

## MINOAN ART 4000 YEARS AGO: TREASURES FROM CRETAN ISLETS.

By RICHARD B. SEAGER, Director of Excavations for the University of Pennsylvania Museum and the American School of Athens.

ABOUT fifty miles to the east of Candia, the Gulf of Mirabello cuts a deep bay into the northern coast of Crete, reducing the width of the island at this point to a bare seven miles. This strip of almost

of rebuilding; and, though most of the coast towns revived, Psaira was definitely abandoned.

The site was to a large extent excavated by me in 1907, on behalf of the University of Pennsylvania

Museum, and one sees a huddle of small houses covering the entire point, with steep stepways descending at intervals to the shore of the little cove. The beauty of many of the objects found in the houses of what must have been a village of fisher and sailor folk was surprising. The pottery as a whole was of excellent quality, and some of the big painted jars particularly fine. Nearly two hundred stone vases and lamps were found in the ruins; bronze, in the shape of weapons, tools, etc., was found, but in comparatively small amounts, which would make it appear that the inhabitants had some warning of the

In all probability, at that time the islet was connected with the mainland by a narrow neck of land, now barely submerged.

The settlement in early times covered a smaller area than that of Psaira; but in the Late Minoan I. period a number of houses sprang up on the mainland side, as well as on Mochlos itself. The town covered the southern slope of the islet, facing the opposite-Cretan shore. Granting the theory that Mochlos was then joined to the mainland, it would have possessed an excellent little harbour, sheltered from all but the very rare easterly gales.

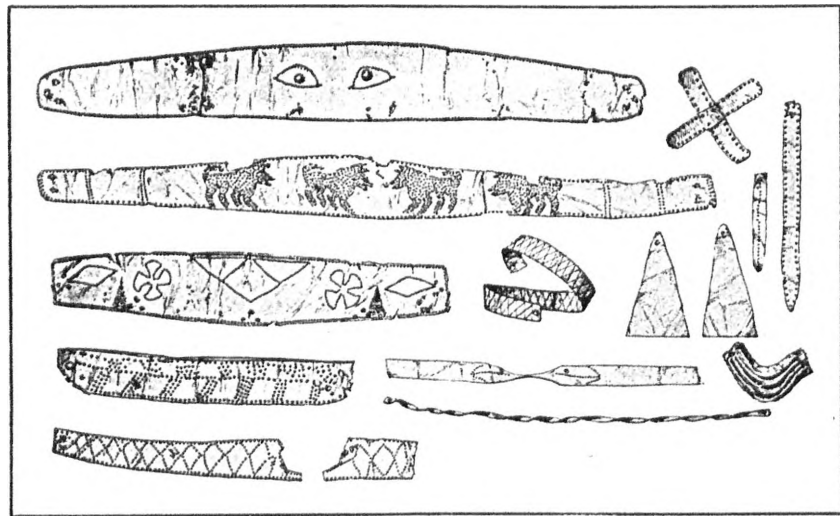
The town fell a victim to the same catastrophe which overwhelmed Psaira, and was not reoccupied until Roman times, when the hillside was covered with houses of no particular interest, the foundations of which made havoc of the earlier Minoan levels. During the excavations conducted by me in 1908 for the American School of Athens, the town's site was tested at various points, and a few houses were cleared; but the necessity of constantly tearing away deep Roman foundation walls made the process of excavation a slow one, and work on the site was abandoned after the discovery of the cemetery.

This cemetery constitutes the chief interest of the excavations on Mochlos, and produced a mass of new and interesting material, which may be said to have revolutionised the previously held view that the Early Minoan period was only slightly more advanced than the preceding Neolithic Age.

The graves were found on the rocky eastern face of the island, scattered about in crannies of the cliffs and covering the more open slopes. There must at one time have been many more; but the lower part of the slope has been almost denuded of soil in the course of centuries, and the contents of many graves must have been carried over the cliffs into the sea. All over this part of the hillside, stone vases and small objects of various sorts were found scattered about in the scanty soil, the graves to which they had belonged having otherwise disappeared.

The graves themselves were of various types. Some were merely a trench lined with rough stone walls, others were cist graves, lined and covered with thin stone slabs; some were jar burials—that is to say, bones covered by an inverted clay jar. In the upper part of the cemetery, close under the cliffs, another class of tombs, six in number, came to light. These all belonged to the Early Minoan period, and were built chambers entered by a doorway closed by a large stone slab. In most cases they seem to have been roofed, and all contained the remains of a number of bodies. They were, in fact, charnel-houses, to which the bones were removed after the flesh had disappeared. This was evident from the confused masses of bones which seem to have been piled on the floor in heaps. The gold ornaments, often crushed into tight packets, the stone vases and other objects, were mixed in with the bones in hopeless confusion. One or two of these chambers had been partly plundered, and re-used for burial purposes in the Middle Minoan III. period; but three at least had come down to us with their rich contents intact. They contained a quantity of gold ornaments, beautiful stone vases, weapons, necklaces of semi-precious stones, seals of chalcedony, carnelian and ivory, and a few clay vases.

(Continued on Pages 388-389, where many of the objects found are illustrated.)



