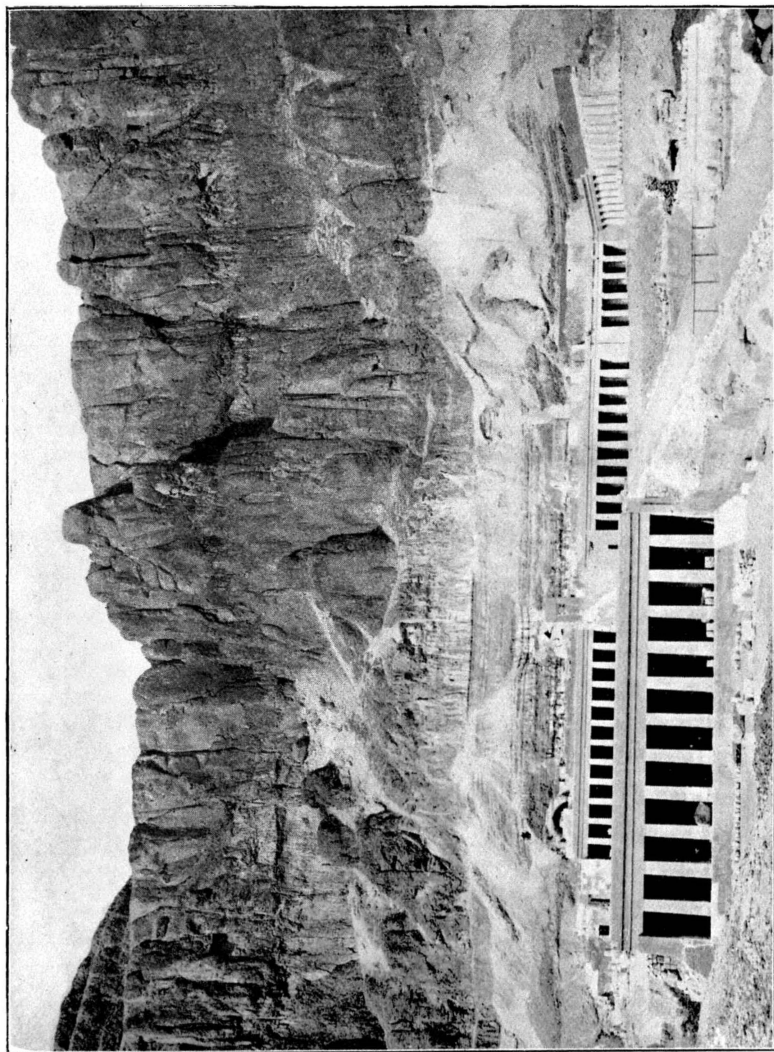


THE ORIGINS OF ARCHITECTURE

THE ARCHITECTURE
OF ANCIENT EGYPT



QUEEN HATSHEPSUT'S TEMPLE, DER-EL-BAHRI

Rev. in / / / / /
Miss A. Brewster
THE
ARCHITECTURE OF
ANCIENT EGYPT

A HISTORICAL OUTLINE

BY
EDWARD BELL
M.A., F.S.A.



WITH ILLUSTRATIONS

LONDON
G. BELL AND SONS, LTD.

MDCCCXV

DIRECTOR'S LIBRARY
ORIENTAL INSTITUTE
UNIVERSITY OF CHICAGO

NA 215

“The Egyptians are averse to adopt Greek customs, or, in a word, those of any other nation.”

HERODOTUS, ii, 96.
(*tr.* Rawlinson.)

CHISWICK PRESS: CHARLES WHITTINGHAM AND CO.
TOOKS COURT, CHANCERY LANE, LONDON.

PREFACE

THIS volume was begun as the first instalment of an attempt to trace, for the information of unlearned or general readers, the architectural tradition from its remoter origins to the time when it became generally recognized as part of Roman civilization. The rapid advances which archaeology has made in the few years of the present century may, perhaps, excuse an effort, however imperfect, to bring together in a connected and historical form a certain amount of recent information which is at present dispersed in special books and papers.

In giving precedence to Egypt, I am only following the plan of every book that treats historically of architecture in general, and though I appreciate the motives which have led Mr. H. R. Hall, in his learned and now indispensable work on the ancient history of the Near East to deal first with the Aegean civilization, I do not find in them any reason to displace Egypt from the position hitherto assigned to it in this particular branch of art.

It may be thought that recent works dealing comprehensively with the subject of architecture, such as Professor Simpson's on "The History of Architectural Development," or Mr. Statham's interesting and original

volume, "A Critical History of Architecture," or Mr. Lethaby's suggestive little book on the subject, render any similar attempt superfluous, but in all these works, except perhaps the last, the proportion of space which could be allotted to the early stages of so vast a subject is necessarily very limited. The reader, consequently, fails to realize that the various phases presented to him are sometimes separated by thousands of years and existed in very different social circumstances; and in regard to Egypt particularly is apt to derive the impression that the so-called "orders" were throughout contemporaneous, or as nearly so as those of the comparatively short classic epoch. There seems, therefore, to be room for a book, which, though little more than an outline, and pretending to no technical treatment, aims at giving a historical view of the subject, and notes the changes in aesthetic ideals which, notwithstanding the innate conservatism of the Egyptian race, took place at one or two periods of their history.

Though the art of Egypt as a whole, especially from the decorative side, has been elaborately and in some cases magnificently treated in works by Champollion, Lepsius, Prisse d'Avennes, Maspero, and Perrot and Chipiez, I am not aware that the special subject of architecture has been separately dealt with in the manner and on the moderate scale here attempted, and certainly not since the archæological work of the last few years has thrown additional light upon it. The discovery and excavation by Professor Naville and

Mr. Hall of the remarkable XIth dynasty temple at Dēr-el-Bahri is an event of the greatest architectural interest, and the still more recent excavation by Professor Naville of the supposed Osireion at Abydos is no less important historically.

I have thought that any interest the book may have would be increased by adding as an appendix a paper by Lepsius dealing with some features of Egyptian art, which, I believe, has not been translated before. He visited Egypt in 1842 as leader of a scientific expedition sent by King Frederick William IV of Prussia. No one who reads his letters from Egypt and Sinai can fail to perceive that he was a man of exceptional powers, both mental and physical, and will recognize the acuteness of his observations and deductions. This paper was published in 1872, and therefore represents his mature views. That it is necessarily out of date in some particulars, when phases of civilization in the Mediterranean and Western Asia, unsuspected by him, have been brought to light, will be obvious to every reader, but it contains so much that is suggestive in relation to Egyptian conventional art and the evolution of its architecture with its influence on that of Greece that I hope no one will think its inclusion superfluous.

Though the architecture of Egypt ceases after the XXth dynasty to have any special importance in the general development of the art, I have been tempted to go beyond my original purpose by describing and illustrating later monuments, partly with a view to giving the

book an independent status, and partly in the hope that it may be of some use as a companion so far as it goes to the handbooks of Murray and Baedeker. To these excellent guides, edited respectively by Mr. Hall and Professor Steindorff, I am mainly indebted for historical and topographical details, and for more recent information I owe no less to Messrs. King and Hall's "Egypt and Western Asia in the Light of Recent Discoveries," and to Mr. Hall's volume on the Near East already mentioned. I am also much indebted to Dr. Wallis Budge's "Guide to the Egyptian Collections in the British Museum," and to the trustees for permission to copy some of the illustrations contained therein.

No architectural work can be of much general interest without the aid of illustrations, and I have availed myself of as many as could be conveniently obtained and used. I have to thank the representative of the late Mr. John Ward, F.S.A., for enabling me to use a large number of those, including some sketches by himself, which appeared in his volume of Egyptian travel, entitled "Pyramids and Progress." I must also express my thanks to Professor W. M. Flinders Petrie for allowing me to copy or borrow a number of illustrations from his works, and for other obligations; to Mr. R. Phené Spiers for his kind permission to use two of his published drawings made in 1866, which form only a small proportion of a collection of highly interesting water-colours; to Miss E. L. Lister for the use of two of her own drawings; to the committee of the Egypt

Exploration Fund for permission to copy several illustrations from their invaluable publications; to Messrs. Macmillan for a similar permission to use two which appear in Chapter I; to Mr. J. Williamson for several accurate drawings in line; and to Mr. James Kennedy for the loan of various books and papers not in all cases easily accessible.

August, 1915.

E. B.

CONTENTS

CHAPTER	PAGE
LIST OF ILLUSTRATIONS	xv
LIST OF MAPS AND PLANS	xxi
ABBREVIATED REFERENCES	xxiii
I. PRIMITIVE BUILDING	3
II. EARLY EGYPT—PREHISTORIC AND DYNASTIC	11
III. THE RELIGION OF EGYPT	16
IV. EARLY FORMS OF TOMBS	21
V. THE PYRAMIDS OF GIZA	33
VI. BUILDINGS OF THE OLD KINGDOM: MENTU- HETEP'S TEMPLE	47
VII. THE MIDDLE KINGDOM: BUILDINGS AND ROCK-HEWN TOMBS	57
VIII. THE NEW EMPIRE: DOMESTIC LIFE AND ART	75
IX. TOMBS AND TEMPLES: DĒR-EL-BAHRI . . .	89
X. THE TYPICAL TEMPLE OF THE EMPIRE— KARNAK	101
XI. KARNAK AFTER THE XVIII TH DYNASTY . .	111
XII. LUXOR	119
XIII. PERIPTERAL BUILDINGS	125
XIV. THE NINTH DYNASTY: THEBES AND ABYDOS	129
XV. ROCK-HEWN TEMPLES	143
XVI. RAMESES III—MEDINET HABU	153
XVII. THE TANITES, BUBASTIDES, AND NUBIANS .	162

CHAPTER		PAGE
XVIII.	THE SAÏTE DYNASTY: THE SUBJUGATION OF EGYPT	167
XIX.	THE PTOLEMAIC DYNASTY	173
XX.	SUMMARY	197
APPENDIX —		
I.	LEPSIUS ON SOME FORMS OF EGYPTIAN ART AND THEIR EVOLUTION	209
II.	THE SUPPOSED OSIREION AT ABYDOS	241
III.	ON THE EGYPTIAN OBELISKS	244
	INDEX	251

LIST OF ILLUSTRATIONS

	PAGE
QUEEN HATSHEPSUT'S TEMPLE AT DĒR-EL-BAHRI	
<i>Frontispiece</i>	
THE GREAT PYRAMID AND THE SPHINX FROM THE SOUTH-EAST	2
GREAT DOLMEN AT BAGNEUX	3
STONE BOXES FOUND IN MELOS AND AMORGOS	6
EARLY DYNASTIC MODEL OF AN EGYPTIAN HUT	7
THE DYNASTIC VASE	12
INSCRIBED SLAB SHOWING FORTIFICATIONS	13
WINGED SOLAR DISK	16
THE PYRAMID OF MEDUM	20
A MASTABA	21
THESER'S MASTABA	22
THE STEP PYRAMID OF TJESER	24
PYRAMIDS AT DASHUR	24
DIAGRAM OF THE PYRAMID OF MEDUM	25
FLOOR OF A MASTABA	27
CEILINGS IN THE TOMB OF THĪ	28
MASTABA WITH PORTICO	29
CEILING OF MERERUKA IN HIS TOMB	30
WALL RELIEF FROM THE TOMB OF THĪ	31
THE PYRAMIDS OF GIZA FROM THE SOUTH-SOUTH-WEST	32

	PAGE
SECTION OF THE GREAT PYRAMID	35
RELIEVING SYSTEM ABOVE THE KING'S CHAMBER	36
FIFTH DYNASTY PAPYRUS AND PALM COLUMNS	37
LOWER TEMPLE OF KHAF-RA	41
GRANITE PILLARS IN THE TEMPLE	41
THE SPHINX FROM THE SOUTH	43
THE SPHINX FROM THE EAST	43
KHAF-RA'S TEMPLE: THE TRANSVERSE GALLERY	44
DIORITE STATUE OF KHAF-RA	45
THE PLATEAU OF GIZA	46
GREAT PYRAMID AT ABUSIR	47
MASTABAT-EL-FARAUN	48
DIAGRAM OF SMALL OBELISK MONUMENT	49
SECTION OF SMALL PYRAMIDAL TOMB, ABYDOS	49
TOMB COMBINING MASTABA AND PYRAMID	50
REMAINS OF NORTH BRICK PYRAMID, DASHUR	51
BRICK PYRAMID OF SENUSERT II, ILLAHUN	51
THE TEMPLES AT DÉR-EL-BAHRI	52
ROCK-HEWN TOMBS AT BENI-HASAN	56
PYRAMID AT EL-KULA	57
SECTION OF THE SEPULCHRE, HAWARA PYRAMID	58
THE CITY OF EL-KAB	61
THE OBELISK AT HELIOPOLIS	62
LANDMARK OF SENUSERT I	63
A PYLON FROM A MURAL RELIEF	64
PECTORAL OF SENUSERT II	65
ROCK TOMB OF MEKHU, ASSUAN	67
TOMB OF AMENI, BENI-HASAN	68
TOMB OF KHNEMUHETEP II, BENI-HASAN	68
CLUSTERED COLUMN, BENI-HASAN	69
INTERIOR OF THE TOMB OF AMENI	70

	PAGE
WRESTLERS, FROM WALL PAINTINGS, BENI-HASAN	71
UNFINISHED COLUMN, BENI-HASAN	72
A THEBAN VILLA OF THE XVIII TH DYNASTY (RE- CONSTRUCTED)	74
WALL AND CEILING DECORATIONS	76
DETAILS FROM THE PAVEMENT, TEL-EL-AMARNA	80
PART OF THE PAINTED PAVEMENT, TEL-EL-AMARNA	81
RECONSTRUCTION OF THE PALACE, TEL-EL-AMARNA	83
FRONT OF A TWO-STORIED HOUSE	85
SIDE OF THE SARCOPHAGUS OF MENKAU-RA	86
CLAY MODEL OF A TWO-STORIED HOUSE	87
WOODEN MODEL OF A GRANARY	87
VESTIBULE TO THE SHRINE OF ANUBIS, DÉR-EL-BAHRI	88
ONE OF HATSHEPSUT'S SHIPS	93
FAÇADE OF THE SHRINE OF ANUBIS	95
ALTAR AT DÉR-EL-BAHRI	96
STATUE OF RAMESES II, AND ENTRANCE TO TEMPLE OF RAMESES III, KARNAK	100
FALLEN OBELISK OF QUEEN HATSHEPSUT AND ONE OF THOTHMES I, KARNAK	105
PAPYRUS AND LOTUS PILLARS OF THOTHMES III, KARNAK	106
INVERTED COLUMNS IN THE HALL OF THOTHMES III, KARNAK	107
THE EASTERN ADDITION OF THOTHMES III, KARNAK	108
LATERAL COLUMNS OF THE HYPOSTYLE HALL, KARNAK	110
THE TEMPLE FROM THE SACRED LAKE, KARNAK	111
SECTION OF THE HYPOSTYLE HALL, KARNAK	112
TAHARKA'S COLUMN, KARNAK	114
RAM-HEADED SPHINXES, KARNAK	115
THE TEMPLE AT LUXOR	118

xviii LIST OF ILLUSTRATIONS

	PAGE
THE CENTRAL COLONNADE, LUXOR	119
AMENHETEP III'S COLONNADES, LUXOR	121
OBELISK OF RAMESSES II, LUXOR	122
PERIPTERAL TEMPLE AT ELEPHANTINE	124
THE SMALLER TEMPLE AT MEDINET HABU	124
QUADRANGULAR PIER FROM A TEMPLE AT KARNAK	126
THE COLOSSI OF AMENHETEP III	128
THE RAMESSEUM, OSIRIDE FIGURES	131
STORE CELLARS, RAMESSEUM	132
THE RAMESSEUM FROM THE NORTH-EAST	133
TEMPLE OF SETI I, KURNA	134
TEMPLE OF SETI I, ABYDOS: EXTERIOR COLONNADE	135
WALL PAINTING AND RELIEF, ABYDOS	138
THE TABLET OF ABYDOS	139
THE GREAT TEMPLE, ABU SIMBEL	142
THE SMALLER TEMPLE, ABU SIMBEL	143
RUINS OF PITHOM	144
SILSILA: A NINETEENTH DYNASTY SHRINE	146
POLYGONAL COLUMN FROM BEIT-EL-WALI	147
ABU SIMBEL: THE GREAT TEMPLE FROM THE NORTH- EAST	148
ABU SIMBEL: DETAIL FROM ONE OF THE FIGURES	149
ABU SIMBEL: INTERIOR OF THE FIRST HALL	150
ABU SIMBEL: FRONT OF THE SMALLER TEMPLE	151
MEDINET HABU: COLONNADE IN THE FIRST COURT	153
SCULPTURE IN SUNK RELIEF, MEDINET HABU	156
THE PAVILION, MEDINET HABU: ENTRANCE AND SOUTH SIDE	158
WALL RELIEFS FROM THE PAVILION	159
TEMPLE OF KHONSU, KARNAK	160
HATHOR-HEADED CAPITAL	163

LIST OF ILLUSTRATIONS

	PAGE
TEMPLE AT NAPATA	165
THE TEMPLE AT EDFU	172
PYLON, EDFU	174
INNER PORCH, EDFU	176
GRANITE SHRINE, EDFU	177
CAPITALS, ESNA	179
THE FAÇADE, DENDERA	181
IN THE PRONAOS, DENDERA	181
HYPOSTYLE HALL, DENDERA	182
BAS-RELIEF, DENDERA	183
CHAPEL ON THE ROOF, DENDERA	184
WINDOW FROM DENDERA	185
KOM OMBO (2 views)	186
COLONNADE, PHILAE	188
TEMPLE OF HATHOR, PHILAE	189
PAVILION, PHILAE	190
PHILAE FROM THE SOUTH-EAST	193
TEMPLE OF ISIS, PHILAE: HYPOSTYLE HALL	194
TEMPLE OF ISIS: DOORWAY OF THE INNER PYLON	195
PHILAE FROM THE SOUTH	196
COLOSSAL HEAD OF THOTHMES III	200
SKETCH FOR PAINTING OR RELIEF	217
HEAD OF AMENHETEP IV, FROM A STATUETTE	218
AMENHETEP IV AND HIS FAMILY	219
PALM-FROND CAPITAL	227
CLUSTERED PAPYRUS STALK COLUMN	228
BULBOUS COLUMN	229
LOTUS COLUMN	230
DECORATIVE FORMS FROM RELIEFS, ETC.	231
FALSE DOOR FROM A SEVENTH DYNASTY MASTABA	237
CAPITAL FROM THE TOMB OF PTAH-SHEPSES	240

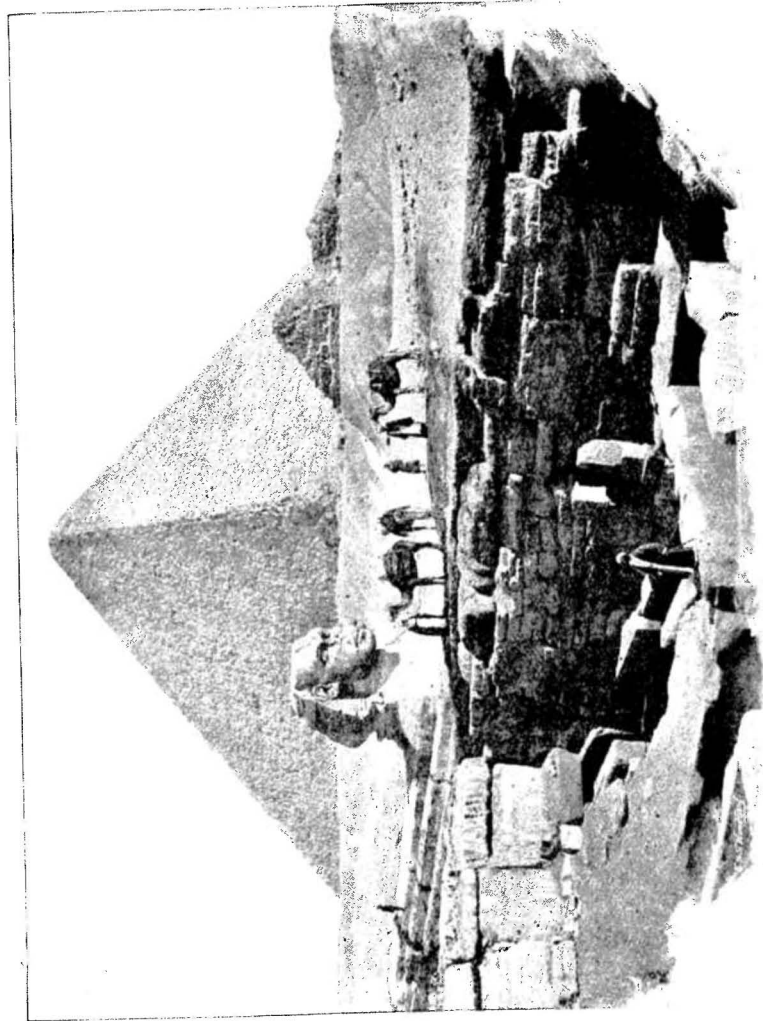
	PAGE
RECORD OF THE ERECTION OF AN OBELISK FROM A TOMB	245
CLEOPATRA'S NEEDLE, LONDON	246
CLEOPATRA'S NEEDLE, NEW YORK	247
OBELISK OF RAMESES II FROM LUXOR, IN PARIS	248

MAPS AND PLANS

	PAGE
STONE DWELLING AT CHYISOISTER	6
TOMB OF MERERUKA	30
KHAF-RA'S TEMPLES AT GIZA	39
XIVTH DYNASTY TEMPLE AT DËR-EL-BAHRI	53
FORT OF SEMNA	60
PALACE, TEL-EL-AMARNA	79
PLAN OF A PALACE FROM A MURAL RELIEF, TEL-EL- AMARNA	83
HOUSES, TEL-EL-AMARNA	84
XVIIIth DYNASTY TEMPLE AT DËR-EL-BAHRI	91
SKETCH PLAN OF THE THEBAID	101
GREAT TEMPLE OF KARNAK	104
SKETCH PLAN OF KARNAK	117
TEMPLE AT LUXOR	120
RAMESSEUM	130
TEMPLE OF SETI I AT ABYDOS	136
TEMPLE OF RAMESES II AT ABYDOS	140
SEPULCHRE OF SETI I	140
ROCK TEMPLE AT GEBEL ADDA	147
GREAT TEMPLE AT ABU SIMBEL	148
THE TWO TEMPLES AT MEDINET HABU	155
TEMPLE, EDFU	175
TEMPLE, DENDERA	180
TEMPLE, KOM OMBO	187
PHILÆE	191
EGYPT AND NUBIA	<i>End</i>

ABBREVIATED REFERENCES

- B.M. British Museum.
- BREASTED. A History of Egypt. By John Henry Breasted, Ph.D. 1905.
- BUDGE. A Guide to the Egyptian Collections in the B.M. By Dr. E. A. Wallis Budge. 1909.
- E.E.F. Egypt Exploration Fund.
- FOUCART. Histoire de l'ordre lotiforme. By George Foucart. 1897.
- HALL, N.E. The Ancient History of the Near East. By H. R. Hall. 1912.
- H.S. Journal of Hellenic Studies.
- R.I.B.A. Journal of the Royal Institute of British Architects.
- KING AND HALL. Egypt and Western Asia in the Light of Recent Discoveries. By L. W. King and H. R. Hall. 1907.
- MASPERO. Egyptian Archaeology. By Sir Gaston Maspero (translated by A. B. Edwards). 1889.
- MURRAY. Handbook for Egypt and the Soudan. Edited by H. R. Hall. 1907.
- PERROT AND CHÉPIEZ. A History of Art in Ancient Egypt. By G. Perrot and C. Chépiez (translation). 1885.
- PRISSE D'AVENNES. Monuments Égyptiens. By Prisse d'Avennes. 1847.
Histoire de l'Art Égyptien. " " 1879.
- PETRIE'S HIST. A History of Egypt (Methuen), vols. i-iii. By W. M. Flinders Petrie, D.C.L., F.R.S. 1894-1905.
- STATHAM. A Short Critical History of Architecture. By H. H. Statham, F.R.I.B.A. 1912.
- VYSE AND PERRING. The Pyramids of Gizeh. By Col. H. Vyse; with a Survey by J. S. Perring. 1840-2.
- WARD. Pyramids and Progress. By John Ward, F.S.A. 1900.



THE GREAT PYRAMID AND THE SPHINX FROM THE SOUTH-EAST



GREAT DOLMEN AT BAGNEUX NEAR SAUMUR

EGYPTIAN ARCHITECTURE

CHAPTER I

PRIMITIVE BUILDING

IN attempting to give an outline of the early history of Architecture it may be well to define the sense in which the term is used. It is derived from the Greek word *ἀρχιτέκτων*, a chief-builder, and may be assumed to signify the art of designing a building and superintending its construction. Since only a building of some importance would require such care and supervision, Architecture may be defined as the art of building in an ornate, stately or otherwise excellent manner, as distinguished from any of the purely utilitarian modes of construction which have been used at various times to

satisfy the simplest requirements of man. A mud hut or a plain wall can hardly be said to be a work of architecture; but nevertheless, if their construction is such as to connect them with the evolution of more elaborate buildings, such works may have their place in a history of the art.

The word is also commonly employed in a more restricted sense to particularize various modes of construction or styles of ornamentation prevailing at different times or places; and inasmuch as the population of the world is divided into distinct races, which have no apparent common ancestry, it is obvious that there must or may be distinct processes of evolution in their work: but when there is no such sharp distinction, this use of the word has sometimes led to a disconnected and therefore misleading treatment of the subject, to fruitless speculations as to the "invention" of this or that style or detail, ignoring the fact that in any form of traditional civilization there are no distinct lines of demarcation, and that Architecture is a gradual and continuous process of evolution in which every so-called style has its links with something that precedes it.

It may be taken for granted that the impulse to build has found expression in every race that is not persistently nomadic, and that every existing building meant for habitation, defence or worship, has a germ or prototype in some primitive structure, whether earthwork, mud hut, lake-dwelling, dolmen or stone circle of prehistoric man: and though it is as impossible to specify the beginning of art of any kind as it is to trace back the human race to its origin, yet it is obvious that structures required for protection must have preceded what we call architecture, and that every civilized nation must at some re-

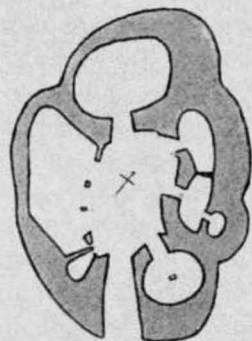
more period of its history have found its way from such rude contrivances to buildings of a more elaborate kind, which in their use and form reflect the character, ideals and habits of their builders, and by the method of construction measure the degree of civilization or artistic perception to which they have attained.

