



## THE ART AND ARCHITECTURE OF ANCIENT KANISH

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The Turkish excavations at Kültepe-Kanish (or ash Hill) started in 1948 and continued every year since then, and sponsored by the Turkish Historical Society and the Department of Antiquities, have greatly added to the general knowledge of the area by bringing to light both the Karum and the city-mound of Kanish<sup>1</sup>. In the Karum

<sup>1</sup> Tahsin Özgüç, Kültepe Kazısı 1948 - Ausgrabungen in Kültepe 1948, Ankara 1950; B. Landsberger - K. Balkan, Assur Kralı Irişum'un Kültepe'de 1948 Yılında bulunan Kitabesi - Die Inschrift des Assyrischen Königs Irişum, gefunden in Kültepe 1948 (Belleten 54, p. 171-268); Tahsin-Nimet Özgüç, Kültepe Kazısı 1949-Ausgrabungen in Kültepe 1949, Ankara 1953; Tahsin Özgüç, Kültepe - Kanish, Assur Ticaret Kolonilerinin merkezinde yapılan yeni araştırmalar - New Researches at the Center of the Assyrian Trade - Colonies, Ankara 1959; Kemal Balkan, Kaniş Karumu'nun kronoloji problemleri hakkında müşahedeler - Observations on the Chronological Problems of the Karum Kanish, Ankara 1955; Kemal Balkan, Mama Kralı Anum - Hirbi'nin Kaniş Kralı Warşama'ya gönderdiği mektup-Letter of King Anum-Hirbi of Mama to King Warshama of Kanish, Ankara 1957; Tahsin Özgüç, Kültepe'de 1950 yılında TTK adına yapılan kazılar hakkında ön-rapor-Vorläufiger Bericht über die Grabungen von 1950 in Kültepe ausgeführt im Auftrage des Türk Tarih Kurumu, Belleten 65, p. 101-118; Nimet Özgüç, Mühür ve Mühür Baskıları hakkında ön-rapor-Vorbericht über die Siegel und Siegelabdrücke, Belleten 65, p. 119-127; Tahsin Özgüç, Kültepe (Karahöyük) Hafriyatı 1950 -Die (Karahöyük) Grabung 1950 von Kültepe, Belleten 66, p. 269-288; Nimet Özgüç, 1951 Yılında Kültepe'de yapılan kazı hakkında ön-rapor-Preliminary Report on the 1951 Excavations at Kültepe, Belleten 66, p. 289-306; Tahsin Özgüç, Kültepe'de 1953 yılında yapılan kazılar - Die Grabungen von 1953 in Kültepe, Belleten 71, p. 357-390; Tahsin Özgüç, Koloni Devrinin geç safhasına ait (Ib) bir arslan heykeli parçası - Fragment of a Lion Statue Found in the Late Phase (Ib) of the Colony Period, Belleten 72, p. 441-447; Tahsin Özgüç, Kültepe Hafriyatı 1954, Ib katı eserleri - Excavations at Kültepe 1954, Finds on Level Ib, Belleten 73, p. 55-72; Tahsin Özgüç, Koloni Devrinin Geç safhasına (Ib) ait bir atölye hakkında - Report on a Work-shop Belonging to the Late Phase of the Colony Period (Ib), Belleten 73, p. 73-80; Tahsin Özgüç, Kültepe Hafriyatı 1954, II. kat eserleri - Excavations at Kültepe, Level II Finds, Belleten, p. 445-461; Tahsin Özgüç, Anitta Haçeri-The dagger of Anitta, Belleten 77, p. 29-36; Nimet Özgüç, Kaniş Karumunda Ib tabakasının mühürleri-Die Siegel der Schicht Ib im Karum-Kanish von Kültepe, Belleten 85, p. 7-19; Nimet Özgüç, Kültepe Kazılarında bulunan mermer idol ve heykelcikler-Marble Idols

(originally "harbor" later developed a second meaning "Colony") of Kanish four main building levels, I to IV, were excavated, and the various building levels on the city-mound dating from the Early Bronze Age up to Roman times have been investigated.

On the karum, Level IV, which lies on virgin soil and is therefore the earliest settlement, shows the following characteristics: buildings of this level, although not burnt, were in use for a short time only; the houses were all well plastered inside. Remains of Level IV were discovered in all areas where the later Level II, the richest on the karum was most thickly populated. This level is in every way the forerunner of Karum II and the beginning of the evolution which culminated in the latter. Its parallel on the mound, however, is composed of small houses which lasted the usual number of years. Immediately underneath is the prehistoric level in which the famous Kültepe alabaster idols were discovered<sup>2</sup>. Earth graves, burials in pots and mudbrick cists were discovered in Level IV. They contained funerary gifts which proved to be very important for the study of this level. In this level which afterwards bears the name of Hittite, IV appear the first examples of the fine ware as well as handmade painted Alishar III pottery, the latter forming approximately 50% of the total bulk of pottery<sup>3</sup>. The monochrome vessels were made on a fast wheel and covered with a burnished bright red or brown slip. The shapes are very limited in comparison to those of Level III and especially II.

Level III was erected on the remains of Level IV. There is no important change in the orientation of the buildings. The houses of Level III have weak foundations and thin walls in comparison to those of Level II or Ib. Large and well dressed stones were hardly used. The conflagration was only partial and did not spread to the

and Statuettes from the Excavations at Kültepe, *Belleten* 81, p. 61-80; Nimet Özgüç, Seals from Kültepe, *Anatolia* IV, 1959, p. 43-53; Tahsin Özgüç, An Assyrian Trading Outpost, *Scientific American*, February 1963, Vol. 208, No. 2, p. 97-106; Tahsin Özgüç, Early Anatolian Archaeology in the Light of Recent Research, *Anatolia* VII, 1963; p. 11-14; Kutlu Emre, The Pottery of the Assyrian Colony Period According to the Building Levels of the Kanish-Karum, *Anatolia* VII, 1963, p. 87-99; Nimet Özgüç, Kültepe mühür baskılarında Anadolu grubu - The Anatolian Group of Cylinder Seal Impressions from Kültepe, Ankara 1965.

<sup>2</sup> N. Özgüç, *Belleten* 81, p. 61 ff. and T. Özgüç, *Anatolia* VII, 1963, p. 11 ff.

<sup>3</sup> K. Emre, *Anatolia* VII, 1963, p. 87 ff.

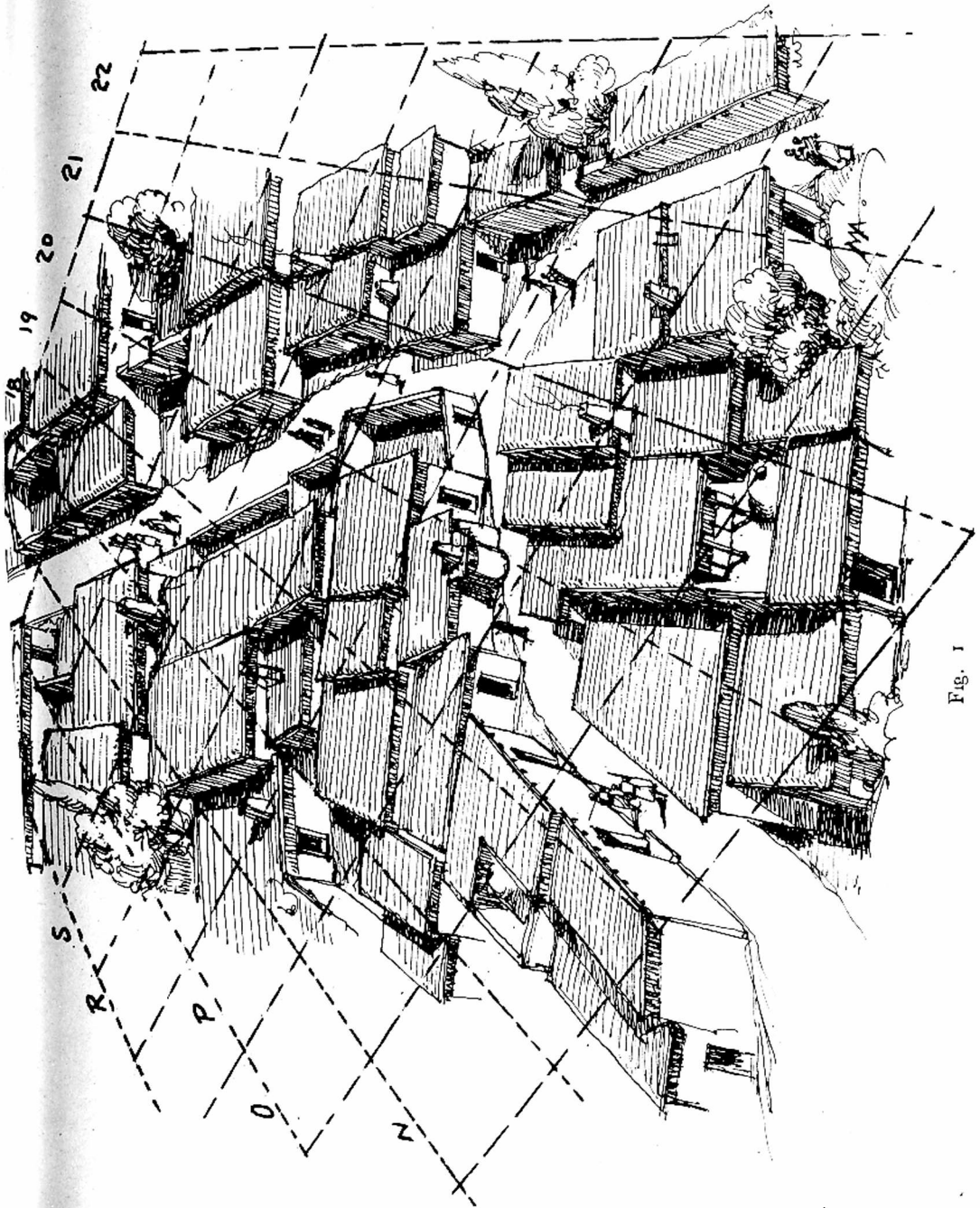
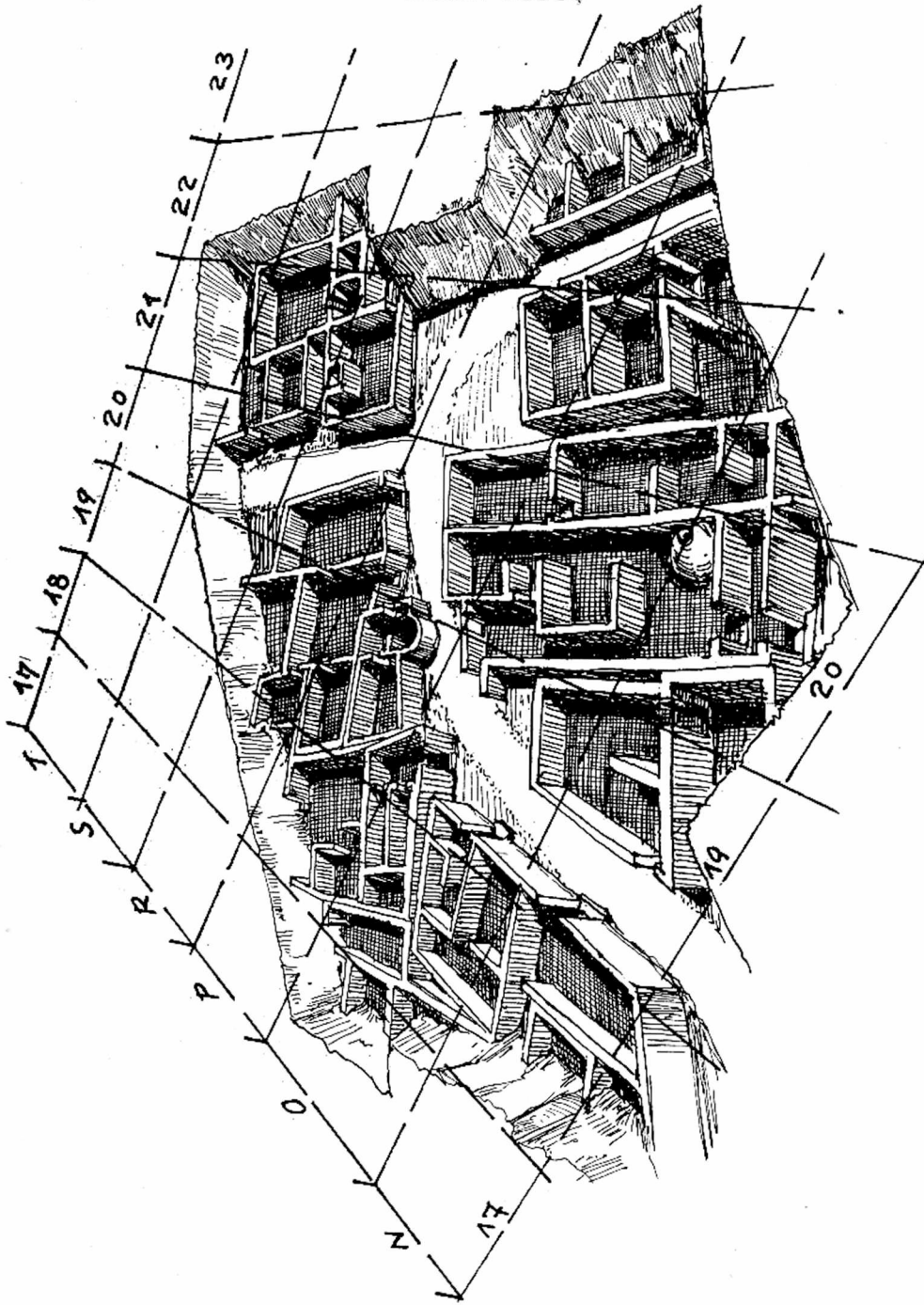


Fig. 1





entire area later covered by Level III, whose main characteristic is the fact that it formed the link between IV and II, but was of no particular importance in itself. It yielded Hittite pottery, showing the same technical perfection as before, and Alishar III pottery still continued, although in lesser quantity. The proportion decreases from ca. 50 % to 25-30 %, whereas wheelmade Hittite is increasing in quantity and variety of shapes. The technique and details of architecture are forerunners of the Level II building technique. There are small houses only; no large buildings were discovered. Relations with Syria, begun in Level IV, continued.

