APPENDIX
The following paper though referred to by Perrot and Chipiez does not appear to have been translated before. In reproducing it in English it has not been thought necessary to call attention to the few passages which in consequence of more recent discoveries are obviously out of date. They do not invalidate the main purport of the paper. The only omissions are a few sentences on page 214, in which reference is made to contemporaries of the author.
APPENDIX

ON SOME FORMS OF EGYPTIAN ART AND THEIR EVOLUTION¹

By Karl Richard Lepsius

THE Art of the Greeks, which must for ever be the centre and standard for art-history and criticism, was, when its time came, no more a sudden and perfected outgrowth of a predisposed national genius than their science or any other part of their intellectual culture. Its evolution would never have attained its culmination at so rapid a rate, had not other races for thousands of years been paving the way, and thereby saved it the preliminary stages. The great advance in our knowledge of ancient history has in recent times given even the Greeks a revised co-ordination in the wider history of the world. We can now look far beyond them, and appreciate more clearly their relations with the earlier and contemporary influences in the onward course of human civilization. The ancient world, in its early foci of culture in Asia and on the coasts of the Mediterranean, is seen to be ultimately a whole whose several components were closely bound together: they were fully aware of each other's existence, and could therefore not avoid reciprocal influences in so far as each race, according to its own standpoint, its historical conditions and its inherited individuality, was susceptible to them. The Greeks more particularly—an energetic, seafaring and inquisitive race—long before the

¹ [This paper was read before the Berlin Royal Academy of Sciences in 1868, and published in their transactions in 1872.]
efflorescence of their several stems had sailed to the southern coast lands, and sent their harbingers to the interiors of those highly civilized states. Herodotus found, not only in the Delta, but even in Upper Egypt and in the Oases, Greek settlements already established; and on the ancient monuments of the great Theban dynasties, the Ionians, i.e. the Greeks, are named often enough as a people well known, if not very clearly discriminated from their neighbours.

How can it be supposed, then, that the Greeks should not have known and wondered at the primeval art-creations of the Egyptians; and if this is the case, how can their early experiments in art have been kept free from the influence of these imposing spectacles? This influence can in fact be recognized and indicated on all sides. It is only necessary to acquire a more accurate knowledge than heretofore of those original sources, and of their peculiar organization. And if it is of interest to find in Egyptian art an early stage of Greek art, the former has a still stronger claim for investigation on its own account and for its individual value. For in it we possess a singularly sharp impression of the artistic development of a race which stood for some thousands of years at the head of the civilized world, or shared this position with only a few Asiatic races whose culture we can in some measure recognize as first mirrored in Egyptian history.

It is true that in the ancient centres of culture, in Babylon as in Nineveh, an art had taken shape which was familiar to the Greeks and was not without influence upon them. But what little of this art is left to us manifests itself on an essentially lower level than that of Egypt, although, in the comparatively later but brilliant period to which the existing remains take us back, it had undoubtedly attained its highest stage.

For this is another inestimable advantage of Egyptian art, that we can trace back its evolution far beyond the earliest indications of other civilizations, with complete historical certainty for more than 3,000 years B.C., and to a period when the
APPENDIX I

Egyptian race seems to be, in time as in space, a solitary oasis in the history of the world, without rivals or neighbours of whom any knowledge would have come down to us had it not come through the Egyptians themselves.

And in truth the flood of instructive evidence of the artistic activity of this people from the very outset, is as copious and manifold as if we stood not at the beginning, but at the end of a long period of evolution which must have preceded the existing conditions. And such, indeed, was the fact. An immeasurably long time of intensive race-culture must undoubtedly have preceded that stage to which we can first assign a definite historical place in their monuments. We have many a landmark from perhaps still earlier days, which may yet become determinable for us. But the present limits of our knowledge puts it beyond doubt that the art of Egypt will ever remain by far the oldest accessible to our investigation. This is not to say that Egypt of all countries must have been the cradle of higher civilization. Rather does a consideration of the Egyptian language make it certain that the Egyptian people belonged to one of the three nearly allied language-spheres whose common origin is referable to Asia; and it is therefore to be assumed that the Nile-folk brought its original inheritance of primitive culture ready made from Asia. But whether this inheritance included some sort of organized practice of art remains uncertain; nay, it is very unlikely. The pervading individuality of Egyptian art, which in all its branches is most closely interwoven with the peculiar nature of land and river, would in any case point to a complete transformation of those elements of art which came into the valley of the Nile with the race itself. This question, too, can never be actually solved, for even if such a primitive Asiatic civilization had expressed itself in forms of art, all relics of it are for ever obliterated, and in consequence of climatic and other local conditions in Asia must have perished.

It is only in Egypt that were found at the same time all the
external and intrinsic conditions which were most suitable, not only for the early inception and favourable development of art, but also for an almost interminable conservation of its creations. These were, on the one hand, an abundance of the most diverse and most suitable materials for monuments of every kind in stone, clay, wood, and papyrus; on the other hand, the most favourable climate for preservation that a fertile and populous land anywhere on earth can possess; the climate, that is to say, of an entirely rainless zone with a perfectly dry atmosphere, and, except where the waters of the Nile are artificially distributed, an equally dry soil by which all materials, even those of a vegetable nature, to say nothing of mineral matter, are preserved unaltered. For it is a matter of common knowledge that it is the moisture of atmosphere and soil which in the long run no material object can withstand. To these conditions were added an original constitutional aptitude for art on the part of the Egyptian people, which cannot be derived from any external circumstances, but was innate in the race from the beginning.

Of the three great stems predominant in the history of the human race—the Semitic, Hamitic and Indo-germanic, which, before the separation of each as a new germ—a new creation as it were—emerged from the oldest widespread but prehistoric human stratum, and, elevated by a higher self-consciousness, spun the first threads of human history which they afterwards handled in turns;—of these three stems we find the Semitic the least inclined and adapted to higher artistic activity; it rather devotes itself partly to practical pursuits, partly to abstract thought. The Hamitic stem, which attained its highest development in the valley of the Nile, shows, however, even at the earliest period, a continuous striving to express and to unite its thoughts and feelings in a corresponding outward form, thus leading it by inward necessity to an early development of art. Meanwhile, it was only the third stem—our own—that was able to combine the two and by the most intimate reciprocal
interpenetration of Idea and Form, by the complete materialization of thought and idealization of Form, to carry art to its highest florescence.

At the same time it cannot be ignored that in comparison with Greek art, that of Egypt was very limited. It was limited in technique in spite of the high degree of mastery attained in that very point: limited by the demands of a tradition from which the individual could not depart: limited by the subordination of the several arts to one another which allowed no single one to develop itself in complete independence; but, above all, limited by the very outlook of the race which had not yet become fully conscious of the dignity of art nor made as yet any definite distinction in value between art and handicraft, between the imitation and the idealization of Nature; and could sacrifice the more essential claims of a higher artistic feeling in favour of subordinate principles in the method of representation; as, for example, the sacrifice of harmony in the several parts to intelligibility; of the truth of nature to symbolism. This manner of representation lasted without essential alteration even after art had long passed the first stages of evolution to which it had been appropriate and necessary.

