## APPENDIX.

EXTRACTS FROM LETTERS OF W. J. STILLMAN, RESPECTING ANCIENT SITES IN CRETE.

I.

RUINS OF GNOSSOS, AND ON MOUNT JUKTAS.

CANDIA, Jan. 17, 1881.

OF the ruins of the city of Gnossos little is visible above the soil except some masses of Roman rubble work. At the southern extremity of the site some recently commenced excavations, interrupted by the Pasha, have laid bare some remains of ancient walls. They are, though what is left of them is only about six or seven feet in height, of very great interest, being constructed of huge blocks of hewn stone, gypsum, and sandstone, and the very small portion uncovered shows a narrow passage which gives me the impression of an entrance into the city. The structure is the earliest sample of the style commonly known as Hellenic that I have ever seen, and evidently belongs to the first stage of proper cut stone-work.

There are two or three other openings in the mass of *débris*, into rooms of some sort, one of them a room with walls of the same style, coated with a hard cement still retaining a smoothly finished surface, with two broad bands of a deep red color running round the apartment. The gentleman who made the excavation, and who accompanied me, informed me that he

found in this chamber several large jars, partially imbedded in the earth, resembling in size and general shape those in use now for the holding of oil, though different in ornamentation. In another room are three low seats of stone, and a doorway in which the hole for the bar is still perfectly preserved.

On the 16th inst. I went to Arkanes, from which village the ascent of Mount Juktas is made. The traditional and legendary evidence, preserved by Greek writers, agrees persistently in pointing out this mountain as the locality of the tomb of Zeus. In the investigations I have hitherto been able to make on sites traditionally connected with Zeus and his worship, I have found that the character of the remains marks them as belonging to the Pelasgic of the earlier forms. I expected, therefore, to find on the summit of Juktas some evidence of Pelasgic occupation. I was not disappointed, for I found the remains of a wall which had once encircled the summit of the mountain, of marked early Pelasgic work, similar to the wall of Tiryns, and to the greater part of the most ancient ruins in the Ionian isles, the stones being of large size, and well tied in some places by long blocks which crossed the entire breadth of the wall. This trace of wall enclosed a space of several acres, quite enough for an ancient town, and much too large for a hieron, as Spratt supposes it to have been. This space was strewn with fragments of antique pottery, and at the summit is a cavern now nearly filled up, but which seems to have had a considerable extent in its original condition.

That this cavern must have had a certain importance, is evident not only from the tradition clinging to it, but from its position in the centre of a considerable town and, so far as I know, that which seems entitled to be regarded as the oldest of all the fortified places in Crete. The mountain is put down in Spratt's chart as having an altitude of 2,700 feet; and, being isolated and precipitous, it commands a large extent of country of the most fertile character, looking down on the plain of

Gnossos and all the flat country as far as the sea on the north. It possesses, therefore, all the characteristics of the most important sites of the early Pelasgic civilization, — a high and impregnable position for a walled town, so far isolated as to make it practicable to watch all approaches, a fertile, plain country round it, and an easy access to the sea. That this cavern, so situated as to be in the most defensible part of this fortified space, should have had great importance as royal residence or tomb, or both in succession, as the home and place of sepulchre of a dynasty — which there is good reason to conclude was the earliest to begin the work of civilization in Crete, — is a rational conclusion from all we know or can reasonably conjecture. That it should finish by becoming a tomb and shrine, is in accordance with what we know of cave-residence and cave-temple.

I am convinced that the excavation of this cavern on Mount Juktas would bring to light some valuable evidences of the condition of the early civilization of Crete, and the work is one which would certainly receive my attention were I allowed to follow up the investigations here.

## II.

RUINS IN THE PROVINCE OF MIRABELLO, — OLUS, AXOS, OLONTION; REMAINS OF A LABYRINTH-LIKE CONSTRUCTION AT GNOSSOS.

CANDIA, Feb. 21, 1881.

I have in the meanwhile visited the province of Mirabello and examined the ruins there. The road lies along the coast, passing the sites of Matium, marked by numerous rock tombs; Khersonesus, where I could see no distinctly Hellenic remains, though in some places the ground was quite covered with frag-

ments of ancient pottery; an Hellenic site near the village called Mália and which, hitherto unnamed, I conjecture to have been the port of Lyttos, as the best and most direct road from that ancient city runs down to the coast at this point.