From the point of view of archaeological and philological discoveries the richest town is the second one, which was excavated on a large scale. We have gained a good deal of knowledge about life in this level. We have learned that in the second level there lies a town complete with its whole plan. During this period the Assyrian traders, forming part of the colonisation system of Assyria, exerted a very strong and effective influence. The first interrelations between Mesopotamia and Anatolia are represented by this town at Kanish. The quarter where the Assyrian merchants and local inhabitants lived during the first quarter of the second millennium B.C. is important for its town-planning, for no residential city of this type or period has yet been studied in Anatolia. In the karum area the sixteenth season of excavations (with the interruption of 1952) has been completed. As regards the topography of the commercial area, every season strengthens the theory that the karum was of vast dimensions. The four successive cities of the Karum, and in particular Levels II and Ib which contain written documents, each provides a typical example of a fully developed trading center. The city of Level II was divided into different quarters by open spaces and streets wide enough to let carts pass (Pl. III, 1). Houses were entered through one or two doors directly from the streets or open places. Although the mud-brick walls were standing quite high, there were no windows, which shows that the light must have come in through the roof and door. Although the Assyrian merchants on the whole preferred to live together in an Assyrian quarter, we sometimes find that they lived in the local Anatolian quarter and vice-versa<sup>4</sup>. In any case, all the various quarters

<sup>4</sup> T. Özgüç, Kültepe - Kanish, p. XXI-XXXII.

were close together, but judging by the archives of Level II, the Assyrian merchants were concentrated in the center and northern areas, and the locals in the southern area of the Karum. The main characteristic of this level is the existence of crowded quarters. The large workshops, repair shops and metal workshops were grouped in the center<sup>5</sup>. It is quite possible that the two-roomed buildings containing crockery and kitchen equipment found in various quarters of the town were eating-houses or small restaurants. Small shops opening onto the street were found with their stone or wooden shelves still in situ, but until the tablets discovered there have been studied, it is

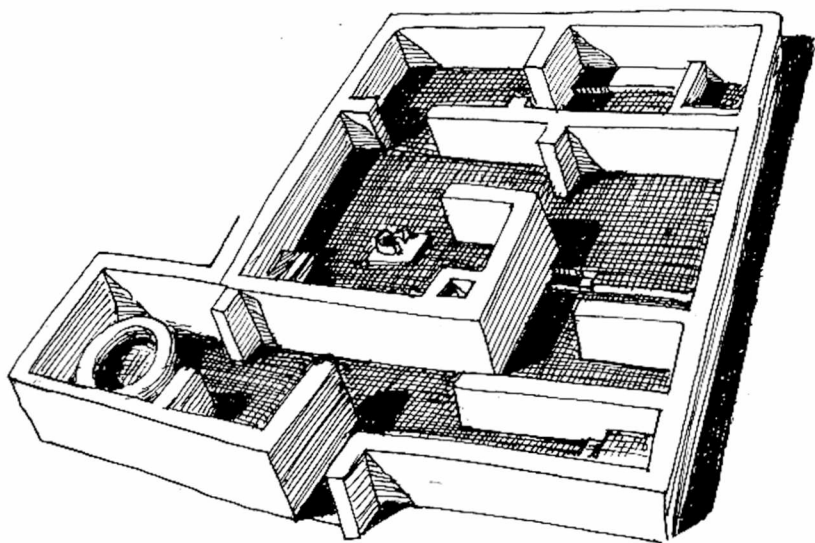


Fig. 3

impossible to say what they sold. Most of the two-storied houses had either three or four rooms opening onto a corridor or they had a series of smaller rooms arranged "around" a large room like a courtyard, but generally covered<sup>6</sup>. The store rooms were on the ground floor. The central room (or main hall) was larger; it had a bin for wheat

<sup>5</sup> T. Özgüç, *Bulleten* 73, p. 73 ff.

<sup>6</sup> T. Özgüç, *Kultepe - Kanish*, p. 17 ff.

in one corner and along the walls ran wide benches. Let us for instance examine the house of the local merchant *Šupi-ah-su* and its contents<sup>7</sup>: it is one of the elaborate two-storeyed mudbrick houses of Level II (M-N/11-13 on the plan). The door opens northwards onto the street which is orientated east-west (Fig. 3). This door leads to an entran-

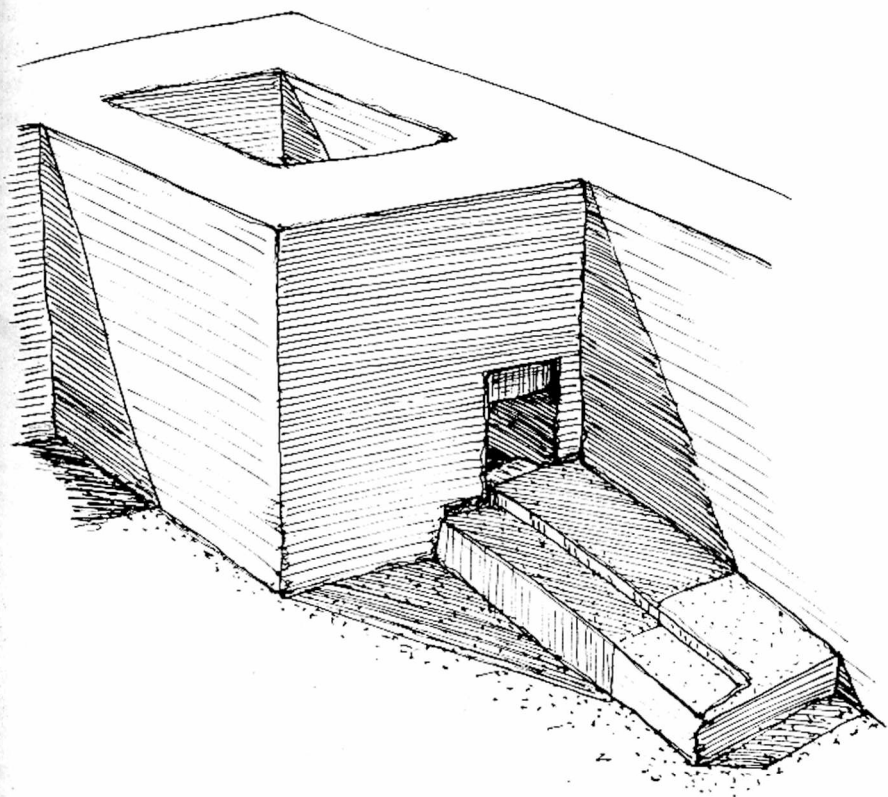


Fig. 4

ce with a staircase behind it. Of the four rooms east of this entrance, the two nearest the door were pantries and the one furthest away a kitchen with an oven. South of the entrance are two small rooms, one of which opens into a large room measuring  $6 \times 5,20$  M. In its south half was the fire-place and in the northern half the granary (Fig. 4; pl. IV, 1). A mudbrick bench along its east wall is well preserved. This room

<sup>7</sup> T. Özgüç, *Kultepe - Kanish*, pl. XIV, 1-2; XV, 1.

was the most important part of the house. South of it were three small cells. The first contained a row of storage vessels for food. In the second, the floor of which was 70 cms. lower were large storage vessels half buried in the ground. In the third cell, which had a still lower floor, the owner of the house kept his archives and his more precious pots and zoomorphic vases. The house was thus divided into three parts: the first served as an office, the second as living quarters and the third as store-room and archive. Archive rooms were sometimes located in a corner of the house, separated from the living quarters like an office so that business could be conducted in private.

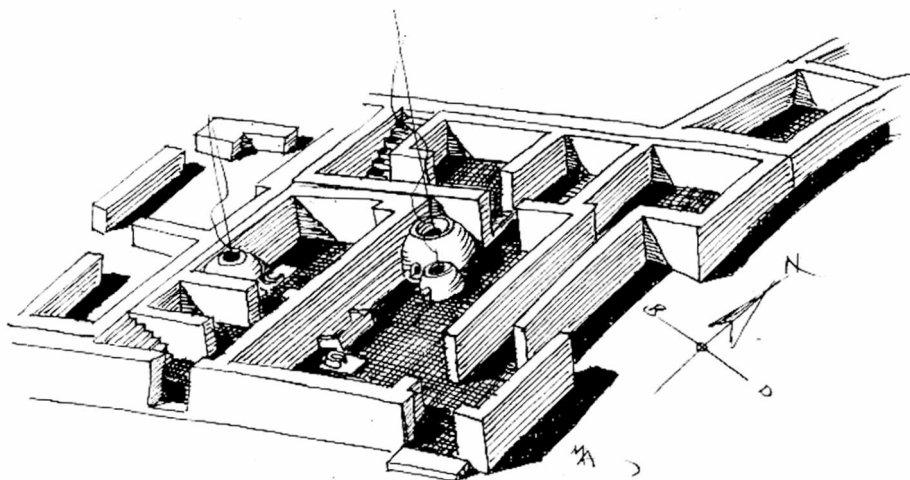


Fig. 5

From the outside one enters a vestibule, from which one goes through a narrow corridor to the archive room, where 800 tablets and envelopes were found (Fig. 5)<sup>8</sup>. Sometimes, however, one of the rooms of the house was devoted to this purpose and the arrangements seem to have varied according to the wealth of the owner. 105 houses have been brought to light up to now in Level II, of which 70 contained an archive. Scattered tablets were discovered in the other 35. The best preserved houses of the first quarter of the second millennium B.C. are to be found in the Karum of Kanish. They are mainly rectangular in plan

<sup>8</sup> T. Özgüç, *Kültepe - Kanish*, p. 86 ff.

and contain two, four or six rooms. Examples exactly similar to the houses excavated at Boğazköy, Alishar, Alacahöyük and Acemhöyük were brought to light besides many totally different types. It must be noted that up to now no temple or public building has been discovered in the Karum. On the mound, however, contemporary tablets and pottery have been found in very large and elaborate buildings. A large building covering an area 3000 square meters can be dated by its contents – pottery, bullae bearing cylinder seal impressions of local style and tablets – as being contemporary with Karum Level II. With its stone-paved courtyard, colonnaded passages, store rooms and living quarters, this building is the largest of its period discovered to date. (Pl. XXI, 1; XXII, 1).

It thus seems possible that some of the temples mentioned in the tablets were erected in the main city. If they existed in the Karum area, there are two possibilities: either they were completely razed, or they had been placed in some distant quarter not yet reached by excavations. Neither of these theories seems satisfactory as in the course of extensive work on the Karum not even traces of large buildings were found whereas on the mound monumental architecture existed everywhere. (Pl. XIX, 1; XX, 1).

Although most of the houses were inhabited by Assyrian merchants, they show a purely Anatolian native system of construction and continue the indigenous traditions of the plateau. These dwellings, however, all have separate walls and ovens, and in many cases neighbouring buildings do not even use adjacent walls, which indicates that the houses had been built at different times. One building of Level II had a funeral room in which the owner of the house had been buried in a large stone cist-grave. The doorway to this room had subsequently been blocked, cutting it off from the rest of the house<sup>9</sup>. This situation confirms the existence of a practice known also from the tablets found in the same level, which states that after the death of the owner the house was abandoned. Some important points regarding the organization of the city thus become evident: although close together, each house retained its privacy and independence. Each has an oven, a brazier, a hearth and a sunken hearth (or heating arrangement). Most of the Level II houses were divided into three

<sup>9</sup> T. Özgüç, Kültepe - Kanish, p. 87 ff.

parts: the first served as an office, the second as living quarters and the third as a store room and an archive.

