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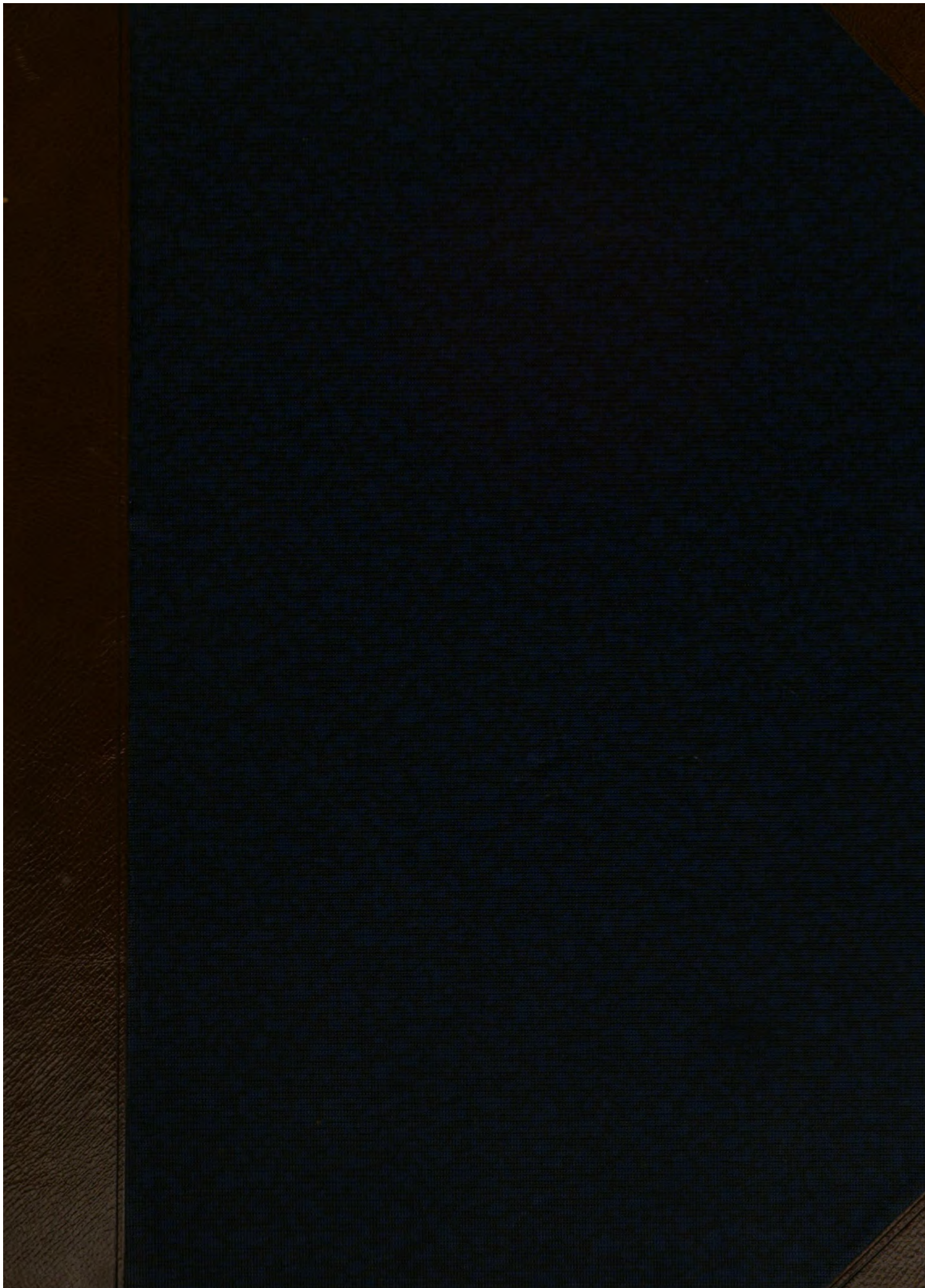
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*C. J. Hewson R.
From the Author*

THE ERECHTHEUM

AND TEMPLE

OF

MINERVA POLIAS,

AT ATHENS,

RESTORED BY

JAS. FERGUSSON, D.C.L., F.R.S., F.R.I.B.A.

1876.



J. DAVY & SONS, DRYDEN PRESS, 137, LONG ACRE, LONDON.



Royal Institute of British Architects.

At an Ordinary General Meeting of the Institute, held on Monday the 14th of February, 1876,
SIR GILBERT SCOTT, President, in the Chair, the following Paper was read :—

ON THE ERECHTHEUM.

By J. FERGUSSON, D.C.L., F.R.S., Fellow.

ALTHOUGH I am perfectly well aware that the subject of Greek architecture has become far from being fashionable in this country, I cannot bring myself to believe that any apology is necessary for bringing it again before you this evening. It may not have the variety and picturequeness of Gothic art or its constructive cleverness; nor can it, perhaps, rival the works of the Egyptians in massive grandeur, or in the *quasi* eternity of their aspirations, but for elegance of proportion, and refinement of details, Greek architecture is still unrivalled by any known style; and I cannot but believe it would be a misfortune to the architects of this or any other country if they ceased to appreciate the high intellectual qualities that characterize every feature of Greek architecture.

Hitherto the reproach most generally urged against Grecian art is its coldness and uniformity. It is said when you have seen one pillar of a Grecian temple you have seen all. When you have seen one side or one end you have seen the other side or other end. Every part, in fact, is so like the other that they have been reproached as "machine made." Even this, however, is only true of Greek temples as we build them, or Greek ruins as we now find them. When first built they were principally designed as frame works for sculpture and painting, and half their merit consisted in the perfect manner in which the three arts of sculpture, painting, and architecture were combined, so as to aid the general effect without interfering with the province belonging to the sister arts. When, for instance, the Parthenon was adorned with sculpture and paintings to the extent it certainly once was, the variety must have been as great as the harmony was perfect. As we now see it the reproach may to some extent be justified, and, as little remains to us of Grecian art except these great temples, it is not easy to defend the style generally against the charge of too great uniformity. If we had examples of their smaller temples, and knew more of their civil and domestic building, the task, I fancy, would be easy. At all events the building I propose bringing before you this evening is as irregular as any Gothic building that ever was built at one and the same time; as full of anomalies as any building ever erected, and anomalies that would be faults if they were not motived. They are such as no modern architect would be pardoned for committing, but which, when their "*raison d'être*" is understood, become beauties, and add immensely to the perfection and interest of the building. The truth of the matter appears to be that the mediæval architects attained to just that stage of architectural design which is exemplified in the Erechtheum, where every part of the building is motived, but to a great extent subordinated to constructive necessities or practical convenience. The Gothic architects never rose to, or dreamed of that far higher stage of design which is exemplified in the Parthenon where all constructive necessities or questions of convenience are subordinated to purely æsthetic considerations.

It was in such temples as the Parthenon that the Greeks showed that they, and they only, had

grasped the ideal of a higher and nobler form of architectural art than had dawned on any nation before or since. But all their buildings do not aim at this high standard. The Erechtheum belongs to a second and lower class, very beautiful and elegant, but more like one of the varied works of nature than the produce of pure intellectual labour.

Like most works of nature, however, even the most perfect when first or ignorantly examined, they appear full of anomalies, and of parts and organs that seem either useless or superfluous. As the knowledge, however, of the naturalist or anatomist increases all these anomalies disappear. A use is found for every part, and the result is that finally every one feels certain that if he has not found a use and reason for everything, it is owing to his own stupidity and want of knowledge, and not to any defect in the work before him.

It is the same with the Erechtheum. It is only because it has not been studied with that care and that absence of bias which are indispensable in these investigations, that everything about it is not known, but I hope before I finish this evening I may at least be able to show that there is a prospect of most of the difficulties of the case being cleared away, and with them a good deal that has been written regarding the monotony and formality of Greek Temples.

It cannot, however, be said that the Temple of Minerva Polias has not attracted sufficient attention. Ever since its plan was first published by Stuart in 1787, it has been a bone of contention among antiquaries. Volume after volume has appeared in rapid succession, and numberless essays have been written to explain its peculiarities. Among our own countrymen Inwood takes a leading place, and he went to Athens principally, apparently, to force its secret from the building itself. Wilkins also spent much time and pains in its investigation, and Colonel Leake applied to it his keen critical spirit, but in vain. Wordsworth, Walpole, and a host of others have tried their hands at it; and last but not least, Mr. Newton, of the British Museum, has essayed, but unsuccessfully, to read the riddle.*

Among the Germans, some of their best scholars and antiquarians have tried their hands upon it, Among these it will be sufficient to name Otfried Müller, Tiersch, Böckh, Rangabé, Forchammer, and several others have essayed the venture, but certainly in vain. One of their number, Herr Hettner, exclaims: "We cannot help lamenting, therefore, that the ravages of time have rendered any "complete understanding of this fine structure apparently for ever impossible." And again: "The "mystery of the composition is without a key. Its discussion is important, but it may be predicted "that it will lead to no conclusive results."†

Among the French, too, many distinguished authors have proposed theories of restoration, but hardly more successfully than their neighbours. Raoul Rochette wrote a most elaborate essay on the subject in the "Journal des Savants." A M. Tetaz spent two years in Athens, mainly occupied in its investigation, and M. Beulé, late Minister of Public Instruction, in conjunction with him, proposed a restoration which is on the walls, and will serve to illustrate the class of thing that in their despair antiquaries are forced to accept.

In it the goddess Minerva, who was certainly the principal personage to be enshrined, is relegated to a small cell 16 feet by 24. Erechtheus and his friends are turned out into the verandah, and two-thirds of the building are devoted to the nymph Pandrosos, who was certainly the most insignificant of the lot. Worse than this, in order to accommodate the laurel, the roof is taken off the great part of the temple, and the Greeks are represented as having adopted the most unusual expedient of having

* It ought, however, in fairness to be added that Mr. Newton did not himself attempt a restoration of the temple. He adopted that of the German Böckh, which he thought sufficient for his purpose, which was to translate the inscription he was publishing in his Collection of Greek inscriptions.

† Athens and the Peloponesus, pp. 94, 95.

ACROPOLIS D'ATHÈNES - RUINES DE L'ERECTHEION ETAT ACTUEL

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Echelle des Plans [|||||] 1 2 3 4 5 6 7 8 9 10

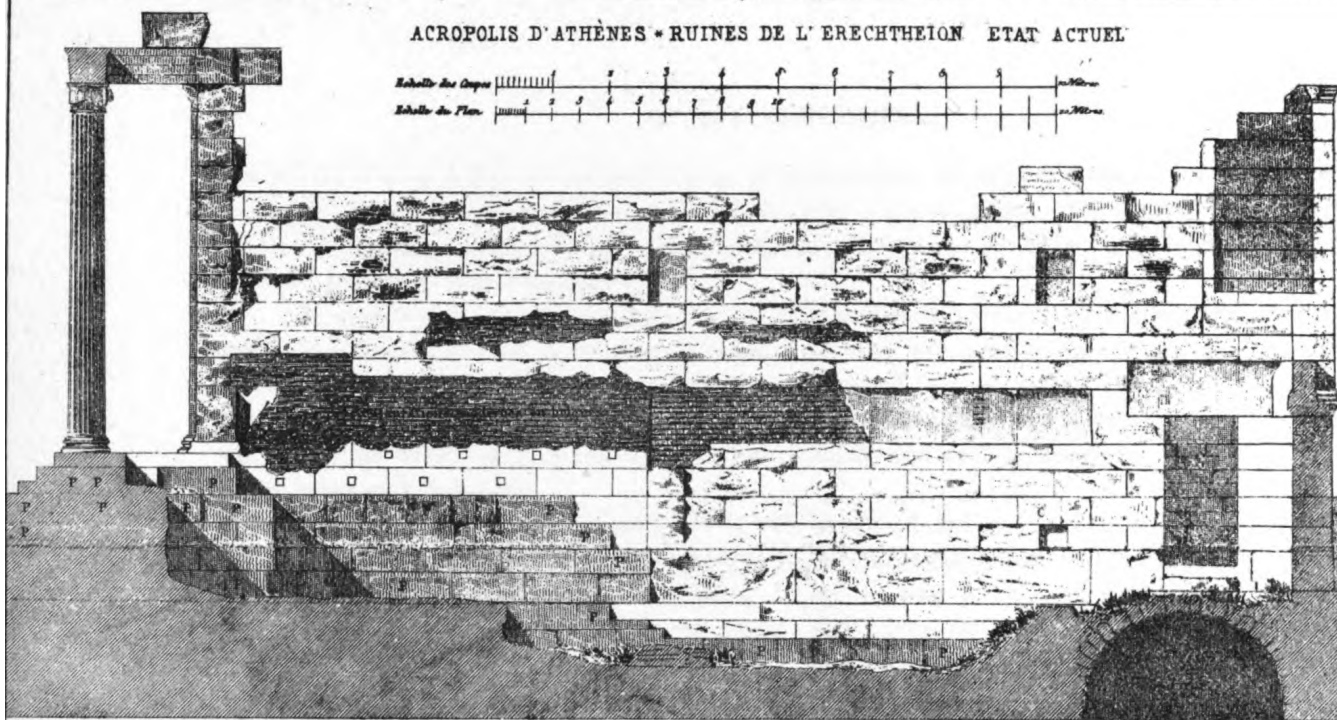


Fig. I.

