## Section of the Ibistory of Medicine.

President—Sir D'ARCY POWER, K.B.E., F.R.C.S.

# On the Physical Effects of Consanguineous Marriages in the Royal Families of Ancient Egypt.

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### PREFATORY NOTE BY LADY RUFFER.

My late husband left this paper unpublished with five others, all on pathological subjects from Ancient Egypt.

His intention was to reprint them, with twelve others which he had already published and many future ones for which he had taken notes merely, in the form of a book under the title of "Studies in Palæopathology."

Before undertaking the journey to Salonika from which he was destined not to return, he had sent a copy of this paper for approval to his friend, Dr. Singer, of Oxford; and though he never received the paper back, I have adopted Dr. Singer's suggestions with regard to several points. Therefore I gratefully acknowledge his kind help, on giving to the world this note of my husband's on the "Consanguineous Marriages of Ancient Egyptian Kings."

ALICE RUFFER.

The question of the effect on the offspring of marriage between blood relations is still an open one. Whereas the view that the children of consanguineous marriages are likely to be weak and to be the bearers of some congenital defect is widely held, some students of heredity maintain that the facts on which this view is based are not convincing; and it must be admitted that, from the same data, divergent conclusions have been drawn. Thus the Veddahs of Ceylon systematically practise consanguineous marriage, and some years ago a lurid picture was drawn of the evil effects of these unions. The race, it was asserted, was becoming extinct, the people were stupid, sullen, and degenerated, children had disappeared from the villages, in which adults only were to be seen, and so on. Yet these fears were groundless, for the Veddahs have remained a very simple, harmless, and monogamous tribe.

In Europe the marriage of first cousins is not uncommon, but the effect of such unions on the offspring is still a matter for controversy, and some medical men categorically deny its dangers. Again, the evidence is conflicting. At the Institution for Deaf-mutes in Paris, for instance, the percentage of deaf-mutes born from consanguineous marriages was 28.35 per cent., whereas, in similar Scotch and English institutions, it amounted to 5.17 per cent. only.

The investigations of George Darwin did not reveal any distinct connexion between infertility, deaf-mutism, insanity or idiocy and consanguineous marriages; but this observer thought that the vitality of the children of first cousins was somewhat below normal, and that the death-rate was slightly higher than in the offspring of other unions. Observations made in France and in Denmark do not seem to prove the peril of such unions, and the facts collected in non-European countries are not convincing. When, for instance, the enormous mortality among Persian children is attributed to consanguineous marriages, the fact that in certain Eastern towns the death-rate in children less than one year old amounts to 30 per cent., should be first accounted for.

Nevertheless, the majority of modern peoples exhibit in their legislation a conviction of the perils of consanguineous marriage, and believe that all kinds of evils threaten the offspring of such unions. It is strange, however, that this idea appears to be entirely modern, for although some ancient peoples were opposed to incestuous marriages, there is no reason to believe that this prohibition was due to a belief in evil results to the offspring.

Marriage 1 with a half-sister, not uterine, occurred in Athens, in late times. The Greeks and Romans of the classical period looked upon incest as a crime, though voices occasionally inquired the reason for this opinion, and the fable of Myrrha, 2 who conceived an incestuous

<sup>1</sup> Robertson Smith, "Kinship and Marriage," p. 191.

<sup>&</sup>lt;sup>2</sup> Ovid, "Metamorphoses," x, Fable 8.

passion for her father is well known. The heroine pointedly asks why incest should be a crime among men when it is the rule among animals. "Defend me," she cries, "from a crime so great! if indeed this be a crime. It is not considered shameful for the heifer to mate with her sire; his own daughter becomes the mate of the horse; the he-goat, too, consorts with the flocks of which he is the father; and the bird conceives by him from whose seed she herself is conceived. Happy they to whom these things are allowed! The case of man has provided harsh laws, and what Nature permits, malignant ordinances forbid." Myrrha goes on to envy the fate of the nations which allow incestuous relationships.

Consanguineous marriages were not uncommon in early Hebrew records: Sarah was Abraham's <sup>1</sup> half-sister; during Jacob's life marriages between first cousins were allowed; Moses <sup>2</sup> sprang from a marriage between a nephew and his paternal aunt; and even in David's time <sup>3</sup> a marriage between half-brother and sister was allowed.

In Egypt, from very early times, marriages between brother and sister were fashionable, whereas incestuous unions between father and daughter, or mother and son, were very rare, if indeed they ever took place. The Egyptian gods themselves had set the example of incest; Keb, the earth god, and Nut, the sky goddess, had four children—two sons, Osiris and Set, and two daughters, Isis and Nephtys, and children were taught that Osiris married Isis and Set took Nephtys to wife. Isis' lament at the loss of Osiris leaves one in no doubt as to the relationship between the two: "Come to her who loves thee, who loves thee, Wennoffre, thou blessed one. Come to thy sister, come to thy wife, thou whose heart is still. Come to her who is mistress of thy house. I am thy sister, born of the same mother, thou shalt not be far from me . . . Thou lovest none beside me, my brother, my brother."

The royal families followed this lead. Throne and property being inherited through the woman, mother or wife, as legal head of the house, it was very doubtful, says Petrie, "whether a king could reign, except as the husband of the heiress of the kingdom." As the king was the ruler, while the queen, though the heiress to the throne, had no executive power, the only way to keep the regal power in the family was for the nearest male descendant of a king to marry the heiress, who was very often his sister. In considering this relationship, as described

Genesis xx, 12.

<sup>&</sup>lt;sup>2</sup> Numbers xxvi, 59.

<sup>&</sup>lt;sup>3</sup> 2 Samuel xiii, 13.

in Egyptian records, caution is however necessary. The word "sister," often a euphemism for mistress or concubine, also meant sometimes the wife of a temporary marriage, or was even used as a term of The confusion has been increased by the fact that "Royal Sister," was one of the queen's titles, which did not imply that Her Majesty stood in that relationship to her consort. Therefore, in this study, I shall consider a king and queen to have been brother and sister only when there is sure evidence that they were so related.

The marriages of brothers and sisters were frequent among common people also as late as Greek, Roman, and early Christian times. Diodorus Siculus, at the beginning of our era, mentions such marriages among Egyptians. An Amherst papyrus<sup>2</sup> contains an application from a woman, asking that her son Artemon might be admitted to the list of privileged persons wholly or partially exempt from the poll-tax. The basis of the claim is that the ancestors of the boy on both sides were descendants from a gymnasiarch, and that therefore the boy himself had the right to be included among those "of the gymnasium." The genealogy of Artemon reveals, on the mother's side at least, three successive cases of intermarriage between brother and sister.

The custom persisted during the early Christian era. A papyrus,<sup>3</sup> dating from A.D. 108, gives a marriage contract between a certain Apollonios, a Persian  $\tau \hat{\eta}_S$   $\hat{\epsilon} \pi \iota \gamma o \nu \hat{\eta}_S$ , and his sister Tapeutis; another Persian married his sister Marouti, and a third married his sister Erieus. Wessely 4 published several genealogical tables of Egyptian families, from which it appears that in four well-to-do families incestuous marriages were in the majority, and it has been stated 5 that, under the Emperor Commodus, two-thirds of the citizens of Arsinoë had married their sisters.

As consanguineous unions were so common, the evil results should have been numerous and have attracted popular notice. Yet, as far as I know, no such observations are recorded in Egyptian literature. what follows we shall select for illustration only those royal families the physical and mental characters of the individuals of which are known.

<sup>&</sup>lt;sup>1</sup> Diodorus Siculus, i, 1.

<sup>&</sup>lt;sup>2</sup> Grenfell and Hunt, "Amherst Papyri," No. 75, p. 90.

<sup>&</sup>lt;sup>3</sup> J. Nietzold, "Die Ehe in Aegypten," p. 13.

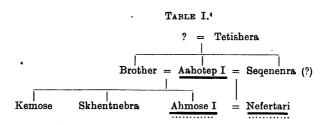
<sup>1</sup> Ibid. Loc. cit.

<sup>&</sup>lt;sup>5</sup> Erman, "Life in Ancient Egypt," p. 153.

