
- (4) Prince Khnumbaf (?), mastaba G 7310 + 7320.
- (5) Princess and Queen Meresankh II, married Radedef (?), mastaba G 7410 + 7420.
- (6) Prince Khufuw-khaf, mastaba G 7130 + 7140.
- (7) Prince Min-khaf, mastaba G 7430 + 7440.
- (8) Princess and Queen Per[senti], rock-cut tomb L G 88.

(b) The secondary branch of the family:

- (1) King Radedef, pyramid at Abu Roash.
- (2) Queen Hetep-heres the fair-haired; for whom was built mastaba G 7530 + 7540, but whose burial-place has not been found; married Ka-wa'ab and then Radedef; probably second wife of Radedef.
- (3) Queen Khentenka, chief wife of Radedef.

(c) The third branch, descended from Queen Nefert-kauw, the eldest daughter of Sneferuw:

- (1) Prince Neferma'at of Giza, mastaba G 7060.

The secondary branch came first to the throne after the death of Cheops in the person of King RADEDEF. He was, as I believe, a son of the Libyan queen and had married at least one of his sisters of the main branch, perhaps Meresankh II, a marriage which would have strengthened materially his claim to the throne. He probably married his full sister, the blond Hetep-heres II, after his accession, with the object of increasing her rank from that of king's daughter to king's wife. Of the Queen Khenten-ka, we know only the name. Radedef seems to have reigned only a short time (Turin Papyrus, 8 years), and I think that the main branch of the family was in open enmity if not in active resistance to his domination. On his death, his brother Chephren came to the throne, but Radedef's family did not accept the decision as final, and his son Bakara (Bicheris) made a more or less successful struggle for the throne in later years.

CHEPHREN, who became the fourth king of the dynasty, judged by his works was only a little less powerful than his father Cheops. He married the following ladies:

- (a) Princess Khamernernebti I, his full sister of the main branch, who thus became queen and was to be later mother of the king when her son Mycerinus came to the throne; buried in the Galarza tomb.
- (b) Princess Meresankh III, his niece of a mixed marriage between the two branches; buried in mastaba G 7530; mother of Prince Nebemakhet.
- (c) Queen Hezhekenuw, who appears in the tomb of her son Sekhemkara (L G 89), but was not of the royal family.
- (d) Princess Per[senti]; buried in L G 88; mother of Nekauwra.

Chephren built only one small pyramid for a queen, and that may never have been used. The name of the person for whom it was intended has not been found. Only a few of his chief children have been identified:

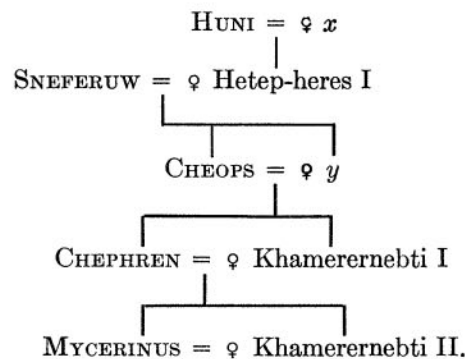
- (1) First (?) eldest son, Prince Nekauwra; rock-cut tomb L G 87; mother, Queen Per[senti]; married Kannebti, the granddaughter of a king, and had three children.
- (2) Second (?) eldest son, Prince Sekhemkara; rock-cut tomb L G 89; son of Queen Hezhekenuw; also married a king's granddaughter, Khufuw- . . . t, and had a son of his own name; he lived to the reign of Sahura of Dynasty V.
- (3) King MENKAUWRA, pyramid G III; son of Khamernernebti I of the blood royal; married his full sister, Khamernernebti II.
- (4) Queen Khamernernebti II; probably buried in pyramid G III-a; mentioned in Galarza tomb, and in the tomb of her son Khuwnera.
- (5) Prince Nebemakhet, rock-cut tomb L G 86; son of Meresankh III; married a king's granddaughter, Nub-hotep.
- (6) Princess Shepset-kauw, mentioned in tomb L G 86; daughter of Meresankh III.
- (7) Prince Duwanera, mentioned in tomb L G 86, and perhaps the Prince Duwanera of mastaba G 4510; son of Meresankh III.
- (8) Prince Khnumbaf; mastaba G 5230.

It is quite clear that, of all the known princes, Menkaura had the clearest title to the throne. He certainly succeeded his father as King of Egypt.

King MYCERINUS was married in all probability to the three queens buried in the small pyramids G III-a, G III-b, and G III-c. No name was found in any of the three and thus we know the name of only one of his wives, his full sister Khamernernebti II. She was probably buried in the first of the small pyramids, G III-a. Her name occurs in the Galarza tomb and in the tomb of her son Khuwnera in the Mycerinus quarry. The others were probably sisters or cousins. His chief children were:

- (1) The eldest son, Prince Khuwnera, buried in a rock-cut tomb in the Mycerinus quarry; son of Khamernernebti II.
- (2) King SHEPSESKAF, buried in the "Mastabat el-Faraon" at Saqqarah (identified by Prof. Jéquier); he completed the tomb of his father Mycerinus in year 2 of his reign.
- (3) Prince Min-Yuwen, L G 92.

Thus, in the direct line, the descent of Mycerinus was as follows:



King Mycerinus was of the purest blood royal on the side of his father and mother, and of his grandfather and grandmother back to the mother of the dynasty, Hetep-heres I.

The date of Mycerinus and the chronology of Dynasty IV still present great difficulties. There can be no doubt that the kings after Cheops recognised by the Abydos List and by three lists known from contemporary private tombs were Radedef, Chephren, Mycerinus, and Shepseskaf, followed by Weserkaf, the first king of Dynasty V. Three other important sources, no one of which is, however, contemporary with Dynasty IV, add two or three more kings to the list of Dynasty IV, and it must be admitted that the annals of the kings of Egypt had kept a record of these additional names. The three private lists, and indeed all such lists taken from autobiographies, give the names of the kings with whom the autobiographer had personal relations, so that the omission of the three kings from these lists is not proof against their having ruled Egypt. The omission of the three unknown kings from the Abydos List would seem to indicate that there was some flaw in the claims of these kings to the kingship. The Turin Papyrus, which follows the annals, inserts them, as does the Saqqarah List; and Manetho gives at least two of them by name. Unfortunately in both the Turin Papyrus and the Saqqarah List the cartouches in question are broken away so that the names are not recoverable. Manetho gives the names Bikerhis, Thamphthis, and perhaps Seberkheres; but misplaces the name of Radedef (Ratoises) and perhaps omits Shepseskaf (unless Seberkheres is identified as Shepseskaf).