Hence it is that in countries both geographically and historically remote from each other, there are found remains, few and scattered, of stone structures which have resisted the destroying action of time or of later generations, and which show with more or less similarity the earliest attempts of man to construct durable buildings. In Greece, Italy, and Western Asia are found remains of masonry which from their massive nature are called Cyclopean, or from their mode of structure Polygonal, and which are often attributed rather indiscriminately to an early race called Pelasgi. In Western Europe and Britain there remain megalithic monuments which similarly illustrate the laborious achievements of aboriginal inhabitants or early immigrants still ignorant of all but the simplest tools. Remarkable examples of dolmens or primitive stone structures exist in England and France, which probably served some religious or monumental purpose, and though the prehistoric antiquity of Stonehenge is doubtful,¹ in any case it throws light on the efforts of an earlier generation to give perpetuity to a religious structure.

The aboriginal inhabitants of Britain when they began to forsake their cave-dwellings, made circular huts of wattle and mud partly buried in the ground, and it is

¹ In "Stonehenge and its Earthworks," 1895, the late Mr. Edgar Barclay gives reasons for supposing that this work by British builders was subsequent to the Roman occupation.

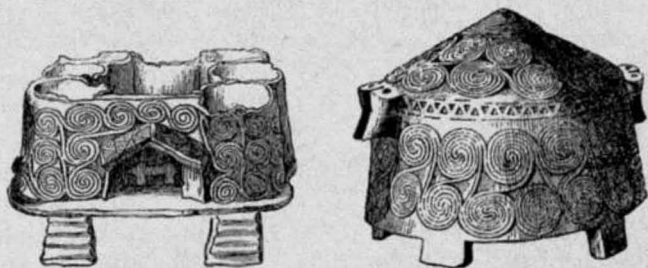
probable that a circular form was generally adopted for the first dwellings made by hand, as may be inferred from undated remains still existing in some parts of England.¹



PLAN OF A PREHISTORIC STONE DWELLING AT CHY-SOISTER. The extreme length is about 86 feet.

That this round building is in accordance with an elementary instinct is shown by its wide prevalence, and by its existence to this day in the shape of Kaffir kraals, or the Red Indian's skin-covered wigwam. Two curious relics from the Cyclades, which have been frequently represented in works on Aegean art, consist of boxes carved in stone, which though decorated externally with a spiral pattern

much used in the Bronze Age, are obviously modelled from early dwellings, one being apparently a house of some size raised on piers. A



STONE BOXES FOUND IN MELOS AND AMORGOS

From Tsountas and Manatt's "The Mycenaean Age" (Macmillan and Co.)

¹ As at Grimspound on Dartmoor, or Chysoister near Penzance. See "Prehistoric Stone Monuments: Cornwall," W. C. Lukis.

model of an Egyptian hut made of mud probably on a core of vegetable stalks or fibre, shows the same use of curved surfaces. At Orchomenos in Boeotia there are a number of round and oval houses, the walls being of stone with domical roofs of clay.¹ All such examples of elementary or early efforts at building, disconnected as they are in time and place, are but scanty survivals of



[British Museum]

EARLY DYNASTIC MODEL OF AN EGYPTIAN HUT

what must have been a multitude of primitive works which time has obliterated. They take us back perhaps as far as we can get to the remote origins of architecture and have no necessary connexion with one another. They originate in spontaneous efforts which may in any land precede a methodical system of construction. But

¹ See Schuckhardt's "West-Europa als alter Kultur-Kreis," in the Transactions of the Royal Prussian Academy, 1913, for a recent treatment of this subject.

as men advanced in the knowledge of metals and in the use of tools it is obvious that their attempts at building would assume a more regular and systematic form. The use of squared and jointed timber would entail rectangular plans which would dictate the forms of later constructions in brick and hewn stone. Different races would each establish a tradition, and the elements of style in building would take shape, especially in the more important structures which are associated with the conceptions of divinity and supernatural powers innate in almost every race, or with the semi-divine character often attributed to kingship. Style would be further defined by the application of ornament to constructive forms. It may also be assumed that where timber was easily procurable it would be used for all ordinary purposes; and in spite of its perishable nature there are still visible examples of its use by prehistoric man in the lake-dwellings found in Switzerland and elsewhere. Moreover, it is evident that in many cases the form and decoration of stone structures have been influenced by a previous use of wood.

There are three materials, and in a general sense only three, which any primitive race could use in building, viz., stone, wood, and dried clay or mud, such as is found near the outfall of great rivers. Clay with a mixture of straw formed the sun-dried bricks of Lower Egypt. Bricks, sometimes set in bitumen, were used in Mesopotamia. Later, in combination with sand and lime, it went to form a harder cement. The origins of architecture may therefore be classified under the heads of stone, timber and plastic matter, and according to the prevalence of these materials the earliest methods of building would be influenced, and a traditional style would take shape. But at the same time it must be observed that

the migrations of races, and, after the establishment of nations, the intercourse that took place between them would necessarily affect their traditions, and modify both their ideas of art, and their methods of work; but primitive ideas would still linger, and produce combinations in structure and ornament which would give rise to fresh styles and traditions. As in organic nature the influence of environment and the combination of diverse types have caused the development of new species, so in the art of architecture the multiplicity and variety of styles at different times and in different regions, has mainly resulted from a continuous and unpremeditated process of selection and evolution.

LIST OF THE PRINCIPAL DYNASTIC KINGS OF EGYPT AND
THEIR CHIEF CITIES

DYNASTY	OLD KINGDOM	DYNASTY	MIDDLE KING- DOM (cont.)	DYNASTY	NEW EMPIRE (cont.)
I	This Mena } Aha } Contem- Narmer } porary or Den-Semti } identical <i>Manetho names 10 kings</i>	XIII } XIV }	History confused	XXII	Bubastis (966 B.C.) Sheshenk (Shishak) I Uasarken (Osorkon) I Uasarken II 11 kings
II	This Betju (?) Perabsen 9 kings	XV } XVI } XVII }	Semitic invaders (Hyksos). Chief city Avaris (Delta)	XXIII	Tanis (750 B.C.) Petabast Uasarken III
III	Memphis Khasekhemui Tjeser Senefru 10 kings		NEW EMPIRE (c. 1580 B.C.)	XXIV	Sais 2 kings
IV	Memphis Khufu Khaf-Ra Menkau-Ra 3 kings	XVIII	Thebes Aahmes (Amasis) Amenhetep I Thothmes I Thothmes II Hatshepsut Thothmes III Amenhetep II Thothmes IV Amenhetep III Amenhetep IV (Akhenaten) Tutankhamen Ai Horemheb	XXV	From Nubia (700 B.C.) Piankhi Shabaka Taharka Tanuathamen
V	Memphis Sahu-Ra Neferarika-Ra Ne-user-Ra Unas 9 kings			XXVI	Sais (666 B.C.) Psamtek Necho Hofra (Apries) Aahmes (Amasis) II 6 kings
VI	Memphis Teta Pepi I Pepi II 6 kings	XIX	Thebes (c. 1350 B.C.) Rameses I Seti I Rameses II Merenptah Seti II 8 kings	XXVII	From Persia (527 B.C.) Cambyses Darius I (Hystaspes) Xerxes I Artaxerxes Darius II
VII } VIII }	Memphis	XX	Thebes (c. 1200 B.C.) Setnekht Rameses III-XIII	XXVIII } XXIX }	Sais } Mendes } c. 400 B.C. 4 kings
IX } X }	Herakleopolis History obscure and lists apocryphal			XXX	Sebennytos (Delta) (378 B.C.) Nectanebo I and II
XI	Thebes Antef I Mentuhetep I-VII <i>From 7 to 10 kings</i>	XXI	Tanis (c. 1100 B.C.) Nesbanebtet 5 kings Thebes Herihor Pametchem I <i>And 3 other priest-kings</i>	XXXI	Persian (336 B.C.) Darius III Alexander the Great and the Ptolemies (332 B.C.—30 B.C.)
	MIDDLE KINGDOM				
XII	Thebes* Amenemhat I Sensert (Usertsen) I Amenemhat II Sensert II and III Amenemhat III and IV 8 kings				

* The kings resided at Mem-
phid lower down the Nile.

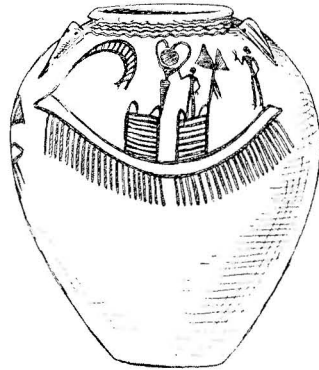
CHAPTER II

EARLY EGYPT—PREHISTORIC AND DYNASTIC

IT is not possible to trace step by step the process by which any style of architecture first arose, partly because the earlier and imperfect structures of perishable materials have generally been replaced by more perfect and durable ones, and partly because, when they have survived, historical records and inscriptions which would enable us to assign dates to them only occur after a considerable degree of mechanical or artistic skill has been attained. The one art which affords material help to the archaeologist is that of ceramics, for there occasionally occur remains of earthenware extending from neolithic times, to those which may be called historical, the progressive character of which enables us to assign, with more or less certainty, at least comparative dates to the successive strata in which they are found. The main fact which has become obvious is that long before historical data are available, a well developed and widely spread civilization prevailed round the eastern coasts in the islands of the Mediterranean, and in the fluvial region of Mesopotamia, traditions of which—long familiar from Greek mythology and Biblical history—have been to a large extent corroborated by excavations during the past and present centuries.

Of the foci of this ancient civilization, Egypt is that which has left at once the most imposing remains and

the oldest decipherable inscriptions: facts which are due to the existence in the regions south of the Nile-delta of extensive beds of limestone, sandstone and granite, and



PREDYNASTIC VASE. (B.M.)

The pattern, which is common on such vases, appears to represent a palisade and a primitive kind of pylon. Sometimes it seems to be meant for a boat.

when metal had already come into use, occur specimens of remarkable stone knives and of pottery decorated with designs of human, animal, and structural forms.

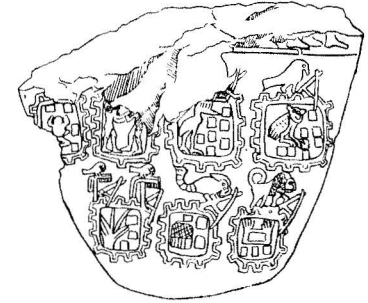
¹ The remarkable preservation of many of the monuments of ancient Egypt is due partly to the dryness of the climate and partly to the isolation of the inhabited tract by the desert, which kept it for some thousands of years almost entirely free from barbarian invasion.

² A specimen of this contracted form of burial may be seen in the British Museum. There is evidence that the custom was not absolutely abandoned in the IVth dynasty. The inference is that it is due to a more primitive race which had not been completely amalgamated. The whole subject is treated in detail by Messrs. King and Hall, "Egypt and Western Asia," ch. i and p. 83.

to the predilection of the inhabitants or their rulers for monumental building and permanent records.¹

There are, at the same time, abundant traces of a more primitive human life in Egypt. Prehistoric cemeteries have been explored, in which bodies, unlike those of historic times, were buried in a contracted position;² and manufactories of palaeolithic stone implements have been found on the desert border of the Nile-valley. Of a later date,

Whatever may have been the aboriginal race in the Nile-valley, the distribution of the primitive cemeteries, and a comparison of the earlier and later neolithic remains together with evidence of mingled elements both in the language and religion of the later Egyptians, tend to show that before the end of the neolithic period Egypt was divided into two kingdoms,³ and was invaded more than once by an Asiatic and probably proto-Semitic race,² who introduced a higher civilization, including a system of writing, and superior skill in mechanical crafts and the arts of life. But at a time when it is possible to assign something like definite dates and names to the kings, when what is known as dynastic history begins, probably about the middle of the 4th millenium B.C. the Egyptian people must already have attained to a considerable degree of civilization, and practised the art of building on a large scale.³



INSCRIBED SLAB

Probably of the first dynasty. It is apparently a list of seven towns, their names being indicated by pictographs and their size or tributary value by the enclosed squares. (Cairo Museum.)

The dynastic history of Egypt appears to fall into

¹ Breasted, p. 14.

² K. and H., p. 34.

³ Slate slabs of this date, like the one illustrated above, show on plan fortified enclosures surrounded by buttresses or towers, not unlike buildings of which remains exist in Mesopotamia.

three main epochs which are generally divided as follows.¹

(1) The Old Kingdom comprising the first eleven dynasties extending from some time in the 4th millenium to the beginning of the 2nd millenium B.C.²

(2) The Middle Kingdom comprising dynasties XII to XVII, and extending approximately from 2000 to 1600 B.C.

(3) The New Empire, comprising the succeeding dynasties to the end of the twenty-sixth (525 B.C.), at which date Egypt fell for a time under Persian domination. A few more native dynasties are registered, interrupted by internal wars and foreign invasions until 332 B.C., when Egypt, then a Persian satrapy, was conquered or reinstated as a kingdom by Alexander the Great. After his death it was ruled by the descendants of his representative, Ptolemy, until 30 B.C., when it became a Roman province.

The first king of the first dynasty is generally said, in accordance with Manetho's list, to be Menes or Mena. It is more than probable that he is identical with Ahamen, who with his contemporary or successor Narmer

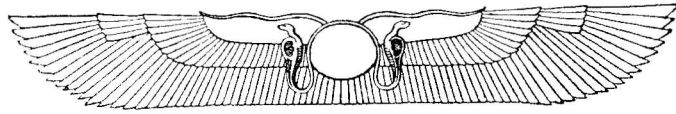
¹ See page 10. The list of so-called dynasties is due to Manetho, a priest, who wrote a history of Egypt in the time of Ptolemy I, about 300 B.C. Though it is known that some of his dynasties are wrongly indicated, his classification is universally accepted as a convenient formula for the grouping of the royal houses.

² The actual chronology of the first eleven dynasties is a subject of much doubt, the various systems which have been proposed differing by as much as 2,500 years. In these pages the system which gives the shortest dates has been in the main followed. In the XIIth dynasty the dates are said to be capable of verification by astronomical calculation, but it is only in the XXth dynasty that the several systems practically coincide. See Breasted, pp. 597-8.

came from the south, and by conquest added the Delta, the chief city of which was Buto, not far from the Mediterranean coast, to the extensive kingdom already established in the upper valley of the Nile. The southern capital was probably originally at Nekhen, afterwards called Hierakonpolis, nearly 400 miles south of the Delta, but later at Teni or This near Abydos, 150 miles lower down the Nile. Mena is said to have built Memphis, and transferred the capital to the north; but whatever the earlier history of this town may have been, it is probable that it did not supersede Buto as the royal city until the IIIrd dynasty, to which the earliest royal tombs in that neighbourhood are assigned. Before that the kings seem to have been buried at Abydos, near the ancient capital This. The remains of two brick-built fortresses of the Ist or IInd dynasty, one of which is called by the Arabs Shunet-*ez-Zebib*, show that the early kings had residences at Abydos. The heavily buttressed walls illustrate the plans of northern fortresses shown on the sculptured slate slabs which commemorate the conquests of Mena or Aha and Narmer.¹ Timber was also used more than some writers have supposed, and was probably more plentiful during the earliest dynasties than afterwards. There is evidence that tombs of the Ist dynasty were both floored and roofed with boards, but it was superseded for such purposes in the IIIrd dynasty by stone.²

¹ K. and H., pp. 50 and 89, and Murray's Handbook, p. 362.

² An interesting paper on "The Sources and Growth of Architecture in Egypt," by Prof. Flinders Petrie, is printed in the *Jl. R. I. B. A.*, viii, 341.



WINGED SOLAR DISK, AN EMBLEM OF HORUS
Frequently found as an ornament on cornices.

CHAPTER III

THE RELIGION OF EGYPT

IT is chiefly in sepulchral and religious monuments that the architectural history of Egypt can be traced. There is no nation whose development has been more influenced by supernatural conceptions. Belief in a continued existence after death is common in the most primitive races, but with the Egyptians it led to an elaboration of funerary customs and monumental building unrivalled in any other ancient nation. Of the Egyptian mythology it is impossible to give a connected account, because it took peculiar forms in different localities, and was never reduced by any conspicuous literary effort to a coherent tradition. But it is necessary to say a few words about it in order to account for the various attributions of the temples.¹ Towns remote from one another in the long and narrow valley of the Nile, which to the dwellers in it seemed to be the whole habitable world, had special presiding deities in addition to others of minor importance. From the confused mass of legend and superstition which attached religious significance and symbolism to the phenomena and processes of nature and animal life, and inferred the existence of good and evil spirits in almost

¹ A general sketch of the religion of Egypt will be found in Breasted, pp. 54-61, and details as to numerous gods in Dr. Budge's "Guide to the Egyptian Collections in the B.M.," ch. vii.

every living thing, the fact emerges that the sun was regarded as the great source, or at least symbol of power, and of the continual renewal of life after death. But even before Ra, the sun-god, came Thoth, the creator of the world, and Ptah, who assisted in the creation, and was regarded as the god who presided over all mechanical work. The chief seat of the worship of Ra was Annu or On, the Greek Heliopolis, in the Delta; but under other names he was worshipped almost universally. Keb, the Earth, and Nut, the Heavens, were his children, and they in turn, according to some legends, gave birth to Osiris and Isis. The slaying and dismemberment of Osiris by Set, another son of Keb and Nut, the sorrows of his sister-wife Isis, and his resuscitation by her efforts in the form of a god, who presided over the destinies of mortals both as a mediator and a judge form the subject of an epic legend. The cult of Osiris became widely recognized, and had its centre at Abydos, where his head was said to have been buried. One of the most important recent discoveries there is his sanctuary, supposed to be coeval with the pyramids, consisting of a hall about 100 by 66 feet in area, divided longitudinally by two rows of massive rectangular piers, with smaller chambers and a sepulchral cavity at the end.²

Horus, the son of Osiris and Isis, appears as a god in various forms, and is sometimes identified as the sun-god. In many religious centres a triad consisting of a god, goddess, and their son was worshipped. When, under the XIth dynasty, Thebes became a centre of government, the local god Amen was identified with

² The date of this remarkable building is still doubtful. See Appendix II.

the sun-god under the name Amen-Ra, and with his female counterpart Mut and their son Khonsu had temples at Karnak and Luxor.

Nut, the sky-goddess, became differentiated, like Horus, in various characters at different places. At Sais she was probably represented by the local goddess Neit,¹ whom the Greeks seem to have identified with Pallas.² In the more primitive mythology the sky was symbolized both as a woman and as a cow, typical of the nourishing qualities of nature, and at an early period Dendera became the centre of the worship of another form of this goddess under the name Hathor, with whom the cow was especially associated. At Bubastis she appears as Bast in the form of a cat. The continued tendency to associate animals with special characteristics of supernatural beings, is a marked feature of the polytheism of the Egyptians. The Bull under the name Apis at Memphis or Mnevis at Heliopolis was probably at first a form of Ptah;³ the hawk was associated with Ra, and the jackal with Anubis, a god of the lower world who presided over sepulchral rites. Many birds and beasts in this way acquired a sacred character, but it was only at a late date, and towards the decline of the nation that the worship of animals as such became a recognized cult.⁴ The number of gods mentioned in various inscriptions and texts is said to amount to more than 2,000 and though there are some indications of a tendency to regard them all as attributive to the sun-god Ra, the only real attempt to restore simplicity to the religious system was made by the philosophic king Amenhetep IVth, who

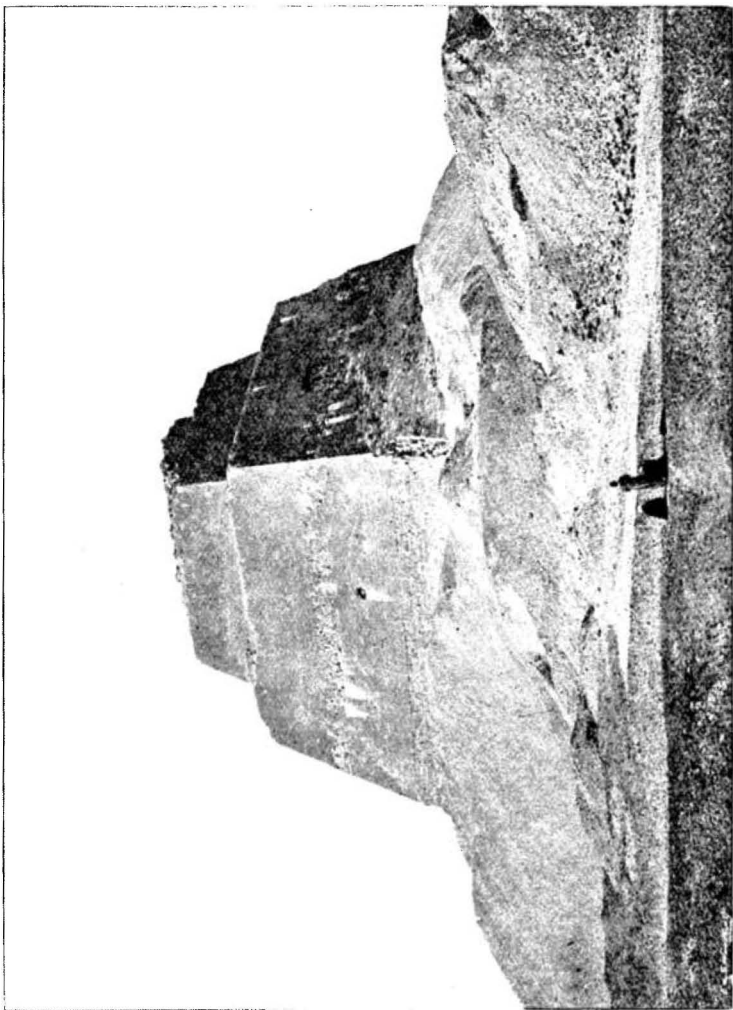
¹ Breasted, p. 59.

² See Rawlinson's "Herodotus," ii, p. 102 n.

³ Breasted, pp. 46, 575. ⁴ *Ibid.*, p. 60.

changed his name to Akhenaten,¹ and tried, in opposition to the priesthood, to establish a monotheistic worship of a God adored through the medium of the sun's disk. In this he signally failed, and the old superstitions survived in forms continuously exaggerated down to the Roman period.

¹ The name is also transliterated as Ikhnaten and Khuenaten. It means Spirit of the Sun-god. See Breasted, pp. 360-364.



THE PYRAMID OF MEDIUM



A MASTABA NEAR THE GREAT PYRAMID
From Prisse d'Avennes

CHAPTER IV

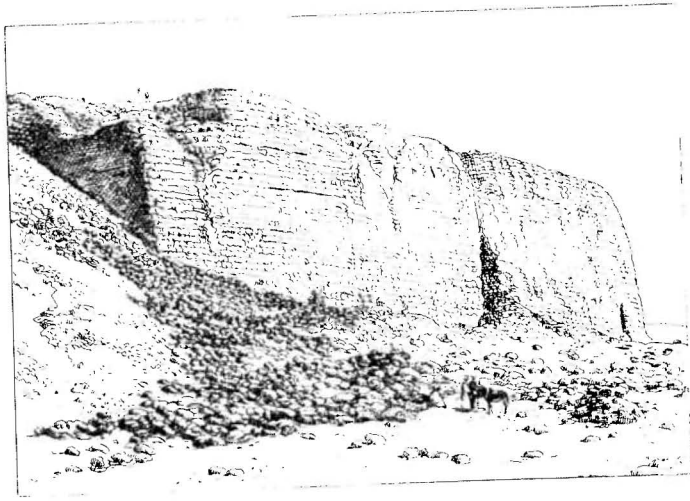
EARLY FORMS OF TOMBS

IT is supposed that the earliest religion of the Egyptians, before the development of their complicated mythology, was based on the worship of ancestors and the divine character of kings¹—ideas to which modern parallels are found in China and Japan. To some such primitive system may be ascribed the importance persistently given to sepulchral rites and monuments.

The earliest tombs erected for kings and nobles were rectangular structures at first of brick, but afterwards of stone, the courses being sloped on the outer surface or slightly rebated so as to give the appearance of battering

¹ Budge, B.M. Guide, pp. 116, 189. On the persistence of this belief, see Breasted, pp. 122, 123.

sides.¹ They generally have on one side an architectural panel imitating a door with an inscription in hieroglyphics. In the interior there is nearly always a small chamber, or more than one, and through or beneath the substance of the mastaba there is a deep rectangular shaft or pit leading to a cavity in the earth below in



BRICK MASTABA BUILT BY TJESER AT BET KHALLĀF, NEAR ABYDOS

which the mummified body was deposited, after which the shaft was filled up.

There is a large brick-built mastaba at Nakada, a village a little above Abydos on the left bank of the Nile, which is the tomb of Mena or Aha, and is the only royal

¹ The size of these mastabas (so called from the Arab word for a "bench") varies from thirteen to thirty feet in height, though some few are larger.

tomb of the Ist dynasty known. Its sides have projecting buttresses suggesting a similarity to the early fortifications attributed to the same period.

Another immense brick-built mastaba, forty feet in height and about 280 by 150 in area, also in the neighbourhood of Abydos, is the tomb of King Tjeser of the IIIrd dynasty. Through one end there is a stairway leading to a descending passage which terminates in a series of mortuary chambers. The passage is intercepted in several places by heavy stones which were let down through shafts from the top of the building with the object of securing the inviolability of the tomb.

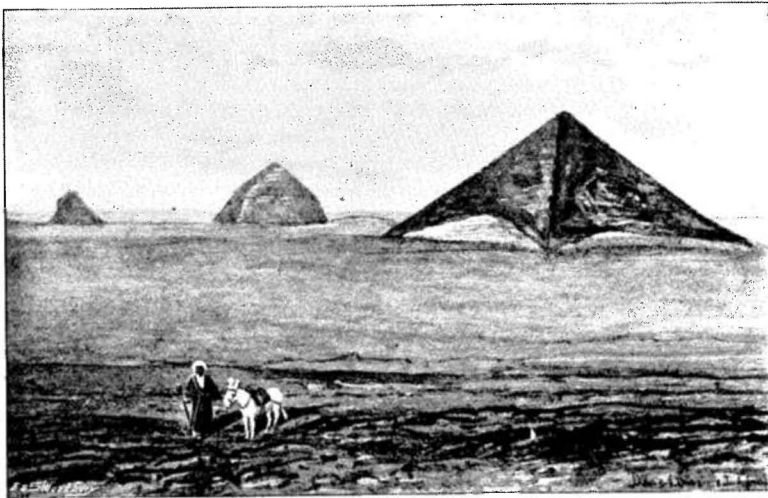
Hitherto sun-dried bricks had formed the material for building, though stone was sometimes employed in details as in Tjeser's mastaba, or for the granite flooring found in the tomb of Den-Semti a king of the Ist dynasty.¹ But it seems to have occurred to Tjeser to substitute stone for brick, for another monument built by him consists entirely of limestone. It was by no means unusual for kings to have a second tomb, a custom originating possibly in the desire that the so-called *ka*, or "double," should find a temporal retreat both at Abydos, where it was supposed that Osiris was buried, and at some other site associated with the life or death of the deceased ruler; though it is not always clear which is the actual sepulchre and which the secondary one.² Tjeser accordingly built a stone mastaba at Sak-kara, near Memphis, on which, it is assumed, he afterwards imposed another of smaller area, and repeated the process as time went on, until he had produced what is known as the Step-pyramid. It has altogether six

¹ K. and H., p. 65.