### EIGHTEENTH DYNASTY KINGS.

Queen Aahotep I, the heiress of the royal line of Hierakonpolis, married first a man (name unknown) who was certainly her brother, for on the stela of Abydos, put up in honour of his (and his wife's) grandmother, Tetishera, her son Ahmose I exclaims: "I it is who have remembered the mother of my mother and the mother of my father, Tetishera." The queen's second husband was Seqenenra, who was a relative, and perhaps a brother. The mummy of this slim and remarkably muscular king, who died fighting the Hyksos, measures 1 702 m. in length, and the cranium is 0 195 m. long and 0 131 m. broad. The portrait of Queen Aahotep I, on the lid of her coffin in Cairo, is that of a well nourished young person with good features. She had eleven children by her two husbands.<sup>2</sup>

Ahmose I, who was thus the son of an incestuous union, married his sister or half-sister, Nefertari (figs. 1 and 2), whose wooden statuette at Turin represents a buxom, well-formed woman, with no obvious sign of degeneration. After reigning for twenty-five years with Ahmose I, she acted as adviser to her son, Amenhotep I, and must have been fairly advanced in years at the time of her death. She was "the first of those queens by divine right who, scorning the inaction of the harem, took on themselves the right to fulfil the active duties of a sovereign." After her death the people raised her to divine rank; she, together with her son, Amenhotep I, sprung from the marriage with her brother, were regarded as specially "gracious and helpful." Her name was put on the same plane as those of the great gods, and she was worshipped for six hundred years after her death.



<sup>1</sup> Petrie, "A History of Egypt," i, p. 225.

<sup>&</sup>lt;sup>2</sup> Ibid., "Abydos," iii, plate LII.

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<sup>&#</sup>x27;In this and the following tables I have underlined the descendants of consanguineous marriages with a full line, and the rulers (who succeeded to the throne for the most part by right of marriage with their sister-wives) with a dotted line,—ALICE RUFFER.

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Ahmose I, her brother and husband, ascended the throne about 1580 B.C., when Egypt was endeavouring to throw off the yoke of foreign conquerors, the hated Hyksos, who for nearly two hundred years had ruled the country. During his brilliant reign of twenty-four





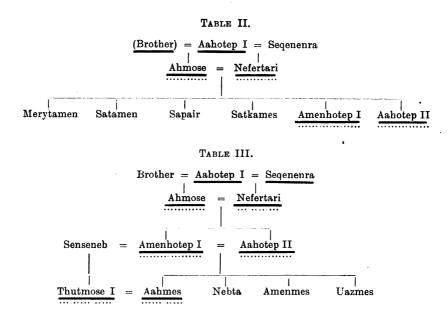
Fig. 1.

Fig. 2.

Fig. 1.-Nefertari.

Fig. 2.—Queen Nefertari, wife of Ahmose I. From a wooden statue at Turin (Alinari).

years this great king drove the aliens out of Egypt, and by carefully protecting the frontier made a new invasion extremely difficult. thus made Egypt a strong military state and established the dynasty on a firm footing. His successors conquered Syria and held it for several generations in spite of the repeated risings of local chiefs. Ahmose also began the restoration of the buildings of Upper Egypt, which had fallen into decay under the Hyksos rule. He died at the age of 55. His mummy measures 1.63 m. in length. The face, like that of all the rulers of the earlier eighteenth dynasty, is comparatively small, the nose prominent, though in the dried body this organ looks small and narrow; the face is ovoid, the chin narrow, the superciliary ridge fairly marked, and the upper teeth are prominent as in the women of the family and in Thutmose II. The length of the head (including wrappings) is 207 mm., and the breadth (without wrappings), 156 mm.



Amenhotep I, son of Ahmose I, reconquered Nubia, repelled an attack of the Lybians, invaded Syria and reached the Euphrates. He added to the temple of Karnak and to those on the opposite bank of the Nile. The divine honours which were paid to him for nigh six hundred years after his death bear witness to the strength of his personality (fig. 3). He reigned twenty-one years, and died when 56 years old. His mummy in the Cairo Museum, not yet unrolled, is that of a short man, measuring 1.65 m. in length.

Of his sister and wife, Aahotep II, little is known. The union

Petrie, "A History of Egypt," i, p. 54.

brought forth four children—two sons, Amenmes and Uazmes,1 and two daughters, Aahmes and Nebta. One of the sons was associated for a time with his father in governing the country. One daughter, Aahmes, married her half-brother, Thutmose I, the son of her father by Senseneb, probably a slave. Her portrait adorns the walls of the temple of Deir-el-Bahari (fig. 5), and without doubt her expression is



Amenhotep I. (British Museum.) (W. A. Mansell.)

fascinating; the features are refined, and it would be difficult to find a nobler countenance than that of this queen, the descendant of incestuous marriages of great-grandparents, grandparents, and parents. The length of her life is unknown.

Buttles, "The Queens of Egypt," p. 71,



Fig. 4.

Thutmose I. From G. Elliot Smith, "Catalogue général des antiquités égyptiennes du Musée du Caire," Cairo, 1912.



Fig. 5.

Queen Aabmes. From E. Naville, "The Temple of Deir-el-Bahari," London, 1898.

Her husband and half-brother, Thutmose I, ascended the throne about 1535 B.C., led an expedition into Nubia, forced his way through the cataract, and seized and strongly fortified the country. He then invaded Syria and reached Naharin, that is the country from Orontes to the Euphrates and beyond, where he slew or made prisoners many of his foes. At home he was a passionate and successful builder. He built the temple of Set at Nubt, near Negadah, the great temple of Medinet Abou, probably designed the temple of Deir-el-Bahari, added pylons and an obelisk to the temple of Karnak, and protected his country by rebuilding the frontier defences. He died at the age of 48, after celebrating the thirtieth anniversary of his coronation.

The authenticity of the mummy (fig. 4) supposed to be that of Thutmose I is not quite certain, though the likeness to Thutmose II leaves little doubt that this mummy is that of Thutmose I or of some near relative. It is 1.54 m. long. The cranium measures 0.18 m. by 0.133 m., and the narrow, long, refined face is that of a clever and cunning person.

The marriage of Aahmes with her half-brother, Thutmose I, had issue two sons and two daughters, of whom both boys and one daughter died young. The second daughter, Queen Hatshepsut I, in spite of opposition, was associated with her father in the government of the kingdom. Thutmose I had married, beside Queen Aahmes, a woman of only half royal lineage, Mut-nefert; and Hatshepsut, following the royal tradition, married her half-brother, Thutmose II, born from the latter marriage.

Thutmose II added a pylon to Karnak, decorated the temple with statues, and inscriptions relating to his work are met with as far as Barkal in the Sudan and the Oasis of Farafra. The mask, statues, and mummy of Thutmose II (fig. 6) represent a smiling and amiable countenance, with features somewhat weaker than those of Thutmose I, whom he otherwise resembles. The body is thin, somewhat shrunken, and not very muscular, and measures 1 684 m., the bald head being 0.191 m. long by 0.149 broad, and the face wrinkled.

Thutmose's half-sister and queen, Hatshepsut, proved an exception to the rule that the female members of the family inherited the Egyptian crown but exerted no authority, for she overshadowed her husband and was the actual sovereign, and he merely the king-consort. She "acted as master of the country. The kingdom was subjected to her will. Egypt bowed its head."

### TABLE IV.

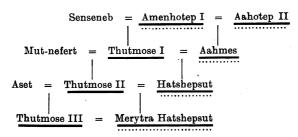




Fig. 6.
Thutmose II. (Bonfils.) Cairo.

After the death of Thutmose II the queen, according to the custom of the country, shared the kingdom with her nearest male relative, Thutmose III, the son of her former husband by Asat, who apparently was not of royal birth.

To strengthen her position the queen claimed direct descent from the god Amon, and her miraculous conception, birth and education are recorded on the walls of the Luxor temple. With remarkable energy she restored many buildings, built the temple of Deir-el-Bahari, began the façade at Speos Artemides; brought an obelisk from Nubia to Luxor and fitted out an expedition to the land of Punt, which returned with great treasure, quaint animals and plants. Her reign was perhaps too peaceful, as it was probably during this period that some of the Asiatic provinces were lost to Egypt. A wise ruler, she exercised her power with justice and moderation during her long reign, and throughout the Nile Valley, from Buto in the Delta, by way of Beni-Hasan, Karnak and Thebes, El Kab, and Kom Ombo, to Assouan at the First Cataract of the Nile, and from the far rock cliffs of Sinai, sculptured stone and inscribed stelæ record the reign of Hatshepsut, fulfilling the wish voiced in her temple that her name may remain and live on in temple and land for "ever and ever." Nothing, unfortunately, is known about her personal appearance, as the Luxor and Deir-el-Bahari portraits are conventional and for the most part obliterated by her successors.

No less remarkable than Hatshepsut was her nephew and step-son, Thutmose III,<sup>1</sup> the son of a father descended from a series of incestuous marriages, and of a mother who was not of royal blood. After Hapshepsut's death he became one of the strongest rulers in Egyptian history; during her lifetime his influence had not been felt. His Majesty was somewhat short, measuring 1.615 m., his cranium was 0.196 m. long and 0.150 m. broad, and though he died at an advanced age his mummy with its distinguished features gives, in spite of the bald head, the impression of a youngish person. The upper teeth project greatly (fig. 7).