PROOF OF PROFICIENCY IN METAL-WORK IN THE EARLY MINOAN PERIOD: GOLD ORNAMENTS AND DIADEMS FROM A CLIFF TOMB ON THE ISLAND OF MOCHLOS (ABOUT 2500 B.C.).

level ground, to-day called the Isthmus of Hierapetra, occupies the break between the Tripiti Mountains on the east and the Lasethi massif on the west. It seems from early times to have been an important trade route between the north and south coasts of the island, and its course is marked by the remains of several early settlements. Before the days of steam, the isthmus must have played a more important part than it does to-day, although even now much of the trade of Hierapetra passes across this neck of land. Hierapetra lies nearly opposite Cyrene, and is at the end of Crete nearest to Egypt. Trading vessels plying between Crete and the African coast could land their wares at Hierapetra, whence they could be carried seven miles across an almost level strip of country, and re-shipped at the northern end of the isthmus. Weather in Crete is notably uncertain, and the island for a great part of the year is lashed by terrific gales. The voyage around the eastern end of Crete is, for sailing craft, a difficult, and at times a lengthy, business, as they are often held up for days under the lee of Cape Sidero waiting for a favourable wind to round the point. Pre-supposing our overland trade route, one would expect a number of settlements at the northern end of the isthmus, which could supply the required shipping. This is exactly what we do find in the Minoan sites of Gournia, Pachyammos, Kavusi, and the island of Psaira, with which last we are about to deal.

### PSAIRA.

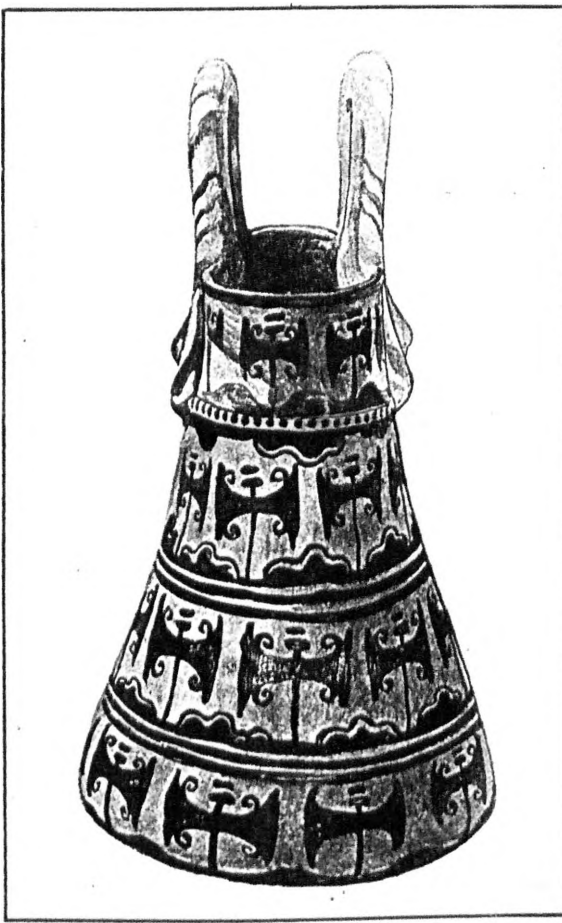
As one sails across the Gulf of Mirabello, a barren and rocky island, to-day called Psaira, strikes one's attention, especially the view of its eastern face, which rises in sheer cliffs to about 1000 feet. On its western side the island slopes gradually down to the sea. Near the middle of the western shore, a narrow point, jutting into the sea, forms on its southern side a small cove, the port of the ancient settlement, the houses of which covered the surrounding slopes.

Psaira lies about three miles from the Cretan coast, and measures about a mile in length by half a mile in width. In spite of the scanty soil and lack of water, a settlement was established there shortly after the close of the Stone Age, and by the Early Minoan II. period, circa 2800 B.C., a small but prosperous village had sprung up.

The area of this village gradually increased during the succeeding periods until, in the Late Minoan I. age, the houses covered the entire point and the adjoining hillock to the south.

The existing ruins belong chiefly to this time, which can be roughly placed at about 1600 B.C. Not long after this date, some great catastrophe overtook the Minoans, and every settlement in Eastern Crete went up in flames at the hands of some enemy. Psaira shared the common fate, and after 1000 years of habitation was abandoned to the desolation in which it still remains.

One must suppose that this Minoan town sprang up with the commencement of Minoan trading activities, and grew and flourished until the Minoan seapower collapsed at the end of the Late Minoan I. period, and complete destruction overtook all Eastern Crete. Apparently, with the loss of the control of the sea, an outlying island was too unsafe to permit



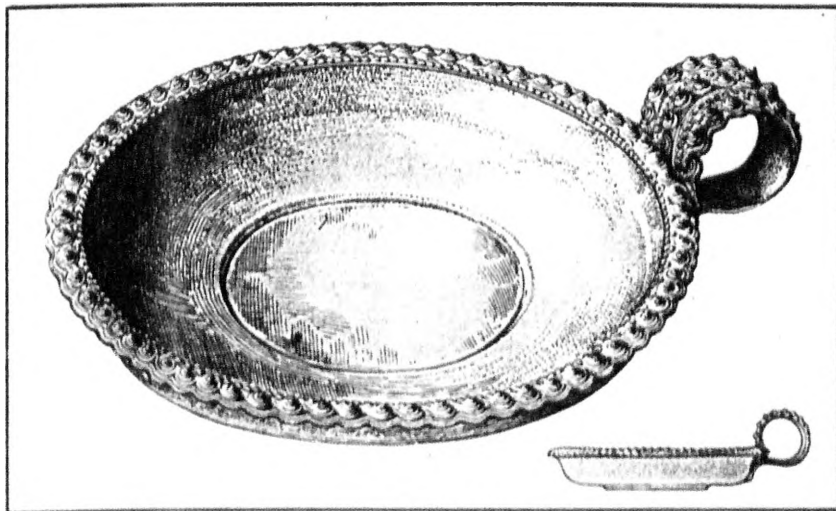
DECORATED WITH A DESIGN OF SACRED DOUBLE-HEADED AXES: A BASKET-SHAPED VASE OF THE LATE MINOAN I. PERIOD (ABOUT 1600 B.C.) FROM THE ISLAND OF PSAIRA.

impending catastrophe, and were able to remove their more precious metal objects to a place of safety.

