

THE PLAIN OF TROY.

II.—On the Site of the Homeric Troy. By Dr. HENRY SCHLIEMANN.

Read June 24th, 1875.

The traveller who sails from the Piraeus for the Hellespont sees, after having passed the western shore of Lesbos, the Cape Lectum, which forms the western extremity of the Ida range of mountains. This cape is the southern extremity of the land, which from Homeric times until now, and probably for many centuries before Homer, has borne the famous, the immortal, name of Troas. In sailing thence along its western shore, which extends almost in a straight line to the north, and ends in Cape Sigeum, the traveller distinguishes there, in the midst of a dense forest of oak-trees, the gigantic ruins of the once flourishing city of Alexandria-Troas, which, by its immense extent, seems to have had at least 500,000 inhabitants."

The traveller then passes on the left the beautiful island of Tenedos, behind which (Odyss. iii. 159) the Greeks hid their ships after having erected the wooden horse. A little further on the traveller passes Bashika Bay, and sees on the high and steep shore, which forms a kind of spur of the Ida range, three conical hills, which are said to be heroic tombs, and of which the largest, called "Udjek-Tepe," is 83 feet high, and is visible at a great distance at sea. Afterwards the traveller sails around the aforesaid Cape Sigeum, which has a height of 300 feet. Here begins the famous Hellespont, which is formed by the Troad and the Thracian peninsula. The cape is crowned by the Christian village Ieni-sahir, which occupies the very site of the

In opposition to the common belief, I think that this city was not founded by Antigonus, but that it was only enlarged by him, for Strabo (xiii. c. 1, § 47) expressly states "that its site was formerly called 'Sigia,' and that Antigonus, having colonised it with the inhabitants of Scepsis, Larissa, Colonae, Hamaxitus, and other cities, named it Antigonia-Troas." He further states (ibid. § 27), that this city was afterwards embellished by Lysimachus, who named it, in honour of Alexander the Great, "Alexandria-Troas." Julius Caesar was so much pleased with its site, that, according to Suetonius (Jul. Caes. 79), he intended to make it the capital of the Roman Empire. According to Zosimus (ii. 30) and Zonaras (xiii. 3), Constantine the Great had the same plan before he chose Byzantium. Under Hadrian, the celebrated orator Herodes Atticus was governor of this city. There are still preserved several parts of the gigantic aqueduct which he built, and to the cost of which his father Atticus contributed three millions of drachms of his own fortune. Alexandria-Troas is also mentioned in Holy Scripture as one of the cities which were visited by St. Paul. Its extensive Byzantine ruins leave no doubt that it has been inhabited till the end of the Middle Ages. It is now called "Eskistambul."

ancient town of Sigeum, the ruins of which are covered by a layer of rubbish 6½ feet thick. At the foot of the cape, on its north-east side, are two more conical heroic tombs, of which one is attributed to Patroklus, whilst the other, which is situated close to the shore, is identified with the tumulus of Achilles. The site certainly answers the description which Homer gives (Odyss. xxiv. 75) of this hero's sepulchre:—"In this (golden urn) lie (thy) white bones, O illustrious Achilles, mixed together with those of dead Patroklus, son of Menoetius; but separately those of Antilochus, whom thou hast honoured most of all other companions after the death of Patroklus. And around them, we, the sacred army of the warlike Argives, heaped up a large and blameless tomb, on the projecting shore of the wide Hellespont, so that it might be seen far off from the sea by those men who are now born, and by those who shall hereafter be born."

Here, at length, we are in the celebrated Plain of Troy, which is 8½ miles long, $1\frac{3}{4}$ to 5 miles broad, and is bounded on the north side by the Hellespont. and on all other sides by continuous heights, which gradually descend from the Ida mountains. On the east side the line of elevations is interrupted by another valley, 41 miles long and 11 mile broad. It joins the Great Plain, and is bordered to the north and east by hills, and to the south by an uninterrupted mountainous chain, of from 100 to 333 feet high, which extends far into the Great Plain and terminates in the famous mount Hissarlik. A second, but much smaller valley, extends at the extremity of the Great Plain to the east. shore of the Plain of Troy is bounded as aforesaid, on the west by Cape Sigeum, on the east by the hills of Intepe or Rhoeteum. The plain is at first so low that there are in the beach large and deep tanks, whose waters are always at the same level, because what is lost by evaporation is supplied by infiltration Thence the surface of the plain rises gradually, but its whole from the sea. rise is only 46½ feet in 8½ miles. It is of exuberant fertility, but one half of it consists of marshes, most of which have certainly originated from neglected cultivation. There is however no doubt that there were already marshes here in the time of Homer, and that some of them were close to the city, for, according to the poet (Odyss. xiv. 472-475), Ulysses says to Eumaeus:—"but, when we reached the city and the lofty wall, we lay down, crouching under our arms. near the town, in the thick bushes, the reeds, and the marsh."

The Plain is traversed in all its length from south to north by the Scamander, the name of which can still be recognised in its modern form "Mendere." This river rises from a cold and a hot spring in a valley near the summit of Ida, and, after a course of thirty-six miles, it issues near the small town of Kum-kale into

the Hellespont. Its generally steep banks, which are often 20 feet deep, are for the most part planted with trees, as in the time of Homer, for the poet says (II. xxi. 350-352): "The elms burned, and the willows and the tamarisks; the lotus was also burnt and the rushes and the cyprus, which grew in abundance along the beautiful streams of the river." Although the breadth of the Scamander is from 330 to 660 feet, it frequently overflows from the winter rains, and inundates a large part of the plain. The Homeric epithets of the river are, εθρόρος (fair-flowing), δινήεις (eddying), μέγας (great), βαθυδίνης (deep-eddying), βαθύρροος (deep-flowing), ἀργυροδίνης (silver-eddied), ἤιόεις (with mountainous shores). According to Homer, the Greek camp occupied the whole shore between the Cape Sigeum and the Heights of Intepe or Rhoeteum, for the poet says in the Iliad (xiv. 31-36), "for they had drawn the first (ships) on the plain, and afterwards built a wall at their sterns; because, though the shore was broad, it could not contain all the ships, and the peoples were jammed together; they therefore drew (the ships) up in rows, and filled the wide mouth of the whole shore as much as the promontories inclosed." If the Scamander had already then had its present bed, it would have run right through the Greek camp, and Homer would not have omitted to mention this important fact. Thus there is no doubt that the river occupied at the time of the poet the broad bed of the little rivulet called Intepe-Asmak, which flows close to the heights of Intepe, and runs into the Hellespont near the conical tomb of Ajax. Three broad and dry river-beds, the traces of which are visible between the Intepe-Asmak and the Scamander, prove that the latter has changed its bed gradually in the course of many centuries. In following up the Intepe-Asmak as far as the village Kum-koï, we see that it is the continuation of the rivulet Kalifatli-Asmak, which has likewise an immense bed, and sends off, from this village, the larger portion of its waters in a north-west direction to the Hellespont. It is however easy to see that this river arm is not ancient, but of a comparatively recent formation. Thus in former times the Scamander flowed, as far as the village Kum-koï, in the bed of the Intepe-Asmak, and thence in that of the Kalifatli-Asmak, which is now only fed by the many springs at the southern extremity of the plain. The identity of the Kalifatli-Asmak with the ancient bed of the Scamander is further proved by the Simois, now called Dumbrek-Su, which still joins the former at a right angle, about a mile to the The Simois rises at a distance of 15 miles in the lower north of Hissarlik. range of the Ida mountains, and flows through the eastern plain, in which it forms very large and always impassable marshes. Its breadth is 66 to 100 feet. Homer confirms the junction of the two rivers, and the short distance of this junction from Ilium, for he says (Il. v. 773-774):—"But when they reached Troy, and the two flowing rivers where Simois and Scamander join their streams."