Coupe Intérieure
le long de mur intérieur
sur la ligne AA BB du P.
à l'Echelle de 1/2000 et 1/2000

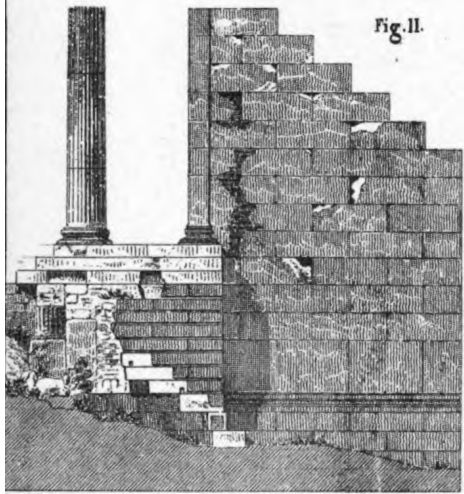


Fig. II.

Partie de la façade latérale Septentrionale indiquée EF sur le Plan à l'Echelle de 0,008

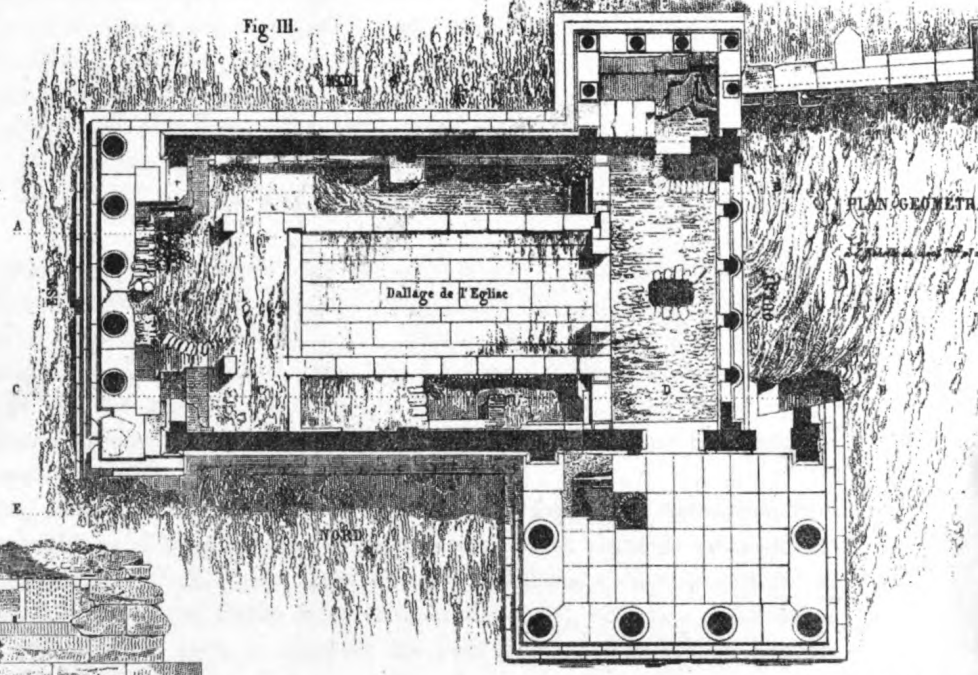
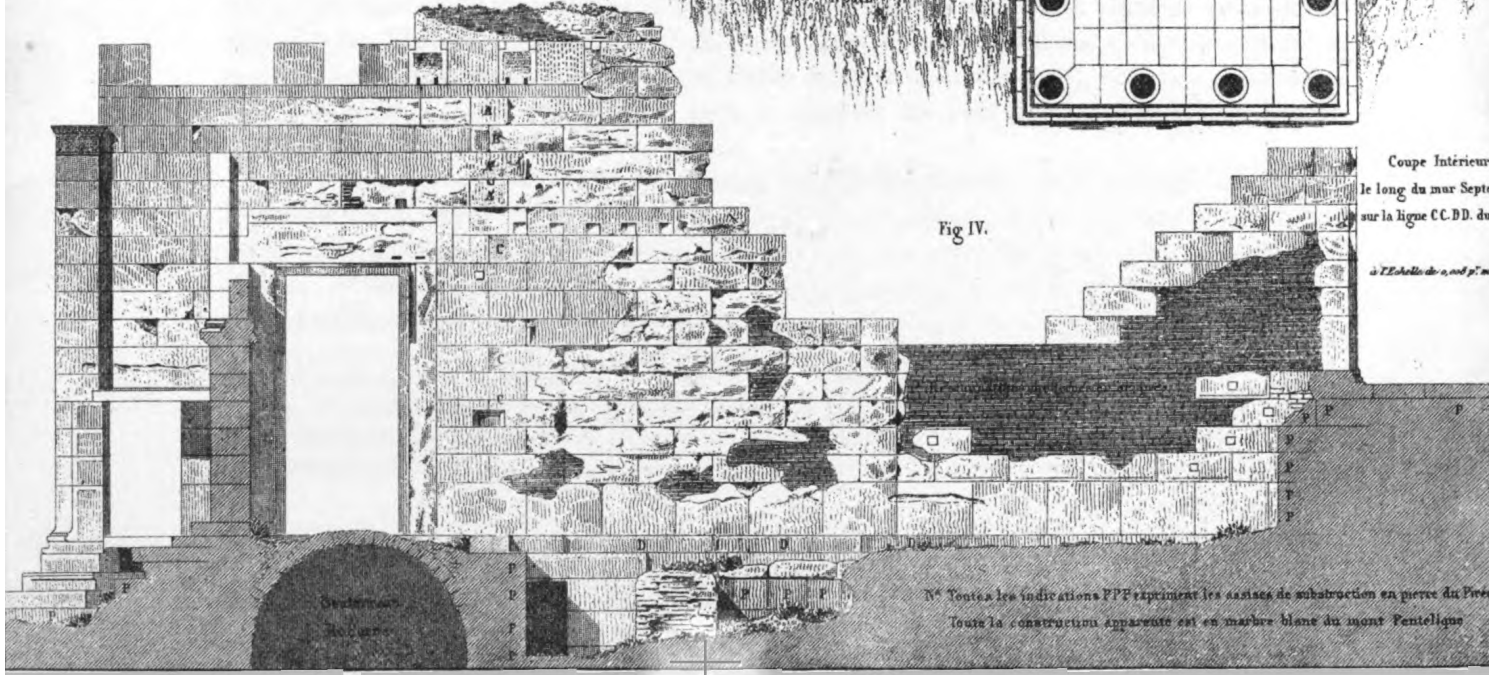


Fig. III.

PLAN GEOMETRIQUE

Fig. IV.



Coupe Intérieure
le long du mur Septentrional
sur la ligne CC DD du P.
à l'Echelle de 1/2000 et 1/2000

N^o Toutes les indications P.P.P. expriment les assises de substruction en pierre du Piree
Toute la construction apparente est en marbre blanc du mont Pentelique

introduced three windows in the western wall to light an open courtyard! After all these failures—and failures they certainly are, for no one has ever found a seconder, and these despairing vaticinations, you will be amused when I tell you that I see no difficulty in the matter, and that I fancy I can explain every important arrangement and every detail of the building. The truth is, as Herr Hettner says, it is an enigma, but like most riddles very clever men may guess a long time in vain without hitting on the true answer, but once they are told it, it is so simple that every one wonders they did not see it at once. In this instance the riddle is this: There were at Athens three temples, grouped together on one spot. First and foremost that of the goddess Athené Polias; next, that of the hero Erechtheus; and lastly, that of the nymph or virgin Pandrosos; and their relative importance must be in the order in which I have enumerated them, the last named having no title to the honour except from her being a lady devoid of curiosity. Be this as it may, the difficulty has been, that both from Pausanias and the remains on the spot, we learn that the existing temple was only double, or contained only two apartments; and the difficulty has always been how to get three temples into two rooms. It is like the school boy's puzzle, how to get three pints of wine into a quart bottle. The answer is simple. It cannot be done, and it is no use trying. In the same manner my answer to the Athenian riddle is equally, it cannot be done, but, as shown in the diagram on the wall (Plate I), the Temple of Pandrosos was not in the house we now see, but was attached to it externally to the westward. If this hypothesis is admitted there is literally no difficulty in the case, and my business, therefore, this evening will be to show to you the grounds on which I have formed my belief that it was so, and I shall be very much disappointed if I fail in establishing this point to your satisfaction.

Before proceeding further allow me first to explain the authority for the drawings used for this restoration. The first is a photographic reproduction of a plate published by M. Tetaz in the *Revue Archéologique* for 1851. I would not, however, have placed implicit confidence on it, were it not that three years afterwards the Archæological Society of Athens, at the request of some Germans, appointed a commission of five of their most eminent members to draw up a report on the subject. They employed a competent architect to make the necessary drawings. Most of these are on the walls, and they agree with those of Tetaz so completely in every essential particular, and also with those of our countryman Inwood, as far as they go, that I fancy they may be implicitly relied upon. The only difference I have been able to detect is that on a stone in the interior of the north wall Tetaz leaves one of the knobs which the Greeks used in setting their stones, while the commission represent it cleaned off, and they probably were right. In all other respects they agree. In addition to these I have some dozen of photographs of the building, some of which I produce, and they confirm the drawings so completely that I cannot conceive there is any doubt about the facts I am going to bring forward.

The written data for this conclusion are principally contained in two documents. First, the description of the building by Pausanias, which must be taken as absolute, as far as it goes. In other words, nothing can be admitted that contradicts it, but, as Colonel Leake remarks, he is frequently so concise as to be obscure, and it consequently is not always easy to follow him, but with the extensions I propose I fancy even this difficulty may be got over.

The other document is a specification of additions and repairs required to be done to complete the building. It seems that in 409 B.C. it was found that all the money available for such purposes had been devoted to the completion of the Parthenon, and that this building had been neglected. A committee was consequently appointed to examine and report, and their report was engraved on a marble slab brought home by Dr. Chandler, and now fortunately in the British Museum. It is, however, only a specification for repairs, and I hope I may say without offence, even in this room, that such documents are not always easily intelligible, and when not accompanied by drawings, or if the person attempting to explain them has not an intimate knowledge of the buildings they apply to, they are generally very

difficult of interpretation. In this instance, instead of drawings we have only the shattered remains of a Greek temple that was afterwards converted into a Greek church, and subsequently used as a Pasha's residence, and lastly as a Turkish storehouse. With the extension I propose I hope, however, to make even this intelligible, and, with a few additional paragraphs from other authors, to clench the argument.

First then, with regard to Pausanias, I propose, in order to avoid any suspicion of twisting his meaning to meet my views, to read to you the passages bearing on this subject from a translation made by a competent scholar, and published in 1794.*

After visiting the east end of the Akropolis, and describing various objects that interested him there, he goes on to say: "In the same place, too, there is a building which they call Erechtheus, and in the vestibule of it there is an altar of Jupiter the supreme, upon which they do not sacrifice anything animated, but, placing a certain kind of cakes, they at the same time forbid the use of wine on the occasion. But entering into the edifice there is an altar of Neptune, upon which, in compliance with an oracle they sacrifice to Erechtheus, and an altar of the hero Buta, and a third to Vulcan. On the wall there are paintings pertaining to the family of Butadæ. But the building itself is twofold, and contains a well of marine water, which is by no means a circumstance extremely wonderful, since the most inland inhabitants, and particularly the Aphrodisiensis in Caria have wells of this kind. There are certain writings, however, extant which assert that when the south wind blows this water yields the sound of waves, and in the rock there is the representation of a trident; but these circumstances are said to evince the contest of Minerva with Neptune for Attica." (p. 75.)

If we pause for one minute before going further we find we have here first a temple of Erechtheus, with its four altars, but not one word about Minerva, or anything connected with her; and after describing the temple and all that it contains, he abruptly remarks that the house is double, and in it is the well of salt water, &c. If we might supply—the house is double, "and having described what is in the first part, I will now proceed to tell you what is in the second," all would have been clear, or if he had merely after double added, "and in the second part is the well," it would have sufficed; but I think that something of that sort was intended from his making the remark when he did. At the beginning or end of his description it might have been otherwise. In the middle it certainly seems he meant something of the sort, but the thrift of words with which Leake reproached him prevented his adding what would have made all clear.