We must allow for all these limitations, these primitive survivals which still continued to cling to Egyptian art from its birth, if we wish to appreciate correctly the artistic level to which Egypt, in spite of them, attained. Just as when in a foreign country we first hear its language spoken around us, certain unaccustomed tones and like-sounding word-endings immediately arrest the ear so as to obscure the much more essential differences of the word-stems, so to the inexperienced eye which for the first time meets with Egyptian representations, all the human forms of Egyptian art seem equally strange and uncouth. It is not to be wondered at if our ordinary public, by no means artistic, or at the best educated on modern lines, on beholding an Egyptian statue, sees in the stiff attitude, the closely-lying arms and the parallel feet nothing but childish
imperfections, or turns away from a bas-relief or a drawing in which the long eye, and the broad shoulders between which the head is placed rectangularly in strict profile, repels him. It is worse when writers on art who feel called upon to guide and teach the public can only express pity for the Egyptian artist who is incapable of seeing better and reproducing more correctly the proportions of nature, and pass over in silence the most important part of the matter because they see nothing of it themselves. . . . Even writers more highly educated in the classics do not speak much more judiciously. They set themselves on the standpoint of Greek Art, and attempt to determine the culmination of the early stage not by reference to its actual scope but by what was not within its scope. . . .

Those who authorize this uncultured method of observation which sees in Egyptian art only what falls short of our own artistic habit of mind, and then estimates it as a whole, may perhaps be usefully reminded that even in our own day we find the Unnatural in representation in some circumstances permitted and even demanded. For how does it happen that no one regards the heraldic artist as an ignorant barbarian when he gives his eagle a head, tail and wings such as no mortal ever saw in life, or, against all nature, lets his lion ramp along on two legs? The most simple-minded person is not surprised at it, and the connoisseur would, on the contrary, be justly offended if the artist, instead of this, had put on the shield an eagle out of the Zoological Gardens or one of Canova’s lions. He would imagine that he was looking at a clumsy kind of picture-puzzle, and not a heraldic emblem, if these monsters, inherited from olden days, were not adhered to. For even the “heraldic style” has still its recognized place, and is a conventional but not an ignorant or barbarous conception such as any individual may at his pleasure repudiate. Even the real artist would not disdain this style in its proper place; but rather would impress it with his own mark which the real connoisseur would recognize.
Convention, if not always so comprehensible as in this case, was at all periods, as it is still, an important, nay an indispensable element in art. For the most part quite unrecognized in the present, emerging more distinctly the more distant it is, yet it is still so far from incompatible with genuine art that it has become, not infrequently, an essential stimulus or a favourite background for it. How little, in many cases, the artistic eye wants a faithful imitation of nature, and how, even in the departures from nature in representation, law and rules can establish themselves, we may learn not only on the boards of the theatre, but also by that genuine branch of art the bas-relief, which though it projects bodily from the flat, in no respect corresponds with the natural moulding of the solid bodies, nor need do so, so far as our artistic sentiment is concerned.

The same is the case, but with the difference of greater continuity in the general development of art, with regard to the conventionally fixed deviations from nature seen in the drawing of the Egyptians. They have been handed down out of the infancy of art, where they had their complete and direct justification, into the later phases of a continually higher evolution, without retarding the actual process of evolution.

When the beginner in drawing who has learnt to guide his pencil, and copy lines which have already been drawn for him, is set for the first time before living nature and endeavours to copy it on the flat, he is at once confused with the multitude and complexity of the contours. In order to simplify and master them for reproduction he applies himself to the separation of details, and tries to see and reproduce each object in as recognizable and characteristic a form as possible. Most of the subjects, especially the beasts, he will take in profile. In the human figure he discriminates between the various members. The head is of course taken in profile, likewise the legs and feet; but the characteristic form of the eye is that seen from the front, just as the chest presents itself first in its full breadth.
front-wise; and similarly the hand, in such a way as to make all the five fingers visible. That is why the Egyptians set the chest and shoulders full face on the legs in profile, and on the body the head again in profile, but the eye within it in its full form. This method of representation, the most natural for the separate parts, but unnatural in their combination—a method which especially in regard to the eye re-appears in the coins, vases, and bas-reliefs of the earliest art of the Greeks, as in all other primitive arts—ought, in Egyptian art, the first-born of all those of antiquity, to excite our surprise only in as much as it was maintained with unfailing tenacity even up to the highest stages of its development, and was welded with the most perfect forms of true art into a strictly regularized whole which gradually became indissoluble.

But it is precisely in this tenacious adherence to primitive imperfections which never occurs to such an extent either in Greek or in any other later art, that we find the strongest evidence that Egyptian art, unlike all others, grew up from its own roots alone. For it is only because this child-like perception which accompanied the first awakening of the art-impulse had only itself, so to speak, to co-operate with, that it remained for all time ineradicable. The Greeks were the first who were able to shake it off when, overlapping the first stages of development, they established a new principle in place of the old Egyptian.

The Egyptian artist began by superimposing a net-work of squares over every object which he wished to appropriate for representation. The points at which the principal contours were intersected by these lines, were marked upon a similar net drawn upon the panel in front of him, and thus by a free-hand connexion of these points he got a sectional outline, which relieved him at once from the endless work of detail, and gave him the simplest and at the same time most characteristic copy of the subject. Every pose of the human form and its parts, every living creature down to insects and creeping things, every
APPENDIX I

plant or other object had in this way its separate Canon of proportions designated in these squares by the best artists of their day. In exactly the same way all carving in the round, statues, figures of animals, even the capitals of pillars, were worked out with squares, of which we still have many unfinished samples. We find this canon of proportions for the human figure, putting aside minor deviations, considerably altered twice in the course of Egyptian art-history, in accordance with the altered views of those authorities in art who gave the law to their contemporaries—once at the beginning of its second

SKETCH FOR PAINTING OR RELIEF ON SQUARED GROUND

efl orescence, and again at the beginning of the fourth. This canon, from which only the first masters in their art could allow themselves—and portrait-sculptors, as necessitated by their task—to deviate, served for the remaining exceedingly numerous crowd of artists, who scarcely rose above handicraftsmen, as a rule and stand-by. Hence the fairly general correctness of the drawing even in subordinate and perfunctory productions. Portraiture, which was formerly held to be an invention of the Greeks, is found amongst the Egyptians, as a consequence of their predilection and keen perceptive gift for all that is

1 [The XIth and XXVIth dynasties appear to be the two referred to.]
characteristic in nature, in astonishing perfection even from the earliest periods of their history.

This early and much practised branch of art, whether in drawing, bas-relief or in sculpture, is by itself a complete proof that the Egyptians strove for and actually attained a higher, more ideal end than the mere practice of technical and conventional art. Look at the portraits of King Chephren, who about 3000 B.C. built the second pyramid for his tomb; and the whole series of Pharaohs of the powerful Theban dynasties; the Amenheteeps, Thothmes, Hor-emhebs, Setis, Rameses, etc., and apart from the wonderful technique, we must acknowledge that they are works of a genuine highly developed art. The features, so individual and lifelike, are carried out beyond a mere naturalistic treatment, and with all their personal distinctiveness have in common only an expression of beneficent majesty and mildness. Even when participating in divine honours, and enthroned architectonically in or in front of temples, or emerging from pillars, whether these be actual piers or only free-standing back-supports—in such cases generally of superhuman proportions—their facial aspect bears, with correct intuition, the same character of monumental repose as the actual deities amongst whom they dwell; without, however, any possibility of their human personality being exchanged for the typical traits that are universal in representations of divinity.