I have still to mention the river Kamar-Tsaï, which falls into the Scamander near the southern extremity of the plain, and which is justly identified with the Homeric Thymbrius. Lastly I have to record the rivulet called Bunarbashi-Su, which originates from forty springs at the southern end of the plain, at the foot of the heights of Bunarbashi. The greater part of its waters flows by an artificial channel into Bashika Bay, whilst the remainder forms enormous swamps. The many marshes of the Plain of Troy exhale pestilential miasmas, which infect the air and cause a a great deal of fever. For this reason one sees in the plain only the three poor villages Halil-koï, Kalifatli, and Kum-koï, the latter of which is altogether uninhabitable in summer.

It has not yet been decided whether the Plain of Troy has once been a deep gulf and has been formed, in the course of ages, by the alluvia of the Scamander and the Simois. But it might easily be decided by sinking shafts; for below the alluvial soil, which must abound with freshwater snails and shells. must be found sea-cockles, sea-sand, and stones. However that may be, those who assume from the Iliad the existence of a deep gulf at the time of Homer do not, in my opinion, rightly interpret the verses (Il. ii. 92) ἢιόνος προπάροιθε βαθείης έστιχόωντο, "they marched in front of the deep shore;" and (Il. xiv. 35-36) καὶ πλησαν απάσης ηϊόνος στόμα μακρον, όσον συνεέργαθον ακραι, "and filled the wide mouth of the whole shore, as much as the promontories inclosed," for the poet merely intends to describe here the Hellespont's low shore, encompassed as it is by the Cape Sigeum and the heights of Intepe. It has been asserted that the gradual elevation of the latter, as well as the high and steep banks of the rivulets Intepe-Asmak and Kalifatli-Asmak, near their mouths, in a swampy soil, make it impossible that a gulf should ever have existed there; and that, if the soil of the plain had been produced by the alluvium of the rivers and rivulets, their banks could not have a perpendicular height of 6 to 20 feet in places where the ground is marshy and loose; that, besides, the large and deep tanks on the shore of the plain make it impossible that the Plain of Troy can have been formed by alluvium. I think this theory is perfectly correct if applied to alluvia of comparatively recent formation, and that e.g. in the Plain of Ephesus, the nature of the soil permits neither deep tanks on the seashore, nor perpendicular banks 6 to 20 feet high in the rivers; but I believe that in the course of ages

^{*} Forchhammer, Observations on the Topography of Troy, in the Journal of the Royal Geographical Society, 1842, xii. p. 34.

the alluvial soil may offer as tough resistance as any other soil. Thus I am ready to admit that even the whole Plain of Troy has once been a deep gulf, but I feel confident that the latter has been filled up by the alluvium of the rivers ages before sacred Ilium was built by the Trojans. I am also ready to admit, that, were it not for the current of the Hellespont, which runs at the rate of three miles an hour and carries away the alluvial matter of the rivers, the latter would long since completely have shut up the Hellespont, and joined Asia and Europe by a new isthmus.

The theory that a gulf has once existed in the Plain of Troy is confirmed by the tradition of all antiquity. In speaking of some rivers, which, similar to the Nile, have extended by their deposits the land into the sea, Herodotus (ii. 10) mentions, as a well-known fact, the alluvia "of the vicinity of Ilium." He makes, however, no allusion to the chronology of these alluvia. Strabo' (xiii. c. 1, § 36) gives us, for the former existence of a gulf in the plain, and its filling up after the war of Troy, the authority of Hestiaea of Alexandria-Troas and Demetrius of Scepsis, but he does not tell us on what proofs or testimony their assertions were based. I trust, however, I can prove that the filling up of the Trojan gulf must have been accomplished long before Homer; and that the Plain of Troy extended at the time of the poet just as far into the sea as it does now, for the small town of Kum-kalé is situated on the point of the plain which projects the furthest into the Hellespont, and on the site of an ancient city, which can be no other than Achilleum. This city was built, according to Herodotus (v. 94), by the Mitylenians. But, according to the same historian, it had been in the 43rd Olympiad (viz. in 607 B.C.) for a long time at war with Sigeum, and we may therefore with certainty presume that its foundation reaches back to the beginning of the eighth or the end of the ninth century B.C.

Since I am describing the topography of the Plain of Troy, I may add that the common translation of the Homeric words θρωσμὸς πεδίοιο by "hill in the plain" is, in my opinion, altogether wrong; firstly, because there is no separate elevation in the Plain of Troy, and secondly, because the sense of the three Homeric passages in which these words occur does not admit of such a translation. We read in the Iliad (x. 159-161), "Awake, O son of Tydeus, why dost thou indulge in sleep all night? Hearest thou not how the Trojans are encamped ἐπὶ θρωσμῷ πεδίοιο, near the ships, and that now but a small space keeps them off?" In Book xi. 56, on the other hand, we find "The Trojans drew up ἐπὶ θρωσμῷ πεδίοιο, around the great Hector and blameless Polydamas." In both these passages, θρωσμὸς πεδίοιο is spoken of as the site of the Trojan camp, on the right bank of the

Scamander, already referred to in the eighth Book (vss. 489-492), where we read as follows: "Illustrious Hector then made a council of the Trojans, having conducted them far from the ships on (the bank of) the eddying river, in a clear space, where the ground was free from dead bodies. But, alighting from the horses, they listened to the speech." In these verses no suggestion is made that the bank of the Scamander, the site of the Trojan camp, was higher than the plain. We find the words $\theta_{\rho\omega\sigma\mu\delta\gamma}$ $\pi\epsilon\delta$ low a third time in the Iliad (xx. 1-3), "Thus, O son of Peleus, around thee were armed the Achaeans, insatiable in battle, beside their crooked ships, and the Trojans on the other hand ἐπὶ θρωσμῷ πεδίοιο." Here also is indicated by these latter words the site of the Trojan camp, which had been previously described in Il. xviii. 256: "In the plain near the ships, for we are far away from the wall," showing that the site of the camp was in the level plain near the ships. I call your particular attention to the fact, that in these three cases the poet mentions the site of the Trojan camp in opposition to the site of the Greek camp, which latter was situated on the shore of the Hellespont. Consequently, the only possible translation of the θρωσμός πεδίοιο would be "the Upper Plain," which, as I have said, ascends a little, but has no elevations in the shape of hills.