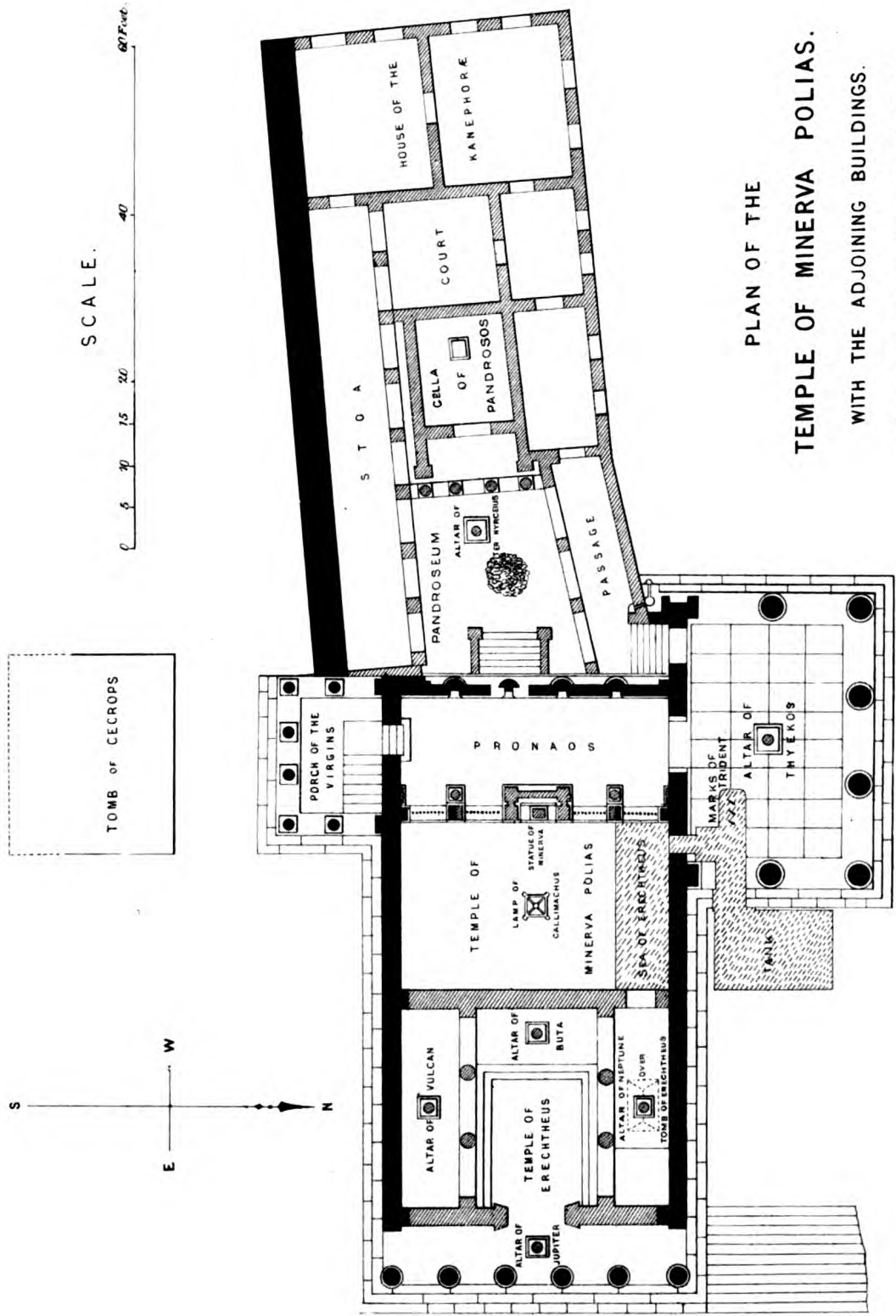
Be this as it may, the sea or well of saltwater was certainly in some part of the subterranean passages lightly hatched in the plan Plate I. They are all underground, viz., below the level of the floor, and communicate with one another by passages through the foundations of the portico, and of the temple itself in manner that could only be intended for some priestly "supercherie" of the sort. I am afraid the place has been too completely skinned in the recent excavations to admit of the part where the salt-water tank was, being now determined with absolute certainty; but I fancy it was inside the temple, near the tomb of Erechtheus whence it obtained the name of *Θάλασσα Ερεχθηίδα*.†

To proceed, however, with our author. "But the most holy of all the images is that statue of Minerva, which by the common consent of all the towns before they connected themselves into one city, was dedicated in that place, which is now called the Tower (Akropolis) but was then denominated the City (Polis). It is reported that this statue fell down from heaven, but whether this was the case I will not at present attempt to prove. Callimachus made for the statue of the goddess a lamp of gold, which when filled with oil burns day and night for a year." "Above the lamp was a brazen palm tree, which rising to the roof dissipates the fumes" — a tolerable proof the building was not

* Description of Greece by Pausanias, translated from the Greek by Thomas Taylor. London. 1794.

† Herodotus VIII, 55. Apollodorus III, 14, 1.

PLATE I.



PLAN OF THE
TEMPLE OF MINERVA POLIAS.
 WITH THE ADJOINING BUILDINGS.
 AS RESTORED BY M^r J. FERGUSSON.



hypæthral. He then proceeds to describe a wooden statue of Mercury, the gift it is said of Cecrops, a folding and jointed bedstead, the work of Dedalus. The coat of mail of Masistius, and a Persian scimitar that belonged to Mardonius. All these things were in the same temple as the images, with probably many others he does not allude to. Having finished with them he then adds as abruptly as about the double house. "With respect to the olive they report nothing concerning it, except that it serves as a monument to prove the contest of Minerva for Attica. They likewise assert that being burnt when the Persians took the city from the Athenians, blossomed the same day to the height of two cubits. "But the temple of Pandrosus joins to that of Minerva, for Pandrosus alone of all her sisters was faithful to her trust." There is nothing in this to indicate absolutely the position of the tree; but as we know certainly from a remark of Apollodorus,* that this tree was in the Pandroseum the mode in which the tree and temple are mentioned together here seem singularly significant. He then goes on to say, "The particulars, however, that appear to me most admirable, and which are not generally known, I shall take upon me to describe. There are two virgins that dwell not far from the temple of Polias and who are called by the Athenians Canephoræ." (p. 77.) He then proceeds to describe the mysterious journey these maidens made once a year to the temple of Venus in the city; but as they have no reference to the Temple it has no interest for us here.

Before leaving Pausanias if you will just for one moment follow me on the diagram Plate I, you will see how easily and how naturally all he says follows from the arrangement now proposed. The temple of Erechtheus with its altars; the Salt Sea at the northern entrance of the temple of Athené; the tree in the Pandroseum near its western door; and the house of the Kanephoræ, near the stairs leading down to the city. All these coincidences may not be sufficient to prove absolutely that I am right; but it does prove that there is nothing in Pausanias at all events that contradicts my views in any way. Those, on the contrary, who insist in crowding all into the present building are forced either to ignore the temple of Erechtheus altogether, as Beulé does, and to put his altars into the portico, while Pausanias says distinctly they were in the house itself; and they are obliged to assign two-thirds of the building to the Nymph Pandrosos, leaving poor Minerva with a very shabby cell—16 by 24. According to the view now put forward the area of the temple of Minerva is, as nearly as may be, double that assigned to Erechtheus, and is ten feet more lofty. Pandrosos is relegated to a small cell outside, and the whole thus forms a group, the various parts of which are perfectly consistent with the relative importance of the various personages to whom each are assigned.

When from Pausanias we turn to the Inscription† we find it commences with a preamble of seven lines in which the temple is described as that containing "the old statue," evidently that of Minerva just described, shewing that the surveyors, at all events, considered that as the principal temple. The name Erechtheus does not occur in the inscription anywhere.

From line 8 to line 68 they describe the various repairs wanting in the building we now see, as it then stood, beginning with the cornice and the parts above it, Maschaliaia, Epikranitides, and other hard-named parts that I will not trouble you further with at present. They then describe the Epistylia, and the frieze of Eleusinian stone that surrounded the whole building, then the pillars and walls that wanted fluting and polishing, and end with stating that the entire base all round the building is unpolished. Having completed the external survey they devote the next twenty-four lines to the interior of the building, where a good deal of polishing and work was still required, but which

* Apollodorus III, 14, 1.

† This inscription has frequently been published in English works; first by Chandler himself; afterwards by Walpole, in his *Travels in Turkey*; by Wilkins, in his *Prolusiones Architectonicæ*; and lastly and best by Newton, in his *Collection of Greek Inscriptions*, in the British Museum, 1874.

I have not time to enter on here, further than to direct your attention to the altar of incense or Theykos, which stood in the portico opposite the great doorway (line 79).

Having thus finished all that was to be attended to in the building as it then stood, they proceed to specify (line 93 to line 155—62 lines) work that required to be done on stones, not in position, but lying on the ground. These are of no interest to us here, as stones belonging to one part of the building may be found lying near another, and in no instance except the last, when two corner stones belonging to the eastern portico are mentioned, is there any allusion to the places they belonged to.

If the inscription stopped there all the essential parts might be identified without difficulty, as they belong to the parts of the building now standing. But the remaining thirty-six lines present a difficulty no one has yet been able to get over. The stones, or most of them, are in position, and cannot be identified with any part of the main building. If you admit the existence of a Pandroseum independent of the main building the difficulty vanishes. But to this we shall return presently.

Although I wish to avoid quoting Greek, or attempting to discuss the niceties of Greek phraseology in a lecture like this, there is one small matter I must allude to before going further. It is the meaning of the proposition *πρὸς* when used with the genitive *του*, or the dative or ablative *τω*. In the former case Newton translates it "towards," "facing," "opposite to," "or over against." In the latter "near to," "adjacent," "at," or "next to," each meaning quite sufficiently near to the others as to be at times interchangeable, and quite in accordance, I believe to all that is found in the lexicons: at all events, sufficiently so to justify these meanings being adopted on the present occasion.

This being so we find at line 44 the following heading. "Of the columns on the wall *towards* the Pandroseum. The four attached columns have one foot and a half of the Anthemion of each column uncut, measured from the inner side."* Now in this instance there can be no possible mistake as to the columns meant, nor any, apparently, as to the meaning of *πρὸς*. There are no other columns on any wall, and no others attached, or that could be measured from the inside. It seems impossible to escape the conviction that the engraver of the inscription meant to describe them as facing the Pandroseum. Either, it seems to me, it must be considered that the *πρὸς* has no meaning at all, and might as well be omitted, or that entry is in itself sufficient to prove that the Pandroseum was attached to the west front of the temple, *συνεχής* as Pausanias expressly tells us it was.

Even if it were omitted, and it were contended that the wall with the pillars on it, were the western and not the eastern wall of the Pandroseum, you only get, like Beulé, into the difficulty of devoting two-thirds of the main building to the Nymph, and relegating the Goddess to the insignificant eastern cell. As, however, it is not omitted, but is there, I see no escape from the conclusion that the Pandroseum was in front of the wall with the attached columns.

After this there is no passage in the inscription bearing directly on our subject till we come to line 143, when four stones from "The Stoa" are mentioned among those lying unfinished on the ground. What and where this Stoa was, no one has yet been able to explain. Böckh suggested that it must be the great northern portico, but as Leake very properly remarked, it is very unlikely that a part of the building which had already been described as "The portico facing the great doorway" should in the same document be mentioned under another name. Newton suggests that the stones may have been taken from some destroyed Stoa, to be worked up for the new building; but as we shall presently see, this view is equally untenable, as the Stoa is mentioned a little afterwards as an important building belonging to this group.

* The first part of this translation is Newton's, the rest that of Raoul Rochette in the *Journal des Savants*, Nov. 1851. The words are *Ἐπι τοῦ τοίχου τοῦ πρὸς τοῦ Πανδρῶσειου. ἸΙΙΙ κειμένων κίωνων κ.τ.λ.*

At line 156 we come to a new heading, which is most important. It refers to "Stones on the wall at the Pandroseum." The stones are no longer on the ground, and certainly do not belong to the wall with the attached columns before alluded to. That, we have done with long ago, and besides, they are not such as could possibly be applied there. They are, "one $7\frac{1}{2}$ feet long, $3\frac{1}{2}$ feet wide. The smoothing work half finished. One 6 feet long, $3\frac{1}{4}$ feet wide, and $1\frac{1}{4}$ feet thick on the wall of* the Pandroseum; of this 5 feet of the Astragulus is not carved." What that Astragulus is we see from that under the feet of the Koræ, where parts are carved and parts are not, and it certainly formed the crowning member of the south wall of the west enclosure, wherever that may have been.

The next four entries refer to the Stoa, and as they are important I quote them entire, using Newton's translation:

"Six pedimental stones from the Stoa, 7 feet long, $3\frac{1}{2}$ feet wide, and 1 foot thick. These are half-finished.

"Two others 5 feet long, $3\frac{1}{2}$ feet wide, and 1 foot thick, half worked.