It is necessary to examine the matter in detail, taking the Turin Papyrus as a basis.¹ Meyer's reconstruction (which gives Huni, 24 years; Sneferuw, 24 years; Cheops, 23 years; and Radedef, 8 years) appears a safe basis for the first part of the dynasty. It is clear from the facts and inscriptions found in the funerary temples of Mycerinus that Shepseskaf was his son and completed the Third Pyramid and its temples in his own second year. Shepseskaf therefore succeeded his father immediately or after only a few months of struggle with a claimant of the other branch of the family and, according to the lists which give six kings to the dynasty, was the last of the family of Cheops, — that is, the last of the main branch of the family. The following reconstructions show the chief possible ways of arranging the kings according to the facts given in the Turin Papyrus (the numbers of the lines on the left refer to the line numbers of column 3 in Meyer, *op. cit.*, Tafel IV):

T-1	Years	T-2	Years	T-3	Years	T-4	Years	T-5	Years
9. Sneferuw	24	Sneferuw	24	Sneferuw	24	Sneferuw	24	Sneferuw	24
10. Cheops	23	Cheops	23	Cheops	23	Cheops	23	Cheops	23
11. Radedef	8	Radedef	8	Radedef	8	Radedef	8	Radedef	8
12. Chephren	x	Chephren	x	Chephren	x	Chephren	x	Chephren	x
13. Mycerinus	x	X-1	x	X-1	x	X-1	x	X-1	x
14. Shepseskaf . . .	x	Mycerinus	x	X-2	x	X-2	x	Mycerinus	x
15. X-1	18*	Shepseskaf . . .	18*	Mycerinus	18*	X-3	18*	X-2	18*
16. X-2	4	X-2	4	Shepseskaf . . .	4	Mycerinus	4	Shepseskaf . . .	4
17. X-3	2	X-3	2	X-3	2	Shepseskaf . . .	2	X-3	2

* The number may be read 28 instead of 18.

It must be remembered that we are dealing mainly with probabilities. Certainty is at present beyond hope. Reconstruction T-2, which gives 18 (28) years to Shepseskaf, and any similar reconstruction must be ruled out. Shepseskaf by all the fragments of inscriptions and by the archaeological evidence ruled much less than 10 years. Reconstructions T-1, T-4, and T-5 assign the 18 (28) years of the papyrus to one of the three extra kings. It is inconceivable to me that a king who had 18 (28) regnal years should have been omitted from any list. T-4 would set 4 years opposite the name of Mycerinus, which is a sheer impossibility. Thus I conclude that T-3, which gives 18 years to Mycerinus and 4 to Shepseskaf, is the most probable reconstruction for the Turin Papyrus, and I would read 18, not 28, for Mycerinus.

The list of the kings given by the fragments of Manetho² was undoubtedly based on the ancient annals and is now in a very corrupt form, but appears to group the kings of the secondary branch of the family beginning with Radedef at the end of the dynasty.³ But Radedef (Ratoises) is out of order, being sixth instead of third in the list; one king is omitted; and the name of the seventh king,

¹ See Ed. Meyer, *Chronologie*, p. 142.

² See Meyer, *op. cit.*, opposite p. 145.

³ See Daressy, *Bull. Inst. Franç. XII*, p. 204.

Seberkheres, is difficult to identify. Most scholars consider that Seberkheres is a mutilation of Shepseskaf, which is possible, and then the omitted king is X-2. Bikhheris would be X-1, and Thamphthis, X-3. But it requires too much ingenuity to make Shepseskaf into Seberkheres. Seberkheres is clearly a name ending in *ka-ra* (cf. Menkheres), and possibly corrupted from Neferkara. I suggest therefore that Seberkheres represents X-2 and that Shepseskaf is omitted, perhaps through some confusion between Seberkheres (Neferkara) and Shepseskaf. The Manetho list is as follows:

As given	Years	Order corrected by T-3	Years	Daressy's order	Years
1. Soris	29	1. Soris	29	1. Soris (Sneferuw)	29
2. Souphis I	63	2. Souphis I	63	2. Souphis I (Cheops)	63
3. Souphis II	66	5. Ratoises	25	5. Ratoises (Radedef)	25
4. Menkheres	63	3. Souphis II	66	3. Souphis II (Chephren) .	66
5. Ratoises	25	6. Bikhheris	22	6. Bikhheris (Bakara)	22
6. Bikhheris	22	7. Seberkheres	7	4. Menkheres (Mycerinus) .	63
7. Seberkheres	7	4. Menkheres	63	8. Thamphthis (Dedefptah) 9	
8. Thamphthis	9	9. [Shepseskaf	x]	9. King D (= X-2, omitted) x	
9. Omitted king	x	8. Thamphthis	9	7. Seberkheres (Shepseskaf) 7	
Total277 [read 284]			

The figures which give the years of the reigns are obviously fantastic, as will be shown later in this discussion. Modifying Daressy's suggestion, I take it that Manetho gave first the five kings of the main branch,—Sneferuw, Cheops, Chephren, Mycerinus, and Shepseskaf,—of which the last name was later omitted by copyists. Then he gave the four kings of the secondary line,—Radedef, Bakara (?), Seberkheres (Neferkara?), and Thamphthis. Or alternately Thamphthis was of a third branch. If Daressy's order be set against the figures in the Turin Papyrus, then Thamphthis (Dedefptah?) receives 18 (28) years; king D (X-3), 4 years; and Seberkheres (Shepseskaf), 2 years. This reconstruction is open to the same objection as T-1, T-4, and T-5 above, in that it is incredible that a king named Thamphthis (Dedefptah) should have ruled Egypt for 18 (28) years and left no trace of himself in a period so rich in private and royal monuments as Dynasty IV.