I have still to speak of the conical hills of the Troad, which are called "heroic tombs." Several of them, doubtless, existed already in the time of Homer, for he mentions the sepulchres of Achilles, Myrina, Aesyetes, and Ilus. The two latter, which the poet describes as situated between Ilium and the Hellespont, and thus in the low Plain, have altogether disappeared. Consequently, according to Homer, those conical hillocks were tombs, and this opinion is confirmed by the tradition of all antiquity, for according to Strabo (xiii. c. 1, § 32) the Ilians offered funeral sacrifices, not only on the tombs of Achilles, Patroklus, and Antilochus, but also on that of Ajax. According to Plutarch, Cicero, and Aelian, Alexander the Great sacrified on the tumulus of Achilles. According to Philostratus (Heroica, i.) Hadrian restored the temple on the tumulus of Ajax, of which large ruins still According to Dion Cassius, the Emperor Caracalla offered funeral remain. sacrifices and games at the tomb of Achilles. According to Herodian (iv.) it appeared that Caracalla wished to have his Patroklus, in order to be able to imitate the funeral which Achilles made to his friend. The sudden death of his most faithful friend Festus, (who, Herodian insinuates, was poisoned, for he says "as some say, he was killed by poison," ώς μέν τινες έλεγον, φαρμάκφ ἀναιρεθείς), induced Caracalla to celebrate his funeral in a most magnificent manner, minutely imitating the funeral with which Achilles honoured his friend Patroklus, and of which Homer gives both a splendid and a detailed account in the twenty-third book of Afterwards Caracalla raised over the ashes of his friend a large conical Probably this is the tumulus called "Agios Demetrios Tepe," situated on the high shore of the Aegean Sea, two miles south of Sigeion. However, all we know as yet is that this one tumulus, which covers the ashes of Festus, served as a tomb, for in no one of the six tumuli which have until now been excavated has the tradition been confirmed by the criticism of the pickaxe. The tumulus near the village of Renkoï, which was excavated by Mr. Frederick Calvert, as well as the tumulus of Patroklus, which was excavated by his brother, contained no trace of either ashes, or charcoal, or bones. One of the three conical tumuli on the Balidagh, behind Bunarbashi, which was in modern times universally considered as the tomb of Hector, and which was in October 1872 excavated by the celebrated anthropologist Sir John Lubbock, likewise contained neither charcoal, nor ashes, nor bones, but there were found in it numerous fragments of painted Greek vases of the third century B.C. Thus it is utterly impossible that the chronology of this Hector's tomb should go further back than the third century B.C. In April 1873 Mrs. Schliemann excavated the conical tumulus now called "Pasha Tepe," whose site accurately answers the indications which Homer gives us (Il. ii. 811-815) of the site of the tomb of Baticia, who, according to Apollodorus, was the Queen of "There is a certain lofty tumulus before the city sidewards of the plain, which may be run round; men indeed call it Batieia, but the immortals call it the tomb of the nimbly springing Myrena." From the summit of this tumulus Mrs. Schliemann sunk a quadrangular shaft, 15 feet long and 13½ feet broad, and reached at a depth of 14 feet the virgin rock, into which she penetrated more than 1 foot deep. She only found about fifty fragments of hand-made pre-historic vases and pots, but no trace of either ashes or charcoal. I have still to mention the researches which the French Ambassador at Constantinople, Choiseul Gouffier, caused to be made in 1788 by a Jew, in the tumuli attributed to Achilles and In the latter were only found the ruins of the sanctuary, which had been restored by Hadrian, whereas in the former were brought to light comparatively modern painted Greek vases and a bronze figure of the Roman period, which objects had probably been hidden there by the Jew to obtain a large reward. Consequently the use of the artificial conical hills in the Troad—the so-called heroic tombs—remains still a mystery.

In the Plain of Troy, of which I have thus far endeavoured to describe the topography, must be sought the site of the Homeric Ilium.

In all antiquity, until the time of the Diadochi, it was considered as a certainty

that the Ilium of the Greek colony occupied the very site of the Homeric Ilium, and until the second century B. c. nobody ever doubted the identity of the two cities.

This Greek Ilium was situated on the high plateau of a mountainous chain which extends far into the Plain of Troy, and its acropolis was close by, on the famous mount Hissarlik, which forms the extremity of the mountain ridge to the north and west, and descends at an angle of fifty degrees to the plain. To this acropolis Xerxes ascended on his expedition to Greece (in 480 B.C.). Herodotus relates this event as follows (vii. c. 43):— "The army having reached the Scamander, the first river they encountered since they left Sardis, its waters were run dry, and proved insufficient to satisfy the thirst of the men and animals. When Xerxes reached this river he ascended Priam's Pergamus, for he had a desire to see it; and having seen it, and having inquired into its fate, he sacrificed to the Ilian Minerva a thousand oxen, and the magicians poured libations to the heroes. When they had done this, terror spread in the night in the army, and at daybreak they departed, leaving to the left the cities Rhoeteum, Ophrynium, and Dardania, which borders on Abydos, and to the right the Teucrians of Gergis."

This statement of Herodotus shows that there was at that time a city called Ilium, with an acropolis called Pergamus, which had a temple consecrated to Ilium's patron deity Minerva; further, that the identity of this city with the Homeric Ilium, or Priam's Pergamus, as Herodotus calls it, was universally According to Strabo (xiii. 1) Ilium and its sanctuary were acknowledged. built under the Lydian dominion, and thus about 700 years B.C. before Herodotus, the identity of this Ilium with the Homeric Troy was acknowledged by Hellanikus of Lesbos. Besides, we find in the Iliad (xx. 215), "The cloud-gatherer Jove first begat Dardanus, who built Dardania, because sacred Ilium, the city of speaking men, had not yet been built in the plain, and they still dwelt on the lower ridges of Ida abounding in springs." These verses, which Plato mentions in the third book of the Laws, are of great assistance to us in identifying the site of Troy. Homer asserts that Dardanus built Dardania on the lower ridges of Ida, when Ilium (whose founder, according to Apollodorus, was Ilus) had not yet been built in the plain. Plato says that "the first men, from fear of a second deluge, inhabited the summits of the mountains; when they began to take courage, they built their cities on the slopes; and to this period belongs the founding of Dardania. In the third period," continues Plato, " (the Trojans) left the mountains and built Ilium in a large and

^{*} W. E. Gladstone, "Homer's place in History" (Contemporary Review, 1874).

According to Livy, Antiochus the Great and Publius Scipio likewise sacrificed at Hissarlik. The identity of the two Iliums is also certified by Justin, Appian, Ovid, Suetonius, Pliny, Tacitus, and many other ancient authors.

By order of Alexander the Great, Lysimachus bestowed great care on the town, surrounded it by a wall 40 stadia long, and built a magnificent theatre.

The first who wrote against the identity of the two Iliums was Demetrius of Scepsis (180 B.C.). He maintained that the whole space of ground which separated Ilium from the sea was alluvial, and had been formed after the destruction of Troy; that consequently there was not room enough near Ilium for the great events of the Iliad. For this reason Demetrius advocated the identity of ancient Troy with the village Ἰλιέων κώμη, thirty stadia to the south of Ilium; he confessed however that no trace of the former was left. According to Strabo (xiii. 1) Demetrius pretended that after the destruction of Troy his native city Scepsis had become the capital of Aeneias, and it is evident that he was jealous of Ilium for this honour. Strabo adopted his theory, though he never visited the Plain of Troy. My excavations on the site of Ἰλιέων κώμη have, however, shown that the artificial accumulation is there next to nothing, and that consequently no town has ever existed on the site.

