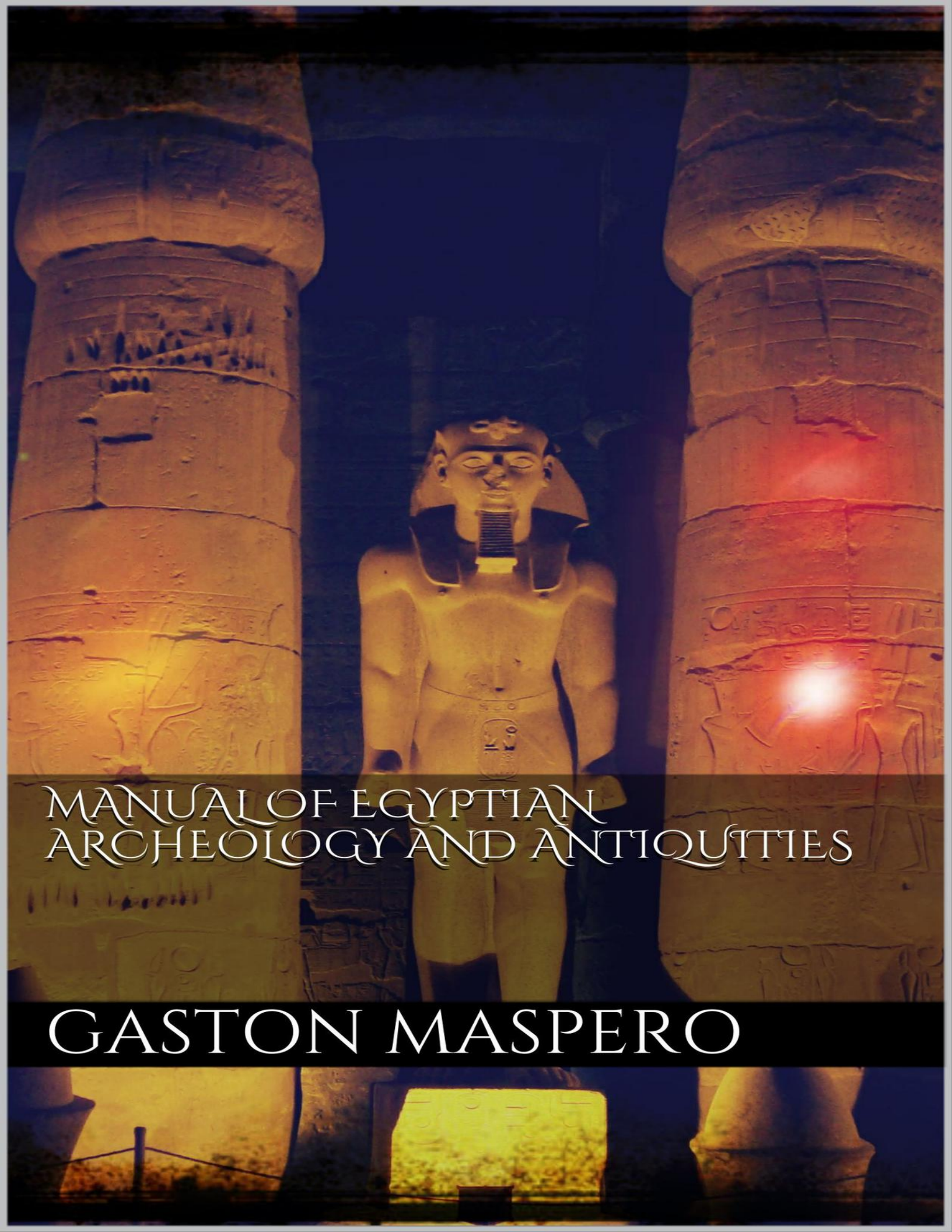