² See "The Pyramid of Moeris," by H. R. Hall, J. H. S., xxvi.

*British Museum Guide]*

PYRAMID OF TJESER, SAKKARA

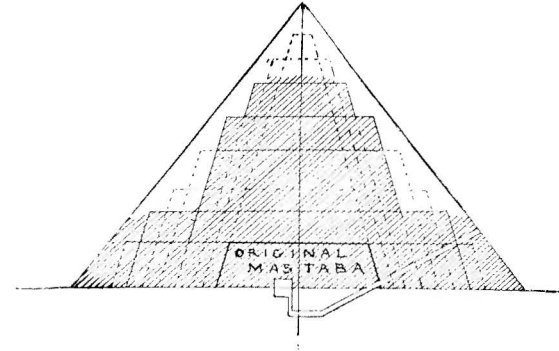


PYRAMIDS AT DASHUR

Probably of the IIIrd dynasty. The one with the double slope retains most of its limestone casing.

stages of a total height of 195 feet, and the area of its base is 390 from N. to S. and 347 from E. to W.¹

The fashion thus set was followed by Senefru, the last king of the IIIrd dynasty, who built himself an imposing



SUPPOSED FORMATION OF THE PYRAMID OF MEDUM. (Petric.)

The original mastaba was surrounded by a stone casing, and another smaller mastaba was erected on the top, leaving a ledge all round. The process was then repeated till the topmost addition was quite small when the ledged surfaces were filled up to form planes. (Compare illustration, p. 20.)

tomb at Medūm, between the Nile and the district known as the Fayum, in which he was afterwards buried.² It was constructed, like the Sakkara step-pyramid, of a series of

¹ It has a complicated system of internal passages, which are all below the level of the soil, with four entrances which are outside the base of the structure. Its inception as a mastaba accounts for its oblong plan and for the fact that the principal cavity is a vertical shaft 80 feet deep and 20 feet square below the central point. The absence of any special tomb-chamber seems to indicate that the monument was not completed in the lifetime of Tjeser who was probably buried in the mastaba near Abydos. (Cf. Perrot and Chipiez, i, 205.)

mastabas, but the sides were filled out so as to form a continuous slope, and thus the first real pyramid was produced. It was afterwards partially destroyed by Rameses the Great, who used the fine stone of the casing for buildings of his own, and the existing structure is only the core of the original monument. In front of the east side is a small chapel which is the oldest known temple in Egypt. Senefru is also supposed to have built another pyramid at Dāshūr, nearer to Memphis. It is possible that it is the one the sides of which have two planes of inclination (p. 24), and which, as it is almost unique,¹ may be assumed to be an experimental form of the type which attained such perfection under the next dynasty.

The pyramid, evolved in this manner, became the type for royal monuments during the early Memphite dynasties, but for less exalted persons of distinction the mastaba continued in use, preserving generally its outward form though internally it often received a good deal of architectural decoration.² Hundreds of such tombs, as well as many pyramids in various states of preservation, fill the western side of the the Nile Valley above Memphis, and form probably the largest necropolis in the world.³ It extends from Abu Roash on the north to Dashur on the south, including the plains of Giza, Abusir and Sakkara, a length of fifteen miles with a width of from two to two and a half miles. At Giza the mastabas

¹ Perrot and Chipiez (i, 210) mention another pyramid with a double slope at Metarieh between Sakkara and Medūm, and there are a few smaller ones of later date near Napata in Ethiopia (Murray, p. 553).

² There is a small mastaba, partly reconstructed, in the Assyrian Basement at the British Museum.

³ See map at end of book.

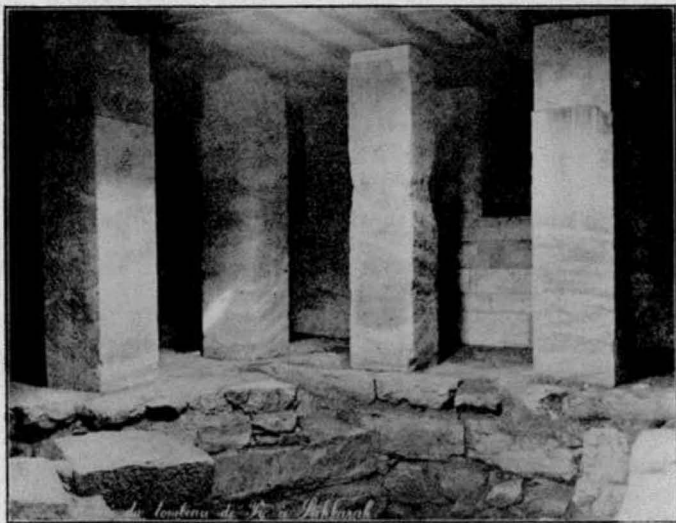
are methodically arranged in regular ranks with their longer axes due north and south, but at Sakkara the



From the MASTABA OF THETHA, a royal kinsman, IVth dynasty. (B. M.)

arrangement is less regular and they sometimes encroach on one another. Within each is generally found a comparatively small interior chamber serving as a shrine or

chapel, and annexed to this is a walled-up cell,¹ or more than one, in which a statue of the deceased was deposited, not as a visible memorial but rather as a guarantee that the *ka* or double might find its mortal counterpart still whole and undecayed. This faith in the prolongation of the conditions of earthly life which so strongly charac-



PILLARS IN THE TOMB OF THI. (Vth dynasty.)

terizes the Egyptian race is further illustrated by the custom of depositing, within or outside the tomb, food and drink and models of objects associated with the former existence of the dead.

It is probable that the earliest tombs of this class

¹ Usually called a *serdab*, the Arabic term for a subterranean shelter from the heat.

were solid except for the shaft which led from the top to the grave below the surface of the earth, the so-called "false door" being simply a panel commemorating the deceased. Its form suggests its derivation from a wooden framed doorway, such as must have been used in the more important dwelling-houses of which no vestiges remain. When the tomb was solid this panel or stele was in a recess on the east side towards the south end,¹ and on the floor of the recess was a carved slab of stone for the reception of the offerings to the dead. When there is a flat unrecessed door, an interior chamber which served as a shrine or chapel for ritual observances is found. Sometimes the two plans are combined by the enlargement of the recess into a hall with an open front



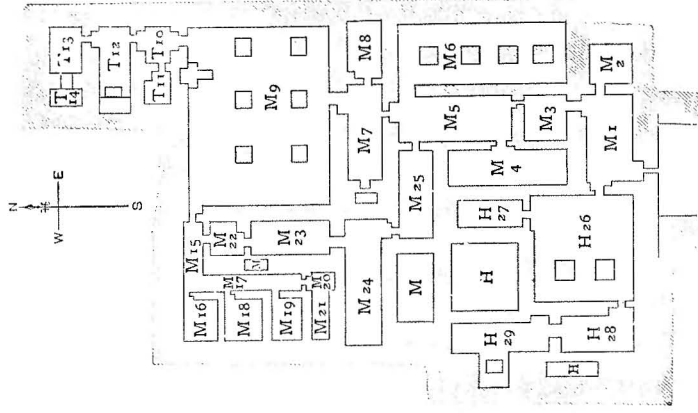
MASTABA WITH PORTICO. (Maspero.)

or porch with square pillars. In any case the shaft which led to the actual grave was, with rare exceptions, unconnected with the chamber, and concealed from view. In the latter form of mastaba the "false door" is found on the back or inner wall of the chamber. Other chambers were soon added and the interior walls were decorated with reliefs or paintings showing the slaves of the deceased at their daily tasks. Such are the tombs at Sakkara of Thi and Ptahhotep, officials of the Vth dynasty, which have coloured wall-reliefs of extraordinary beauty and interest, illustrating the mundane life of the deceased; those of the former have been frequently illustrated.² By the time

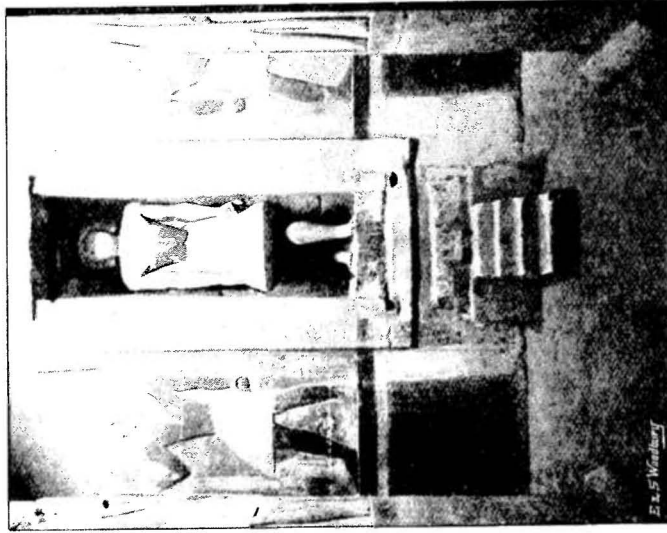
¹ P. and C., i, 172.

² See P. and C. *passim*, and Baedeker's Handbook, pp. 155-158.

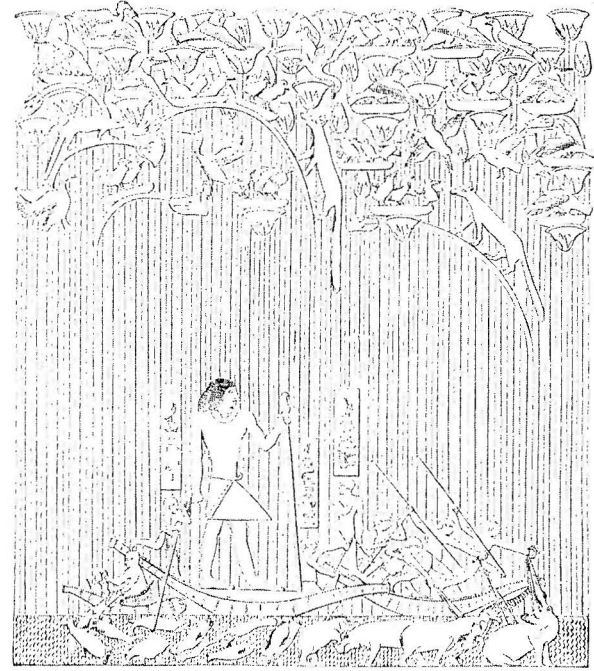
of the VIth dynasty the mastaba became still more complicated; that of Mereruka, a vizier of King Pepi I, and his wife and son contained no less than thirty chambers. These more advanced types were imitated in the rock-cut tombs which became usual in Upper Egypt.



PLAN OF THE TOMB OF MERERUKA. (From Maspero.) Room 9 is that in which the statue is placed.

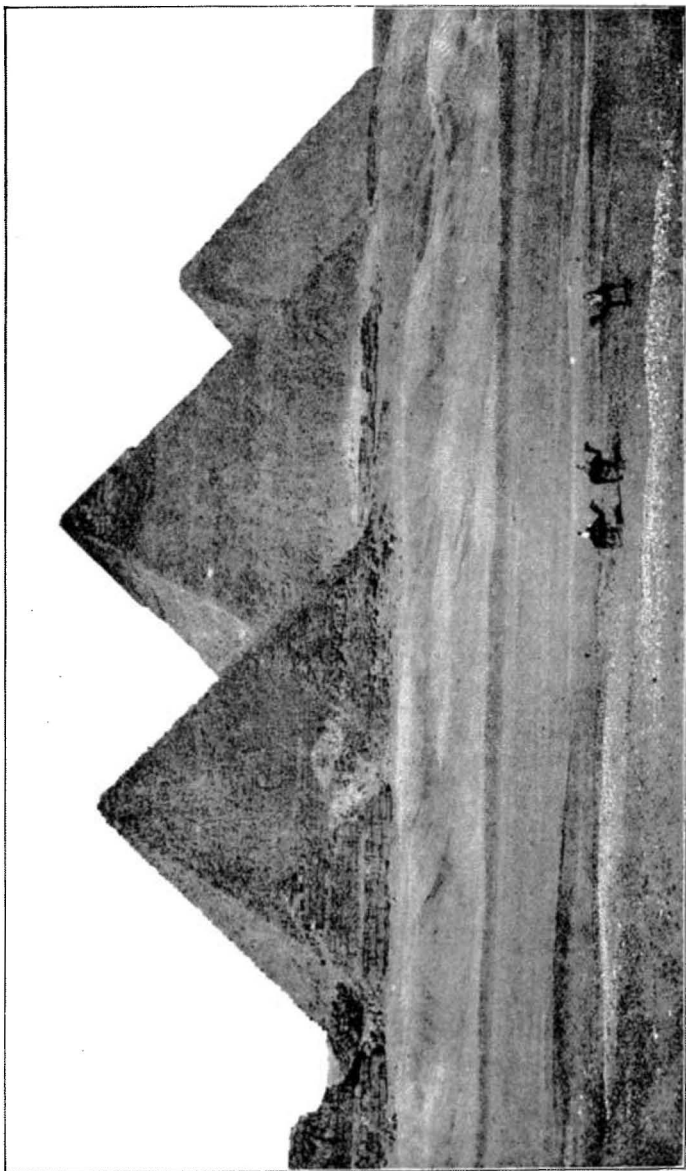


STATUE OF MERERUKA IN HIS TOMB AT SAKKARA



WALL-RELIEF FROM THE TOMB OF THI

Hunting amongst the water-reeds. The plant represented is probably the species of papyrus which suggested the shafts and capitals of some of the columnar forms which were commonly used in the later architecture. (See page 38 below.)



Khufu

Khaf-ra

Menkau-ra

THE PYRAMIDS OF GIZA FROM THE SOUTH-SOUTH-WEST

CHAPTER V

THE PYRAMIDS OF GIZA

THE pyramidal development of the mastaba by Senefru led to the adoption of this form by the kings, and culminated in the three great pyramids of Giza, the tombs of Khufu (Cheops) Khaf-Ra (Chephren) and Menkau-Ra (Mykerinos) of the IVth dynasty. These magnificent monuments exhibit grand architecture in its plainest form; yet simple as is their design it is by no means wanting in interest or variety, for their quadrangular plan, whilst ensuring perfect symmetry, gives the intersections of their sides a constantly varying angle as the point of view is changed. Moreover, their impressiveness is increased by their situation on a rocky plateau which is some 150 feet above the level of the Nile and the cultivated area. The largest and oldest, that of Khufu, is about 775 feet on each side, and when it was intact was about 480 feet in vertical height. That of Menkau-Ra, the smallest and latest in date, is about 346 feet square and 215 feet high. The intermediate one, of Khaf-Ra, is only a few feet less in height than Khufu's and from some points of view looks the highest. Except for the small internal chambers and the galleries which led to them, they are solid structures, chiefly of limestone brought from the quarries on the east bank of the Nile. When perfect they had smooth external surfaces, the remains of which are only visible on some of

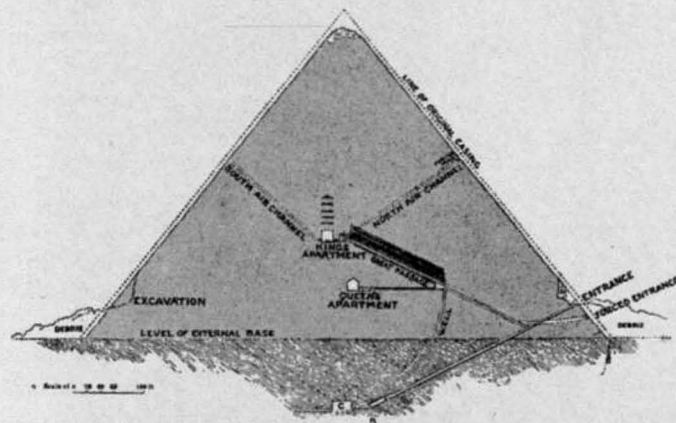
the upper courses of that of Khaf-Ra, the rest having been removed for use as building material in the modern Cairo. There was an entire absence of minor architectural features, and the entrance in each case was carefully concealed by the casing, which consisted of blocks of stone, fitted on the stepped courses which are now visible, with the outer surfaces carefully chamfered to the required angle.¹ So far as workmanship is concerned they show a complete command of method and material, for in the geometrical exactitude of their laying out and in the fineness of their jointing they are not surpassed or even equalled by the work of any later period.

The internal arrangement of the galleries and the position of the sepulchral chambers varies in each pyramid. In that of Menkau-Ra, which is built over a depression in the bed-rock,² the tomb-chamber is below the level of the soil, but in the case of Khufu's it is in the centre of the mass, and there is another which is known as the Queen's Chamber (though it has no sarcophagus within it) at a somewhat lower level in the pyramid. There is a still lower chamber, below the level of the soil, approached by an absolutely straight passage sloping down from the entrance, the use of which is not apparent. About sixty-three feet from the entrance of this descending passage another gallery branches upwards to a point at which a level passage leads to the "Queen's Chamber," and from the same point a great gallery 28 feet high and 151 feet long ascends to the King's Chamber. The smaller galleries are roofed by inclined stones which meet in an internal ridge so as to diminish the vertical pressure, but the great gallery is covered by corbelled courses of

¹ There are a few small samples of these blocks in the British Museum.

² P. and C., i, 205.

stone which gradually approach and meet above. The stones of the side walls are admirably fitted together so that the joints are scarcely visible. The King's Chamber, which is 34 feet 6 inches long by about 17 feet wide and 19 high is covered by flat slabs of granite, and the walls, are of the same material, very finely jointed. It contains an empty lidless sarcophagus massively hewn out of a

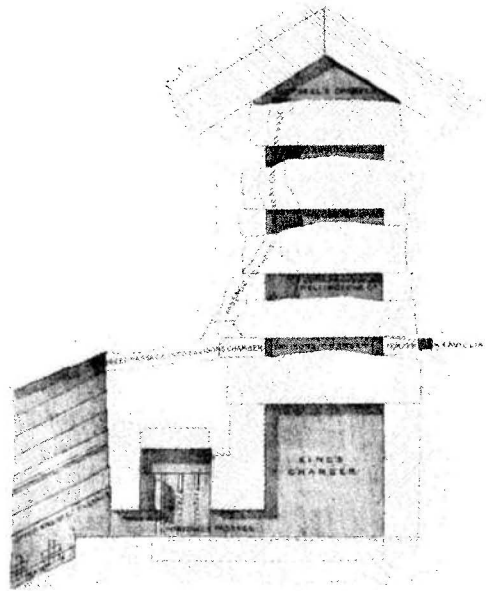


SECTION OF THE GREAT PYRAMID

block of red granite without ornament or inscription. Above the King's Chamber is a peculiar arrangement of five cavities separated by horizontal blocks, the uppermost being covered by two inclined rows of stone rafters, with the object of diverting the pressure from the ceiling of the chamber.¹ The galleries are all constructed

¹ Such expedients show that the principle of the radiating arch was not commonly recognized at that period. The earliest arch hitherto found is, however, assigned to the IIIrd dynasty and is of somewhat rude construction. See Breasted, pp. 100, 101, and Murray's Handbook, p. 355.

and concealed with a view to secure the tomb from violation, and at certain points are intercepted by huge plugs of granite which were inserted from above in order to place what seemed to be insuperable obstacles in the way of any depredators. In some cases it was

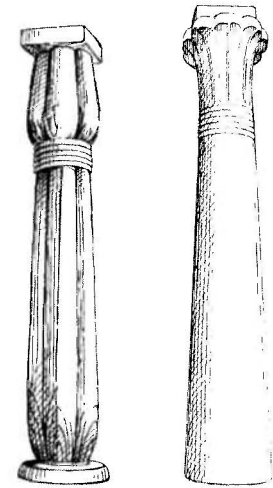


RELIEVING SYSTEM ABOVE THE KING'S CHAMBER. GREAT PYRAMID
From Vyse and Perring.

only by excavating new approaches that these obstacles were circumvented.

It is evident from the care and labour which were expended on these vast monuments, that they must have been erected during the lifetime of the kings whom they

commemorate, and the Prussian egyptologist Lepsius, who conducted an archaeological expedition to Egypt in the middle of the last century, promulgated the theory that they were enlarged at successive periods in accordance with the length of the reigns of their builders, as was almost certainly the case with those which originated in mastabas. Without accepting this theory as literally as some more recent German writers, Dr. Borchardt came to the conclusion that the Great Pyramid actually received additions to the dimensions originally planned, and this fact may explain the existence of the lower untenanted chambers which were superseded as the structure was enlarged.¹



PAPYRUS COLUMN PALM COLUMN
Early type, From pyramid of
Vth dynasty. Unas. (B. M.)

The pyramid of Khufu has on its east side three smaller pyramids, which were the tombs of members of his family, and is surrounded by many mastabas. There are also three small pyramids on the south side of that of Menkau-Ra. The height of these smaller monuments varies from fifty to seventy feet. It was usual to surround large pyramids with a paved enclosure, and in some cases a causeway leading from the Nile to the enclosure was constructed apparently before the building was

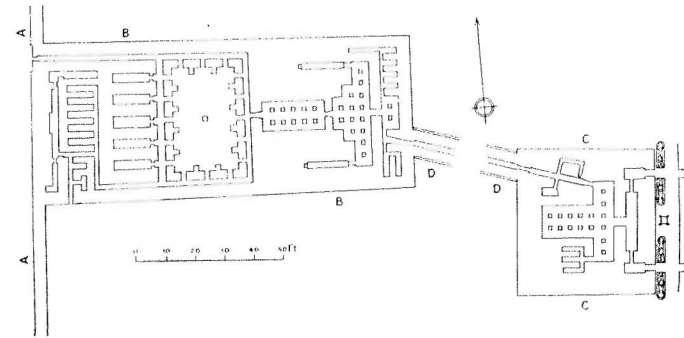
¹ See K. and H., p. 110, and also the discussion in P. and C., i, 208ff., which, however, leaves the matter in some confusion.

begun. The shrine or chapel which is found in the more important mastabas, was replaced in the case of pyramids by a temple built at a small distance from the east side, and remains of those attached to the pyramids of Khaf-Ra and Menkau-Ra still exist. Others have been found in connexion with pyramids of the Vth dynasty at Abusir, and in one of these, that of Ne-user-Ra, occur the most ancient specimens known of the clustered columns with bud-like capitals.¹ A simple palm-like capital was also used at this early date. A specimen from the temple attached to the pyramid of Unas at Sakkara may be seen in the British Museum. (See p. 37.)

There is a building at the east end of the causeway which formerly led up to the second pyramid, the object and date of which have been much discussed. Though partly covered with sand it appears from recent excava-

¹ K. and H., p. 98. The supposition that these columns and other conventional imitations of nature were suggested by a primitive use of the actual objects represented, seems unnecessary when it is recalled how frequently vegetable and even animal motives are adapted to architectural decoration. See Lepsius' remarks on the subject, Appendix I. It is not easy to say what plant or plants actually suggested the adaptations. When the reed-like components of the shaft have sharp edges, there is little doubt that the papyrus-stalk which has a triangular section was the motive: but in many cases the columns are described indiscriminately as "papyrus" or "lotus." In the illustration from Thi's tomb, p. 31, a water plant is represented which obviously suggests the reeded columns and the bell-shaped capitals. It is clearly not a lotus or lily, which had no such rigid stems, and may be a variety of the papyrus though the flowers are unlike its filamentary blossom. The subject is investigated without a very definite result by L. Borchardt in "Die aegyptische Pflanzensäule," and by G. Foucart in his "Histoire de l'ordre lotiforme," as to which see Note at end of Appendix I.

tions¹ to have externally the shape of a large mastaba with two doors; about 150 feet square on plan, with sloping sides originally about forty-two feet high. Internally it consists of a hall fifty-five feet long by thirty-five wide, with a double range of rectangular monolithic pillars sixteen feet high, six in each row, at the east end of which is a transept with a central line of six pillars which includes two of the others. Further to the



GROUND PLANS OF KHAF-RA'S TEMPLES. From Hölscher.

AA Enclosure wall of pyramid. BB Pyramid-temple. CC Propylaeum or entrance temple. DD Extremities of the covered passage between the two, about 540 yards long. The smaller temple has marks on the pavement in front indicating the bases of sphinxes or other figures, and a small shrine in the centre.

east is a smaller transept without columns, in the floor of which is a vertical shaft or well, probably of later date. There are several other small chambers and passages. The pillars and walls consist of immense blocks of red granite without the least ornamental detail. The floor is mostly of alabaster. From the

¹ See "Das Grabdenkmal des Königs Chefren, von Uvo Hölscher." Leipzig, 1912.

south-west corner of the large transept a short passage leads to a double row of three deep niches, and at the other end of the transept there is a narrow passage, seven feet wide, which formerly led to a covered way connecting it with the mortuary temple in front of the pyramid of Khaf-ra.¹

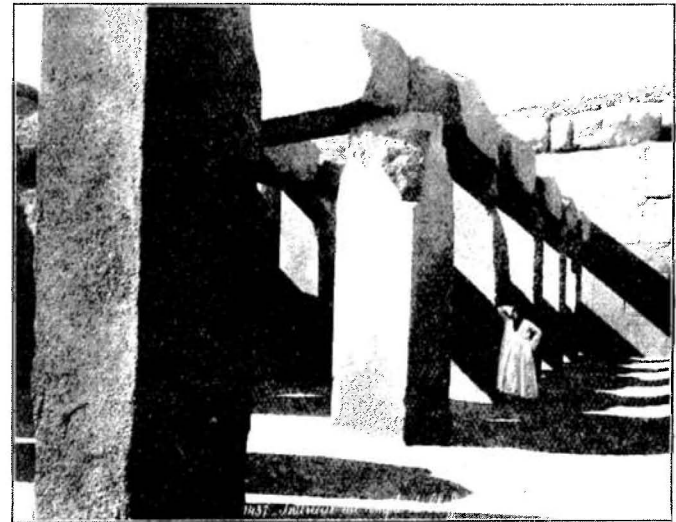
As it lies about fifty yards to the south-east of the great figure of the Sphinx, Mariette, who excavated it in 1853, regarded it as the "Temple of the Sphinx" as representing the god of the rising sun, and it has retained this name, though there is no evidence that it had anything to do with it. Dr. Hölshér's investigations leave no doubt that it was a kind of propylaeum or ante-temple to the larger mortuary temple and pyramid of Khaf-ra: an arrangement which is found elsewhere.

The gigantic figure of the Sphinx, which is 140 feet in length and 66 feet high, when not partly covered by sand, lies about 540 yards to the east of the pyramid Khaf-Ra with whom a late tradition associates it. It was carved in situ from a natural mass of rock, the apparent height of which is increased by the surface of the surrounding ground having been removed; the body is a good deal weathered, and has the appearance of having been patched up with pieces of sandstone. The human head was formerly painted red, and had the conventional beard common in royal portraits, but is now much mutilated; on the breast between the forepaws there is a small open shrine with an enclosed space and an altar in front. A paved court farther in front with steps leading down to it is said to date from the Roman period. The figure was an object of veneration for centuries, and there is a record of its repair by Thothmes IV

¹ P. and C., i, 324 ff.