The problem of the real site of the Homeric Ilium slept during the Middle Ages, and passed unobserved in modern times, until in 1787 the Frenchmen Lechevalier and Choiseul Gouffier visited the Troad and recognised the site of ancient Ilium on the heights of Bunarbashi, at the southern extremity of the Plain of Troy, but they made there no excavations, and did not even sound the ground. They also identified the forty cold springs at the foot of those heights

^a F. Ravaisson de Mollien, in the Révue Archéologique of December, 1874.

with the two Homeric springs of cold and hot water, near which Hector was killed. This theory has been adopted by nearly all the archæologists who have visited Troy since that time, until in 1864 the late Consul G. von Hahn, the architect Ziller, and the astronomer Schmidt excavated, at the extremity of those heights, the site of a very small town surrounded by cyclopean walls, which archæologists had considered as the Pergamus of Ilium. But those excavations did not bring to light a single fragment of archaic pottery; they produced nothing but fragments of painted Greek vases of the second to the fifth century, and eighteen coins of the second and third century B.C. Thus it is evident that the cyclopean walls cannot be of an earlier date than the fifth century B.C., and that consequently the town cannot be the Homeric Pergamus. It should be remembered that there are three or four different ages in the history of cyclopean walls, and, whilst the walls of Tiryns belong to the very first age, those laid bare on the heights of Bunarbashi belong to the very last age. Several examples of this last age in Greece we can date with certainty as of the fourth or fifth century, and to this same age belong the remains now under discussion. Besides, the accumulation of rubbish is there most insignificant; in many places the levelled rock protrudes, and only at one spot the depth of the ruins reaches 6 feet. Finally, an inscription I found in 1873, and which is published in my "Troy and its Remains," pp. 240-246, shows that this little town was Gergis. Just before it are the above-mentioned three conical tombs, one of which was excavated by Sir John Lubbock. Between the latter and the forty springs, at a distance of 15 mile, I have made researches in more than a thousand places, but nowhere have I found anything but the purest virgin soil; no trace of broken pottery or bricks; everywhere the pointed, or steep, and always unequal, natural rock, which had evidently never been touched by the hand of man. Thus it is evident that this whole space of ground has never been inhabited. Besides, Gergis, at the extremity of the heights, is at a distance of 10, the springs at the foot of Bunarbashi are at a distance of 81, miles from the Hellespont, whilst the whole Iliad proves that the distance between Ilium and the Hellespont was very short, and could not possibly exceed 2½ miles, and this is precisely the distance between Hissarlik and the Hellespont.

After having obtained on the heights of Bunarbashi many negative proofs, I minutely examined the whole Plain of Troy, and became convinced that the site of

^a The references to this work belong, throughout, to Mr. John Murray's splendid English edition, translated by Miss Dora Schmitz, and edited by Dr. Philip Smith. London, 8vo. 1875. To Mr. John Murray's courtesy the Society is indebted for the map and woodcuts which illustrate this paper.

the Homeric Ilium could not possibly be anywhere else than on the Ilium of the Greek colony, and this in accordance with the common opinion in all antiquity. To my mind, Priam's Pergamus was hidden in the depths of Mount Hissarlik, which served as an acropolis to the later Ilium, and I therefore made there in April 1870 small excavations, the result of which was so encouraging, that, having obtained the necessary permission, I made there in 1871 larger excavations, which I continued for three years with 100 to 160 workmen. I found everywhere on the plateau of Hissarlik, just below the surface, the foundations and masses of ruins of Hellenic edifices, of which some are built of hewn chalkstone joined with cement, and others of hewn stones joined without cement. In general, I found cement or chalk as a binding medium only used in the ruins to a depth of 3 feet below the surface, and the oldest archaic remains not deeper than 6 feet below the ground. But on the edge of the slope, where the natural soil has once been lower, I found the Hellenic ruins proportionately at a greater depth. The most important edifices which I found in this stratum of Hellenic ruins are the temples of Apollo and Minerva. The former is completely destroyed and not one stone of it is in its place; it was a fine building of the Doric order, as is shown by the remarkable Doric triglyph-block, which I discovered among its ruins. It has a metope, which represents in high relief Phœbus-Apollo with the quadriga of the sun, and is a masterpiece of the first time of the Diadochi. A cast of this I presented to the British Museum. may therefore presume that the temple of Apollo was built by Lysimachus, about 300 years before Christ. Since not even one single stone of the foundations is in its place, I am at a loss to determine the dimensions of this temple.

Of the temple of Minerva are preserved all the foundations and portions of the walls, which consist partly of large hewn stones, and partly of small unhewn stones joined with cement. This makes me think that this temple was also built under Lysimachus, was destroyed by Fimbria in 85 B.C., and rebuilt by Sylla; it is 317 feet long by 73 broad. Among the many inscriptions which I discovered there, I mention only the most important, which is well preserved, and contains three letters of Antiochus I. (281-260 B.C.) to Meleager, the Satrap of the satrapy of the Hellespont, and one of Meleager to the Ilians. Altogether erroneous is the opinion of several German archæologists, that the oldest remains of this Greek Ilium do not reach further back than the time of Alexander the Great. Visitors will have no difficulty in extracting from my trenches at Hissarlik, at about 6 feet below the surface, thousands of archaic potsherds, to which no archæologist will

hesitate to attribute an age of 600 and 700 years B.C., and many of them must be still older; such as the fragment of a painted vase ("Troy," &c., p. 55), representing a winged figure with an immense nose and a Phrygian cap with a huge tail, which may be of the ninth or the tenth century B.C.

At an average depth of 6 to 7 feet, I gathered seventy brilliant red or black terra-cottas of various shapes with or without incised ornaments, also a large number of round terra-cottas in form of cakes, with two perforations near the rim and a beautiful stamp in the midst; three of the former are represented at pp. 172, 229 of my work (Nos. 138, 139, 160), and four of the latter at p. 65. This pottery is, most decidedly, neither Greek nor pre-historic. Many of the black cups with two large and high handles have, both in shape and colour, a great resemblance to the terra-cottas found in ancient Albano, near Rome, of which the British Museum has several specimens.

Underneath the ruins of the Greek city, viz., at from 6½ to 13 feet below the surface, I found the remains of a pre-historic city, of which the houses had been of wood. The calcined rubbish, and the absence of stones, do not leave any doubt in that respect. All the pots and vases I gathered there are handmade, that is to say, they are made without the use of the potters' wheel; the terra-cotta is either red, black, green, or grey, but there is no trace of real colour. I found there also thousands of terra-cotta whorls, which are perforated through the centre, and ornamented on one side, or on both sides, with engraved religious symbols, which are filled with white clay so as to strike the eye. Doubtless these whorls have been used as offerings or ex-votos to the gods, and particularly to the patron deity Minerva, the Homeric θεὰ γλαυκώπις 'Αθήνη, of whom I found there a great many images. Most of these images are modelled on the vases, which show all the characteristics of the goddess, two wings, an owl's face, and a kind of helmet, on which is indicated the female hair. (See PlateVI. figs. 1a, 1b, and 4.) But many vases have only the characteristics of the woman, two wings and a straight neck, on which fits the cover with an owl's face and I found there also a great many thin and flat idols of bone or marble with an engraved owl's face and with or without a female girdle. On many idols the owl's face was merely painted with red or black clay. I did not find any stone implements in this upper pre-historic stratum, and only a few handmillstones of trachite, 12 to 16 inches long and 6 to 7 inches broad, of which one side is flat. I call here particular attention to these handmills, which have exactly the same form in all the subsequent pre-historic strata, and which cannot



have been used to make flour, but merely to crush the grain rudely. Thus, these Trojan handmills belong to a time in which bread was still unknown, and they are therefore considerably more ancient than Homer, who knew only larger handmills turned by horizontal crowbars, grinding the grain to flour, from which bread was made. I found in the same stratum some saw-knives of flint. Of metal I found there only straight or crooked knives, some arrows and battle-axes with two edges, as well as many hair-pins in form of long and thin nails—all of bronze.