In a rich merchant's dwelling it is possible to find examples of all objects characteristic of the Colony period. The merchants used concurrently imports from N. Mesopotamia and Syria and local goods. The imports are in the minority and easily distinguishable

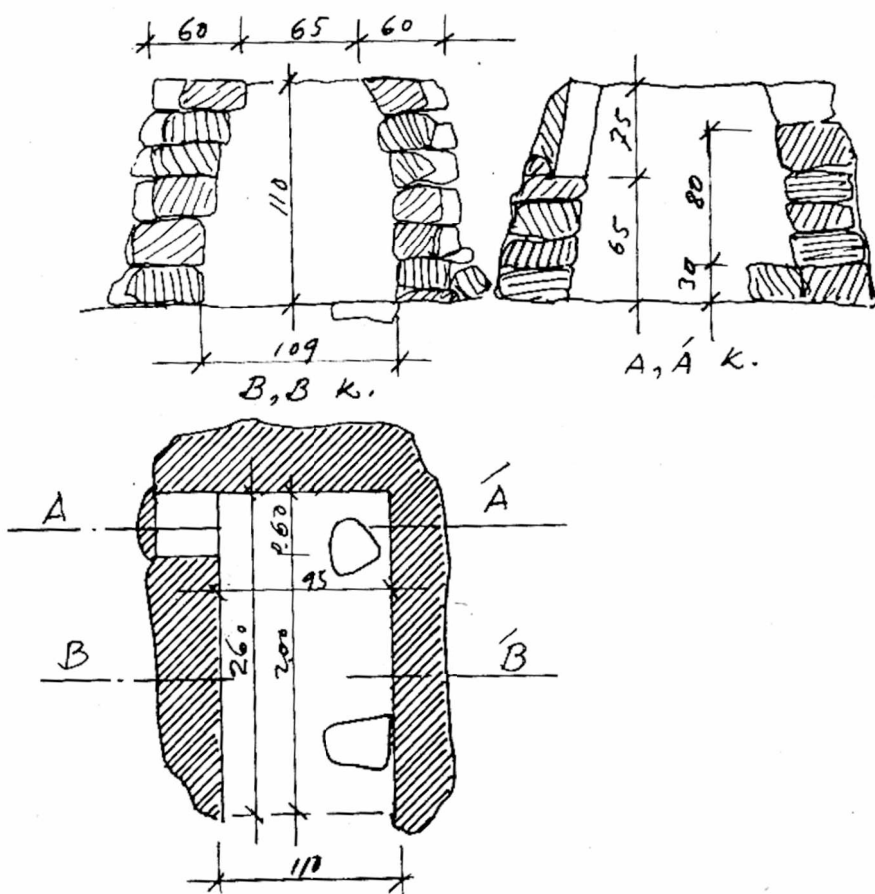


Fig. 6

from the local products. Pottery and stone objects remained in situ, but had it not been for the graves, we would have known nothing

regarding the metallurgy, about which we now have acquired much new information.

The city of Level Ib is larger than that of Level II. The houses were grouped more closely together and also covered the areas which in Level II had been openspaces. The houses of Level Ib were more extensive than those of II and they had a larger number of rooms<sup>10</sup>. In this period the number of houses with regular store rooms containing large vessels for the storage of grain had greatly increased (Pl. V, 1). In spite of the scarcity of written documents, the karum Ib city was at least as rich and prosperous as its predecessor. The household goods are numerous and varied, and the burial gifts are rich. In this phase of the Assyrian Colonial period at the Karum of Kanish there is no change in the burial customs. In Level Ib, a false arch of stone (in squares: K-L 9), was unearthed in 1960 over a large cist-grave, the first appearance of this type in Central Anatolia. (Fig. 6; Pl. VI, 1). In spite of the lessening of trade with Assur, the Ib city has, archaeologically speaking, lost nothing of its importance: In fact it would otherwise be impossible to account for the large palaces on the city-mound. Whereas the houses of Level II were constructed of mudbrick with a large amount of wooden framework, this method of construction had lost its importance in Level Ib, where stone construction was more popular (Pl. VII, 1), some of the walls of Level Ib buildings being built completely in stone. In the city of Kanish drain pipes were not used, drainage being effected by sunk channels covered with flat stones. These buildings all have their own separate ovens and fireplaces of horse-shoe shape. Level II tablets were found in the pots, in boxes, in the corner of the rooms, and on the shelves<sup>11</sup>. Some groups of tablets were found in the fireplaces (Pl. VIII, 1). They had been placed there so as to be baked, but the conflagration came so suddenly, that there was no time to remove them from the fireplaces. In the archives we found unopened envelopes. The traders had received their mail from Assur, but had no time to open it or to send off their own correspondence to other towns because of the suddenness of the conflagration.

Most of the Level Ib buildings were built over the burnt—and afterwards levelled — remains of Level II and only a few were

<sup>10</sup> T. Özgüç, *Kultepe - Kanish*, p. 71 ff.

<sup>11</sup> N. Özgüç, *Belleten* 65, p. 123.



among the ruins. Between floor levels of the houses of Levels Ib and II is a layer of earth 2 - 2.50 M. thick. In many cases the people of Ib were not aware of the rich houses beneath their own. Although no definite figure can be given, this layer shows that some time passed between the burning and destruction of Level II and the beginning of Level Ib.

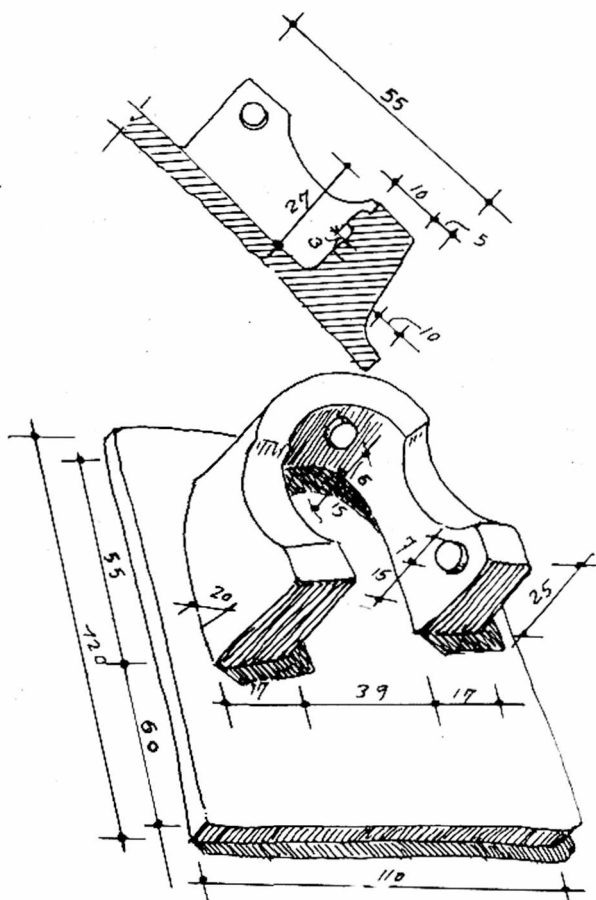


Fig. 7

After the destruction of Level II, some areas were left in ruins and served as cemeteries, but a little later Ib houses were built there

also<sup>12</sup>. The various buildings of Level Ib were erected one next to the other (Pl. IX, 1). Materials and technique are more similar to those of Level I a than to those of Level II. Most of the houses have one story only. In the ones with an upper floor, the stone walls supporting the wooden staircase still stand. In this level the second storeys were built mostly in wood plastered with mud. Wood, however, was far less popular in Ib than in II. The foundations are weak in comparison with those of the Empire and old Hittite period houses, and it was necessary for this reason to support the structure with stone pillars, wooden posts, corner supports and pivot stones.

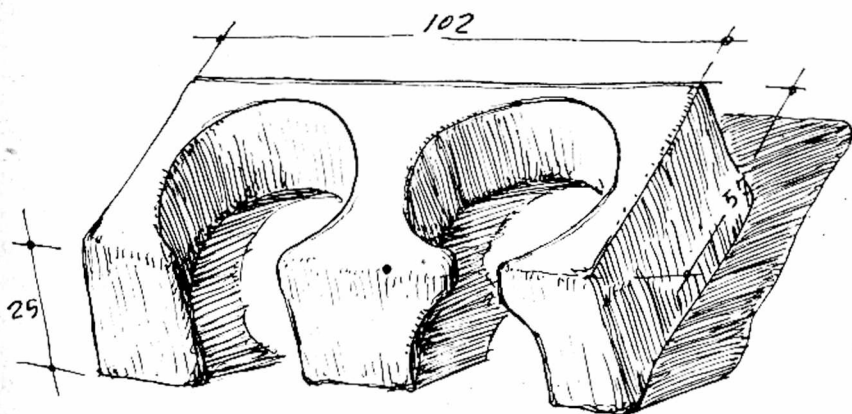


Fig. 8

Ovens are the same as in Level II - IV. New types of hearths appear, however, and the typical Level II hearths (Fig. 7) are not to be found. Double hearths made of sandy earth are characteristic of Level Ib (Fig. 8).

Of the 80 buildings fully excavated in Level Ib, only 8 contained an archive. This is far less than in Level II. In some cases isolated tablets were found. In one of these intact buildings the best preserved tablets of Level Ib were found in 1960; they are not less than thirty. These tablets, with the contemporary ones from Alishar and Boğazköy, furnish important information about the development of the last period of the Assyrian Colonies and in particular about the extension of commerce starting at this period into the northern part of Central

<sup>12</sup> T. Özgüç, *Belleten* 73, p. 66.

Anatolia<sup>13</sup>. As we know there are no tablets at Boğazköy and Alishar, which are contemporary with Level II at Karum. By the help of these new documents we have gained a good deal of knowledge about the early history of Anatolia. These are the documents that have thrown open to a certain extent the curtain of mysteries covering the political history of Early Anatolia.

Although ancient contemporary tablet-documents of the history and culture of the local people are rather scarce in Kültepe, we have, however, valuable specimens of letters exchanged between local princes, lists of palace officials and letters from the princes to Karum and vice versa. These new finds offer unexpected, if not startling, results. The commercial center of Kanish is being unearched in its entirety. The buildings in the Karum area, and the palaces on the fortified city-mound have revealed unique material for the art of this period. In the light of the new documents we can trace in detail how a merchant traded during his life time. Some of the tablets in their archives give vivid insights into their personal lives. In addition to their house inventories, the burial offerings of each member of a family are known to us. The living conditions, social structure and the house inventories of an Assyrian or Anatolian trader seem to be at about the same level.

In the last few years we have started to excavate the outskirts of the Karum. Thick walls built of very large stones were discovered and though excavations are still in progress, it is very probable that these are the remains of the city-walls. In the next few years we hope to excavate the city-walls of the Karum.

The material called Hittite by Anatolian archaeologists was, in fact, created much earlier than the foundation of the old Hittite Kingdom (1650) and attained its final state of perfection during the period of the Assyrian colonists. Among the most vivid examples found here of the art, which later reached a brilliant level in inner Anatolia, are stamp seals, small lead statues of a Hittite god in a short decorated dress, wide belt, beard, sharpened pointed head-dress and with a sickle in his hand<sup>14</sup>, and a goddess in a long dress, sitting on her throne made of silver<sup>15</sup>.

<sup>13</sup> Balkan, *Observations*, p. 2 ff.; K. Balkan, *Letter of King Anum - Hirbi*, p. 38 ff.

<sup>14</sup> T. and N. Özgüç, *Ausgrabungen in Kültepe 1949*, p. 197. Pl. XI, 278 a-b.

<sup>15</sup> T. Özgüç, *Ausgrabungen in Kültepe 1949*, p. 200. Pl. LVII, 320.

It can now be said that Hittite pottery reached its climax during the Colony period. (Level II: Pl. XI, 1a-b; XII, 1c, 2; XIII, 1; Level Ib: XIII, 2; XIV, 1-2; XV.1). Although the pottery was primarily copied from metal vessels, all the shapes that could be made in clay were tried out. Kültepe represents one of the outstanding centres of ceramic production in the ancient Near East. In Level II were brought to light new pottery types which were unknown in the Old Hittite and Imperial Periods. After this period the Hittites were apparently unable to add anything new or preserve the high technical standards, which led to a ceramic decline. In the Colony period master craftsmen or artists familiar with animal anatomy made numerous figures of animals<sup>16</sup>. They were used during religious ceremonies to drink special kinds of liquids before the gods. The vases in the form of animals have great variety both in shapes and species of animals (Pl. XVI, 1-2). Complete animals (in the shape of a lion, an antelope, or a reclining pig) with goblets on their backs are well-known Kültepe types. The goblet served to hold the liquid, the pierced nose or mouth of the animals were used as spout to pour it. Some drinking cups are in the shape of animal heads, their openings are triangular or circular. A moulded clay ram, a bull's, an eagle's, a rabbit's and a pig's head, perched eagles, hitherto unknown rhytons representing reclining pigs, dogs, serpentine and steatite figures of a pig and a bull, and cosmetic boxes of serpentine or bone ornamented with lions and bulls all rank among the masterpieces of the style of this period. It is necessary to refer back to this time in order to understand much later art.

The new excavations have shed light on the five following particularities of the pottery of the Colony period<sup>17</sup>: a— A number of the shapes are related to those known from the third millenium B.C. in Anatolia. b— A large percentage of the pottery which bears the name of Hittite, c— A small percentage of the pottery first appeared in Level IV, made its first appearance during this period and was not used afterwards; proper Kültepe pottery, not to be found elsewhere. d— Some of the shapes are local imitations of North Syrian decorated or monochrome wares (made in local-Kanish clay). e— An even

<sup>16</sup> N. Özgüç, *Ausgrabungen in Kültepe 1949*, p. 218 ff. and T. Özgüç, *Kültepe-Kanish*, p. 112 ff.