At Neapoli, the capital of Mirabello, no remains of the early civilization of the island are visible, but it is unlikely that a valley so large, so fertile and so accessible to the sea should have been without its city in those days when Crete was teeming with inhabitants. On inquiry, I heard that about twenty-five years ago, a tablet of marble had been found here inscribed with a treaty between the cities of Lyttos and Dryillai against the city of Axos. The tablet had been carried away by Vely Pasha, but the bishop having copied it was able to recall the main features, though he had lost the copy. contained, he said, the oath taken by the citizens of the two cities for the destruction of the third. Ruins were reported on one of the hills overlooking the valley, and on examining the various peaks I found on two adjoining heights evidences of an ancient city site. On one of them were terrace walls for the purpose of keeping the earth from being washed down the mountain side, evidently of early Hellenic work, though rude: while on the highest point of the range are remains of a citadel, the earliest remaining portions of which are some Roman foundations on which are middle-age walls, some cisterns, etc.; but nothing was anywhere to be found of Pelasgic work or of the better class of Hellenic.

As soon as the weather permitted I went to Olus, a Cretan city well known during the epoch of the Gnossian domination. It is fully described by Spratt, whose description I found rather highly drawn so far as regards the preservation of the ruins. It is, however, a most interesting ruin from the marked character of its remains and the, so far as I know, unique characteristic of their absolute homogeneity, showing that at whatever epoch the city may have been destroyed or abandoned, it was never reconstructed by a subsequent

civilization. It is on a steep hill-side, embracing, as is usual in such sites, two adjoining peaks. The remains are mostly house walls, and terraces on which houses have apparently There are also some well-constructed cisterns, of which a few are still capable of containing water, all being cut out of the rock and cemented inside to make them tight with the very hard cement so well known by all who have had occasion to examine remains of the pre-hellenic epoch. Their occurrence in such numbers here where no question of the early date of construction can be raised, affords conclusive evidence of the use of cement at a period anterior to its use in wall building. Some of the cisterns still preserve a stone beam across the opening, probably to support flat stones with which to cover them in. Spratt speaks of Cyclopean walls here, but I could discover no sign of Cyclopean or any form of Pelasgic work, the stones not being remarkable for size, and, moreover. being cut with considerable exactness and apparent facility, making the use of cutting tools evident. In some places, indeed, large masses of rock have been cut down to serve as walls, and at the very apex of one of the two peaks is a platform cut on the rock with a rude sort of moulding along its front, or city side, as if for ornamenting the flight of steps by which it was approached. This platform is too small for any citadel or work of military importance, and was most likely occupied by a temple, which, from its position, was probably that of the tutelary deity of the city. As Pausanias mentions (ix. 40, 2) that Dædalus made a wooden statue of Britomartis for Olus, we have a comparative date given at once to the city and to the stage of technical attainment

<sup>&</sup>lt;sup>1</sup> Spratt, as well as many other writers on antique remains, confounds continually all kinds of polygonal or rough work with Pelasgic or Cyclopean, but the latter term is properly limited to the earliest or unfaced style of Pelasgic work, which is invariably of *unkeun* stone, the facing, however exact, being always by hammering, and the smoothing, if any, by attrition. The masonry of Olus is sometimes polygonal and sometimes parallelopipedal; but the one, as the other, shows well cut surfaces here and there.

which it marks so well. There is an excellent wall leading down from the saddle between the two peaks towards the sea. clearly the substructure of a road carried along the steep slope of the hill. The walls of many of the houses are still standing. for a height of five or six feet, possibly still higher if we could get down to the foundation, but they are all encumbered with débris, matted together with wild olive and almond trees, and various shrubs mostly of a spinous nature, which make an attempt to clear away the area of even one of them a serious undertaking, and one which the restrictions imposed by suspicions of the local authorities regarding my movements made impracticable. The best preserved of these houses consisted of a single room of about sixteen by twenty feet, with a door in the middle of each end, as shown by a stone door-post on each side, well cut so far as the wear of time and weather permitted me to judge.

Olus could never have been a city of great importance as compared with Gnossos, as the fertile territory which comes naturally under its control is too small to have been the source of great wealth, and it was too far from the sea to have had maritime importance.