In how genuinely artistic a style the Egyptians were able to combine individual truth to nature with the correct measure of idealization, is strikingly shown in a small sitting statue of
masterly execution representing King Amenhetep IV, that priest of the Sun, who, on being called to the throne, wished to reduce the whole Egyptian religion to the Solar cult, and changed his name to Khu-en-aten, worshipper of the Sun’s disk. The figure, now in the Louvre, is of Egyptian alabaster, and had originally, carved from the same block, his wife by his side, of whom, however, only the arm that embraces the king is left. The statue is without an inscription; but it is needless, for if one compares, in our collection of casts, the head which has been preserved intact with the casts of the various relief-portraits of the king from the rock tombs of Tel-el-Amarna, one at once recognizes the same king, although in the portraits from the private graves he has generally a repulsively ugly type of head and face, apparently imitated too realistically
from nature by inferior artists: whilst in the statue he presents soft and pleasing features, even ennobled by intelligence, which were nevertheless unmistakeably taken from the same living person.

But it is not merely in this one field of portraiture that the side comes out which makes it true art, viz. the keen grasp of the characteristic in real nature, and its rendering in ideal form. It should rather be said that the Egyptians first amongst nations, in all branches of the various arts, developed style in the more limited and higher sense, that surest token of real artistic development in a race, at any one or more periods of its history. In their practise of art, they recognized, and paid attention to the peculiarities and requirements of the materials which they employed: they remained more faithful than perhaps any other race to the historically prescribed path of their development in art; and at the culmination of their artistic career they were able to attain a degree of objectiveness, a grandeur and dignity in the conception and execution of great creations, which justify us in ascribing to them an especially stylistic art in the best sense of the word.

But the higher the genius of true art in Egypt strove to soar the heavier it found the fetters forged by itself and imposed, at first compulsorily, and then conventionally, on Nature; bonds which were never relaxed, and ended by being fetters for itself. It was reserved for the Greeks to burst them, and thereby to gain a new beginning. What the Egyptians by their strict laws of art had gradually and toilsomely won in thousands of years, the Greeks, as soon as they felt themselves fit and disposed to emerge from mechanical work, took from them, directly and without trouble, by means of a vivid insight into their artistic mentality. The rhythmic posing, the clarified style gained with them immediate life even without the cramping aid of the quadratic canon. With sure unconfused eye they could turn afresh to Nature in her most intimate details, and could undertake, instead of fettering her, to meet her half-way,
and bear her aloft to a higher order of things, and into the realm of the Ideal. Thus arose with the indispensable help of, and yet in contrast with the art of the Egyptians, limited as it still was in spite of all its development, the really free art of the Greeks.

Of the various arts, Architecture is the most independent, the primordial art as it were, on which the rest are founded, to which they are subordinate, and from which in Egypt they never set themselves entirely free. Sculpture especially was originally to some extent only a department of architecture, and found its special place only in combination with it. On that account it assumed from the first a certain architectonic form, which, whenever or wherever it appeared separate from it, was never quite banished. In the same way, and in still closer relation, stood the mural designs towards architecture.

In this art, therefore, the Egyptians were not only masters and teachers for all the races who came into contact with them, but we might even more definitely call them its inventors. Not only is this sufficiently proclaimed by the actual fact that we find in Egypt mighty works of architecture, and nearly every essential accessory fully formed at a period which antedates the oldest remains of all other nations by nearly two thousand years, but moreover the mode itself in which Egyptian architecture was developed is a pre-eminent proof of it.

For whilst in all other architectures we can either recognize the foreign origin of the whole, or at least detect in many details external influences and imported elements, in the Egyptian nothing leads us to look abroad; and whilst in all others distinct and special beginnings are wanting, and we see, by the transformation and combination of indigenous and introduced types, a new whole gradually come into existence, which only after a complete assimilation of what is foreign, attains, in virtue of a new principle of its own, all the unity and completion of which it is capable; in Egypt from the first we see a thoroughly unified national development which in per-
ceptibility down to its lowest roots leaves nothing to be desired.

We will try to make this clear by reciting the genetic evolution of some of the most important members and forms of Egyptian architecture in its main lines.

The differences of style in this architecture, as in the Grecian, find their most complete expression in the form of the column.

If we stop a while, at this, in many respects the most important architectural member, we find in Egypt two orders of columns sharply discriminated. These differ in their employment not topographically, in the sense that one had the earlier prevalence say in Upper Egypt, the other in Lower Egypt. For both were employed simultaneously in the whole of Egypt, and indeed appear not infrequently in the same temple. Their distinction, at all times constantly maintained, rests rather on their different genesis. They belong to two structural methods diverse from the first, and subsisting side by side: the one being rock-hewn, the other built in blocks. The first has a channelled shaft without any swelling, with no capital and no bands, and stands on no base, or on a very shallow one. The other is never channelled, but on the contrary is compounded out of convex shafts bound together into a single stem (which may also be quite smooth), swelling at the lower part, and spreading at the top into a floriated capital below which five bands surround the stem. It stands upon a contracted but thick base, and the whole represents a bundle of papyrus stalks bound together below the head.

We see how this radical difference is explained by the two structural methods to which these columnar orders respectively belonged.

Rock-architecture is in Egypt almost synonymous with tomb-architecture. The important exceptions are five imposing rock-temples hewn in the sandstone rock of Lower Nubia, all by Rameses II. To these may be added a few other smaller exceptions which I need not mention here. All the other rock-
hewn work in Upper and Lower Egypt, of the Old Kingdom as well as the New, from the simple and small chamber to the huge subterranean mortuary palaces of the Theban kings or of the millionaires of the Saite period, and the imposing catacombs of the Serapæum near Memphis, belonged to the sepulchral class. Its simplest forms are found in the Old Kingdom, and its most instructive examples in the series of tombs of the XIIth dynasty at Benihasan. The tomb-chambers of the Pyramids were as a rule, with some well-known exceptions, hewn in the rock, above which were reared the artificial mountains of masonry. In the same way almost every private tomb in the vast metropolis of Memphis had its rock-hewn chamber for the sarcophagus. But very often chambers destined for the funeral observances of the surviving family, which were hewn in the rock separately from the tomb-chamber, were not, like the latter, closed in perpetuity, but remained accessible. They are therefore generally decorated with mural pictures and inscriptions which the owner, to whose mundane circumstances they have reference, caused to be executed during his life. It was these chambers for which, by degrees, the need of greater extension, on the part of more wealthy people, with a correspondingly fuller development of architecture, was experienced. We can follow it in them step by step; and in a large number of examples, from the earliest forms to the latest, or contemporaneously from the simplest and poorest to the most elaborate, we can observe most instructively the development of a peculiar architectural style.

The beginning consists of a small square chamber which opens in an outstanding rock-wall with a narrow entrance, the door of which shut from inside against the round lintel forming the top of the opening. On the west wall of the chamber there is a false door, which represents symbolically the door of the tomb, and in front of which, towards the west, the quarter of the Egyptian underworld, the offerings to the dead were presented. The chamber is often so small that hardly more
than two persons could move within it. But it becomes larger, more especially when several false doors are found in it, a sign that honours have to be paid in it to several defunct persons. When one chamber seemed too small a second, connected with it by a doorway, was added behind, and even a third, or more. The extension in area of the single chambers, which now became higher also, was limited in part by the danger that, in case the rock was not sound and homogeneous in quality, too widely extended ceilings might the more easily break down or partially crumble and fall. For the same reason even in quarries walls or pillars are left standing at intervals. But it was only the first chamber that had the advantage of daylight admitted through the door, of which only a small amount could penetrate to the succeeding chamber. To meet this disadvantage as far as possible the plan was soon adopted of breaking through the back-wall in several places, and so at last converting the wall into a row of pillars. These still kept the chamber separate when it was required for religious or other purposes, but also served to extend it and impart some of its lighting without diminishing the support of the roof: whilst to the eye the whole must have seemed all the richer and more satisfying by the addition of the new features instead of one large uniform hall. The wall-surface between the top of the door and the roof, which repeated itself at each fresh opening, remained in situ and, by its continuity, at once became an architrave which extended under the ceiling at an even height above the pillars, retaining the thickness of the original wall, thus fully satisfying the accustomed eye, notwithstanding the innovation. At the same time the continuous stone beam increased the support of the roof, and formed finally, for the symmetrical requirement of the beholder, the most natural transition from the rectangular upstanding pier to the roof spread out in two directions, one of which corresponded with the line of the architrave. That this is the origin of the architrave in this rock-hewn architecture is apparently confirmed by the fact that the pillars pass directly
and evenly into the architrave without any extension or contraction, so that the whole can still be regarded as a wall which has been partially cut away.