### MOCHLOS.

Leaving Psaira and sailing eastward, one rounds, about five miles away, a rocky point on the mainland coast, and finds oneself before another islet lying close against the Cretan shore. It is almost egg-shaped, of high, rocky formation, and only about 100 yards offshore. This islet, which is to-day called Mochlos, was, like Psaira, the site of an early settlement.

Its history began about the same time—that is to say, with the opening of the Early Minoan period.



DATING FROM ABOUT 1600 B.C.: A BRONZE BASIN OF THE LATE MINOAN I. PERIOD FOUND ON THE TOWN SITE AT MOCHLOS BENEATH THE LATER FOUNDATIONS OF ROMAN BUILDINGS.—(Photographs by Mr. Richard B. Seager.)



## PENDANTS TO CRETE'S ANCIENT SPLENDOUR: TWO MINOAN ISLAND SITES.

PHOTOGRAPHS BY MR. RICHARD B. SEAGER.



SHOWING MINOAN RUINS, DESOLATE SINCE ABOUT 1600 B.C., WHEN SOME ENEMY RAVAGED THE WHOLE OF EASTERN CRETE: THE SITE ON THE ADJACENT ISLAND OF PSEIRA, WHERE NEARLY 200 STONE VASES AND LAMPS OF FINE WORKMANSHIP HAVE BEEN FOUND.



PROBABLY THE BURIAL-PLACE OF SOME GREAT FAMILY IN DAYS WHEN THE PYRAMIDS WERE ALMOST NEW AND BARBARISM REIGNED IN EUROPE: THE ISLAND OF MOCHLOS—SHOWING THE TOWN SITE (NEAR THE SHORE) AND CLIFFS (ON THE LEFT) WHERE RICHLY STORED TOMBS WERE FOUND.

The islands of Pseira and Mochlos, where the treasures of Minoan art illustrated in this number were found by Mr. R. B. Seager, are situated (as described in his article on page 386) in the gulf of Mirabello off the north-eastern coast of Crete. "Pseira," he writes, "measures about a mile in length by half a mile in width. A settlement was established there shortly after the close of the Stone Age, and by the Early Minoan II. period, *circa* 2800 B.C., a small but prosperous village had sprung up. . . . The existing ruins can be roughly placed at about 1600 B.C. Not long after this date some great catastrophe overtook the Minoans, and every settlement in eastern Crete went up in flames at the hand of some enemy.

Pseira shared the common fate, and, after 1000 years of habitation, was abandoned. . . . One sees a huddle of small houses covering the entire point, with steep stepways descending at intervals to the shore." Mochlos is an egg-shaped rocky islet only about 100 yards from the mainland and probably once connected with it by an isthmus. The Minoan settlement there was contemporary with Pseira and perished in the same calamity. The richness of the gold-work and pottery found in the cliff tombs revolutionised previous views on the Early Minoan period. Although these sites were excavated some fifteen years ago, as Mr. Seager mentions, the results have never before been published in a popular form.



DISCOVERIES THAT REVOLUTIONISED KNOWLEDGE OF EARLY

PHOTOGRAPHS BY MR. RICHARD B. SEAGER, DIRECTOR OF EXCAVATIONS FOR THE



"PERHAPS EVEN MORE REMARKABLE THAN THE GOLD OBJECTS": SOME OF THE 150 EARLY MINOAN VASES FROM THE MOCHLOS CEMETERY (ABOUT 2500 B.C.).

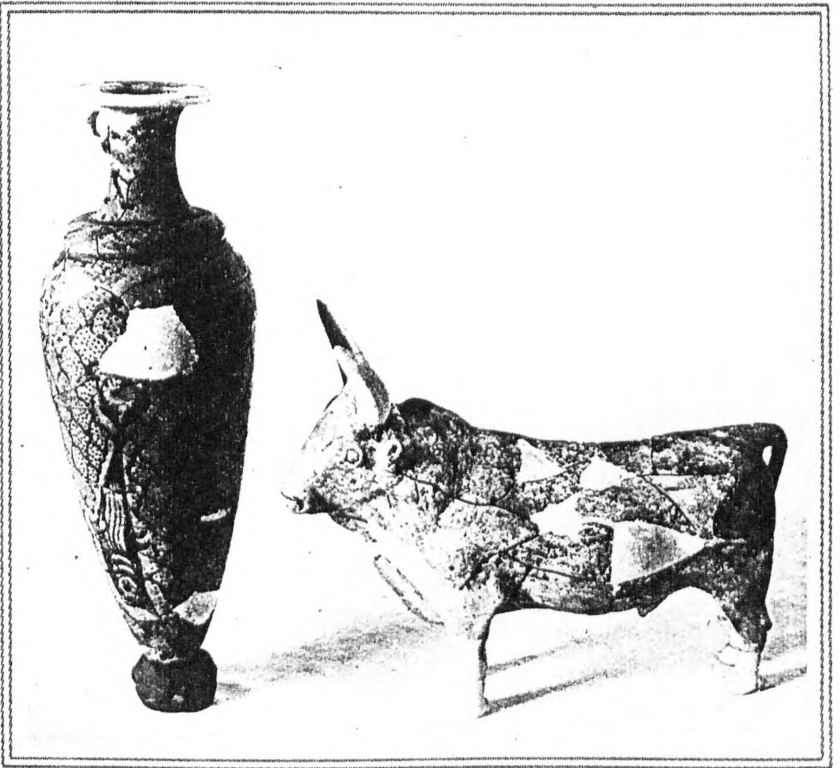


"SOME OF THE STONE CUPS AND BOWLS ARE . . . NO THICKER THAN A CHINA TEA-CUP": EARLY MINOAN II. STONE AND CLAY VASES FROM MOCHLOS.