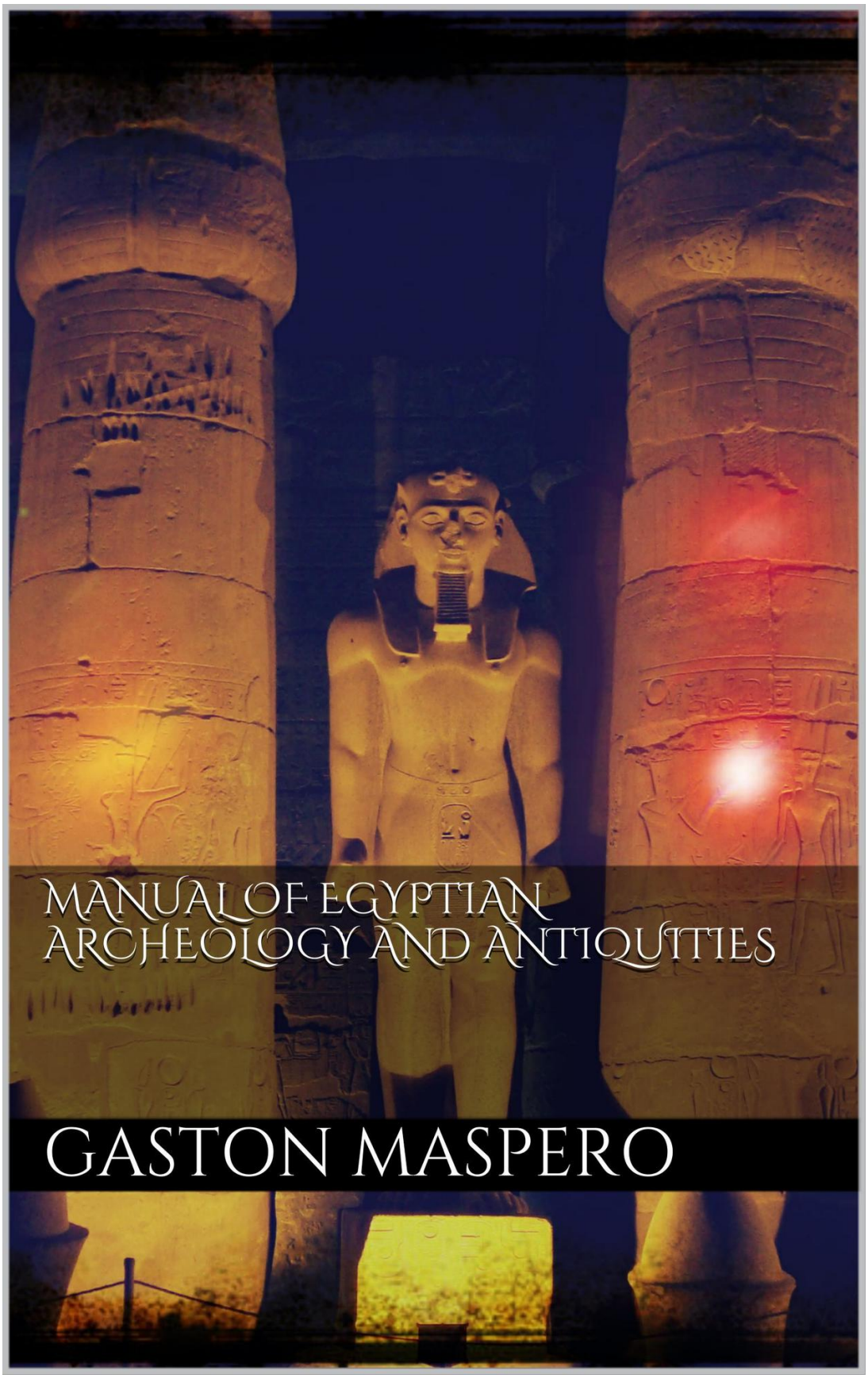