"The stones of the Corona on the pediments $2\frac{1}{2}$ feet wide, $4\frac{1}{2}$ feet long, and 1 foot thick; one of these worked smooth.

"Another of which the smoothed work is half finished."

How this stoa with its pediments was arranged, I do not know, or pretend to know. A week's excavation would probably tell us more than months of speculation. All I contend for here is that it was an important building in connection with the wall of the Pandroseum, and that granted, any one may arrange its details as he pleases.

In the diagram Plate II. I have drawn a half pediment to shew how possibly it may have been arranged; but if I were attempting a detailed restoration I would rather believe the inscription refers to front of the cella in which I suppose the statue or the altar of the nymph Pandrosos may have been placed, at the west end of the enclosure in which the olive tree stood.

The next entry is a difficult one—line 180. It is this: "Four stones of the doorway—literally four stone doors—*θυραὶ λίθιναι*— $8\frac{1}{4}$ feet long, $2\frac{1}{2}$ feet wide; of these all are finished, except the "zuga," into which the black stones had to be inserted." Wilkins describes these stones as doorframes, and I believe he is correct. At all events in the Pandroseum, as I restore it, there are two doors upwards of 8 feet high by 4 feet wide, one leading to the Temple of Athené, and one to the north portico, and they are in walls $2\frac{1}{2}$ feet thick, so that these stones, if linings, would exactly suit them, and their use is not explicable on any other theory which has yet been suggested.

The next entry is, "One parotis of the lintel of the Eastern door is half finished." This is evidently not the eastern door of the Erechtheum—that we have done with long ago—but one of the Eastern doors of the Pandroseum; nor is it difficult to see which, for that leading to the great northern portico is not centred, but would require a bracket or console on the north side to bring it into the centre of the composition.

The next entry is a new heading, and concludes the inscription. "The Pentelic stones for the altar of the Thyekos. Three of these 4 feet long, $2\frac{1}{2}$ feet wide, and 1 foot thick. Another 3 feet long." If, therefore, my view of the matter is correct, we have been working round the Pandroseum from the portico of the Koræ on the south to the altar of the Thyekos on the north, and if this is so every word of that last part of the inscription becomes clear and intelligible, while no other hypothesis yet proposed suggests even a plausible meaning for any one of its sentences.

§ The "of" is Newton's. He objects, too, to the repetition of the expression "on the wall of the Pandroseum" as needless. The fact, however, is that the first is a new heading—a rubric in fact—to warn the reader that we have done with the *ἡμιεργα*, or half finished work on the ground and are beginning a new chapter by describing an independent building.

So far, therefore, as this inscription is concerned, it appears to me not only to confirm my views, but not to be intelligible in any other hypothesis yet suggested. The other written notices are equally, or even more satisfactory. The principal of these is an anecdote told by Philochoros, to the effect that on a certain occasion a bitch strayed into the Akropolis, where it seems dogs were not admitted, and, being chased, took refuge in the temple of Athené, and thence rushed downwards (*δῦσα*) into the Pandroseum, where she took refuge on the altar of Jupiter Herceios.*

This is just one of the pieces of collateral evidence which is so important in these inquiries that it is impossible to neglect or overlook it, and the consequence has been that those who have attempted to restore the temple, finding the eastern half 10 feet higher than that of the western part, have nearly all felt constrained to call the first and smaller part the temple of Minerva, and to assign the greater and more magnificent western part to the nymph Pandrosos. There seemed no escape from this and the other manifest absurdities this hypothesis led them into. If, however, the restoration now proposed is adopted, the floor of the Pandroseum, being rather more than four feet below that of the Temple of Athené, the bitch would equally rush downwards into the Pandroseum through the open door in the western wall, much more naturally than by the back stairs usually provided for her accommodation.

There is no doubt about the tree being in the Pandroseum,† and this coupled with the assertion of Athenæus, that the altar of Jupiter Herceios was always in an open air place,‡ seems to me sufficient to settle the question. It was not in a house, as one might, from botanical reasons, suppose, but in an open court, as common-sense would seem to dictate.

In conclusion, I may, perhaps, be allowed to refer to a passage in the *Æneid* which has frequently been quoted as supporting the theory that the tree was or might have been inside the temple. It is—

“ *Ædibus in mediis, nudoque sub ætheris axe
Ingens ara fuit: juxtaque veterrima laurus
Incumbens aræ, atque umbra complexa Penates.*” §

Now, although it is no doubt true that “*Ædibus*” may describe a single temple, in this case the context seems to imply rather the courtyard of a palace, or some such place; nor does it seem that “*nudoque sub ætheris axe*” can be applied to a chamber even if lighted from the roof. The real meaning of the passage seems to me to be rather that the tree with the altar stood in an open court surrounded by edifices of some sort or other. In other words, just such an arrangement as is here proposed, and some such Virgil probably had in his eye when he wrote it.

These are, I believe, the only important passages bearing directly on the subject, that are to be found in any authors, and consequently, so far as the “*litera scripta*” is concerned, not only is there nothing that contradicts my views, but there is a great deal that cannot be explained, or, at least, has not been, by any theory hitherto advanced; but it may well be asked, If this is so, are there no material remains left to confirm these views? My answer is, there are many; and I have no doubt many more will be found when looked for; but no one has suspected the existence of the Pandroseum where I have placed it, and consequently no one has looked there for its remains. The first and most important indication of its existence is the small doorway under the north portico, to the westward of the great door of the Temple of Minerva. No one, I fancy, can study the plan of the temple without being struck with the singular clumsiness with which the northern portico is shoved—I can hardly use a more dignified word—past the end of the building, one-third of it having no backing at all. No modern architect would dare to commit such a solecism, and it must have required some very strong

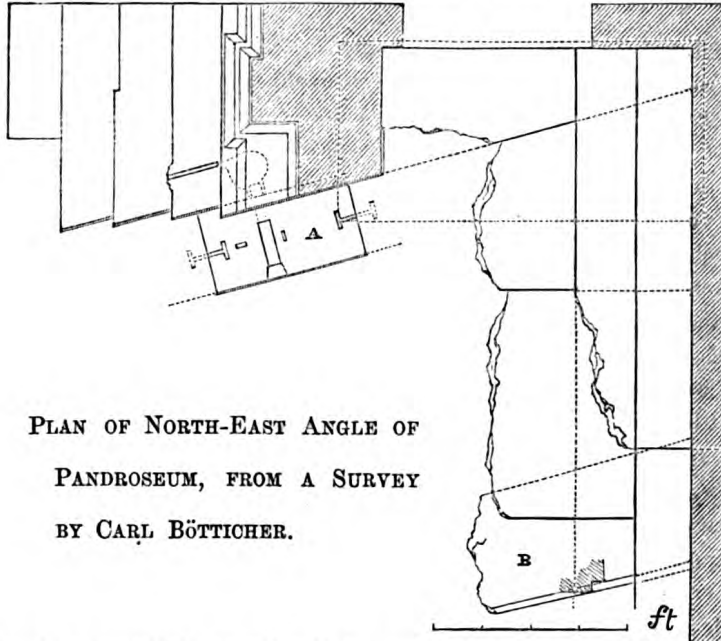
* Philochoros in Dionysius Halicarnassus, p. 113, ed. Sylburg.

† Apollod. III, 14, i.

‡ Athenæus v., p. 189. *ἐπὶ τῶν ὑπαίθρων τόπων.*

§ *Æneid* II. 512.

motive for a Greek to tolerate it. The moment, however, we assume the Pandroseum was where I have placed it, the reason is self-evident. The north portico was intended to cover the entrances to the temples of Athené and Pandrosos, two-thirds or three-fourths were appropriated to the first, and one-third



PLAN OF NORTH-EAST ANGLE OF
PANDROSEUM, FROM A SURVEY
BY CARL BÖTTICHER.

or one-fourth to the second, and this being done gives purpose and meaning to the whole arrangement. Besides this, when we enter through the small door, it is not so completely "en l'air" as at first sight appears. In the first place, the vestibule is roofed by a large stone 8 feet by 4, which is still in position, and formed part of a covered gallery that extended some way westward. The proof that this was so will be gathered from a careful survey of the ground by Bötticher,* which is shown in the annexed woodcut, and by an elevation of the west wall by the Commission of the Archæological Society of Athens, published

in their report above referred to, and which is now on the wall. Though neither observed what the other did, they both agree in showing that, a distance of nine feet from the western pier, a wall or colonnade, the foundation of which is shown by the stone marked B, started at an angle of about 13 degrees from the western wall of the temple, and the indications on the wall show that a roof was there in continuation of that now existing. But the great proof is that Bötticher (as shewn at A in the woodcut) found a drain or sink passing through the north wall, and turning westward, ending in a bronze mask, on the second step externally.

I do not know what may have been the case with Greek temples, but I know in the East wherever there is an altar in a temple where offerings are made, it is always thought necessary to provide an ornamental spout by which the refuse of the libamina may be passed outside. These are frequently richly carved, and always considered important, and this one seems as if intended to serve exactly the same purpose to the altar of Jupiter Herceius, if I am right. At all events, it proves absolutely that the place where it starts from was enclosed, and that there was no other means of passing to the outside the refuse of what was used within.

On the other, or southern side, the indications are nearly if not quite so complete as on the north. In the first place the inside of the retaining wall, which here extends to about 80 feet, is so rough and rude that it is impossible that any wall could be allowed to be seen in the Akropolis in such a state. It must have been covered up. But how? We would probably have battened it, and covered it with lath and plaster, but even this hardly without covering it with a roof. How the Greeks did it I don't pretend to say. That it was hid I feel certain, and that it formed the back of the Stoa seems to me hardly doubtful. At the north end of it there is a sinking in the west wall of the temple, which all have remarked, but no one knows quite what to do with it. It is covered by the largest stone in the building, 4 feet 9 inches in height by 14 feet in length, and evidently, therefore, considered important.

* Bericht über die Untersuchungen auf der Akropolis zu Athen in 1862. Berlin 1863.

Inwood felt this, and consequently inserted a staircase here, for which he had no other authority or use, and no one else seems to have been able to offer a suggestion. To me it seems clear it was the end of the Stoa, but in what manner it actually fitted into the groove can probably only be ascertained on the spot.