<sup>17</sup> K. Emre, *Anatolia VII*, 1963, p. 88 ff.

smaller percentage must be considered as imports from North Syria. This is exactly what one would expect in a big commercial center. This gives also the basic classification of pottery types in the first quarter of the second millennium B.C. However, it changes progressively northwards within the Halys bend and is not quite paralleled at such centres as Alishar, Alacahöyük, and Boğazköy.

There are important differences between the pottery of Levels II and Ib. This is not only due to a change of fashion but the interval of time between the burning of Level II and the construction of the Ib city must also be taken into consideration<sup>18</sup>. In Level Ib pottery North Syrian influences are stronger than in Level II and there is an increase in Syrian imports.

During the Colony period North Syrian influence is strongly felt, especially in metal objects, pottery and small statues. The flanged axe<sup>19</sup> found in Level Ib not only illustrates these connections, but, as confirmed by Professor M. E. L. Mallowan,<sup>20</sup> is of chronological value. This axe, foreign to Anatolia must have been imported into Kanish from the Habur area where this type is dated to the Hammurabi period. Stratified metal objects similar in both areas are important documents for establishing archaeological synchronism. However one should be cautious in this matter and distinguish between metal objects which, like the flanged axe, are limited to one period, and those which have a long life. Axes of various types are found in both levels, as are bronze, silver, bronze and gold toggle pins with melon-shaped heads, daggers and spearheads, which must have been imported from Syria to Kanish by foreign merchants because such specific metal objects, foreign to Anatolia, have not been found either before or after the Colony period. Unlike pottery, metal objects are not easily broken or replaced and everyone then carried with them their seal, their arms, their knives and the pins which fastened their garments. Needless to say, these merchants constantly travelling between the two countries left some of their objects behind. It should be noted that judging by the pottery and the metal objects, the relations between Kanish and North Syria were very strong, as is represented by the

<sup>18</sup> K. Emre, *Anatolia VII*, 1963, p. 99.

<sup>19</sup> T. Özgüç, *Belleten* 73, p. 69-70, and *Kültepe - Kanish*, p. 110.

<sup>20</sup> M. E. L. Mallowan, *Twenty-five years of Mesopotamian discovery*, London 1956, p. 21.

greater number of finds. Archaeological evidence then points to very close relations with North Syria during the Colony period. As a matter of fact, mention was made in Kültepe texts of certain cities situated in Northern Syria.

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The principal Anatolian goddess<sup>21</sup>, the male god, her husband, and their sons are represented by lead figurines or the stone moulds in which they were cast<sup>22</sup>. The deity, with or without sacred animals, is shown either alone or with two, three or four other figures, but always in the local Anatolian tradition with pointed headdress. A newly discovered stone mould of the same type shows the goddess with the male god standing on a donkey, represented, contrary to normal custom, in profile<sup>23</sup>. As Nimet Özgüç correctly pointed out, the representation of this animal, so important during the Colony period, is a valuable piece of evidence for the history of religion. Besides these representations of gods in local style, which invariably belong to Level Ib, there are five statuettes of gods, four of faience, the other of ivory<sup>24</sup>, in a style foreign to Anatolia. The ivory statuette with a receding brow and a flat nose (characteristic of the East Anatolian physical type) shows the goddess holding her breasts. The eyes were inlaid in precious stone or metal. The nose, ears, eyebrows and chin are carefully modelled and the arms are fully plastic. Leaving aside differences of detail, the figure has parallels in the naked goddesses found at Mari. This shows clearly that such statuettes were related to the contemporary North Syrian finds. Both figures were found together in the grave of a foreign merchant. The figure of two deities in faience is evidently meant to be seated. There is no doubt that its style is foreign to Anatolia. The three statuettes in faience were brought to Kanish by an Assyrian trader. It is not surprising to find the faience statuettes of a foreign type brought from Syria when one knows of the increase of cylinder-seals of Syrian origin and pottery in Level Ib.

<sup>21</sup> N. Özgüç, *Belleten*, 66, p. 301 ff.

<sup>22</sup> T. Özgüç, *Kültepe - Kanish*, p. 106-107.

<sup>23</sup> The Anatolian Group of Cylinder Seal Impressions from Kültepe, p. 68, Pl. XXXIII, 106.

<sup>24</sup> T. Özgüç, *Belleten* 71, p. 385 ff.; *Kültepe - Kanish*, pl. XXXIV, 2.

With regard to seals, the richest finds are the impressions of Level II<sup>25</sup>. Among these, a local style is prominent. In particular, processions of gods standing on their sacred animals, religious scenes and scenes of hunting and battle emphasize the richness of motives of this local style and they are extremely important as a source of Hittite art. Among the types of gods, the purely Mesopotamian, the Mesopotamian type with Anatolian features and the purely Anatolian type can be distinguished.

A second style of Level II, the one Nimet Özgüç calls Syrian Colony style, seems to be peculiar to Kültepe.<sup>26</sup> In richness of motives it can be compared both with the local and the old Babylonian style of cylinder-seals. As in the local group discussed before, we find, besides Old Babylonian motives, a great many types confined to this style only. The excavations have proved that this style, older in date than the period of Hammurabi the Great, is confined to Level II.

Level Ib inaugurated a new period in seals<sup>27</sup>. Increasing evidence shows that tablets were now with seal-impressions, whereas in Level II, among thousands of tablets, only one example of this usage was found. In Level II cylinder seal-impressions are always on the envelopes. In Level Ib, however, the stamp-seals greatly increase in number, and their style, confined to that level, differs from that of Level II. Cylinder-seals are again carved in various styles, also different from those of Level II. In this period, seals from Babylonia and Syria (Pl. XVII, 1-2) of the Hammurabi period are in the majority.

In fact the relations with Assyria and Syria were not only commercial, but also cultural in a wide sense. In these centuries Babylonian art was learned in Anatolia and the native Anatolian art gained a new character. By this means and with the help of the Kültepe excavations it will be possible to explain the meeting of the different influences, the interchange of foreign elements and the distinctive qualities of Early Anatolian art. The relation between the two

<sup>25</sup> N. Özgüç, *Ausgrabungen in Kültepe 1949*, p. 226-242; *Belleten* 65, p. 123-127; 66, p. 303-306 and *The Anatolian Group of Cylinder Seal Impressions from Kültepe*, p. 2 ff.

<sup>26</sup> N. Özgüç, *Ausgrabungen in Kültepe 1949*, p. 234-236.

<sup>27</sup> N. Özgüç, *Belleten* 85, p. 13 ff.; *Anatolia IV*, 1959, p. 43 ff. and *Ausgrabungen in Kültepe 1949*, p. 228 ff.

different peoples living in Kanish was one of harmonious friendship, in which their cultures found the chance of developing with a smooth understanding over the centuries. The native ethnic group were the Hatti, who created the Middle Anatolian art of the Colony Age and of the somewhat earlier art of the last quarter of the third millennium B.C. The second ethnic group consisted of the Assyrian merchants. As a crossbreed resulting from the contact between the Hatti people, who were the representatives of the native Anatolian civilizations, and the Assyrians, who worked in the ancient Babylonian style of art, a new mode of expression was born and became the origin of what we call Hittite art, that is the art of the alien Indo-European ethnic group which were already present in the country during the most flourishing period of the Assyrian Colonies.

In all periods of Anatolia, there were created objects of fine arts of the highest quality which are distinctive and recognizable for the region. We regard this as an indigenous, native Anatolian art made by various ethnic groups. But at the same time, these artistic productions possess a common denominator in style and technique. This we consider to be a basic Anatolian characteristic which the various groups somehow assimilated in the land.

The art and culture of the Indo-European-speaking Hittites are an eclectic manifestation of Mesopotamian and Hattian cultures. The invaders brought with them to Anatolia their own customs, but they soon assimilated the distinctive local culture, which they found in Anatolia and with their own genius created an amalgam which is distinctly Anatolian. The invaders like the Hittites, to name only one, actually fashioned their characteristic art which is basically Anatolian in inspiration and form.

It is evident that Kültepe represents the beginning of the Hittite art which effloresced in the second half of the second Millennium that is, in the period of the Great Hittite Empire. The characteristic art of the Hittite Empire, that is, the monumental art of Boğazköy and Alacahöyük developed gradually from the representations of the minor art of the Assyrian Trading Colony period. But the Hittites with their dynamic ability assimilated the art they found in Anatolia and they moulded and transformed it into their own individual form of expression. Their unique creations were stamped with their own name as Hittite art.



During the Level Ia period the site had dwindled into a small town where some of the Level Ib houses were repaired and re-used. There is no accumulation of earth or debris between the two levels. Small objects from both are very similar in shape and technique. All this tends to prove that no time lag existed between them. Ia probably did not last longer than 50 years.

\* \* \*

The city-mound of Kültepe produced valuable information on the architecture of the Assyrian Colonial Age. There are two architectural levels belonging to this period. Three large buildings in stone, which are contemporary with Level Ib of the Karum, were uncovered with their ground-plan complete. As we have already pointed out, in this period, in contrast to the Hittite Imperial Period, the fortified city-mound of Kanish has very well-preserved building-levels. In one of these buildings in stone, consisting of large rooms, no tablets and cylinder seal impressions were unearthed, but on the floor of it and close to a painted pot of type Alishar III was found a bronze spear-head carrying a cuneiform inscription: É-gal A-ni-ta ru-ba-im = Palace of Anitta, the king<sup>28</sup>. One of the small rooms of this building was filled with obsidian blocks amounting to more than one ton.

Excavations in the center of the hill, in other words, in the acropolis of Kanish, revealed tablets, lying in situ on the floor level of a big room, belonging to the palace contemporary with Level Ib in the Karum area. One of these tablets, which was published by K. Balkan<sup>29</sup>, includes correspondence of Warshama, king of Kanish, son of Inar. There are also tablets, which contain the lists of palace officials. These royal documents are absolutely unique for this period. The palace consists of numerous rooms around a long and narrow hall and the doorways can still be seen in the well-preserved walls in mud-brick. Fortunately, the soundings of B. Hrozný<sup>30</sup> did not disturb the central part of the palace too much, but the north-east wing of it was completely destroyed. The "Palace of Warshama", was burned and the western section of it was razed during the erection of a large building with stone walls, belonging to the later building level. This fire is contemporary with that which destroyed Karum Ib.

<sup>28</sup> T. Özgüç, *Bulleten*, 77, p. 33 ff.

<sup>29</sup> K. Balkan, *Letter of King Anum - Hirbi*.

<sup>30</sup> B. Hrozný, *Syria* 8, 1927 p. 1 ff.

About eighty meters to the west of the palace where the tablets were discovered, a separate monumental building was excavated which belongs to the same architectural level. This large building of 20 m. length with walls of 1.50 m. thickness has high stone socles which are lined with two courses of well dressed stone. A towerlike effect was achieved by the construction of the projecting external buttresses, on each of the four sides (pl. XIX, 1; XX, 1). In the refuse layer of this building, we found gold, and bronze objects worthy of any royal palace (Pl. XVIII, 1-2). This building with buttressed corners is unique for this age in Anatolia. Some time after the reign of Anitta, king of Kuššara, a violent fire ended the lives of the Karum and contemporary palaces and buildings on the city-mound. Following this last disaster, Kanish lost all its importance and richness.

Under this building level, contemporary with the period of Warshama and Anitta a well preserved large palace-building was discovered. Its walls are built of large mud-bricks, unlike those of the Karum, on stone foundations and coated with white plaster (pl. XXI, 1). Walls, preserved in some places to a height of two meters, and floors are covered with plaster. The palace was long in use, as additions and annexes prove, enlarged and repaired at various times, but it found its present plan in Level II in the Karum area and at the end which a fire destroyed the palace. This fire is contemporary with that which destroyed Karum II. The building, which consists of numerous long and narrow storerooms grouped around a long corridor; a monumental stone pavement, made of regular slabs, adjoins the building (Pl. XXII, 1). A great central court was paved with stones of varying size. A second wing, surrounding the east section of the great court, represents the residential part of the burnt palace. It has rooms with wooden floors, and in the middle of a large room lies a round hearth. The whitewashed brick benches are ranged against the base of the walls. In this palace we discovered cuneiform tablets and cylinder-seal impressions.