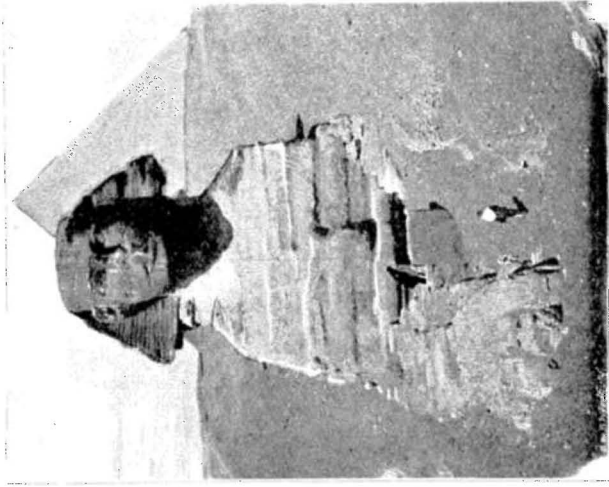
LOWER TEMPLE OF KHAF-RA



GRANITE PILLARS IN THE TEMPLE

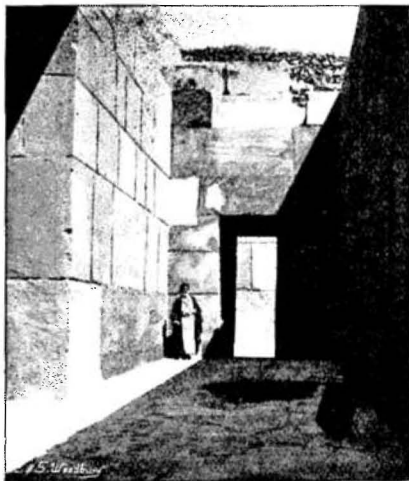


THE SPHINX FROM THE SOUTH



THE SPHINX FROM THE EAST

of the XVIIIth dynasty, but the date of its first carving is doubtful. Mr. H. R. Hall assigns it to the XIIth dynasty,¹ but it seems unlikely that the block was left untouched by the pyramid builders of the IVth dynasty,



KHAF-RA'S LOWER TEMPLE. THE TRANSVERSE GALLERY

and it is probable that the tradition connecting it with Khaf-Ra has some foundation. That the art of monumental sculpture had reached great perfection in his day is shown by the fine diorite statue of him which is one of the treasures of the Cairo Museum. It was found with eight other smaller figures, showing him at different ages in

the temple near the Sphinx described above.

The body of the Sphinx is perforated by a shaft from the centre of the back indicating an earlier grave below it, and as there are no tombs in the immediate neighbourhood older than Khaf-Ra's reign, it may be taken for granted that the Sphinx is not of earlier date.²

¹ J. H. S., xxv.

² See Petrie, Hist., i, 52.



DIORITE STATUE OF KHAF-RA



J. H. Wood, del.] THE PLATEAU OF GIZA FROM THE SOUTH-EAST, SHOWING THE PYRAMID MASTABA



GREAT PYRAMID OF NEFERARIKA-RA AT ABUSIR
(Vth dynasty)
Originally about 360 feet square

CHAPTER VI

BUILDINGS OF THE OLD KINGDOM. MENTUHETEP'S TEMPLE

THE kings of the Vth dynasty erected their pyramids at Abusir between Giza and Sakkara. The funerary temple attached to that of Ne-user (Useren) Ra already mentioned (p. 38) is of much interest. Parts of the paving and walls are of polished black marble; the columns of the lotus-bud form are of granite. There is also a sacrificial basin with a drain in the form of a lion's head, and sculptures in relief on both inner and outer walls.

The temples attached to the pyramids of Sahu-Ra and Neferarika-Ra of the same dynasty have also been excavated. These three temples are the earliest in which mural reliefs have been found.¹

¹ Hall, Near East, p. 131. See also K. and H., p. 99.

Somewhat to the north of Abusir, at a place called Er-Righa, are the remains of a temple of the Sun built by the same king Ne-user-Ra. The ritual portion was raised on an artificial platform, towards the west end of which was a pyramidal structure, usually represented as a massive but stunted obelisk upon a podium with battering sides, apparently a link between the combination of a pyramid and mastaba and the more familiar form of obelisk.¹ In the centre of the court is a circular altar



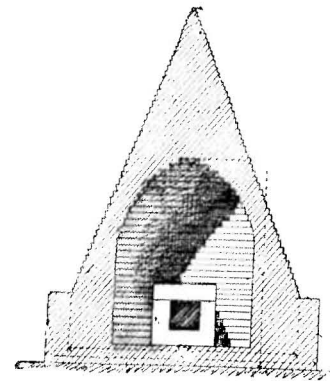
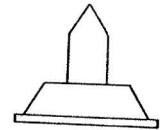
MASTABAT-EL-FARAUN. From Maspero.

of alabaster, and at the east end nine basins of the same material, over which the victims were slaughtered.

South of Sakkara towards Dashur is the Mastabat-el-Faraun (Pharaoh's Bench) an immense monument of large stone blocks. It is 66 feet high and 340 by 240 feet in area, with sloping sides. It is evidently a royal tomb, and its interior arrangement with a sloping passage, a horizontal passage with slides for stone plugs and chambers resembles that of a pyramid. From its shape it might be dated before the IVth dynasty, but Messrs. King and Hall

¹ This seems to be the building described by Col. Vyse as the Pyramid of Reegah. He gives the measurement of the base as 123 feet 4 inches square. Vyse, iii, 10.

consider it to be later than the Vth to which it has been assigned.¹ There is some indication of an additional structure on the top, and it is possible that this was a small pyramid, or obelisk, and that a form combining the two may have been occasionally adopted. At Giza there is a large tomb south-east of the pyramid of Khaf-Ra² which seems originally to have had some such form. The annexed diagram derived from pictographic inscriptions



SECTION OF SMALL PYRAMIDAL TOMB, ABYDOS. From Maspero.

at Sakkara³ appears to represent a monument of that kind. But the simple pyramid continued in use, and at a much later date became common for small brick tombs, of which there are many remains at Abydos. In these more ordinary sepulchral monuments the mortuary chamber and the shrine were both within the structure.⁴

Little is known of the kings of the VIIth to the Xth dynasties, under whom the centre of government was removed from Memphis to a more southern region of the Nile valley. The pyramid, however, continued to be

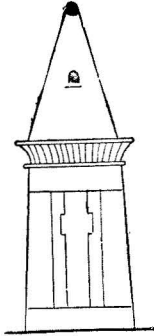
¹ K. and H., p. 107.

² See illustration, p. 46.

³ P. and C., vol. i, p. 216.

⁴ P. and C., vol. i, p. 244. The pyramidal form of tomb was imitated at later dates in other lands. There are a number of such monuments

used as a royal monument, though it was less solidly constructed than under the early Memphite kings, until after the complete extinction of the old kingdom. In the XIIth dynasty a reversion was made to the ancient use of brick,



TOMB COMBINING
MASTABA AND
PYRAMID

Probably XIIth
dynasty.

and there are remains at Dashūr of brick pyramids one of which is the secondary tomb of Amenemhat III, and another the actual sepulchre of a somewhat obscure king, Hor, who may have been his son and associate. Further south at Illahun is a similar one of Senusert II.¹ It is probable that these brick cores were originally cased with stone.

The most interesting monument of the period when the sovereignty passed away from the representatives of the old Memphite dynasties and fell into the hands of Theban princes, is the memorial of Mentuhetep² of the XIth dynasty which was discovered in 1903. It is mentioned in an inscription by the name of Akh-aset and is adjacent to the south-west side of a larger temple of the XVIIIth dynasty at Dēr-el-Bahri on the left bank of the Nile in the Thebaid. It lies at the foot of the high cliff

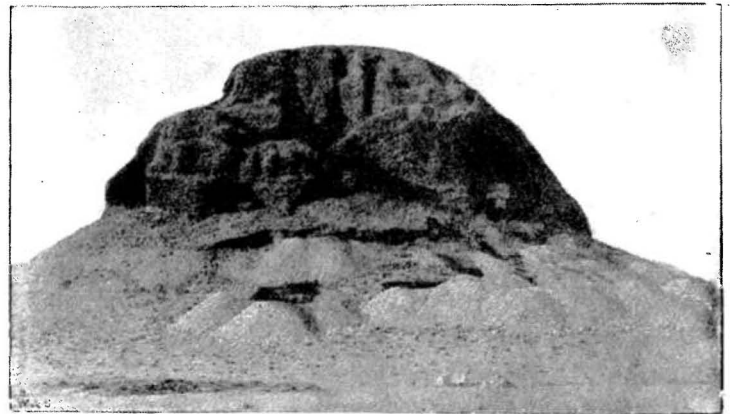
in the Sudan of dates not long before the Christian era. They are the tombs of native kings: and some of them are 50 or 60 feet high, but their slope is much steeper than in the ancient pyramids. P. and C., i, 217-219.

¹ In this case the core was a framework of intersecting brick walls filled in with stone.

² Neb-hapet-Ra Mentuhetep. There were several rulers of this dynasty with the throne-name of Mentuhetep. This one was the greatest, but it is doubtful whether he is to be reckoned as the second or third king of that name. See Hall, N. E., p. 142 note.

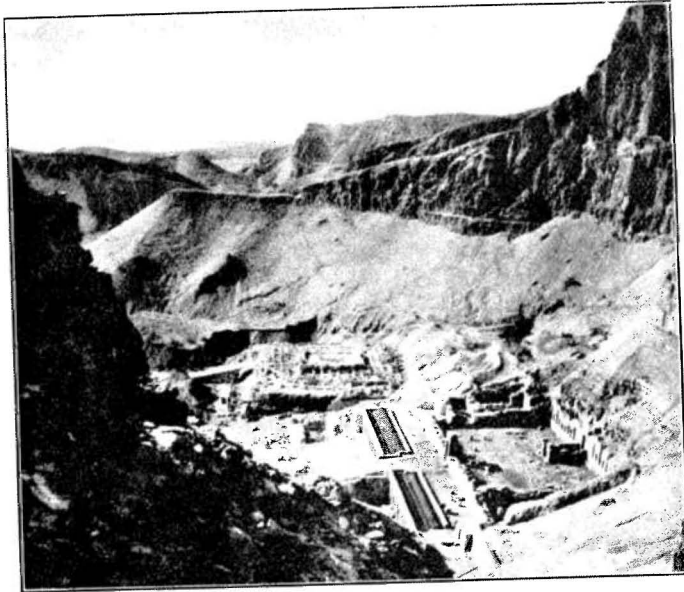


REMAINS OF NORTH BRICK PYRAMID. DASHUR
Probably intended for Senusert III. (XIIth dynasty.)



BRICK PYRAMID OF SENUSERT II. ILLAHUN

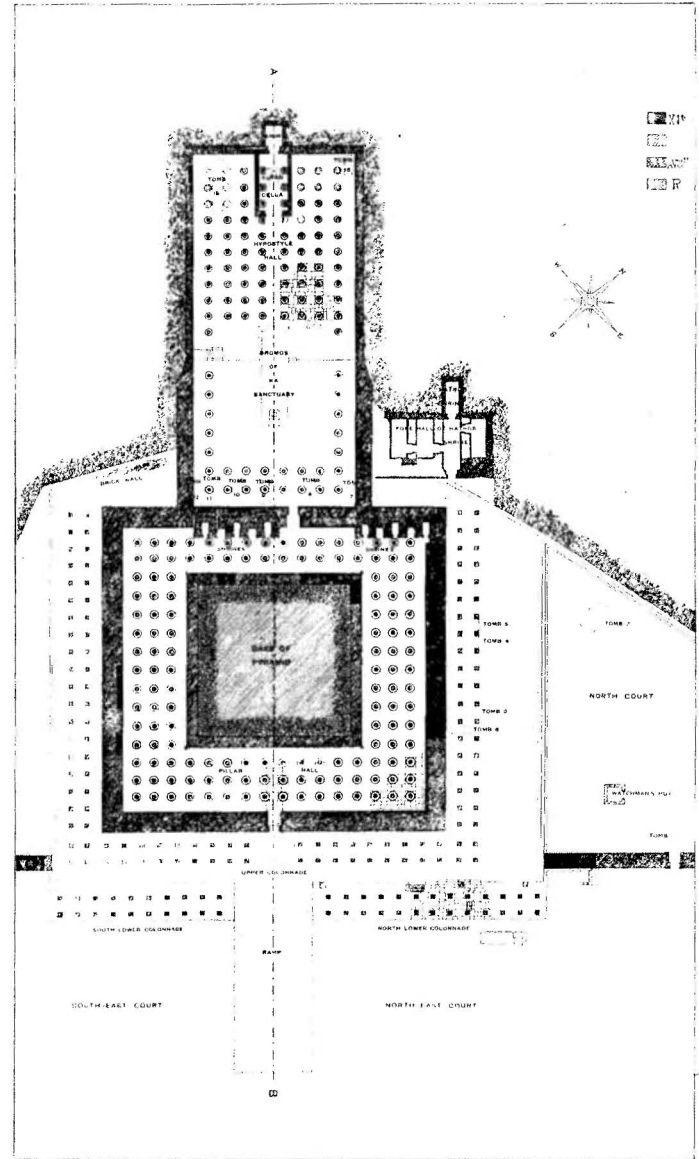
which overlooks the Nile-valley facing towards the south-east. A rectangular platform is levelled on the slope at the base of the cliff on which are the remains of a base or podium 70 feet square, composed of rubble and flint, which formerly supported a pyramid. The latter seems



THE TEMPLES AT DĒR-EL-BAHRI

The pyramid-platform of Mentuhetep's is seen lying beyond Hatshepsut's XVIIIth dynasty terraces.

from some fragments to have been built of brick faced with fine white marble-like limestone. The whole structure was solid and contained no tomb, being merely an architectural feature. The base had sloping sides finished with a cavetto cornice, and roundels at the angles such as



PLAN OF THE XIII DYNASTY TEMPLE AT DĒR-EL-BAHRI
(By permission of the Egypt Exploration Fund.)

were universal in the later pylons. Round the base was a covered ambulatory composed of a triple row (except on the side near the cliff, where there were only two rows) of octagonal sandstone pillars on circular bases. The enclosing wall of this colonnade was decorated both on the outer and inner sides with shallow coloured reliefs depicting scenes of civil, military and religious life, and there was another colonnade of rectangular pillars outside the front and side walls of the enclosure. The back portion of the platform consisted of a court, 65 feet wide with a double row of octagonal pillars, from which descended into the earth a corridor 500 feet long ending in a chamber lined with large granite blocks similar to those in the pyramids. It contains an alabaster shrine which was probably the sanctuary of the *Ka* or disembodied double of the king. Behind the entrance of this gallery the court above was continued at the same width through the sloping base of the cliff till it reached its actual face, in the form of a low hypostyle hall 60 feet long with ten rows of eight octagonal columns, at the west end of which was a niche or shrine with an alabaster altar in front of it.

The main platform was approached on the front by an inclined plane or ramp, which was flanked on both sides by a lower colonnade along the front wall of the platform. Behind the base of the pyramid are six mortuary shrines or chapels of ladies of the harem, designated as priestesses of Hathor, whose tombs are in the adjacent court at the back.¹

There was an interesting shrine of the Cow-goddess

¹ This temple was excavated in 1903-7, by Professor Naville and Mr. H. R. Hall. See their account with numerous illustrations published by the Egypt Exploration Fund, by whose permission the above plan and illustration are inserted.

Hathor adjoining the west court of the temple on the north side, which was found with a remarkable image of the Cow intact, but it is of much later date than Mentuhetep's temple and belongs chronologically to the XVIIIth dynasty.

3
4
5



ROCK-HEWN TOMBS AT BENI-HASAN

3 Khnemuthep II. 4 Khnemuthep IV. 5 Unfinished.

The numbers are those assigned to them in the guide books.



J. Ward, F.S.A., del.

PYRAMID AT EL-KULA

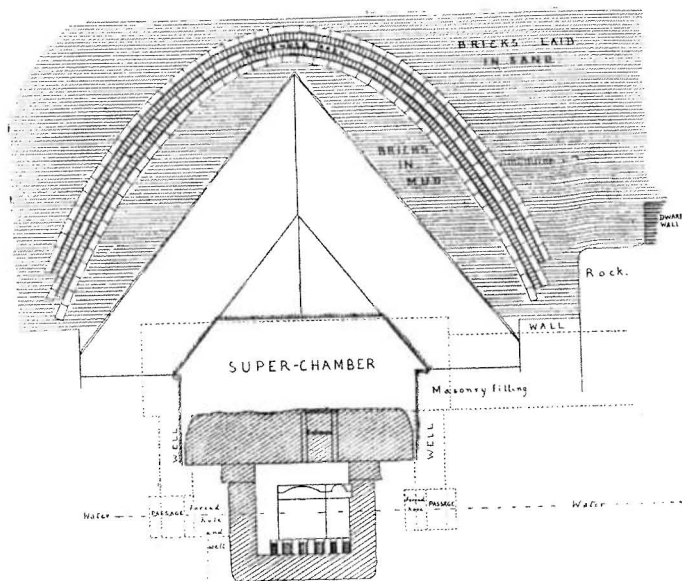
It is roughly built of limestone blocks which are left in their graduated courses. The base is about 60 feet square.

CHAPTER VII

THE MIDDLE KINGDOM. BUILDINGS AND ROCK-HEWN TOMBS

WITH the XIIth dynasty, Theban supremacy, and what is known as the Middle Kingdom, were firmly established under powerful kings bearing for the most part the names Amenemhat and Senusert. They developed the district known as the Fayum, making canals and constructing irrigation works by which the lake Moeris became a reservoir for the water accumulated during the inundation of the Nile. Senusert II built for himself the pyramid at Illahun which has been mentioned (p. 50). At Hawara, a few miles to the north-west of Illahun, are the remains of a pyramid of sun-dried bricks

which was over 190 feet high and 334 feet square at the base, with which was associated the enormous funerary temple called by Greek writers the Labyrinth, probably on account of a general resemblance to the Cretan



SECTION OF THE SEPULCHRE, HAWARA PYRAMID
From "Kurum, Garob, and Hawara," by W. M. Flinders Petrie.

Labyrinth which has been identified with the palace excavated at Knossos.¹ The Egyptian building measured about 1150 feet from east to west, and, including the pyramid which lies on its north side, about 850 feet from north to south. According to the description of

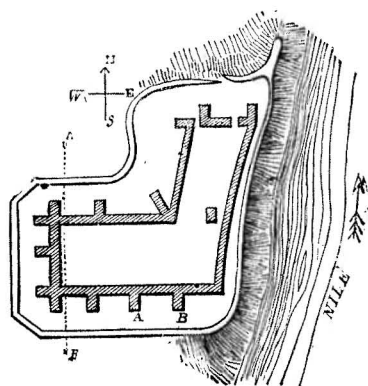
¹ See on this subject K. and H., p. 125, also Hall, J. H. S., vol. xxv.

Herodotus, who saw it,¹ it contained twelve covered courts and 3000 chambers, 1500 above ground and the same number below. Only a few broken columns and capitals now remain visible. Though the pyramid is mainly built of brick originally cased with limestone, the remarkable sepulchral chamber in the interior, which is about twenty-two feet long by ten wide, is hollowed out of a single block of yellow quartzite rock. The access to it was constructed in a most complicated and ingenious fashion. The entrance was on the south, but the gallery which descended from it turned four times till it reached the chamber from above on the north side, and was provided at intervals with several ponderous stone plugs intended to prevent any approach. The roof of the central cavity consisted of straight stone blocks weighing many tons sloped against each other to a ridge, and the pressure on it was relieved by an elliptical or rather parabolic arch constructed in the substance of the brickwork above, an indication of an advance in the science of building. The whole building is ascribed to Amenemhat III or his son, the fourth of that name. This was the last of the great pyramids, and though there are the ruins of a smaller one at El-Kūla (p. 57), about ten miles above Esna, which is ascribed to the XIIth dynasty, from this time the royal tombs began to assume a different form.

The kings of the XIIth dynasty were great temple builders, and it seems probable, from such evidence as remains, that they built in a style which was naturally developed from the plain stone constructions of the earlier dynasties. Pillars, square, octagonal, or sixteen-sided, were used for external effect, whilst slenderer columns with plant-like shafts and capitals simply conventionalized

¹ See Herod., ii, 148.

such as are known to have been used as early as the Vth dynasty, were no doubt employed chiefly in internal work. Architectural quality must have been attained in precision of work, in excellence of material, and in a careful setting out of the colonnades and their architraves, rather than in an excess of superficial and adventitious decoration. But with few exceptions these temples and their ancient art have been superseded by the reconstructions of later dynasties.

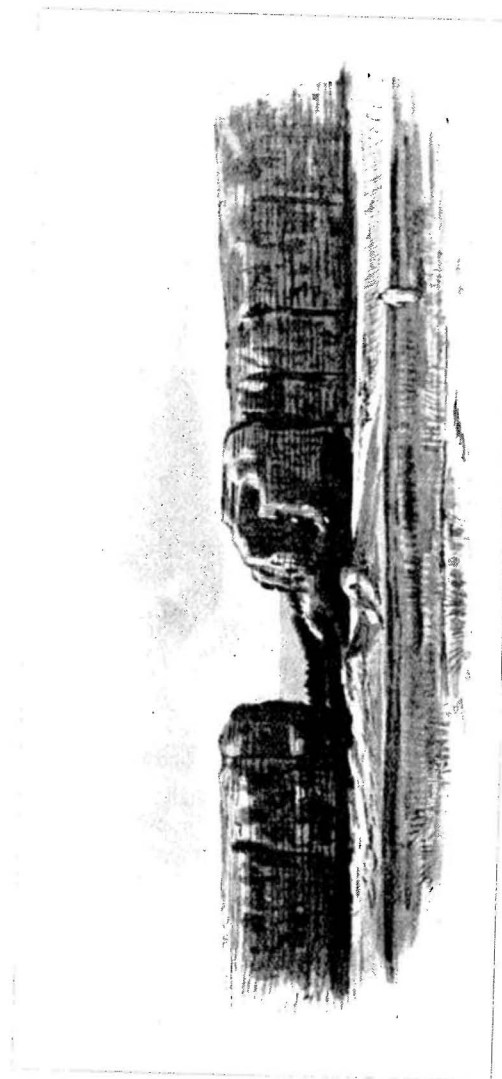


FORT OF SEMNA



Section on A B

The great temple at Karnak, the foundation of which possibly dates from still earlier times, was first built on a large scale by Senusert I in honour of the local god Amen, who from this time becomes prominent in the Egyptian hagiology. Of this temple only a few fragments of polygonal columns and their architraves are to be seen amongst the later constructions. The temple of Hathor at Dendera on the west bank of the Nile, between Thebes and Abydos, which was founded in the IVth dynasty, contains some stones with the name of



THE CITY OF EL-KAB, THE ANCIENT NEKHEB. From the North.



THE OLDEST LARGE OBELISK
ERECTED BY SENUSERT I AT
HELIOPOLIS

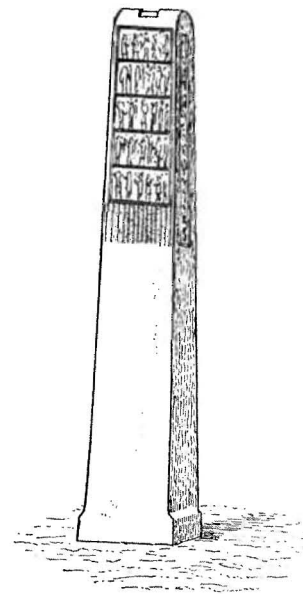
Amenemhat I. At Heliopolis and Bubastis in the Delta, at Crocodilopolis, Heracleopolis, Koptos, Amada near Korosko, and as far up the Nile as Buhen (Halfa), and Semna in Nubia, are traces of the temples of the XIIth dynasty.¹ Senusert III made Semna, which is a short distance above the second cataract, the southern frontier of Egypt, and there, and at Kūmma on the opposite (east) bank of the Nile, he erected two strong forts, the ruins of which still exist, and show the same heavily buttressed walls which characterized the earliest fortifications (p. 60).

To Senusert's successor, Amenemhat III, are ascribed the massive brick-walls of the ancient town of Nekheb, now El-Kab, which is on the east bank of the Nile, opposite Nekhen or Hieraconpolis. They are still in a good state of preservation and form a square, the sides of which are each about 700 yards long. The walls, which are composed of sun-dried bricks, are about thirty-seven feet thick and nearly thirty feet high. They are ascended inside by ramps as well as several staircases (p. 61).

¹ Foucart (p. 170) gives a list of Middle Kingdom temples.

The temple at Heliopolis, dedicated to the bull Mnevis as the incarnation of the Sun-god, which was enlarged by Senusert I, is now represented by some ruined brick walls, and one survivor of a pair of obelisks, the oldest example existing. It is a granite monolith sixty-six and a half feet high with an inscription, similar on its four sides, recording its erection by Senusert I. It formerly had a metal casing on the pyramidion at the top.

Small obelisks about three feet high are said to have been found in tombs of the IVth dynasty, placed one on each side of the false door.¹ Their origin is uncertain, but whatever may have been their primitive significance, it is evident that they became associated with sun-worship, and may have been intended to show by the illumination of the polished apex the first rays of the rising sun.² They show in their slenderer form and great height an advance both in refinement of architectural ideals, and in mechanical skill

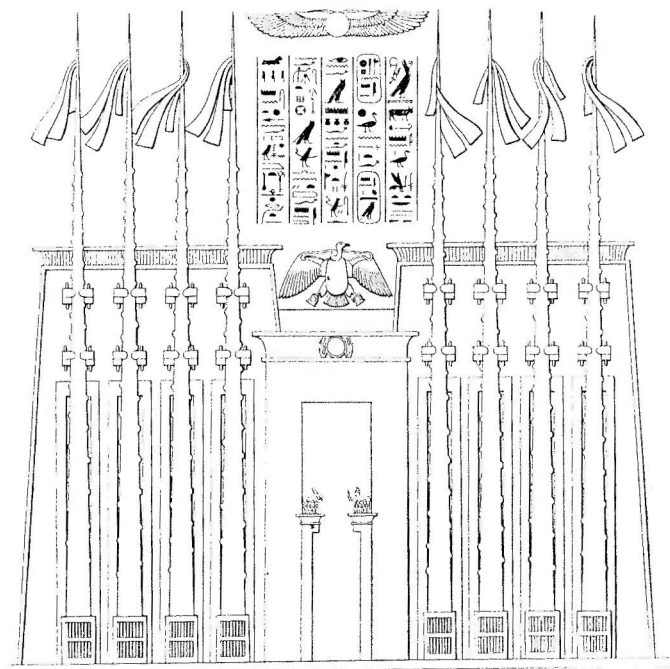


LANDMARK OF SENUSERT I AT
BEGIG, RESTORED

¹ Maspero, "Eg. Archaeol.," p. 101. See Appendix III *below*.