The need for as much light as possible in the space behind the pillars led, moreover, to the chamfering of the four corners of the pillars. This gave the octagonal columns which are seen in the first tomb at Benihasan [see p. 68]. Here also the same principle was followed as in the penetration of the wall. The four additional sides of the altered pillar were not carried up as far as the architrave, but its original character was maintained by the reservation of a small piece of the four-sided pillar at the top. In this way again was obtained, over and above the indication of its origin, the advantage of a thoroughly appropriate, significant and well-shaped connecting member, which added richness to the whole system, to wit the abacus. This has the same relation to the architrave as the rectangular pier previously had: the front sides merge smoothly into it. On the other hand, the newly formed column is more distinctly separated from the abacus by the fact that beneath the latter the whole polygonal surface can be gradually contracted or sloped upwards, as indeed occasionally happens in the case of rectangular piers.

The next step was a still further cutting-off of the eight edges, whereby resulted a sixteen-sided column as shown in the second tomb at Benihasan.

The technical difficulty of joining together sixteen sides sharply and evenly with such obtuse angles, but still more the wish to bring out more clearly to the eye the delicate polygonal moulding of the shaft and lend a more lively play of light and shade to this architectural member, which was becoming more and more important, led to a slight hollowing out of the several sides, channelling them so as to make the blunt angles into sharp edges. The similarity which the shaft thus acquired to the Doric column led Champollion when he first came across this form to call it proto-doric.

*But the derivation from the rectangular pillar still remained,
indicated, obviously with intention, by the fact that four of the sixteen plane or channelled sides still ran parallel to the four sides of the abacus, so that the edges never impinged on the middle point of the abacus, and, farther, by the fact that all four parallel strips, or the two at the front and the back, or at the very least the one in front, were not hollowed, but were left as plane surfaces, which were still, as it were, unaltered portions of the original pillars. These flat strips offered, at the same time, an acceptable space for vertical lines of hieroglyphics, which with their variegated colour and significant characters became a new decoration for the columns; after which they were not infrequently extended beyond the original breadth to the rest of the channeling.

With the evolution of the column out of the pillar there finally appears also, in correctly appraised method, the round base which serves as a transition to the floor. The four-sided pillar required, no more than the wall, an intermediary with the rectangular floor of one chamber. But the round columns standing alone with their more refined membering seemed too bare at the foot and too much exposed to unforeseen settlement with no protection for their delicate and easily injured edges if they rose immediately from the floor. The fairly wide but shallow circular base chamfered at the edge at once protected them and connected them with the floor surface.\(^1\) The significance of the base as a connecting member between the two parts was expressed in its form. Its more essential relation was with the column from which it took the circular periphery. But the motive for its slight elevation above the floor was derived from this latter side; for it was made equal to the height of the ground-sills which separated the several chambers for the doors to shut against. For in the same manner as the shallow mural bas-reliefs always gained their relief by the expedient of cutting away the original plane surface of the wall to the whole extent

\(^1\) [It is strange that Lepsius ignores the fact that this rather fanciful reasoning is stultified by the absence of a base in the Greek Doric.]
to which it was to serve as background and to a depth corresponding with the projection of the most prominent parts of the figures, thus changing it into a lower surface, so was the original floor level lowered just sufficiently to gain the required height for the door-sills and bases. From this architectonic point of view not only the door-sills, but the bases also were portions of the original floor, as it is seen in the greater number of the simple rock-hewn chambers which have no ground-sills.

This exhausts all the separate motives which come under consideration in the Egyptian rock-hewn column. Its evolution is so clear and unmistakeable, and can at every step be so completely verified by the existing examples, that we can at once make it a fixed starting point for further comparisons, and can, for instance, easily recognize occasional intermixture of foreign elements, and separate these from one another.

We pass on to the second more complicated columnar order which we have assigned to square-stone construction as distinguished from rock-hewn work.

Whilst in this rock or tomb work the simplest mathematical lines almost alone dominate, and their simple severity is only relieved by the inadequate compensations of a highly cultivated sense of symmetry in the disposition of the parts, in the squared stone construction—free-standing as it is above the soil and devoted to the purposes of life—we meet with a columnar order which derives its more animated lines, traced less by the measuring

1 [As Lepsius is speaking of the column only; he makes no reference to the reminiscences of timber work shown in the cornices of some of the tombs, though he appears to refer to this later (see p. 236). The bases described above might be attributed to a similar use of wood for columns.]
rod than by the free determination of the eye, from the growth and organization of living plants.

If we put aside the symbolical forms of columns in which plant-like stems have the heads of deities instead of calices for capitals, and also the great multiplicity of plant-like capitals which appear in the Ptolemaic period, there remain during the whole of the New Kingdom only two plants whose forms were imitated in the columns. These are the Palm, the stem of which breaks out above into a regularly arranged crown of leaves with five bands below it, from which sometimes, in addition to the leaves, flatly-carved bunches of dates sprout out; and the Papyrus plant which is represented as a stiff bundle of stalks, whose upper part is tied together by five bands, above which the hair-like heads composing the flower spread out as capitals. The latter, consisting of numberless fine filaments, then appear bound together again in a peculiar manner in the form of large buds, or folded back separately as if they consisted of one large calyx.¹ The closed and the open forms are not placed in immediate combination, but

¹ [The papyrus stem has a triangular section, and this is represented in some of these clustered columns by a sharp edge. It seems possible that those in which this edge does not occur were derived from some other kind of straight-stemmed water-plant.]
yet are used simultaneously in different halls of one and the same temple, the former preferably in the more secluded spaces and the latter in the more open. On the shafts either the single stalks, generally eight in number, stand out from the curved surface, and then imitate also the peculiar form of the three-edged papyrus stem, or they are all conceived as combined in a single smooth column of which the five bands alone betray the combination: for the upper surfaces of the round columns are usually provided with painted figures which the absence of even painted stems admits of: whilst in cases where the stems bodily project only inscribed tablets of less length decorate the rounded surfaces. The lower part of the shaft, immediately above the base, is sharply contracted so that its lower quarter has a pronounced swelling after which it gradually diminishes up to the bands. On the widening curved surface of the lower part are represented large pointed leaves, a motive taken directly from the living plant.

From the Old Kingdom exceedingly few remains of free-standing columns have come down to us, because no single temple, even in only fairly sightly fragments, has survived the Hyksos' invasion. All the more carefully have I searched for and procured drawings of certain pieces of colossal columns which lay dispersed in the debris before the Labyrinth-pyramid of King Amenemhat III. Their reconstruction exhibited the undoubted form of a closed papyrus-column with outstanding stems, exactly as it appears in the New Kingdom. I can also at least indicate the open papyrus-form in a mural relief from the
rock-tomb of Berscheh,¹ a paper "squeeze" of which I brought home.² In the same way I have a representation of the palm-capital.