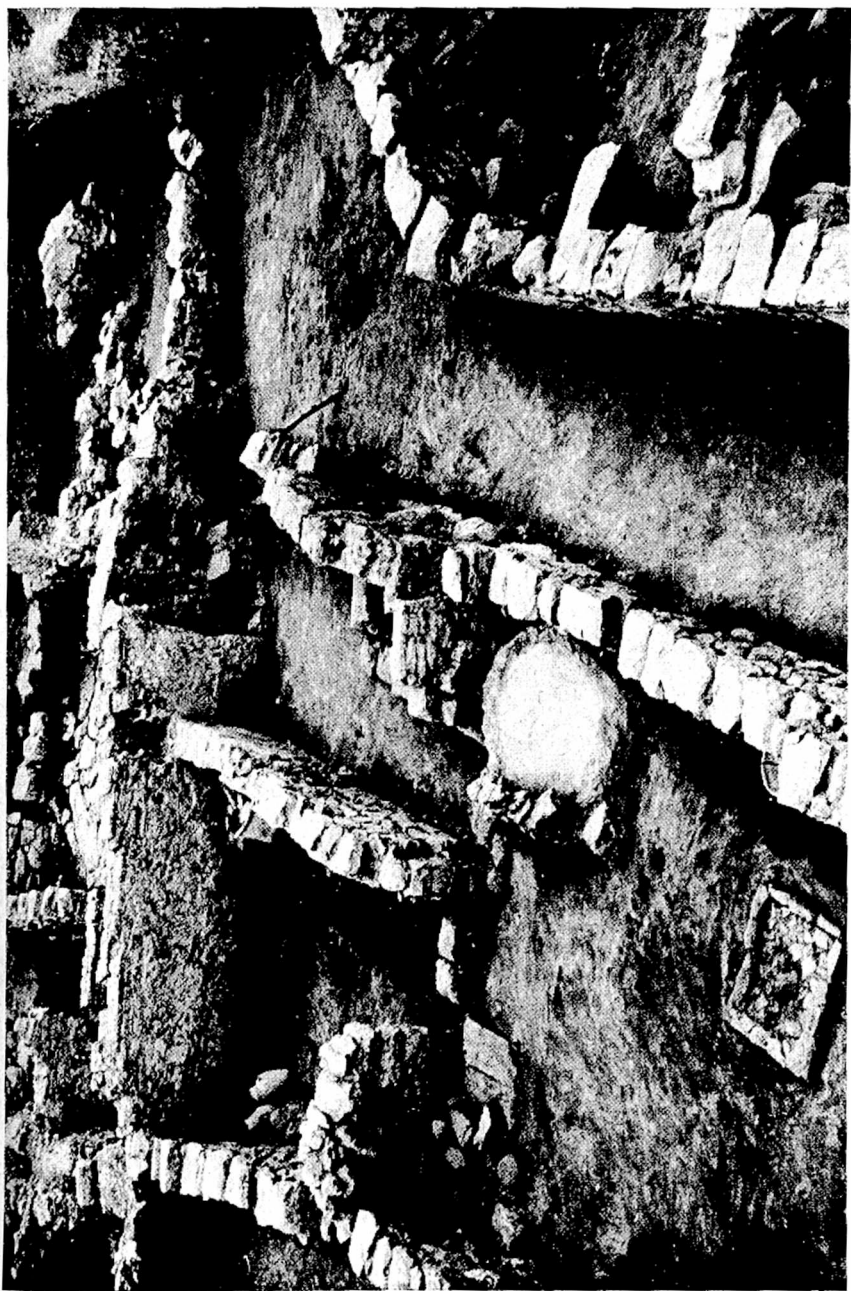
These burnt buildings are architecturally different from their counterparts of the Levels Ib and II in the Karum area. The size of the Kültepe palace approaches that of the largest temples of Boğazköy. It is evident that at Kültepe monumental buildings were being erected before the Old Hittite Kingdom. There an imposing series of palaces,

dating from both levels of Karum, came to light, so that now the sequence of Anatolian rulers preceeding the Hittite Empire can be fully reconstructed. This is a new and highly important political synchronism. These new discoveries at Kanish are a valuable piece of evidence for the history of Anatolian architecture of the first quarter of the second Millennium B.C.

In these large buildings on the city-mound seals were found which enable one to date these buildings. In the buildings where tablets and pottery are contemporary with Level Ib of the Karum, for instance in the palace of Warshama, the stamp-seals are of Ib style, but in the large building in which we discovered tablets of the Level II Karum we found imprints on cylinder-seals in the local style of Level II. Like all the other objects, the seals thus also show beyond any doubt the stratigraphical parallelism between the Karum and the city-mound.

We must here touch on one more problem. In the Karum there are extensive remains of Levels III and IV which contain no written documents, and the mound was inhabited during the same period. How are we to explain the existence of these two successive cities in the Karum outside the mound? Although it is probably too early to give a definite answer to this question, one thing is certain: before the arrival of the Assyrian merchants in Level II, who brought cuneiform writing to the plateau, the city of Kanish had already spread beyond the Mound. The two factors which made Kanish the main Karum upon the arrival of the Assyrians are: a- The geographical position on the plain of Kayseri which has made it at all periods one of the most important road junctions, and b- The existence of a prosperous town before the arrival of the Assyrian merchants. The fact that Kanish was already a flourishing town, deriving its riches from Anatolian trade, made its historical development possible. Apart from this, the existence of numerous objects of North Syrian origin, both on the mound and in Levels III and IV of the Karum show that both areas were already in contact with one another before the Level II city.

I can not emphasize strongly enough the widespread relations between Anatolia and the Southeast. Geographically a center and a bridge one of the most important features of its art and culture has been its connections with outlying districts and segments of humanity throughout its long history.