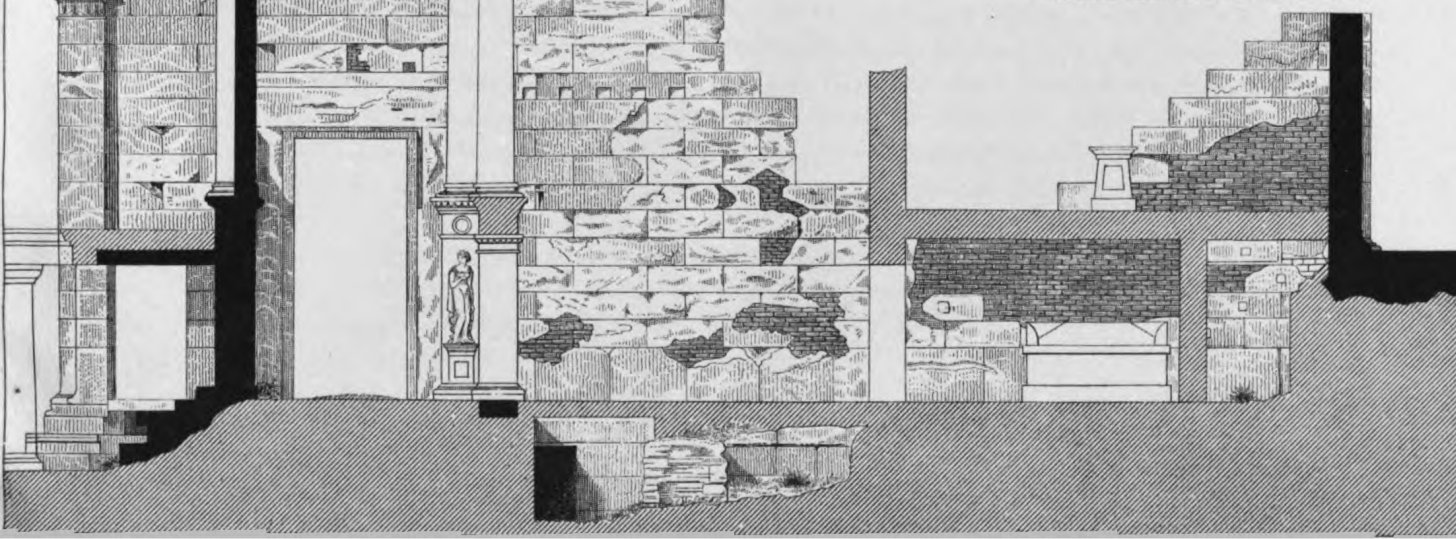
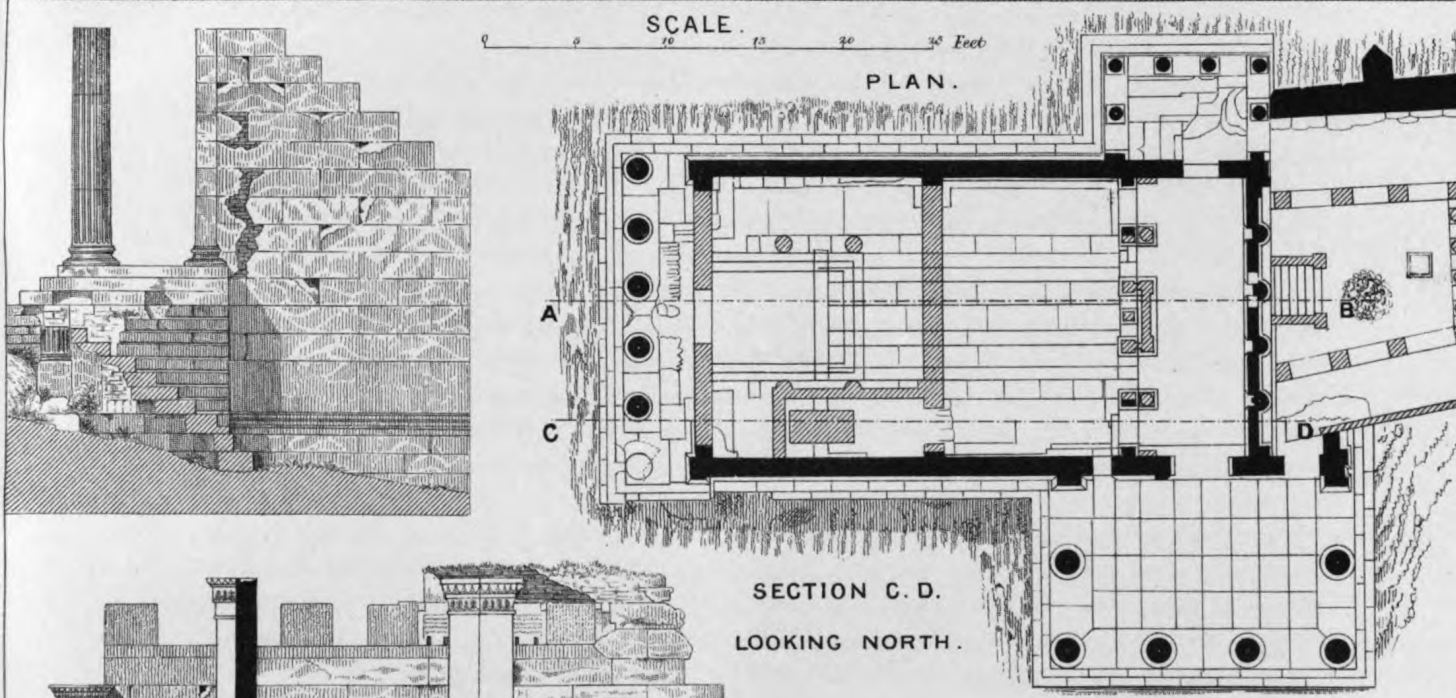
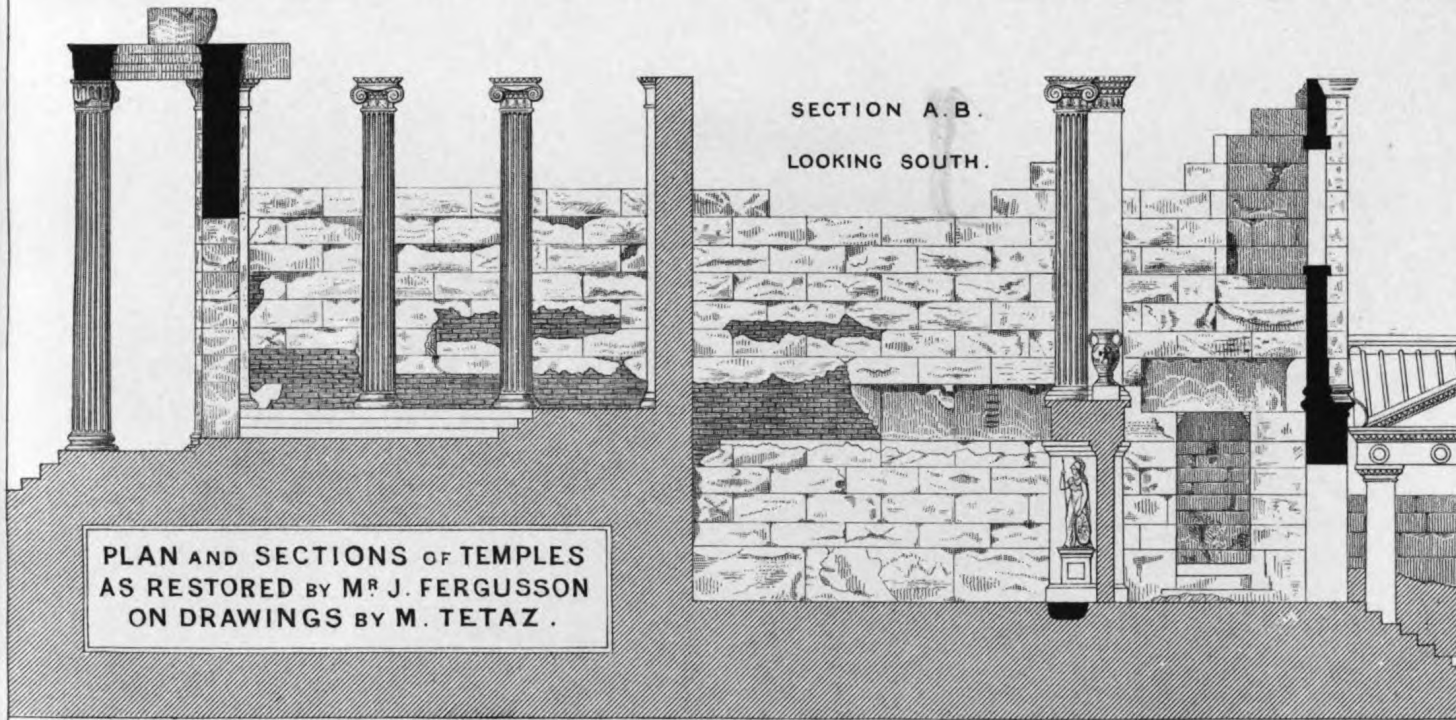
From the indications on the spot, and the difference of the height, it seems almost certain that the Stoa had a sloping roof, as shown on the diagram, but in that case we might expect to find a chase cut in the wall, or some marks of its apposition. It must be remarked, however, that the wall of the Stoa is not at right angles to the wall of the temple. There was consequently a small triangular space which just freed the one from the other, and prevented an awkward contact, or a fan-like spreading of the tiles, which, to a Greek architect, would have been inadmissible. I can see fifty ways in which the junction could have been artistically effected, but it is no use dwelling on them now, as it is only in the spot that the way in which it was actually done can really be found out.

Be this as it may, the "instantia crucis" of the hypothesis is the doorway in the western wall, leading from the Temple of Athené. If there had been no powerful diverting cause, it would have been in the centre under the central window. It is under the second engaged column from the south—but not even exactly that—but a little more towards the north. In fact, as regards the temple itself it is architecturally nowhere, but as regards the markings on the wall indicating the presence of these two porticos it centres exactly. Now, it appears to me that all these curious anomalies cannot possibly be accidental. They must have been put there for some purpose or other, and whatever that may have been, they seem to me to prove incontestibly that the space to the westward of the temple we now see was occupied by a sacred building or enclosure, and if this is so, I cannot suggest any other than the Pandroseum, which we know from Pausanias was attached (*συνεχής*) to the Temple of Minerva. How far the Temple of Pandrosos may have stretched westwards, or what form it took I neither know or pretend to know, nor in the present stage of the inquiry is it at all necessary that it should be known. Its existence in all that is wanted should be conceded, for that alone explains all the rest and the investigation of its details may safely be left to the spade, and to those on the spot, who have access to indications that are not available to those who are strangers to the ground.

Assuming for the nonce that the arrangements of the building in plan were such as I have just described, the architectural ordinance of the interior is a matter of no difficulty and of very little uncertainty. Beginning as before with the Eastern apartment I have introduced into it four pillars; though as both the east and west walls were entirely removed by those who converted the building into a Byzantine church, there are no indications left of the pilasters that would have corresponded with them and proved their existence. Without them, however, the form of the room would be offensively awkward for a temple, being 32 feet wide and 24 feet deep, and with the entrance in the longest side. By dividing it into three aisles the harmony of proportion is restored.

With regard to the floor levels there can be no mistake. The pavement of the side aisles, at least, was formed of long stones tailed into the wall like the steps of a stone staircase, and besides this must have been dove-tailed or cramped together in a manner we would think very unnecessary. This is evident from the fact that the upper surface of all the stones of the course on which they rested on either side has been broken by violence. Not only have the floor stones been wrenched out of the wall and their places filled up with modern brickwork, but it has been done with extreme violence to the stones that supported them.

From the diagram Plate II. it will be seen that the underside of these floorstones are on the same level as the cill of the entrance doorway, and as they were in all probability one course of nineteen inches in thickness it is evident that three steps must have existed somewhere. They may have been in the entrance, but there they would have been singularly awkward and unarchitectural; arranged as



shewn in the plan Plate I. they would aid the architectural effect of the temple very considerably, and give dignity to the altars, which were the principal objects in the place.

The architectural arrangement of the Temple of Minerva are equally easily understood, and even more certain. The temple was a hall, nearly square, being 32 feet by 35 feet east and west, and divided by a screen into a Pronaos and Adytum. Besides being considerably larger, being situated on a lower level, it was ten feet higher than the temple to the eastward of it. At a distance of 12 feet 6 inches from the inside of the western wall both M. Tetaz and Professor Lewis found the bases of four piers belonging to this screen, two were attached to the north and south walls in the form of pilasters, corresponding exactly with the antæ on the outer face of the western wall. The two others were centred equally with the first and fourth of the attached columns in the same wall, and it is easy to see that the two centre ones had been removed to admit of the introduction of the central nave of the Byzantine church. Supposing, however, that this is open to doubt, as regards the lower part of the screen, the design of the upper part admits of no question. On the inside of the upper part of the western wall there is, or was when Stuart drew it, a range of six pilasters, corresponding exactly with the antæ and pillars on the outside of the same wall. Now I take it to be a law that admits of no appeal that when an architect places a range of pilasters on a wall of a room or passage ten or twelve feet wide, he must place either pillars or pilasters on the opposite side to correspond. I know of no exception to this principle in either ancient or modern times. In this instance it could not be a solid wall with pilasters, because the three windows in the western wall were certainly intended to light the space beyond, and they must consequently have been pillars. The screen, in fact, was an exact reproduction of the architectural design of the western front, omitting the solid parts, and this seems in accordance with one of the most important principles of architectural designs—That the exterior should suggest the interior as nearly as the altered purposes will admit of.

Before leaving it there is one slight peculiarity about this screen that remains to be explained. The two doorways at either end of the pronaos centre with one another, but not with the screen, which is two feet further from their centre on the east than on the west. I cannot account for this, otherwise than by supposing that either in part or in whole the screen was doubled, and I think I can discover a reason for its being so in the centre. From Dio Cassius‡ we learn that the image (the old image), faced eastwards, because it is reported that when Augustus died it was found turned to the west. Now it is impossible that so sacred an object could have been placed against the outer wall in the pronaos between its three doors; but if we double the screen in the centre and make the central compartment solid, we not only gain an appropriate niche for the Goddess, but get over the architectural difficulty.

The existence of this screen serves further to explain an anecdote recorded by Herodotus,† which has hitherto been a stumbling block to commentators. It is there said that when Cleomenes was in possession of the Akropolis he on one occasion wished to pay his respects to the goddess, but on entering the Temple and wishing to penetrate to the Adytum, the priestess rose from her seat and forbade him, because he was a Lacedæmonian. Whether the reason was a good one or not is not the question. The fact of there being an Adytum presupposes a naos or pronaos, and that no restoration yet given to the world has been able to afford.‡

It seems, further, more than probable that the Adytum was separated from the pronaos by a grille between the piers; but this is a detail which, like many others, may be settled by exploration on the spot, but which would only complicate the inquiry at its present stage, without adding to or detracting from the main facts which it is the object of this lecture to establish.

* Dio Cassius, liv. 7.

† Herodotus Hist. V, 72.

‡ It is hardly necessary to remark that this anecdote refers to an earlier time than the rebuilding of the Temple as we now see it. But this and most of its peculiarities arise from the fact of its being a restoration of the Temple burnt by the Persians, rather than a rebuilding.