Since the discovery of the tomb of Meresankh III in 1927, the problem may be approached from a different angle. Meresankh III was a granddaughter of Cheops, on both sides, being a daughter of the blond Hetep-heres II, herself a daughter of Cheops, and of Kawa'ab the eldest son of Cheops. Kawa'ab was the first husband of Hetep-heres II and King Radedef was the second. Meresankh claims the title "king's daughter of his body" which cannot be taken literally as she was the child of Kawa'ab. But if she were a babe at the breast when Radedef married Hetep-heres II, or if Meresankh was born in the palace of Radedef after the marriage, the title would have been a natural courtesy title. I take it that Meresankh III was born about the first year of Radedef, perhaps a little before or a little after. Meresankh III was married to her uncle Chephren, as is proved by the estate names in the tomb of her son, and she bore him at least five children. The eldest son, Prince Nebemakhet, was an adult man of the rank of "lector-priest" as represented in the tomb prepared for his mother in the year of her death. The tomb made for Meresankh is of the rock-cut type commonly used for members of the family of Chephren who died after the accession of Mycerinus, and is actually nearest in form to two tombs, Debehen (L D 90) and Prince Khuwnera son of Mycerinus, both of which were made in the latter part of the reign of Mycerinus. Two inscriptions on the doorway of her tomb record that she died in the first year of an unnamed king and was buried nine months later. I conclude from the type of tomb that Meresankh III died in the first year of Shepseskaf, the nearest first year to the tombs, Debehen (L D 90) and Khuwnera. Dr. Derry has made a careful examination of the skeleton of Meresankh and has given his judgment that she was over fifty years of age and probably about fifty-five when she died. This would give us about fifty-five years from the first year of Radedef to the first year of Shepseskaf. Deducting 8 years for Radedef, and 18 for Mycerinus, a total of 26 from the 55 years of Meresankh, we get about 29 years for the intervening time, which includes the reign of Chephren and whatever there may have been of the reigns of X-1 and X-2. That is, the two following reconstructions may be worked out on the basis of T-1 and T-3 respectively:

Reconstruction A (on basis of T-1):

	Years
1. Sneferuw	24
2. Cheops	23
3. Radedef	8
4. Chephren	29 or 32
5. Mycerinus	18 or 15
6. Shepseskaf	4 or 6
7. X-1 (Bakara?)	18 or 28
8. X-2 (Neferkara?)	4
9. X-3 Dedefptah?	2
—	
Total	130 or 132 or 142

Reconstruction B (on basis of T-3):

	Years
1. Sneferuw	24
2. Cheops	23
3. Radedef	8
4. Chephren	} 29
5. X-1 (Bakara?)	
6. X-2 (Neferkara?)	} 18
7. Mycerinus	
8. Shepseskaf	4
9. X-3 (Thamphthis?)	2
—	
Total about	108

Reconstruction A, based on T-1, I regard as extremely improbable but I select it for comparison with reconstruction B, based on T-3, in considering the control afforded by five lives recorded in private inscriptions. The five lives are as follows (Cf. Scharff, *O. L. Z.*, February, 1928):

- (a) QUEEN MERYTYETES: known from an inscribed stone found at Giza; she was not a "king's daughter" but was married to Sneferuw and then Cheops and "honored before" Chephren. She was at least twelve years old but perhaps still a virgin when Sneferuw died, and certainly not over thirty at that time. She lived into the reign of Chephren but how long is a matter of conjecture. Her age works out approximately the same for both A and B:

	Min. age	Max. age	Mean age
If 12 at death of Sneferuw	44 years	69 years	57 years
If 30 at death of Sneferuw	62 "	87 "	75 "

- (b) PRINCE SEKHEMKARA: rock-cut tomb L G 89; as the second (?) eldest son of Chephren, he may have been born before the accession of his father, certainly not long after; he was "honored before" Chephren, Mycerinus, Shepseskaf, Weserkaf, and Sahura. Sahura ruled 12 years. Counting from the first year of Chephren:

	Min. age	Max. age	Mean age
By A (T-1)	83 years	94 years	88.5 years
By B (T-3)	61 "	72 "	66.5 "

- (c) PTAHSHEPSES: mastaba at Saqqarah (Mariette, *Mastabas*, C 1, p. 110): son-in-law of Weserkaf;¹ he was born in the reign of Mycerinus, was a boy in the women's apartments of the palace of Shepseskaf, married Ma'at-kha, the eldest daughter of Weserkaf, and lived to some time in the reign of Neweserra. I would place his birth in the last five years of Mycerinus. Neweserra ruled about 32 years.

	Min. age	Max. age	Mean age
By A (T-1), if born in last year of Mycerinus	72 years	102 years	87 years
if born 5 years before death of Mycerinus	77 "	107 "	92 "
By B (T-3), if born in last year of Mycerinus	50 "	80 "	65 "
if born 5 years before death of Mycerinus	55 "	85 "	70 "

- (d) NETERPUWNESUT: tomb at Giza reported by Gauthier in *Annales*, XXV, p. 180; "lord of honor" before Radedef, Chephren, Mycerinus, Shepseskaf, Weserkaf, and Sahura. If we count his life as beginning in the first year of Radedef, the limits of error are only plus or minus 5 years. As he probably died in the reign of Sahura, the 12 years of that reign cover the year of his death.

	Min. age	Max. age	Mean age
By A (T-1), if born in year 5 of Radedef	86 years	97 years	91.5 years
if born in year 18 of Cheops	96 "	107 "	101.5 "
By B (T-3), if born in year 5 of Radedef	64 "	75 "	69.5 "
if born in year 18 of Cheops	74 "	85 "	79.5 "

- (e) QUEEN HETEP-HERES II: in the tomb of her daughter, Meresankh III (see preceding paragraphs), G 7530: she was a daughter of Cheops and was alive in the first year of Shepseskaf when her daughter Meresankh III died at about 55 years of age. Meresankh, who was by her first husband and was born about the beginning of the reign of Radedef, was perhaps her first-born child. At that time Hetep-heres II was not less than 12 and not more than 25 years of age. At the time of her daughter's death about 55 years later, Hetep-heres II was between 67 and 80 years old. By both A and B, Hetep-heres II would have been born between the last year of Sneferuw and the 12th year of Cheops.

¹ See Sethe, *Urkunden I*, pp. 51-53. I have varied Sethe's reconstruction of the career of Ptahshepses in the manner indicated above.