At a depth of from 13 to 23 feet I found the ruins of another more ancient pre-historic city, built of small stones joined with earth. There remain part of the carcasses of all the houses, so that it may be dug up like Pompeii. I found in the strata of ruins of this city an enormous mass of stone hammers, celts, axes, battle-axes, hand-millstones, weights, saw-knives, &c.; but along with these the same implements and weapons of bronze, and innumerable differently shaped ornamented perforated whorls, as also masses of hand-made fantastically shaped pots, and vases of terra-cotta, the fabrication of which shows a greater civilisation; also masses of cockle-shells, as well as vertebræ of sharks, which leave no doubt that these monsters once abounded in these seas, whereas they have now entirely disappeared. I also found there numerous boars' tusks.

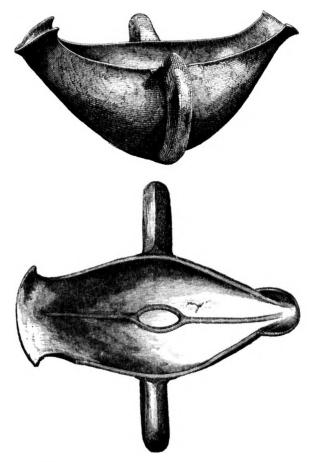
Below this city I discovered, at a depth of from 23 to 33 feet, a still much older pre-historic city, which had evidently been destroyed in a fearful catastrophe by the hand of the enemy; the calcined ruins of all the houses, the stratum of scoriae of melted lead and copper, which extends through the whole town, the treasures of objects of gold and silver which were found in various places, and finally the skeletons of men with arms—all this variety of circumstances can leave no doubt whatever in this respect. The numerous fantastically shaped vases and pots I gathered in this stratum show the very same kind of fabrication as those of the preceding stratum, but they exhibit much more art and beauty, as well as many new types, as for example a curious double vase, united at the base. (See Plate VI. fig 3.) Whilst all the thousands of terra-cotta vases, pots, basins, and other objects found in this stratum are hand-made, I found here more than a hundred very rude terra-cotta plates, like the five lower ones on page 215 and the eight on page 114 of my work, which have been made on the potter's wheel.

These plates are the only pre-historic productions of the potter's wheel at Hissarlik, for neither of the two subsequent nations whose ruins I have described has used the potter's wheel; all their terra-cotta vases are hand-made. I must not forget to mention that it is a characteristic of Trojan vases to have on each side a tubular vertical loop, and in the same direction a hole on each side of the

rim, in order to be suspended and carried by a string; most of them have three feet; many others have a hemispherical base.

The importance of the city represented by the ruins at 23 to 33 feet below the surface is particularly attested by its mighty circuit wall, by its great tower, by the large double gate, and by the mansion of the last chief or king, which is situated just before the gate. All these monuments are built of unhewn stones joined with earth, whilst all the other houses of the town consist of unburnt bricks, which have in many places been converted by the conflagration into real burnt bricks. In this town I discovered, at a depth of 28 to $31\frac{1}{2}$ feet, three treasures, of which the two smaller ones were stolen and hidden by my workmen, afterwards seized by the Ottoman Government, and now exhibited in the museum at Constantinople. One of these, according to the Levant Herald, December. 1873, consisted of a large lump of pure gold mixed with charcoal, evidently derived from melted ornaments. It was stated to weigh several "okes," each "oke" being about 2½ pounds. The third large treasure, which is now in my possession, I discovered myself on the great wall, close to the chief's or king's mansion. It consists of a large copper boss-shield, a large copper casserole with a horizontal handle on each side, a large flat piece of copper with two immoveable wheels, which must have served as hasps, and on which a silver vase had been soldered by the fire, two copper vases, a large golden bottle in form of a globe, a golden goblet, whose form I identify with that of the Homeric δέπας ἀμφικύπελλον; it has a large and a small mouth and two great handles. (See woodcut on the next page.) I think Aristotle (in his History of Animals, ix. 40) is wrong in his theory that the αμφικύπελλον of Homer had the shape of a bee's cell. The best judge of, nay the highest authority for, the form of the Homeric δέπας ἀμφικύπελλον must necessarily be Homer himself, and with him the δέπας ἀμφικύπελλον is always synonymous with άλεισον ἄμφωτον (see Od. iii. 41, 46, 50, and 63, and xxii. 9, 10, and 86), which latter cannot possibly mean anything else than a simple goblet with a large handle on each side. In speaking of the shape of the Homeric δέπας αμφικύπελλον, Athenaeus (Δειπνοσοφισταί, 783) does not even mention the opinion of Aristotle, but he mentions the opinion of Asklepiades of Myrleia, who says that ἀμφικύπελλου does not mean anything else than that the goblet is αμφίκυρτον. following phrase leaves no doubt that the latter word signifies "with two handles," and this is confirmed by Passow's Greek Lexicon (ed. Rost and Palm). Similarly shaped δέπα ἀμφικύπελλα of terra-cotta I found in all the three upper pre-historic strata, and collected more than a hundred of them. (See Nos. 111 and 112, p. 158, and No. 52, p. 86, of "Troy, &c.") Owing to their pointed

foot they cannot be put down except on the mouth. Their form is highly practical, for he who holds such a δέπας ἀμφικύπελλον is forced to empty it, and, since it can only be put down on the mouth, it remains always clean. (See Plate VI. fig. 5.)



TWO VIEWS OF TWO-HANDLED CUP OF GOLD, FROM HISSARLIK.

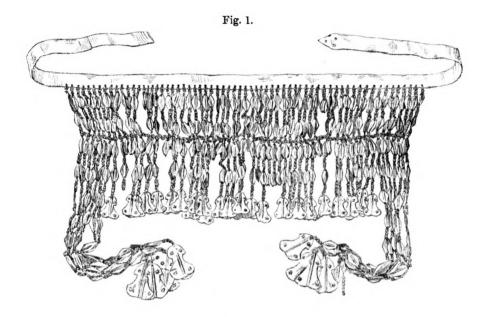
I found, besides, in the treasure six flat blades, or slabs, of purest silver, one end of which is round, whilst the other is cut out in the form of a half-moon. In all probability these are the talents, so often mentioned by Homer, and which must have been but small, for Achilles puts (II. xvii. 262—270) as the price of the first game a woman, of the second a horse, of the third a casserole or kettle, of the fourth two talents, and of the fifth a φιάλη ἀμφίθετος, that is to say, a cup with two handles. I further found in the treasure four large silver vases with a hemispheric base; on one of them is soldered the upper part of another silver vase. The largest vase contained two magnificent golden diadems, which Mr. Gladstone identifies with the πλεκταὶ ἀναδέσμαὶ of Homer; they are adorned

with 100 idols of the owl-faced Minerva. (See Plate VII. fig. 1.) The vase further contained a golden ἄμπυξ, called now "belle Helène," four most artistically made golden long earrings, fifty-six golden earrings of most fantastical shape. six golden bracelets, 8,750 small perforated objects of gold, in form of prisms. cubes, chariot-axles, etc., of which the larger part are ornamented with eight or sixteen engraved lines; the silver vase contained, besides, two goblets, one of which is of gold, the other of electron. I further found in the treasure two beautiful small silver vases, with cylindrical loops placed vertically on each side for suspension by a string, a goblet and shallow cup of the same metal (see Plate VII. fig. 2), and thirteen bronze lances, fourteen bronze battle-axes, seven bronze daggers, a large bronze knife, some fragments of a bronze sword, and another bronze weapon of unknown use. All these objects were once contained in a quadrangular wooden box, of which they had preserved the shape. large copper key which I found there proves that the wooden box once existed. It appears that in the catastrophe of the city one or other of the chief's or king's family tried to escape with the treasure, but being prevented on the wall, either by the fire or by the enemy, he was forced to abandon it there.