It only remains now to point out the position of the two tombs, which are the only objects not yet touched upon, which have any bearing on this restoration. There seems no doubt about that of Erechtheus. Below the floor line on the southern wall in the eastern temple it will be observed from M. Tetaz's drawings, and more clearly from those of the Commission, that the foundations are composed of rough blocks of stone from the Piræus up to the floor line of the central part, and above that of two courses of marble unpolished, and from which the knobs used in setting them have not been smoothed off. On the north side the case is widely different. The floor line of the lower temple is continued to the eastern wall, and for three-fourths of the distance the marble is polished, and the knobs cleaned off.* There was evidently, therefore, a chamber here ten feet high, and from the markings on the floor probably between six and seven feet wide. I have cut it off by a transverse wall at a distance of sixteen feet from the entrance because beyond that the marble is unpolished and the knobs reappear. Besides that, if a live serpent were kept in the temple—and I believe there was—it is necessary to provide an abode for him, and if so I know of no place so appropriate as this, in the immediate neighbourhood of the tomb of the serpent god Erechthonios.

The position of the tomb explains why the well of salt water was called the Sea of Erechtheus. It is said because it was near his tomb—and so we find it—and thus the position assigned in my restoration to these two objects mutually confirm each other.

The position of the Cecropium, or tomb of Cecrops, may, I fancy, be easily determined from the following entries in the inscription so often referred to above. Adopting Mr. Newton's translation, they are as follows:—Line 8: "We have found incomplete the following works of the temple, at the angle *near* the Kekropion." Line 56: "The wall facing the south is unpolished, except the part within the portico *adjacent* to the Kekropion." Line 60: "The pilasters are unpolished from without all round the building except those in the portico *at* the Kekropion." Line 84: "At (or on, *επι*) the portico *near* the Kekropion the three stones of the roof above the Koræ had to be polished to a length of 13 feet by 5 feet in width."

From these it seems evident that the portico with the Koræ or virgins, at the time the inscription was engraved, was known only as the prothesis attached to the southern wall, and near the Kekropion, but certainly not the Cecropium itself. The fact appears to be—the ground on the south being higher than the floor of the temple, the architects found they could not make a dignified direct descending entrance from that side, but were content to construct a convenient one, and made it as ornamental as they could by introducing these Koræ. Where the tomb of Cecrops really stood, is easily perceived from Mr. Penrose's plan of the Akropolis. At a distance of 12 feet in front of this portico the rock is levelled for a space of 24 feet by 20, exactly where from the indications just mentioned we would expect to find it, and there seems little doubt marks the spot. In addition to these local indications it may be mentioned that the passages in the Fathers which refer to these two tombs all describe the tomb of Erechtheus as in the temple of Minerva itself,† but speak of that of Cecrops as in the Acropolis, and in such a manner as to lead to the presumption that it was a separate building standing near but unattached to the Temple of Minerva.‡

* In Tetaz's drawing one is shewn near the western end, but as it does not appear in the drawings of the Commission I fancy it must be by mistake.

† Clemens in Protreptico. Τι δε Εριχθονιος; ουχ εν τῷ νεῶ της Πυλιαδος κεκῆδευται. Arnobius, bib. vi. translates this "Erichthonios Conditus scribitur in Poliadis fano." Apollodorus bib. II. has Εριχθονίου δε ἀποθανόντος καὶ ταφέντος ἐν τῷ πεμένει τῆς Αθηνῶν.

‡ 'Αθήνησι δὲ ἐν τῇ Ἀκροπόλει τάφος ἐστὶ Κέκροπος. Clemens in Protreptico. Arnobius translates this, "Athenis in Minervio (in the precincts) memorant sepultum esse Cecropem." Theodoretus Therap. lviii. has Κεκροπὸς ἐστὶ τάφος παρὰ την Πολιούχον αὐτήν. Juxta ipsam urbis præsidem Minervam.

I have now cursorily run through all the authorities whose existence I am aware of, whose writings bear on the subject in hand. I have not, of course, quoted one-half them, as it would be tedious to do so, and difficult to follow in a lecture, but I have looked up and taken into account every reference I have found in any German, French, or English book I have had access to, and I can honestly say that I do not know one single passage that is in any way at variance with the views, have just enunciated, nor one that is not easily and naturally explicable by the adoption of the hypothesis I have just been explaining.

In like manner I have carefully examined every stone of the building now standing, in so far as the drawings and photographs at my disposal would allow, and I do not know of one whose employment I cannot be accounted for according to this view, and whose use does not seem plain and intelligible. I cannot help, therefore, feeling convinced that the separation of the Pandroseum from the building now standing, which contained the temples of Minerva and Erechtheus, is the true solution to the enigma which has so long perplexed scholars and antiquaries. It is possible, however, that I may be deceiving myself, and may have overlooked some important point bearing on the subject. If so, we shall probably hear of it in the discussion which I hope will follow; and with this hope I leave the matter with perfect confidence in the hands of the Meeting.*

PROFESSOR DONALDSON, Past-President (responding to the President's invitation) said,—It is so long ago—about half a century—since I visited these temples, at that time under the Turkish rule. It was with a view to make a study of the building in the Acropolis, and I have forgotten a great deal about them, although a few years ago I paid a cursory visit to this spot. As you know, I more particularly studied the doorway, some drawings of which I published in my work, on “Ancient and Modern Doorways.” At the time of my first visit the tetrastyle portico, which was very magnificent, was converted into a powder magazine, enclosed with walls, as shown in Stuart and Revett's Illustrations, but we could only get at the door through a hole in the top of the walling, and we were obliged to carry lighted candles. I spent two or three days in taking measurements of that doorway, which was very beautiful. There was such confusion all around—there was so much rubbish covering the whole area of the temples that we were unable to ascertain what the divisions were. It was only by studying the indications of the face of the walls that we could understand where the transverse walls ran. The temple since then has been much destroyed, particularly the tetrastyle portico, which was afterwards blown up by a bomb, but Mr. Fergusson *ex pede Herculem*, from a very small base has built up a theory, which is very ingenious, and his imagination has no doubt lent a great deal of reality to what may not exist at all. We are, however, much indebted to our friend for introducing to us a new theory. As he says, very clever and learned men of different countries have visited this structure, and have been particularly anxious to show what these temples really were; where the divisions existed, the difference of levels of the upper and lower temples, &c., and some investigators have imagined a side staircase descending from the upper to the lower level. Mr. Fergusson does not

* Since this lecture was delivered Mr. A. Murray, of the British Museum, has drawn my attention to a paragraph in the *Academy* of the 19th instant, in which he described a map of the Akropolis he had just received from Professor Michaelis, of Strasburg. I have since seen that map—the only copy, I believe, that has yet reached this country—and am not a little gratified to find that so eminent an authority agrees with me as to the position of the Pandroseum on the westward of the existing building. He, in fact, plants the tree exactly where I do, and though we differ very widely as to the architecture of the Pandroseum and the internal arrangements of the existing temple, on this one cardinal point he seems to have as little doubt as I have. If this is conceded, as with this endorsement probably will be the case, a great deal of the rest follows, as a matter of course; and what remains to be decided is of comparatively little importance, and may safely be left to be cleared up by enquiries on the spot.

think that was the correct way of going down from one temple to the other. It is curious to note these differences of levels in the temples, and that the ancients should have chosen to build in such a strange position. I had the pleasure of bringing home with me some of the glass eyes, now deposited in our cases, which I found in the torus of the capitals of the columns. I think it was a late style of art, but of the highest execution, because it is richer in decoration than the Ionic temples of Asia Minor, whose date is well known. I was surprised at the date of 409 years B. C., which Mr. Fergusson assigns to it. I should hardly have thought it to be so remote. [Mr. Fergusson. It is on the inscription.] Of that I was not aware. I am somewhat astonished to think that in a Greek building there should be an oblique enclosure wall on one side instead of a parallel one, it being so contrary to Greek principles. With regard to the evidence of this block of stone mentioned by Mr. Fergusson, I believe Professor Lewis has seen it, and it was that which led to the supposition that the wall went in an oblique direction. But that does not affect the question, for if it run parallel it would not alter Mr. Fergusson's theory; but as I have already said, it is not very difficult, *ex pede Herculem*, to form a brilliant theory. Mr. Fergusson has looked through every known authority on the subject, and I am sure we all feel much obliged to him for deep research and ingenious solution. I beg, therefore, to propose a vote of thanks to Mr. Fergusson, as beginning what I hope will be an interesting discussion by those who have seen this building in recent times.

Mr. J. C. PENROSE, M.A., Fellow.—It may not be so long since I saw the building on the Acropolis as Professor Donaldson, but it is more than thirty years: therefore, my memory of these matters has become very rusty. In the next place, when I was there I did not deeply study the architecture of the Erechtheum, as I found plenty to do with the Parthenon and the Doric Temples, which formed my principal object. Moreover, I found the investigation of the Erechtheum in extremely good hands, for at that time M. Tetaz, whose work has been referred to by Mr. Fergusson, was engaged on that temple, and who as my friend Mr. Wilson can also testify (and we had frequent opportunities of observing), was evidently extremely careful and conscientious in his researches. It therefore seemed unnecessary to me to devote much time towards elucidating the enigma of these remarkable structures. I had always thought the theory generally propounded of the triple form—"the putting of three pints into a quart bottle," was one of great difficulty, so difficult indeed, that I was inclined to leave it alone unless I had made up my mind to go deeply into the subject, and, as far as I can say with regard to what Mr. Fergusson has told us, there seems to be nothing which is contrary to reasonable hypothesis. In the usually propounded theory, the difficulty with regard to the olive tree, seemed to me insuperable, viz., of its being placed inside a temple lighted by three windows, and this troublesome theory about the tree interfered so much with the space, that some writers were led to place the temple of Minerva Polias in the eastern compartment, which is more properly the Erechtheum. Some doubts have been expressed as to the obliquity of the walls of the inclosure—the Pandroseum according to Mr. Fergusson. This, I think, is not a very serious difficulty, because we find Greek individual temples are not built parallel to one another. The Erechtheum and the Parthenon have different axial lines. I think the Propylæum is parallel to the Parthenon, but certainly neither parallel to the Erechtheum, nor to the pedestal of the statue of Minerva Promachus. I am not aware that I can advance anything further, but I hope to hear some more upon the subject. I have no doubt Professor Lewis will favour us with some observations, and in order that he may be induced to do so, I will, with his permission, delegate to him the duty of seconding the vote of thanks which has been proposed by Professor Donaldson.

Professor T. HAYTER LEWIS, Fellow: It is with very great pleasure that I second the vote of thanks to Mr. Fergusson for his very interesting paper. Like Professor Donaldson and Mr. Penrose,

it is a great many years since I was at Athens, and I would not trust to memory as to the then state of the Erechtheum. But I made careful notes on the spot, because I found that the drawings of Inwood and Stuart did not represent the actual state of the building as I saw it. One cannot, of course, decide, without a good deal of thought, as to so important a subject as this, but Mr. Fergusson's ingenious restoration certainly to my mind gets over a great deal of the difficulty which previously existed with regard to the Erechtheum. The irregular lines noted by Professor Donaldson may possibly be accounted for by the fact that the Erechtheum, though re-built in the finest period of Greek art, was on the site, or nearly so, of the old temple; and it is possible the old lines might have been kept in this particular building, which does not so absolutely form a part of the temple as that of *Minerva Polias* itself. One or two things occur to me as supporting Mr. Fergusson's theory; but I ought first to mention that any one looking at the drawings of the building as it exists, and without explanation, might be led to a contrary conclusion. For on each of the north and south sides there is deep trench extending from the open screen which Mr. Fergusson has shown, westward of the temple, to the division wall; and it would appear from this that Mr. Fergusson must be wrong, because he takes no account of these gaps or trenches, and carries a level floor from side to side. The fact, I believe, is, that they were never intended to be seen from the top. Their inner retaining walls were in each case in a rough state, and not built in such a way as even to allow of them being covered over with the well-known fine Greek plaster. Besides this, the marble sill which rested on these walls was rebated, and I have no doubt, therefore, that the trenches were covered over by large slabs of marble which fitted into the rebate on one side, and rested upon a set-off in the wall on the other side, and therefore Mr. Fergusson has properly, as I conceive, given a level floor over the whole space.

Professor DONALDSON: What is the level of the slabs?

Professor LEWIS: The rebate would bring them flush with the top of the floor.

Mr. FERGUSSON: It is shown here, as Professor Lewis states.