On the other hand there is found in the Old Kingdom a form which, so far as I know, was no longer extant in the New, namely the Lotus-column. It appears in a slender and exceedingly graceful shape with the bud-capital in one of the rock-hewn tombs at Beni-Hasan.³ Beneath the capital are the five painted bands. The shaft is composed of four clustered cylindrical stems, which by their definitely rounded form differ unmistakably from the papyrus stalks which project with an edge which is merely blunted. They rise out of the low base, described above, in the form of lotus-stalks cut off to the required length without any swelling, but gradually diminishing upwards. Above the truncated bud-capital is the slightly projecting abacus. The architrave, which extends above this and two other similar columns now broken away, is horizontal on its under side, but on the upper side it follows the ceiling which, roof-like, rises a little in the middle, so that the architrave itself has the form of a slightly elevated gable.

With these columns must be associated other mural specimens of what is more probably Garden architecture in timber. These show the lotus-capital, in some cases of the bud-like form as at Beni-Hasan, which also have smaller buds bound in with them; in others with developed lotus-flowers spreading into a number of petals in the centre of which is set the abacus. In this case also the bands are not wanting, and

¹ [This is the tomb of Tehuti-netep, a noble of the XIth dynasty at Dér-el-Bersha, about fourteen miles higher up the Nile than Beni-Hasan.]
² See Lepsius' Denkmäler, II, 127.
³ Ibid., I, 60.
the clustered stems are still four in number, of which however only two are shown.

1 [It is obvious that these fantastic representations are elaborated for decorative effect, though probably suggested by light work in carpentry. Their value as evidence is discussed by M. Foucart on pp. 26-33 and 67 of his "Histoire de l'Ordre lotiforme."
Without saying more, it is clear that the lotus-column of Benihasan does not belong organically to the rock-architecture with which it is there incorporated: it is simply taken over from the squared-stone architecture; in this particular, the tomb is treated as if it were a chamber in an open-air temple. A similar combination of the two styles is also to be seen and, as is quite comprehensible, more easily, in the equally extensive squared-stone architecture of graves which from one point of view can be classed with the rock construction peculiar to tombs, and on the other with the stone building of temples. But we also find, in the same manner, the channelled column of the rock-architecture employed not infrequently in temples, the reason for which might be simply the satisfaction felt in a form which when acquired developed itself into completeness.

On the other hand, there is never found a mixture of those individual features of the two orders which are found to have diverged in the necessary process of evolution. The feeling for the significance and the origin of what appertained to each was never lost.

It was otherwise in Greece, where we find once more the whole of the single elements of the Egyptian column, base, shaft, capital and abacus: the shaft eight-sided and also sixteen-sided; with sixteen channelings and also twenty—this number occurs in Egypt too—or ultimately quite round: moreover the swelling of certain Doric columns, and what is especially significant, even the bands under the capital recur, sometimes as annuli at the beginning of the expansion, at other times as incisions at the top of the shaft to the number of three, or as in Egypt, five. Thus it cannot be doubted that we have here the same elements as in Egypt and that there can be no

1 [On the supposed origin of the lotus-column, see note on p. 239 below.]
2 [This apparently refers to the marked entasis of some Doric columns, though it is evident from the reference to the base, that Lepsius is speaking of the Greek orders generally.]
APPENDIX I

question of a new second creation, but of a recognition of the forms already existing in Egypt and an appropriation of them on the part of the Greeks: though it must not be forgotten that the channelled columns of Benihasan date from the third millennium B.C.

But in what combination do we meet with certain of these elements in the Greek column? It is precisely the channelled Doric column, which not only shows at times the swelling, but also has a necking with bands and an expansion which represents the capital. In Egypt this was an impossible combination. The channelings belong exclusively to the rock-architecture of excavation and abscission; the topmost member, upon which the abacus lies, belongs exclusively to the plant-column; as still more decidedly do the neck-bands, whose motive lies only in the bunch of stalks tied together beneath the calyx, of which the Greek column never has any suggestion. It is the same with the swelling, which can only be derived from the plant and not from the square pillar.

Just as little do the other Greek columnar orders show a disposition of the elements which might be expected from their origin in Egypt (which is to be ascribed also to the Ionic volutes) and to their genetic significance which is there clearly apparent. The Greek column has, in fact, become an altogether new form, inspired by a new principle of its own, which has completely overcome and combined in a new unity the heterogeneous mixture of elements derived from an external source.

But if we turn again to the order of plant columns, upon its native Egyptian soil, to see if we can trace this form also, like the rock-columns, back to its origin, we are at once confronted with the scarcity of remaining examples such as were so plentiful in the rock-architecture. Yet this want is to some extent supplied by the wall pictures from which only, especially in the New Kingdom, we can acquire a knowledge of one whole side of Egyptian architecture, namely the Secular.

With the exception of a few foundations and house-plans, we
have no remains from ancient Egypt of secular architecture; not even of the royal palaces, if I put on one side the frontal building of the temple of Medinet Habu at Thebes, which, though certainly against all usage elsewhere, was arranged as a private lodging for the king. It is [not] inaccurate to say, as is so often done, of the temples and the palaces of the Egyptian kings, “All the large and massive buildings that remain were intended for habitations of the gods and not of men.”

And yet, no doubt, the kings required palaces just as every private man his house. But it seems to have been a general custom that only temples were constructed massively with stone blocks. The dwellings of men were essentially brick and timber structures, and their walls, when luxury was to be displayed, were lined with stone slabs, and provided with richly executed designs, as we are expressly told, for instance, in reference to the palace of the Labyrinth. Hence the complete disappearance of this secular architecture. Of the old Βασιλεία at Memphis, of the Palace of the Dodekarchs, of the doubtless sumptuous palaces of the Theban kings and their aristocracy, nothing but rubbish-heaps of Nile-bricks remain. The easily removed stone slabs were taken away and used elsewhere or destroyed. We find now only their refuse recognizable by the diversity and the costliness of the sorts of stone: the woodwork is burnt and decayed.

With the great extent and completeness which secular architecture without doubt attained in Egypt along with that of temples, it is natural to assume that their mutual influence was great and penetrating: indeed, they must evidently have had—again in contrast to the rock architecture—a common origin. The different objects of the dwellings for gods and those for men separated the two architectures from the first, and demanded, for instance, different arrangements of the chambers. But this had little influence on the architectural forms themselves. More distinctive, at any given period of the development, must

[Herodotus, ii.]
have been the difference in material which entailed a different technique. But here, too, in an undisturbed evolution from special elements, the very natural tendency towards historical continuity in the development of the separate architectural features must have had its weight.

As a matter of fact, almost all individual architectural forms and a great deal in their combination give evidence of their derivation from timber construction, which must, in point of time, have preceded stone construction. One must first have a considerable knowledge of this timber architecture, before one can judge correctly the members of stone architecture in regard to the significance and motives of their forms. But this knowledge we can gain very completely, partly from individual and direct examples, partly and chiefly through deductions from the imitative stone architecture.