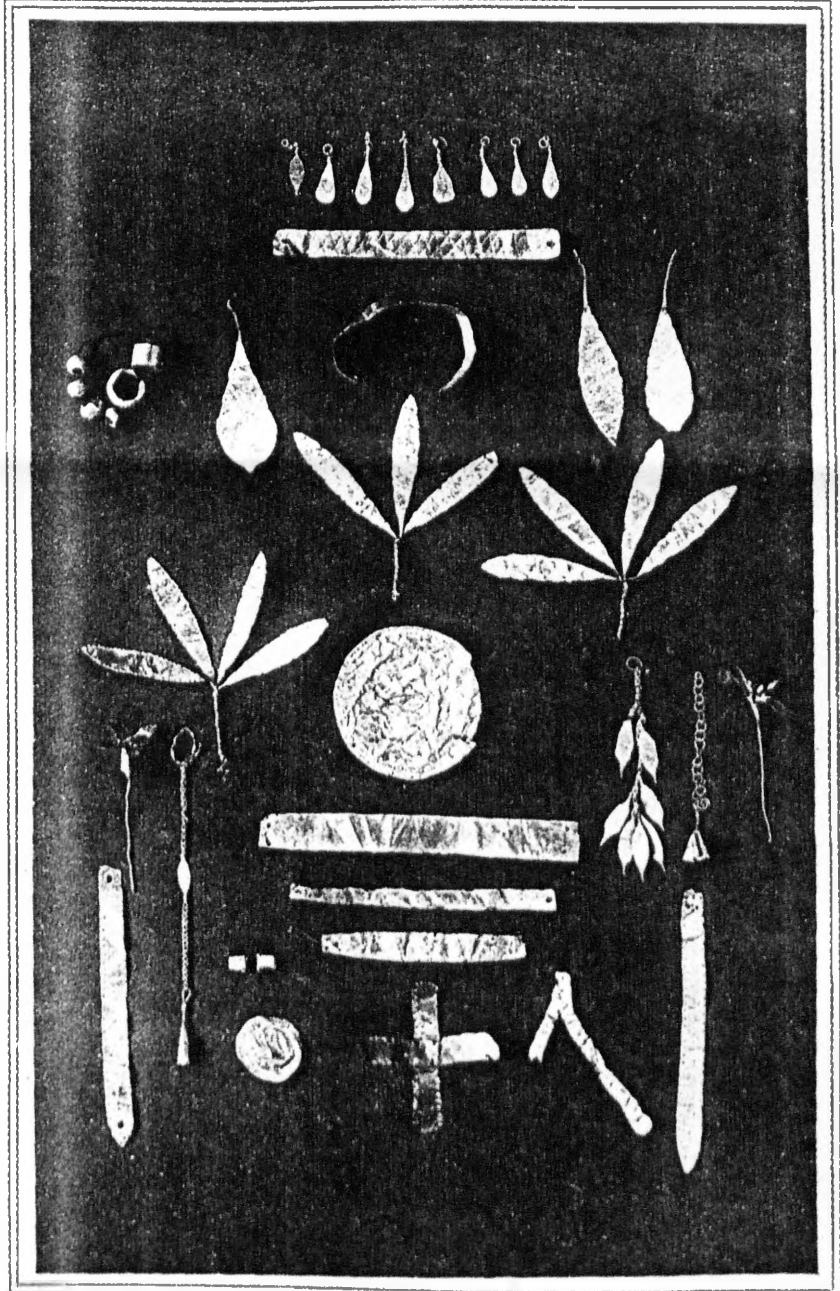
*Continued from Page 386.*  
ONE of the three intact tombs at Mochlos produced as many as 118 gold objects. Their actual value as metal is slight, as most of them are of small size and thin gold, but one is amazed by the delicacy of the gold chains and the charm of the flower-shaped pins, which show a proficiency in metal-working hardly to be expected in Crete at so early a date as 2500 B.C. Among these gold objects are several bands or diadems which show signs of having been worn for years, and were not merely made for funerary purposes. The large series of stone vases, about 150 in number, are perhaps even more remarkable than the gold objects. They range in size from a thimble to a soup-plate, and are carved in a wonderful variety of materials: bright-coloured marbles of various sorts, breccias, steatite, both opaque and translucent, serpentine and alabasters. The brilliant veining of the stones used, the variety of shapes and delicate workmanship, excite the admiration of all who see them. In some cases, the shape of the vessel has been adapted to suit the veining of the particular piece of stone from which it has been carved, so that one is almost  
*(Continued opposite.)*



FOUND "WITH THEIR RICH CONTENTS INTACT": THREE OF THE EARLY MINOAN CHAMBER TOMBS, ONE OF WHICH CONTAINED 118 GOLD OBJECTS, IN THE MOCHLOS CLIFFS.



OF THE LATE MINOAN I. PERIOD (ABOUT 1600 B.C.): A RHYTON, WITH FISH DESIGN, AND A CLAY BULL, FROM PSEIRA.