Professor LEWIS: The centre wall shown by Mr. Fergusson does not exist, but there was in Stuart's and Inwood's time, and also when I visited the place, the clear marks of a wall at each end. The centre part is destroyed, so we cannot tell what the length might have been, but the beginning of a wall at each end is clear. As regards the screen wall westward, I am afraid, from what I have heard, that it has been destroyed. When I was there—which was after the building had been cleared, but before much repair had been done—I noticed that this part was different from anything that I had seen drawn, so I had made careful measured memoranda of it and other parts. There were three openings (one in the centre and one at each end), not doorways, for they had the usual bases of *antæ*, showing that they were pilasters without windows or door. I differ from Mr. Fergusson somewhat as to the spaces between these doorways which he has shown open, whereas I have distinct memoranda that they were walled up; but Mr. Fergusson's restoration will scarcely be interfered with by this, because the wall was broken down to a low level, and might, therefore, have been originally carried up no higher than the sills of the outer windows, and thus there would have been carried out in the screen the design of the outer wall. With respect to this outer west wall I take it to be an anomaly in Greek art, and I know of but one other example of windows in a temple, viz., at Girgenti. The intercolumniations there are so wide that architrave stones could scarcely have been got large enough to span them; so the Greeks built up the spaces between the columns and then pierced the wall with windows, which were necessary under such conditions. Mr. Fergusson's restoration would account for windows at the Erechtheum, because his centre wall would entirely deprive the western part of light, were it not for the windows in the outer wall to the west. One other point only I would remark upon, viz., the extraordinary position of the beautiful northern portico. It is built partly against the building

and partly not, and the only reason for that which has commended itself to my mind is that it was so placed to give importance to the small doorway at the side of the grand one. This again supports Mr. Fergusson's restoration, as the small doorway would then lead to a part sacred, though less so than the main part. I may add that I have found out, from recent discoveries, that on one occasion during my researches there I unconsciously trespassed upon a very interesting spot, it being no other than that which bore in the rock the marks of Neptune's trident. I beg to second, with great pleasure, the vote of thanks to Mr. Fergusson.

Professor DONALDSON: I would suggest whether this style of portico was not for the purpose of having the doorway of the portico in the centre line of this narrow passage?

Professor LEWIS: Professor Donaldson may, of course, be correct; but if that were in their minds, I imagine that the Greeks would have designed something a little more adapted to the site, and probably something beautiful, as they did on the opposite side of the building.

Mr. W. WATKISS LLOYD, Visitor: I have very few remarks to offer; but I am happy to respond to the President's invitation. Before coming here I had the curiosity to turn to the account of the Erechtheum, by Attfried Müller, the great German archæologist. He has propounded a theory about this building, which Mr. Fergusson has entirely demolished, and in doing so I think has given a good illustration of the manner in which a skilful interpreter of architectural evidence may correct a very great Greek scholar. Attfried Müller places the Pandroseum on the south side of the temple, identifying it with the projection surrounded by statues of girls supporting an entablature; and it is within this that he assigns the place for the sacred olive tree. I own that I have been in the habit of supposing this view to be correct. The olive tree in question is called by eminent writers "the depressed or crooked olive tree," as if it were stunted, and I had imagined that this might be the consequence of confined growth under a roof. It seemed that it might be naturally placed in such an open building with a south aspect; and there seemed to be a poetic appropriateness in the figures of girls standing round, as it is probable, holding water jars, especially as Pandrosos, by the significance of her name, was herself a nymph of dew. But, as now appears, it is certain that no space was left for earth within the basement to render it possible for a tree to have ever grown there. That demolishes Attfried Müller's theory so far. Moreover, when we turn to the description of Pausanias we find that he distinctly speaks of the *naos* of Pandrosos. Now, a *naos* is specifically a house or place of residence, and the term is never applied to a portico of any kind. Again, in the inscription that strange projection is called a *prostasis*, the same term that is applied to the northern and eastern porticos, and not *naos* at all. That was overlooked by Müller. Had he paid a little more attention to his text he would have had at least a better chance of anticipating our friend Mr. Fergusson. And when we go over the cited inscription with due care, and compare it with the details of the structure, especially as now elucidated, it is manifest that here again previous translators have been at fault, and that it expresses distinctly—not that the wall-bearing attached columns was that of the Pandroseum, but that it was in front or in the direction of the Pandroseum—a very different thing, indeed. I therefore can entertain no doubt that the ancient inscription—the testimony of the traveller Pausanias, and that of the at last intelligible remains—bear out that the Pandroseum was another *naos* attached or adjacent to the building, and that the question has been this evening and finally set right. In this respect the architectural commentator certainly has corrected the Greek scholars. Any observations upon the extraordinary sagacity, the more than ingenuity of Mr. Fergusson's illustrations would be out of place from me who am not an architect. Others will appreciate that better than I am able to do; but I may express my sense how much we are obliged to him—whether as scholars or architects—for this illustration of a most important and interesting building; a building in so many respects exceptional and

anomalous. The fact of these slanting walls is only one of the anomalies in Grecian building that are presented to us, associated as it is with different levels of apartments within and of ground-line without, and the variety of the applied proportions. There are four porticos or their equivalents, and while each is beautiful and of beautiful proportions all are differently spaced and are of different dimensions. This building, I conceive, conveys an intimation how much knowledge of the resources and capabilities of pure Greek architecture is unhappily lost; for I cannot but think, when I see how much variety the Greeks introduced into a building of this class, of which the requirements were usually restricted, with the most happy effects, that they must have doubtless shown in other buildings for the purposes of civil life an equal power to adjust their architecture to utility and circumstances. It was only the other day I was reading an oration of a Greek orator, in which he severely upbraids contemporary politicians on account of the excessive luxury of their houses as contrasted with those of their predecessors. He implies that the wealth which they had acquired for that purpose had not been come by honestly—which is possible enough, but does not concern us here. But what does interest us closely is that he speaks of the simple dwellings of Pericles and Themistocles as known to all, whereas he characterises the houses of his time as accumulations of extravagance. The inference is not to be escaped, that there was a great variety of fine Greek architecture adapted to the various purposes of luxurious and highly cultivated life. We know that in the time of Alcibiades the interiors of houses were decorated with paintings in the most extravagant way; and it is related of Alcibiades himself that he made a captive of a painter, and would not release him until he had decorated the interior of his house. One could wish for the revival of that taste for interior decoration which characterised the Greeks in the time of Alcibiades, if it is too much to hope for such a chance of indulging it. I beg very cordially to join in the vote of thanks which has been proposed.

Mr. PENROSE: May I be allowed to add one word? It may not be generally known to those who have studied the subject that this comparatively small temple of Minerva Polias was the most sacred temple of Athens. Although the Parthenon was larger, it was a less sacred building. It was to this statue of Minerva that the great procession of the Panathenaic festival was directed. It was the earliest shrine in the city of Athens, and this double temple commemorated the celebrated strife between Minerva and Neptune for the ascendancy of power in the city—Minerva having produced the olive tree, and Neptune having brought forth the water.

Mr. E. HALL, Visitor: There are some peculiarities in this building which are more in conformity with Roman than with Greek architecture. First of all there are the attached columns, and then the remarkable internal pilasters. I do not myself know any other Greek temple in which pilasters were introduced; but here there are pilasters on the internal face of the western wall, which in its general characteristic is decidedly more Roman than Greek.

Mr. F. LEIGHTON, R.A., Visitor, (responding to the invitation of the President)—I need not say I am flattered by the mention of my name. As far as the architectural question goes, it would be the height of presumption for me to venture an opinion upon it. I have seen the Erechtheum at recent date, but with the eyes of a layman, and am not qualified to pronounce an opinion entitled to any weight or authority. I have been much struck with Mr Fergusson's explanation, particularly with regard to the north porch, which to my mind, announces something beyond the central door, and leads one to suppose the existence of an important building at the western end. If you would permit me, I would draw attention to a subject which concerns not exactly my own profession, but which touches me very nearly. That is to the treatment of the Koræ in the southern portico. I regret there is not a larger diagram in order that gentlemen might follow my remarks. On approaching the temple the first thing which struck me with regard to the statues, was their extraordinary monumental and columnar appearance, which effaces any unpleasant feeling one might have with regard to figures

unsupported by any framing carrying an architrave (even though the entablature is, as you know, lightened by the omission of a member;) the whole impression is that of dignity, strength, and symmetry. One would suppose at first sight, the figures were identical, except in so far as three (those to the west) stand on the right hip, and the other three on the left hip, bringing the vertical line into the angle. On approaching them however, one is struck with the prodigious variety in the details of the figures, not merely in the arrangement of the hair and the motions of the drapery, but in the angle of inclination of the heads, so that none of the figures are alike. I myself, remember three or four varieties, and from that I argue there might be five or six. Now to what does this point? There are two suppositions which we may make—either that the sculptor had six different models for his figures, which it seems difficult to imagine, or else that the sculptors of that day were so prodigiously gifted, that in marble they could work with more certainty than we even in the present day in more plastic material. Observe also what sensitiveness is here implied, not only in the artist, but in the public, to whom these subtleties were addressed. The whole thing is so eminently Greek and so little English, that I thought it not unworthy of your notice.

Mr. W. BURGESS, Fellow.—Mr. Fergusson has propounded a very bold theory, and it rather takes away our breath. We cannot decide upon a question like this when the majority of us come unprepared with any knowledge of what Mr. Fergusson was going to advance. I would therefore propose that Mr. Fergusson's paper and drawings should be published, and that we should meet in a month or six weeks and then discuss it. It is decidedly a new theory, but Mr. Fergusson has not told us all about this Temple; it is a most beautiful building, but not the most noble one to be found on the rock of Athens. We have at present only heard about the dry bones. After ascertaining the anatomy of the building, we might well have a lecture on the architecture, which would be far more interesting to us as architects. We do not want antiquities so much as art, and especially Greek art. I may even suggest that the more perfect development of 13th cent. art, viz., the French school, is very like what the Greeks might have produced if they had had to work in a different material and a different climate, with the advantage of a knowledge of the pointed arch.

Mr. J. T. WOOD, Fellow,—To my mind Mr. Fergusson has perfectly succeeded in establishing his main point, viz., that the Pandroseum was to the west of the Temple of Minerva Polias. Looking at the plan before us, it would seem to have been an afterthought, but the text of the inscription proves it to have been built at the same time. I have been asked how large the olive tree is, and whether it was likely to grow in the court shown in Mr. Fergusson's plan. It is a small tree, unless it is very old, and its branches take rather a vertical than a horizontal direction. The oblique direction of the wall of the Pandroseum might have been misunderstood, from having taken one stone only as a guide for that long length of wall. The direction might have changed at a distance of a few feet, but if I am not mistaken, Mr. Fergusson's chief anxiety is to prove his theory as to the position of the Pandroseum, and I think he has done so to our satisfaction.

Mr. ARTHUR CATES, Fellow,—Without entering on the detail of the interesting restoration which Mr. Fergusson has laid before us, and which appears to follow very closely the somewhat vague description given by Pausanias, I would invite his attention to one important point for consideration. As Mr. Penrose has told us, the Minerva Polias here worshipped was the most revered of the Minervas of Athens, and it is thought that the ancient image preserved in that temple was that image of the Virgin Goddess cut in olive wood and from Heaven descended, which was by Orestes brought from Aulis to Athens. Besides this peculiar sanctity of the image we must also look to the characteristics of the Goddess. M. Burnouf, till lately Director of the French Academy at Athens, has given much attention to the deities worshipped in the Acropolis, and to those connected with the Erechtheum; he has traced their origin to the worship of the forces of nature in operation in the locality, and has identified the

deities, heroes, and other mythical personages therewith ; he has established the identity of Minerva with the Aurora, showing her to be the Virgin Goddess of Wisdom (light) sprung from the brow (not the brain) of Zeus (the eastern sky). At the Parthenon the altar was in advance of the temple to the east, where the priests saluted the first beams of the Aurora rising between the mountains. The statue of the Goddess was at the west end of the temple looking out directly to the east and approached therefrom. On Mr. Fergusson's plan he has placed the Temple of Minerva on the lower level, with the Goddess in a niche backing to the light, looking out only on the back of the western wall of the Temple of Erectheus, which he has placed in the most important and honourable position. Considering, therefore, that if M. Burnouf is right in connecting the worship of Minerva with that of the rising sun, it is hardly probable that the shrine of a deity so specially revered as Minerva Polias would have been hidden away in the manner suggested by the Restoration before us, where there would be no chance of the rays of the Aurora reaching the temple or the shrine, and it seems likely that M. Tetaz may be right in the arrangement which he has adopted of placing Minerva Polias in the eastern section of the "double house"—a position which would accord better with the presumed attributes of the Goddess than that adopted by Mr. Fergusson, who has followed, perhaps, too closely the indications of Pausanias ; and this may be adopted without much disturbing the other suggestions he has offered towards the solution of this most interesting problem.

Mr. R. P. SPIERS, Associate,—May I be allowed to suggest that this subject might be taken up again at the Conference which is proposed to be held next June ; I think it is one of the most important Papers ever read before the Institute. On the last occasion of the Conference the Institute seemed to be at a loss to know what subject in the art section should be treated of, and the "Queen Anne" style was the only one that offered itself. I think we might have something next time with higher principles and a better foundation. Probably Mr. Fergusson, by the time the Conference meets, would be able to say more as to the architecture and decoration of the Erechtheum, which, added to remarks from Mr. Burges upon internal decoration, would form a valuable subject for discussion.