# MANUAL OF EGYPTIAN ARCHEOLOGY AND ANTIQUITIES

GASTON MASPERO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# PREFACE TO THE FIRST EDITION.

To put this book into English, and thus to hand it on to thousands who might not otherwise have enjoyed it, has been to me a very congenial and interesting task. It would be difficult, I imagine, to point to any work of its scope and character which is better calculated to give lasting delight to all classes of readers. For the skilled archaeologist, its pages contain not only new facts, but new views and new interpretations; while to those who know little, or perhaps nothing, of the subjects under discussion, it will open a fresh and fascinating field of study. It is not enough to say that a handbook of Egyptian Archaeology was much needed, and that Professor Maspero has given us exactly what we required. He has done much more than this. He has given us a picturesque, vivacious, and highly original volume, as delightful as if it were not learned, and as instructive as if it were dull.

As regards the practical side of Archaeology, it ought to be unnecessary to point out that its usefulness is strictly parallel with the usefulness of public museums. To collect and exhibit objects of ancient art and industry is worse than idle if we do not also endeavour to disseminate some knowledge of the history of those arts and industries, and of the processes employed by the artists and craftsmen of the past. Archaeology, no less than love, "adds a precious seeing to the eye"; and without that gain of mental sight, the treasures of our public collections are regarded by the general visitor as mere "curiosities"--flat and stale for the most part, and wholly unprofitable.

I am much indebted to Mr. W.M. Flinders Petrie, author of The Pyramids and Temples of Gizeh, for kindly translating the section on "Pyramids," which is entirely from his pen. I have also to thank him for many valuable notes on subjects dealt with in the first three chapters. To avoid confusion, I have numbered these notes, and placed them at the end of the volume.

My acknowledgments are likewise due to Professor

Maspero for the care with which he has read the proof-sheets of this version of his work. In departing from his system of orthography (and that of Mr. Petrie) I have been solely guided by the necessities of English readers. I foresee that Egyptian Archaeology will henceforth be the inseparable companion of all English-speaking travellers who visit the Valley of the Nile; hence I have for the most part adopted the spelling of Egyptian proper names as given by the author of "Murray's Handbook for Egypt."

Touching my own share in the present volume, I will only say that I have tried to present Professor Maspero's inimitable French in the form of readable English, rather than in a strictly word-for-word translation; and that with the hope of still further extending the usefulness of the book, I have added some foot-note references.

# PREFACE TO THE FOURTH AND REVISED EDITION.

Notwithstanding the fact that Egyptology is now recognised as a science, an exact and communicable knowledge of whose existence and scope it behoves all modern culture to take cognisance, this work of M. Maspero still remains the Handbook of Egyptian Archaeology. But Egyptology is as yet in its infancy; whatever their age, Egyptologists will long die young. Every year, almost every month, fresh material for the study is found, fresh light is thrown upon it by the progress of excavation, exploration, and research. Hence it follows that, in the course of a few years, the standard text-books require considerable addition and modification if they are to be of the greatest value to students, who must always start from the foremost vantage-ground.

The increasing demand for the Egyptian Archaeology by English and American tourists, as well as students, decided the English publishers to issue a new edition in as light and portable a form as possible. This edition is carefully corrected, and contains the enlarged letterpress and many fresh illustrations necessary for incorporating within the book adequate accounts of the main archaeological results of recent Egyptian excavations. M. Maspero has himself revised the work, indicated all the numerous additions, and qualified the expression of any views which he has seen reason to modify in the course of his researches during the past eight years. By the headings of the pages, the descriptive titles of the illustrations, and a minute revision of the index, much has been done to facilitate the use of the volume as a book of reference. In that capacity it will be needed by the student long after he first makes acquaintance with its instructive and abundant illustrations and its luminous condensation of the archaeological facts and conclusions which have been elucidated by Egyptology through the devotion of many an arduous lifetime during the present century, and, not least, by the unremitting labours of M. Maspero.