The three lives, *b*, *c*, and *d*, are those which offer independent material on the period in question, and the facts presented may be summarized as follows:

		Min. age		Max. age		Mean age
By A (T-1)	(b)	83 years		94 years		88.5 years
	(c)	72-77	"	102-107	"	87-92
	(d)	86-96	"	97-107	"	91-101
By B (T-3)	(b)	61	"	72	"	66.5
	(c)	49-54	"	79-84	"	64-69
	(d)	64-74	"	75-85	"	69-79

By Manetho, taking latest possible date of birth and earliest possible date of death, we get the following absolute minimal lives:

	Order T-3	Daressy's order
(a) If 12 at death of Sneferuw	101	101
(b) If born last year of Chephren	102 + <i>x</i>	102 + <i>x</i>
(c) If born last year of Mycerinus	53 + <i>x</i>	60 + <i>x</i>
(d) If born last year of Radedef	168 + <i>x</i>	168 + <i>x</i>
(e) If born last year of Cheops	173 +	184 +

Except for life *c*, the figures by Manetho are simply fantastic; and life *c* is made reasonable because only reigns are involved for which reasonable figures are given. Any chronological arrangement based on Manetho requires no further consideration. The three persons of greatest value, *b*, *c*, and *d*, certainly lived longer than the ordinary man, but we have no proof that they attained the extreme ages indicated by both the minimum and the mean figures for reconstruction A (T-1). In the preceding pages I came to the conclusion that T-1 was improbable because a reign as long as 18 (28) years was incredible for one of the missing kings. From the present examination of the three lives, *b*, *c*, and *d*, this reconstruction again appears improbable, and could only be saved by making the reigns of X-1, X-2, and X-3 contemporary or partly contemporary with Chephren, Mycerinus, and Shepseskaf. That solution brings us, however, practically to reconstruction B (T-3), which I have myself adopted.

The above discussion has dealt largely with approximations and probabilities and is therefore manifestly subject to modification by fresh material from the excavations. Moreover, the basis is Professor Meyer's reconstruction of the Turin Papyrus; and the basis may be broken up by some fresh combination of the fragments of that document. In conclusion, I give the chronological reconstruction of Dynasty IV which I have now adopted as a working hypothesis:

DYNASTY IV:	Years
1. Sneferuw	24 ¹
2. Cheops	23 ¹
3. Radedef	8 ¹
4. Chephren	29 to 23
5. X-1 (Bikheris-Bakara?)	0 to 5
6. X-2 (Seberkheres-Neferkara?)	0 to 1
7. Mycerinus	18 ¹
8. Shepseskaf	4 ¹
9. X-3 (Thamphthis-Dedefptah?)	2 ¹
Total	108

Average reign of six legitimate kings — 16.6 to 17.6 years.

Average reign including three usurpers — 12 years.

DYNASTY V (see Dr. Scharff, <i>O. L. Z.</i> , February, 1928, p. 78):	Years
1. Weserkaf	7
2. Sahura	12
3. Neferirkara	(12?)
4. Shepseskara	7
5. Khaneferra	(4?)
6. Newesera	(32?)
7. Menkauwhor	8
8. Dedkara	28
9. Wenes (Unas)	30
Total	140

Average reign of nine kings — 15.5 years.

¹ Figures taken from the Turin Papyrus.

The absolute date of Dynasty IV, it must be admitted, is still a point on which the material available permits no decision. The dates which have been given for the beginning of the dynasty vary from Meyer's 2840 B.C. to Petrie's 4803 B.C. The difficulty arises out of two periods in Egyptian chronology left obscure by lacunae in the lists and by the paucity of contemporary documents — (a) the period between the end of Dynasty XII and the beginning of Dynasty XVIII which includes the Hyksos period, and (b) the period between the end of Dynasty VI and the beginning of Dynasty XI. Professor Meyer's date for Dynasty IV was based on a scientific attempt to bridge the first gap (the Hyksos period) by means of the accumulating differences between the calendar year and the solar year, which amount to one calendar year in 1460 solar years (the so-called Sothic Period). He relied on a hieratic papyrus from Kahun published by Professor Borchardt, in which temple officials were notified that the heliacal rising of the star Sothis (Sirius) was to fall on the sixteenth day of the seventh month in year seven of Sesostris III, and a reconstruction of four Sothic periods backwards from July 19, A.D. 140–144. In my opinion that attempt has failed because, primarily, of the shortness of the period indicated by that method for Dynasties XIII–XVII. I believe that the only method which remains is that of an addition of the known lengths of the reigns beginning with Dynasty XVIII and working back into the past, to which are to be added reasoned estimates of the lengths of the unknown reigns. As members of that addition, certain groups of reigns must figure with wide limits of error and these limits of error will accumulate as the calculation approaches Dynasty I. For my present purpose, as an approximate indication of the date of Mycerinus, I estimate that the first year of Sneferuw falls somewhere within the period 3100–2900 B.C. (3000±100 B.C.). Mycerinus died about 100 years later or about 2900±100 B.C.

As I said early in this chapter, the division in the family of Cheops and the subsequent dynastic troubles were due to rivalry for the throne among the children of his various wives. I have no doubt that the three kings whose names are uncertain (X-1 = Bakara?; X-2 = Neferkara?; X-3 = Dedefptah?) were descendants of Radedef and formed the leading persons of the secondary branch of the family. The first reign to be seriously affected was that of Chephren. He had evidently intended to build small pyramids for his queens along the southern side of his pyramid as did his son Mycerinus after him, but he never carried out this intention. One small pyramid was certainly nearly finished when he died but was probably never used. Very few of his family are buried in cased mastabas. Most of them, Khamerernebti I, his chief queen, Prince Sekhemkara and Prince Nekauwra both claiming the title of eldest son, Queen Per(senti) the mother of Nekauwra, Queen Meresankh III and her son, Prince Nebemakhet — were buried in cheap rock-cut tombs. It is probable that all these rock-cut tombs were prepared after the death of Chephren. In any case, Chephren had not prepared the customary types of tombs for these members of his own family. His full resources were being taken by the effort to complete his funerary monuments, only a little less in grandeur than those of Cheops. Something happened to delay or prevent his completing the subsidiary tombs of his family, and I have no doubt that the cause was the more or less open revolt of the descendants of Radedef. The point on which I feel doubt is whether Bakara (?) and X-2 had short reigns as rebels during the reign of Chephren or whether they intervened between Chephren and Mycerinus with a few years of interlude during which Mycerinus was seeking to establish his control of the kingdom. In any case, Mycerinus succeeded to the troubles of his father, Chephren; and it was probably during the early part of his reign that the rock-cut tombs of his father's family, including that of his own mother Khamerernebti I, were excavated in the cliff southeast of the Second Pyramid.

Once firmly in the saddle, Mycerinus began the preparation of a pyramid smaller than those of his father and grandfather, but designed to be cased in Assuan granite, with two large granite-cased temples, and three pyramids for his queens, at least one of which was to be cased in granite. The expenditure contemplated was not much less than that of his ancestors, and the statues which he ordered were only a little less in number and in size than those of his father Chephren. All this costly work was proceeding when Mycerinus died quite unexpectedly. The pyramid was then cased in granite to about a third of its height; the outer part of the pyramid temple was partly cased, the offering room in red granite and the rest in black; the inner temple had been begun in red granite, but the limestone core-walls which were

to form the dividing walls of the rooms in the southeastern part of the outer temple had not yet been set up. At the valley temple the limestone core-walls were all unfinished. At the pyramid of the chief queen, the granite casing had been begun and the limestone foundations for the small temple had been set in place. The cores only of the other two small pyramids had been constructed and were perhaps incomplete. Many of the statues and vessels were unfinished and were deposited in the temples in all stages of manufacture. His son Shepseskaf hurriedly finished the pyramid in limestone and the temples in crude brick, set the unfinished statues and vessels in the temple magazines, and appears to have endowed the funerary services of his father in the second year of his own reign.