² This seems to be implied in an inscription of Queen Hatshepsut regarding her obelisks at Karnak, where she refers to their summits as "being of electrum [a mixture of gold and silver] the best of

needful in the erection of such ponderous monoliths. An earlier so-called obelisk erected by Senusert I lies



A PYLON

As depicted in a wall-relief in the temple of Khonsu at Karnak, showing the mode of attaching the masts and pennons. From Prisse d'Avignes "Monuments."

in a broken condition at a village called Begig in the Fayum. It is not of the usual form, and is probably a

every country, which are seen on both sides of the river. Their rays flood the two lands when the sun rises between them, as he dawns in the horizon of heaven." Breasted, p. 281, quoting his "Ancient Records," ii, 315.

stèle or landmark associated with the engineering works in that district.¹

A pair of obelisks became a usual feature at the front of temples that were in any way associated with the worship of the sun-god Ra, and it is probable that the "pylon" which formed the actual façade and entrance to nearly all the later temple-courts, came into use about the same time. It consists of two narrow oblong towers with sloping sides ranged side by side on their longer axis, with a small interval in which was placed the doorway with its architrave at half the height, or more, of the towers. The latter were surrounded at the top by a cavetto cornice often enriched with flutings or other formal surface ornament, and their corners were finished



PECTORAL OF SENUSERT II

with a torus or tube-like moulding. In some cases the front of each tower had several vertical grooves for the purpose of holding wooden staves which carried coloured pennons at their tops. A smaller form of pylon, consisting of a single tower pierced through its centre in a doorway with an architrave and cornice, was also used, and sometimes it took the form of a simple "trilithon." There is no actual pylon remaining at the XIth dynasty temple at Dēr-el-Bahri; but several small gold breast-ornaments or pectorals of the XIIth dynasty found at Dashūr are apparently modelled from some such structure.

¹ Hall, "Near East," p. 153, calls it a boundary stone.

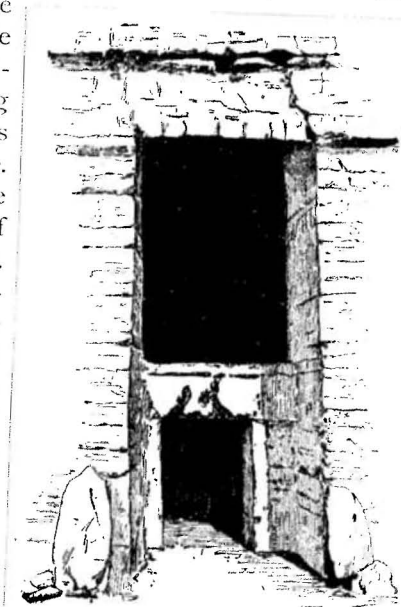
In its general form the pylon exhibits the same simple constructive principles as the mastaba. The exterior surfaces were covered with figures incised in low relief.¹

The removal of the centre of government higher up the Nile, where the cultivated area contracts and the river is approached by rocky heights, led to an extension of the custom of excavating tombs in the sides of the hills. Already under the VIth and VIIth dynasties the nobles and governors at Elephantine (Assuan) had made their tombs in the higher levels of the cliffs on the west side of the Nile. They were approached by a staircase cut in the slope of the cliff, down the middle of which a smooth inclined plane was made to facilitate the raising of the sarcophagi. From a platform levelled out at the top of the steps the sepulchres were hewn in the face of the cliff. One of the VIth dynasty is a double tomb of a certain Mekhu and his son. The entrance is unusual, being divided by a transome so as to leave an aperture above the door. Inside are two halls, one of which

¹ The pylon tower is assumed by some writers to be a survival in stone of a primitive hut-building of wattle-and-daub, the torus at the angles representing the frame on which the walls were constructed, and the cavetto cornice the out-spreading tops of the reeds of which they were partly composed. The objection to this theory is that the mastabas, which were more probably imitations of early dwellings, have no cornice round the top, and when this feature first appears, it is as a moulding or dripstone above the false doors.

This question of survivals in stone of constructions in more perishable materials occurs at various periods and places—in Greek, Asiatic, Romanesque, and Gothic architecture, and will not always stand examination. It is sometimes safer to assume that the artist exercised his imagination, and for purely decorative reasons invented details or pretended a construction for which he had no actual authority. The point becomes more important in dealing with the development of the classic orders.

contains eighteen roughly worked square columns, and a "false door" carved in the rock at the back. A closed shaft led downwards to a sepulchral chamber in the same manner as in the mastaba tombs of the Delta. The other hall had two rows of seven similar columns, and the walls of both tombs were decorated with crude paintings of agricultural work, hunting or fowling, and scenes of domestic life. There are also more elaborate tombs of the XIIth dynasty. In one there is a fore-court containing the remains of six square pillars which supported either a roof or a surrounding portico. Passages led to inner chambers; in the innermost was found a black granite statue of the deceased. In another



ROCK TOMB OF MEKHU, ASSUAN
(Maspero.)

tomb the corridor has three niches on each side, in which were placed statues of the person commemorated, in the form of a mummy. The walls of these are decorated with paintings, sometimes beautifully executed, which throw an interesting light on the personality and private life of Egyptian nobles, and lengthy memorial inscriptions have contributed largely



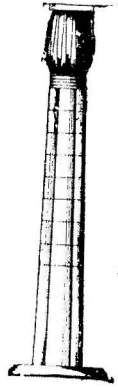
TOMB OF AMENT



TOMB OF KHNEMUHOTEP II

to a knowledge of the history of Egypt at one of its greatest periods.

A still more remarkable assemblage of rock tombs of the XIth and XIIth dynasties exists at Beni-Hasan, a village on the right bank of the Nile about 100 miles above the Fayum (see p. 56). It was apparently the necropolis of notables of Khemannu (Hermopolis) on the opposite bank. Though carved entirely from the solid limestone rock, they illustrate an advance in architectural ideas and structural expedients, inasmuch as the columns, though in a few cases rectangular, generally have the angles chamfered off in eight or sixteen sides with a plain square abacus at the top and a low circular plate-like base at the foot. Above is a simple entablature of architrave and projecting square cornice, and in some cases there are rafter-like projections carved on the under surface of the cornice, whilst the columns are a natural development from the quadrangular pillars of the early mastabas and funerary temples.¹ The cornice is obviously an imitation of a construction derived from an earlier use of timber. Internally these sepulchres have one or more chambers, with concave ceilings imitating a low segmental vault, supported by pillars which are sometimes polygonal and sometimes of the clustered lotus-stem type. The stone of the door-posts and lintels is sometimes painted to represent granite, and the interior walls are decorated with elaborate and interesting paintings representing scenes from the life of the deceased nobleman. One of the most impressive of

CLUSTERED
COLUMN,
BENI-HASAN

¹ See the Essay by Lepsius, Apper.dix I.

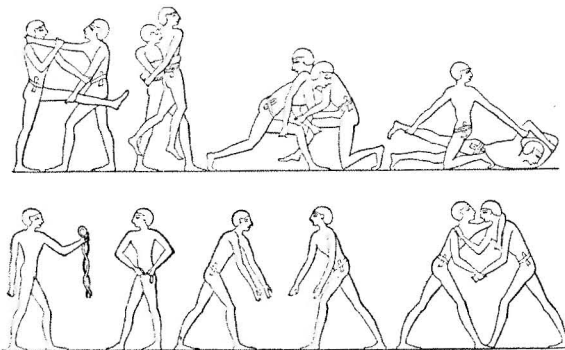
these tombs is that of Amenemhat or Ameni, a high civil and religious official under Senusert I. It has a small open



INTERIOR OF THE TOMB OF AMENI

court in front approached by a steep pathway from the plain below. The façade cut in the rock consists of two octagonal columns, slightly diminishing upwards with a

shallow pilaster on each side-wall of the opening. This portico is separated from the inner chamber by a thick wall in which is a doorway which once had a door turning on pivots. The roof of the chamber is supported by four columns over sixteen and a half feet high with sixteen sides or shallow flutings, one side only, facing the central space, being left flat for an inscription. The area of the chamber is thirty-eight feet square, and in its back wall is excavated a deep rectangular recess or shrine which



WRESTLERS, FROM WALL PAINTINGS, BENI-HASAN

probably contained the small statuette of Ameni now in the British Museum. The tomb is especially rich in wall-paintings. "Nothing so fine," says Mr. H. R. Hall, "as the perfectly proportioned tomb-hall of Ameni, with its beautiful pillars, was ever excavated in an Egyptian cliff in later days. And the naturalism of the multitudinous groups of wrestling men which are painted on the walls round the entrance to the inner chamber, is paralleled only by that of the Greek vase paintings of the best period."¹ Another tomb dating from the time

¹ "Near East," p. 163.

of Senusert II is that of Khnemuhetep II, a member of a family of high position under the early kings of the XIIth dynasty (see p. 68).

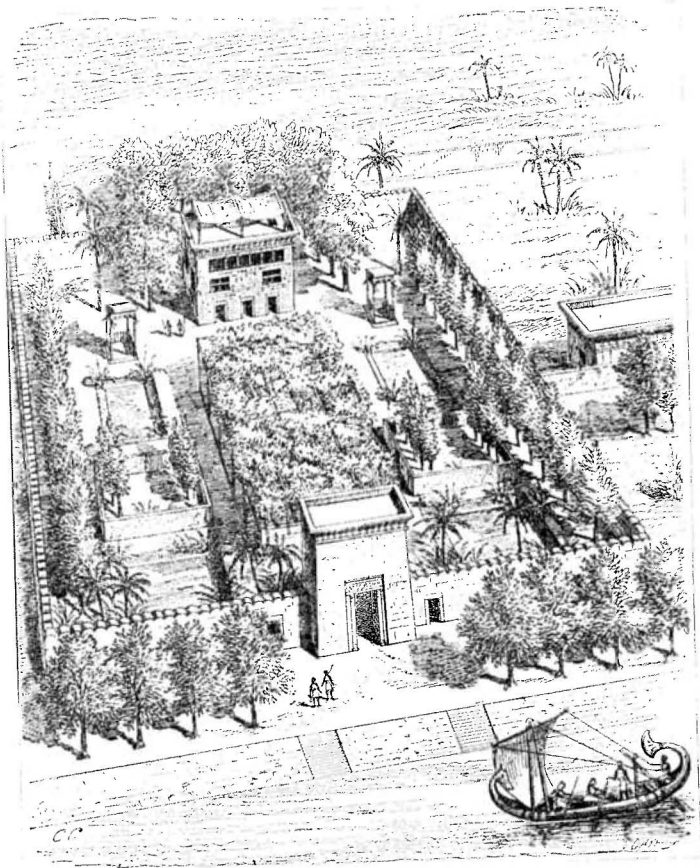
The architectural interest of these tombs consists



UNFINISHED COLUMN. TOMB OF KHNEMUHETEP IV

in their approximation to the Greek Doric, of which they have been considered a primitive form. They are obviously derived from earlier work, for the polygonal piers are found in Mentuhetep's temple at Akhaset, and the lotus pillars occur in a Vth dynasty temple; but the

proportions of the sixteen-sided pillars, which even have a slight concavity in their chamfered faces, and the profile of the entablature, which discards the cavetto cornice so general in later Egyptian work, give them an appearance not unlike that of the scanty remains of the early temples at Olympia and Corinth, notwithstanding the absence of the echinus moulding of the capital, and the superfluity of the base. Though the term proto-Doric, which was at first applied to them, may imply too much, it can, at least, be said that they throw light on the process by which some 1,600 years later columnar architecture attained its perfected form in the Parthenon.



A THEBAN VILLA OF THE XVIIIITH DYNASTY
Reconstructed by Ch. Chipiez. P. and C., ii, 31.

CHAPTER VIII

THE NEW EMPIRE. DOMESTIC LIFE AND ART

THE history of the Middle Kingdom after the XIIIth dynasty is very confused and uncertain. The names of many kings are recorded, but it is probable that several were reigning simultaneously, the kingdom being broken up into independent principalities of which the Theban was the most important. The XVth, XVIth, and XVIIth dynasties are assigned by Manetho to the Hyksos¹ or "Shepherd Kings," a Semitic race who invaded the Delta from Syria and gradually dominated more or less the whole country. Whilst barbarous as conquerors, they were not without some degree of civilization: to them is due the introduction of the horse, previously unknown to Egypt, and the use of the chariot as an engine of warfare. But they were not extensive builders, though they left their mark on many of the existing temples, and a record survives of the building of one in their stronghold of Avaris in the Delta, the site of which is now unmarked.²

¹ The word Hyk means "prince," but whether the second syllable is rightly interpreted by Manetho to mean "Shepherd" is doubtful. It is probably a popular or derogatory translation of a word equivalent to Bedawin, implying a person of nomadic or desert race. (See Hall, "Near East," p. 212.)

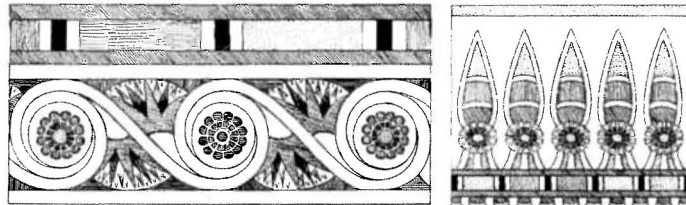
² Breasted, p. 216. What remains of Hyksos sculpture is mostly found in the Delta. It is always executed in black or grey granite, which may have come from Sinai or the quarries at Hammamet. The absence of red granite indicates that they had not command of the quarries at Assuan. See Petrie's "Tanis" (E. E. F.).

But though they adopted the language of the country, and their kings assumed the titles and customs of the Pharaohs, their rule remained odious to the native princes whom they had made tributary, and in course of time those at Thebes rebelled. After a war which is computed to have lasted nearly fifty years,¹ Aahmes (Amasis), a prince of this family, succeeded in expelling them, and became the first king of the XVIIIth dynasty.

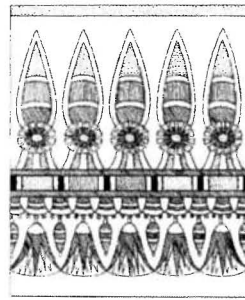
From this time the New Empire was established under the firm rule of a Theban house. Not only were Upper and Lower Egypt reunited in one government, but conquests also were made in the Sudan and Syria which increased trade and wealth, and led to an extraordinary development in building and architecture. From this time also the records are sufficiently explicit to place the chronology on a firm basis. The XVIIIth, XIXth, and XXth dynasties, comprising the five centuries from about 1600 B.C. to 1100 B.C., was the age of the great Pharaohs, the Amenheteps, Thothmes and Rameses, under whom Egypt reached its highest point of power, prosperity and internal development, and to whom the greater part of the existing remains in the neighbourhood of Thebes is due.

That the upper classes in Egypt lived in luxurious and tasteful surroundings is evident from the numerous objects and paintings which have been found in their tombs. Brilliantly coloured frescoes or low reliefs decorated their walls illustrating religious observances, agricultural and industrial operations, and scenes from the chase or daily life. Many of their decorative patterns obviously influenced the later art of other countries. Tables and chairs handsomely inlaid or otherwise ornamented,

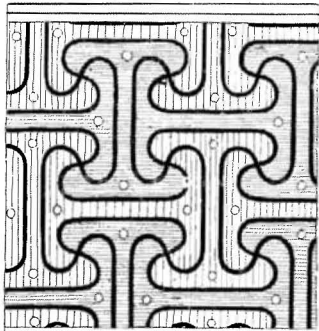
¹ See Hall, "Near East," p. 227.



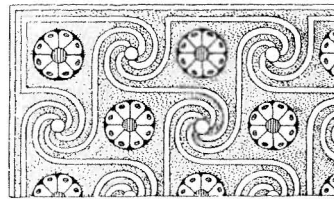
I



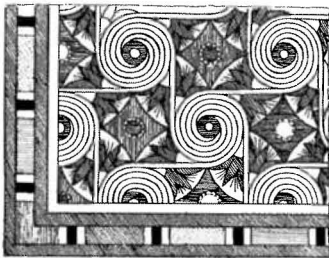
II



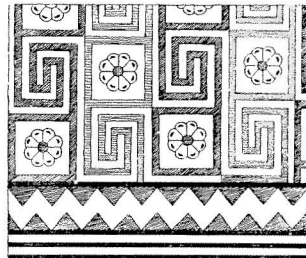
III



IV



V



VI

WALL AND CEILING DECORATIONS

Found in Theban tombs of the XVIIIth to XXth dynasties. (P. d'A. Hist.)

- I Double spiral border with lotus flowers.
 - II A form of the *Naker* ornament with lotus.
 - III Four lines "nebule" reversed and crossed.
 - IV A quadruple spiral with rosettes.
 - V A similar spiral with lotus.
 - VI Fret with rosettes. From a tomb of XXVIth dynasty, copied from an XVIIth dynasty pattern.
- The quadruple spiral and fret reappear frequently in other countries.

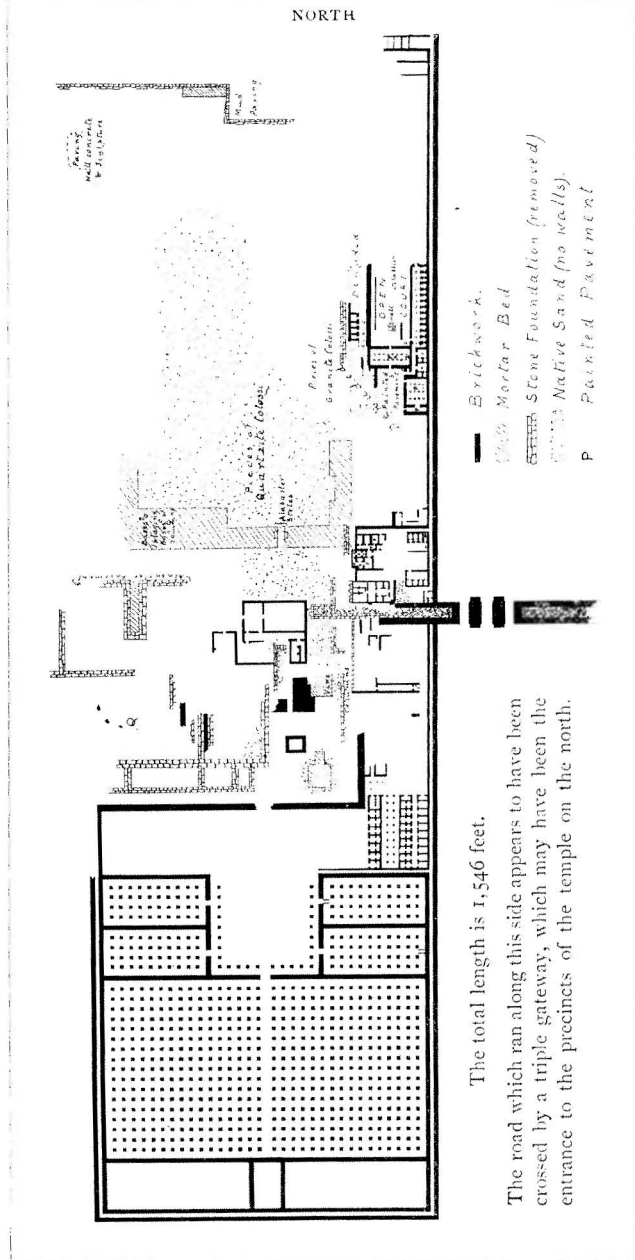
though deficient in mechanical contrivances, are not inferior in taste and workmanship to modern specimens. Wooden models of ships, houses, soldiers, and artisans show a similar ingenuity in handicrafts, and jewelry in gold, enamel, and precious stones testifies to taste no less than wealth. A light kind of timber-construction was used for pavilions and garden-houses in which the lotus-flower motive was often gracefully adapted. This kind of architecture is only known through representations in wall pictures.¹

The scanty remains of a palace of Amenhetep III on the western plain of Thebes, indicate that the royal dwellings, though not substantially built, were situated in large and agreeable demesnes containing lakes and water-channels for irrigation. From the lower wall-courses which remain, it appears that the building itself was constructed largely of sun-dried bricks, and consisted of a complicated assemblage of rooms and courts, some of which had pillars of wood on circular stone bases to support their ceilings. The walls and floors were coated with white plaster, and beautified with naturalistic paintings of bulls, birds, and sedge-bordered lakes in a style which is more fully illustrated in the palace of his son at Tel-el-Amarna. For Amenhetep IV (Akhenaten),² the religious reformer, repudiated the name of his forefathers on account of its association with Amen, and forsaking the idolatrous Thebes built a new capital for himself.

Its site is a sandy plain on the right bank of the Nile about 200 miles below Thebes. It comprised a temple dedicated to the deity he worshipped through the medium of the Sun-disk (Aten), some idea of which may be formed from a design found in a tomb; and an immense

¹ See Appendix I, p. 231.

² See above, p. 18.



GROUND PLAN OF AKHENATEN'S PALACE

From Petrie's "Tell-el-Amarna."

palace, one side of which was 500 yards long, to the adornment of which he seems to have applied all that was finest and most modern in the art of his day. It included at the south end a vast hall 423 feet long by 234 wide, the roof of which was supported by 544 square

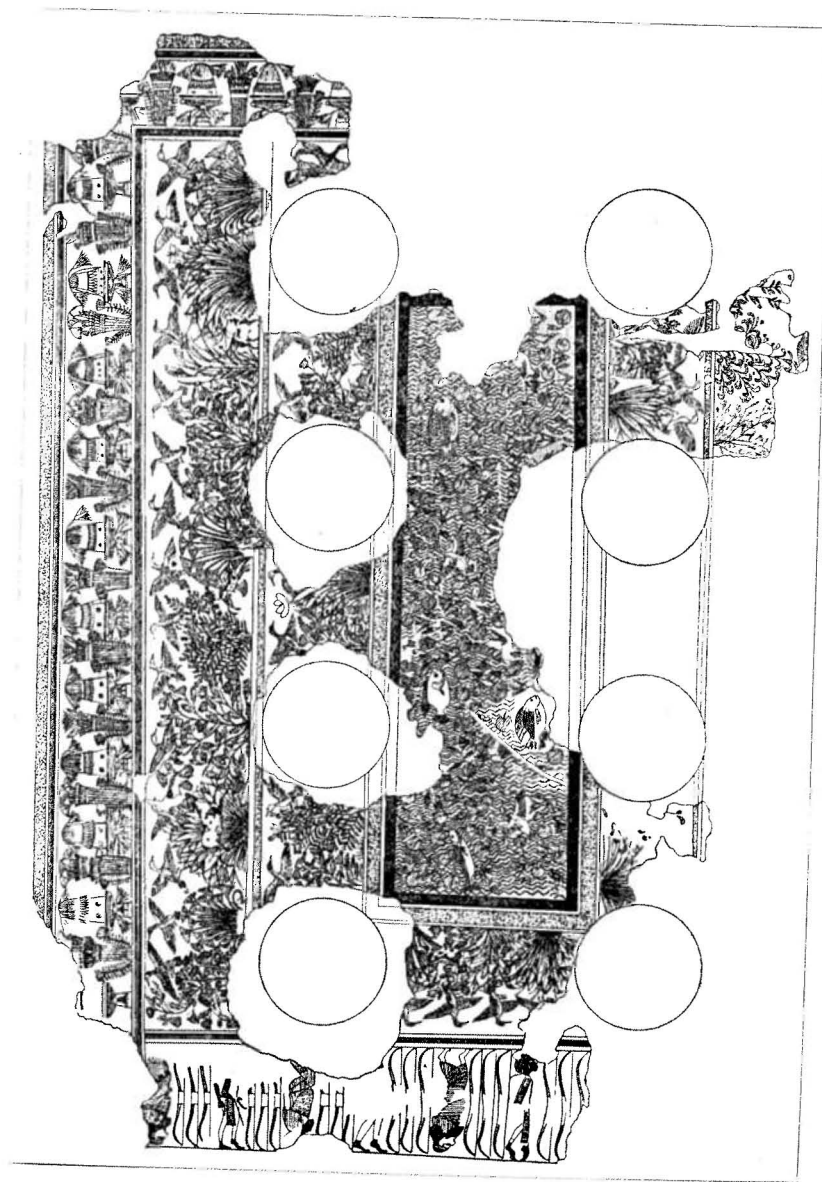


DETAILS FROM THE PAVEMENT
(Petrie.)

brick piers,¹ and four smaller halls each containing forty similar piers. These halls were arranged round three sides of a square courtyard which was surrounded by a pillared portico. At the northern end of the palace, which was probably the women's quarter, are several smaller halls or rooms, the floors of which are of stucco beautifully painted with naturalistic representations of vegetation and animal life. The style of this work, compared with the more

conventional art which is found in temples and tombs appears altogether exotic, and it is possible that it was

¹ These piers seem to have been coated with stucco and worked with a torus at the quoins. Perrot and Chipiez suggest that they may have formed an undercroft to rooms of lighter construction above. P. and C., "Egypt," ii, 29.



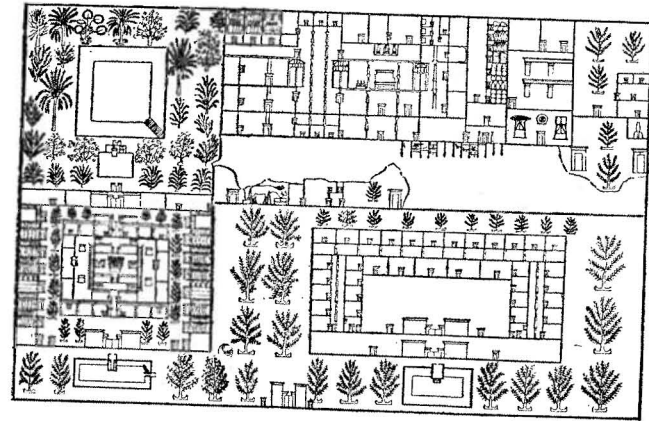
WEST HALF OF THE PAINTED PAVEMENT, AKHENATEN'S PALACE
From Petrie's "Tell-el-Amarna." (Actual length 26 feet.)

influenced by the contemporary art of Crete to which it has some resemblance. At the same time there are details which seem to have emanated from a single mind with an original though not a very correct or cultivated taste. Fragments of cylindrical columns show palm-leaved capitals similar to those used in the early Memphite dynasties, but decorated with a glazed inlay in gold and colours like cloisonné work on a large scale. Other fragments seem to have been parts of pillars imitating the irregular forms of tree trunks, with convolvulus-like creepers carved in naturalistic style up their whole length. It is said that the spiral was first used as an architectural ornament in this building.