# CHAPTER I. ARCHITECTURE--CIVIL AND MILITARY.

Archaeologists, when visiting Egypt, have so concentrated their attention upon temples and tombs, that not one has devoted himself to a careful examination of the existing remains of private dwellings and military buildings. Few countries, nevertheless, have preserved so many relics of their ancient civil architecture. Setting aside towns of Roman or Byzantine date, such as are found almost intact at Koft (Coptos), at Kom Ombo, and at El Agandiyeh, one-half at least of ancient Thebes still exists on the east and south of Karnak. The site of Memphis is covered with mounds, some of which are from fifty to sixty feet in height, each containing a core of houses in good preservation. At Kahûn, the ruins and remains of a whole provincial Twelfth Dynasty town have been laid bare; at Tell el Mask-hûtah, the granaries of Pithom are yet standing; at

Sãn (Tanis) and Tell Basta (Bubastis), the Ptolemaic and Saïtic cities contain quarters of which plans might be made (Note 1), and in many localities which escape the traveller's notice, there may be seen ruins of private dwellings which date back to the age of the Ramessides, or to a still earlier period. As regards fortresses, there are two in the town of Abydos alone, one of which is at least contemporary with the Sixth Dynasty; while the ramparts of El Kab, of Kom el Ahmar, of El Hibeh, and of Dakkeh, as well as part of the fortifications of Thebes, are still standing, and await the architect who shall deign to make them an object of serious study.

## 1.--PRIVATE DWELLINGS.

The soil of Egypt, periodically washed by the inundation, is a black, compact, homogeneous clay, which becomes of stony hardness when dry. From immemorial time, the fellahin have used it for the construction of their houses. The hut of the poorest peasant is a mere rudely-shaped mass of this clay. A rectangular space, some eight or ten feet in width, by perhaps sixteen or eighteen feet in length, is enclosed in a wickerwork of palm- branches, coated on both sides with a layer of mud. As this coating cracks in the drying the fissures are filled in, and more

coats of mud are daubed on until the walls attain a thickness of from four inches to a foot. Finally, the whole is roofed over with palm-branches and straw, the top being covered in with a thin layer of beaten earth. The height varies. In most huts, the ceiling is so low that to rise suddenly is dangerous both to one's head and to the structure, while in others the roof is six or seven feet from the floor. Windows, of course, there are none. Sometimes a hole is left in the middle of the roof to let the smoke out; but this is a refinement undreamed of by many.

At the first glance, it is not always easy to distinguish between these huts of wattle and daub and those built with crude bricks. The ordinary Egyptian brick is a mere oblong block of mud mixed with chopped straw and a little sand, and dried in the sun. At a spot where they are about to build, one man is told off to break up the ground; others carry the clods, and pile them in a heap, while others again mix them with water, knead the clay with their feet, and reduce it to a homogeneous paste. This paste, when sufficiently worked (Note 2), is pressed by the head workman in moulds made of hard wood, while an assistant carries away the bricks as fast as they are shaped, and lays them out in rows at a little distance apart, to dry in the sun. A careful brickmaker will leave them thus for half a day, or even for a whole day, after

which the bricks are piled in stacks in such wise that the air can circulate freely among them; and so they remain for a week or two before they are used. More frequently, however, they are exposed for only a few hours to the heat of the sun, and the building is begun while they are yet damp. The mud, however, is so tenacious that, notwithstanding this carelessness, they are not readily put out of shape. The outer faces of the bricks become disintegrated by the action of the weather, but those in the inner part of the wall remain intact, and are still separable. A good modern workman will easily mould a thousand bricks a day, and after a week's practice he may turn out 1,200, 1,500, or even 1,800. The ancient workmen, whose appliances in no wise differed from those of the present day, produced equally satisfactory results. The dimensions they generally adopted were 8.7 x 4.3 x 5.5 inches for ordinary bricks, or 15.0 x 7.1 x 5.5 for a larger size (Note 3), though both larger and smaller are often met with in the ruins. Bricks issued from the royal workshops were sometimes stamped with the cartouches of the reigning monarch; while those made in private factories bore on the side a trade mark in red ochre, a squeeze of the moulder's fingers, or the stamp of the maker. By far the greater number have, however, no distinctive mark. Burnt bricks were not often used before the Roman period (Note 4), nor tiles, either flat or curved. Glazed bricks appear to have been the fashion in the

Delta. The finest specimen that I have seen, namely, one in the Gizeh Museum, is inscribed in black ink with the cartouches of Rameses III. The glaze of this brick is green, but other fragments are coloured blue, red, yellow, or white.