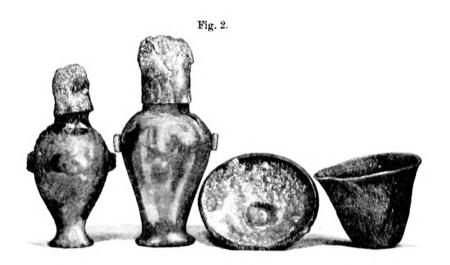
I further found in the rooms of the last chief's or king's palace a large number of beautiful vases; one of them two feet high, representing the owl-faced Minerva, ornamented with a large necklace and a broad engraved girdle. (See Plate VI. fig. 2.)

And here I must pause to inquire what is the meaning of the Homeric epithet γλαυκῶπις. It has been said by a great scholar," that, whatever else it may mean, it cannot mean owl-headed, unless we suppose that Hera βοῶπις was represented as a cow-headed monster. But it is not difficult to prove that this goddess had originally a cow's face, from which her Homeric epithet Bownis was derived. When in the battle between the gods and the giants the former took the shape of animals, Hera took the form of a white cow, "nivea Saturnia vacca" (Ovid, Metam. v. 330). We find a cow's head on the coins of the Island of Samos, which contained the most ancient temple of Hera, and was celebrated for its worship of this goddess (Mionnet, Descr. des Méd. Ant. pl. lxi. 6). We further find the cow's head on the coins of Messene, a Samian colony in Sicily (Millingen, Anc. Coins of Greek Cities, tab. ii. 12). The relation of Hera to the cow is further proved by the name Eößoia, which was at once her epithet (Pausanias, ii. 22), the name of one of her nurses (Plut. Quæst. Conviv. 3, 9, 2; Et. M. 388, 56), and the name of the island in which she was brought up (Plut. fr. Daedal. 3). But in the name of Eößoia is contained the

Professor Max Müller .- Academy, January 10, 1874.



GOLD DIADEM FROM HISSARLIK.



SILVER VESSELS FROM HISSARLIK.

word $\beta_0\hat{v}_0$. Hera had in Corinth the epithet β_0 wala (Paus. ii. 4, 7), in which the word $\beta_0 \hat{v}_5$ is likewise contained. White cows were sacrificed to Hera (Paus. ix. 3, 4) (Hesych. ἄγαν χαλκεῖος). The priestess rode on a team of white bulls to the temple of the Argive Hera (Herod. i. 31). Io, the daughter of Inachus, was changed by Hera into a cow (Lucian, $\Theta \epsilon \hat{\omega} \nu \Delta \iota a \lambda$. 3; Diod. Sic. i. 24, 25; Herod. ii. 41). Io was priestess of Hera (Aesch. Suppl. 299; Apollod. ii. 1, 3), and is represented as the cow-goddess Hera (Creuzer, Symbolik, ii. 576). The Egyptian goddess Isis was born in Argos, and was identified with the cow-shaped Io (Diod. Sic. i. 24, 25; Apollod. ii. 1, 3; Hygin. 145); she (Isis) was represented in Egypt as a female with cow-horns, like Io in Greece (Herod. ii. 41). Pelasgian moon-goddess Io continued to be the old name of the moon at the religious mysteries at Argos (Eustath. in Dionys. Perieg, 94; Jablonsky, Panth. ii. p. 4 ff.) The cow-horns of the Pelasgian moon-goddess Io, which became later the Argive Hera, and is perfectly identical with her, as well as the cow-horns of Isis, were derived from the symbolic horns of the crescent (Diod. Sic. i. 11; Plut. de Is. et Os. 52; compare Plut. ibid. c. 39; Macrob. Sat. i. 19; Aelian, Anim. x. 27). No doubt Io, the later Hera, had at an earlier age, besides her cow-horns, a cow-face. Hera, with her old moon-name Io, had a celebrated temple on the site of Byzantium, which city was founded by her daughter Keroessa -i.e. "the horned" (O. Müller, Dorier, i. p. 121; Steph. Byz. Βυζάντιον). Is not, perhaps, the crescent, as the symbol of the Turkish empire, an inheritance from Byzantium's foundress Keroessa, the daughter of the moon-goddes Io (Hera)? Hera, Io, and Isis must at all events be identical also with Demeter Mykalessia, who derived her epithet, "the lowing," from her cow-shape, and had her temple at Mykalessus in Bocotia; she had as doorkeeper Hercules, whose office it was to shut her sanctuary in the evening, and to open it again in the morning (Paus. ix. 19, 4). Thus his service is identical with that of Argos, who in the morning unfastens the cow-shaped Io, and fastens her again in the evening to the olive-tree (Ovid, Metam. i. 630), which was in the sacred grove of Mykenae, close to the 'Hpalov (Appollod. ii. 1, 3). The Argive Hera had, as a symbol of fertility, a pomegranate, which, as well as the flowers with which her crown was ornamented, gave her a telluric character (Panofka, Argos Panoptes, tab. ii. 4; Cadalvène, Recueil de Med. Gr. pl. iii. 1; Müller, Denkm. xxx. 132; Duc de Luynes, Etudes Numismat. pp. 22-25).

In the same way as in Bocotia the epithet Mykalessia, "the lowing" (a derivation from μυκάω), was given to Demeter on account of her cow-form, in the plain of Argos the name of Μυκήναι (a derivation from the same

verb) was given to the city most celebrated for the cultus of Hera, and this can only be explained by her cow-form.

In consideration of this long series of proofs, certainly no one will for a moment doubt that Hera's Homeric epithet βοῶπις shows her to have once been represented with a cow-face, in the same way as Athene's Homeric epithet γλαυκῶπις shows this goddess to have once been represented with an owl-face. But in the history of these two epithets are evidently three stages. In the first stage, the ideal conception and the naming of the goddesses took place, and in that name, as Professor Max Müller rightly observed to me, the epithets were figurative or ideal, i. e., natural. Hera (Io), as deity of the moon, will have received her epithet, $\beta_0 \hat{\omega}_{\pi i S}$, from the symbolic horns of the crescent and its dark spots, which resemble a face with large eyes; whilst Athene, as goddess of the Aurora, received, no doubt, the epithet γλαυκώπις to indicate the light of the morning dawn. I call here particular attention to the terra-cotta ball in "Troy, &c." plate lii. N. 497, a. b. c. This ball alone is a complete demonstration of the reality of the owl-face, and it gives at the same time the key to these symbolic representations, for we see there, in the midst, the owl almost in the shape of a monogram, having nevertheless the female hair distinctly indicated, and two extended arms, of which the left one has even its hand. To the right of the figure is the sun, to the left the moon, below is the morning star. the representation is complete, and it most distinctly shows that this celestial owl is the Aurora, which rises to Heaven between the sun and the moon.