When Mycerinus came to the throne a large part of his father's immediate household was still alive. The evidence is clear for Queen Khamerernebti I, the mother of Mycerinus, Queen Per(senti), Queen Meresankh III, and doubtful for Queen Hezhekenuw. Khamerernebti and Per(senti) were daughters of Cheops (sisters of Chephren), while Meresankh was a granddaughter of Cheops and a niece of Chephren. Other persons of the older generation, that of Chephren, were no doubt still alive, with their burial-places already prepared in the royal cemetery of Cheops. The blond Hetep-heres II, daughter of Cheops, was certainly living, and perhaps her third husband Ankh-haf. We also know of others who may have been witnesses of the accession of Mycerinus — Prince Khufuw-khaf, Prince Min-khaf, Prince Duwanehor, and Prince Neferma'at of Giza. Of the royal princes and princesses, the brothers and sisters of Mycerinus, we have the names of Prince Nekauwra, Prince Sekhemkara, Prince Nebemakhet, Prince Duwanera, Princess Khamerernebti II, and Princess Shepseset-kauw. A number of other names may ultimately be assembled of royal children and grandchildren alive at the accession of Mycerinus, but that must await the final reconstruction of the history of the whole Giza cemetery. Most of the persons of the older generation died during the 18 years assigned to the reign of Mycerinus; but at the death of Mycerinus, the blond Hetep-heres II, daughter of Cheops, was still vigorous; her daughter, Meresankh III widow of Chephren, Prince Sekhemkara, Prince Nebemakhet, Princess Shepseset-kauw, and probably other children of Chephren were also alive.

Queen Khamerernebti II, the full sister of Mycerinus, is fully documented by the inscriptions of the Galarza tomb and the tomb of Khuwnera in the Mycerinus quarry, as the daughter of Khamerernebti I and the wife of Mycerinus. We know only one of her children, Khuwnera, the son of Mycerinus. Her tomb was probably the small pyramid G III-a. In the floor of the temple of that pyramid was carefully buried a small jar containing model stone vessels bearing the name of the "king's son, Kay"; and it is possible that Kay was another of her sons. Whether she was the mother of Shepseskaf or not, is uncertain. Mycerinus had of course other queens, two of whom were probably buried in the small pyramids G III-b and c. But the absence of inscriptions or reliefs in the crude-brick chapels of the pyramids of the queens, the complete plundering of the burial chambers, and the lack of inscribed stone coffins, have obscured our knowledge of their names and their personalities. The members of the immediate family of Mycerinus whose portraits appear most clearly are Mycerinus himself, Queen Khamerernebti II, and Prince Khuwnera. The queen is seen in the female figure of the slate pair and indeed in the figures of the goddesses in the triads, which are manifestly carved in her likeness. She is also represented in relief in the tomb of her son Prince Khuwnera. Prince Khuwnera is himself pictured in the same tomb both as a boy and as a man, and is represented as a squatting scribe in a small statuette now in Boston. Mycerinus is portrayed by the slate pair, the broken alabaster statue, the nearly complete alabaster statue, the alabaster head (in Cairo), the king in the four slate triads, and by several unfinished statuettes — a total of more than nine portraits. Whether the youthful alabaster head is a portrait of Shepseskaf, as I thought for a long time, or is a portrait of Mycerinus as a young man must be left undetermined. Our picture of Mycerinus is clear, a man with head proportionally small compared to the large broad-shouldered body. His face was full, in later life with heavy lips and bulging eyes. The best portrait of him is, I think, the large, fragmentary alabaster statue in Boston.

With Mycerinus, Egyptian sculptural art had reached its highest point in forms, technique, and the use of hard stone. The same craftsmen who had worked for Chephren, or many of them, were still active and no appreciable advance had been made over the statues of the preceding generation. As for the reliefs, the climax in limestone had been reached in the reign of Cheops or perhaps even as early as

Sneferuw. The carving of sunk reliefs in granite was used in making inscriptions as early as the reign of Chephren; but this hard stone seems to have discouraged the carving of true reliefs during the whole Old Kingdom. The high standard attained in both statuary and reliefs by the craftsmen who worked for Mycerinus and his direct ancestors was to be maintained and widely distributed during Dynasties V and VI, and to decline towards the end of Dynasty VI with a rapid deterioration in the succeeding obscure period. But when Egyptian sculpture revived in Dynasties XI–XII, the influence of the forms and of the technical methods of Dynasty IV is plainly visible and can be traced down to the end of Egyptian art.

In architecture, likewise, the royal family of Dynasty IV played a great rôle. The first characteristic Egyptian architecture was developed during Dynasties I and II, using crude brick with wooden doorways, columns, and roofs. The forms of the crude-brick architecture were translated into limestone by Imhotep and used by him in the temples and chapels of the Step Pyramid at Saqqarah, the tomb of Zoser, first king of Dynasty III.¹ Imhotep generally used small blocks of limestone in his finer masonry and small blocks in the core of the pyramid. About eighty years later, Sneferuw and Cheops were using much more massive blocks in the cores, in the casings, and in the wall masonry. The architects of Cheops began the substitution of hard stone (basalt and granite) for limestone in walls and casings, and this development was continued during the succeeding reigns of Dynasty IV. It was the use of this more obdurate material, not yet perfectly mastered in the mass, which produced the archaic appearance of the valley temple of Chephren (the granite temple beside the Great Sphinx) with its square granite pillars. In Dynasty V the use of granite had been carried further, as is shown by the beautiful palm-columns of the temple of King Sahura (excavated by the Germans at Abusîr). The thickness of the walls, which is so characteristic and necessary in the larger forms of the crude-brick architecture, was never eradicated from the stone architecture of Dynasty IV, and the imitation of the wooden parts of the structure continued unabated to the end of the Old Kingdom. Shepseskaf, the son of Mycerinus and the last king of the family descended from Sneferuw and Hetep-heres I, used the characteristic massive masonry of Dynasty IV in his mastaba at Dahshûr (Mastabat-el-Faraon). But in Dynasty V the pyramids had become smaller and far less solid in construction, although in other ways an advance was made in the structural use of stone.