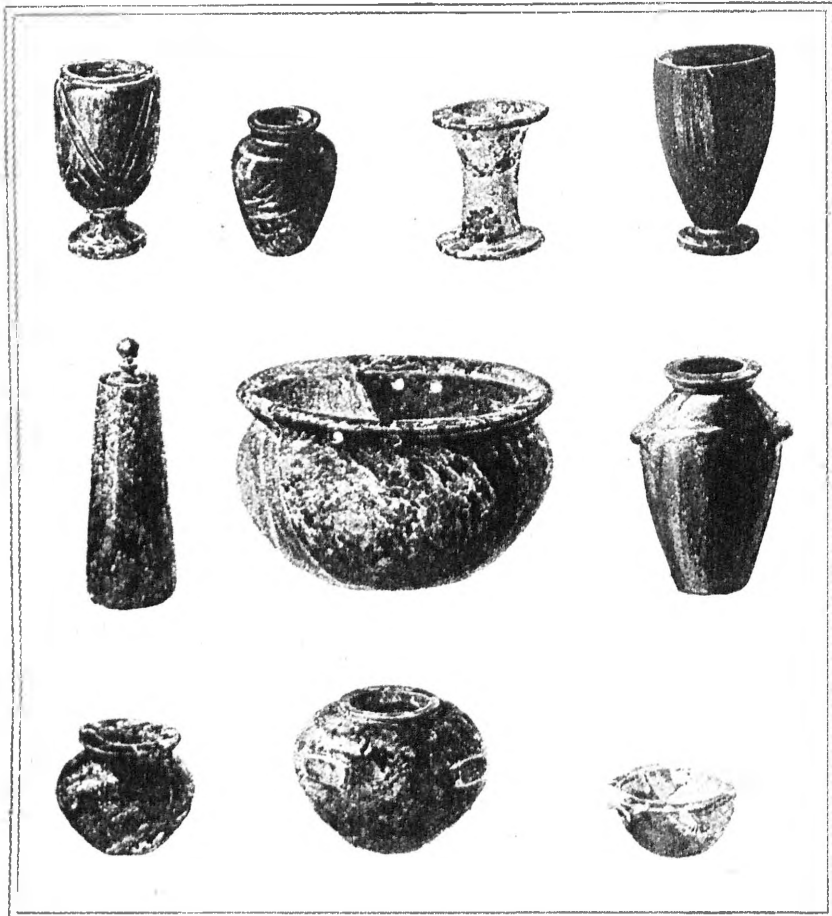
"ONE IS AMAZED BY THE DELICACY OF THE GOLD CHAINS AND THE CHARM OF THE FLOWER-SHAPED PINS": EARLY MINOAN GOLD ORNAMENTS FROM MOCHLOS.

*Continued from above.*  
perhaps princely, house, which had its seat on the islet of Mochlos. The Pseira cemetery produced a great number of stone vases, but they cannot compare with those of Mochlos, either in beauty of materials or in point of workmanship. Then, too, almost no gold was found in the Pseira graves, but there was a far greater abundance of coarse pottery. Thus, in all probability, we have at Mochlos the burial-place of some family of great importance in Eastern Crete in the dawn of its history, at a time when the Pyramids of Gizeh had only recently been built and Europe was still in the darkness of barbarism." So writes Mr. R. B. Seager in his article begun on page 386 and continued above. To recapitulate, it may be recalled that the beautiful examples of Minoan craftsmanship here illustrated were discovered by him in the little islands of Mochlos and Pseira, off the coast of Crete. The richest finds were made in the cliff-tombs of Mochlos. "This cemetery," Mr. Seager writes, "produced a mass of new and interesting material which may be said to have revolutionised



# MINOAN ART: GOLD-WORK AND POTTERY 4000 YEARS OLD.

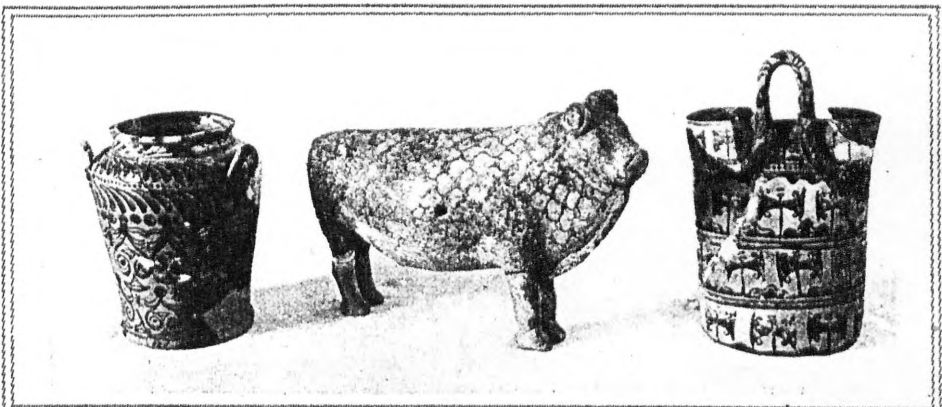
UNIVERSITY OF PENNSYLVANIA MUSEUM AND THE AMERICAN SCHOOL OF ATHENS.



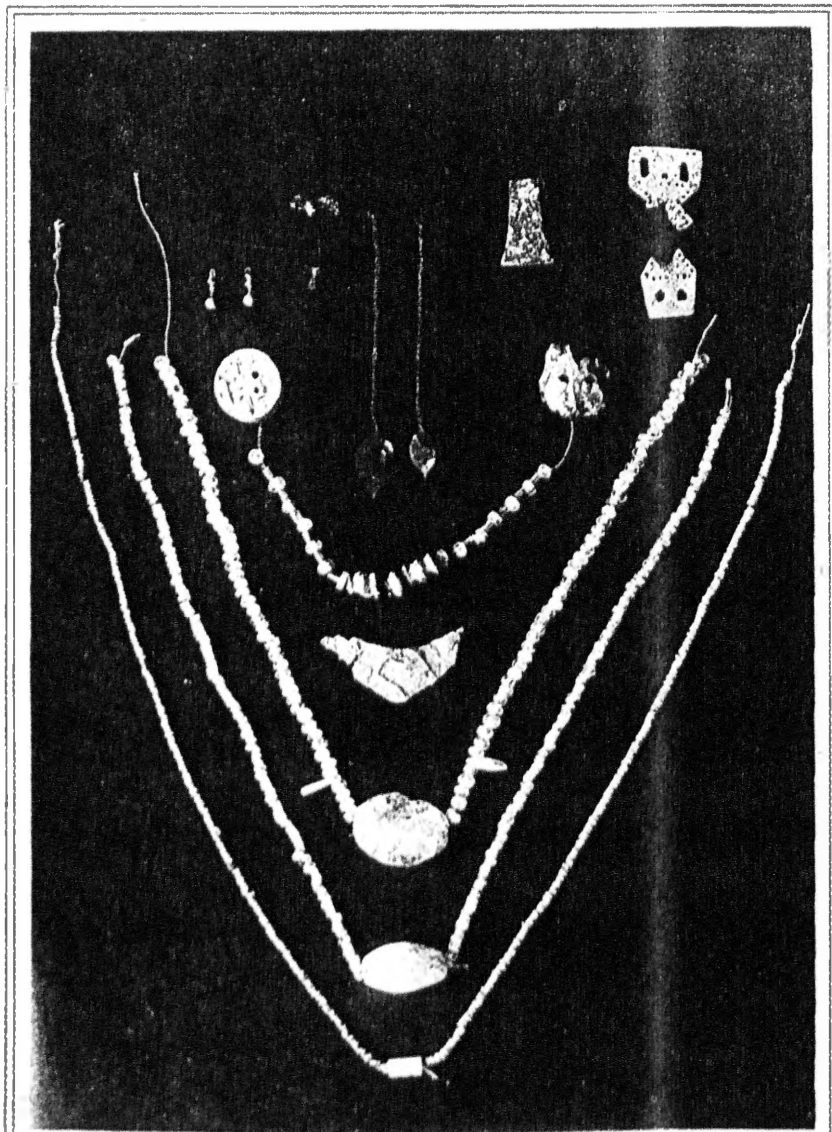
INCLUDING A DIRECT COPY (THIRD IN TOP ROW) OF A SIXTH DYNASTY EGYPTIAN ORIGINAL: EARLY MINOAN II. STONE VASES FROM MOCHLOS.



"CARVED IN A WONDERFUL VARIETY OF MATERIALS": EARLY MINOAN STONE AND CLAY VASES FROM THE CEMETERY ON THE ISLAND OF MOCHLOS.



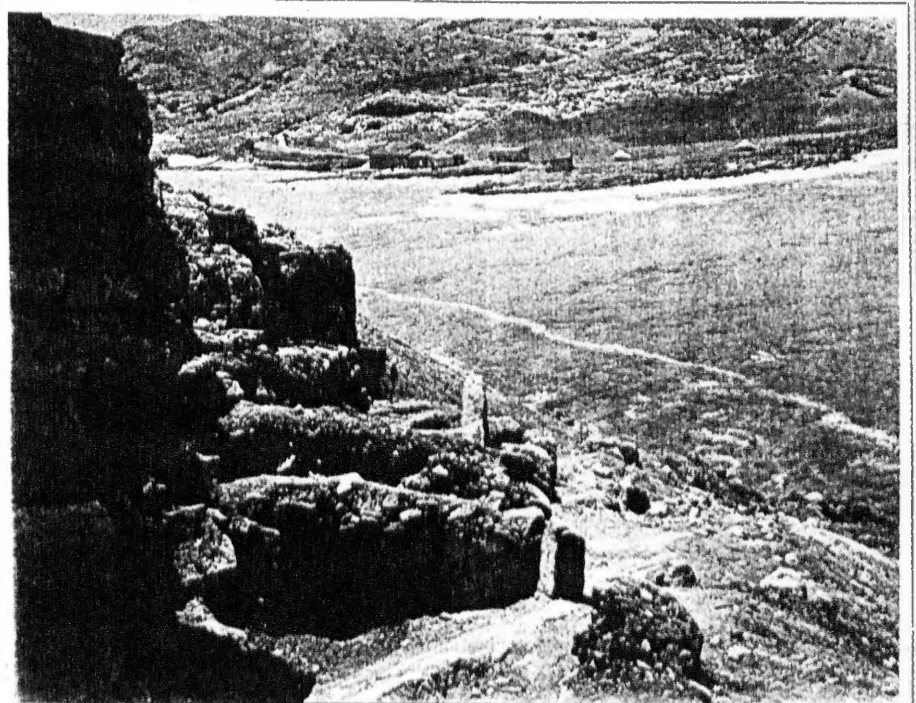
DECORATED WITH THE SACRED DOUBLE-AXE DESIGN: A VASE OF THE LATE MINOAN I. PERIOD (1600 B.C.), AND A CLAY BULL, FROM THE ISLAND OF PSEIRA.



FROM A MOCHLOS TOMB OF 2500 B.C.: EARLY MINOAN NECKLACES OF ROCK-CRYSTAL AND GOLD, AN IVORY SEAL, AND OTHER ORNAMENTS OF GOLD AND SILVER.

*Continued.* persuaded that the veined pattern must be artificial. Some of the stone cups and bowls are so delicately carved that their walls are no thicker than those of a china tea-cup. The shapes show close analogies with those of Egyptian stone vases of the Fourth to Sixth Dynasties, and it was from Egypt, undoubtedly, that the Minoans borrowed the knowledge of stone-cutting which enabled them to produce this beautiful series. . . . The seals of nearly every Minoan period are represented. First, in point of age, come rough cones and cylinders of steatite, crudely carved; these are followed by large and elaborate seals of ivory; which in turn are superseded by the three and four-sided seals of the Middle Minoan Age. Finally, there are a few of the common lentoid and amygdaloid gems of the Late Minoan period, belonging to some late jar burials of children found near the eastern fringe of the cemetery. The richness of these early graves at Mochlos is in such striking contrast to the contents of the Pseira cemetery, with which it is contemporary, that one feels that these chamber-tombs must have been the burial-places of an important, or

*[Continued below.]*



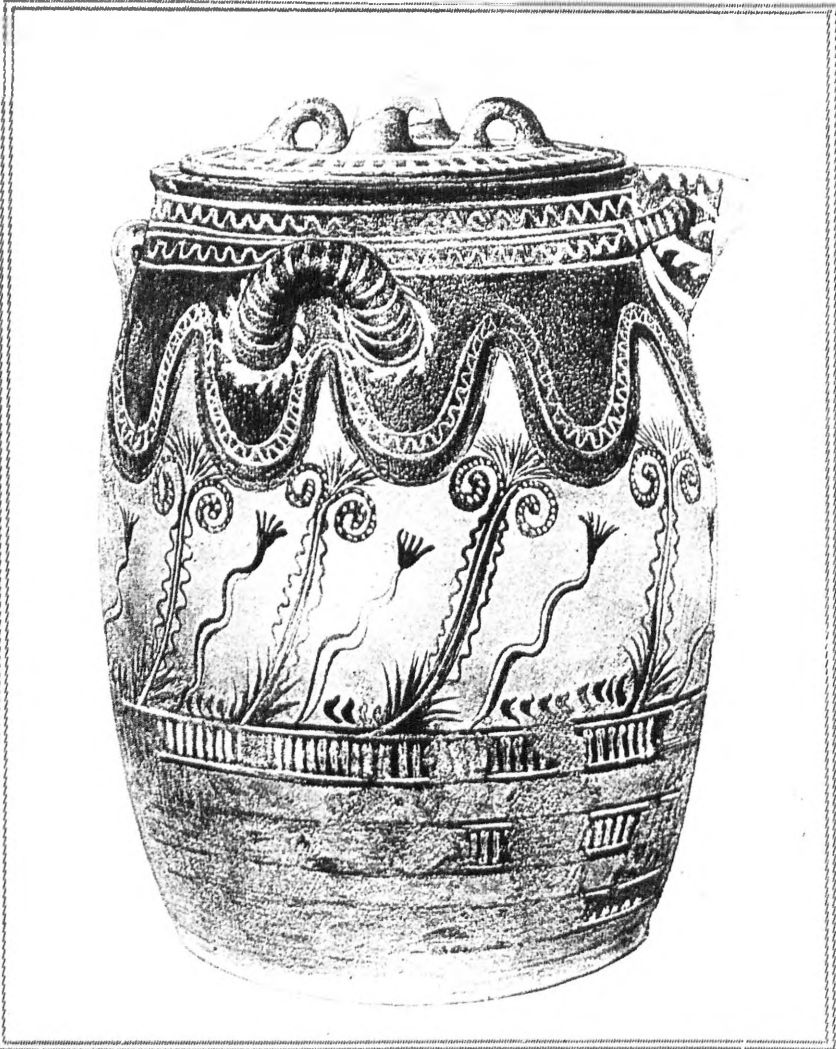
SHOWING THE COAST OF THE CRETAN MAINLAND IN THE BACKGROUND: ANOTHER VIEW OF THE THREE EARLY MINOAN CHAMBER TOMBS IN THE CLIFFS.

the previously held view that the Early Minoan period was only slightly more advanced than the preceding Neolithic Age. The graves were found on the rocky eastern face of the island scattered about in crannies of the cliffs. . . . Close under the cliffs another class of tombs, six in number, came to light. These all belonged to the Early Minoan period, and were built chambers, entered by a doorway closed by a large stone slab. . . . Three at least had come down to us with their rich contents intact. They contained a quantity of gold ornaments, beautiful stone vases, weapons, necklaces of semi-precious stones, seals of chalcedony, carnelian and ivory, and a few clay vases." The remainder of Mr. Seager's description is given above, and the illustrations show a number of the remarkable discoveries to which he refers. In his article he mentions that the date of the Early Minoan period was about 2500 B.C., and that of the Late Minoan I. period about 1600 B.C.

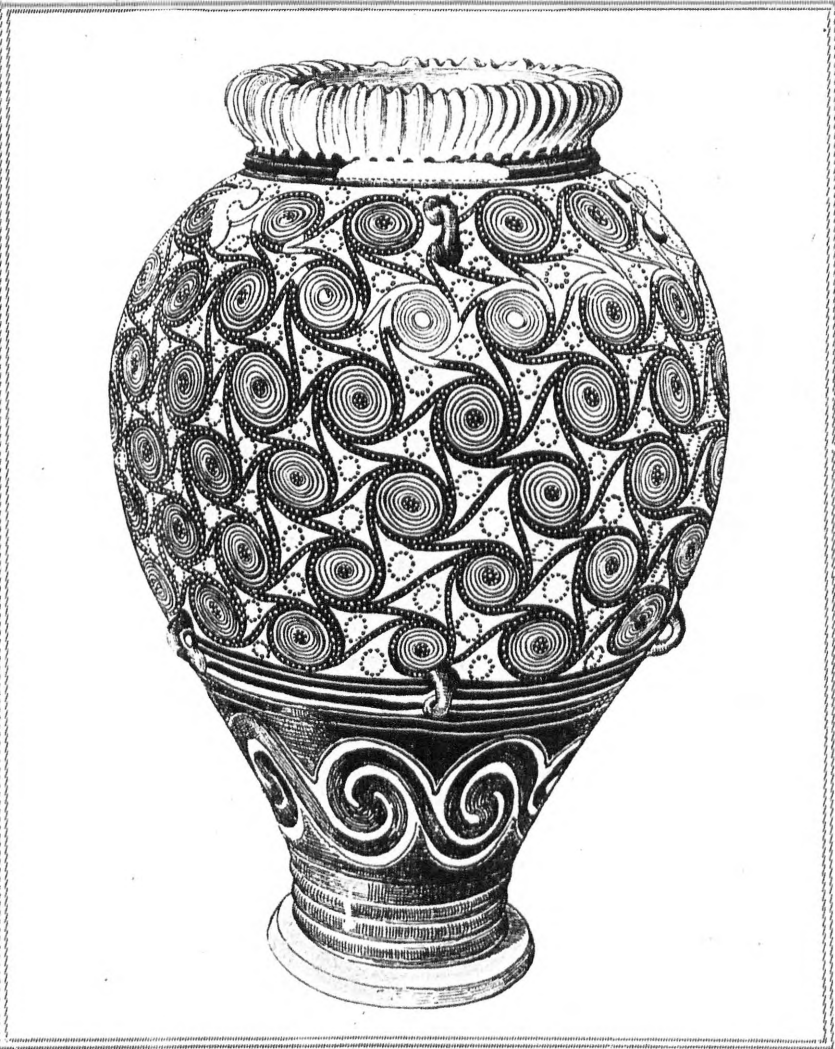


JARS NEARLY 4000 YEARS OLD: MINOAN POTTERY FROM CRETAN ISLETS.

PHOTOGRAPHS BY MR. R. B. SEAGER.



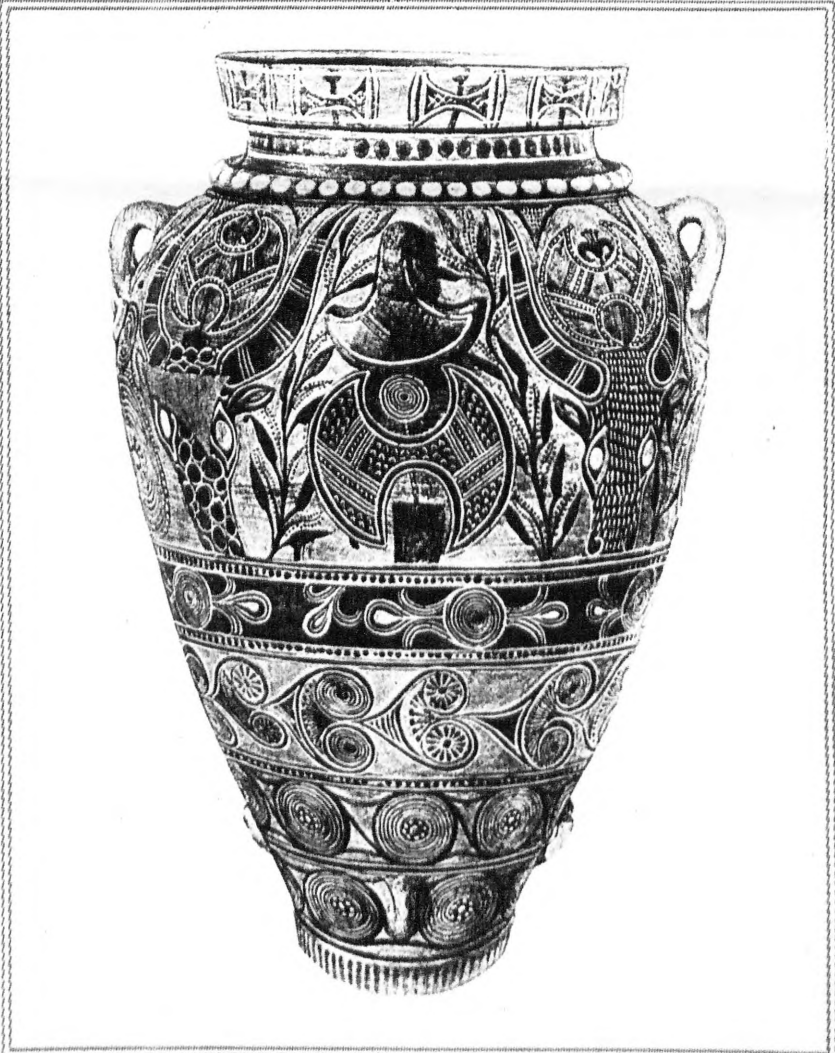
DATING FROM THE LATE MINOAN I. PERIOD (ABOUT 1600 B.C.):  
A JAR FROM THE TOWN SITE AT MOCHLOS, AN ISLET OFF CRETE.



ONE OF NEARLY 200 EXAMPLES OF POTTERY FOUND ON THE ISLAND  
OF PSEIRA: A JAR OF THE LATE MINOAN I. PERIOD.



OF A TYPE USED FOR BURIALS, FOR INVERSION OVER THE BONES:  
A LATE MINOAN I JAR FROM THE CEMETERY AT MOCHLOS.



DECORATED WITH RELIGIOUS SYMBOLS INCLUDING BULLS' HEADS AND  
DOUBLE AXES: A LATE MINOAN I. JAR FROM THE ISLAND OF PSEIRA.

Describing (on page 386) his discoveries on the island of Pseira off the Cretan coast, Mr. R. B. Seager says: "The beauty of many of the objects found in the houses of what must have been a village of fisher and sailor folk was surprising. The pottery as a whole was of excellent quality, and some of the big painted jars particularly fine. Nearly two hundred stone vases and lamps were found in the ruins." The objects discovered on the neighbouring island of Mochlos, mostly in the cemetery, but some on the town site, were even finer. They included about 150 stone vases. "The graves," writes Mr. Seager, "were of various types. . . . Some were jar burials, that is to say, bones covered by an inverted

clay jar." Among the jewellery and ornaments were "a few of the common lentoid and amygdaloid gems of the Late Minoan period belonging to some late jar burials of children found near the eastern fringe of the cemetery." Discussing the respective results on the two islands, Mr. Seager says: "The Pseira cemetery produced a great number of stone vases, but they cannot compare with those of Mochlos either in beauty of materials or in point of workmanship. Then, too, almost no gold was found in the Pseira graves, but there was a far greater abundance of coarse pottery." Other examples of vases from both islands are illustrated on a double-page in this number.