His character 2 stands forth with more of colour and individuality than that of any king of Early Egypt, except Akhnaton. We see the man of a tireless energy unknown in any Pharaoh before or since, the man of versatility, designing exquisite vases in a moment of leisure; the lynx-eyed administrator, who launched his armies upon Asia with one hand and with the other crushed the extortionate tax-gatherer.

Thutmose III left his mark on Heliopolis, where he erected the two famous obelisks, on Abusir, Memphis, Gurob, &c. Koptos was entirely rebuilt, Karnak was extended, Medinet Abou and Deir-el-Bahari were completed, more than thirty different sites in Egypt and Nubia were built over, and innumerable fragments of statues, sphynxes, statues, &c., testify to the building activity of this great warrior. His reign marks

<sup>&</sup>lt;sup>1</sup> Thutmose III is held by some to have been the son of Thutmose I and not of Thutmose II. If that be true, he married not his sister but his niece. See Petrie, "A History of Egypt," ii, p. 78.

<sup>&</sup>lt;sup>2</sup> Breasted, "A History of Egypt."

an epoch not only in Egypt, but in the whole East as we know it in his age. Never before in history had a single brain wielded the resources of so great a nation and wrought them into such centralized, permanent, and at the same time, mobile efficiency, that for years they could be brought to bear with incessant impact upon another continent as a skilled artizan manipulates a hundred-ton forge hammer; although



Fig. 7.

Thutmose III. (British Museum.)

that figure is inadequate unless we remember that Thutmose forged his own hammer. The genius which rose from an obscure priestly office to accomplish this for the first time in history reminds us of an Alexander or of a Napoleon. He built the first real empire, and is thus the first character possessed of universal aspects, the first world hero. He made not only a world-wide impression upon his age, but an

impression of a new order. His commanding figure, towering like an embodiment of righteous penalty among the trivial plots and treacherous schemes of the petty Syrian dynasts, must have clarified the atmosphere of Oriental politics as a strong wind drives away miasmic vapours. The inevitable chastisement of his strong arm was held in awed remembrance by the men of Naharin for three generations. His name was one to conjure with, and centuries after his empire had crumbled to pieces, it was placed on amulets as a word of power. He died at the age of 63.



F1G. 8.

Amenhotep II, Karnak. From Legrain's "Catalogue général des antiquités égyptiennes du Musée du Caire," Cairo, 1906.

Thutmose III married his half-sister, Meryt-Ra Hatshepsut, Queen Hatshepsut's daughter, and also another woman, Sat-Aah. The number of his children is unknown, but he is said to have had eight daughters.

Amenhotep II, the son of Thutmose III and Meryt-Ra Hatshepsut, was 1.63 m. in height. He was associated with his father in government for some time, and ascended the throne when about 18 to 20 years old, reigned for twenty-five years, and died at the age of 46. His physical strength was extraordinary, and he claimed that no one could bend his bow (fig. 8).

On the death of Thutmose III, the Syrian tribes almost simultaneously rose in revolt, but they had not reckoned with the boundless energy of the new king. Amenhotep II left Egypt with his army in April and already in May defeated the Syrians in a battle, in which he with his own hand took eighteen prisoners and fifteen horses. He advanced with irresistible power, crossed the Euphrates triumphantly, returned to Egypt, and equally successful in the South, he conquered part of the Sudan.

Amenhotep II married <sup>1</sup> Tiaa, who may have been his half-sister by a mother not of royal birth. Their son, Thutmose IV (fig. 9), an energetic lion hunter in his youth, came to the throne at the age of 24, and showed his energy by leading an expedition to Syria, from which he returned with a cargo of cedar and many prisoners. He contracted an

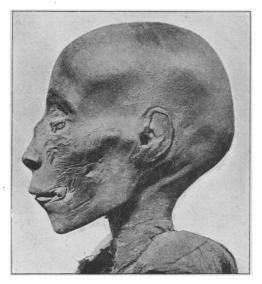


Fig. 9.

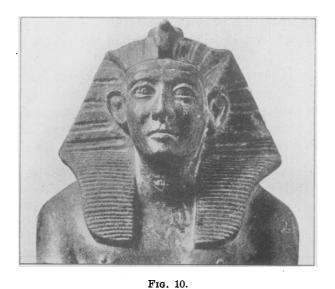
Thutmose IV. From G. Elliot Smith, "Catalogue général des antiquités égyptiennes du Musée du Caire," Cairo, 1912.

alliance with Babylonia and with the Mitannian king, whose daughter, Mutemuya,<sup>2</sup> he married. He died at the age of 33.

Thutmose IV was followed by his 16-years old son, Amenhotep III, who married the celebrated Tiy (fig. 11), a woman of uncertain origin, perhaps a Syrian princess of partly Egyptian descent, and also another Syrian princess, Kirgipa or Gilukhipa. The reign of this king was

<sup>1</sup> Buttles, "The Queens of Egypt," p. 101.

<sup>&</sup>lt;sup>2</sup> Breasted, "History of Egypt," p. 328.



Amenhotep III.

From Legrain's "Catalogue général des antiquités égyptiennes du Musée du Caire," Cairo, 1906.



Fig. 11.

Queen Tiy. (Berlin.)

marked by great expansion of art and commerce due to peaceful development at home rather than by great conquests. He reigned for thirty-six years and died when about 52 years old (fig. 10). Owing to their shorter reigns, Amenhotep II, Thutmose IV and Amenhotep III built far less than their predecessors.

Amenhotep IV (figs. 12 and 13), or Akhnaton, the last king of this dynasty to play a leading part in history, was the grandson of Mutemuya,



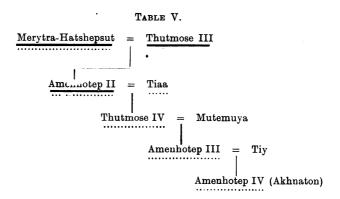
Fig. 12.

Amenhotep IV. (Berlin.)

a Syrian woman, and the son of Tiy, whose nationality, as just said, was uncertain, and his peculiar genius therefore may have been due to the foreign blood in his veins or to the powerful influence exerted on him by his mother.

The characteristic traits of Akhnaton were religious enthusiasm and

a high moral standard. As Weigall has pointed out, he was the first Egyptian monotheist, and monogamist at a time when polytheism and polygamy were the fashion, and a pacifist when Egyptians were enjoying the fruits of their conquests. He erected an entirely new town, Akhetaton, now Tell-el-Amarna, which he adorned with the temples of Queen Tiy, of Baketaton the king's sister, of Queen Nefertiti, and last, but most important of all, with the great temple of Aton. "intellectuel" of the first order, he patronized a new and realistic form of art, but his fanatical hatred of the ancient religion led to the destruction or mutilation of countless ancient artistic treasures, and his neglect of royal duties, his inertia and physical laziness brought about the loss of the Syrian kingdom. In truth, he showed in some of his actions as little common-sense as some other religious reformers have Nevertheless, a monarch who founds a monotheistic religion in the teeth of the opposition of a most powerful priesthood, who builds a new town where he worships his god away from old associations and among congenial surroundings, who endows that new town with beautiful temples, who patronizes a new form of art and who perhaps composed the magnificent hymn to Aton, cannot be considered as lacking in energy, or as a degenerate, or an effeminate person (fig. 14).



The characteristics of the Eighteenth Dynasty were thus tireless energy, which enabled Egypt to resist its foreign foes, to carry the Egyptian flag abroad and to establish wise government at home, and an enlightened taste for the fine arts most forcibly shown in the artistic reforms of Akhnaton. In these nine generations, issued from consanguineous marriages, there is no diminution of mental force. The

energy characteristic of Ahmose I is found two hundred years afterwards in Akhnaton, used it is true for different objects and higher ideals, but as intense in 1375-1358 as it was in 1580-1557. Akhnaton's ideal may

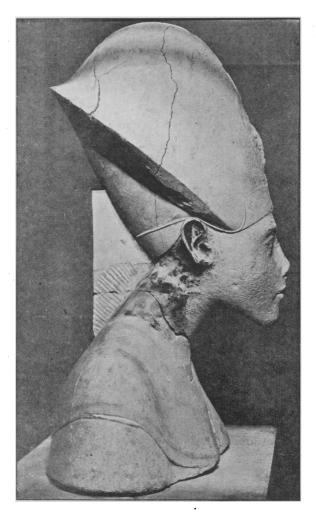


Fig. 13.