Pl. IV



I

Pl. V



I



*Pl. VI*



*Pl. VII*



Pl. VIII



Pl. IX







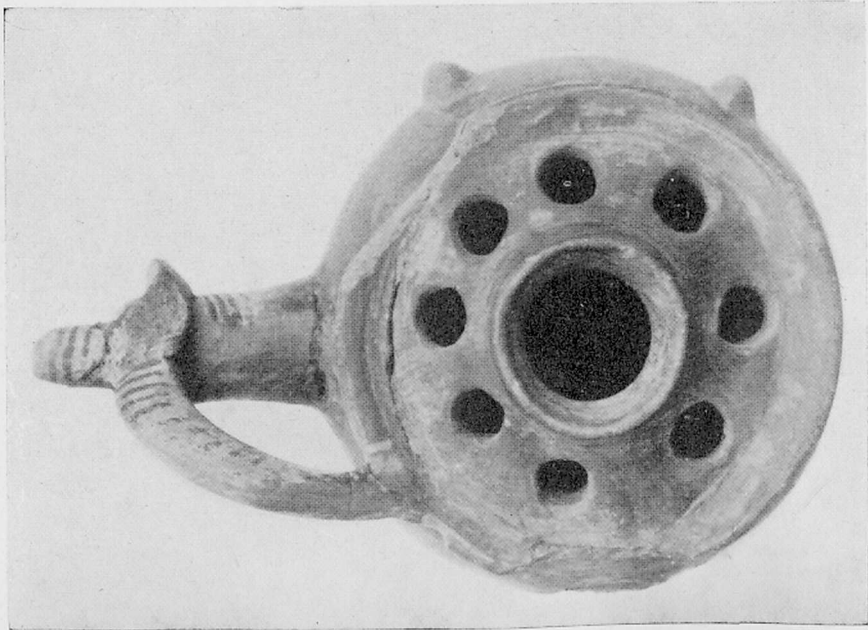
1a



1b



Pl. XII

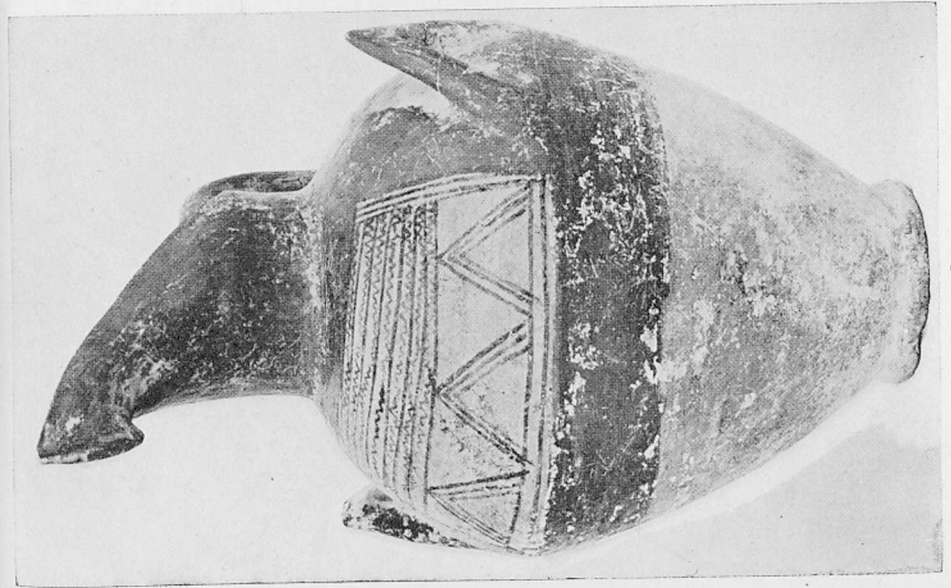


1 C



2

Pl. XIII



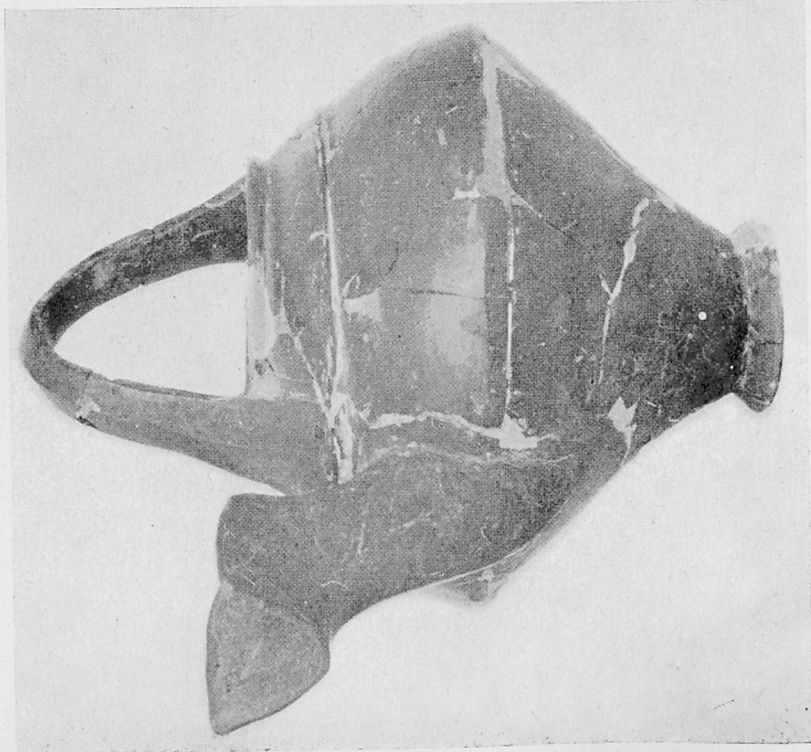
1



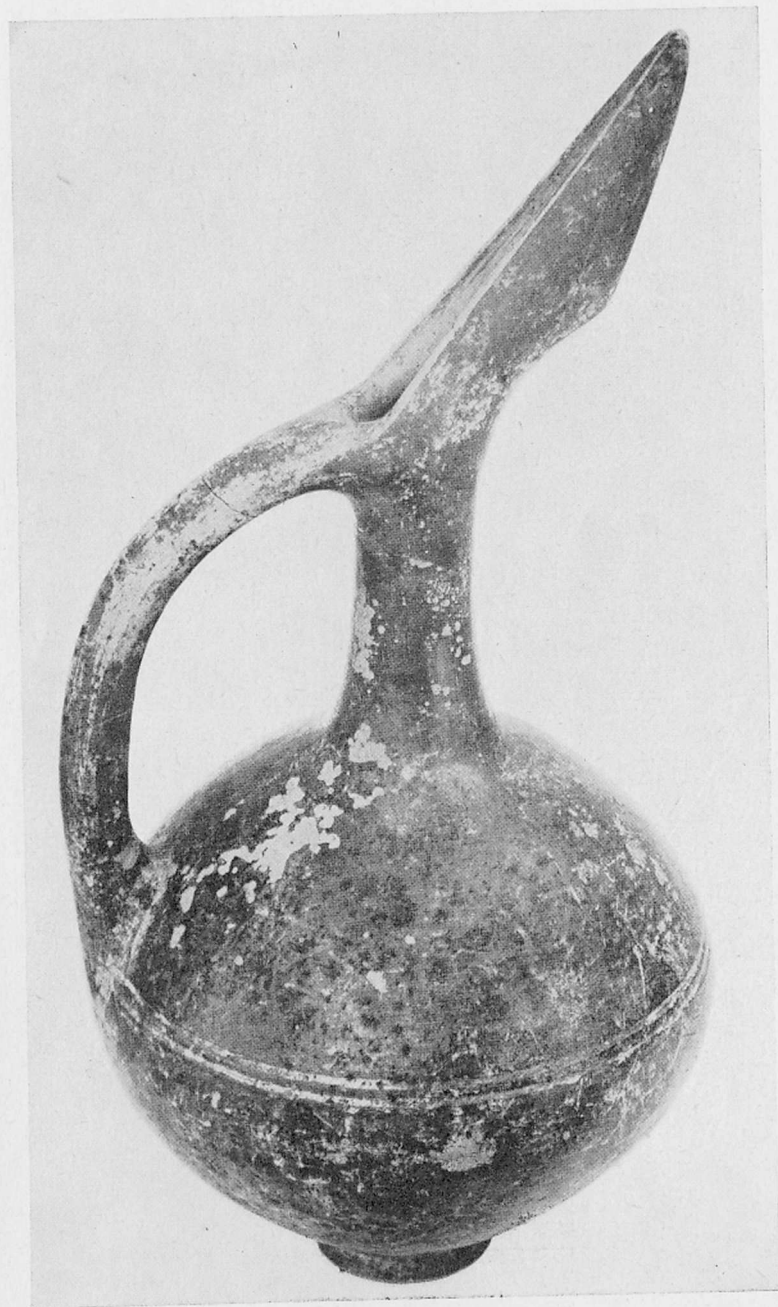
2



2

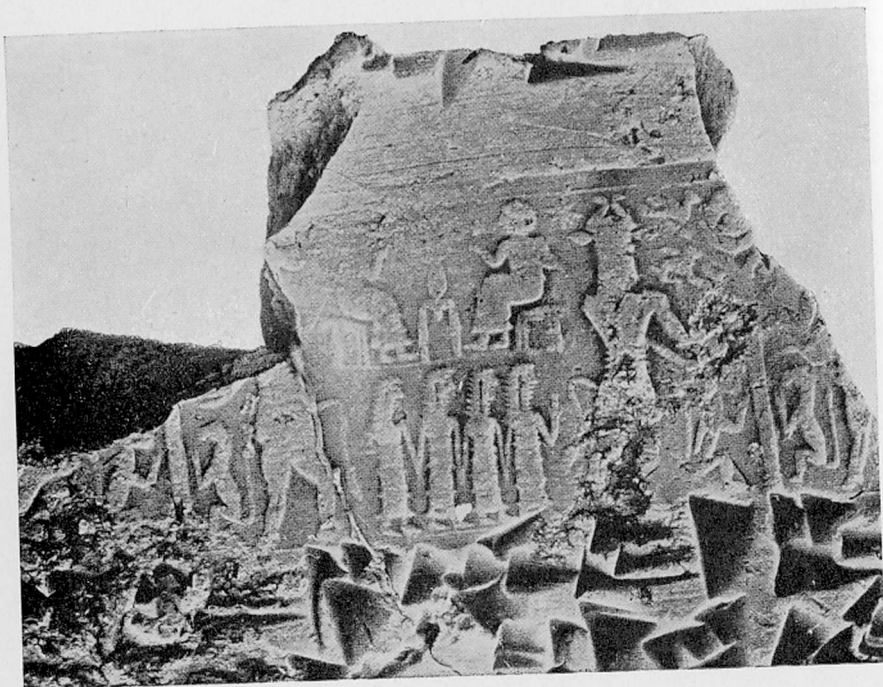


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1





I



2



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I



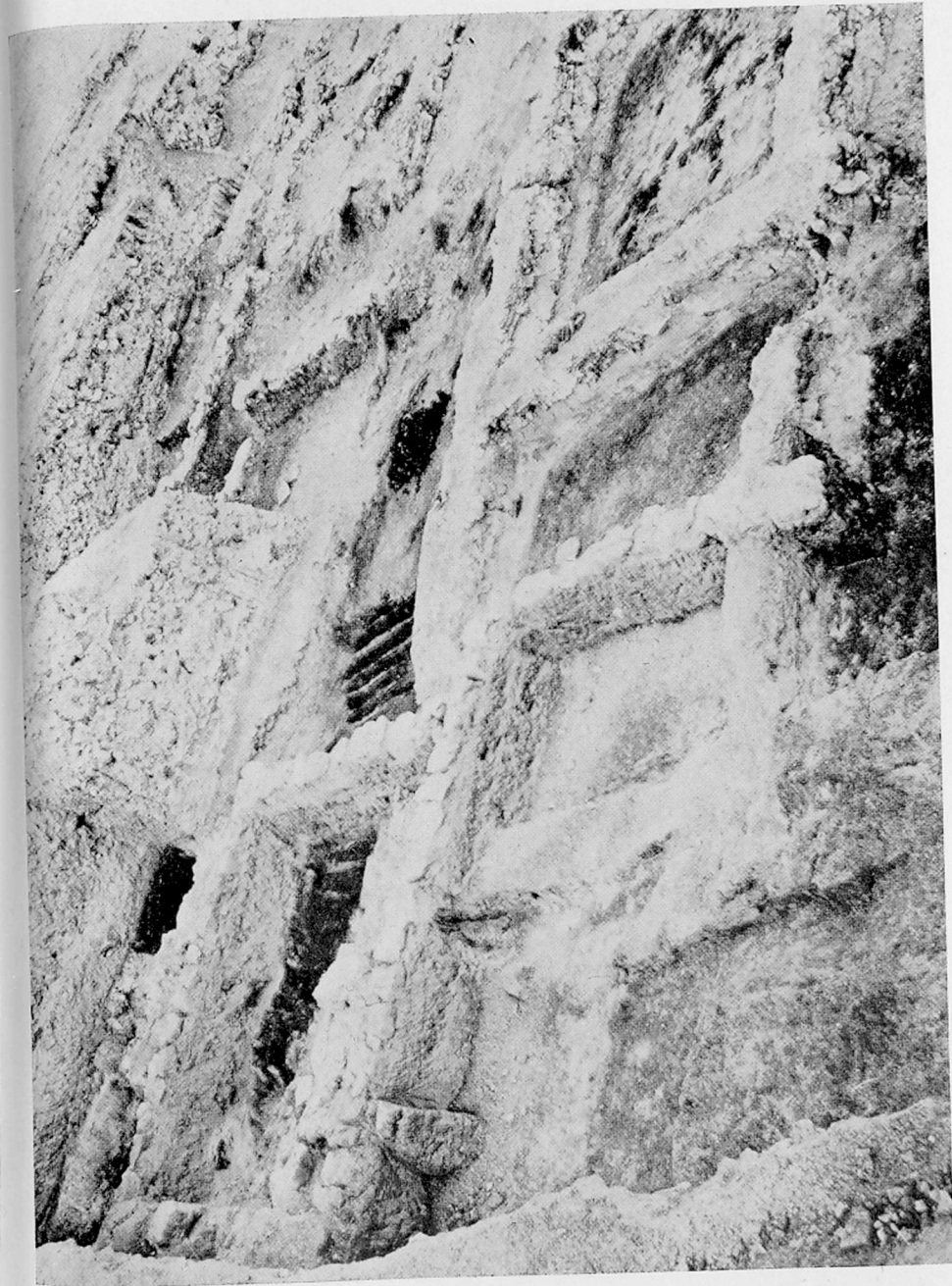
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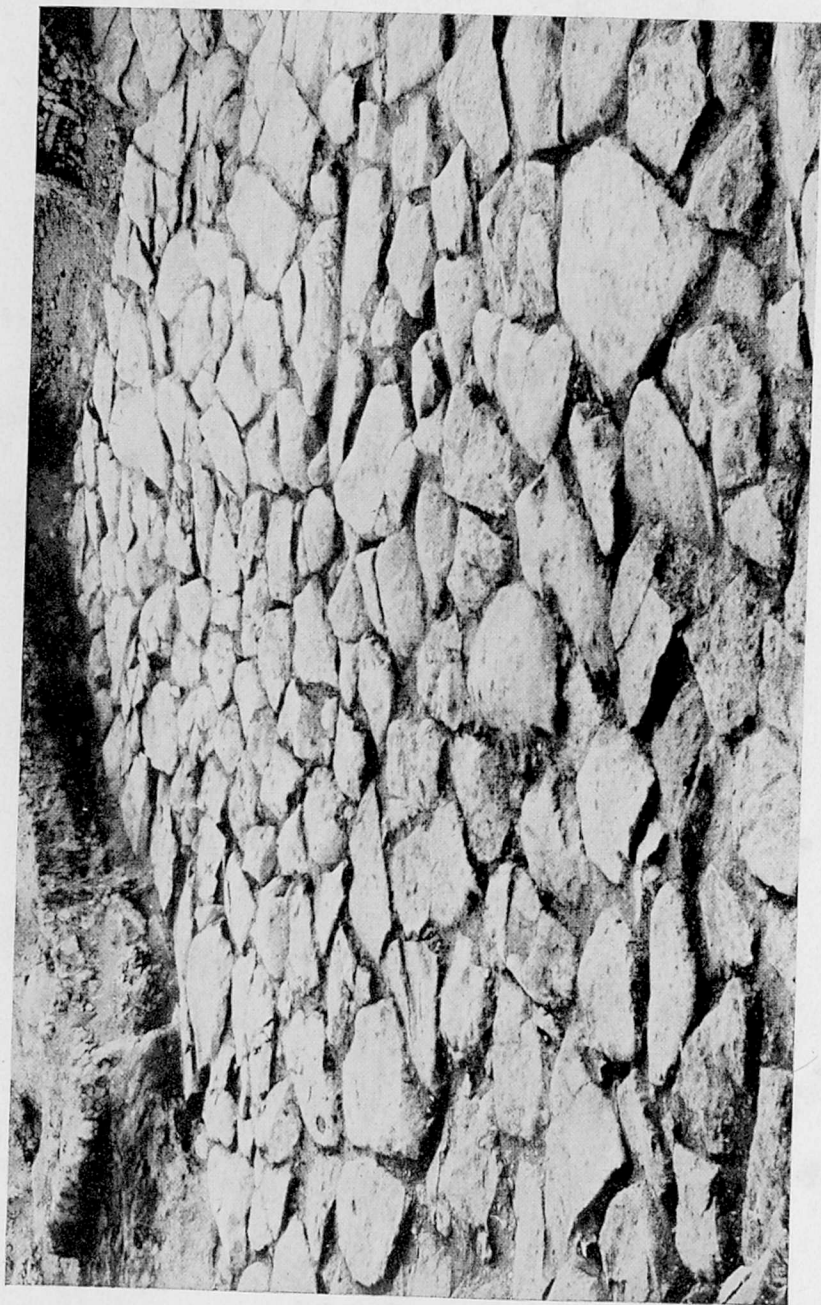


2









## OSTEOLOGICAL INVESTIGATIONS OF THE ANIMAL REMAINS RECOVERED FROM THE EXCAVATIONS OF ANCIENT SARDIS\*

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and the staff of the Department

The animal bones discussed in this report were excavated by the American Archeological Exploration of Sardis at the site of ancient Sardis which is in the western part of Turkey near the city of Salihli. The material studied was obtained during the six campaigns from 1958-1963. This bone collection represents the historical ages listed below in their respective order, starting from the surface :

1. Islamic Period: about 1300-1800 A.D.
2. Byzantine Period: about 400-1300 A.D.
- 2a. Late Byzantine: about 1200-1300 A.D.
- 2b. Middle Byzantine: 700-1200 A.D.
- 2c. Early Byzantine 400-700 A.D.
3. Roman: ca. 0-400 A.D.
4. Hellenistic: 334 B. C. - O.
5. Persian: 547-334 B.C.
6. Lydian: about 1000-547 B.C.
7. Late Bronze Age and Early Iron Age: about 1400-1000 B.C.

Bones belonging to the Islamic period have been found chiefly in sector "Pactolus North", where a Turkish village flourished between ca. 1300 and 1800 A. D. and in surface levels of other sectors ("CG", "Acropolis").

Bones of the Late and Middle Byzantine periods have come chiefly from the sector "CG", where a level was dated by coins to the

\* We are grateful to Professor G. Hanfman, Field Director of the American Exploration of Sardis, for allowing us the opportunity of examining this valuable material.



tenth century A.D.; from the Byzantine barracks on the Acropolis (ca. 700-1300 A.D.); and from parts of the area "Pactolus North."

The Late Roman and Early Byzantine period (ca. 400-700 A.D.) is abundantly represented at Sardis. It came to an end in a great destruction under Heraclius (ca. 615 A.D.). This period was represented in the sectors "House of Bronzes", "Byzantine Shops," the Synagogue, "Pactolus North" "Pactolus Cliff," "CG," and the Acropolis. Faunal remains were particularly abundant in the "Byzantine Shops" along the north side of the main "Marble Avenue" of Sardis. Many of these shops may have been restaurants and another eating place seems to have encroached into the eastern part of the Synagogue.

Finds of the Roman period (ca. 0 - 400 A.D.) were relatively infrequent, and confined to certain locations in the area of the gymnasium (Building "B"), in the sector "Pactolus North", and in building "L" south of the Artemis temple.

Again, apart from graves, Hellenistic strata were exposed only in a broken up level of tiles and stones which was excavated in the "House of Bronzes" area, and (in 1964) in the "Pactolus North" sector. However, within the "House of Bronzes" area, at a level of \*99.7, there was found a large circle of stones with many bones mixed with earth fill.

The differentiation of the Persian (547-334 B.C.) and Lydian levels (1000-547 B.C.) was often difficult. Considerable areas have been exposed in the "House of Bronzes" sector, and smaller segments at the "Pactolus North" and "Pactolus Cliff" sectors. All of these contained habitations and buildings of commercial-industrial character (workshops, shops).

The Late Bronze and Early Iron Ages (ca. 1400 B.C. - 1000 B.C.) were reached only in very limited exposures (1960: Late Bronze - ca. 10 sq. m., Early Iron - 50 sq. m; 1962: Late Bronze - ca. 15 sq. m., Early Iron, ca. 80 sq. m.). Any conclusions concerning this period can only be very tentative.

In a number of instances, the bones were found in hearths or ovens, sometimes mixed with abundant wood coal. A relatively small number came from graves and burials. A rather exceptional location was constituted by the tunnel which descends from the upper part of the Acropolis within one of the cliffs of the north side. Its original

age has not been determined but it was certainly in use in Byzantine times.

The location of the sectors and finds made in the various sectors are discussed in reports published by the Sardis Expedition in *Türk Arkeoloji Dergisi* 1958-1964 and *Bulletin of the American Schools of Oriental Research* 1959-1964.