In metal working, in the manufacture of vessels of stone and pottery, in wood working, and in all the other crafts, the men who worked for the royal family of Dynasty IV exhibit an excellence which may have been attained before their time but was certainly never excelled in later times. The beautiful gold-cased furniture of Queen Hetep-heres I, the mother of Cheops, has now been recovered with all the joints, tenons, and mortises of its woodwork preserved in the shrunken wood, or indicated by the marks on the gold cases. The carrying chair in its graceful lines and restrained decoration is a singular testimony to the skill of the craftsmen and their artistic sense. The silver anklets decorated with dragon flies inlaid with turquoise, lapis lazuli, and carnelian would be a notable achievement for the jewelers of any age. The panels inlaid with faience and gold, some in well-known and others in quite unexpected patterns, the gold hieroglyphics on the carrying chair, the gold and copper toilet implements, and three small gold vessels, and above all the wonderful reliefs on the door-jambes of the bed-canopy, reveal the invention, the skill, and the distinguished taste of the family of Hetep-heres. For most of these objects appear to have been taken from her own palace. Hetep-heres was the mother of Dynasty IV; and her descendants were the kings under whom the Egyptian architects and sculptors were to produce the most famous of Egyptian monuments — the pyramids of Giza, the Great Sphinx, and the portraits of Chephren and Mycerinus.

The chief gods of this family, as recorded in their inscriptions, were Ra, Horus, Ptah, and Thoth; the chief goddess was Hathor-Mistress-of-the-Sycamore-Tree, but the frog goddess Hekat was also a favorite and Neith is mentioned. The god of the dead was Anubis. Osiris does not occur in any of the inscriptions of the family. The temple services were probably similar to those of later times, consisting of the care of the property of the god, the presentation of offerings and prayers for the well-being and prosperity of the king and of individuals. The king was Horus, son of Ra, and when he died became Ra

¹ See C. M. Firth in *Annales*, 1924–1930.

in the heavens. The temple services were probably similar to those of later times, and apart from the care of the buildings, the statues, the altars, and the equipment of vessels and implements, consisted of glorifications and the presentation of offerings intended to gratify and propitiate the gods. In addition to daily services there were great festivals in which the whole community participated. The temple staff and the services were supported by endowments of lands and fixed proportions of various sources of royal income, and the king appears to have been the chief person named to the gods in the temple ceremonies. In the great festivals held in temples of the capital city the king "appeared" in full royal regalia or in a ceremonial dress of peculiar traditional form. But of course every participant in the festivals and in the ordinary services profited in some way; and there was a multitude of private offerings and prayers on behalf of individuals which were duly paid for and duly booked as part of the income accruing to the priests and officials of the temple. Each temple appears to have had its separate and independent organization. As far as can be seen there was no national religious organization. The two greatest religious functionaries of which we know were the high-priest of Ptah at Memphis and the high-priest of Ra at Heliopolis.

The temple services were mainly for the benefit of the living. The provision of a satisfactory life after death was secured by elaborate tombs of various kinds and by private endowments of agricultural land. The belief which lay behind the funerary customs and practices is found all over the world. Life after death went on as it did on earth. The spirit or *ka* of the dead had the same physical needs as when living — food, drink, sleep, amusements, and sports, and the desire to see his family life going on around him. The spirit lived as a member of a familiar community, not as an isolated soul dwelling in darkness or among strangers. In the Egyptian prehistoric period the household furniture and the personal equipment of the man or woman were buried in the grave, and that practice continued all through the first six dynasties and with modifications until very late times. The pyramid age beginning with Dynasty III was characterized by the use of elaborate tombs of the mastaba or pyramid type in which, in addition to the supply of food and furniture placed in the burial-chamber, an elaborate apparatus was invented consisting of paintings, inscriptions, and painted reliefs placed on the walls of the offering chambers in order to provide further for the daily necessities of the dead. It was a futile endeavor on the part of the men of the pyramid age to provide all the growing host of the spirit world for all time with the simulacrum of the life they had enjoyed on earth. The endeavor was doomed to failure and went far to ruin the economic basis of life of the Egyptian state during the Old Kingdom.

The written remains of the pyramid age are surprisingly abundant considering the antiquity of the period. We have a large number of the funerary offering formulas, several copies of the early form of the negative confession of the dead, the magical texts found in the pyramids of Dynasties V–VI, a number of autobiographies of important men, several wills and testaments, four or five royal decrees, and certain later copies of more ancient writings which include annals, wise sayings, medical recipes, and folk stories. All these combine to give a general picture of the culture which the ruling family assisted to create and in which they lived. The proverbs of Ptah-hotep were a characteristic product of this age of simple human materialism, in which men lived for themselves and their immediate families. The inclination must be checked to read into this life the ideals or intellectual activities of our own time.

The administration of the country was on a simple monarchical basis. The king was a god and the appointing power to all offices. Even offices which passed from father to son required royal confirmation of each heir in turn. The thing which was prized most highly by every biographer was the favor of the king. The position of the king was secured primarily by the fighting forces of his clan and of allied and subordinated clans. In Dynasty IV the military organization covered the whole country and its boundaries with a network of garrisoned forts or fortified cities. The army was organized probably on a tribal basis, with the central command at the capital city, and controlled by orders given in the name of the king. Its work consisted mainly in the maintenance of the peace, the support of the civil authorities, the protection of royal expeditions into the desert or into Nubia, and the suppression of revolt. The commander-in-chief was usually but not always a prince of the royal family. The civil administration appears to have been highly organized also, with a central authority at court and provincial governors appointed by the king. The royal income consisted of that from the king's personal estate

and from the biennial collection of taxes of various sorts. The administration of the king's personal estate was separate and was not essentially different from the administration of a private agricultural estate. The income passed apparently with the tax receipts into a common treasury. In any case the tax receipts were treated by the king as private income. The treasury as a receiving office was divided into two departments, an Upper Egyptian treasury and a Lower Egyptian treasury, and these again were subdivided into stores for gold and silver, cattle, grain, etc.; but all departments were under one head which was in charge of all records of receipts and payments. Payments were made by written orders given on the authority of the king through the chancellor. All the officials at court were paid thus according to fixed allowances and standing orders. The method of payment of the provincial governors and their staffs is obscure. The governors, who usually owned large private estates, may have been nominally unpaid officials. But their subordinates were of course on salary, either paid from local receipts or from the treasury; and it is natural to suppose that the provincial as well as the court officials enjoyed perquisites which never appeared in the books of the treasury department. In addition to the ordinary administrative expenditures there was a constant stream of unusual payments by the king — special favors shown to individuals, as when Mycerinus ordered fifty men to work on the tomb of Debehen. In every reign there was also a series of endowments for temples and for funerary chapels, and payments for new construction; and of course the king appears to have acquired new estates from time to time, but whether by payment from the treasury or by confiscation remains uncertain.