The nature of the soil does not allow of deep foundations. It consists of a thin bed of made earth, which, except in large towns, never reaches any degree of thickness; below this comes a very dense humus, permeated by slender veins of sand; and below this again--at the level of infiltration-- comes a bed of mud, more or less soft, according to the season. The native builders of the present day are content to remove only the made earth, and lay their foundations on the primeval soil; or, if that lies too deep, they stop at a yard or so below the surface. The old Egyptians did likewise; and I have never seen any ancient house of which the foundations were more than four feet deep. Even this is exceptional, the depth in most cases being not more than two feet. They very often did not trouble themselves to cut trenches at all; they merely levelled the space intended to be covered, and, having probably watered it to settle the soil, they at once laid the bricks upon the surface. When the house was finished, the scraps of mortar, the broken bricks, and all the accumulated refuse

of the work, made a bed of eight inches or a foot in depth, and the base of the wall thus buried served instead of a foundation. When the new house rose on the ruins of an older one decayed by time or ruined by accident, the builders did not even take the trouble to raze the old walls to the ground. Levelling the surface of the ruins, they-built upon them at a level a few feet higher than before: thus each town stands upon one or several artificial mounds, the tops of which may occasionally rise to a height of from sixty to eighty feet above the surrounding country. The Greek historians attributed these artificial mounds to the wisdom of the kings, and especially to Sesostris, who, as they supposed, wished to raise the towns above the inundation. Some modern writers have even described the process, which they explain thus:--A cellular framework of brick walls, like a huge chess-board, formed the substructure, the cells being next filled in with earth, and the houses built upon this immense platform (Note 5).

But where I have excavated, especially at Thebes, I have never found anything answering to this conception. The intersecting walls which one finds beneath the later houses are nothing but the ruins of older dwellings, which in turn rest on others still older. The slightness of the foundations did not prevent the builders from boldly running up quite lofty structures. In the ruins of

Memphis, I have observed walls still standing from thirty to forty feet in height. The builders took no precaution beyond enlarging the base of the wall, and vaulting the floors.[1] The thickness of an ordinary wall was about sixteen inches for a low house; but for one of several storeys, it was increased to three or four feet. Large beams, embedded here and there in the brickwork or masonry, bound the whole together, and strengthened the structure. The ground floor was also frequently built with dressed stones, while the upper parts were of brick. The limestone of the neighbouring hills was the stone commonly used for such purposes. The fragments of sandstone, granite, and alabaster, which are often found mixed in with it, are generally from some ruined temple; the ancient Egyptians having pulled their neglected monuments to pieces quite as unscrupulously as do their modern successors. The houses of an ancient Egyptian town were clustered round its temple, and the temple stood in a rectangular enclosure to which access was obtained through monumental gateways in the surrounding brick wall.

Such towns as were built all at once by prince or king were fairly regular in plan, having wide paved streets at right angles to each other, and the buildings in line. The older cities, whose growth had been determined by the

chances and changes of centuries, were characterised by no such regularity. Their houses stood in a maze of blind alleys, and narrow, dark, and straggling streets, with here and there the branch of a canal, almost dried up during the greater part of the year, and a muddy pond where the cattle drank and women came for water. Somewhere in each town was an open space shaded by sycamores or acacias, and hither on market days came the peas-ants of the district two or three times in the month. There were also waste places where rubbish and refuse was thrown, to be quarrelled over by vultures, hawks, and dogs.

The lower classes lived in mere huts which, though built of bricks, were no better than those of the present fellahin.