The timber-work of the private houses must, from the first, have been combined with brickwork. The country was too poor in wood to allow of houses constructed in any case wholly of beams and boards. Moreover, this would have been altogether unsuitable in that torrid land. The changes in the general circumstances of any country, in relation to climate, soil, building material, etc., are nil or unessential. The same conditions to which the fellah of to-day conforms, when he builds his hovel or even a larger house of dried Nile-bricks bonded in mud, and adds door and windows and roof in wood, had similarly made themselves felt in all that was essential 5,000 years earlier, and had called for the same kind of building. Before the regular manufacture of bricks, there is no doubt that the walls were built with the damp tenacious Nile-mud, mixed perhaps with straw, as is the case with our clay huts.

From this primeval time comes, it seems, the custom, firmly maintained through all periods, as is well known from the necropoles and temple-pylons, of setting up the outer walls of the houses not vertically, but sloping inwards in order to give them greater stability.
The four battering walls of the simplest dwelling-place were interrupted in front by the door, the flap of which stood flush with the inner vertical wall. Its uppermost stop was formed by a palm-trunk bedded in the side walls, the top side of which was at the height of the walls. By this means the upper circuit of the walls was again made complete, so that the roof made of palm-stems, and laid from back to front across the narrower width of the chamber, could lie over the whole just as we see the roofs imitated in some of the rock-hewn graves. The roof was then covered with sand and earth, and the front of the beam-ends protected from the weather. In this way the projecting roof looked from the front like a cornice running all round; it might, however, rest upon a beam which crowned the wall. But the uncovered round beam-ends also are occasionally found as ornaments.

But if it were desired to have a higher ceiling inside, without increasing the height of the door disproportionately and unnecessarily, the lintel had to be made separate from the wall-plate, and the walls taken up higher.

If the beam were elevated still more, it was possible to obtain a low window above the door between the lintel and wall-plate, to the improvement of the lighting of the interior; this we sometimes find indicated in the false doors of the tomb-chambers. Otherwise, and this corresponds more closely with the usual form of the false door, the old doorhead was retained: i.e. the old filling of the wall by a beam, above the round lintel-block, which beam indicates the original level of the ceiling, and then the ceiling was raised to the extent of a whole roofing-strut, by which means a wide space, between the level of the original ceiling and that of the actual raised one, was gained for a window, which corresponds with the uppermost panel of the false door.

Such was the type of the framed building in brick and timber.

But besides this there was developed a pure timber con-
struction, quite independent, and uncombined with brickwork,
used in country houses and gardens where only airy, but at the
same time shady rooms, arbours and verandahs were required.
We can study this kind of structure also in numerous
drawings.

To this class belong, especially, light canopies which are
supported on slender columns and under which their owners
take their rest on chairs. The columns, in the picture, for
instance, from a grave at Kafr-el-Batran\footnote{Near Giza. The picture referred to is given in Lepsius’ Denkmäler,
II, pl. 52. The columns consist of two very slender shafts with an open
lotus flower for capital, and a small abacus similar to that shown in the
illustration from Ferrot and Chipiez on p. 231 above.} have open lotus-
flowers as capitals, and the thin
shafts, single or clustered four
together, rest on feet. Under
the calyx is a single band: on
the points of the petals rests a
shallow abacus: this directly
supports the canopy in the form
of a level beam which one must
imagine as extended over the
surface. In the whole picture
four columns, doubled however
in imagination, form a sort of
garden-house.

The last division on the
right, in which its owner sits
holding a lotus flower in his hand, contains an indication of

\footnote{Near Giza. The picture referred to is given in Lepsius’ Denkmäler,
II, pl. 52. The columns consist of two very slender shafts with an open
lotus flower for capital, and a small abacus similar to that shown in the
illustration from Ferrot and Chipiez on p. 231 above.}
three walls (the fourth is removed for the spectator in front) and of the flat ceiling resting on them. Two lotus-columns with abacus and enlarged foot additionally support the ceiling. Two windows in the rear wall seem to be filled in with lattice-work.

From the house-architecture on the one side, and the garden-architecture on the other, thus depicted in some of its chief features, was, no doubt, evolved the continually progressive architecture of palace and temple, and also that of the tomb so far as it did not follow in stone the style of rock-hewn work. All the important motives of stone architecture find their explanation here. The form of the plant columns especially is obviously borrowed from the light and cheerful timber architecture of the country and garden houses, which allies itself to rustic nature, and to which their symbolism directly points.

But it would, no doubt, be going too far to assume therefore that in those primitive constructions papyrus stalks combined in bundles had ever been actually used anywhere as supports which had afterwards been imitated in wood and stone. In opposition to this one would adduce, if it were necessary, the oldest form of this clustered column, that of four combined lotus-stalks; since it is obvious that not the slightest weight could be supported on flower stems. It is much more likely that the flower-column, in this respect in direct contrast to the channelled columns, was included not gradually but at once, and as a whole, in the symbolism that enlivens and gives significance to architectural form. Only the base and abacus are in this case pure and undisguised architectural members between which the peculiar shaft, analogous with the pillars only in its elongation, was inserted as a pleasing natural form. This, moreover, was determined only by the sense of symmetry. For this reason, the flower stem, since its actual proportions could not be directly adhered to, was made fourfold or eightfold in order to obtain a correct relation between thickness and
APPENDIX I

height. Thus, too, the bulk of the bands that held them together determined itself.

The articulation of the plant-columns depends essentially upon the feeling for the correlation of architectonic details in general which was elevated by the Greeks to the principle which is peculiar to their artistic work, but which was highly developed by the Egyptians. But to examine this more minutely would lead us into another wide field in the general aspect of Egyptian art which we do not propose to enter upon at present.

[Note.—M. Foucart in his interesting "Histoire de l'Ordre lotiforme," comes to the conclusion that all columns of the Old Kingdom which show a clustered shaft with a bud-like capital are based on an imitation of either the blue or white lotus and not of the papyrus plant. One of his chief reasons is that during the period referred to the shafts always have a smooth cylindrical surface without any vertical angle or edge such as would indicate an imitation of the papyrus stalk. He gives as illustration a photograph of part of a column of this type from the tomb of Ptah-Shepses, a royal kinsman in the reign of Sahu-Ra early in the Vth dynasty. The tomb was discovered at Abusir by the Service des Antiquités in 1893.

It is a somewhat peculiar and exceptionally elegant specimen of this kind of column, and an additional proof, if such were needed, of the superiority of the art of the pyramid-period to most of the work of a later date.

It is peculiar in as much as the shaft is composed of six colonnettes which are not all equal in bulk; two which are at the opposite ends of a diameter being flanked on each side by two smaller colonnettes, so that the general outline of the section is slightly elliptical. Its exceptional elegance consists in the graceful treatment of the lobes slightly incised on the

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1 See Foucart, p. 81.
2 Ibid., p. 96.
surface of the capital. These, however, seem to be as much like the sepals of the papyrus-bloom as of the lotus, and can hardly be said to settle the matter conclusively. The columns certainly appear to have a perfectly smooth surface, but it is doubtful whether this is the case in all early examples. A Vth dynasty column in the Berlin Museum, of which Breasted gives a photograph, appears to show, although somewhat bluntly, an arris down its length, which leaves the matter in doubt.

It seems advisable not to theorize too closely on the matter, and to assume that the Egyptian artist had sufficient imagination to select and combine decorative motives from surrounding nature, without copying more literally than when he first designed the figure of a sphinx. Proof in such a matter is impossible; for whatever the first decorated column may have been, the craftsmen of the Vth dynasty had evidently long passed the primitive stage of art, as M. Foucart himself remarks (p. 111), and embodied in their work the successive efforts of many previous generations which have now totally disappeared.