In the second stage of these epithets the deities were represented by idols, in which the former figurative intention was forgotten, and the epithets were materialised into an owl-face for Athene and into a cow-face for Hera, and I make bold to assert that it is not possible to describe such an owl-faced female figure by any other epithet than by $\gamma \lambda a \nu \kappa \hat{\omega} \pi \iota \varsigma$. The word $\pi \rho \delta \sigma \omega \pi \sigma \nu$ for face, which is so often used in Homer, and is probably thousands of years older than the poet, is never found in compounds, whilst words with the suffix $\epsilon \iota \delta \eta \varsigma$ refer to expression or likeness in general. Thus, if Athene had the epithet $\gamma \lambda a \nu \kappa o \epsilon \iota \delta \eta \varsigma$, we should understand nothing else but that the goddess had the shape and form of an owl. To this second age belong all the pre-historic cities at Hissarlik.

The third stage in the history of the two epithets is when, after Hera and Athene had been stripped of their cow and owl faces, and received faces of women, and after the cow and the owl had become the attributes of these deities, and had, as such, been placed at their side, $\beta o \hat{\omega} \pi \iota s$ and $\gamma \lambda a \iota \kappa \hat{\omega} \pi \iota s$ continued to be used as epithets consecrated by the use of ages, and probably with the meaning

"large-eyed" and "owl-eyed." To this third age belong the Homeric rhapsodies. It has been repeatedly asserted that the owl-faced Trojan vases and idols cannot represent the γλαυκῶπις 'Αθήνη, since similar owl-faced vases and idols have been found in Germany. But I never intended to maintain that the owl-faced female deity was worshipped exclusively at Ilium, and I have no objection whatever to admit that the former figurative and ideal conception may already have been materialised into an owl-faced female deity, with wings and helmet, before the separation of the Aryan races took place, or that it may have been imported, together with bronze, from Asia Minor into Germany. But I must confess that all the drawings I have as yet seen of the pretended owl-faced idols found in Germany represent human figures with mouths, and that not even one of them has the slightest resemblance to the winged Trojan idols, in which the owl-face is conspicuous, and which have no mouth.

In confirmation of what I have said about the symbolic character of the engraved ornaments on the Trojan terra-cottas, I will here point only to the figure No. 379, pl. xxix. of "Troy and its Remains." We distinctly see there the constellation of the Great Bear on the back of an animal with open mouth and protruding tongue; there are besides two other celestial animals, an altar,

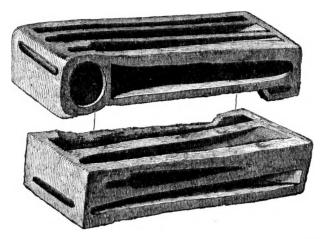
a lightning, and four suastikas

But to return from this digression. After the enumeration which has been made of the antiquities discovered, the question now arises, to what city and to what period do they belong? Inasmuch as I discovered the city on the very site which the tradition of all antiquity identifies with the site of Troy; inasmuch as the city was evidently rich, and destroyed in a fearful catastrophe by the hands of the enemy; since, moreover, I find in it the great circuit-wall, and the great tower with the double gate, whose situation answers the position of the Homeric Scean gates—there can remain no doubt whatever that this is the very city sung by Homer, that this is the very city destroyed by the Greeks, that this is the Ilium of eternal glory. But all the thousands and thousands of objects I discovered there belong to such a remote antiquity, that the siege and catastrophe sung by Homer probably happened more than 1,500 years before his time. Homer cannot possibly have seen a trace of Troy, because at his epoch the ruins of the Trojan houses, the great circuit-wall, and the tower, were covered by a layer of rubbish 20 to 27 feet thick. Homer made no exeavations to bring those monuments to light. Thus his description of Ilium is vague and obscure. He knew all the events of the city's tragic fate solely from tradition, for those events had been sung before his time by numerous rhapsodists. If the Homeric rhapsodies alone have been preserved, it is because they were the most sublime of all. The twenty shafts I have sunk on the plateau around Hissarlik show that the Homeric Ilium was limited to that very mount.

But Ilium was not the first city built on the site. In fact there exists below Ilium, at a depth of from 33 to 53 feet, the gigantic ruins of another much older city, whose pottery is also handmade, viz., without the potter's wheel, but shows much more perfection and many new types. The most perfect and most beautiful terra-cottas I found there on the virgin soil at 47 Most of them have, outside and inside, incised to 53 feet below the surface. The most interesting terra-cottas of this primitive city are the glazed black, red, or brown basins, which have on two sides of the rim a long ornamented tube for suspension with a string. Among the most interesting objects discovered in this city, I may mention a small interment formed of three flat stones, containing two terra-cotta tripods filled with human ashes. In one of these tripods, which is represented on page 153 of my work, I found the bones of an embryo of six months, with which the learned physician Aretaeos in Athens has recomposed the whole skeleton. (See Plate VI. fig. 6). Besides I found there the skeleton of a woman with her golden ornaments; it was in an oblique position in the charred ruins of a house which had evidently been destroyed by fire, and thus there can be no doubt that the woman was burnt alive. also proved by the fact that all the pre-historic nations which inhabited the mount had the custom of burning the dead human bodies, and depositing their ashes in funeral urns, of which I found hundreds.

Among the Trojan vases I have still to mention those in form of hogs, hedgehogs, moles, bears, and hippopotami, provided at the place of the tail with funnel-like openings, which are joined by a large handle with the neck. Very interesting are also the innumerable objects of ivory or bone for the use of women, the very heavy sling-shots of hematite, the copper arrows in the primitive form of small headless nails, and finally the beautiful moulds of mica-slate in form of parallelopipeda, having on each of their six sides moulds for casting manifold arms, of which the greater part are now altogether unknown to us. (See woodcut on the next page.) I may also mention the many interesting small vases with a handle above the opening and a small pipe in the middle, which have probably served as babies' feeding bottles. Besides the large δέπα ἀμφικύπελλα with two immense handles, I found more than twenty differently shaped goblets. I also

found twelve inscriptions, ten of which are published in the English edition of my work, with a translation by Professor Martin Haug of Munich and Theod. Gompertz of Vienna. They are in pure Greek, but in very ancient Cypriote



STONE MOULD FOR CASTING BRONZE IMPLEMENTS, FROM HISSARLIK.

characters, and they render it a certainty that the language of the Trojans was Greek. This is further proved by the fact that, after the primitive figurative or ideal conception of Minerva's epithet $\gamma \lambda a \nu \kappa \hat{\omega} \pi \iota s$ had been forgotten, they understood that $\gamma \lambda a \nu \hat{s}$ means the owl, and $\mathring{\omega} \psi$ the face, and materialised thus $\gamma \lambda a \nu \kappa \hat{\omega} \pi \iota s$ into the owl-face, which they gave to Ilium's patron deity. One of the inscriptions is translated by Professor Haug $\delta \iota \varphi \Sigma \iota \gamma \varphi$ or $\Sigma \iota \kappa \varphi$ (to the divine Sigo or Siko), and, since I found a great many terra-cottas on which only the first syllable of this name "Si" was incised, Professor Haug supposes that the Trojans worshipped amongst others a god or hero named Sigo or Siko, whose name we find in the name of the Trojan city Sigeum, in the name of Sigia, the site of Alexandria-Troas, in the name of Sikyon in the Peloponnesus, which had indeed for king the Trojan Echepolus, the son of Anchises, the brother of Aeneias (Il. xxiii. 296.) Professor Haug recognises also in the name of the Scæan gates, and in that of the Scæanader, the etymology of Sigo or Siko.

