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EXPLORATION AND EXCAVATION IN ASIA MINOR.1 By R. P. PULLAN, F.S.A.

Although the excavations which form the subject of this paper are not of recent date, an account of them will probably be new to many of my hearers, as no connected narrative of them has ever been published, though they are partly described in "Newton's Halicarnassus," 1 the fourth vol. of the "Antiquities of Ionia" and in "The Principal Ruins of Asia Minor," by M. Texier and myself. They extended, though not continuously over a period of twelve years, and resulted in the disinterment of some of the finest monuments of Greek architecture.

The west coast of Asia Minor surpasses all other parts of the world, in the number of its remains of ancient edifices, and in the vastness of their dimensions.

You can hardly go a day's journey without meeting with inscriptions, and fragments of architecture, which attest the former prosperity of the country and the beauty of its buildings, for it is covered with the ruins of ancient cities, which are full of the remains of temples, baths, agoras and gymnasia. Three of the Seven wonders of the ancient world were to be found here—The Tomb of Mausolus, The Colossus of Rhodes and The Temple of Diana at Ephesus. The Asiatic Temples surpassed all others in the grandeur of their dimensions, and the richness of their decorations. The Temple of Ephesus

¹ Read at the Monthly Meeting of the Institute, December 3, 1885.

[&]quot;A History of Discoveries at Halicarnassus, Cnidus and Branchidæ," by G. T. Newton, Keeper of Greek and Roman Antiquities, British Museum, assisted by R. P. Pullan, F.R.I.B.A.

^{1863. 1} vol. folio Plates, and 2 vols. 8vo. Text. Day and Son, London.

² "Ionian Antiquities," Vol. iv. Published by the Society of Dilettanti, folio.

1881. Macmillan.

^{3 &}quot;The Principal Ruins of Asia Minor," by Charles Texier and R. P. Pullan, folio. 1865. Day and Son.

was 425 feet in length, that is to say about three-fourths the length of Winchester cathedral. The Heræum of Samos was 346 feet, The Didymæum near Miletus was 295 feet and The Temple of Cybele at Sardis 261 feet in

length.

Notwithstanding the exceeding interest belonging to this country, it has been visited by comparatively few travellers. The chief of these were, in the last century, Lucas, Wheler, Spon and Chandler, and in this century, Sir Wm. Gell, Hamilton, Leake, Newton and Ramsay. travellers visited many of the ancient sites and published descriptions of their remains, but in the way of careful investigation of the architecture of the great Temples, the most has been effected by the Society of Dilettanti which was established in 1734 and which at long intervals sent out expeditions for the purpose of obtaining data for the elucidation of the principles of Greek architecture. Dr. Chandler and later on Sir W. Gell were commissioned to explore certain ancient sites and to examine the architectural fragments above ground; but they were not furnished with funds for extensive excavation.

Mr. Newton was the first excavator in Asia Minor on a large scale. He, after considerable research, discovered the site of the Mausoleum and with the aid of funds furnished by the Government, transported the sculptures of that celebrated edifice to the British Museum.

I was sent out by the Foreign Office to co-operate with him in the summer of 1857, especially with the view of obtaining data for the restoration of the Mausoleum. Mr. Newton gave a full account of his discovery at the first Carlisle meeting, so that it will be unnecessary to give a description of the mode by which the remains of the edifice were brought to light, or to repeat the evidence I obtained for the restoration. It is sufficient to say that my restoration coincides with Pliny's description of the monument and that its accuracy can be tested by measurement of the stones from the building, which are now in the Mausoleum Room of the Museum.

In the beginning of 1858 the Expedition was transported to the city of Chidus, on the Triopian Promontory,—

a most desolate spot, at the extremity of a peninsula 90

miles long.

This city which was one of the Dorian Pentapolis, possessed the celebrated statue of Venus by Praxiteles. We did not expect to find the statue of the divinity, as it was removed to Constantinople by Theodosius, and was destroyed by fire A.D. 475, but we hoped to find some trace of the amphiprostyle temple in which Lucian says it stood. However we found that the temple had been rebuilt in late Roman times. We discovered two vast theatres and also excavated an odeum. At Cnidus was found the beautiful seated figure of Demeter, one of the best specimens of Greek art in existence. It was dug up in a temenos dedicated to the Goddess a short distance from the city. The ruins when excavated yielded many terra-cotta figures and other ex votos.

The Necropolis of Cnidus extended for at least two miles from the city, but all the tombs had been rifled before our visit. In the course of exploration outside the city I came upon a remarkable sculptured lion lying at the base of a tomb on a neighbouring promontory. The tomb on which it stood was a square in plan, surmounted by a pyramid supported by a tholus; this gave me the idea of how the vast pyramid of the Mausoleum was sustained at a period when the vault with voussoirs

was not known.