The faunal remains were separated from the human skeletal material and carefully recorded. According to the results of our investigations it seems that the bones of the main species represented are distributed equally throughout the various periods.

The major part of the collection is constituted by the domesticated animals. 1/8 of the collection represents wild animals; 88.7 % of the total number of bones belongs to the domesticated and 11.3 % to the wild animals..

The number of bones of both the domesticated and the wild animals excavated and preserved is shown below according to the years in which they were discovered :

<u>Year</u>	<u>Number of Bones</u>
1958	1857
1959	878
1960	240
1961	820
1962	1772
1963	3574

Among the above mentioned domesticated animals small ruminants constitute the great majority. Ox, pig, horse, bird, dog, and others follow. The total number of the bones excavated between 1958 and 1963 including the human material and the pieces of bones which are too small to be identified is 9141. 1077 bones were fragmentary; 70 bones were human. The bones that have been found intact and best preserved are teeth, tali, calcani, metacarpi, metatarsi, phalanges I and II and also shells.

The distribution of the animal remains according to the ages follows :

1-2. Islamic and Byzantine ages: sheep, goat, ox (brachyceros type), horse, pig (scropha type), dog, bird, shell, turtle, rat, and hare.

3. Roman Empire: sheep, goat, ox, horse, pig, (scropha type), dog, cat, and bird.

4. Hellenistic age: sheep, goat, ox, horse, pig.

5, 6, 7. Persian, Lydian, and Bronze Ages: sheep, goat, ox, horse, buffalo, dog, cat, camel, donkey, hare, bear, fox, fish, turtle, hedgehog, and toad.

Most of the bones of each period belong to the small ruminants, forming a group which is 40 % of the total number of bones. Approximately 50 % of the bones of the small ruminants have been found to belong to immature animals. This indicates that small ruminants (caprovina) were domesticated and used as the main food supply.

Interestingly enough, the bones of camels and buffalos occur only in Lydian levels. One can then suppose that the above mentioned animals were domesticated and used by the Lydians.

The number of shells is quite high during the Early Byzantine period. The fact that they have been found in a restaurant shows that they were used as food supply.

In 1961, RODDEN suggested that the date of the first domestication of sheep was 9000 B.C., that of oxen was 5000 B.C., and that of pigs was 6500 B.C. It is therefore a natural assumption that the oxen and pigs excavated in the Sardis region which date from much later times are the bones of domesticated animals.

Donkeys also were domesticated during the time of Lydians and used by them. This conclusion results from the fact that donkey bones have been found among the materials that belong to the time of the Lydians.

Most of the cat bones found belong to the time of the Lydians. However, the number of cat bones decreases during the time of the early Roman Empire and in the Byzantine era.

Not much difference has been found between the bones of the cats and dogs excavated in Sardis and those of the modern species.

The sheep and goat have been differentiated by some bones such as head bones, talus, etc. Most investigators in this field have not differentiated between sheep and goat. They have simply guessed,

mentioning the difficulty of distinguishing the two species. They have even used the term "caprovina." We have, however, determined that both sheep and goats lived in Sardis at the same time during the ages taken up in this study.

PATTERSON in 1937 and RODDEN in 1962 used the skulls and horns of both animals to make this differentiation clear.

We have also distinguished some bones that most likely belonged to wild sheep and goats. These are characterized by having bones and horns longer and larger than those of the domesticated ones. In this connection we note that in 1958, BOESSNECK reported that wild sheep lived in Sardinia and Corsica before Christianity and extended as far as Cyprus and Asia Minor.

#### *Wild Animals*

Among the wild animals, the following species were found and identified: rodents (hare, rat and hedgehog), frog, turtle, bear, pig, deer, fish, and molluscs. Some of the unidentified and fragmentary bones were sent to the Osteology Section of the Zoology Department at the British Museum. Among them, those of a fish and a few domesticated animals were identified by Mr. J. E. King, the bones of frogs were identified by Miss Grandison and Mr. Wheeler. We would like to take the opportunity to express our thanks and appreciation to these authorities of the British Museum for their help.

#### *Some Measurements of the Bones of the Domesticated Animals of Sardis*

It is necessary to have a great quantity of good material for a sound comparison between the bones of the domesticated animals of ancient Sardis and those of the modern species. Such a comparison could not be made by us because there is very little well preserved material among the faunal remains. Only a few measurements will be given of the bones found intact among the faunal remains, hoping that the data will be helpful for future researches.

Animal Species	Name of Bone	Breadth of prox. end, cm.	Breadth of distal end, cm.	Breadth of shaft, cm.	Total length of bone, cm.
Small Ruminants					
(caprovina)	Metacarpus	2	2.5	1.7	11.00
Byzantine	Metatarsus	2	2.5	1.2	12.00
Ox (Lydian)	Metacarpus	5.5	6.2	3.5	19.00
	Metatarsus	4.5	5.5	2.8	23.3
Horse					
(Byzantine)	Metacarpus	4.3	4.1	3.0	21.5
	Metatarsus	3.5	3.7	2.8	22.0
	Phalanx I	5.4	5.0	3.0	9.0
	Phalanx II	4.1	3.8	2.8	4.0
Goat	Horn core :				
	Circumference at base			:	8.9 cm.
	External length along outer curve			:	13.5 cm.
	External length along inner curve			:	9.0 cm.
	Length of tendon			:	8.0 cm.

In 1961, REED stated that the reduction in the length of the third molar teeth in the pig is an evidence of domestication. No study has been done on this because we have not had any comparative material available.

#### *Molluscs:*

The molluscs found are partly salt and partly fresh water species. Their abundant occurrence during the Late Roman and Early Byzantine period (400-615 A.D.) indicates that they were a source of food during that time.

The following are the species identified: (fig. 21).

- 1- Murex: salt-water species(1).
- 2- Unio tumidis: fresh-water form (2).
- 3- Mytilus edulis: creek shells (3).
- 4- Tritonium tritonidis: salt-water form (4).
- 5- Helix pomatia: fresh-water form. (5).

#### *Birds :*

The bones of birds have been found at each level but in small number. Some of these are hen bones. Hens must have been domesticated in ancient Sardis. BOESSNECK (1958) has already determined that the domestic fowl existed 3000 years ago, during the time of the Romans.

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*Figures and Legends*

1. Skull of a fox B. east Aug. 15. 1960 ander Stob above floor, inside E 31, N 58-60, 97.50 - 97.00.
2. Skull of a dog (1960, 97.50 - 97.00)
3. A complete mandible of a Lydian buffalo. 1962. Nr. 10, Pack. 2,5
4. A complete mandible, an axis and a thoracic vertebra of a Hellenistic-Roman camel. HOB, W10, S.105 level 99.80 - 99.60, 7.22.1961
5. Incomplete mandible of an ox (Early Byzantine).
6. Incomplete mandible of a pig (Bronze Age). HOB, 1960
7. A complete mandible of a goat (Hellenistic).
8. Third molar of horse (Bronze Age). HOB, 1963
9. Canine tooth of a pig (European wild pig) 1960, ACN.
10. Horn core of goats (Byzantine).
11. Horn core of wild goat (Early Byzantine). Synagogue, E 40-48. N/20
12. A) Horn core of Lydian ox.  
B) Horn core of wild sheep (Lydian). HOB, 8.10, 1961, W. 1, 10-20, S. 89.90 Level, 99.30
13. Horn core of antlers (Lydian) HOB, Aug. 4, 1963 W 4-65, 102-105, level 99.70 - 50
14. Metatarsus of horse and donkey (Roman). HOB, VII, 16/61. Eo-5 585-800 Upper mixed fill.
15. First phalanx of Lydian horse.
16. Second phalanx of Lydian horse. HOB.
17. Calcaneus of Lydian horse. HOB.
18. Metacarpus and metatarsus of a Lydian ox. HOB
19. Metacarpus, and metatarsus of goat (Bronze Age).
20. a,b. Ossa coxae of a Byzantine mare. Tunnel, lower Part of tunnel, 1962
21. Molluscs found in various levels of the Sardis excavation.



TABLE : I

Total Distribution of The Animal Remains of The Sardis Excavation  
From 1958-1963

Animal species	(Years)	1958	1959	1960	1961	1962	1963	Number of the bones
Small ruminants (ovis-capra)		738	393	46	215	533	1260	3185
Ox		335	230	44	114	430	523	1676
Buffalo		7	2	—	3	28	7	47
Horse		173	37	30	85	144	552	1021
Donkey		4	5	1	4	3	9	26
Pig		124	—	12	41	121	218	516
Dog		68	17	18	46	55	224	432
Cat		4	2	61	—	251	9	327
Camel		1	13	—	—	3	2	19
Bird		53	46	17	18	86	58	278
Hare		2	—	—	—	—	—	2
Antler		2	—	2	—	—	4	8
Rat		1	—	—	208	7	29	245
Fox		—	—	—	1	—	—	1
Turtle		8	—	—	—	22	2	32
Bear		—	—	—	1	—	—	1
Hedgehog		—	—	—	1	—	—	1
Fish		2	—	—	—	—	—	2
Frosh		—	—	—	3	—	—	3
Molluscs		22	3	—	48	12	90	175
Human		24	16	—	1	2	27	70
Unidentified (broken) bones		289	114	9	30	75	560	1077
Total number		1857	878	240	820	1772	3574	9141

# TARİHSEL SARD ŞEHİRİ HAYVAN KALINTILARI ÜZERİNDE OSTEOLOJİK ETÜDLER

Ankara Üniversitesi Veteriner Fakültesi Anatomi Kürsüsü  
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ÖZGÜDEN ve Arkadaşları

Bu çalışmada Sard Amerikan Arkeoloji Grubu tarafından Türkiye'nin batı bölgesinde, Salihli civarındaki eski Sard Şehrinde yapılan arkeolojik kazılardan çıkarılan hayvan kemikleri incelenmiştir. İnceleme materialı 1958-1963 yıllarında yapılmış olan altı kampanyadan elde edilmiştir. Bu kemikler koleksiyonu yüzeyden itibaren sıra ile aşağıdaki tarihî periodlara aittir :

1—İslamlar devri	: Tahminen	1300-1800 M.S.
2—Bizanslılar devri	: „	400-1300 M.S.
a) Son Bizanslılar	: „	1200-1300 M.S.
b) Orta Bizanslılar	: „	700-1200 M.S.
c) İlk Bizanslılar	: „	400- 700 M.S.
3—Romalılar devri	: Takriben	0- 400 M.S.
4—Hellenistik devir	: „	334 M.Ö. - 0
5—Persler devri	: „	547- 334 M.Ö.
6—Lidialılar devri	: Tahminen	1000- 547 M.Ö.
7—Son bronz ve ilk demir devri	: „	1400-1000 M.Ö.

İslamlar devrine ait olan kemikler başlıca, tahminen M.S. 1300-1800 arasında bir Türk kasabasının kurulmuş olduğu "Pactolus North" kesiminde ve diğer kazı bölgelerinin üst yüzeylerinde (CG", "Acropolis") bulunmuşlardır.

Son ve orta Bizans devrini temsil eden kemikler paraların yardımıyla M.S. 10. asır olarak tahmin edilen "CG" kazı kesiminden, Acropolis'deki (tahminen 700-1300 M.S.) Bizans barakalarından ve "Pactolus North" bölgesinin bazı kısımlarından çıkartılmışlardır.



Son Roma ve İlk Bizans devirlerine ait material (tahminen 400-700 M.S.) Sard kazılarında oldukça zengin bulunmuşlardır. Fakat bu devirler Heraclius'un büyük çaptaki tahribatıyla sona ermişlerdir, (tahminen 615 A.D.). Bu devre "House of Bronzes", "Byzantine Shops" "Synagogue", "Pactolus North", "Pactolus Cliff", "C.G." ve Acropolis kesimlerinde temsil edilmektedir. Fauna kalıntıları özellikle Sard'ın ana "Marble Avenue" sinin kuzey kısmı boyunca "Byzantine Shops"larda en zengin olarak bulunmuşlardır. Birçoğu lokanta ve diğer yemek yiyecek yerleri olabilen bu dükkanların Synagogue'un doğu tarafına sokulmuş oldukları görülmektedir.

Romalılar devrine (tahminen 0-400 M.S.) ait kemikler nisbeten daha seyrek olup bunlar gymnasium (Building "B") kesiminde, "Pactolus North" bölgesinde ve Artemis tapınağının güneyindeki "L" binasında lokalize olmuşlardır.

Yine, mezarlar hariç, helenistik devre ait kemikler yalnız "House of Bronz" ve (1964 de) "Pactolus North" sektionundan çıkartılan taşlar ve kiremitten ibaret kırık bir tabakada ortaya konmuşlardır. Vakıa "House of Bronzes" kısmında, \* 99.7 derinlikte birçok kemiklerle beraber toprakla karışık büyük bir taş kümesi bulunmuştur.

Pers (547-334 M.Ö.) ve Lidia (1000-547 M.Ö.) tabakalarını birbirinden ayırdetmek cidden güçtür. "House of Bronzes" bölgesinde "Pactolus North" kesiminin küçük segmentlerinde ve "Pactolus Cliff" de söze değer bölgeler tesbit edilmiştir.

Bütün bunlar orada oturan insanları ve ticarî-endüstri karakterdeki binaları (iş yerleri ve dükkanları) içine almaktadırlar.