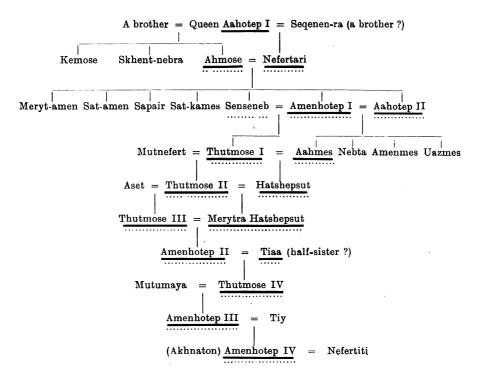
Amenhotep IV or Akhnaton. From a statue in the Louvre.

have been suggested by his mother, the clever Queen Tiy; his energy and keen intellect he inherited, in part, at least, from his father.

In the absence of any data regarding the average number of children n Egyptian families, it is not possible to compare accurately the fertility

of the consanguineous unions of the Eighteenth Dynasty with that of unrelated people from the same period; all that can be said is that without doubt these incestuous unions were blessed with many children. Moreover, the sexual power of the male members of the family is proved by the fact that they had families by their sisters, wives, and by other Table VI giving the children known to have been born women as well. to the kings and queens of this dynasty is necessarily incomplete, as the number of children born in and out of wedlock cannot even be guessed at, and indeed many of those mentioned in the table would have been entirely forgotten had it not been for the accidental discovery of some document or object inscribed with their names. The infants who died, the miscarriages, and the illegitimate children, &c., must remain an unknown quantity, though it can be asserted that the number of children born was certainly larger than that given in this table. the case of the Eighteenth Dynasty therefore, loss of prolificity did not follow consanguineous marriages.

TABLE VI.—EIGHTEENTH DYNASTY KINGS.



The second evil usually attributed to consanguineous marriages is diminished duration of life in the offspring. The figures referring to this point given in Table VII are approximate only, for some monarchs may have lived a few years more or less, and further, as the mean duration of life in ancient Egypt is unknown the value of the table is diminished; but in any case, an average duration of life of 44 years cannot be considered as short.



Fig. 14.

Death-mask of Akhnaton.

#### TABLE VII.

Ahmose I		Reigned	from	1580-1557	=	22	years	•••	Died at	55
Amenhotep I Thutmose I	•••	} ,,	,,	1557-1501	=	56	,,	{	,,	56 48
Thutmose III		,,,		1501-1447			,,	•••		63
Amenhotep II	•••	,,		1448-1420			,,	•••	,,	46
Thutmose IV	•••	,,		1420-1411			,,	•••	,,	33
Amenhotep III	•••	,,		1411-1375			,,	•••	,,	45
Amenhotep IV	•••	,,	,,	1375-1358	=	17	,,		,,	27

There is no evidence to show that idiocy, deaf-mutism, or other diseases generally attributed to consanguineous marriage, ever occurred among the members of this dynasty, and as far as can be ascertained from mummified bodies, masks and statues, the features of both men and women were fine, distinguished and handsome.

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The heights and cranial circumferences are shown in Table VIII. The kings, though not tall men, were by no means undersized and their height is well maintained during nine successive generations. The cranial measurements of 413 living modern Egyptians 1 give an average of 0.184 m. by 0.133 m. which almost exactly corresponds with the cranial measurements of Thutmose I.

TABLE VIII.

				Cranial	Cranial measurements			
		Height		Length		Breadth		
Ahmose	•••	1.63 m.	•••	0.207 m.		0·156 m.		
Amenhotep I		1. <b>6</b> 5 m.						
Thutmose I		1.54 m.	•••	0·180 m.		0·133 m.		
Thutmose II		1.685 m.		$0.191 \ m.$		0·149 m.		
Thutmose III		1.61 m.		0·196 m.		$0.150 \ \mathbf{m}$		
Amenhotep II		1.67 m.	•••	0.191  m.		0·144 m.		
Thutmose IV		1.65 m.		0·184 m.		0·143 m.		
Amenhotep III ·		1.56 m.	•••	0·194 m.		0·148 m.		
Amenhotep IV	•••	mummy incomplete	•••	0·189 m.	• • •	0·154 m.		

The portraits and mummies are those of stout, well-nourished persons. Although the mummified body of Thutmose II, for instance, is now reduced to little more than skin and bone, the redundancy of the skin of the abdomen, thighs and cheeks is a proof of the obesity of the king. Perhaps the most typical instance of pathological obesity in the family is seen in the portraits of the heretic King Akhnaton (1374-1356 B.C.) who is represented as a man with a thin face, neck and legs, but with a very protuberant abdomen. There is no reason to doubt that the portraits of the monarch are faithful likenesses. True, the abdomen is rather prominent in other people represented at Tell-el-Amarna, owing chiefly to the cut of the dress, which, firmly tied below the umbilicus, caused the lower part of the abdomen to protrude; but in persons not wearing this dress the abdomen is flat, and even in men attired in the garment just described, it is never as protuberant as in King Akhnaton. Where the King is represented distributing collars of gold his abdomen actually hangs over the edge of the balcony, a most realistic piece of portraiture. The very thin calves of Akhnaton show that the artist faithfully copied nature. The king's obesity may have been partially responsible for his Corpulent subjects generally dislike physical exertion, and his politics.

stoutness may have been the reason why, when the outlying provinces of his kingdom were threatened, he left unanswered the appeals for help, and thus became responsible for the loss of some of the foreign possessions of Egypt. Another picture from Tell-el-Amarna may be referred to here. It is divided into two halves, the left representing the household of Akhnaton, the right the household of his father, Amenhotep III. It shows that Akhnaton's obesity was inherited, for father and son show the same abdominal deformity. Indeed, the whole royal family is distinctly stout, in contrast with the three lean female servants on the extreme right. The mummy of Amenhotep III (1411-1375 B.C.) is in the Cairo Museum, and it is unfortunate that the body is in such a wretched state that its examination gives little information as to his corpulency.

The skull attributed to Akhnaton, according to Elliot Smith, presents a number of interesting and significant features. The cranium is broad and relatively flattened, its measurements being 0.189 m. in length and 0.154 m. in breadth; 0.136 m. in height; 0.099 m. minimal frontal breadth, with a circumference of 0.545 m. The form of the cranium and the fact that it is exceptionally thin in some places, and relatively thick in others, indicates, in Elliot Smith's opinion, that a condition of hydrocephalus was present during life; and Professor A. R. Ferguson is of opinion that the signs of this disease are unquestionable. Whether the skull is Akhnaton's or not, it is interesting to find that hydrocephalus existed about three thousand five hundred years ago.

The result of this inquiry is that a royal family, in which consanguineous marriage was the rule, produced nine distinguished rulers, among whom were Ahmose the liberator of his country, Thutmose III one of the greatest conquerors and administrators that the world has ever seen, Amenhotep IV the fearless religious reformer; the beloved queen Nefertari, who was placed among the gods after her death; Aahmes, the beautiful queen, and Hatshepsut, the greatest queen of Egypt. There is no evidence that the physical characteristics or mental power of the family were unfavourably influenced by the repeated consanguineous marriages.

### NINETEENTH DYNASTY KINGS.

The kings and queens of the Nineteenth Dynasty, a remarkably handsome set of people, were probably lineal descendants of those of the Eighteenth Dynasty.

Seti I (figs. 15 and 16), in spite of his big and heavy jaw, presents a most noble and dignified appearance; he measures 1.665 m. in height, and his cranium 0.196 m. by 0.143 m. Ramses II (fig. 17), the great historical figure of this dynasty, married two of his sisters, and had four children by the first, and three, or possibly four, by the second sister. He is said to have married two of his daughters, but the evidence on



Fig. 15. Seti I, offering. (Abydos.)

this point is not conclusive. By other wives and concubines the king is said to have had 106 other sons and forty-seven daughters, therefore this descendant of a long line of consanguineous marriages cannot be said to have been infertile. His features are strong and refined, the teeth excellent, and the only blemish is the complete baldness. The body measures 1.733 m., and his cranium 0.195 by 0.136 m. (fig. 18).

Little is known about Ramses II's children (fig. 20). One son, Khemwese, became high priest of Ptah, organized the thirtieth anniversary of his father's reign, was associated with the king in the administration of Egypt and predeceased his father. The other children formed the powerful tribe of the Ramessides, which exerted



Fig. 16.
Seti I. (Bonfils.) (Cairo Museum.)