The great pyramids built by the Department of Works give visible proof of the wonderful organization and high efficiency of that department. One branch had charge of the exploitation of the mines and quarries of Egypt and Sinai. At Magharah in Sinai, where copper and turquoise were obtained, and in the alabaster quarry of Hatnub, inscriptions have been found recording visits of royal expeditions of Dynasty IV. In the granite quarries of Wady Hammamât and Assuan the records include inscriptions of Dynasties V and VI, but the Assuan deposits were certainly worked in Dynasty IV. The white limestone of Turah, the nummulitic stone of Giza, the basalt of Abu Zabel, were also exploited; and at places which cannot be so definitely named, gold, copper, various mineral colors, sulphate of lime, natron, salt, and various other substances were systematically extracted. All these activities and the ensuing transport of materials to the capital were among the duties of the public works service. In fact the transport organization provided the nomenclature of a large department, the divisions of which were called "crews," further subdivided into watches; and these crews appear to have extracted the granite blocks from the masses of stones at Assuan, to have transported them to the site of the structure for which they were intended, and actually to have set them in place. The stone workers who prepared the granite blocks for setting and dressed the walls after the structure was finished apparently belonged to a separate division. The drawing of the plans, the marking of the plan on the foundations and of the leveling lines on the walls were also the work of the department, but probably of a separate architectural division. The public works department constructed the pyramids and mastabas of the royal family, the palaces, and the temples, and made the gardens, the canals, and the artificial lakes of the king's estates. The irrigation works in the provinces were under the provincial governors, who probably had works organizations similar to that of the court and no doubt directly connected with the larger organization.

The trading expeditions to the Sudan were under the governor of Assuan but were directly responsible to the court. The inscriptions of the leaders of these expeditions give accounts of their travels but unfortunately do not throw much light on the manner of trading. They supplied the king with ivory, ostrich feathers, ebony and other woods, leopard and panther skins, resins and other vegetable substances, gold, black slaves, and other products of the southland. Similar expeditions went by ship from the Red Sea ports opposite Thebes to Punt (a land on the Somali coast?) and brought back similar products. Other expeditions went by sea to the Syrian coast to obtain cedar of Lebanon and no doubt much else. Olive oil was certainly imported from Palestine and Syria during Dynasty IV. Even a wider trade with the Greek Isles may be suspected, but direct information is lacking. These trading expeditions were entirely different from raiding parties or military expeditions looting foreign countries, and were in fact royal merchandising parties sent out by the king in his personal capacity just as his private estates were administered, but with the prestige of the king of Egypt and with the resources of his king-

dom. The goods brought back to Egypt went into the royal store-houses, not for sale but for the use of the royal family and such persons as might be favored by the king with presents.

The work of the administration was controlled and regulated by a careful system of written records and accounts. The head of every administrative department, the king's estate, the king's household, every temple, and every judicial body, had a separate organization of scribes, and every higher official had at least one writer attached to his office. Letters were written and documents prepared; copies were made to be retained and other records were kept of all orders and transactions, including receipts and expenditures in the most minute detail. It was probably the king's personal office of scribes which kept the clearing-house for all the administrative documents and general archives. The archives of the king contained those records on which the annals such as the Palermo stone and the Turin Papyrus were based, but it seems clear that certain great temple archives also kept copies of documents which emphasized the royal acts of greatest interest to the priests of the temples in question. Unfortunately, in Egypt the material used was papyrus and most of these written records have decayed or been eaten by white ants. In Babylonia, where the records were written on clay and baked, an enormous mass of such documents has been preserved to us. It should never be forgotten that writing in both Egypt and Babylonia was invented for practical purposes and came only secondarily to be used to preserve what may now be called literary productions.

Such in brief was the Egypt of Dynasty IV, of the family descended from Sneferuw and Hetepheres I. The time was not far from the climax of the great creative period of Egyptian culture. The high attainments of the Egyptians of that distant age exceed anything the world had known before in architecture and sculpture; and the expenditure on mighty monuments which have resisted destruction until our day exceeded that of any period of Egyptian history.

In considering the great work of this family it is of the highest historical interest to follow its effect in the succeeding generations. During the next two dynasties, Dynasties V and VI, Egyptian culture in all its phases was well maintained and in some ways still progressive. It is noticeable, however, that the royal pyramids were less expensive, smaller in size and less solidly built; and the great fields of royal mastabas, such as were laid out on a unified plan at Giza, are wanting. This change in the resources of the royal family is symptomatic of the change in the general economic situation. Some of the finest and most expensive mastabas of high officials were built at Saqqarah during Dynasties V and VI, and in Upper Egypt the provincial leaders provided for themselves a series of well-cut and finely decorated tombs hollowed in the limestone cliffs. Certainly the evidence points to a more general distribution of wealth instead of the extreme concentration so marked in Dynasty IV. In Dynasty VI, especially towards the end, a distinct loss of craftsmanship is visible in the sculpture. At the end of that dynasty came the extraordinarily long reign of Pepy II (94 years) in which, except for the signs noted above, the Egyptian monarchy seemed to be fixed on unalterable foundations. His successor, Mernera II, ruled a year or so and then, as far as we can see, came chaos. That was about three hundred years after the death of Mycerinus. The Egyptian social state was built on a framework of clans each occupying its own part of the valley and held in union by military power. The development of Egypt during the pyramid age had resulted in the breakdown of the force which held the country together and the state broke up into its tribal units or into small tribal confederations. This condition of decentralization lasted for about three centuries. There appear to have been almost no great men during this period. The multitude of tombs which have been excavated in Upper Egypt show a pitiful degeneration of the sculptures of the Old Kingdom, and the whole grave furniture is on the same comparative level, although many of the owners claim titles which in Dynasties IV-VI were held by royal princes and the highest officials. It is manifest that no one commanded the resources necessary to the training of great craftsmen. There was a dead level of wealth and of cultural attainment.