The lion was with great difficulty conveyed to the sea shore and transported to England. It now stands at the end of the Elgin Room in the British Museum.

After a year's sojourn with the expedition, I returned

to England by way of the Troad and Salonica.

In 1861 the Society of Dilettanti, being anxious to obtain information about certain sites of temples on the west coast of Asia Minor, commissioned me to visit them. I took this opportunity of exploring the entire west coast, from the point we had visited with the Boudroom Expedition to the Dardanelles, a distance of from 300 to 400 miles, proceeding sometimes by native boat (caique), at other times on horseback. The accompanying map shows the various routes followed.

These journies resulted in the identification of the sites of Myrina and of the Grynæum and other places.

They enabled me to visit the sites of the temples of Teos, Priene, Apollo Branchidæ, and Cybele at Sardis, and also the cities of Alexandria Troas, Assos, Pergamus, Sardis, Ephesus, Priene, Miletus, Iassos, Euromus, Hera-

cleia, and Magnesia ad Meandrum.

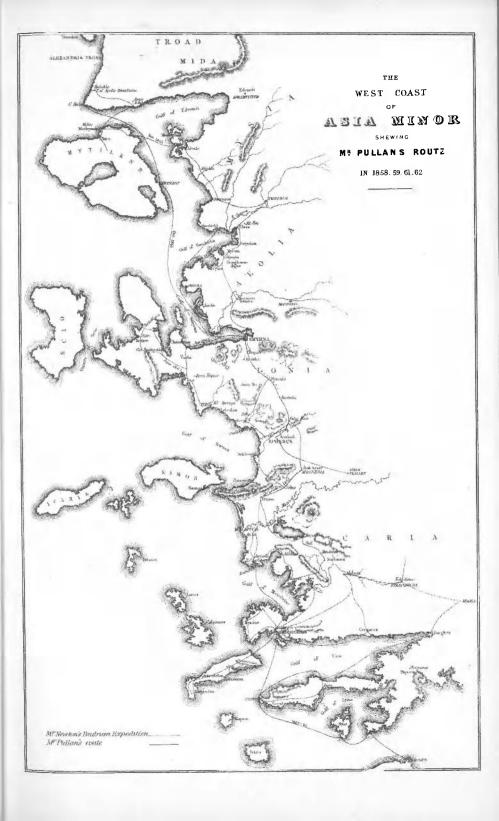
My first journey was to the Gulf of Sanderlik, north of the Gulf of Smyrna. I chartered a caique, and took with me Spiro, an old Greek sailor, recommended by the consul. We rowed or sailed by day, and landed at night. Our first stopping place was at a fishing station on a sand bank, just within sight of the hill, upon which stood the ancient town of Leuke, but there were no traces of ruins to be seen even with a good glass. The next day we moored not far from the site of the city of Cyme, and were hospitably received by the steward of a Smyrna merchant who has property there. I rode to the site of the city, which occupied two low hills and extended for about three quarters of a mile. The ground was strewn with pottery and fragments of marble. The following day we touched at an ancient site which, from the numerous coin found here, all of one type, proved to be that of Myrina.

Strabo' says that the temple of Apollo Grynius, "is a costly fane of white marble." It stood upon a peninsula in this neighbourhood. We found the peninsula, and on it fragments of fine Greek sculpture, which showed conclusively that this was the site of the temple. Hence we sailed to Elæa, where I bargained for a colossal torso of Hercules, which had been seen by Admiral Spratt when he was engaged in the survey of the coast. I obtained a written agreement from the proprietor of the ground on which it lay to allow it to be removed and subsequently Admiral Spratt took it to England. It now stands opposite the door of the Mausoleum room in the British Museum. We sailed thence to Sanderlik, the ancient Pitane from which the Gulf derived its name, and thence to

Smyrna.

The second journey was made to Teos, going by Caique to Vourlah Scala, whence we could see the island on which stood Clazomene. We rode across the peninsula to Sighajik, near to the site of Teos. This city stood upon a small

¹ Strabo. B x. iii C iii S. v.



peninsula. Its walls could be traced for almost the whole circuit. There were several masses of ruins within the walls, amongst which L noticed those of a mausoleum, a theatre, and two temples, the larger of these was that dedicated to Dionysus, which I excavated six months afterwards. We returned to Smyrna by land.

The third journey was to the Troad. In those days an Austrian Lloyd's steamer touched at the extreme southern point—Cape Baba. From that point we went due north about six miles to the village of Kulakli, near which we found the drums of columns), which Admiral Spratt

supposed to belong to the Temple of Apollo.