At Karnak, in the Pharaonic town; at Kom Ombo, in the Roman town; and at Medinet Habû, in the Coptic town, the houses in the poorer quarters have seldom more than twelve or sixteen feet of frontage. They consist of a ground floor, with sometimes one or two living-rooms above. The middle- class folk, as shopkeepers, sub-officials, and foremen, were better housed. Their houses were brick-built and rather small, yet contained some half- dozen rooms communicating by means of doorways, which were usually arched over, and having vaulted roofs in some cases, and in others flat ones.

Some few of the houses were two or three storeys high, and many were separated from the street by a narrow court, beyond which the rooms were ranged on either side of a long passage. More frequently, the court was surrounded on three sides by chambers; and yet oftener the house fronted close upon the street. In the latter case the façade consisted of a high wall, whitewashed or painted, and surmounted by a cornice.

Even in better houses the only ornamentation of their outer walls consisted in angular grooving, the grooves being surmounted by representations of two lotus flowers, each pair with the upper parts of the stalks in contact. The door was the only opening, save perhaps a few small windows pierced at irregular intervals. Even in unpretentious houses, the door was often made of stone. The doorposts projected slightly beyond the surface of the wall, and the lintel supported a painted or sculptured cornice. Having crossed the threshold, one passed successively through two dimly-lighted entrance chambers, the second of which opened into the central court. The best rooms in the houses of wealthier citizens were sometimes lighted through a square opening in the centre of a ceiling supported on wooden columns. In the Twelfth Dynasty town of Kahûn the shafts of these columns rested upon round stone bases; they were

octagonal, and about ten inches in diameter.

Notwithstanding the prevalence of enteric disease and ophthalmia, the family crowded together into one or two rooms during the winter, and slept out on the roof under the shelter of mosquito nets in summer. On the roof also the women gossiped and cooked. The ground floor included both store- rooms, barns, and stables. Private granaries were generally in pairs, brick-built in the same long conical shape as the state granaries, and carefully plastered with mud inside and out. Neither did the people of a house forget to find or to make hiding places in the walls or floors of their home, where they could secrete their household treasures--such as nuggets of gold and silver, precious stones, and jewellery for men and women--from thieves and tax-collectors alike. Wherever the upper floors still remain standing, they reproduce the ground-floor plan with scarcely any differences. These upper rooms were reached by an outside staircase, steep and narrow, and divided at short intervals by small square landings.

The rooms were oblong, and were lighted only from the doorway; when it was decided to open windows on the street, they were mere air-holes near the ceiling, pierced without regularity or symmetry, fitted with a lattice of wooden cross bars, and secured by wooden shutters. The

floors were bricked or paved, or consisted still more frequently of merely a layer of rammed earth. The rooms were not left undecorated; the mud-plaster of the walls, generally in its native grey, although whitewashed in some cases, was painted with red or yellow, and ornamented with drawings of interior and exterior views of a house, and of household vessels and eatables.

Sometimes it was surmounted by only one or two of the usual Egyptian ventilators; but generally there was a small washhouse on the roof, and a little chamber for the slaves or guards to sleep in. The household fire was made in a hollow of the earthen floor, usually to one side of the room, and the smoke escaped through a hole in the ceiling; branches of trees, charcoal, and dried cakes of ass or cow dung were used for fuel.

The mansions of the rich and great covered a large space of ground. They most frequently stood in the midst of a garden, or of an enclosed court planted with trees; and, like the commoner houses, they turned a blank front to the street, consisting of bare walls, battlemented like those of a fortress. Thus, home-life was strictly secluded, and the pleasure of seeing was sacrificed for the advantages of not being seen. The door was approached by a flight of two or three steps, or by a porch supported

on columns and adorned with statues, which gave it a monumental appearance, and indicated the social importance of the family.