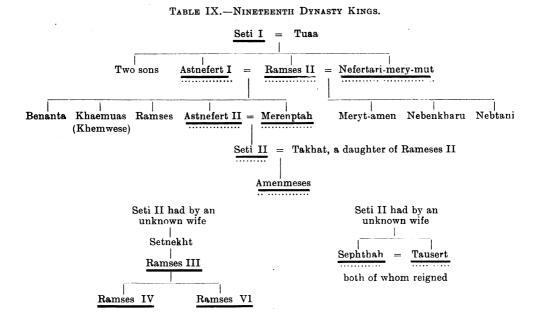
Ramses II,



Fig. 18.
Ramses II, (Bonfils.) (Cairo Mueum.)

### 170 Ruffer: Physical Effects of Consanguineous Marriages

considerable influence for many generations; one daughter, Ben-anta, was charmingly pretty.



Merenptah (fig. 19), the son of Ramses II, by his first sister, was more than middle-aged when he succeeded his father, and he, in spite of his years, dealt energetically with the foes of Egypt. When the Lybians threatened the very existence of Egypt, he assembled his nobles, stirred up their enthusiasm by an eloquent speech, and with their help inflicted a crushing defeat on the Lybians and their European mercenaries. Turning then to Palestine, he subdued the country and levied tribute on the land.

"All lands are united, they are pacified. Every one that is turbulent is bound by King Merenptah."

Merenptah's building activities were not great, and his method of obtaining stone by breaking up ancient monuments, though closely imitated afterwards by Mehemet Aly and in still more recent times by British administrators, is not to be commended. He died after a reign of ten years, when approximately 70 years old, and is probably the Pharaoh of the Exodus, commonly believed to have been drowned in the Red Sea. His mummy measures 1 714 m. His cranium 0 185 m. by 0 160 m. The aorta was calcareous.



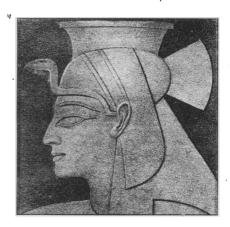


Fig. 19.

Fig. 20.

Fig. 19.—Merenptah. Grey granite figure from his temple (Thebes).

Fig. 20.-Merytamen, daughter of Ramses II.



Fig. 21.

Seti II. From his statue.

### 172 Ruffer: Physical Effects of Consanguineous Marriages

Merenptah married Ast-Nefert II, most probably his sister. Their son and successor, Seti II (fig. 21) died (murdered?) after a very short reign, during which he carried out many important public works. He was probably fairly advanced in years at the time of his death.

The heights and cranial measurements of the Ramessides are shown in Table X.

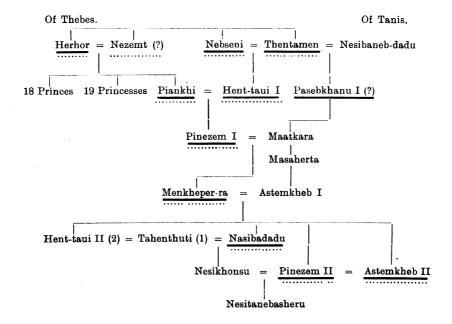
TABLE X.

			Height .		Cranial measurements			
Seti I			1.665 m.		0·196 m.	by	0·143 m.	
Ramses II		•••	1·733 m.		0·195 m.	,,	0·136 m.	
Merenptah			1·714 m.	•••	0·185 m.	,,	0·160 m.	
Seti II	•••		1.640 m.	•••	0·187 m.	,,	0·141 m.	
Sephtah			1.638 m.	•••	0·189 m.	,,	0·147 m.	

(King Sephtah suffered from left talipes equinovarus.)

Table XI gives a résumé of the chief marriages of the twenty-first Dynasty, and shows that consanguineous marriages were common, and marriages between brother and sister very few.

TABLE XI.—TWENTY-FIRST DYNASTY, RAMESSIDE LINE.



King Herhor married Nezemt, who was probably a near relative and possibly his sister, and at Karnak she is represented at the head of a long list of her children, eighteen princes and nineteen princesses. The grandson Pinezem I, reigned over forty years, but very little is known about the rest of the family.



Fig. 22.

Takhat. From tomb of Amenmeses.

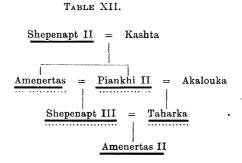


Fig. 23.

Amenmeses. From his tomb.

#### ETHIOPIAN KINGS.

The Ethiopian Dynasty also followed the custom of close intermarriage. Queen Amenertas married her brother Piankhi II, and their daughter Shepenapt III married her half-brother, Taharka, the son of Akalouka, and a child, Amenertas II (and possibly others) was born from this consanguineous marriage. Taharka was a man of foresight, power and courage, but unfortunately, we know practically nothing of Amenertas II.



### PTOLEMAIC KINGS.

### (1) Direct Line.

The history of the Ptolemies is of special interest to the student of heredity, because the first four kings of the family not sprung from consanguineous unions, can be compared with the later kings who were born when such marriages had become the rule.

The founder of the dynasty, Ptolemy I (Soter I) (fig. 27, 1) a favourite general and companion of Alexander the Great, enjoyed so great a popularity and influence that at the death of Alexander the satrapy of Egypt fell to him without any opposition, and he lost no time in establishing himself firmly in his new government. He first guarded himself against an attack from the West by occupying Cyrene, which became a province of Egypt, murdered Cleomenes, the financial Controller who had been appointed by Alexander the Great, defeated the regent, Perdiccas, who had marched against Egypt, and put him to death.

At the second settlement of the Empire (321 B.C.), Ptolemy was again awarded Egypt, with whatever lands he could conquer to the west. He seized both Cyprus and Syria, but he evacuated the last province temporarily, as his large army and the powerful fleet he had equipped were only just strong enough to rule and defend Egypt, Cyrene and Cyprus. Indeed, Ptolemy was averse to any increased responsibility unless quite sure of his ground, and hence he prudently declined the royal dignity, which some of his followers endeavoured to thrust on him, until the death of the sons of Alexander the Great had removed the only legitimate claimants to the throne.

The fleet and fortifications secured Egypt against every attempt at invasion from the Eastern frontier. The strength of the Egyptian preparations was demonstrated when the attack of Antigonus by land and by sea failed to reach Alexandria, and the would-be invader finally asked for peace. Later on, Antigonus and Demetrius were defeated by the great coalition, and then Ptolemy who, it must be confessed, had been but a luke-warm supporter of the allies, secured lower Syria and Phœnicia as his share of the plunder. Shortly afterwards, the re-occupation of Cyprus, which he had given up temporarily, his appointment as protector of the league of free cities on the coast and islands of Asia Minor, and his settlements on the coasts of the Red Sea gave him, backed by his fleets, the command of the sea.

At home, the relations between the king and the native Egyptian

population were so friendly that the latter gladly enlisted under Ptolemy's banner, and the large turbulent population of natives, Greeks, Persians, Syrians, &c., was kept well in hand. Ptolemy succeeded—and that was perhaps his most wonderful achievement—in founding in Egypt the cult of Serapis, a divinity adored by both Greeks and natives. Science and art were encouraged, the celebrated Museum was founded, Alexandria became the great scientific centre of the world, trade was encouraged, agriculture developed, exchange made easier by the new coinage, and every department of state was improved by the new ruler.

Ptolemy abdicated in 285 B.C. and died two years afterwards at the age of 84. He had married, probably at Alexander's instigation, a Persian princess, Artakama, about whom nothing is known. Far more celebrated than this first wife was his mistress, Thais, the courtesan, who had at least two children by him. His second legitimate wife was Euridike, the daughter of Antipater, and by her he also had several children. His third wife, Berenike I, a grand-niece of Antipater, supposed without any reason to have been Ptolemy's step-sister, was the mother of several children by another husband at the time of her marriage with the king. Her influence over him was so great that she persuaded him to put aside Euridike's son and to adopt her own son as his heir. Several other children were born, and the king added to his family, already very large, by adopting all his step-children. Divorce from his second wife is nowhere mentioned, and Ptolemy was doubtless living with both his second and third wife at the same time.

The bold and patient father of the Ptolemic dynasty was a political genius of the first order, a great soldier, a cunning diplomat, an able financier, a promoter of exploration, a master of foreign and home affairs, a religious reformer and a protector of art, science, commerce and agriculture. His private life, on the other hand, judged by our present standard, was far from edifying.

Ptolemy II (fig. 24) (Philadelphus, born 309, died 246), son of the first king, married Arsinoë I (fig. 25), the daughter of the king of Thrace, and later on his own sister, older than himself, by whom he had no issue. His character, like his father's, was bold and cunning, and again like his father, he had in spite of his devotion to his sister, many mistresses 1: Didgona, a native of Egypt, Bilisticha, Agathoclia, Stratonice, Clio his cup-bearer who, clothed in a tunic only and holding a cornucopia in her hand, was represented in many statues, to the scandal even of Alexandria,

Myrtium, a most notorious and common prostitute, who owned the finest houses in Alexandria, Mnesis and Pothina the flute-player, and many others. His effigies on the coins of the period show a stout, plethoric man (fig. 27, 7) with rather fine classical features, and his sister, Arsinoë Philadelphos (fig. 27, 8), looks a buxom, handsome woman with



Fig. 24.

Ptolemy II, Philadelphus.
(Vatican, Rome.)



Fig. 25.

Arsinoë II, ux. Philadelphus.
(Vatican, Rome.)

regular features. The king died at the age of 63, after having been a martyr to gout.

To look upon Ptolemy II as a common debauchee is doing him a great injustice. He patronised science and art, subsidized the Museum and added considerably to the library, which owned the unprecedented number of 400,000 volumes. The famous Septuagint version of the Bible possibly dates from this time. His foreign politics were successful, and at home his reign appears to have been peaceful.

Allowing for all exaggeration, the "Praise of Ptolemy" by Theocritus shows in what esteem he was held by his contemporaries:—

That king surpassingly is excellent For wealth, wide rule by sea and o'er much continent.

In many a region many a tribe doth till
The fields, made fruitful by the shower of Zeus;
None like low-lying Egypt doth fulfil
Hope of increase, when Nile the clod doth loose,
O'er-bubbling the wet soil: no land doth use
So many workmen of all sorts, enrolled
In cities of such multitude profuse,
More than three myriads, as a single fold
Under the watchful sway of Ptolemy the bold.

Part of Phœnicia, some Arabian lands,
Some Syrian, tribes of swart Aethiopes,
All the Pamphylians, Lycians he commands,
And warlike Carians; o'er the Cyclades
His empire spreads; his navies sweep the seas;
Ocean and rivers, earth within her bounds
Obeys him: and a host of chivalries,
And shielded infantry, with martial sounds
Of their far-glittering brass, the warrior-king surrounds.

For o'er the broad lands of that happy sept The bright-haired Ptolemy strict ward hath kept.

His whole inheritance he cares to keep, As a good king. Himself hath garnered more: Nor useless in his house the golden heap, Increased like that of ants.

(Theocritus. Idyll XVII.)

The third Ptolemy (fig. 27, 2) (Euergetes I) married Berenike of Cyrene (fig. 27, 3). He was a successful warrior and diplomatist, and

a patron of science and religion. The Museum and Library continued to flourish under his reign; he invited great savants, including Erastothenes, to settle in Egypt, reformed the calendar, and built the temple of Edfou. Of all the Ptolemies, he was the only one whose private life was exemplary. He died when about 63 years old. Physically, there was a great resemblance between him and his father.

Ptolemy IV (Philopator) (fig. 27, 4), the son of Ptolemy III by a princess of Cyrene, succeeded his father, and his life is of great interest, for had he been the child of a consanguineous marriage, his shameful characteristics would doubtless have been attributed to the close relationship between the parents.

The king succeeded "in the heyday of youth, with his education completed by the greatest masters, to a great empire, a full treasury, and peace at home and abroad. Yet, in the opinion of our Greek authorities, Polybius and Strabo, no member of the dynasty was more criminally worthless, nor so fatal to the greatness and prosperity of Egypt."

Shortly after his ascent to the throne, the Queen-mother Berenike, and his brother Magas were murdered. Whether Ptolemy IV had a share in planning these murders is uncertain, but undoubtedly the fact that Sosibius, the chief actor, had considerable influence on the king threw some suspicion on the latter. His debauchery shocked his contemporaries. He loved to surround himself with low courtesans who treated him with scant respect, and his Greek mistress, Agathoklea, and her brother Agathokles, at one time the real rulers of the country, prevented him from taking a legitimate wife until the mistress had given up all hopes of having a child. So great was this woman's influence over him that Strabo simply calls him: "Philopator, he of Agathoklea." Finally he married his sister, Arsinoë III (fig. 27, 5), who was afterwards murdered by Agathokles.

The disreputable private life of Ptolemy IV did not interfere with his considerable diplomatic ingenuity, administrative skill and military efficiency. On Antiochus attacking Egypt, an army was quickly raised, and the king, accompanied by his sister Arsinoë, defeated his foe at Rapha, and this victory and his strong government so impressed his neighbours that, during his life time, Egypt was not attacked again. In spite of his debauchery, he interested himself in intellectual pursuits, wrote tragedies, added to Philae, to Ar-hes-Nefer,<sup>2</sup> and built

<sup>&</sup>lt;sup>1</sup> Mahaffy, "A History of Egypt: Ptolemaic Dynasty," p. 127.

<sup>&</sup>lt;sup>2</sup> Mahaffy, loc. cit., p. 138.

temples at Edfou, Alexandria, and probably at Naukratis also. His handling of home affairs, on the other hand, was not altogether successful; rebellion in lower Egypt had to be quelled, and at the time of his death, Egypt and Nubia were in a state of anarchy. The employment of native officers and soldiers ultimately led to a revolution, for he realized as little as some administrators do now, that one cannot give away power, and at the same time retain it.

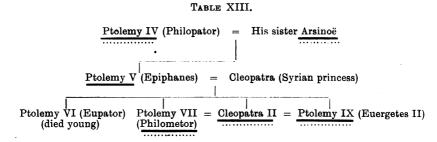
Allowing then for the exaggerations of Polybius, of Strabo and of the Jews, whom he had offended, the king may be described as a man whose life was soiled by culpable weakness and debauchery, but to some extent redeemed by a love of art and letters, and who, in his political actions, showed considerable ability and originality. The only known child of Ptolemy IV and his sister was Ptolemy V, Epiphanes (209), and as both king and queen died in 204, their other progeny, if any, cannot have been numerous.

Ptolemy V was only 5 years old when he came to the throne. He was betrothed to Cleopatra, a Syrian princess, when 11 years of age (198 B.C.) and married her five years afterwards.

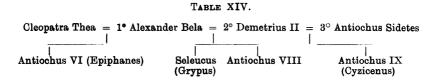
On the coins of the period we see a stout, distinctly good-looking, young man (fig. 27, 6). He enjoyed a great reputation as an athlete and was fond of field sports, and like his forefathers, he was cruel, treacherous, and tyrannical whenever it suited his purpose to be so. His foreign policy certainly was not a success, but, as Mahaffy explains, he is hardly to be blamed for the sore diminution of the Egyptian empire during his reign; for the rise of the Romans, the astuteness of Antiochus, the invasion of his island empire by Philip, and his predecessor's mistaken policy of arming the natives, were all factors which would have beaten the strongest man. He died at the age of 29, and it is not improbable that he was murdered.

The marriage of Ptolemy V (Epiphanes) with the Syrian princess was blessed with at least four children. One son, Ptolemy VI (Eupator), died young. Another son, Ptolemy VII (fig. 27, 9) (Philometor), the descendant of consanguineous grandparents, was 7 years old when he ascended the throne (181 B.C.), and was killed at the age of 43 (145 B.C.). When still a boy of 15, he, with his sister-wife Cleopatra II, successfully organized the resistance to King Antiochus, quelled rebellions in Upper and Lower Egypt, reconquered and pacified Nubia. In Upper Egypt he did considerable building work. His quarrels with his brother, the clever and unscrupulous Ptolemy IX (Euergetes II), would fill a volume. His treatment of his brother was magnanimous for,

having taken him prisoner, he spared his life and forgetting the past, suggested they should form a new alliance by a marriage between his own daughter and Euergetes, to whom he left Cyrene. The fear of the Romans may possibly have made these arrangements advisable, but it is only fair to assume that his natural kindness and the ties of blood urged him to follow this course. King Philometor was the Ptolemy, "virtuous, pious, and kindest of men" to whom the companions in arms in Cyprus dedicated a crown of gold in the temple of Delos. They thank him for his benefactions to them and their homes, but they especially admire the kindness and magnanimity with which he made friendship and peace.



Cleopatra Thea, one of the children born of the incestuous marriage between Philomator and his sister, was married to Alexander Bela, King of Syria, and when her father and husband quarrelled, she left the latter and married her husband's rival, Demetrius II. The fortunes of war having compelled her second husband to fly the country and to marry the daughter of his captor, Cleopatra Thea at once retaliated by marrying Demetrius' brother, Antiochus VII Sidetes. The Queen had children by all these husbands. She was not as has been suggested, a weak simpleton, but a wicked, energetic woman, who shed blood whenever the success of her plans required it. She betrayed her husband, Demetrius II, who was assassinated with her knowledge. murdered her son, Seleucus, and another son, Antiochus VIII, escaped the same fate only by compelling his mother to drink the poison she had prepared for him. There was no lack of energy, though for evil, in this queen, the offspring of an incestuous union.