We spent three or four days here examining the architectural fragments, which I found to be of fine style. We then rode to Assos, a city most picturesquely situated on a cliff overlooking the gulf of Edremit. On the summit of the acropolis adjoining stood a Temple to Neptune, the earliest Doric building known. My late esteemed friend and collaborateur, M. Texier, had removed the frieze to the Louvre. Nothing now remained on the spot but some drums and capitals. The walls of the city were intact, and splendid specimens of the earliest Greek masonry. Within the walls there were ruins which appeared to me to belong to the Græco-Roman period. This site has lately been excavated by an American Society with important results. Embarking in a caique for Cape Baba we were driven to sea by a gale from the north, but fortunately were enabled to make the extreme point of the island of Mitylene, where was situated the town of Molivo. Here we were detained several days by the gale, but eventually rode across the northern part of the island and crossed to Aivali on the mainland. Proceeding afterwards along the coast southwards we reached Pergamus, a most interesting city. Here are the ruins of a fine amphitheatre and of a large basilica.

On the acropolis I remarked several pieces of sculptured marble mouldings, which led me to the conclusion that excavations here would yield important results, and these conjectures proved correct, for subsequently the German expedition here unearthed the splendid altar of Giants, of

¹ See "The Principal Ruins of Asia Minor by Texier and Pullan," Day & Son, London, p. 21.

which casts are to be seen in the Perryan collection in the

South Kensington Museum.

From Pergamus we rode to Elæa on the gulf of Sanderlik, thus completing the exploration of the coast north of Smyrna with the exception of the end of the Gulf of Edremit, in which I believe there are few if any ancient remains.

My fourth journey was to the south of Smyrna. The railway to Aidin was open almost all the way to Ephesus, therefore I sent horses from Smyrna to join us there.

While wandering about the ruins which have been thoroughly described by Falkener and Wood, I remarked in the piers of an aqueduct which conveyed water to the castle,—an edifice about two miles from the ancient city,—several mouldings which from their size and style evidently must have belonged to the celebrated Temple of Diana, and the temple was actually discovered by Mr. Wood on this side of the city, not very far from this aqueduct after eleven years of exploration. I must confess that at that time I shared the common opinion, that the Temple stood at the head of the port on the other side of the city. From Ephesus I rode to Scala Nova and then crossed the mountain to Sokia where I was hospitably received by a resident merchant Mr. Clarke.

The next day we proceeded to the ruins of Priene, situated at the foot of Mount Mycale. This was the scene of my labours eight years subsequently. Hence we proceeded across the marshy plain of the Meander, crossing that river by a ferry-boat immediately opposite the ruins of Miletus where there is a magnificent theatre towering above the other ruins, and visible for miles round. Twelve miles beyond Miletus stand the ruins of the vast Temple of Apollo Branchidæ—the Didymæum.

Two columns are erect and the walls of the cella can be traced throughout, although cottages of the natives have been built all round the peristyle. This grand Temple of the Ionic order was approached by a via sacra from the port lined with sitting figures and lions. Several of these were removed by Mr. Newton and now stand in the Lycian Room of the Museum. The ruins of the Temple have of late years been partially explored by M. M. Rayet and Thomas who were sent out by Baron Rothschild.

The Principal Ruins of Asia Minor, p. 23.

From Branchidæ I went further south to the site of Iassos a small Greek city on a peninsula, once an island. The walls and position of the chief buildings, such as theatres and baths can be clearly traced throughout. Excavations would not yield important results here, as the ground is rocky and the city being so easily accessible by sea, many of the finest architectural stones have been

carried away for building purposes.

We again rode south along the shore, until we came in sight of the mountains near the towns of Myndus and Bargylia, which were visited by members of Boudroom expedition. Here as I had completed with but few gaps, the survey of the entire coast-I turned inland to Euromus where there is a Corinthian Temple of Græco-Roman period with fifteen columns and a portion of the architrave standing. I then went by a rocky pass to Heracleia, a remote site in the mountains, where there are ruins of Roman houses and of a small Temple. Heracleia stands at the head of a small lake forming the gulf of Myus, which at one time joined the sea. Passing along the side of the lake I again crossed the Meander to Priene and on my way back to Smyrna, visited the ruins of the Temple of Diana at Magnesia ad Meandrum, where the walls of the peribolus are still standing to a height of twenty or thirty feet. From this point I passed through Ephesus to Smyrna.