Sometimes this was preceded by a pylon-gateway, such as usually heralded the approach to a temple. Inside the enclosure it was like a small town, divided into quarters by irregular walls. The dwelling-house stood at the farther end; the granaries, stabling, and open spaces being distributed in different parts of the grounds, according to some system to which we as yet possess no clue. These arrangements, however, were infinitely varied. If I would convey some idea of the residence of an Egyptian noble,--a residence half palace, half villa,--I cannot do better than reproduce two out of the many pictorial plans which have come down to us among the tomb-paintings of the Eighteenth Dynasty. The first represent a Theban house. The enclosure is square, and surrounded by an embattled wall. The main gate opens upon a road bordered with trees, which runs beside a canal, or perhaps an arm of the Nile. Low stone walls divide the garden into symmetrical compartments, like those which are seen to this day in the great gardens of Ekhmîm or Girgeh.

In the centre is a large trellis supported on four rows of slender pillars. Four small ponds, two to the right and

two to the left, are stocked with ducks and geese. Two nurseries, two summer-houses, and various avenues of sycamores, date-palms, and dôm-palms fill up the intermediate space; while at the end, facing the entrance, stands a small three-storied house surmounted by a painted cornice.

The second plan is copied from one of the rock-cut tombs of Tell el Amarna. Here we see a house situate at the end of the gardens of the great lord Aï, son-in-law of the Pharaoh Khûenaten, and himself afterwards king of Egypt. An oblong stone tank with sloping sides, and two descending flights of steps, faces the entrance. The building is rectangular, the width being somewhat greater than the depth. A large doorway opens in the middle of the front, and gives access to a court planted with trees and flanked by store-houses fully stocked with provisions.

Two small courts, placed symmetrically in the two farthest corners, contain the staircases which lead up to the roof terrace. This first building, however, is but the frame which surrounds the owner's dwelling. The two frontages are each adorned with a pillared portico and a pylon. Passing the outer door, we enter a sort of long central passage, divided by two walls pierced with doorways, so as to form three successive courts. The

inside court is bordered by chambers; the two others open to right and left upon two smaller courts, whence flights of steps lead up to the terraced roof. This central building is called the Akhonûti, or private dwelling of kings or nobles, to which only the family and intimate friends had access. The number of storeys and the arrangement of the façade varied according to the taste of the owner. The frontage was generally a straight wall. Sometimes it was divided into three parts, with the middle division projecting, in which case the two wings were ornamented with a colonnade to each storey, or surmounted by an open gallery.

The central pavilion sometimes presents the appearance of a tower, which dominates the rest of the building. The façade is often decorated with slender colonnettes of painted wood, which bear no weight, and merely serve to lighten the somewhat severe aspect of the exterior. Of the internal arrangements, we know but little. As in the middle-class houses, the sleeping rooms were probably small and dark; but, on the other hand, the reception rooms must have been nearly as large as those still in use in the Arab houses of modern Egypt. The decoration of walls and ceilings in no wise resembled such scenes or designs as we find in the tombs.

The ceilings were usually left white; sometimes, however

they were decorated with geometrical patterns, which repeated the leading motives employed in the sepulchral wall-paintings. Thus we find examples of meanders interspersed with rosettes, parti-coloured squares, ox-heads seen frontwise, scrolls, and flights of geese.

I have touched chiefly upon houses of the second Theban period,[2] this being in fact the time of which we have most examples.

The house-shaped lamps which are found in such large numbers in the Fayûm date only from Roman times; but the Egyptians of that period continued to build according to the rules which were in force under the Pharaohs of the Twelfth, Eighteenth, Nineteenth, and Twentieth Dynasties.

As regards the domestic architecture of the ancient kingdom, the evidences are few and obscure. Nevertheless, the stelae, tombs, and coffins of that period often furnish designs which show us the style of the doorways, and one Fourth Dynasty sarcophagus, that of Khûfû Poskhû, is carved in the likeness of a house.

## 2.--FORTRESSES.

Most of the towns, and even most of the larger villages, of ancient Egypt were walled.