The cause has often been sought in some change in the river. The physical basis of life in Egypt has always been the black agricultural land of the valley and its delta, and so it remains today. It is obvious that any considerable drop in the level of the river bed would affect irrigation, but under a stable government the necessary alterations could have been carried out in a few decades or less. Any

variation in the supply of water, which depended on climatic conditions in central Africa which are of a very unchanging nature, would also have been only temporary. There is no evidence of any alteration in the river or the climate which would justify ascribing to natural causes the impoverishment of Egypt at the end of the pyramid age.

The cause of the long period of depression was certainly political, and the political cause was itself due to economic reasons. I have said that the extravagance of the royal family of Dynasty IV exceeded that of any other period. The pyramids are the outward and visible sign of this extravagance. From the point of view of Egyptian culture, the effects of their construction were of incalculable benefit — the training of craftsmen probably assembled from all over Egypt, the advance of technical methods, the creation of new forms, the invention of tools, the disciplining of large bodies of workmen to united action, and the development of a highly specialized department of public works. The workshops of the Giza pyramids were in fact great schools of the arts and crafts from which knowledge was spread all over Egypt. But on the other hand the unproductive use of bodies of twenty to fifty thousand workmen during the century of the building of the pyramids must have made a great difference in the personal estate and the resources of the kings. To make the matter clear, let us suppose that the same labor had been expended on the making of irrigation and drainage canals and in bringing new land under cultivation. The cost in food and oversight would have been the same but an enormously productive property would have been created which would have increased the wealth and power of the king. The labor was no doubt forced Egyptian labor (*corvée*), a form of taxation which persisted until quite recent times. In all probability the rations of these workmen were supplied from the royal treasury; and certainly the great staff of overseers and master-craftsmen were both maintained and generously rewarded by the king. Thus not only was the accumulation of a surplus by the king seriously affected, but the conditions were prepared for widespread discontent both among the peasantry and among the provincial chiefs whose resources were diminished by the withdrawal of able-bodied men from the fields.

Another factor in the dissipation of the king's estate in Dynasty IV was the distribution of the landed property among the numerous children of the monarch. In the case of Meresankh III, a granddaughter of Cheops, a list of eleven fields is preserved which from their names had been bequeathed by Cheops to Hetep-heres II and passed on to her daughter's funerary estate. We know the names of some thirty to forty other estates from the mutilated and imperfect lists in the Giza mastabas; and it may be estimated that several hundred fields of Cheops passed into funerary endowments. These were of course only a part of the property distributed among his children. Similar facts are known for the reign of Chephren; and a proportional distribution may be inferred for Radedef, Mycerinus, and Shepseskaf. In addition there were grants of land to the funerary estates of the kings themselves, to temples, and to royal favorites. The holdings of the king in agricultural land in the time of Cheops and Chephren must have been very large, but we have no evidence of the method by which the kings acquired this land. If it was acquired by purchase, it was a very wise use of the accumulated surplus of the royal revenue — a surplus that was in the main physical, consisting of grain, cattle, serfs, metals, and other materials. If the land was taken forcibly, and in that term I would include any quasi-judicial procedure in the king's name, then the acquisition must have led to widespread grievances among the land-holding class. In either case, the property was dissipated by bequests and gifts instead of passing *en bloc* to strengthen the power of his successor. It is almost axiomatic that the rivalry in ostentation between the two main branches of the family of Cheops tended to increase the expenditure on tombs and grants of land.

The economic effect must not be overlooked of the funerary endowments, which assumed such great proportions in Dynasty IV and continued unabated during Dynasties V and VI. The income of this land was used to support a growing body of funerary priests who performed no productive service whatever and were of no military value in maintaining national discipline. By the end of Dynasty IV hundreds of agricultural fields had passed from the possession of the royal family to that of private persons whose only service was the bringing of sham offerings and the recitation of formulas to provide the spirits of the dead with spirit food and drink. This example was followed by all well-to-do families at court and in the provinces. The endowments were subdivided by inheritance during Dynasties V and VI to the

ultimate limit, and the personnel of the funerary service proportionally increased. The strength of the royal family and of the land-owning families was weakened and a great number of small estates created. The effect was a general leveling of the extreme inequalities of wealth visible in the reign of Cheops.

The breakdown of Dynasty IV, one of the greatest of the Egyptian dynasties, was inherent in the extravagant constructions and the dissipation of the royal estate. The dissensions in the family under these circumstances resulted in such military weakness that a coalition of three strong men, Weserkaf, Sahura, and Neferirkara, who by Egyptian folk-tradition were brothers, was able to displace the royal family of Sneferuw and Hetep-heres and take the throne as the first three kings of Dynasty V. The new royal family of Dynasty V does not seem firmly established until the reign of the sixth king, Neweserra. The antecedents of the family are obscure, but it is clear that Neweserra at least was allied by marriage with the older family. During Dynasties V and VI the amount expended on pyramid-building became less and less, a symptom rather of the decreasing wealth and power of the kings than of a lessened desire for extravagant ostentation. The strength of the monarchy was visibly diminished and the time came when, at the end of Dynasty VI, united Egypt yielded to the disruptive influence of the tribal elements of which the population was composed.

The military monarchy of Egypt had been created by Menes, the first king of Dynasty I, and firmly established by a civil administration brought to a high level by Menes and his successors. Our knowledge is hampered by the paucity of details. But the resources and the power of the kings increased with natural ups and downs until the time of Cheops. The period of great extravagance may be said to have begun with Zoser, the first king of Dynasty III, and certainly reached its maximum in the reigns of Cheops and Chephren. And from that time of maximum extravagance begins the decline which ended in the dissolution of the military monarchy established by Menes. Traditionally, the first six dynasties have been divided into an archaic or protodynastic period, which includes either Dynasties I-II or Dynasties I-III, and into the Old Kingdom, which includes either Dynasties III-VI or Dynasties IV-VI. At present I divide them as follows:

- a. Protodynastic Period, Dynasties I-II; the period of crude-brick architecture.
- b. Old Kingdom, Dynasties III-VI; the period of stone architecture.

These divisions are cultural and may of course be varied by the view which the historian takes of the cultural development. Politically the period is all one, the period of the rise and fall of the first organized administration of a united Egypt. Nothing comparable in extent and permanence was developed in the nearly coeval monarchies of Mesopotamia. The first Egyptian monarchy lasted about a thousand years, favored by the geographical situation of the land. The position of Mycerinus and his ancestors of Dynasty IV in the history of this monarchy is clear. Their time was the climax of the whole period; but they preceded and induced the decline which ended with the disruption of the government. The mighty monuments they built have persisted to our day and in some tombs the colors are still bright after nearly five thousand years. They wasted the substance of the land, but the modern world is richer in knowledge and in artistic possessions because of that very human failing.