The temple of Dionysus at Teos was reputed to have been designed by the great architect Hermogenes of Alabanda on a plan which he had invented—the pseudodipteral—which consisted in the omission of the inner range of the columns so as to allow of more space in the

peristyle.

He adopted this plan at Magnesia in the temple I have just mentioned. The temple at Teos was believed to have been pseudo-dipteral. Hence the Diletant Society considered that excavations would tend to illustrate this peculiarity of plan, and they accordingly requested me to excavate the site of this temple, which I did in 1862.

It would take too long a time to give a detailed account of the progress of excavation, but I may mention that when the site was fully excavated, it was found that

the temple had been re-built in Roman times; that it was hexastyle of the Ionic order; that it was not pseudo-dipteral in plan, and that it was of comparatively small dimensions.

I recovered several slabs of the frieze representing a Dionysiac procession, but the sculpture was so inferior in character, that I judged it worth while to send only one

slab to England as a specimen of the rest.

After the excavations were concluded we returned to Smyrna, and subsequently to England, by Syria and Egypt, visiting Damascus, Jerusalem, and Cairo. While at Smyrna we—my wife accompanied me on these journies—were the guests of Mr. J. T. Wood, who was architect to the Smyrna and Aidin Railway. When I left for England, Mr. Wood expressed a desire to discover the site of the temple of Diana of Ephesus. I accordingly introduced him to Mr. Newton, who obtained for him the support of the trustees of the British Museum, and to Mr. Wood's remarkable perseverance under great difficulties and discouragements we owe the recovery of the architectural remains of that temple which are in the British Museum.

In 1866 I again proceeded to the East to excavate the Temple of Apollo Smintheus for the Dilettanti Society. Here there was no heap of ruins, nor any indication of the site, except the drums of columns seen by Admiral Spratt. But after some weeks search I ascertained that the site was covered by gardens. These had to be purchased one The foundations only were in situ. Upon by one. working out the restoration I found that the Temple was of remarkable character, differing from all known examples. It was of the Ionic order, pseudo-dipteral and octastyle, with fourteen columns on the flanks, and surroulled by a grand flight of ten steps. The capitals were fore than usually The Temple stood in a valley remote from any city, and was evidently a place of pilgrimage. Alexandria Troas was the nearest city of importance, but there stood nearer still the small town of Hamaxitus. appeared to me to have been situated upon a plateau near the sea, but unfortunately I had neither funds nor time to excavate it. The Troad is full of unidentified sites: one of these I was enabled to identify during a short tour into

the interior, viz.,—Scepsis, from its position, which afforded a fine view of the range of Mount Ida, and from the fact

that all the coins found there were of that city.

After the excavations were completed we embarked in a caique at Cape Baba for Castro, the chief town in Mitylene and finally we reached Smyrna, and in the summer of 1867 returned to England by way of Malta, Sicily and Rome.

The Expedition which yielded the most important results was that for the excavation of the Temple of Athene Polias at Priene. I was commissioned by the Dilettanti Society to undertake the charge of the Expedition for its excavation in 1869. I started in August, going to Constantinople—in order to get an error in my firman rectified—by

way of the Danube.

On reaching Smyrna in September, the heat and prevalence of intermittent fever in the valley of the Meander, induced me to defer the undertaking till October. In the meantime I explored a portion of the coast which was previously unvisited; that between Teos and Ephesus. There I found the site of Claros, where there were the remains of a fine temple. The site of Colophon was subsequently discovered in the same neighbourhood by

Mr. Dennis, now Consul at Smyrna.

The Temple of Athene, at Priene, was designed by the architect of the Mausoleum, and for this reason, the recovery of its architectural features was thought to be most important. Priene was situated on a spur of Mount Mycale, two or three hundred feet above the level of the plain of the Meander, just opposite Miletus. After six months work—interrupted by fever which attacked the whole party, and which compelled me to abandon operations for a month—the heap which covered the Temple was removed, and beneath it we found the pavement entire, the walls of the Temple standing 5 or 6 feet all round, two of the columns remaining in to a height of 15 feet, several fragments of the colossal statue of the goddess, and several other fragments of sculpture; amongst these there was an archaic head of a female, and a bust of Roman times.

The Temple was hexastyle of the Ionic order, of fine style. An inscription on one of the antæ showed that

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it was dedicated by Alexander the Great when on his way

through Asia Minor.

Mr. Newton paid us a visit when the excavations were approaching completion, and made arrangements for the removal of the sculptures and inscriptions to England. These were presented to the British Museum by the Dilettanti Society, and are now arranged in the Mausoleum room, so that the architectural features of the Temple of Athene may be compared with those of the Mausoleum with the aid of my drawings of these edifices, which are hung upon the walls in the same room.