This was an almost necessary consequence of the geographical characteristics and the political constitution of the country. The mouths of the defiles which led into the desert needed to be closed against the Bedawîn; while the great feudal nobles fortified their houses, their towns, and the villages upon their domains which commanded either the mountain passes or the narrow parts of the river, against their king or their neighbours.

The oldest fortresses are those of Abydos, El Kab, and Semneh. Abydos contained a sanctuary dedicated to Osiris, and was situate at the entrance to one of the roads leading to the Oasis. As the renown of the temple attracted pilgrims, so the position of the city caused it to be frequented by merchants; hence the prosperity which it derived from the influx of both classes of strangers exposed the city to incursions of the Libyan tribes.
At Abydos there yet remain two almost perfect strongholds. The older forms, as it were, the core of that tumulus called by the Arabs "Kom es Sultan," or "the Mound of the King." The interior of this building has

been excavated to a point some ten or twelve feet above the ground level, but the walls outside have not yet been cleared from the surrounding sand and rubbish. In its present condition, it forms a parallelogram of crude brickwork measuring 410 feet from north to south, and 223 feet from east to west. The main axis of the structure extends, therefore, from north to south. The principal gateway opens in the western wall, not far from the northwest corner: but there would appear to have been two smaller gates, one in the south front, and one in the east. The walls, which now stand from twenty-four to thirty-six feet high, have lost somewhat of their original height. They are about six feet thick at the top. They were not built all together in uniform layers, but in huge vertical panels, easily distinguished by the arrangement of the brickwork. In one division the bedding of the bricks is strictly horizontal; in the next it is slightly concave, and forms a very flat reversed arch, of which the extrados rests upon the ground.

The alternation of these two methods is regularly repeated. The object of this arrangement is obscure; but it is said that buildings thus constructed are especially fitted to resist earthquake shocks. However this may be, the fortress is extremely ancient, for in the Fifth Dynasty, the nobles of Abydos took possession of the interior, and, ultimately, so piled it up with their graves as to deprive it

of all strategic value. A second stronghold, erected a few hundred yards further to the south-east, replaced that of Kom es Sultan about the time of the Twelfth Dynasty, and narrowly escaped the fate of the first, under the rule of the Ramessides. Nothing, in fact, but the sudden decline of the city, saved the second from being similarly choked and buried.

The early Egyptians possessed no engines calculated to make an impression on very massive walls.

They knew of but three ways of forcing a stronghold; namely, scaling the walls, sapping them, or bursting open the gates. The plan adopted by their engineers in building the second fort is admirably well calculated to resist each of these modes of attack. The outer walls are long and straight, without towers or projections of any kind; they measure 430 feet in length from north to south, by 255 feet in width. The foundations rest on the sand, and do not go down more than a foot. The wall is of crude brick, in horizontal courses. It has a slight batter; is solid, without slits or loopholes; and is decorated outside with long vertical grooves or panels, like those depicted on the stelae of the ancient empire.

In its present state, it rises to a height of some thirty-six

feet above the plain; when perfect, it would scarcely have exceeded forty feet, which height would amply suffice to protect the garrison from all danger of scaling by portable ladders. The thickness of the wall is about twenty feet at the base, and sixteen feet above. The top is destroyed, but the bas- reliefs and mural paintings show that it must have been crowned with a continuous cornice, boldly projecting, furnished with a slight low parapet, and surmounted by battlements, which were generally rounded, but sometimes, though rarely, squared.

The walk round the top of the ramparts, though diminished by the parapet, was still twelve or fifteen feet wide. It ran uninterruptedly along the four sides, and was reached by narrow staircases formed in the thickness of the walls, but now destroyed. There was no ditch, but in order to protect the base of the main wall from sappers, they erected, about ten feet in advance of it, a battlemented covering wall, some sixteen feet in height.

These precautions sufficed against sap and scaling; but the gates remained as open gaps in the circuit. It was upon these weak points that besiegers and besieged alike concentrated their efforts. The fortress of Abydos had two gates, the main one being situate at the east end of the north front.