Son Bronz ve ilk demir devrine (takriben 1400-1000 M.Ö.) pek mahdut bir derecede ulaşılmıştır. (1960: son Bronz-takriben 10 m<sup>2</sup>, ilk demir- 50 m<sup>2</sup> ; 1962: son Bronz - 15 m<sup>2</sup>, ilk demir, takriben 80 m<sup>2</sup>) Bu periodla ilgili herhangi bir fikir yürütmek pek kaba taslak olabilir.

Bulguların bazılarında kemikler, bir ocak veya sobada, bazen de pek çok odun kömürüyle karışmış olarak bulunmuşlardır. Nisbeten daha az bir miktar kemik, çukur ve mezarlardan gelmiştir. Oldukça istisnai bir kazı yeri, Acropolis'in üst kısmından kuzey taraftaki uçurumların birine inen bir tunel tarafından teşkil edilmektedir. Bu location'un yaşı tesbit edilememiştir ama, bunun Bizanslılar zamanında kullanıldığı muhakkaktır. Değişik mevkilerde yapılan araştırmaların location ve sektörleri Sard araştırmacıları tarafından Türk Arkeoloji Dergisi (1958-1964) ve Bulletin of the American

Schools of Oriental Research'de (1959-1964) yayınlanan raporlarda münakaşa edilmektedir.

Fauna kalıntıları, insan iskelet kemiklerinden ayıklanmış ve dikkatle kaydedilmişlerdir. Araştırmamızın sonuçlarına göre, esas türleri temsil eden hayvan kemikleri bütün devirlerde hemen hemen eşit olarak yayılmış gibidir.

Kemik koleksiyonunun çoğunluğunu evcil hayvanlar teşkil etmektedir. Koleksiyonun  $\frac{1}{8}$  i yabani hayvanlara aittir. Böylece total kemik yekûnunun % 88.7 si evcil hayvanlar, % 11.3 ü de yabani hayvanlardır.

Sard kazılarında çıkan ve muhafaza edilen evcil ve yabani hayvan kemikleri miktarı, onların çıkartıldıkları yıllara göre şöyle bir dağılım göstermektedir :

Yıl	Kemik miktarı
1958	1857
1959	878
1960	240
1961	817
1962	1772
1963	3574

Yukarıda bahsedilen evcil hayvanlar arasında küçük ruminantlar (koyun, keçi) ekseriyeti teşkil etmektedir. Bunları sıra ile sığır, domuz, at, kanatlı, köpek ve diğerleri takip ederler. Teşhisi mümkün olmayacak kadar küçük olan kemik parçalarıyla birlikte 1958-1963 arasında yapılan kazılardan çıkan hayvan ve insan kemikleri genel miktarı 9141 dir. Bunun 1077 si çok küçük kırık parçalardır; 70 i de insana ait kemiklerdir. Kırılmadan bütün olarak çıkan ve iyi muhafaza edilen kemikler sıra ile şunlardır: Dişler, talus, calcaneus, metacarpus, metatarsus, phalanx I ve 11 ile crustacea'lardır.

Devirlere göre hayvan kalıntılarının dağılışı aşağıdaki gibidir :

1-2. İslamlar ve Bizanslılar devri :

Koyun, keçi, sığır (brachyceros tip), at, domuz (scropha tip), köpek, kanatlı, kabuklu, kaplumbağa, fare ve yabani tavşan.

3. Roma İmparatorluğu: koyun, keçi, sığır, at, domuz (scropha tipi) köpek, kedi ve kanatlı.

4. Helenistik: koyun, keçi, sığır, at, domuz.

5-6-7. Persler, Lidialılar ve Bronz devirleri: koyun, keçi, sığır, at, manda, köpek, kedi, merkep, yabancı tavşan, domuz, ayı, tilki, balık, kirpi, kaplumbağa ve kurbağa.

Her devirde çıkan kemiklerin çoğu daima küçük ruminantlara aittir; bunlar genel kemik toplamının % 40'ını teşkil etmektedir. Küçük ruminant kemiklerinin ortalama olarak % 50'sinin de immatur hayvanlara ait olduğu izlenmiş bulunmaktadır. Bu netice, küçük ruminantların (caprovina) evciltiilmiş olduğuna ve başlıca gıda maddesi olarak kullanıldıklarına işaret eder.

Sard kazılarında deve ve manda kemiklerine yalnız Lidialılar devrinde rastlanmış olması oldukça enteresandır. Bu hale nazaran, adı geçen hayvanların Lidialılar tarafından evciltiilmiş ve kullanılmış olmaları düşünülebilir.

İlk Bizanslılar devrinde bulunan kabukluların miktarı oldukça yüksektir. Ayrıca bunların bir lokanta içinde bulunmuş olmaları, onların insan gıdası olarak kullanılmış oldukları gerçeğini ortaya koymaktadır.

Koyunun ilk evciltildiği tarihin M.Ö. 9000, sığırınkinin M.Ö. 5000, domuzunkinin M.Ö. 6500 olduğunu RODDEN (1961) tesbit etmiştir. Bu duruma nazaran da Sard bölgesinde çıkan ve daha sonraki tarihlere ait olan, sığır ve domuz kemiklerinin evcil hayvan kemikleri olduğuna şüphe yoktur.

Merkep de ilk defa Lidialılar devrinde evciltiilmiş ve kullanılmıştır. Çünkü bu kazılarda merkep kemiklerine Lidialılar devrine ait materyal içinde rastlanmış bulunuyoruz.

Kedi kemiklerine de en çok Lidialılar zamanında rastlanmıştır. Fakat kedi kemikleri mikarında, İlk Roma İmparatorluğu ile Bizanslılar devrinde bir azalma müşahede edilmektedir.

Sard kazılarında çıkan köpek ve kedi kemikleri kalıntıları ile bugünküler arasında bariz bir ayırım görülemedi.

Koyun ve keçi, kesin olarak bazı kemiklerinin yardımı ile ayrılabilmişlerdir (Baş kemikleri, talus, v.s.). Bu alanda inceleme yapmış diğer araştırmacıların çoğu koyun ve keçiyi birbirlerinden ayırd etmişler, bunun güçlüğüne ileri sürerek tahmini beyanlar vermişlerdir. Hatta "caprovina" deyimini bile kullanmışlardır. Biz bu etüdümüzle, bu araştırma ile ilgili devirlerde Sard şehrinde koyun ve keçinin beraberce yaşadıklarını tesbit etmiş bulunuyoruz.

Yalnız PATTERSON (1937) ve RODDEN (1962) bu ayırma işini baş ve boynuzlar aracılığı ile tatbik etmişlerdir.

Bu arada yabani keçi ve koyun numunelerine de rastlamış bulunuyoruz. Bunlar kemik ve boynuzlarının evcillere nazaran daha uzun ve hacimli olmalarıyla karakterize olmaktadır. Bununla ilgili olarak belirtelim ki, yabani koyunun hristiyanlıktan önce Sardinya ve Korsika'da yaşadığını ve yayılma alanının Kıbrıs, Küçük Asya olduğunu BOESSNECK (1958) bildirmektedir.

#### YABANI HAYVANLAR

Yabani hayvanlar arasında şunlara rastlanmış ve teşhis edilebilmiştir: Rodentler (Yabani tavşan, fare, kirpi), kurbağa, kaplumbağa, ayı, tilki, domuz, geyik, kuşlar, balık ve crustacea'lar.

Teşhis edilemeyen ve parça halinde olan kemiklerden bazıları British Museum'da Zoology Department'ı Osteology Section'una gönderilmiş ve orada balık ve birkaç tane de evcil hayvanlarla ilgili olanlar Mr. J. E. King, kurbağa kemikleri de Miss Grandison ve Mr. Wheeler tarafından teşhis edilmişlerdir. Bize olan bu kıymetli yardımlarından dolayı kendilerine burada teşekkürü borç biliriz.

#### *Sard evcil hayvan kemikleriyle ilgili bazı ölçüler :*

Eski Sard'in evcil hayvanlarının kemikleriyle bugünkü modern ırklar arasında bir karşılaştırma yapmak, ancak fazla miktarda sağlam materyale sahip olmakla mümkündür. Fauna kalıntılarında bu miktar çok az olduğundan, maalesef böyle bir karşılaştırmaya gidilmemiş, ancak ilerdeki araştırmalara yardımcı olur ümidiyle fauna kalıntılarında sağlam kalabilen kemiklere ait bazı ölçüler verilmekle yetinilmiştir :

Hayvan nevi	Kemik adı	Proximal epiphis genişliği	Distal epiphis genişliği (cm. olarak)	Diaphis genişliği	Total kemik uzunluğu
Küçük ruminant (koyun-keçi) Byzans	Metacarpus	2	2.5	1.7	11
	Metatarsus	2	2.5	1.2	12
Büyük ruminant (sığır) Lidia	Metacarpus	5.5	6.2	3.5	19
	Metatarsus	4.5	5.5	2.8	23.3
Equus caballus (at) Bizans	Metacarpus	4.3	4.1	3	21.5
	Metatarsus	3.5	3.7	2.8	22
	Phalanx I	5.4	5	3	9
	Phalanx II	4.1	3.8	2.8	4.0

Keçi

Proc. cornualis	
radix cornualis çevresi :	8.9 cm.
dış çevresi (kavsi) :	13.5 cm.
iç çevresi (kavsi) :	9 cm.
kirişi :	8 cm.

REED (1961) domestikasyonla, domuzların 3. molar dişlerinin boyunun kısalacağını bildirmiştir. Fakat bizim elimizde, mukayese materyali olmadığı için, bu yönden bir etüde girililmemiştir.

### MOLLUSCA'LAR :

Burada rastlanan mollusca'ların bir kısmı tatlı su ve bir kısmı da tuzlu su kabuklularındırlar. Onların, son Roma ve ilk Bizans devirlerinde (400-615 M.S.) çok miktarda çıkmış olmaları, bu hayvanların belirtilen zamanda yenilmiş olacağına işaret etmektedir. Mollusca'lardan teşhis edebildiklerimiz şunlardır: (Şekil: 21)

Murex: Tuzlu su türü. Daha çok Akdenizde yaşar. (1)

Unio tumidis: Tatlı su midyesi, derelerde yaşar. (2)

Mytilus edulis: Dere midyesi. (3)

Tritonium tritonidis: Akdenizde yaşar. (4)

Helix pomatia: Tatlı sularda yaşar. (5)

### KANATLILAR :

Kanatlı kemiklerine her tabakada az miktarda, fakat yaygın olarak rastlanmıştır. Bunların bir kısmı tavuk ve horoz kemikleridir. Tavuk ve horozun eski Sard'ta evciltmiş olması gerekmektedir. Zira BOESSNECK (1958) bundan 3000 yıl önce romalılar devrinde evcil kanatlıların varlığını tesbit etmiş bulunmaktadır.

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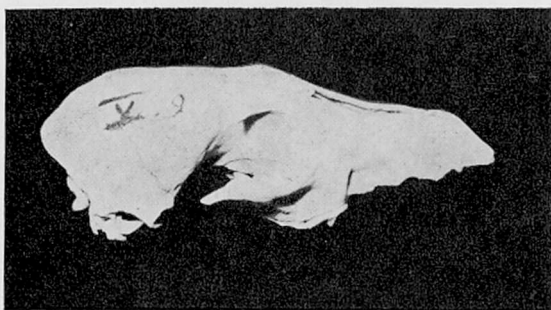
## RESİMLER VE LEGENDELERİ

1. Bir tilkinin baş iskeleti.  
B. east Aug. 15.1960 under stob above floor, inside E 31 N58-60 97.50-97.00
2. Bir köpeğin baş iskeleti. 1960 97.50-97.
3. Lidialılar devrinde yaşamış bir Manda'nın mandibula'sı. 1962 No. 10 Pak. 2, No. 5
4. Helenistik - Roman perioda ait bir devenin mandibula, epistropheus ve thoracal omuru.  
HOB W 10 S. 105 level 99.80-99.60 7.22.1961 (Hellenistic - Roman Bone)
5. İlk Bizanslılar devrine ait bir sığır mandibula'sı (kırık) Early Byzantine.
6. Bronz devrinin bir sus (domuz) mandibula'sı (kırık). HOB, 1960
7. Helenistik devrin keçi (capra hircus) mandibula'sı
8. Bronz devri altının 3. molar dişi. HOB. 1963
9. Sus scropha canin dişi (avrupa yaban domuzu) 1960. ACN.
10. Bizans devri keçilerine ait proc. cornualis'ler
11. İlk Bizans devrinde yaşamış bir yabancı keçinin proc. cornualis'i Synagog E 40-48 N/20
12. a. Lidialılar devri öküzünün proc. cornualis'i.  
b. Lidialılar devri yabancı koyun proc. cornualis'i  
HOB 8/10/61 W 1.10-20 S. 89.90 level 99.30
13. Lidialılar devrinde ait karaca proc. cornualis'leri  
HOB Aug. 4.63 W 4-65 102-105 level 99.70-50
14. Romalılar devri at ve merkep metatarsus'u  
HOB VII 16/61 EO-5 585-800 upper mixed fill Roman bones.
15. Lidialılara ait bir atın phalanx I'i
16. Lidialılara ait bir atın phalanx II'si (HOB)
17. