PREHISTORIC RESEARCHES IN THE HATAY PROVINCE

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INTRODUCTION

During the course of prehistoric researches in the Provinces of Gaziantep and the Hatay in 1954, conducted under the auspices of the Faculty of Language, History and Geography of the University of Ankara, Enver Bostancı met Mr. Klaus Hormann, a German geologist who was then working at a private chrome company. Upon Klaus Hormann's mention of a cave near the village of Mağracık in Samandağ, Enver Bostancı went with him to this cave and collected a flint flake and some fossil animal remains on the surface. Enver Bostancı in May, 1956, went once more to this region and made a sounding in this cave. In this sounding, made on behalf of the Faculty of Language, History and Geography of the University of Ankara, were found flint artifacts belonging to the Palaeolithic period, teeth and bones of fossil animals and some human remains.[1] After this sounding, and upon the proposition of Enver Bostancı, we decided to excavate together in this cave. In this cave, which we have named the First Cave, we jointly made three excavations in 1956 and 1957. We made the first excavation in June, 1956, under the auspices of the Faculty of Language, History and Geography of the Universiy of Ankara,[2] the second in September, 1956, on behalf of the Turkish Historical

[1] For this sounding see *Zafer*, 24. V. 1956, p. 1, Ankara.

[2] On this occasion we wish to extend our thanks to the Office of the Dean, the Professors' Council and the Research Stations of the Faculty of Language, History and Geography of the University of Ankara for providing the necessary grant for the excavation.

Society [3] and the third in June, 1957, again under the auspices of the Turkish Historical Society. [4] Besides, in September, 1957, we made a sounding in another cave (Second Cave), located between the First Cave and the village of Mağracık. The locations of the caves we have excavated are shown in Plate I.

The first Palaeolithic remains in the Hatay were found by Nurettin Can in 1943 on the edge of the city of Antioch (see Pl. I and Pl. V, fig. 1). [5] This was followed by a Palaeolithic artifact discovered by W. J. McCallien on the surface, south of the İskenderun region. In the map of Kökten this find is marked as Levalloiso-Mousterian. [6] Later on, in 1950, Fikret Ozansoy from the Mineral Research and Exploration Institute carried out prehistoric researches in the Hatay, but he has not yet published the results of this research. Subsequently in 1954 Enver Bostancı, in addition to his visit to the First Cave near the village of Mağracık, went to the District (Kaza) Center of Altınözü (see Pl. I and Pl. V, fig. 2), which is 12 kilometers south-east of Antioch, and found a hand-axe on the sur-

[3] For the excavations we conducted, in 1956 see Şenyürek, M. and Bostancı, E., 1956 (a). Samandağı'nda Eski Taş Çağına ait bir iskân yeri. *Zafer*, 4.VII, 1956, p. 2, Ankara; and *Yankı*, 4. VII, 1956, pp. 20-21, Ankara; Şenyürek, M. and Bostancı, E., 1956 (b). The excavation of a cave near the village of Magracık in the Vilâyet of the Hatay. Anatolia, Revue Annuelle d'Archéologie, Vol. I, pp. 81-83; Şenyürek, M. and Bostancı, E., 1956 (c). Samandağı'nda yapılan prehistorik araştırmalar. *Zafer*, 6. XI.1956, pp. 2 and 5, Ankara.

[4] We wish to express our thanks to the Turkish Historical Society for the funds for these last two excavations. In this connection we also wish to extend our thanks to the General Directorate of Antiquities and Museums of the Ministry of Education, for giving us the necessary permit for the researches and excavations we carried out in this region and to the Governorship of the Hatay, the Directorate of Education of the Hatay, the District Governorship of Samandağ and to Mr. Abdullah Cilli, who was the Deputy from the Hatay for the Tenth Parliamentary Session, for extending to us all the possible facilities during our work at Samandağ.

[5] See Kansu, Ş. A. 1945. Hatay'da (Antakya) bulunan Üst Aşöleen (Micoque) ve Niğde-Nevşehir çevrelerinde toplanan Levalloisien âletler hakkında bir not. A note on implements of Upper Acheulian (Micoquian) type from Hatay and artifacts of Levalloisian type from the Niğde region. Belleten, Vol . IX, No. 34, p. 295.

[6] Kökten, İ. K. 1952. Anadolu'da prehistorik yerleşme yerlerinin dağılışı üzerine bir araştırma. Ankara Üniversitesi, Dil ve Tarih-Coğrafya Fakültesi Dergisi (Revue de la Faculté de Langue, d'Histoire et de Géographie, Université d'Ankara), Vol. X, No. 3-4, pp. 167-207.

face near this town. In September, 1956, after stopping the dig at Samandağ, we went together to Altınözü and collected some more flint artifacts on the surface. Besides these, in June, 1957, we collected flint artifacts on the surface of a terrace west of the city of Antioch, at the place visited by Nurettin Can.

THE EXCAVATIONS CONDUCTED IN THE CAVES NEAR THE VILLAGE OF MAĞRACIK IN SAMANDAĞ

THE FIRST CAVE

The First Cave is near to, and slightly to the northwest of, the village of Mağracık, which is about four and a half kilometers northwest of the District (Kaza) Center of Samandağ and is located at the edge of the ancient city of Seleucia, built by the Great Seleucus, one of Alexander the Great's generals, who was the founder of the Seleucid dynasty (Pl. II and Pl. III, fig. 1). In the vicinity of the First Cave, there are also other caves, some natural and some artificial (Pl. III, fig. 2, and Pl. IV, fig. 1). Some of the natural caves in this region had also been inhabited in the classical period. The First Cave and the other caves in this region are found at the southern foothills of Musa Dagh, in limestones of Helvetian (Miocene) Age. [7]

The mouth of the First Cave, which has a maximum length of 23, a maximum width of 6 and a maximum height of 4 meters, faces south. The floor of this cave, which is about 1 kilometer inland from the present seashore, stands 39 meters above the present sea level. On the eastern and western walls and on the anterior part of the ceiling of the cave there are remnants of hard sandstone, containing the bones and teeth of fossil mammals and the shells of terrestrial gastropods (snails). These sandstone remnants show that at one time the cave had been invaded by fresh water and had been filled up to its ceiling. Of this sandstone filling, which has subsequently been eroded, at the present only the remnants seen on the eastern and western walls and on the ceiling of the cave are left.

[7] For the geology of this region see Erentöz, L. E. 1956. Stratigraphie des bassins néogènes de Turquie, plus spécialement d'Anatolie Méridionale et comparaisons avec le Domaine Méditeranéen dans son ensemble. Theses présentées à la Faculté des Sciences de l'Université de Paris pour obtenir le grade de docteur ès Sciences naturelles. Série A, No. 2811, No. d'Ordre: 3683, p. 27 and map, Ankara.

In the excavations we carried out in this cave we established that in the Roman period it had been used as a stone quarry. The stone blocks cut from the western wall of the cave had been chipped in the cave. The quarrymen have dug up a large part of the cave floor, have mixed the cultural layers in these sections and have filled these places with the rubble. On top of the cave the rock has been cut and made into a staircase (pl. II, fig. 2).

We encountered five cultural layers in the undisturbed parts of the cave. In different levels in the cultural layers we met remains of ashes; and rocks that had fallen down from the ceiling probably during the earthquakes. Below the cultural layers are found pieces of rock that had fallen from the ceiling and sea sand that will be discussed below. In the ground plan of the cave the pits excavated in June, 1956, are shown by numbers I and II, those opened in September of the same year by III and IV and the pit dug in June, 1957, by number V. Pits II and III and the western part of Pit V have been disturbed by the quarrymen who worked in the cave in the Roman period. In Pit II and in the western part of Pit V the quarrymen descended down to the sea sand, which is situated below the cultural layers. On the other hand, with the exception of a superficial part in one corner, Pit I, Pit IV, the part of Pit V located south of Pit IV and its section below the mass of sandstone (under the rock), which forms a bulge on the eastern side of the mouth of the cave, are undisturbed. In 1957 we opened Pit Number VI at the back end of the cave. In this pit, where only a few flint fragments were encountered, we established that the sea sand extends up to the northern end of the cave.

In the excavations carried out in this cave we found many flint artifacts, some bone tools, a large number of fossil mammalian remains, the shells of invertebrates consumed as food by the inhabitants of the cave and some human remains. According to the determinations made by Şenyürek up to now, the mammalian fauna includes the remains of the lion, *Felis sp.*, bear, rhinoceros, porcupine *(Hystrix)*, *Cervus*, *Dama*, *Capreolus*, ox *(Bos)* and wild boars.[8]

[8] The remains of fossil mammals are being studied by Şenyürek. The human remains, which are also under study by Şenyürek, consist of isolated teeth and a couple of bone fragments. Besides these, remains of a human skeleton were found in

In addition to these in the collection there are other kinds that have not yet been determined. Among the invertebrates there are the shells of terrestrial snails and marine animals.

The first cultural layer, which is the highest of the five cultural layers we have established in the cave, belongs to the Roman period and the second cultural layer, which is below this, and the third cultural layer appertain to the Upper Palaeolithic (Aurignacian) culture. The third and the second cultural layers are characterized by blades, scrapers and burins. The fourth and the fifth cultural layers represent the Upper Levalloiso-Mousterian culture that is characterized by points and racloirs.

The first cultural layer which consists of black soil, containing humus, has a thickness of 35 centimeters on the north side of Pit I and 25 centimeters under the rock (see Pl. VII and VIII). The thickness of the second cultural layer which is of a light brown color is 51 centimeters on the north wall of Pit I. On the other hand, the thickness of this layer amounts to 118 centimeters under the rock. Under the rock 42 centimeters of this layer stands above the level of the cave floor on the north wall of Pit I and its 76 centimeters is found below this level. The situation observed under the rock suggests that this cultural layer was originally thicker and that it has been dug out by the quarrymen in the other parts of the cave. The thickness of the third layer, which consists of black earth, is 39 centimeters on the north wall of Pit I and 50 centimeters under the rock. In the lower section of layer III and in the upper portion of layer IV there is a sterile part consisting of stones that have fallen from the ceiling. This thin layer of stones, which is relatively sparce in Pit I and more apparent in Pit IV and under the rock corresponds to an interval of time between the layer IV and layer III. The IVth cultural layer, which is of dark brown color, has a thickness of 47 centimeters on the north wall of Pit I and below the rock. In the middle of this layer occurs a hardened horizon which is lime-cemented and contains bones and flint artifacts. This hardened part covers a large area especially in Pit IV and under the rock. The

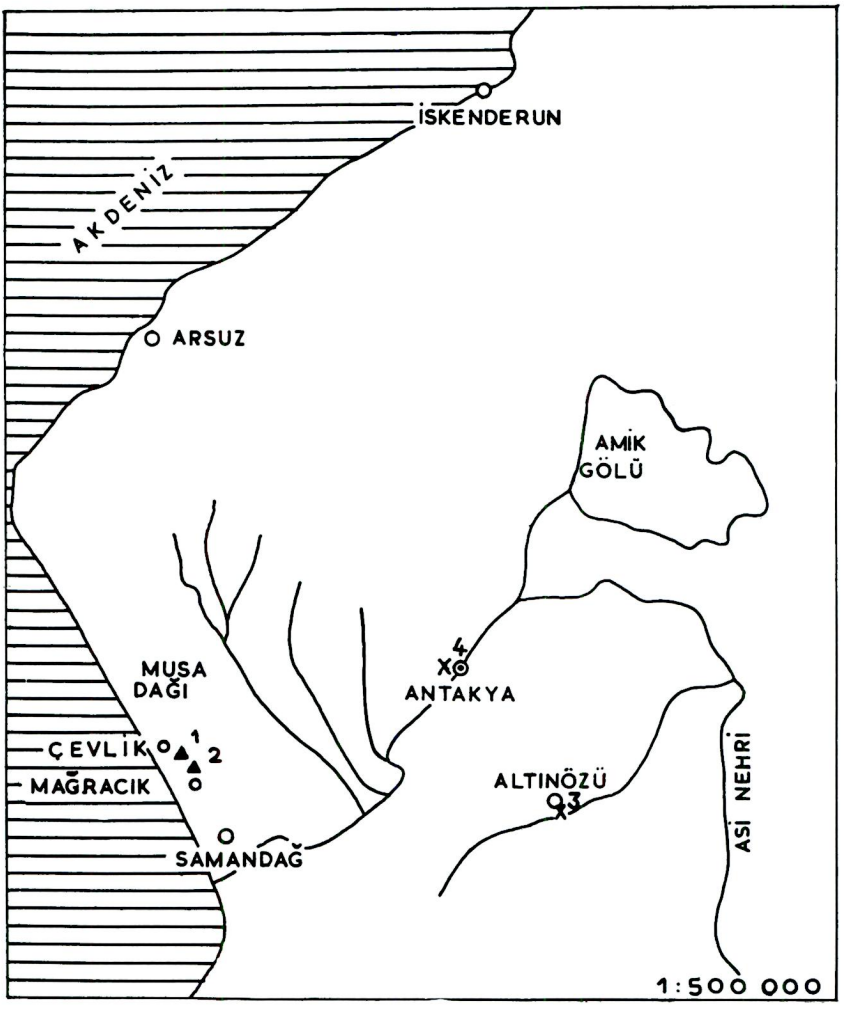
the disturbed Pit III. Samples taken from the fragments of this skeleton have been sent to Dr. Oakley of the British Museum in London for a Fluorine Test. The status of this skeleton will be known after this test.

cultural layer V, which is below layer IV, consists of lighter colored, yellowish earth. While the thickness of this layer is 58 centimeters on the north wall of Pit I, it amounts to 191 centimeters under the rock. Whereas this layer is a completely cultural layer in Pit I, under the rock its lower part is sterile and in this section large pieces of rock draw the attention. In Pit I below layer V and in the upper part of the strata of sand are seen large pieces of rock that have fallen from the ceiling. In the IVth Pit and under the rock these large blocks of rock are found in the upper part of the sand and in the lower section of layer V. Indeed, in all parts of the cave excavated we encountered large fragments of rock in the upper part of the sand. These pieces of rock standing in the upper part of the sand and above it indicate that a longish interval of time had elapsed between the time this sea sand had been deposited and the settlement of the cave by the owners of the Upper Levalloiso -Mousterian culture.

In the parts of the cave excavated we encountered sea sand beneath the large fragments of rock. The marine sand is seen at a depth of 230 centimeters on the north wall of Pit I and 364 centimeters below the rock. In other words, the upper surface of this sand, which slants downward from the north to the south, stands 36.70 meters above the present sea level on the north wall of Pit I and 35.36 meters, in the middle, under the rock. This marine sand is more recent than the remnants of sandstone of fresh water origin seen on the eastern and western walls and on the ceiling of the cave.

In the first pit we descended, from the surface downward, to a depth of 571 centimeters in these sand deposits (see Pl. VI, fig. 1). This is the lowest level we have reached in this cave. Down to this depth, we determined 7 strata in the sand. The colors and the thicknesses of these layers of sand, in the north wall of the first pit, which are numbered as 1, 2, 3, etc., are shown below:

Layer of Sand	*Structure and Color*	*Thickness (in centimeters)*
1	Loose, grey sand	80
2	Red sand	10
3	Hardened, light grey sand	48
4	Loose, dark sand	40
5	Loose, yellow sand	63
6	Loose, dark sand	50
7	Loose, yellow sand	50


İSKENDERUN
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Res. 1
Fig. 1

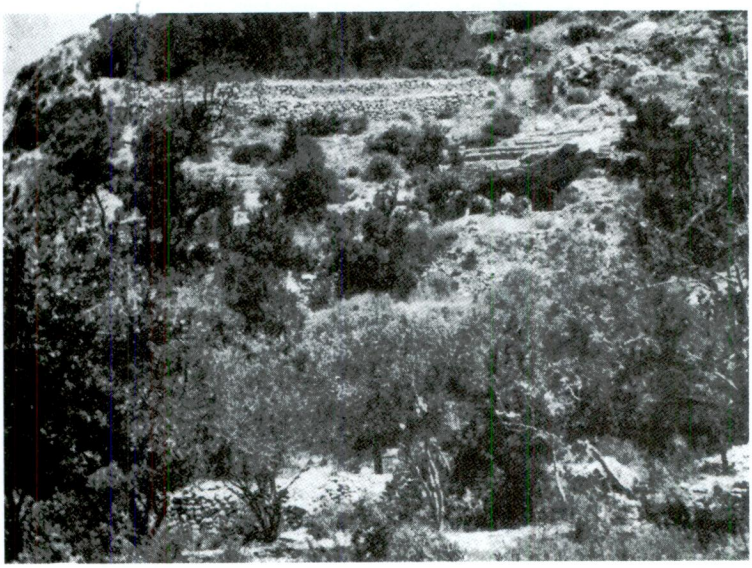

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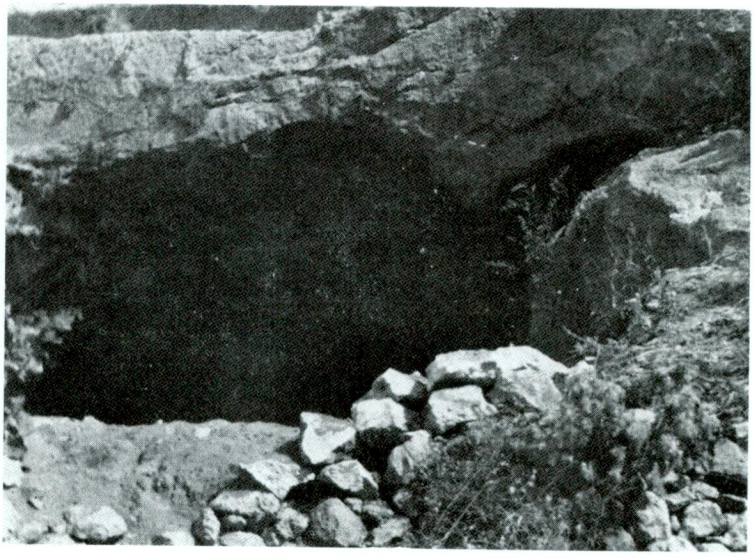
Fig. 2



Res. 1
Fig. 1

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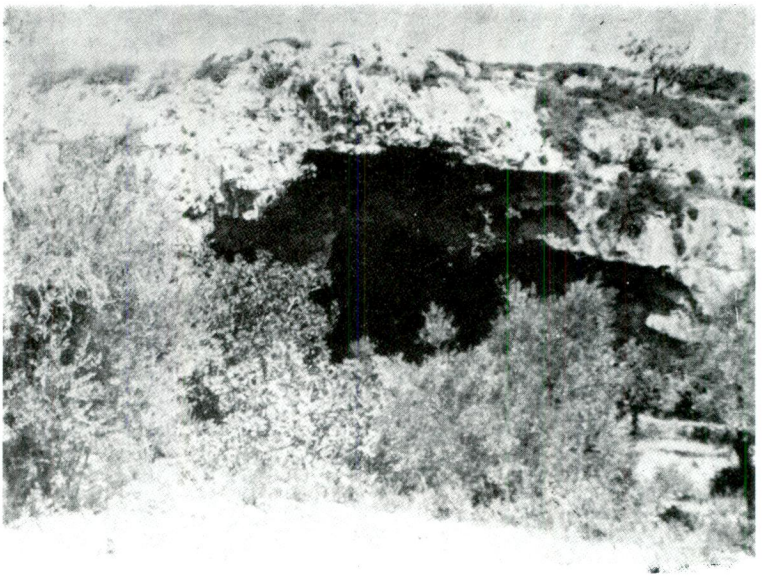