1 See above, p. 66 note.
II. THE SUPPOSED OSIREION AT ABYDOS

At the back of Seti's temple Professor Naville in 1913-14 discovered and excavated a subterranean building of very remarkable construction. It is reached by a passage which had been cleared ten years earlier by Professor Flinders Petrie and Miss Murray. A doorway in the side of this passage, which was left uninvestigated until 1913, leads to a narrow transverse chamber, beyond which is a large rectangular hall about 100 feet by 60 in area, with a double row of massive piers 8½ feet square—five on each side—which divide the whole space into a nave with lateral aisles. The most extraordinary feature of the building is the fact that the aisles and the cross-passages which connect them at the ends, appear as deep cavities which contain water, and have apparently always been intended to do so. The central platform on which the two rows of piers stand is therefore an island, and is approached from the water level by a flight of steps at each end, which are sunk in the rectangular mass of the platform. The walls which surround the hall are 20 feet thick, and consist externally of limestone, with an interior casing of hard red sandstone. But the piers and their architraves, and the roofs of the aisles, are massive blocks of granite. It appears to be uncertain whether the central nave was roofed or open to the sky.

In the thickness of the walls are small square cells, six on each side, opposite to the spaces between the piers, and two at each end facing the aisles, making sixteen in all. The centre of each end is a passage, that at the west end being the entrance. That at the opposite end, which was originally a cell, has an
opening at the back which leads to another transverse chamber similar to that at the entrance. It is suggested that this is the mortuary chamber of the legendary Osiris, or the place in which his head was said to be preserved.

Another peculiarity of the construction is that the floor slabs of the cells project beyond their frontage, so as to form a continuous ledge round the outer margin of the water-channel, except where it is interrupted by the projecting responds of the pier-ranges. The roofs of the aisles and the south wall are very dilapidated, the whole having been used as a quarry, and a large of the blocks have been cut up into mill-stones.

It seems tolerably certain that the building is the well mentioned by Strabo (xvii, 42), but the actual dates of its various parts are still unsettled. It has been suggested that at the date to which the main hall is assigned by its discoverer—viz. the IVth dynasty—the level of the Nile bed was lower than at present, and could not have supplied water continuously to the channels; but the whole construction—the projecting ledge, and the steps to the platform suggest that it must have been a well or bath. It has also been objected that the use of sandstone for the inner casing of the walls is inconsistent with any date earlier than the XIth dynasty, but as it is a peculiarly hard rock, which according to the geologist, Dr. Hume, is found near Assuan, its early use with granite may be accounted for. The fact that the first transverse chamber has Silsila sandstone in the upper portions of its masonry, is evidence that it is not earlier than the XVIIIth dynasty, and the reliefs which commemorate Merenptah point to the same date. Similarly the other transverse chamber has the cartouche and reliefs of Seti I. But this does not necessarily preclude an earlier date for the large hall, which Professor Naville compares with the temple of Khaf-Ra, near the Sphinx. There is obviously a striking similarity between the structural features of the two, though the scale of the newly excavated building is much greater and may well be called cyclopean. Further discoveries
which may elucidate the question will be awaited with much interest.

(The above account is derived from the "Journal of Egyptian Archaeology" for July 1914, and is printed by permission of the Egypt Exploration Fund. A full description of the building with illustrations will appear in Prof. Naville's forthcoming work on the subject, to be published by the Fund.)
III. ON THE EGYPTIAN OBELISKS

THE obelisk—one of the most graceful features of early Egyptian architecture, and one which survived through its later and often less graceful phases—has always been an object of admiration to other nations. A few words on its history and that of the more important examples which remain, many of which have been transported to other countries, may not be superfluous.

The actual origin of the obelisk does not seem ascertainable, but it appears from inscriptions to have existed, in an early form, as an object of veneration in the IVth dynasty. The son-in-law of Menkau-Ra, amongst other high offices, held that of priest of the obelisks of Ra. In the reign of Userkaf of the Vth dynasty, it is indicated by a symbol like that figured on page 49, sometimes with a circle on the apex apparently representing the sun's disc, and designated under the name Ra-sep. Both priests and prophets were assigned to it.¹

Lepsius, in his "Letters from Egypt" (Letter vi), mentions having found a small obelisk, a few feet high, standing in good condition in a tomb at Giza, dating from the beginning of the VIIth dynasty. This seems to be the earliest evidence of its use in the developed form as an architectural feature.

The oldest specimen of considerable size is that still standing at Heliopolis (see p. 62), from which it may be inferred that Senusert was the first king to realize it in colossal proportions. Its height is 68 feet 2 inches. Abd-el-Latif, an Arab traveller who visited Egypt in 1190 A.D., saw it with its copper-gilt cap on the apex

or pyramidion. Its companion was then lying in two pieces on the ground, and around them stood many others of one half or one third the height.¹

The next in point of date is the pair set up at Karnak ² by Thothmes I, one of which, 90 feet 6 inches in height, is still erect. The other lies in fragments. The pyramidion, which is more acute than usual, has on it a votive panel and was therefore not cased with metal.

Thothmes' daughter Hatshepsut also set up two at Karnak, one of which, 97 feet 6 inches in height, is still standing. The other is broken; some reliefs from it are in the British Museum. She also erected two at her temple of Dér-el-Bahri, only the bases of which remain. It seems possible that these were the two which are said to have been carried off to Nineveh by Assurbanipal. Breasted (p. 282) supposes on the authority of an inscription in his "Ancient Records" (ii, 304-336) that she also erected another pair at Karnak.

¹ See "A Short History of the Egyptian Obelisk," by W. M. F. Petrie ("Hist.," i, p. 157), referring to Makrizi, says that the companion obelisk was overthrown in A.D. 1258.
² See above, p. 103.
If this is the case all traces of them have disappeared, unless they happen to be the pair which are ascribed to Thothmes III. These apparently stood in the same space as those of Thothmes I. One of them has disappeared. The other was taken away by Constantine, and still stands, in a shortened form, in the Hippodrome at Constantinople.

Thothmes III also erected the pair of obelisks (known as Cleopatra’s Needles) in front of the Temple of the Sun at Heliopolis. In 34 B.C. they were removed by Augustus, or possibly by the orders of Cleopatra, to Alexandria to adorn the imperial palace there, but were not set up till the 8th year of Augustus. One of them eventually fell and remained lying, much to the detriment of its inscriptions, until it was removed to London by Sir Erasmus Wilson in 1877. The other was given to America and now stands in the central Park of New York.

To Thothmes III is also due the tallest obelisk known. The original length of the shaft was about 108 feet. The inscription was completed by Thothmes IV. It was removed by Constantine from Heliopolis to Alexandria, and thence by his son Constantius to Rome where it was set up in the Circus Maximus. It was afterwards overthrown and broken into several pieces, but was

1 See above, p. 104.  2 See Wilson, p. 227, and Cooper, p. 48.
restored by Pope Sixtus V, and re-erected on the north side of
the church of S. John Lateran. It was slightly shortened at the
base and now measures 105 feet 7 inches. The pyramidion is
carved and the shaft has the peculiarity which is found in some
others, of having one of its faces
slightly convex between the sides.

Amenhetep II, who succeeded
Thothesmes III, is credited with
a small obelisk less than 8 feet
high, which is now at Sion House,
Isleworth. Wilson (p. 320) refers
to four others of about the same
date, but nothing is known of
them.