Mr. FERGUSSON,—There is very little for me to say in reply upon the Discussion, inasmuch as there has been tolerable unanimity in assenting to the general ideas which I have brought forward, and not much difference of opinion even with regard to the minor details. My principal object has been to settle the position of the Pandroseum, and to show how the three temples were arranged relatively to one another, for until that is done it seems impossible to explain the architecture. So long as it seemed necessary to put all the three temples in the one existing building the whole was an inexplicable mystery. The first point is to get a correct plan of the building, and then the architectural details are easily explicable. [Mr. FERGUSSON replied to the observations of Mr. Watkiss Lloyd with respect to the *naos*, &c., by explanations on the drawings.] He added:—With regard to the suggestion of another paper on the Erechtheum as an object of architectural art, I should be very glad to have the subject discussed, and will readily give all the aid in my power, but to treat such a subject as it ought to be treated, would require an immensity of drawings which I am not prepared to undertake ; but if anybody will do so I shall be most happy to assist in it. The great point, it appears to me, is in the first place to establish the plan, and then we shall be the better able to understand the artistic merits and architectural arrangements of the temple. My theory is that Minerva being the principal personage, to her the principal part of the temple should be assigned, and therefore I have no doubt whatever this blue coloured portion of the plan was the portion of the building devoted to that Goddess. What I have next insisted upon is that the Temple of Pandrosos was placed externally to the westward of that of Minerva, and that the remaining portion of the building to the eastward was the Temple of Erectheus. If this is agreed to, it appears to me that all the anomalies of the building disappear, and we have a sound basis on which to proceed with the work of restoration.

THE PRESIDENT.—I am sure, I need hardly put to the meeting the question whether you will pass the vote of thanks to Mr. Fergusson, which has been proposed by Professor Donaldson, and seconded by Professor Lewis, for this very interesting paper. It would, perhaps, be presumption in me to attempt to add to what has been said, further than to make one or two remarks upon force of evidence as brought to bear upon the question discussed. For though I may say it was one of my earliest lessons to draw some of the details of this building, which as you may imagine, was rather a long while ago, the evidence adduced by Mr. Fergusson in proof of the Pandroseum having been to the westward of the better known group of temples, appears to me to be very convincing; for, if the translation of that passage in the inscription be trustworthy, it speaks distinctly of certain *attached columns on a wall* as facing the Pandroseum; and whether it means that the wall or the columns faced that building matters little. If the *columns* were intended, the evidence is direct that the Pandroseum was a separate building to the westward, if, on the other hand, the *wall* were intended, it either faces in the same direction or eastward into a narrow covered space, lighted by windows, which is wholly inconsistent with its having enclosed, as the Pandroseum did, the sacred olive tree. Again, Pausanias speaks of the Erechtheum as a *double* temple, which would hardly have been applicable had *three* temples been included within its walls. It, in fact, consists of *six* parts; but in speaking of it as a *double* temple, it is clear that Pausanias throws aside the two porticos, the quasi portico supported by caryatides and the vestibule cut off by the range of pilasters. As regards the southern wall of the space to the westward of the temple, which is both oblique, and is of undue thickness compared with the other walls, the question suggests itself, whether it might not have been the wall of some structure which existed before the Persian invasion. It seems to have been in part a retaining wall, and in part to have risen above the ground towards the south. That the space which Mr. Fergusson assigns to the Pandroseum was actually occupied by a building contemplated during the construction of the Erechtheum, is proved both by the door from the northern portico and that in the west wall of the temple itself; and this is confirmed by the marks of buildings having abutted against that wall, and to where that western door was central. That the Temple of Minerva Polias occupied the western portion of the existing structure seems probable from the apparent evidences in connection with it both of the saline well and of the tomb of Erechtheus, though certain difficulties, no doubt, suggest themselves in connection with this theory.

Should this Discussion be resumed, as I hope it may be, the difficulty spoken of as regards illustrations of architectural details can, I think, be got over. Some months will elapse before the meeting of the Conference takes place, and if gentlemen who have sketches of the Erechtheum or have the means of obtaining them, will bring them forward on that occasion in communication with Mr. Fergusson, an admirable collection of drawings such as is seldom brought together might be the result. I hope gentlemen will do so, because the published drawings do not show all. I do not for example, know any which shows the frieze, which is said to have consisted of reliefs in white marble upon a ground of black marble. Some fragments are said to exist, but I have seen no drawing of them.

Professor DONALDSON: Nothing remains of that.

Mr. BURGESS: Some portions have been found.

THE PRESIDENT: With regard to the age of this building, it is curious that a structure so elaborate in its details should be within twenty or thirty years of the same age as the Parthenon; and if Mr. Fergusson can trace out the history of those ornamental details as having come from Oriental nations through Persia, it would be highly interesting.

The vote of thanks to Mr. FERGUSSON having been carried by acclamation, the Meeting adjourned.







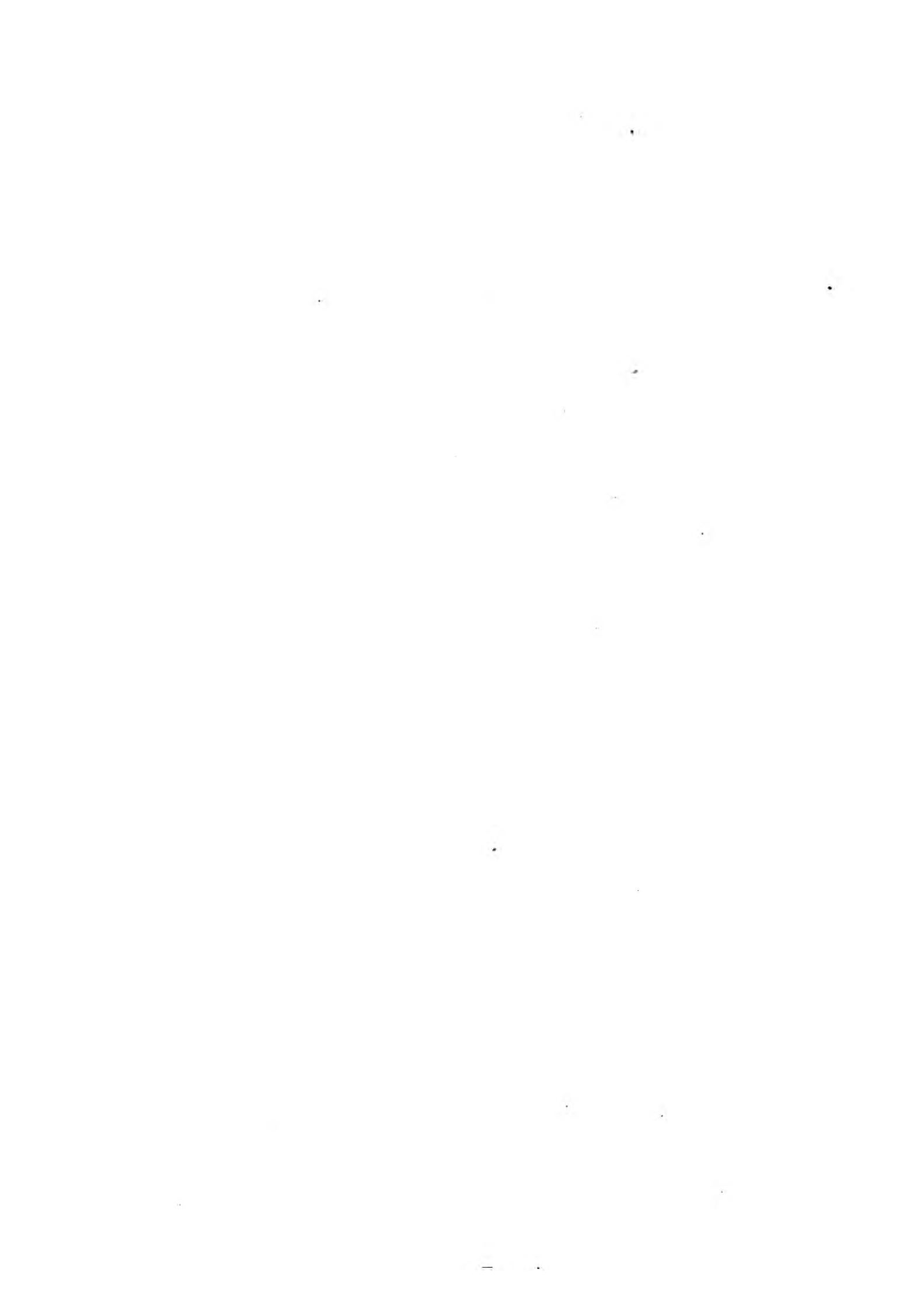


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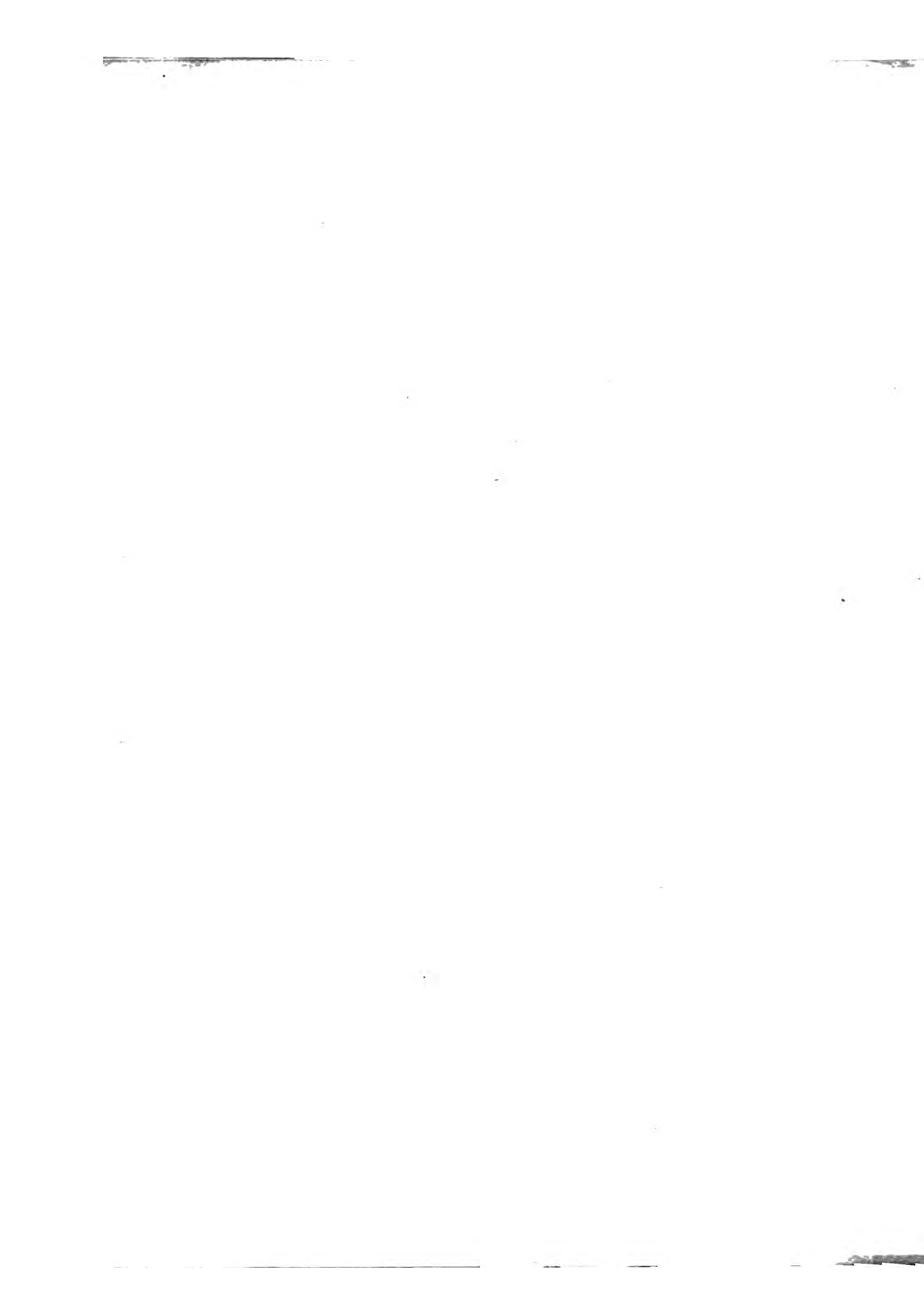
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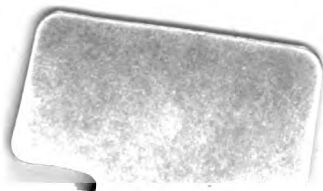
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