After her brother-husband's death, Cleopatra II married her other brother, Ptolemy IX (Euergetes II) (fig. 27, 10), by whom she is supposed to have had one son, Memphites, who was assassinated by his own father. The story however is so obscure and improbable that its truth may well be doubted. Ptolemy Euergetes II, nicknamed Physkon (Sausage), also married his wife's daughter, Cleopatra III, (fig. 27, 11), at once his niece and step-daughter, after, it is said, outraging her.

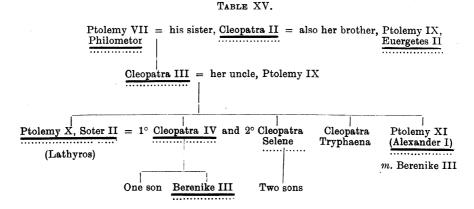
It is difficult to estimate justly the character of this king, the greatest historians differing in their opinion of him; but the appreciation given by Mahaffy, appears so equitable and temperate that I cannot do better than reproduce it here: "Our Greek authorities tell us of nothing but the crimes and follies of Physkon, tempered by Greek distractions of writing memoirs, and of discussions with the learned Greeks of the Museum. All the world, not to say his own nation, are described as filled with horror at his enormities. If we turn to inscriptions and to papyri we find the king and his queens commemorated in friendly dedications to and by his officers in Delos. in Cyprus and in Egypt. He extends the commercial bounds of Egypt to the south and east; he keeps Cyrene perfectly still and undisturbed. probably under the vice-royalty of his son Apion. He so far manages to control two ambitious queens, probably at deadly enmity, that at the very close of his life they both appear associated with him in the royalty as if nothing had happened to disturb the peace of the palace. Throughout the country the legal and fiscal documents still extant show the prevalence of law and order.

"Modern criticism, suspicious of the exaggerations familiar to ancient rhetoricians, may lighten the burden of crimes and maledictions with which he is charged, but it is not possible to wipe out all the lines of this repugnant caricature. He was, in any case, an energetic figure, a despot without scruples, but not without intellect, who seems to have summed up in himself and carried away all the virility of his race."

His wife and niece, Cleopatra III, a masterful woman, had an almost pathological hatred for her first son. Again and again did she endeavour to remove him from the throne and to place the crown of Egypt on the head of her second son, Ptolemy XI (Alexander). "Never, that we know of," wrote Pausanias, "was there a king so hated by his mother." For many years, the history of Egypt is that

<sup>&</sup>lt;sup>1</sup> Mahaffy, loc. cit., p. 202a.

of the quarrels and intrigues of this strong-minded woman and her two sons. The first son, Ptolemy X (nicknamed Lathyros), married his sister, Cleopatra IV, during his father's reign and a son had been born, when his mother, Cleopatra III, compelled the young king to repudiate his wife and to marry his other sister, Cleopatra Selene, who had two sons by him. When Lathyros had to fly from Egypt, Selene retired to Syria where she married three husbands in succession, and was finally put to death by Tigrane, King of Armenia, after having had four, probably five, and perhaps more sons, by her four husbands; of these the first was her brother, the second and the third her cousins (the second being himself a descendant of an incestuous marriage), and the fourth her step-son and second cousin. She is the only Cleopatra who is not guilty of one or more murders during her adventurous career.



Meanwhile, Cleopatra IV, the first wife of Ptolemy X Lathyros, had gone to Cyprus, enlisted a number of mercenaries, proceeded to Syria, married Antiochus IX, and attacked Antiochus VIII the husband of her sister Tryphaena. The sister, getting the upper hand, had her put to death.

Cleopatra III's last daughter, Tryphaena, married Antiochus VIII Grypos, and after perpetrating the crimes mentioned above was herself murdered by Antiochus XI.

The history of the four Cleopatras, the daughters and granddaughters of incestuous marriages, is a long relation of intrigues and appalling crimes. All had sons and grandsons of whom some are known by name. Very probably many more have been entirely forgotten.

Ptolemy X (Lathyros) died in 80 B.C. at the age of 62. His brother

and rival Ptolemy Alexander I had been killed in 88 B.C. He was probably about 40 years old at the time, and was said to have repaid his mother's kindness to him by murdering her. He resembled her physically for she was nicknamed  $\kappa \delta \kappa \kappa \eta$  and he  $\kappa \delta \kappa \kappa \eta s$ , "the red one." It is difficult to form an estimate of these two brothers' characters, so completely overshadowed are they by the striking personality of the queen-mother. She it is who occupies the stage; a clever, daring, ruthless, intriguing woman, who for thirty years was the all powerful ruler in Egypt, and certainly her incestuous origin did not prevent her from displaying remarkable energy.

Lathyros by his marriage with his sister Cleopatra IV had a daughter, Berenike III, who married her uncle Ptolemy XI Alexander I, and one son, who was murdered. Posidonios of Rhodes, a contemporary, draws a portrait of this sovereign which is not without humour: "The dynast of Egypt, hated by the people, but flattered by those round him, lived in great luxury, and could not walk otherwise than supported by two acolytes; but in banquets, when he became excited, he jumped from the couch, and executed, barefoot, dances with greater agility than professional dancers." When Ptolemy XI Alexander I, died, his son, Ptolemy XII Alexander II, by a second wife, following the advice of Sylla, married his step-mother, and was murdered shortly afterwards, after putting his wife to death.

The direct line of the Ptolemies now comes to an end, not because the women had become barren, or the men unable to beget children, but because all the male descendants born in legitimate wedlock had been killed or exiled.

### PTOLEMAIC KINGS.

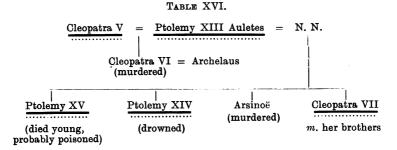
### (2) Indirect Line.

Ptolemy X (Lathyros) (fig. 27, 12) had left two illegitimate sons, and one of them, nicknamed Auletes, the flute player, now laid claim to and ascended the throne, the other son being made king of Cyprus. The latter retained his throne until the Romans occupied the island, when rather than submit to this indignity he poisoned himself:

Auletes married Cleopatra V (Tryphaena II), who was called his sister in official records, though there is no proof that she stood in such relationship to him. His daughter, Berenike IV, was probably by this wife, and by a second wife the king had another family, the most prominent member of which was Cleopatra VII, the great Cleopatra.

Auletes is stated to have been an idle, drunken and wicked man, the whole of these accusations resting on about half a dozen anecdotes, which have as little value as have nowadays the countless stories about royalty. A curious passage of Strabo¹ shows that a good deal of the indignation of ancient Greek authors was due to the king's passion for what would be now considered an artistic occupation. "Besides other deeds of shamelessness," says Strabo, "he acted the piper; indeed, he gloried so much in the practice that he scrupled not to appoint trials of skill in his palace: on which occasions he presented himself as a competitor among other rivals." What would Strabo have said of Frederick the Great, or of Ludwig of Bavaria, or of the Royal Duke who played the violin obligato for a distinguished singer at a public concert?

The king had no easy task. He, a bastard, had to defend his throne against those who had perhaps a more legitimate claim to the throne. No doubt he fleeced his country, but let it be remembered in his favour that his only chance of keeping the throne was by bribing the whole of the Roman Senate, and by becoming the prey of Roman moneylenders. His financial struggles, and indeed his whole history, curiously resemble the history of some very modern rulers. To keep himself on the throne at all was a truly marvellous feat, and however disgraceful his private life may have been, his cleverness and genius for intrigue were remarkable.



His son, generally described as a puppet in the hands of his attendants, clearly was not responsible for the murder of Pompey. He fought a gallant fight against Julius Cæsar, and though but a boy without experience, behaved with decision and bravery and perished in battle.

A just estimate of the great Cleopatra (fig. 26) is an almost hopeless

<sup>1</sup> Strabo, loc. cit., xvii, C. I., s. 11.