Any doubt regarding the very remote antiquity of the Trojan collection must disappear when we examine the objects gathered in my thirty-four shafts sunk in the acropolis of Mykenae, for all the pottery found there has been made on the potter's wheel, and has painted ornaments. The most ancient piece I found there, at a depth of 20 feet, on the virgin rock, represents a horse, perfectly similar to the horses on the most ancient vases of Attica, of which several are in the Museum of the Warvakeion and in the Ministry of Public Instruction at

Athens, and to which an age of 1,400 years B.C. is generally attributed. But these vases appear quite modern when compared with the hand-made Trojan pottery, which has only incised ornaments, and shows no trace of painting. Thus there can be no doubt that the mighty cyclopean walls of Mykenae, and this city itself—which, according to Homer, plays such a prominent part in the war of Troy—were built ages after that war, and that, in singing the events of the Trojan siege, which were known to him as a Saga, the poet illustrates the personages who lived at his time, or shortly preceded him, and describes to us the world and its civilization just as he saw it. Since I speak of Mykenae, I may add that I found there a number of idols of Hera, with a very compressed face, and a polos on the head; further, four small cows of terra-cotta. Thus it is certain that the metamorphosis of Hera's cow-head into a woman's head took place long before the foundation of Mykenae.

The only Greek pottery which resembles the Trojan pottery are the terracottas dug up by the director of the French School of Athens, M. Emile Burnouf. in the ruins of a pre-historic city on the island of Santorin, below three strata of pumicestone and volcanic ashes, 40 to 80 feet in thickness, thrown out by that immense central volcano, which, according to the French geologists, must have sunk and disappeared about 2000 B.C. Only a small portion of this Santorin pottery is hand-made; by far the larger part has been turned on the potter's wheel; and, with but a few exceptions, all the terra-cottas have painted ornaments, which are in general but rudely made, but show in some instances a great deal of art. A few of the vases have, like the Trojan vases, a perpendicular tubular loop on each side, and in the same direction perforations in the rim for suspension with a string. The Santorin vases, with a long backward-bent neck, are undoubtedly intended to represent a woman, for they have two female breasts in high relief, and painted earrings, but no face. The Santorin houses are, like those of the larger monuments of Troy, built of small stones joined with earth; but they have 2 and 21 inch thick coatings of chalk and wall paintings, whilst at Troy I never found a trace of either chalk or colour in the ruins of any of the four pre-historic nations. Only one whorl with incised ornaments was found there, and a small saw, which had for years been considered to be of pure copper, but which now There were found no implements or weapons of turns out to be of bronze. stone, and only some stone weights, which show a decimal system, besides a very small perforated bead of gold. On the whole, therefore, the antiquities of Santorin appear to be by many centuries posterior to Troy.

In the small collection of pre-historic antiquities in the University at Naples

are a few black glazed fragments of vases, and amongst them one with two tubular loops, perfectly agreeing with the quality and form of the vases I found in Troy in the virgin soil, at a depth of 50 to 53 feet below the surface. These fragments came from an excavation made in the Abruzzi.

The museum of St. Germain-en-Laye contains the casts of two such double tubular loops of vases of the very same quality and form; the originals are in the museum at Vannes, in Brittany. It further contains a couple of hand-made pre-historic vases, said to have been found in Normandy, with only one perpendicular tubular loop on each side, and perfectly similar in form to the vases of the second pre-historic nation at Hissarlik. The museum of Boulogne-sur-Mer contains amongst its Roman vases, under No. 326, a hand-made vase with a backward-bent neck of a remote antiquity, and perfectly resembling the vases of the second Trojan period.

Some of the Cypriote vases of the Cesnola collection resemble a little the Trojan vases, inasmuch as they have on each side small rings, which can only have served for suspension by strings; but they have no real tubular loops, and are, without any exception, made on the potter's wheel; besides, their painted ornaments do not at all denote a high antiquity.

In the British Museum I find in the Assyrian collection two beautiful vases found at Nimrud, with a pointed base, incised ornaments, and a vertical cylindrical loop for suspension on each side; thus they perfectly resemble the Trojan vases, but both are made on the potter's wheel, and thus, probably, not of a remote antiquity. Since I speak of the Assyrian collection, I call your attention to the perfect similarity of the Trojan bronze battle-axes to the Assyrian. The latter are, in my opinion, erroneously called here "chisels;" for, since seventeen of these objects were found, together with lances and daggers, in the Trojan treasure, they can hardly be anything else than battle-axes. I further mention the Assyrian cylindroids of hematite, with two pointed ends, which are thought here to be weights, but which can hardly be anything else than sling-bullets. I found a large number of the same description at Troy. Further, the very coarse Assyrian terra-cotta plates perfectly resemble those found at Hissarlik at 23 to 33 feet below the surface.

Among objects in the collection of Cypriote terra-cottas of the British Museum which resemble those of the same form found at Troy, I may mention five vessels with perforations on all sides, like sieves; a vase with a convex base and two long backward-bent necks; vases in form of animals, with a funnel-like opening in the place of the tail; and babies' feeding-bottles with a handle above the mouth.

For objects in other collections in the British Museum which resemble those found at Troy, it will be sufficient to notice the flint saw-knives, stone weights, axes, hammers, celts, wedges, and whetstones of slate with a hole at one end. Further, I may mention the whorls, discs of terra-cotta, awls, pins and needles of bone, from the Swiss lakes; the handmill-stones from Anglesea; the Egyptian hunting-bottles of terra-cotta; the ancient Peruvian vases with an animal's head, and a sort of a funnel at the place of the tail; nine small vases with horizontal rings for suspension, from Germany; and, I may add, some of the ornamental ancient Peruvian whorls.

Though it has now been ascertained that the small collection of hand-made archaic terra-cottas from Marino, near Castel Gandolfo, has not been found below, but above, the stratum of peperino, still I continue to consider it by far the most ancient in the British Museum, but it is too artistically made to approach the age of the Trojan collection. The cross, and the cross with the marks of its four nails, which have been carved into the four sides of the base of two vessels of the Marino collection, deserve particular attention.

I may likewise add, that not the slightest trace either of glass or of iron has been found in the strata of ruins of any one of the different pre-historic nations which inhabited Hissarlik.

Gentlemen, I have given you a summary account of the thousands of relics which from pure love for science, by three years' excavations in a most pestilential climate, it has been my good fortune to rescue from the depths of the earth, where they had been buried for more than forty-two centuries. This my work has called forth many different and often contradictory opinions; it has caused many to cover my name with praise, whilst others have thought proper to indulge in unmeasured abuse. But I shall feel safe in confiding my character and enterprise to the candid judgment of this assembly of Englishmen and of Antiquaries; I shall feel satisfied if it be admitted that I have thrown some light on the dark pre-historic times of Greece, and contributed something towards the solution of the great problem of the real site of the Homeric Troy—a city which is indissolubly bound up with the most celebrated masterpiece of Greek poetry, and with one of the most glorious legends of Greek history.