In the next dynasty Seti I
erected two obelisks over 87 feet
high in front of the Temple of
the Sun at Heliopolis. One is
lost: the other was removed by
Augustus to the Circus Maxi-
mus at Rome. It was afterwards
broken into several pieces, but
was repaired and re-erected in
1589 by Sixtus V at the Porta
del Popolo (Porta Flaminia),
whence it is called the Flaminian
Obelisk.

Rameses II is known to have
erected fourteen obelisks, of
which the most noted are the pair at Luxor. One of these
remains in situ; the other was removed by Champollion
to Paris, where it stands in the Place de la Concorde.
The obelisk opposite the Pantheon at Rome and one
in the grounds of the Villa Mattei, formed another pair
which were discovered on the site of a temple of Isis at
Rome. The latter is said to have been lengthened by adding below a block of paler granite. In addition to these there are fragments of ten obelisks lying amongst the ruins of Tanis in the Delta, all of which are ascribed to Rameses II.

Seti II erected the two small obelisks at the river end of the dromos at Karnak.

No more are recorded until the XXVIth dynasty, when Psamtek I is known to have erected some at Heliopolis. One of these was removed by Augustus to the Campus Martius at Rome, and its fragments were found under the church of Sta. Lucía in Lucina. It was restored, and now stands on the neighbouring Monte Citorio.

Psamtek II is named on the small obelisk which is now seen, strangely mounted on the back of a marble elephant, in the Piazza di Minerva, Rome.

Nectanebo made the small black granite obelisks which are now in the British Museum.

There is an obelisk at Kingston Lacy, Dorset, which was brought from Philae by Mr. Bankes in 1815. It appears to date from the reign of Ptolemy IX (Euergetes II), c. 140 B.C., is of some special interest in having an inscription both in hieroglyphic and Greek.

In addition to the above-mentioned monuments, which are all inscribed on their faces, there are in Rome several which have

1 Murray’s “Rome,” p. 129.
no inscriptions, and the date of which is therefore uncertain. The most important of these is that which stands in front of St. Peter's. Its actual origin is unknown, but it was brought from Heliopolis by Caligula and erected in the Circus of Nero, the site of St. Peter's crucifixion and of many other martyrdoms. It was never overthrown, but was removed, under Pope Sixtus V, to its present position. Though the distance was very short, the difficulties of the operation were great, and the account of how they were overcome is interesting. It is given in Murray's "Handbook to Rome." The length of the shaft alone is 82 feet 6 inches, but the top of the bronze cross which it now bears is 132 feet above the pavement.

There are two uninscribed obelisks which were brought to Rome by Claudius A.D. 57, and placed in front of the Mausoleum of Augustus. One of these, with a shaft of 45 feet, is now on Monte Cavallo, and the other, of 48 feet, is on the Esquiline at the back of the church of Sta. Maria Maggiore.

Domitian's obelisk in the Piazza Navona, which was found in the Circus of Maxentius, near the Via Appia, may be regarded as a Roman imitation of Egyptian work; and it is said that the obelisk in front of the church of Trinita de' Monti is a bad Roman copy of Seti's obelisk which now stands near the Porta del Popolo. It came from the Gardens of Sallust.
INDEX

Aahmes I, 77; his tomb, 89.
Aahmes II, 168.
Abu Simbel, rock temples at, 145, 147-152; the effigies, 204.
Abydos, temples at, 136-140; tablet of, 137-139.
Aha, 14, 15; mastaba of, 23.
Ahk-aset, 50.
Akhenaten, 19, 78. See Amenhetep IV.
Alexander the Great, 170.
Altar at Dēr-el-Bahri, 96.
Amada, temple at, 97, 203.
Amen, local god of Thebes, 17. See Karnak.
Amenhetep I, his tomb, 89.
Amenhetep II's small temple at Karnak, 116, 126.
Amenhetep III, his palace, 78; his pylon at Karnak, 109; his temples, 119-123, 125, 145; his colossal statues, 129.
Amenhetep IV, 18; his palace, 78-82; his portraits, 219.
Ameni, tomb of, 68-70, 97.
Ancestor-worship, 21.
Ancestors, veneration of, 18.
Anubis, 18; shrine at Dēr-el-Bahri, 88, 94.
Apis, 18.
Apries. See Hofra.
Arch, early use of, 35n., 197.
Architecture, Egyptian, 197; Lepsius on, Appx. I, 209.
Architecture of the Middle Kingdom, 59; of the Empire, 78, 101 ff.
Assuan, 66, 75n.
Assurbanipal, invasion of, 165.
Assyrians, 164.
Avaris, 75.
Bas-relief, art of, 215.
Bast, temple of, 163.
Begig, landmark at, 63, 64.
Beit-el-Wali, rock temple and coloured reliefs at, 147.
Beni-Hasan, tombs at, 69.
Britain, early dwellings in, 5.
Bubastis, 163.
Buhen, temples at, 127.
Bull, cult of the, 18.
Burials, contracted, 12.
Buto, 15.
Cambyses subjugates Egypt, 169.
Canon of proportions, 217.
Chefren. See Khaf-Ra.
Cheops. See Khufu.
Chronology, 14n.
Chysoister, prehistoric British dwelling, 6.
Cities, plans of, 82.
Colossi of Amenhetep III, 129.
Column in Egyptian art, 222 ff.
Columns, types derived from plants, 38, 238; late form of, 147; polygonal, development of, 225 ff; bulbous, 229.
Conventionalism in Egyptian art, 215-216.
Corinice, cavetto, 65, 66n, 86n; stone imitation of timber, 69.
Cretans represented, 97.
Crete, art of, 82.
Cyclades, models of houses from, 6.

Darius Hystaspes in Egypt, 169.
Dâshîrî, pyramid with double slope, 26.
Decorative patterns, 76.
Dendera, temple at, 178-185.
Den-Semti, tomb of, 23.
Dîr-el-Bahri, 202; X1th dynasty temple at, 50-55; XVIIIth dynasty temple at, 90-96.
Dolmen at Bagneux, France, 3.
Doric, Early Greek, 73.
Doric architecture, anticipation of, 72, 98.
Dynasties, list of, 10; divisions of, 14.

Edfu, temple at, 174-178.
Egypt, neolithic, 13.
Egyptian art self-developed, 221.
Elephantine, 66; destroyed temple at, 125, 203.
El-Kab, ancient town, 61, 62.
El-Kula, pyramid, 57, 59.

Er-Righa, 48.
Esarhaddon, invasion of, 164.
Esna, temple at, 178.
Evolution in architecture, 9.

Faults in Egyptian architecture, 198.
Foucart, G., on the lotiform order, 231 n, 239.

Garden architecture, 230.
Garden houses, 78.
Gebel Adda, rock temple at, 147.
Gebel Barkal, 145.
Giza, pyramids of, 33-38.
Greek art, Egyptian influence on, 73, 209, 210, 232.
Greek column, 233.
Greeks in Egypt, 168.

Hathor, cow-goddess, 18.
Hathor-capital, 163; columns, 94, 178, 181; shrines, Dîr-el-Bahri, 54, 94; temple at Abu-Simbel, 151; at Dendera, 178; at Philae, 189.
Hatshepsut, Queen, 90; her work at Karnak, 105; her temple, 202.

Hawara, Pyramid of, 57-58. See Labyrinth.
Heliopolis, 17; obelisk at, 63.
Heraldic art, 214.
Hethor (priest-king), 162.
Hofra, 168.
Horemheb, 116.
Horus, 17, 127.
House-construction, 236.