After Akhenaten's death, which occurred when he was still young, his religious ideas were soon rejected by his successors, and his city was deserted. The more substantial parts of the buildings were broken up and removed for other uses, and the site, though temporarily occupied in Roman times, remained unbuilt on. Such vestiges as were left were protected by the deposits of ages until again brought to light in modern times, and more completely excavated and described by Dr. Flinders Petrie.¹

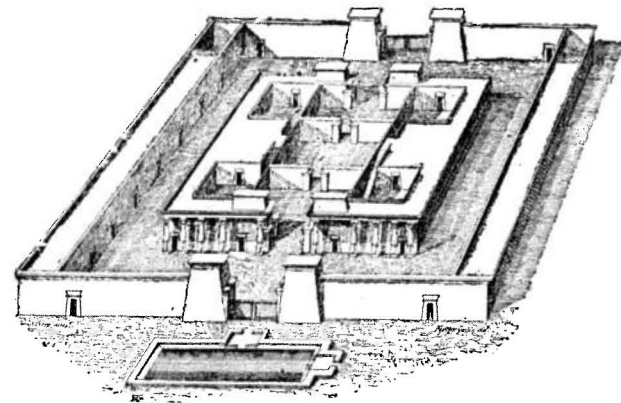
Apart from the remains at Tel-el-Amarna, where a broad street alongside of the palace with others leading from it, and the foundations of a number of houses, some of which seem singularly modern in their planning, can still be traced, the plan and arrangement of Egyptian cities and towns under the Empire is largely a matter of conjecture. Memphis, which before the rise of Babylon must have been the largest city of the world known to history, is now

¹ See his "Tell-el-Amarna," from which the accompanying plans and illustrations are copied by his permission.



PLAN OF A PALACE

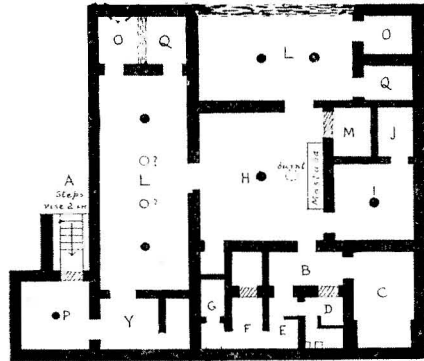
With accessory buildings, from the tomb of Meri-Ra, a high priest of the Aten, Tel-el-Amarna. (The palace is on the left-hand side.)



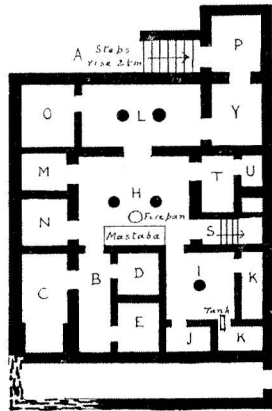
RECONSTRUCTION OF THE PALACE FROM THE ABOVE PLAN.
(Maspero.)

represented by shapeless mounds and the remains of a few broken statues.

At Thebes there is little to throw light on the character



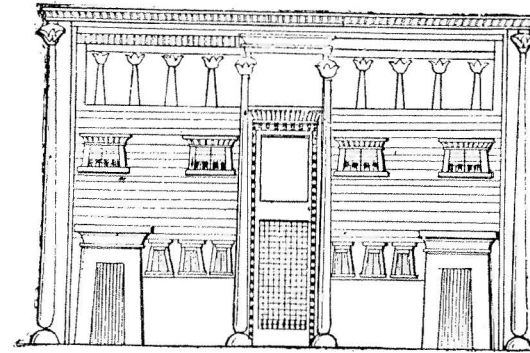
- A. Shallow steps to door.
- P. Porch.
- Y. Lobby.
- L. Loggia or summer room, probably open on the south side.
- H. Central Hall, often with a bench (mastaba), in front of which was a hearth.
- B-G. The master's room and women's quarters.
- I-K. Men's quarters.
- M, N. Store-rooms.
- S. Stairs to roof.
- T, U. Cupboards.



GROUND PLANS OF PRIVATE HOUSES
From Petrie's "Tell-el-Amarna."

and disposition of its secular buildings, though a good deal of it still awaits exploration. On the east side of the river the ceremonial approaches to the temples were grand avenues lined with ram-headed sphinxes or re-

cumbent rams, which probably formed a frontage for large buildings; and on the western bank there are the remains of a colony of priests and other persons connected with the service of the mortuary temples and tombs. But the dwellings of the middle and higher classes have disappeared owing to the general use of crude bricks which have long ago been reduced to dust; and it is chiefly from representations in the decoration of tombs and sarcophagi that we can form some idea



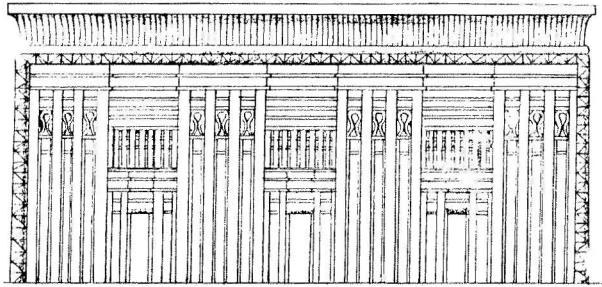
FRONTAGE OF A TWO-STORIED HOUSE WITH AN OPEN GALLERY ABOVE. (Maspero.)

of the appearance of ordinary houses. The great extent of Thebes warrants the supposition that it contained many houses which stood in enclosed gardens with trees, ponds and other agreeable surroundings. The drawing on page 74, by C. Chipiez, reconstructed from a plan in a tomb at Thebes, gives a representation of such a villa on the river-bank. Another more important group of buildings is shown on a plan from Tel-el-Amarna. It depicts, by a convention which is common in old

plans, the enclosure with its divisions in plan, but the objects situated within it in elevation (p. 83).

From various representations it is evident that the Egyptian dwelling-house of the better sort had two or three stories with a flat roof which could be used for repose either by day or night. Sometimes it appears as a covered verandah, and in any case probably had an awning.

Notwithstanding the general scarcity of timber there

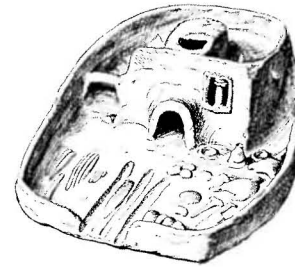


SIDE OF THE SARCOPHAGUS OF MENKAU-RA
From Vyse and Perring.

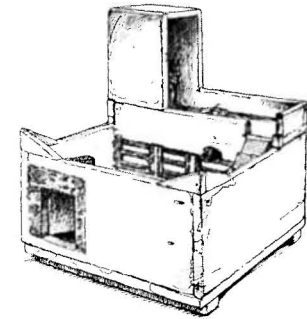
can be no doubt that it was frequently used at an early period. The fronts of the mastabas are evidently imitations in stone of dwelling houses in which the framework and architraves were made of wood. The details of the sarcophagus of Menkau-Ra, of which a drawing was made before it was lost at sea on its way to England, are obviously suggested by an architectural design in which wooden planks were, at least, partly employed.¹

¹ The design of this sarcophagus has led to the supposition that it may have been renovated at a later date. The hollow cornice and roundels at the angles are said to have come into use in the Vth dynasty (Hölscher, p. 16). See illustration, p. 237, and cf. *note* p. 66 above.

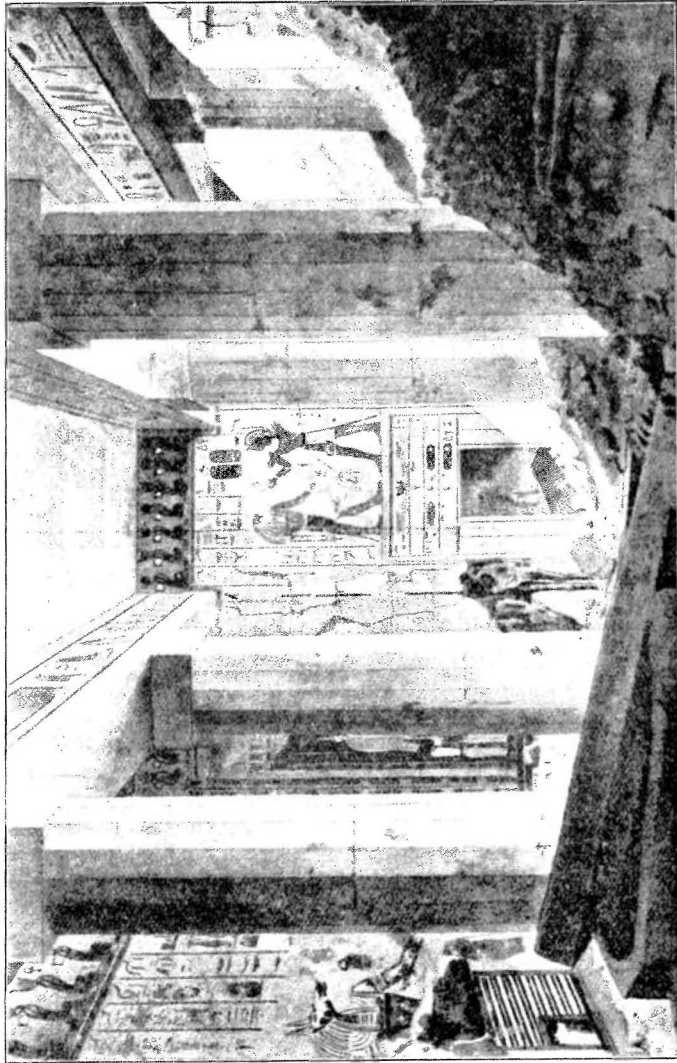
The arrangement of the humbler dwellings of country folk and small farmers may be seen in wooden and clay models which have been used as funerary appurtenances. They usually contained two rooms on the ground floor, and receptacles for grain or other produce. On the flat roof was a small chamber which was reached by an external staircase. A courtyard in front was enclosed by a high wall of mud or crude brick. The British Museum has a number of such models, two of which are here depicted.



CLAY MODEL OF A TWO-STORIED
HOUSE. (Brit. Museum.)



WOODEN MODEL OF A GRANARY.
(Brit. Museum.)



VESTIBULE TO THE SHRINE OF ANUBIS, DĒR-EL-BAHRI
From a drawing by R. Phené Spiers, F.S.A. (1866).

CHAPTER IX

TOMBS AND TEMPLES—DĒR-EL-BAHRI

WITH regard to more monumental buildings during the obscure centuries which followed the XIIth dynasty and included the domination of the Hyksos, it appears that a change had taken place in the architectural ideals of the rulers of Egypt. It was no longer their ambition to commemorate themselves by massive pyramids with mortuary temples contiguous and subservient to them. Possibly the removal of the political centre to Thebes, when the habitable area was shut in on the west by rocky heights which would tend to dwarf even the Great Pyramid, may have contributed to this result. The combination of a temple with a pyramid within it as shown in that of Mentuhetep at DĒr-el-Bahri, which has been described, remains a solitary experiment. It is still more probable that the desecration of the older tombs of the kings, which took place during the long periods of disorder, induced their successors to abandon the practice of marking them by conspicuous monuments. Aahmes, the liberator of Egypt and the founder of the XVIIIth dynasty, was buried in a tomb of masonry at the north end of the western plain of Thebes.¹ It has long since disappeared, but his embalmed body had been removed and is preserved at Cairo. His son and successor Amenhetep I, made his tomb at the extremity of a long gallery excavated in the side of the cliff overlooking the plain, and

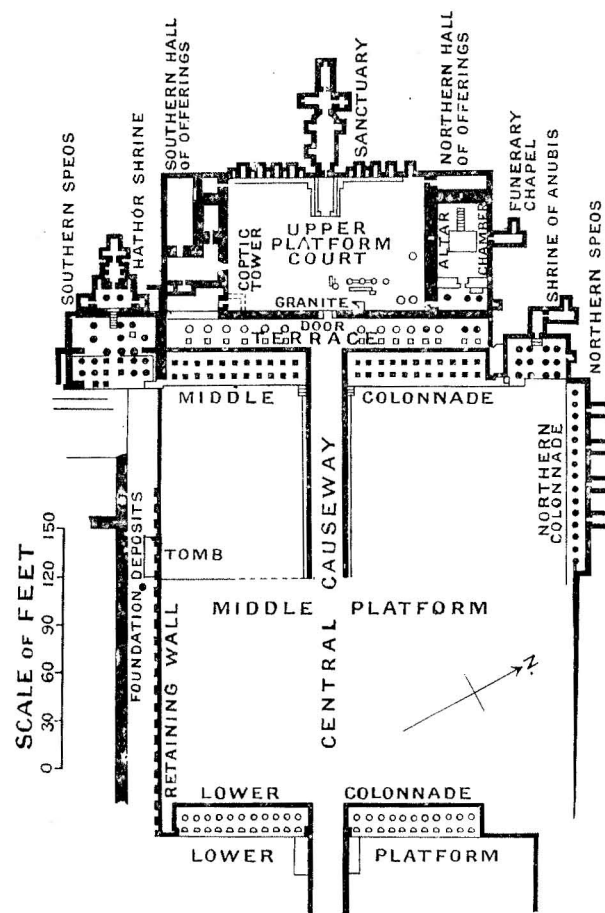
¹ Breasted, p. 252.

was the last king to mark its site by a small chapel with a pyramidal roof.¹ His successor, Thothmes I, determined to secure immunity from disturbance after death by concealing his sepulchre. He dispensed with even the simple façade which distinguishes the rock-hewn tombs of the feudal nobles of the XIth dynasty at Elephantine and Beni-Hasan, and excavated his sepulchre in a wild and desolate valley behind the western hills of Thebes with nothing to mark its entrance, intending to erect the necessary mortuary chapel in the form of a temple on the eastern side of the cliff which fronts the Nile. This became the usual practice, and for 500 years the kings of Egypt continued to prepare their burial places secretly in what is now known as "the valley of the tombs of the kings" or in an adjacent valley further west, and to perpetuate their memory by the erection of a temple which has no close association with the tomb.²

The temple which is sometimes supposed to have been intended for the funerary monument of Thothmes I, is situated at Dēr-el-Bahri, and adjoins on its north side the XIth dynasty temple of Mentuhetep. (See frontispiece and illustration, p. 52.) But it was actually the work of Queen Hatshepsut, the daughter of Thothmes and wife of her half-brother Thothmes II; and is in effect a monument of her own reign. Its design was obviously influenced

¹ Breasted, p. 278. On p. 525 he mentions another unused tomb of Ahmenhetep I, near Dēr-el-Bahri, being in fact that to which some of the bodies of the kings were transferred for safety in the XX1st dynasty.

² The precautions against desecration were in most cases unavailing; many of the tombs were known in the time of Diodorus and Strabo shortly before the Christian era. About fifty-five tombs and mummy pits have been opened, of which seventeen are those of kings.



QUEEN HATSHEPSUT'S TEMPLE. Plan of the two upper courts.

by that of the adjoining temple, with the omission of the pyramid; whilst it differs materially both in plan and architectural detail from all of later date. Like Mentu-

hetep's in its sloping site it was necessarily built in terraces; but it exceeds it considerably in area, and comprises three courts at ascending levels. The first court was approached by a straight causeway which started at its eastern¹ end from a propylon or trilithon gateway, of which only the foundations remain, and ran for 1600 feet between two rows of sandstone sphinxes. At the entrance of a large open court were two obelisks, and at a distance of about 200 feet within it, an inclined ascent along the central axis led to the second or middle court at a higher level. Along the front of the retaining wall, at each side of the ramp, was a colonnade or portico, the roof of which was supported by 22 pillars in two rows. These pillars, which taper slightly upwards, are rectangular in front, but the backs of the front row are polygonal in plan in order to harmonize with the rear row which are symmetrically chamfered in sixteen sides. The back walls of the porticoes are decorated with designs in low relief depicting the transportation of two obelisks by water with religious and military processions.

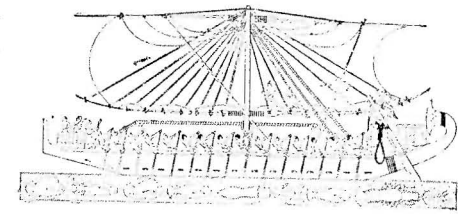
In the middle court, as in the first, are the remains of a central ramp leading to the uppermost terrace, and in front of the retaining wall are also two colonnades, the piers of which are all rectangular. Here the wall decorations are of special interest. Those in the northern portico illustrate the divine origin, nurture, and coronation of Hatshepsut, whilst the southern series commemorates the celebrated expedition of five ships which she sent to the land of Punt,² and their return laden with gold,

¹ The temple actually faces about S.E., but for the sake of simplicity the orientation is assumed to be cardinal.

² The land of Punt, which there is reason to suppose that the Egyptians regarded as the prehistoric home of their race, was

silver, ivory, ebony, spices, apes, and other strange and valuable merchandise. The art of these reliefs is of a high order. In firm and clear-cut outline they express, in the conventional style of Egyptian sculpture, all essential detail with extraordinary vivacity and obvious truth; but their beauty was seriously impaired by Hatshepsut's nephew and successor Thothmes III. In consequence of domestic animosities he obliterated nearly all representations of, or allusions to, the masterful queen, who throughout her reign chose to be represented as a man, and in these pictorial legends of her infancy appears as a boy.

They were further damaged at a later date by the religious reformer Akhenaten, to whom the representation of most of the Egyptian deities



ONE OF HATSHEPSUT'S SHIPS

was an abomination. They were afterwards inadequately restored by Rameses II.

At the north end of this middle colonnade is a well-preserved pillared hall, the roof of which, level with the upper terrace, is supported by twelve sixteen-sided columns in three rows. The entablature is continuous

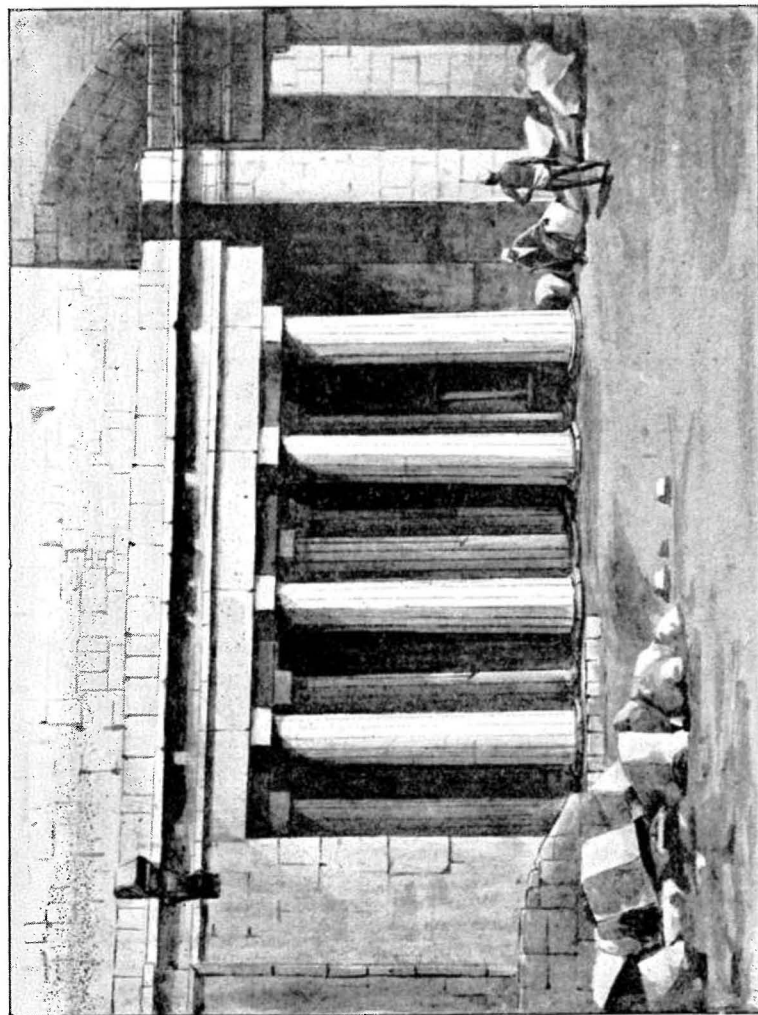
in Somaliland. Hatshepsut's expedition was far from being the first of its kind, though it has become the most celebrated. Breasted supposes that the ships may have sailed down the Nile and through a canal (Wadi Tumilat), to Lake Timsah and the Red Sea. Mr. Hall ("Near East," p. 147) assumes that they started from Kuseir at the end of Wadi Hammamat, the nearest point to Thebes on the coast of the Red Sea.

with that of the colonnade, and consists of the curved cornice usual in Egyptian work, surmounted by a plain vertical parapet. At the back of the hall is a shrine of Anubis, the walls of which are decorated with symbolic paintings which retain much of their original brilliance. (See page 88.) At the southern end of the corresponding colonnade, but outside the wall of the court, is a somewhat larger shrine of Hathor, which had a separate inclined approach unconnected with the temple. The shrine itself was approached through two porticoes, each of which had a double row of pillars, two of the rows being sixteen-sided and the other two circular and square in section. The latter had capitals showing the Hathor head, an early use of a type of pillar which became common in the latest dynasties.¹

The middle court seems to have been the latest part of the original building, and was not completed. On the north wall, for about half its length, was a covered colonnade 117 feet long, consisting of a single row of fifteen square pillars with four niches in the back wall. This is partly constructed of sandstone, unlike the rest of the building, for most of which a fine white limestone was used. There is no corresponding feature on the south side.

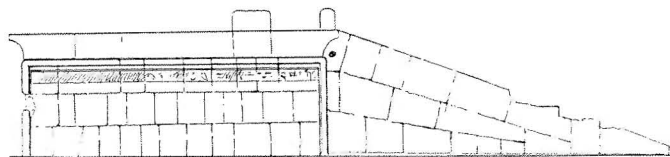
The third or upper platform is entered by a fine granite trilithon gateway still standing, but in advance of this another double colonnade open to the east extended to the right and left of the approach. The pillars of this were again diversified, the outer range being square and

¹ The heads are surmounted by a small shrine, and in this respect differ from a form used at Bubastis dating from the XIIth dynasty. See Prof. Naville's Account of the Temple, E. E. F., vol. iii, pl. lxxviii.



FACADE OF THE SHRINE OF ANUBIS, DÉR-EL-BAHRI

the inner polygonal in section. The inner court, which was much smaller than the others, was surrounded by a covered portico with a double row of polygonal columns of which little but the bases remain. The eastern wall has reliefs representing a procession of boats transporting the statue of Hatshepsut with attendants, which are no less expressive in execution than the other mural designs. In the back or western wall of the court is the *speos* or excavated sanctuary. It had a barrel vault constructed in horizontal courses, with an outer roof of inclined slabs to protect it from the detritus of the cliff. In this part of the temple some of the original work has been obliterated



SIDE OF ALTAR AT DĒR-EL-BAHRI

by Ptolemaic additions. North and south of the court are two separate enclosures: that on the north has a façade supported by three pillars which are unevenly spaced, and within it is a large altar of limestone for sacrificial purposes, the platform of which is reached by a flight of ten steps at the back. The southern enclosure contains two small open yards and a chamber, the walls of which are covered with reliefs representing offerings of varied produce made by Hatshepsut to Amen. It may have been used for the slaughter of sacrificial beasts.

The architect of this remarkable building was Senmut, the queen's steward, and the estimation in which he was

held is shown by the fact that he is represented and named in one of the reliefs. His tomb exists, though in a ruinous condition, near Dēr-el-Bahri,¹ and two statues of him, one of which was found in the temple of Mut at Karnak, are known. The effective use of the site and the intuitive sense of proportion evident in the disposition and details of the colonnades, as well as the quality of the mural decoration, show that he was an artist of a very high order.

It is, of course, obvious that the disposition and main features of his work were suggested by the adjoining temple of the XIth dynasty, which was at least 600 years older. In that and in Ameni's tomb of the XIIth, to say nothing of less striking relics of the Middle Kingdom, we can trace the formation of an architectural tradition which retained its vitality during the XVIIIth dynasty. A small but interesting example of it is found at the temple of Amada in Nubia which was built under Thothmes III, Amenhetep II, and Thothmes IV.² It is situated on the left bank of the Nile about 125 miles above Philae. It is barely 79 feet long by 34 feet wide, and comprises

¹ It is the most northerly of a number of rock-tombs on the side of a hill known as Shekh-abd-el-Kurna, between the Ramesseum and Dēr-el-Bahri, where many notables of the XVIIIth dynasty were buried. These tombs are of the same type as those at Beni-Hasan, some of them having a forecourt with a pillared portico or vestibule. The mural paintings depicting the social life of Egypt are of the highest historical interest. This is especially the case with the tomb of Rekhmara, a chief minister of Thothmes III, in which, as also in that of Senmut, are seen envoys bringing presents from foreign states, including Kheftiu or men of Crete. The importance of this in relation to the synchronism of Aegean civilization is obvious.

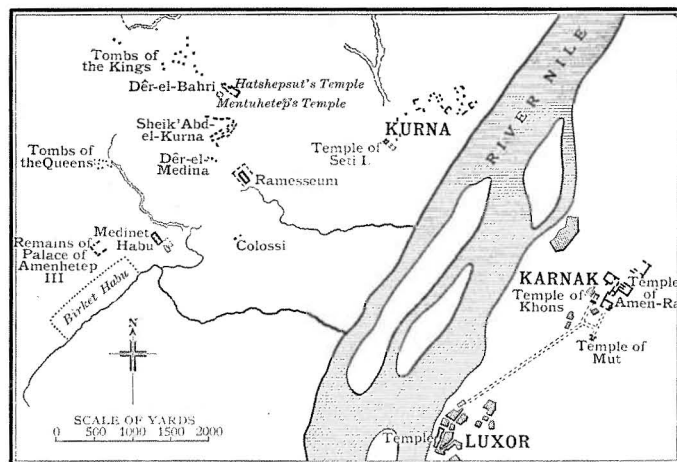
² See "Le Temple d'Amada," par H. Gauthier, 1913. (Service des Antiquités de l'Égypte.)

a porch and a small pillared hall at the back of which is a portico leading into a sanctuary with a vestibule and 4 lateral chambers. The roof of the hypostyle hall is supported by six rectangular pillars which, as well as the walls, are covered with well executed reliefs. The portico at the back of the hall consists of a single row of four polygonal columns of twenty-four sides. They appear to be the earliest specimens in which the number of faces exceeded sixteen. They have low circular bases and no capitals distinct from the plain abacus which resembles those at Dēr-el-Bahri.

It is difficult to disassociate this form of art from that which arose one thousand years later in Greece. The disconcerting fact about it is that after attaining such a degree of development it should have remained unproductive, and without more definite influence on the future art of Egypt. For the designs of nearly all the great temples founded, rebuilt, or enlarged under the Empire after the XVIIIth dynasty, depart from the severe simplicity of earlier days and adopt, with a certain uniformity, a new exuberance of style which henceforth permeates Egyptian art, whilst it remains for the most part peculiar to it.



STATUE OF RAMESES II AND ENTRANCE TO THE TEMPLE OF RAMESES III AT KARNAK



SKETCH PLAN OF THE CHIEF THEBAN MONUMENTS

CHAPTER X

THE TYPICAL TEMPLE OF THE EMPIRE—KARNAK

THE Egyptian temple was a gradual growth originating in the primitive ancestral worship when a shrine was an adjunct to a tomb, the tomb itself being a more permanent or dignified form of a secular dwelling. The temple may thus be regarded as the final evolution of a mastaba horizontally as a pyramid was in vertical height. The larger temples share in common with subterranean tombs a tendency to indefinite longitudinal extension, with little regard to external architectural effect except in front. On the other hand, there is an excess of internal elaboration, an accumulation of columns, a complexity of plan, and an abundance

of surface decoration characteristic of frequent ritual observances by a numerous and aristocratic priesthood permanently attached to the temple, in which the people, the *profanum vulgus*, had only an occasional and passive share.