Res. 1
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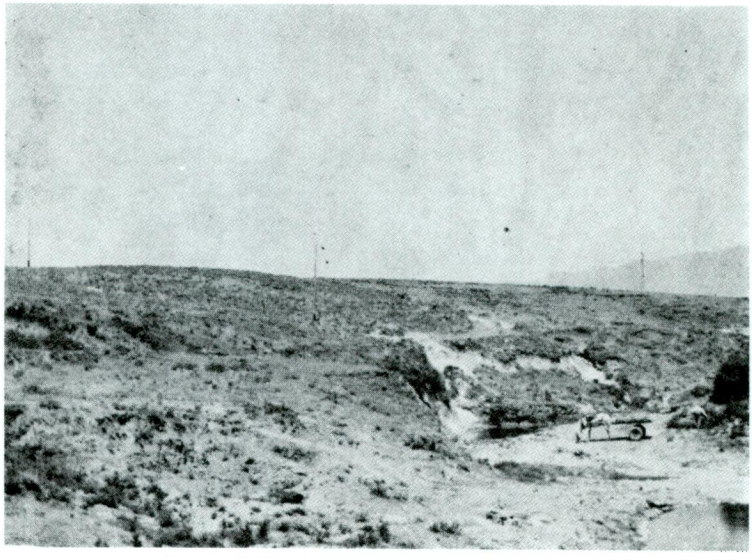

Res. 1
Fig. 1

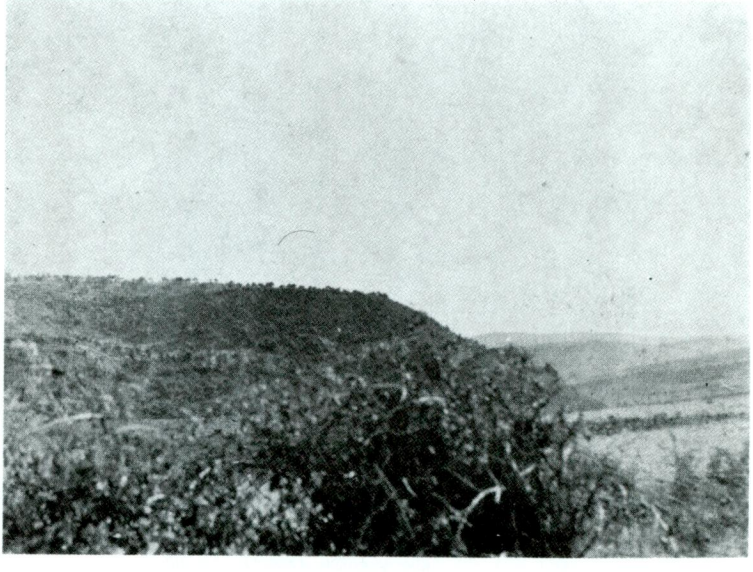

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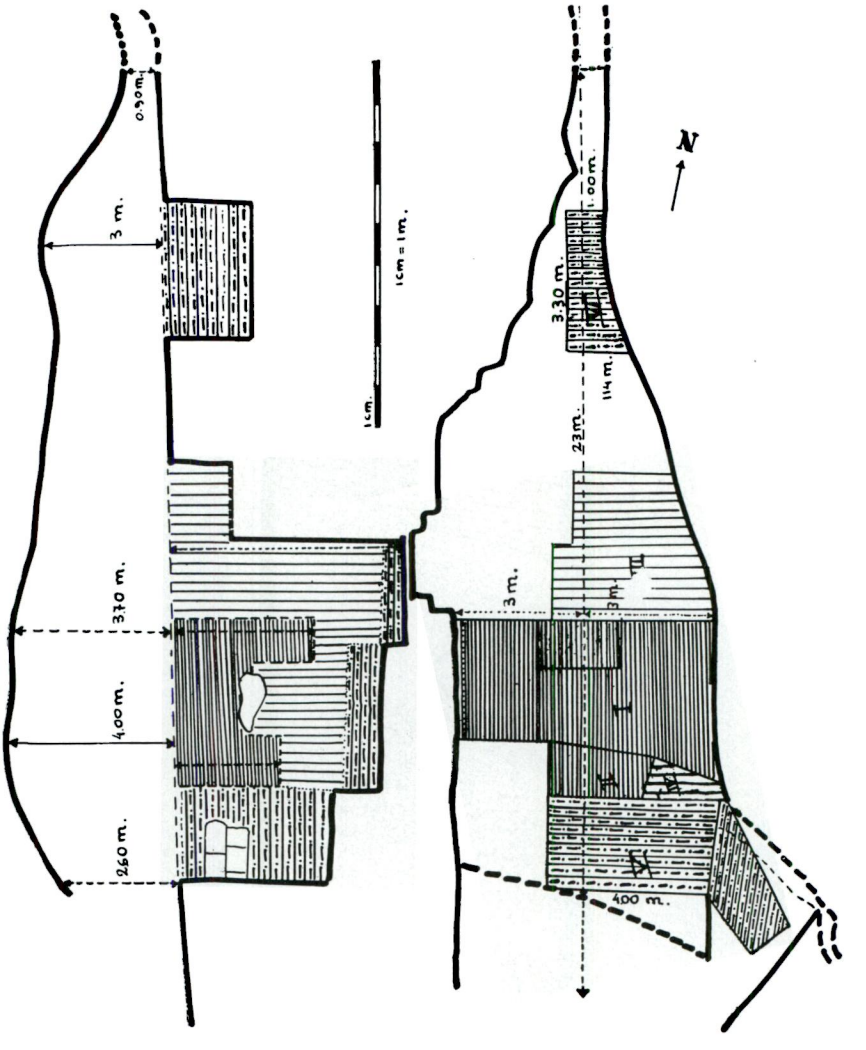
Fig. 2


0.90m.
3 m.
3.10 m.
4.00m.
2.60 m.
1cm.
1cm = 1m.
3.30 m.
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3 m.
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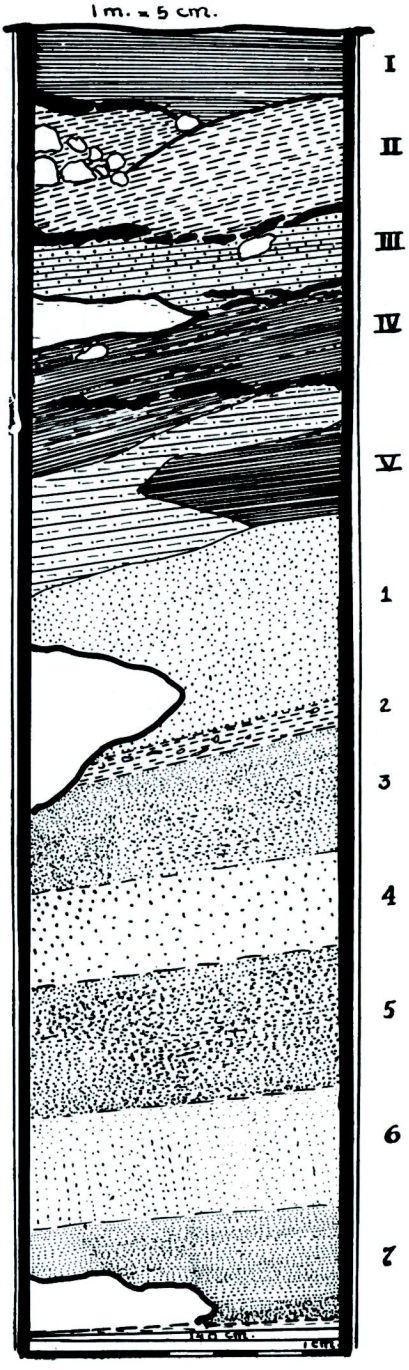
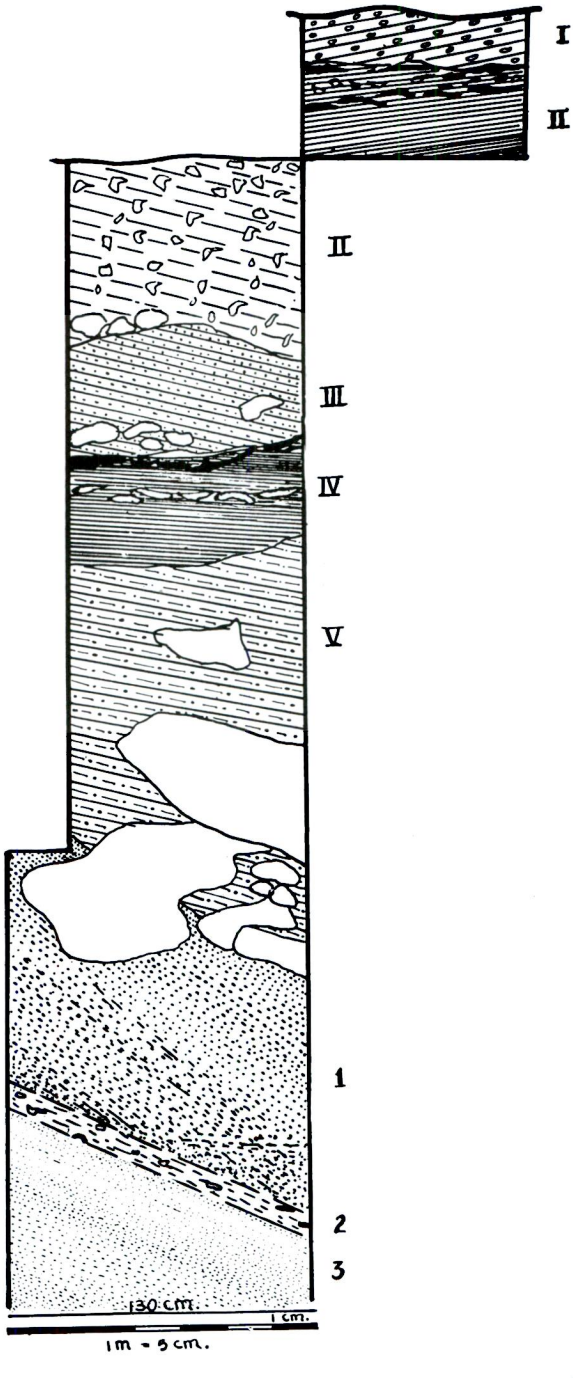
N

1. 2.


1 m. = 5 cm.
I
II
III
IV
V
1
2
3
4
5
6
7


I
II
II
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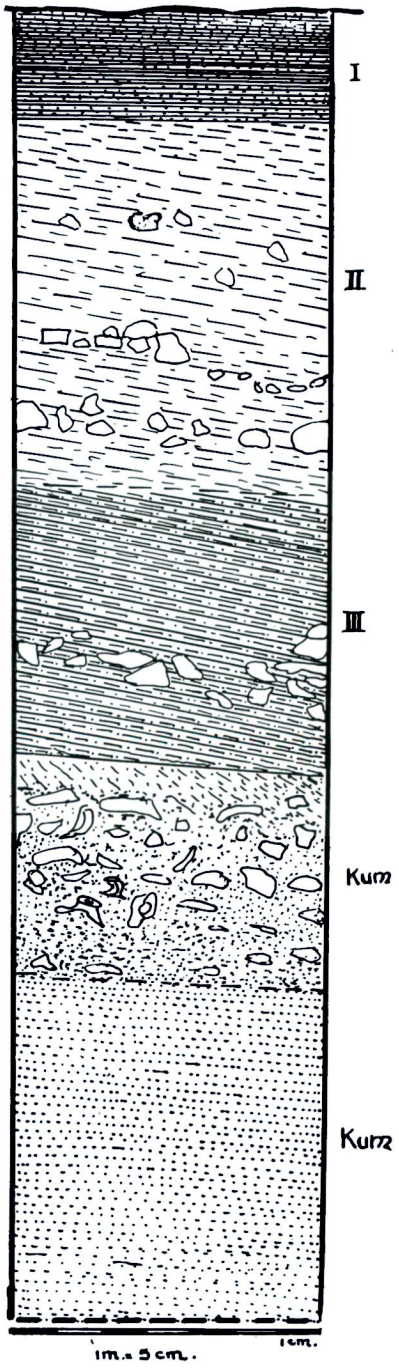
V
1
2
3
130 cm.
1 cm.
1m = 5 cm.


I
II
III
Kum
Kum
1m.= 5cm.
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When we stopped the dig at a depth of 571 centimeters, a hardened yellow sand had appeared below the 7th sand layer. It is understood that these layers of sand continue further downward. However, as we could not descend below the sand, we have not been able to determine whether an older habitation layer exists below the deposits of sand or not. These layers of sand, containing foraminifera, show that the cave had been invaded by the sea prior to the time when it was settled by the owners of the Upper Levalloiso-Mousterian culture.

We presented samples of sand from layers 1, 2 and 3, a sample from the present beach and a sample of the sand, containing in its upper part classical potsherds, from the Second Cave, that will be considered further on, to Prof. Dr. Livio Trevisan, Director of the Geological Institute in the University of Pisa.

A report showing the determinations made by Prof. Dr. Guido Tavani, that was sent attached to Professor Trevisan's letter of 16 January, 1958, is appended at the end of the present paper. [9]

Tavani reports that in the first and second layers of sand some fossils are rolled while the others are unworn and that among the latter only *Rotalia papillosa* is confined to the Pleistocene and to the present time. At the same time Tavani records that there are Miocene species amongst the rolled forms found in the third layer of sand and in the sample from the Second Cave, containing classical potsherds in its upper part, and further that in the sample from the present beach he has encountered fossils that have been living for a long time and that these are rolled also.

In our opinion the reason for the finding of rolled Miocene species in the samples of sand from the First and Second Caves and the presence of rolled fossils in the modern beach is that Musa Dagh consists of Helvetian limestone of marine origin. The presence of unrolled examples of *Rotalia papillosa* in the first and second layers of sand in the First Cave, indicates that these sand layers, at least the first and second layers, were deposited during the Quaternary.

[9] In this connection we wish to extend our thanks to Professor Trevisan, for his intermediacy and for translating parts of the report into French, and to Professor Tavani for having determined the fossils in the sand. We also wish to thank Dr. C. G. Adams of the British Museum and Mr. Süleyman Gez of the Mineral Research and Exploration Institute, who had looked at this sand previously.

Şenyürek, considering the elevation of the sand above the present sea level and the time elapsed between the sand and the Upper Levalloiso-Mousterian culture, had previously pronounced that the sand deposited in the First Cave probably belonged to the Tyrrhenian transgression.[10] The presence of *Rotalia papillosa*, which is confined to the Quaternary era, in the first and second layers of sand supports this view. According to Furon[11] and Zeuner[12] this stage (Tyrrhenian I of some writers) corresponds to Mindel-Riss Interglacial.

According to Zeuner the average elevation of Tyrrhenian transgression is 32 meters.[13] The figures given by Pınar for the Tyrrhenian sea level vary between 25 and 40 meters.[14] Fleisch also shows the 35 meter level in Lebanon as "Tyrrhénien I?"[15] Thus the elevation of the sand in the First Cave is near to the level of Tyrrhenian transgression and far exceeds that of the Monastrian transgression, which according to Furon[16] and Zeuner[17] corresponds to the Riss-Würm Interglacial.[18]

We can summarize the history of the First Cave as folows: This cave which was formed in Helvetian limestone of marine origin was subsequently invaded by fresh water and as a result of this it was filled up to its ceiling with a deposit of sandstone which includes the remains of fossil mammals and the shells of gastropods. Later

[10] See *Hatay*, 8. VI. 1957, p. 2, Antakya.

[11] Furon, R. 1951. Manuel de Préhistoire Générale. 3rd edition, pp. 62 and 83.

[12] Zeuner, F. E. 1952. Dating the Past. 3rd Edition, p. 129.

[13] See *ibid.*, p. 128. In a more recent study Zeuner gives this elevation in Syria as 40-46 and 35 meters (see Zeuner, F. E. 1956. The three 'Monastrian' sea-levels. Actes du IV Congrès International du Quaternaire, Rome-Pise, Août-Septembre, 1953, Roma, p. 549.)

[14] Pınar, N. 1956. Le Quaternaire en Turquie et les phases de l'effondrement de l'Egéïde. Actes du IV Congrès International du Quaternaire, Roma-Pise, Août-Septembre, 1953, Roma, p. 954.

[15] Fleisch, H. 1956. Dépôts préhistoriques de la côte Libanaise et leur place dans la chronologie basée sur le Quaternaire marine. Quaternaria, Roma, p. 125.

[16] Furon, 1951, p. 83.

[17] Zeuner, 1952, p. 129.

[18] According to Zeuner the average elevation of the first Monastrian phase is 18 and that of the second phase is 7.5 meters (see Zeuner, 1952, p. 128). In his new study Zeuner attributes a third phase (Epi-Monastrian) to the Interstadial between Würm I and Würm II (see Zeuner, 1956, p. 549).

on, this filling was eroded and in the lower part of the cave layers of marine sand were deposited. It is probable that these layers of sand, at least the first and second layers, belong to the Tyrrhenian transgression. After the recession of the sea the cave remained uninhabited for a relatively long time and was subsequently settled by the owners of the Upper Levalloiso-Mousterian culture. This cave, which was uninhabited for a relatively short time after the Upper Levalloiso-Mousterian culture, was this time settled by the owners of the Upper Palaeolithic (Aurignacian) culture. After it was vacated by the Upper Palaeolithic men, the cave again appears to have remained uninhabited till the Roman period when it was used as a stone quarry and from the Roman period to the present it has occasionally served as a refuge for shepherds.

THE SECOND CAVE

In the Second Cave, which we excavated in 1957, under a layer of earth containing decomposed manure we encountered two layers belonging to the Roman period (see Pl. III, fig. 2, and Pl. IX). In the pit excavated were found the remains of a house. Beneath the Roman stratum and at a depth of 345 centimeters, below the surface, we encountered marine sand. The upper part of this sand contains potsherds of Hellenistic and Roman periods.

This sand, the upper surface of which stands about 3 meters above the present sea level shows that at one time the cave had been invaded by the sea.

During the course of researches we made in this region, on the side of the road going from the village of Mağracık to Çevlik and on the outside of the wall of the port of the ancient Seleucia, we encountered a layer of sand, standing about 2 meters above the present sea level and containing the shells of marine invertebrates and potsherds of the classical period (see Pl. IV, fig. 2). This layer of sand is about 150 meters east of the present seashore. Further east from this place and again along the side of the road is found another deposit of sand including shells of marine invertebrates and classical potsherds. The elevation of this deposit of sand above the present sea level is about 3 meters. These layers of sand observed in the second

cave and in the other two localities between this cave and the sea-shore show that during the last 2250-2300 years a change of about 2-3 meters has occurred in the relation of the land and sea in this region.

EXPLANATION OF THE PLATES

Plate I. Map showing the sites investigated. 1. The First Cave. 2. The Second Cave. 3. Altınözü. 4. Altındere (Avratlar Deresi).

Plate II. The First Cave from a distance (fig. 1) and a closer view (fig. 2).

Plate III. The First Cave (fig. 1) and the Second Cave (fig. 2).

Plate IV. Büyük Mağara (The Big Cave) located between the Second Cave and the village of Mağracık (fig. 1). The marine sand, containing shells and classical potsherds, that is seen on the outside of the walls of the port of ancient Seleucia and alongside the road (fig. 2).

Plate V. The view of Altındere (Avratlar Deresi) from the side of Antioch-Samandağ highway (fig. 1). The artifacts were collected on the terrace. The view south from the district center of Altınözü (fig. 2).

Plate VI. The vertical section (fig. 1) and the ground plan (fig. 2) of the First Cave. These have been adapted from the plans made by Miss Theresa Haass who visited the excavation in June, 1956 (see Şenyürek and Bostancı, 1956c, figs. 2-3).

Plate VII. The First Cave: the section on the north wall of Pit I. This section has been adapted from Miss Theresa Haass (see Şenyürek and Bostancı, 1956c, fig. 4).

Plate VIII. The First Cave: The section on the eastern wall of Pit V.

Plate IX. The Second Cave: The section on the north wall of the pit excavated.