The site of Axos is another of those which excite our astonishment at the difficulties attending civic security in those early times, and the patience which must have been exercised in overcoming them. Axos is clearly visible from Olus, on a peak on the opposite side of the Mirabello valley, about five miles away, but on an apparently almost inaccessible crag. I found it, on climbing up to the site of the city, about 2,000 feet above the sea level, on every side so precipitous that no attack, other than by surprise, would appear possible, and on three sides absolutely sheer natural wall. Yet on the whole hill the only ruins were some cisterns of most decidedly mediæval construction, possibly repaired for use in the days when pirates were as great a danger to the peaceable inhabitants as in earlier days were civic rivalities. At any rate not a frag-

ment of wall remains which, by the most strained judgment, could be regarded as antique.

From Axos a steep and even perilous road descends to Olontion, on the coast. There seem to me possibilities of profitable excavation in the ruins of this city, though the greater part is probably now under water.

At St. Nicolò, a few miles south of Olontion, a few evidences of ancient occupation occur, and the people excavating incidentally, have found vases and fragments of statues and marbles apparently of buildings of a better class than any thing we have found in the ruins of the cities already noticed. Spratt locates Camara here, and there seems no easy alternative, Ptolemy placing it east of Olus, and between Olus and Minoa, and this being the only port or apparent site between those of Olontion and Minoa.

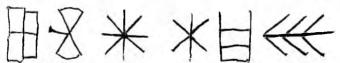
The break in the unwontedly severe weather of the winter, which had permitted me to make the excursions to Olus, Axos, and Olontion, was of short duration, and torrential rains prevented my leaving Neapolis for several days, so that when a bright morning came I made my escape to Candia, having passed twelve days at the former village, on only two of which did we have weather which permitted me to make excursions.

The rain came on again before I had reached Candia and several days were passed before I was able to resume my examination of Gnossos, and to make a more careful investigation of the ancient walls noticed on my former visit. I found in several places characters incised upon them, showing that the surface exposed was intended as the original exterior of the wall. The characters inscribed are indicated in the annexed plan (Plate I. Fig. III.) opposite the points in the wall where they are found. The structure has evidently been ruined by fire at a very early period, as portions have been patched up in a rude and unsubstantial kind of construction, while over this are fragments of Roman work. The portion uncovered is close to an ancient wall, of which the foundations

are at one point visible. The masonry of this wall resembles that of the inner work in style of execution and in material, the latter being in both cases mainly gypsum in huge blocks, one in the inner work measuring on front eight by two and a half feet; but here and there similar blocks of sandstone appear. Both are found in the adjoining hills.

Sixty yards to the north another fragment of structure is uncovered. This is of identical material and workmanship, and on one part bears characters resembling the arrow, used topographically to indicate the course of the wind, current, or direction to a place. It is evidently part of the same structure, and appears to have been an adytum. It is furnished with stone seats (?) which are about six inches in height. A door jamb (A.) (Plate I. Fig. I.) preserves the slot into which the door-bar was pushed, and shows that the door opened into the adytum, but was bolted on the outside, and the arrows on the wall outside appear to indicate an entry by this passage. Between the two portions given in the plan the same kind of wall may be seen here and there protruding above the soil slightly, indicating a continuous work.

Looking at the character of the fragments so far uncovered, the extreme narrowness of the passages, only three feet, too little for a street or entry into a city, the indication of a labyrinthine plan shown in the walls still remaining, which are, as far as cleared out, about seven feet high, its position on the point of the promontory enclosed between two small rivers, and therefore the strongest part of the ancient site and probably the nucleus of the city, the extreme antiquity of the wall, which belongs to the earliest style of parallelopipedal masonry apparently, in development of the art, immediately after that we found at Olus, I am at a loss to attribute this work to any other period or any other use than that which would belong to the Daedalian Labyrinth. The characters inscribed, viz.:



whether they are taken as hieroglyphs, indications for the builders, or keys to the threading of the passages, evidently belong to a period prior to the use of letters or any complete system of numeral record.

The importance of the discovery, if its supposed character be maintained on further excavation, is patent.

The excavations which have disclosed this, in any case, interesting monument were undertaken by the proprietor of the land and Mr. Minos Calocherino, in a search for antiquities, but were stopped by the jealousy of the insular authorities. Having found it impossible thus far to obtain the firman of the Porte, or the redemption of his engagement by the Pasha, I am obliged to renounce the hope of concluding the investigation at present, although I had made the agreements necessary with the proprietor.