The main features of the typical temple, from the time when it ceased to be merely an adjunct to a tomb, are a forecourt open to the sky, at the further side of which was a colonnaded hall, beyond which lay chambers more or less numerous devoted to the service of the god or gods, and its varied furniture and appurtenances. The central chamber was the sanctuary containing a shrine, or more than one, in which was placed an image, generally carved in wood, of the deity to which it was dedicated.¹ Sometimes there was also a sacred ship, the means of celestial migration, in which the image was on occasions borne in procession.

Subject to these main conditions the plans of the temple vary indefinitely in size, length, and complexity, save only that additions made from time to time were almost always along the major axis of the building.

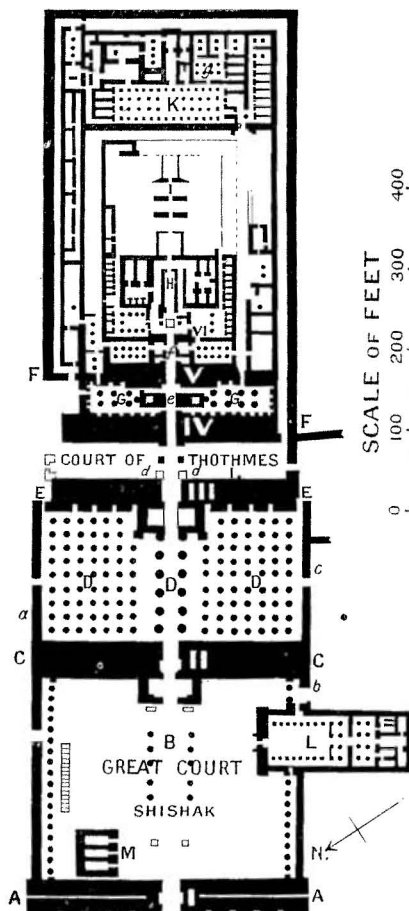
The great temple of Amen-Ra at Karnak, on the east side of the Nile opposite Dēr-el-Bahri, on account both of its magnitude and its political importance, must be regarded as the metropolitan fane of ancient Egypt. Its construction, extending at the lowest computation over more than 1,000 years, during which Egypt attained its highest degree of power and civilization, illustrates more completely than any other building all that is peculiarly Egyptian in architectural art. Its original foundation and dedication to Amen as a purely local deity, may date from a very early dynasty, but under

¹ Breasted, p. 61.

the Theban kings Amen came to be the principal god of Egypt, and was identified with Ra, the Sun-god of the Old Kingdom. His temple then assumed a more important form, being rebuilt by Amenemhat I and his son Senusert I of the XIIth dynasty. It preserved its importance during the obscure and troubled centuries, which included the Hyksos domination, when Thebes remained a focus of the national spirit; and after the establishment of the XVIIIth dynasty it was gradually reconstructed by Thothmes I, Queen Hatshepsut, and Thothmes III.

The XIIth dynasty temple must have occupied only a small portion of the eastern half of the present ruins. From a few broken polygonal columns and other fragments which lie in the space beyond the sanctuary (see Plan, p. 104, I), it seems probable that it agreed in style with the temple of Mentuhetep at Dēr-el-Bahri. When the empire was firmly established it became a special object of interest to the kings of the XVIIIth dynasty, and Thothmes I enlarged the building by surrounding it with lateral colonnades and a narrow pillared fore-hall (*f*), of which the present 5th pylon formed the façade. The hall and pylon are all that distinctly remain of this alteration, for the surrounding colonnade was superseded by the operations of Thothmes' successors, and the fore-hall itself was to some extent altered. From the fact that the remaining columns are polygonal with sixteen sides, it seems that he still adhered to the style of the older building. The work of Thothmes I, however, did not end here, for some years later he built another enveloping wall with a larger fore-hall (*G*) and pylon (now the 4th) to the west of his previous frontage. He completed his work by erecting two obelisks before the entrance; another pair (*dd*) was afterwards erected

in front of these by Thothmes III, but only one of the four, that on the south-east, still remains *in situ*. It is



- A A. Pylon I (Ptolomaic).
- B. Taharka's colonnade.
- C. Pylon II (Rameses I).
- DD. Hypostyle Hall of Seti and Rameses II.
- EE. Pylon III (Amenhetep III).
- FF. Circuit Wall (Rameses II).
- GG. Osiride Hall (Thothmes I).
- H. Sanctuary and Hatshepsut's chambers.
- I. Space with remains of XIIth dynasty.
- K. Building of Thothmes III.
- L. Temple of Rameses III.
- M. ,, Seti II.

- a. Wall reliefs of Seti I.
- b. Porch and reliefs of XXIInd dynasty.
- c. Reliefs of Rameses II.
- d. Obelisks of Thothmes III.
- e. Obelisks of Hatshepsut.
- f. Hall of Records, constructed in the earlier fore-hall.
- g. Hall with polygonal columns.

PLAN OF THE GREAT TEMPLE OF AMEN

noticeable that the columns in this later hall are no longer of the polygonal type, but circular in section,

with the campaniform capitals, but they may have been substituted later. Round the walls were niches with colossal statues of Osiris.

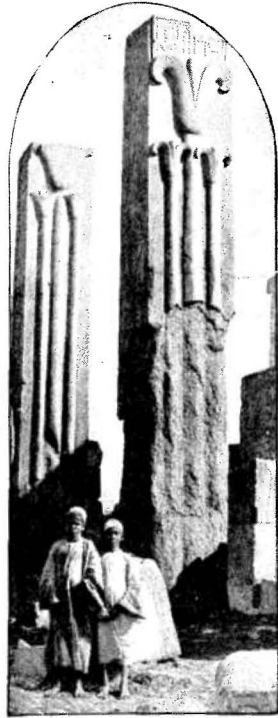
When Thothmes' daughter Hatshepsut came to the throne as wife of Thothmes II, and after his death as sole



FALLEN OBELISK OF QUEEN HATSHEPSUT AND ONE OF THOTHMES I

ruler and guardian of her nephew Thothmes III, she took the temple in hand and made considerable alterations in its innermost portions. She built a sanctuary in the smaller hall and two series of chambers with black granite portals to the north and south of the central chapel (H). Their walls were decorated with fine reliefs, but they

are now in a ruinous condition. She also erected two immense obelisks of red granite in the larger hall (G G), which necessitated the reconstruction of part of the colonnade and the alteration of the roof, which must at one time have covered the whole of this court. One of the obelisks, which is 97 feet high, is still standing.



PAPYRUS AND LOTUS PILLARS
OF THOTHMES III

Further alterations were made by Hatshepsut's successor, Thothmes III. On the north and south sides he demolished the colonnades which had been built by Thothmes I and substituted a number of small chapels. He also built a small pylon (No. 6) and an inner pillared court across the front of Hatshepsut's chambers which flanked the sanctuary; but twenty years later he altered this court by constructing in its central part a hall inscribed with records (*f*), and two ante-chambers on the outer side of the pylon. In the Hall of Records stand two quadrangular pillars of red granite which once supported the roof, and are finely carved in high relief, one with the lotus and the other with the papyrus, the symbols of Upper and Lower Egypt.

The most important addition to the temple-building



[J. Williamson, del.]

INVERTED COLUMNS IN THE HALL OF THOTHMES III

After a drawing by Miss E. L. Lister.

by Thothmes III was what is called the Great Festal Temple at the eastern end of the rectangular space enclosed by the wall of Thothmes I. It had no pylon or imposing front, but was entered by a portal at the south end of the west wall from which a turning to the left through a small vestibule led to a colonnaded hall (K), the outer wall of which is now broken down. It



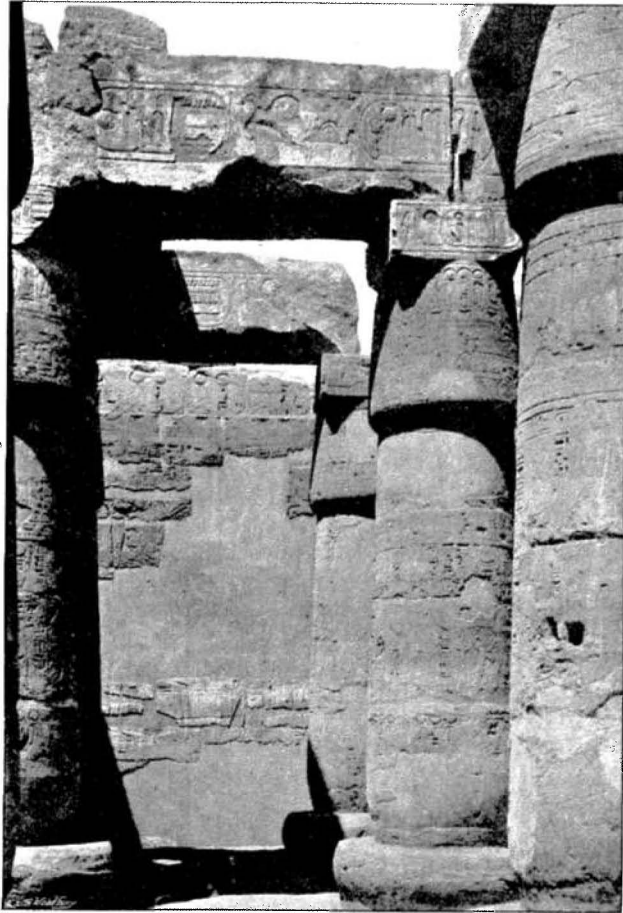
THE EASTERN ADDITION OF THOTHMES III AT KARNAK
FROM THE NORTH

In the foreground are the four lotus-columns of the small room adjoining the sanctuary on the north. Between the columns are seen the polygonal pillars of the hall on the south. At the extreme right are the remains of the Festal Hall.

had an internal peristyle of 32 rectangular piers and down the centre were two rows of ten round columns which do not range with the piers. They are of singular shape, for the diameter of their shafts increases upwards, whilst the bell-shaped capital has its larger

diameter below. They are, in fact, columns of the campaniform pattern in which both shaft and capital have been inverted—apparently a capricious attempt at originality which is not imitated elsewhere. The rectangular piers were of the same height as the walls and supported flat roofs of pentagonal stone slabs. But as the circular columns were higher the piers were prolonged by stone struts which supported a higher central roof, and probably admitted light through the intervening spaces. Round the north-east and south sides of the hall was a complexity of corridors and smaller chambers, some of which had columns, with a long and narrow sanctuary on the central axis. A small hall adjoining the sanctuary on the north side had a single row of four columns of the clustered “bud” pattern, richly ornamented with horizontal bands which are still in good preservation; whilst on the south side was a larger hall (*g*) with eight columns (seven of which are still erect) of the simple sixteen-sided type in singular contrast to the more ornate style of the others. It seems possible that these are some of the earlier work from the destroyed peristyle of Thothmes I, used again by his grandson.

The last addition to the plan and fabric of the temple during the XVIIIth dynasty was a large pylon (No. 3) built by Amenhetep III, so close to the front of Thothmes I that it encroached on the bases of two of the four obelisks which stood before the entrance. The reason for this addition by the most powerful of the Pharaohs is not obvious unless it were to aggrandize himself at the expense of the greatest of his predecessors. The pylon appears to have been covered with inscriptions and reliefs recording his deeds and gifts to Amen, but it is now in a ruinous state.



LATERAL COLUMNS OF THE HYPOSTYLE HALL, KARNAK



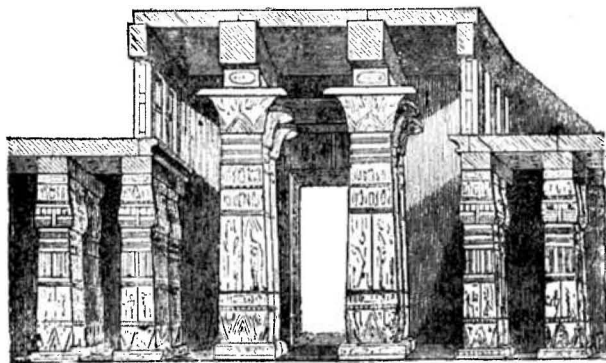
KARNAK FROM THE SACRED LAKE

CHAPTER XI

KARNAK AFTER THE XVIIITH DYNASTY

WITH the advent of the XIXth dynasty an extraordinary amplification of the temple took place by the addition of the Hypostyle Hall (D) which after the great pyramids is regarded as the chief marvel of Egyptian architectural art. Planned by Rameses I who erected the enormous pylon which forms its west front, it was mainly built and completed by his son and grandson Seti I and Rameses II. Its colossal scale is characteristic of the megalomania which had already made itself evident at the close of the preceding dynasty. The lintel stones of its entrance were more than forty feet in length. The

area of the hall was 329 feet by 170, and its stone roof was supported by 134 columns. Of these 122, ranged in six rows on either side of the central avenue, are 43 feet in height and 29 in circumference, whilst the 12 which line the avenue are over 70 feet high. The roof above them was further raised in the centre by square blocks and stone struts on the four central rows of columns so that light was admitted through the apertures which



SECTION OF THE HYPOSTYLE HALL, KARNAK
Showing the lighting of the central avenue. (Maspero.)

were subdivided by stone posts and rails. The central columns had capitals of the expanded flower pattern; the others were colossal simplifications of the so-called lotus-bud kind. Both walls and pillars were covered with incised and coloured designs and hieroglyphics, and it is largely from such mural documents that the history of ancient Egypt has been reconstructed. The exterior of the north wall gives an illustrated record of the wars of Seti I in Syria and Palestine; the designs

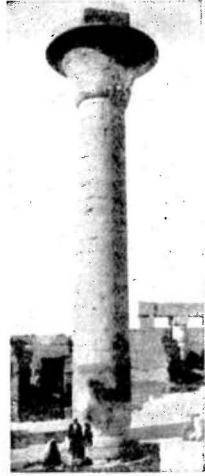
on the south wall refer to those of Rameses II in western Asia, with others added by later kings.

Rameses II also surrounded the eastern part of the temple with another enveloping wall (plan, p. 104, FF) which was similarly made a field for reliefs, mostly of a religious character.

That the addition of the Hypostyle Hall was regarded by the kings of the XIXth and XXth dynasties as a completion of the temple seems probable from the fact that both Seti II and Rameses III built small temples (M. L.), dedicated to the Theban triad, Amen, Mut and Khonsu, in the open space before its west front. Moreover, there exists on the northern side a collection of sculptured figures of couchant rams, which are supposed to have originally formed part of an avenue of approach from the Nile to the west portal, and to have been set aside when they were in the way of later buildings.

The want of a closed forecourt, such as was usual, must have seemed an imperfection to the priests of Amen, who in the period of political decay which followed the reign of Rameses III became all-powerful at Thebes. Lower Egypt had in the meantime become an independent government under Libyan rulers at Bubastis. It was only when one of these rulers, Sheshenk (Shishak) I, had resuscitated the foreign influence of Egypt by a successful campaign in Palestine, and reunited the two kingdoms under the XXIInd dynasty, that this final enlargement of the temple of Amen was carried out. A large forecourt (B), 338 feet in width and 276 feet from east to west was laid out, the north and south sides being lined by colonnades. It included in its area the temple of Seti II, and part of that of Rameses III, for the south wall impinged on the side walls of the latter, which had

its front within the court facing north. The work probably remained unfinished for some centuries, for the immense pylon (A) which forms its west side dates from Ptolemaic period and was never quite completed. The pylon marks the greatest width of the temple as 370 feet;



TAHARKA'S COLUMN
IN THE FORECOURT,
KARNAK
From Petrie's "Hist.
of Egypt."

its total length was 1,180 feet. Meanwhile, Taharka, an Ethiopian king of the XXVth dynasty, had erected in the centre of the court a rectangular portico with an entrance on each side. Its roof, if it had one, was supported by ten colossal columns of which only one remains standing. Outside the west pylon is an avenue of ram-headed sphinxes leading from a quay on the former bank of the Nile, which has receded considerably to the west. It was part of the improvements of Rameses II, but appropriated afterwards by Seti II, who set up two obelisks at the western end.

The temple continued in use and in good condition during the period of Greek domination, in the course of which several alterations in detail took place. The shrine was rebuilt by Ptolemy Soter in the name of Philip Arrhidaeus, and the entrance to the Hypostyle Hall was altered by one of the Ptolemies. These rulers not only adapted themselves to the native religion, but they also adhered closely to the ancient ideals in architecture, and their numerous buildings show little of the influence of Greek art.

The precincts of this vast temple were delimited by a girdle-wall of brick, which included a sacred lake on the south side, and several other temples of comparatively small size (p. 117). That of Rameses III, which abuts on the forecourt, though small—for its length is only 170 feet—is interesting as a fairly well-preserved and unaltered example. It has the forecourt with Osiride colonnades (see p. 101, and plan, p. 104), the pillared



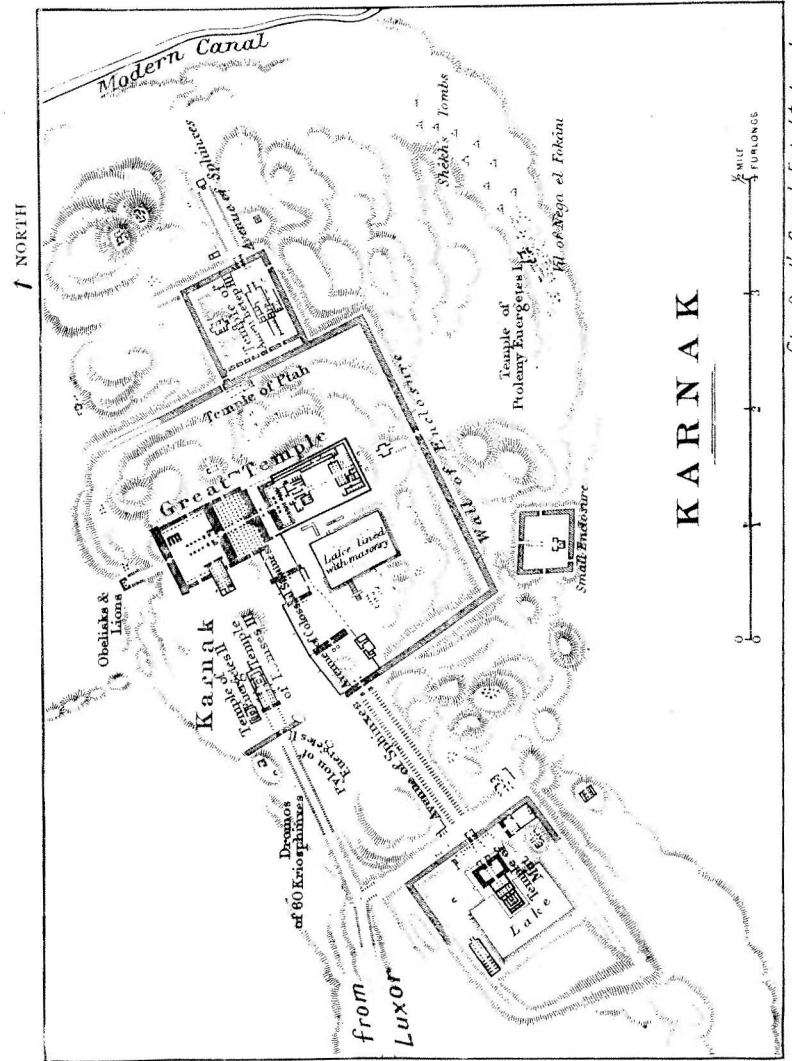
RAM-HEADED SPHINXES—THE DROMOS, KARNAK
Looking towards the Nile. (Ward.)

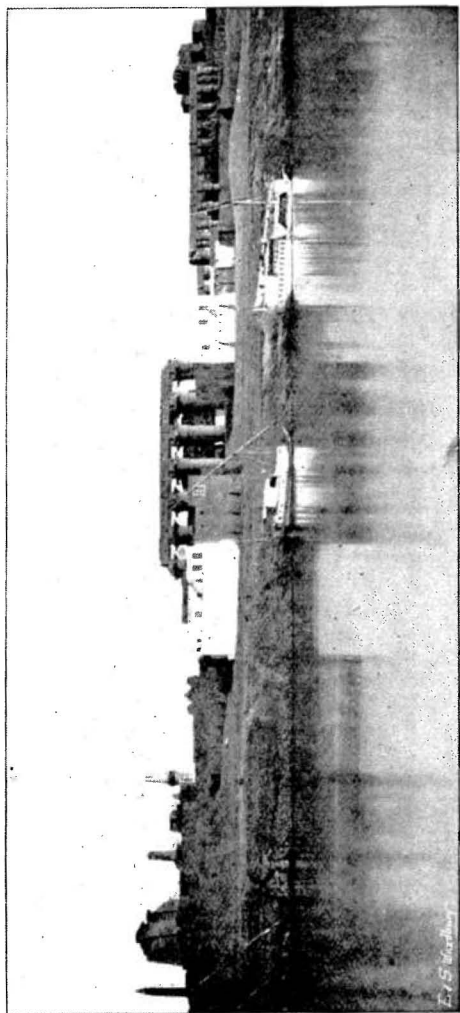
hall, and a triple cella at the end. Further to the south is the somewhat larger temple of Khonsu, founded by Rameses III (see p. 160), which whilst it follows the general type has, like every other temple, an arrangement of its inner chambers peculiar to itself. On the north side of the precincts are the scanty remains of a temple built by Amenhetep III to the war god Mentu.

Near to the central court of the great temple on the south side is a pylon built by Thothmes III at right angles to the axis of the temple, and further south is a

similar one erected by Hatshepsut. Both these were additions to a temple facing south-west, previously built by Amenhetep I, which was afterwards almost entirely demolished. Further on were two more pylons built by Horemheb, the last king of the XVIIIth dynasty, between which on the east side are the remains of a small temple which had been previously built by Amenhetep II. The pylons were apparently intended to adorn the approach to the great temple, for the southernmost one marks the entrance on that side to the precincts. From this gate southwards an avenue of sculptured rams, about 330 yards long, led to a temple dedicated to the goddess Mut, generally said to have been founded by Amenhetep III, though it has indications of an earlier date,¹ and additions by later kings. A similar avenue of ram-headed sphinxes led from the temple of Khonsu to that which Amenhetep III built at Luxor.

¹ It is in this temple that the statue of Sennut referred to on p. 97 was found.





THE TEMPLE AT LUXOR



THE CENTRAL COLONNADE, LUXOR

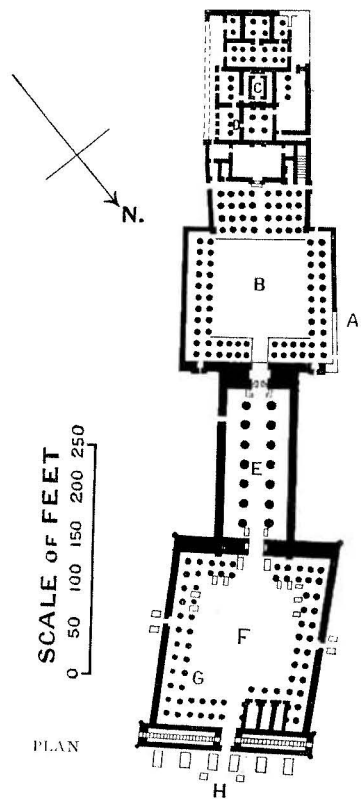
CHAPTER XII

LUXOR

THE later history of Karnak has interrupted the account of the work of the XVIIIth dynasty, to which it is necessary to revert. Amenhetep III was not content with appendages to the work of others. He determined to emulate the work of Hatshepsut, and to build a temple to Amen which should at the same time glorify himself. It lies about a mile and a quarter south of that at Karnak, close to and parallel with the Nile. Its position on the bank of the river may account for its orientation, for it faces north-east.¹ The plan of this temple illustrates,

¹ The various temples on the east side of the Nile show no method in their orientation. The great temple at Karnak faces

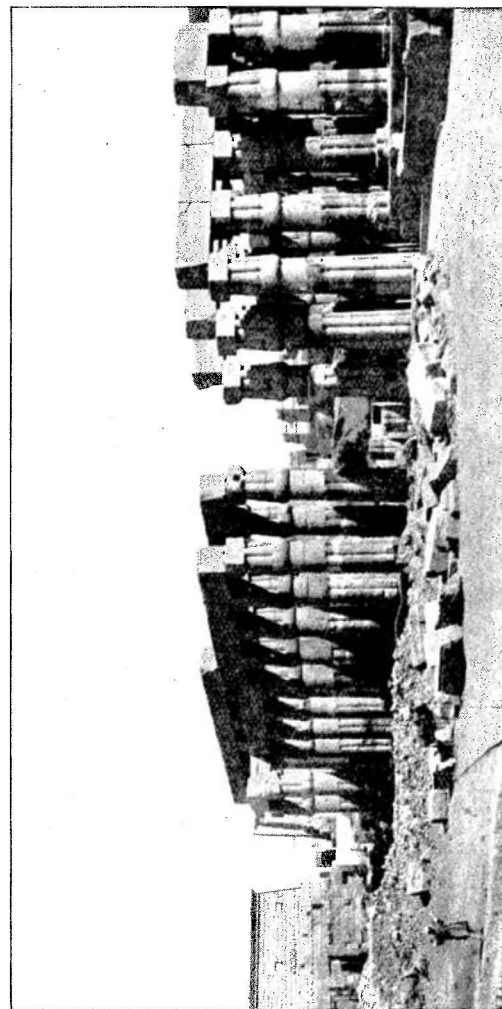
like that at Karnak, the tendency to longitudinal accretion. The original building followed the usual type, and



consisted of the sanctuary (C in plan) with its dependent chambers, a hypostyle hall or vestibule, and an open colonnaded court (B) with an entrance pylon, the remains of which are in the centre of the present ground plan. The total length was then 208 yards, and the courtyard is 56 yards broad by 49 in depth. The colonnade which lines its north, east, and west sides has a double row of clustered columns with bud-shaped capitals, much of which is well preserved, and is architecturally a fine feature. The vestibule has thirty-two similar columns in four rows of eight, and in the centre

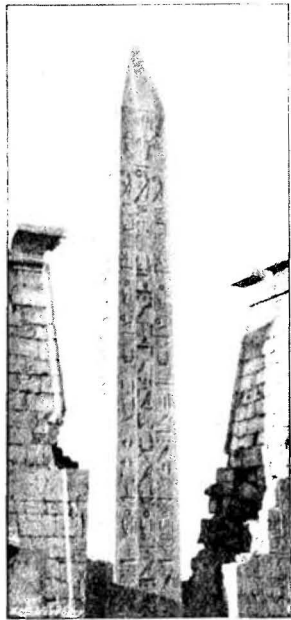
of the back wall is a door leading to a smaller hall which had eight columns. Behind it lay the sanctuary,

north-west. The small ones of Seti II and Rameses III, though dedicated to the same Theban triad, face respectively south-west and north-east. That of Khonsu faces south-west and that of Mut north-north-east.