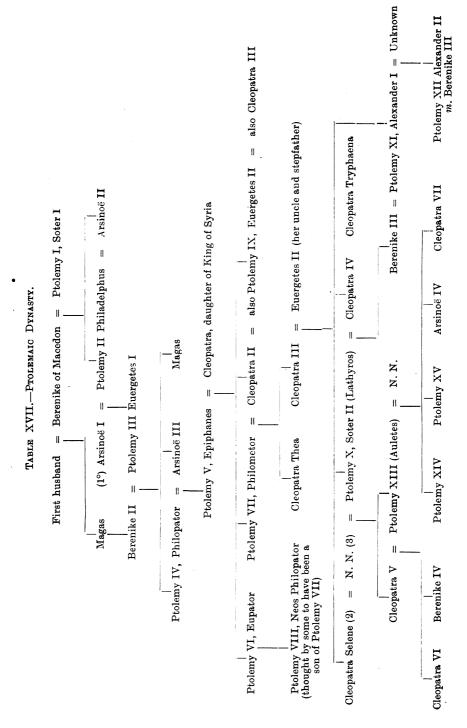
task, for the accounts of her life, as Weigall has pointed out, are written by her enemies. Her amours with Cæsar and with Antony must not be judged according to our standard, and though it would probably be going too far to maintain that her intrigues with these two men were for political reasons only, there can be no doubt that, had she resisted either of them, Egypt would have been lost to her and to her dynasty. sheer nonsense to look upon Cæsar or Antony as the unfortunate victim of a designing woman. By the time Cæsar met Cleopatra, he was an elderly man, who had ruined the wives and daughters of an astonishing number of his friends, and whose reputation for such seductions was of a character almost past belief. Antony also was not a boy but a man of the world, "un homme à femmes," who had seduced many women. Cleopatra at that time was a girl of 21 years old, against whose character not one shred of trustworthy evidence had been advanced. prodigality, the luxury and licence of her court were those of every Eastern court of her time, and no great blame can be attached to her endeavouring to please Cæsar and Antony by sumptuous entertainments. The responsibility for such waste of money should be put with much greater justice at the door of those who allowed her to squander fortunes on their amusement.

Certainly, the audacity, cleverness, and resources of this Egyptian queen, the last offspring of many incestuous marriages, compel our admiration, and had not Cæsar's murder put an end to her ambitions, she might have become the empress of the world! She was musical, artistic and encouraged science; her good spirits were proverbial, and induced her to play harmless and rather pointless practical jokes. She was considered a very fine linguist, perhaps not a great achievement in a town where, to this day, every inhabitant speaks three languages as a rule, where many can converse in five, six or seven tongues, and official correspondence is carried out in three languages.

Of her physical appearance we know but little. Her portraits, if authentic, do not give one the idea of a very beautiful woman, and her charm was probably one of manner. "She was splendid to hear and to see," says Dion Cassius, "and was capable of conquering the hearts which had resisted most obstinately the influence of love and those which had been frozen by age." Another author expresses himself as follows: "Now her beauty, as they say, was not in itself altogether incomparable nor such as to strike those who saw her: but familiarity

Plutarch, "Life of Antonius," xxvii.





with her had an irresistible charm, and her form, combined with her persuasive speech and the peculiar character which in a manner was diffused about her behaviour, produced a certain piquancy. There was a sweetness in the sound of her voice when she spoke."



Fig. 26.
Cleopatra VII. Dendera (Bonfils).

# 188 Ruffer: Physical Effects of Consanguineous Marriages

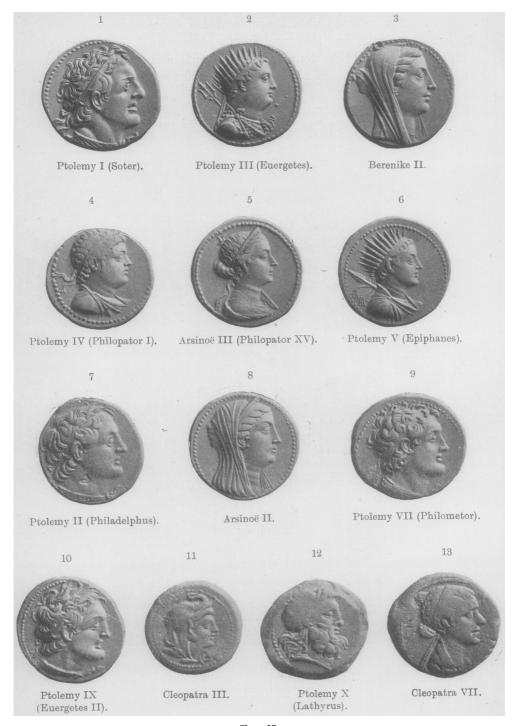


Fig. 27.

The two charges of cruelty always brought against her are that she murdered her sister, Arsinoë IV, and her brother, Ptolemy XV. The blame for the murder of her sister is minimized by the fact that Arsinoë, who had declared war against her, would have shown no mercy had she won the day; and with regard to Ptolemy XV, there is no proof that he was murdered, and if he was, the deed was done at Rome when Cleopatra was entirely under Cæsar's influence, and in his power. Her end, when rather than grace her conqueror's triumph she committed suicide, was that of a plucky woman (fig. 27, 13).

Cleopatra had one son by Julius Cæsar and three children by Antony. The son was murdered and two children are known to have married and to have had children.

### SUMMARY OF PTOLEMAIC SECTION.

The Ptolemies born from consanguineous unions were neither better nor worse than the first four kings of the same family issued from non-consanguineous marriages, and had the same general characteristics. Their conduct of foreign affairs and of internal administration was in every way remarkable and energetic. They were not unpopular in their capital, and the Alexandrians rallied round their rulers when the Romans entered Egypt and resisted the foreigner.

Though much has been written about the awful sexual immorality of the Ptolemies, they must not be judged by comparison with the morals of this century, but an opinion must be based on the study of the literature and customs of the time. The chief characteristic of the Alexandrian literature is its eroticism, and the standard of morality was as low as it possibly could be. The spirit of disparagement which existed always led to a systematic slandering of the reigning king; and, later on, the Romans industriously blackened the character of their future opponents. Thus it is not unlikely that the Ptolemies were better than they have been painted. Their standard of morality was certainly not lower than that of their fellow townsmen.

The children from these incestuous marriages displayed no lack of mental energy. Both men and women were equally strong, capable, intelligent and wicked. Certain pathological characteristics, doubtless, ran through the family. Gout and obesity weighed heavily on the Ptolemies, but the tendency to obesity existed before consanguineous unions had taken place.

The male and female effigies on coins are those of very stout, well-

nourished persons. The theory that the offspring of incestuous marriages is shortlived receives no confirmation from the history of the Ptolemies

The length of life of the Ptolemaic kings was as follows:—

```
Ptolemy I, Soter
                                               Died at 84 years old
Ptolemy II, Philadelphus
                                                       62
                                        •••
                                                  ,,
Ptolemy III, Euergetes I
                                                       63
                                                  ,,
                                                                   (murdered?)
Ptolemy IV, Philopator
                                                       39
                                        ...
                                                  ,,
                                                              ,,
                                                                   (killed?)
Ptolemy V, Epiphanes ...
                                                       28
                                ...
                                        ...
Ptolemy VI, Eupator ...
                                                                   (?)
                                ...
                                         ...
Ptolemy VII, Philometor
                                                       42
                                                                   (killed)
                                ...
                                         ...
Ptolemy IX, Euergetes II
                                                       60
Ptolemy X, Soter II (Lathyros) ...
                                                       61
Ptolemy XI, Alexander I
                                                       62
Ptolemy XII, Alexander II
                                                       29
                                                                   (killed)
                                ...
                                         ...
                                                              ,,
Ptolemy XIII, Auletes ...
                                                       59
                                . . .
                                         ...
Ptolemy XIV and Ptolemy XV ...
                                                                  (both killed young)
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Omitting those who died violent deaths, the average length of life of the Ptolemies was 64 years. Several women of the family reached an advanced age, amounting in three cases over 60 years. Owing to the lack of statistics in ancient Alexandria, it is impossible to compare the length of life of Ptolemaic kings with that of other Alexandrian families. But when we consider the nature of these lives, diversified by intrigues, murders, wars and debauchery, we may admit that the Ptolemies possessed remarkably strong constitutions.

Sterility was not a result of these consanguineous marriages. No case of idiocy, deaf-mutism, &c., in Ptolemaic families has been reported. With regard to the theory that hereditary pathological tendencies are "reinforced" by consanguineous marriages, cousins or near relatives who marry are not usually affected with nor predisposed to deaf-mutism, idiocy, epilepsy, nor to the other infirmities which are said to threaten the children of consanguineous parents. There can be no question of any reinforcement of a hereditary tendency which does not exist on either side. The history of the Ptolemies does not show that their predisposition to obesity or to gout was increased by their consanguineous marriages. Had the families of these monarchs suffered from some hereditary disease, the local satirists would have made capital of it, with due exaggeration, and the fact that they were silent is of the utmost importance.