AMENHOTEP'S COLONNADES AT LUXOR, FROM THE SOUTH

which was rebuilt under Alexander the Great. On the east side of the small hall is a chamber (D) called the Birthroom, from the mural reliefs which depict the divine



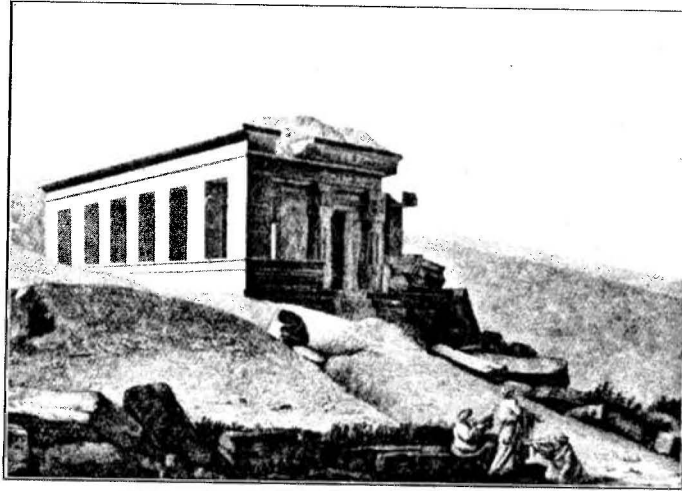
OBELISK OF RAMESSES II AT
LUXOR

origin of Amenhetep—obviously inspired by the similar reliefs executed for Hatshepsut at Dēr-el-Bahri.

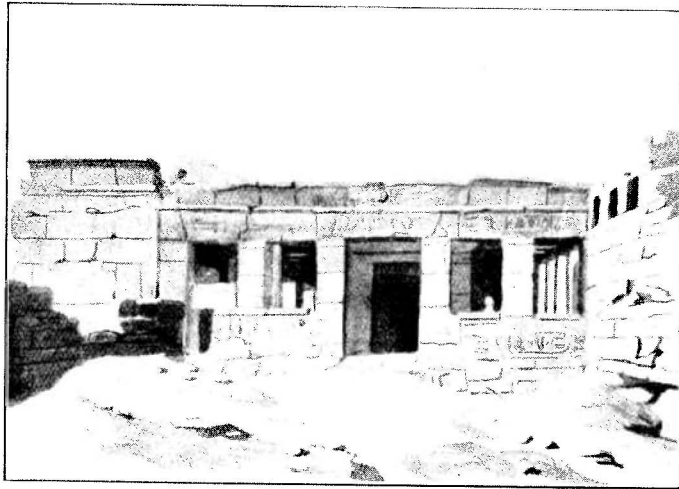
It appears to have been the intention or an afterthought of Amenhetep to add a large hypostyle hall in front of the pylon, on a plan which was only realized afterwards by Seti I at Karnak. But at Luxor only the central avenue (E) of fourteen columns was built. They are over fifty feet in height, with cylindrical shafts and the expanded calyx-capitals, above which square blocks support the plain architrave. They are well preserved, and still form an imposing architectural feature. It is doubtful whether he finally enclosed them by lateral walls. The mural reliefs on the portions which still remain were made for Tut-ankh-Amen, who succeeded Amenhetep's son, the religious reformer Akhenaten, and reverted to the old religion. The forecourt (F) at the north end of the gallery was finally added by Rameses II, who seldom failed to leave his mark upon any important work of his predecessors. It

had a colonnade consisting of a double row of the papyrus-bud type of columns along each of the four sides of the court, which measures 187 feet by 167, but the ground plan of the court is slightly skewed, *i.e.*, its angles are not right angles. Moreover, the large pylons at the north and south sides are not exactly parallel with the older front. This deviation of the axis was apparently necessitated by a bend in the river, which must formerly have almost washed the walls, and the arrangement was obviously a compromise adopted to preserve the equality of the opposite sides of the court. The exterior walls of the court and the pylons are covered with reliefs illustrating the foreign wars of Rameses II, and in front of the entrance were six colossal statues of the king, four standing and two sitting. The latter two, 45 feet high, with one standing figure, still remain, and in front of them were two obelisks of red granite, one of which, 84 feet high, is still *in situ*. The other adorns the Place de la Concorde at Paris. A large number of recumbent rams on their pedestals, which formerly lined the whole of the paved road leading northward to the temple of Khonsu, may be seen near the latter temple.

Amenhetep also built a very similar temple at Soleb in Nubia, and it is possible that the two fine red granite lions now in the British Museum, which show Egyptian conventional art at its best, were taken from there by Tut-ankh-Amen to Napata, whence they were brought to England.



SMALL PERIPTERAL TEMPLE AT ELEPHANTINE, NOW DESTROYED
From "Description de l'Égypte."



THE SMALLER TEMPLE AT MEDINET HABU (XVIIIth dynasty)
From a drawing by Miss E. L. Lister.

CHAPTER XIII

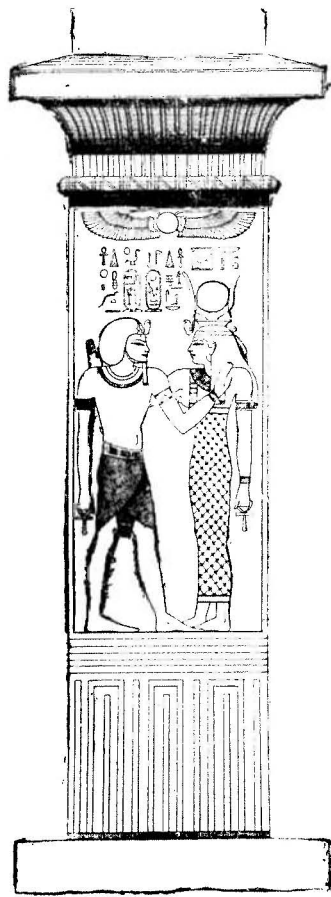
PERIPTERAL BUILDINGS

THAT the architectural effect of an external peristyle was appreciated by builders of the XVIIIth dynasty, is shown by several smaller structures. A little temple built by Amenhetep III on the island of Elephantine, which was destroyed in 1822 by the Turkish governor, was a pleasing example of this type. It is carefully delineated in the official French description of Egypt ordered by Napoleon I, from which it appears to have consisted of a simple rectangular cella surrounded by eighteen pillars, the whole being raised on a plain podium and approached by a narrow stairway at one of the smaller ends.¹ The area of the platform was 40 feet by 31, and at the top of the podium was a cornice-like parapet which formed a base for seven square pillars at each side, whilst the two central pillars at the front and back ends were of a circular reeded form.

Ruins of an earlier and more elaborate building of the same type exist as part of the smaller temple at Medinet Habu, at the south side of the western plain at Thebes.² It is supposed to have been founded by Amenhetep I, but was not completed until the reign of Thothmes III. The cella (6), which had an entrance at

¹ "Description de l'Égypte. Antiquités," p. 1, pl. 38, etc.

² See plan of Medinet Habu, p. 155, below.



QUADRANGULAR PIER FROM THE TEMPLE OF AMENHETEP II AT KARNAK (Prisse d'Avennes).

pillars adorned with reliefs showing the king adoring various deities, and the sanctuary of a temple at Buhen,

each end, was surrounded by a colonnade of sixteen-sided pillars; and this was further enclosed on three sides by a stylobate, on which stood a range of square pillars supporting the roof cornice, the further end being filled in by six chambers (5), in two rows of three, for purposes connected with the temple service. An outer court (8) with two rows of nine columns down the centre and a pylon (10) were added at the south-west end, and further extensions westward (11-15) were made in later dynasties, and even in Roman times, as is shown by an inscription of Antoninus Pius on a gateway (14) in the entrance court.

The remains of a small temple built by Amenhetep II on the south side of the great temple at Karnak, which has an internal peristyle of square

opposite Wadi Halfa,¹ begun by Hatshepsut and finished by Thothmes III, indicate that this peristylar type was favoured by Hatshepsut and her more immediate successors: and it is noteworthy that it continued to be employed for subsidiary buildings such as the pavilion of Taharka (XXVth dynasty) in the centre of the forecourt at Karnak. Its use in the Ptolemaic *mammisi*, or Birth-houses, which are found adjacent to the larger Ptolemaic temples,² and still later in the well-known pavilion at Philae, must therefore be regarded as traditional rather than as a result of Greek influence.

¹ This is what is known as the Southern Temple at Buhen. The columns are of the polygonal form. The other temple on the north was a foundation of Senusert I, but was rebuilt by Amenhetep II.

² These *mammisi* are chapels or shrines designed to commemorate the birth of Horus, the presumed progenitor of the king. The idea probably originated in the Birth-chamber at Luxor (see p. 122). They are found at Dendera, Edfu, Kom Ombo, and elsewhere.



COLOSSAL STATUES OF AMENHETEP III, KNOWN AS THE COLOSSI OF MEMNON

CHAPTER XIV

THE SIXTH DYNASTY. THEBES AND ABYDOS

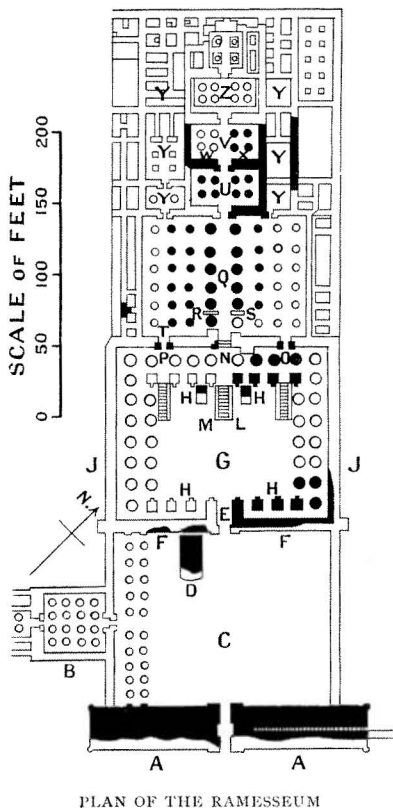
THE Egyptian rulers had an innate tendency, from the earliest dynasties, to manifest their power by the vast scale of their buildings, and towards the end of the XVIIIth dynasty this tendency had begun to assume a form in which size and mass were attained at the expense of finer qualities. The foreign conquests of Thothmes III and Amenhetep III in western Asia had raised Egypt to the highest pitch of material prosperity, and brought an access of wealth to its rulers, much of which was expended on vast buildings and gigantic sculpture. The two colossal portrait-statues of Amenhetep III, which overlook the Nile from the western plain of Thebes, are the most familiar examples of this. Originally monoliths of hard sandstone conglomerate, about sixty-five feet high,¹ they formed with others a frontal guard to a large temple, which has now been so completely demolished that its plan and aspect are irrecoverable. What this

¹ Both have suffered severely from time and earthquakes. The more northern, which was supposed to emit a musical sound at sunrise, having been reconstructed in parts under Septimius Severus, is no longer a monolith. The association of the name Memnon with them by Pliny, Juvenal, and other Roman writers, probably arose from a confusion of the name of Amenhetep with that of the Ethiopian hero. Some Greek writers apply the word Memnonium to the Ramesseum, and to the temple of Seti I at Abydos. See Murray's Handbook, p. 410, also p. 412.

building consisted of may be surmised from the remains of the mortuary temple built about 150 years later by

Rameses II, who probably used the material of Amenhetep's,¹ as well as some from the XIth dynasty temple at Dēr-el-Bahri.

This Ramesseum, as it is called, lies somewhat less than half a mile north of the Colossi,² and though it is in a very ruinous condition, enough remains to show that it was a magnificent representation of the architectural ideals of its day.³ A large pylon covered with incised pictures of Rameses' Asiatic wars led into the usual forecourt, which appears from its scanty remains to have had a double colonnade on each side. On the south side are the

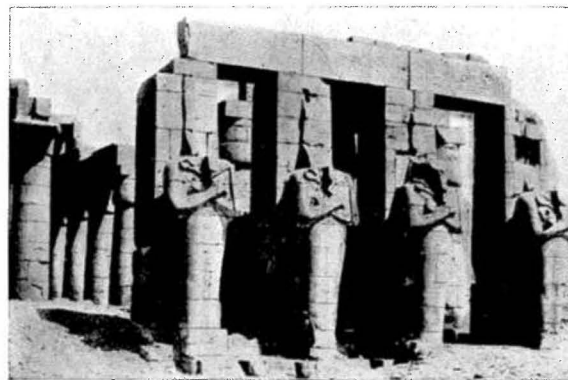


¹ Hall, "Near East," p. 317.

² See plan, p. 101.

³ Petrie supposes that the building was actually laid out by Seti I, but finished and appropriated after his death by Rameses II (Hist., iii, p. 43).

remains of an unexplained building. Near a second pylon, at the further side lie fragments of a colossal statue (D) of the king seated, which must have been about fifty-seven feet high, and was originally a monolith of carefully polished syenite. Beyond this was a second open court with a colonnade on each side, the most striking feature of which is that on the east and



THE RAMESSEUM. OSIRIDE FIGURES IN THE SECOND COURT

(Petrie's "Hist. of Egypt.")

west sides,¹ the massive square pillars (H H) are fronted with colossal figures of Osiris. On the west side these stand on a raised platform, approached by three sets of steps corresponding to three doors in the back wall which lead into the hypostyle hall beyond. Where there are no steps the intercolumnar spaces are said to have been filled in by a dwarf-wall, such as was common in the

¹ The axis is here assumed to lie due east and west, though the actual orientation is south-east and north-west.

Ptolemaic temples.¹ The hypostyle hall (Q) is arranged on a plan similar, but on a smaller scale, to that at Karnak; the central walk being flanked by two rows of six massive columns, whilst the triple aisles on each side are divided by somewhat smaller columns. About thirty-four of the original forty-eight columns remain. Beyond this hall is a smaller one (U) with eight columns, which is in fairly good preservation, leading into another of similar

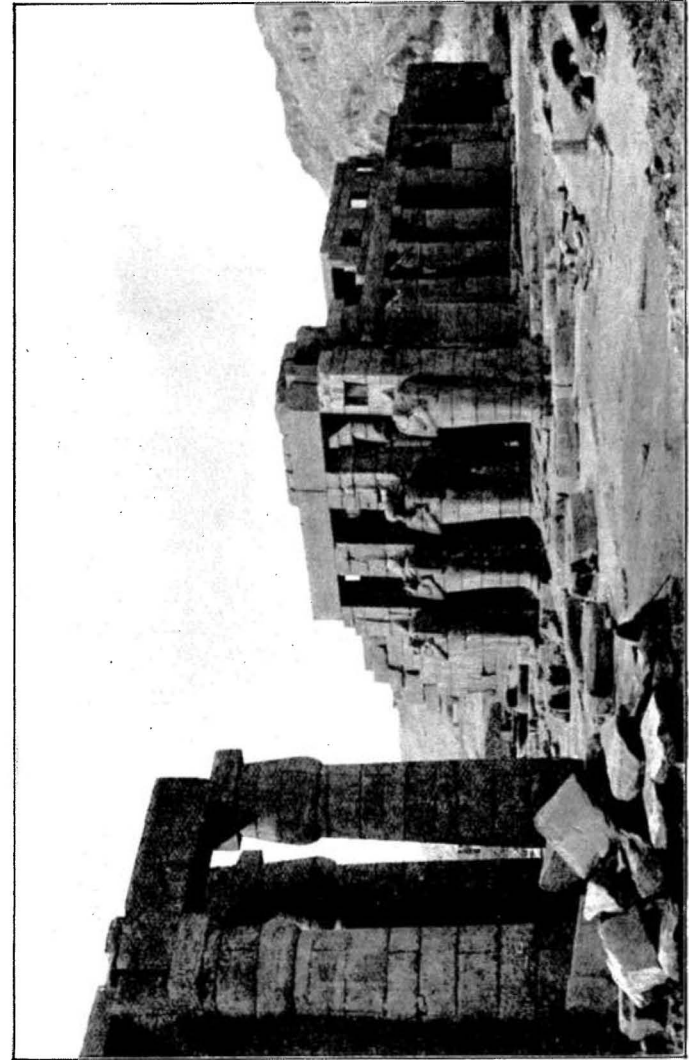


STORE CELLARS, RAMESSEUM

size and plan, and still further there are ruins (Y Z) which seem to indicate a third small hall with a sanctuary beyond it.

Behind the actual temple there are considerable remains of brick buildings, including a row of semi-circular vaults, the arches of which are constructed of three or four courses of roughly-fashioned voussoirs.

¹ See P. and C., ii, p. 149, and "Description de l'Égypte," ii, pl. 29.



THE RAMESSEUM. THE HYPOSTYLE COURT ON THE RIGHT

From the remains of wine-jars found in them, they seem to have been magazines for storage. An altar and the ruins of a large hall indicate that the whole area was the site of an extensive colony of officers and servants connected with the service of the temple, and the reception of tribute paid in kind to the king.



TEMPLE OF SETI I, KURNA

If the Ramesseum followed, so far as the temple is concerned, what had become the more usual arrangement in its ground plan, there are two rather earlier temples founded by Rameses' father Seti I, which show some peculiarities both in plan and style. One is the temple at Kurna, the most northern of the ruins on the west bank of the Nile at Thebes, dedicated by Seti to

his father Rameses I, and finished by his son Rameses II. Its chief feature now remaining is a portico of clustered papyrus bud columns, originally ten in number, with heavy square abaci supporting an entablature which differs in its rectangular profile from the more usual cavetto cornice. This formed the façade of the *naos*

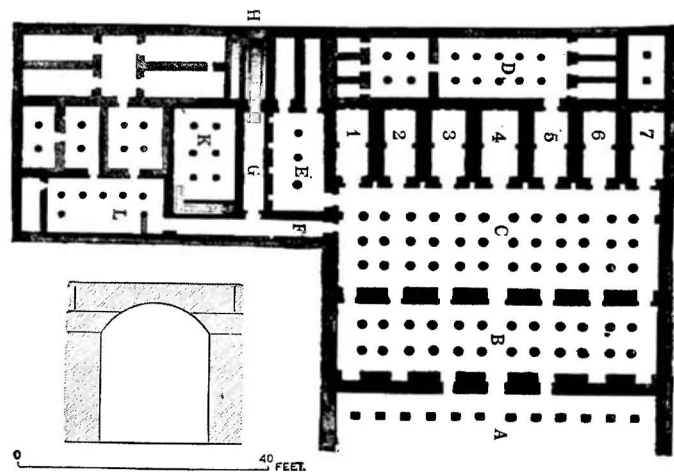


EXTERIOR COLONNADE OF THE TEMPLE OF SETI I, AT ABYDOS

proper or inner chambers of the temple. Vestiges of two pylons show that there were two open forecourts as in the Ramesseum, and some mutilated remains of sphinxes indicate that a central pathway or *dromos*, leading from the first pylon through the second was lined by these figures. Whether the courts had other architectural features seems doubtful.

The other temple specially associated with Seti I is

that at Abydos.¹ Here the first court has practically disappeared, but portions of the second pylon and of another open court exhibit surface sculptures by Rameses II, some of which are in the peculiar style of sunk relief which became common in the Ptolemaic period. They are better than those of the temples at Thebes and



PLAN OF THE COVERED PORTION OF SETI'S TEMPLE

With a section showing the construction of the cellae.

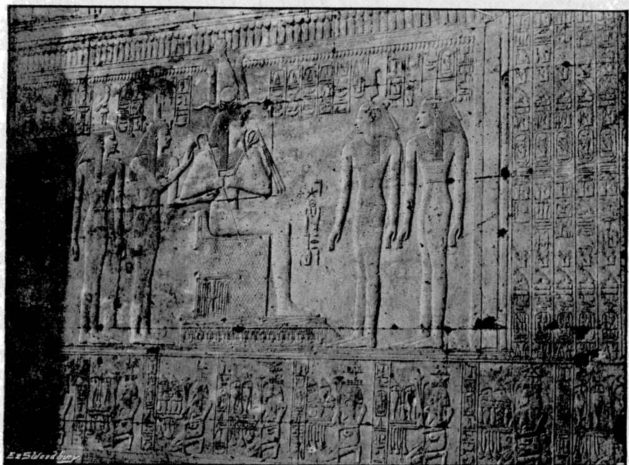
Kurna, and are described as the finest known of the age.² At the farther side on a slight elevation was a colonnade consisting of a single row of twelve square piers (A), behind which were originally seven doors leading into the first hypostyle hall, a narrow transverse space the roof of

¹ This temple is called by Strabo the Memnonium. The name should properly belong to the destroyed temple of Amenhetep III. See note, p. 129.

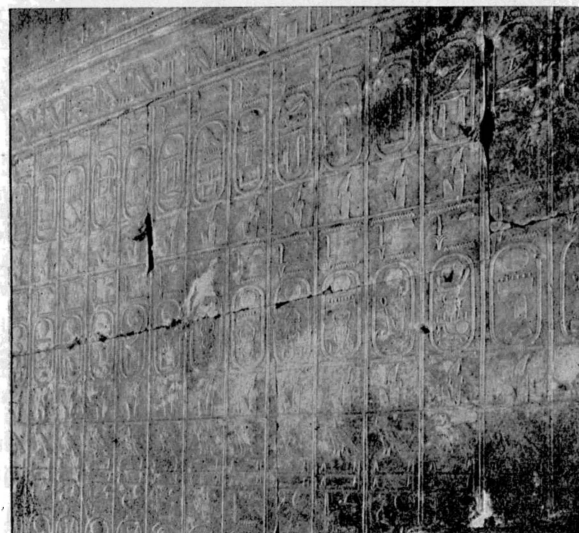
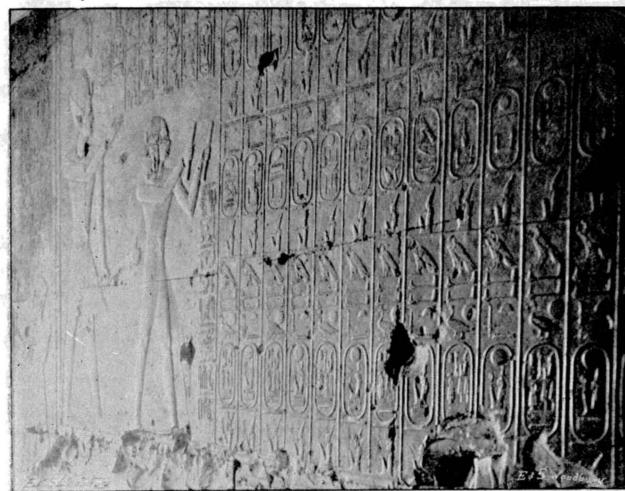
² Petrie, *Hist.*, iii, p. 19.

which was supported by two rows of twelve circular or rather roughly hewn polygonal columns (B). In the further wall were doors opposite to those in front, leading into a second larger hypostyle hall with three rows of twelve columns, and from this opened seven cellae with arched roofs separately dedicated to Seti himself and the six deities, Ptah, Harmachis, Amen, Osiris, Isis, and Horus (1-7). The entrances of the cellae were opposite to the doors of the hypostyle hall, with clear approaches between every double rank of columns. Apart from this unusual sevenfold dedication, the chief peculiarity in the plan of this temple is the rectangular wing on the south side of the *naos* or temple proper, giving it an L shape and so contravening the general rule that extensions were made on the main axis and at the outer end of the precincts. The lateral position of the addition is accounted for by the fact that a subterranean building, which has been identified with a well or pool mentioned by Strabo,¹ lay immediately behind the temple: its purpose is probably to be explained by the requirements of the simultaneous cult of seven different deities. One of the larger pillared halls (L) in the addition is provided on three sides with a stone wall-bench, and appears from the mural reliefs to have been used like one of the lateral halls at Dēr-el-Bahri (see p. 96) for the slaughter of sacrificial victims. A slightly ascending passage (F) which gives access to this chamber from the hypostyle hall is covered with reliefs on both walls and ceiling. Those on the right hand or western wall represent Seti and his son doing homage to their ancestors and predecessors represented by seventy-six cartouches. This is the celebrated tablet of Abydos, which, inasmuch as it has

¹ See Appendix II.

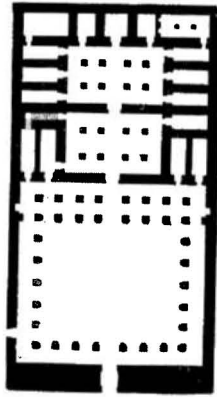


WALL PAINTING AND RELIEF IN SETI'S TEMPLE



FROM THE "TABLET" OF ANCESTORS

helped to elucidate the succession of the kings of Egypt, is a historical document of high importance.



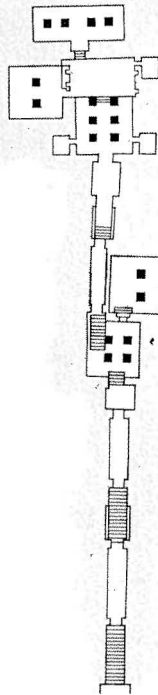
TEMPLE OF RAMESES II,
ABYDOS

A much simpler ground plan is shown by the temple erected by Rameses II, a short distance to the north of Seti's. It is now in a very ruinous condition, but enough remains to show that it was one of his best works. The forecourt was surrounded by pillars fronted with Osiride figures, such as are seen in the Ramesseum. These are of hard sandstone, but much of the building is of fine limestone, and the doorway to the pillared halls was framed with red and black granite, whilst the sanctuary was lined with alabaster.

In all that denotes prosperity, wealth, and magnificence as distinct from the more intellectual attributes of art, Egypt reached its culmination in the XIXth dynasty. The sepulchre of Seti in the valley of the tombs of the kings is the largest, and the most justly celebrated for the fineness and completeness of its work, in this royal

are seen in the Ramesseum. These are of hard sandstone, but much of the building is of fine limestone, and the doorway to the pillared halls was framed with red and black granite, whilst the sanctuary was lined with alabaster.

A much simpler ground plan is shown by the temple erected by Rameses II, a short distance to the north of Seti's. It is now in a very ruinous condition, but enough remains to show that it was one of his best works. The forecourt was surrounded by pillars fronted with Osiride figures, such as are seen in the Ramesseum. These are of hard sandstone, but much of the building is of fine limestone, and the doorway to the pillared halls was framed with red and black granite, whilst the sanctuary was lined with alabaster.



PLAN OF SETI'S TOMB

necropolis.¹ Steeply inclined galleries alternated with staircases lead downward to several pillared chambers in the depth of the mountain-side, the whole being richly decorated with mural paintings representing the past and future life of the great king. The tomb when discovered by Belzoni in 1817 had already been ransacked, but the embalmed body was afterwards found in the pit near Dēr-el-Bahri, to which it had been removed with others for safety.² It is now at Cairo, and the fine alabaster sarcophagus which had remained in the tomb is in the Soane Museum in London.

¹ Petrie, *Hist.*, iii, p. 22.

² See p. 90 *note*.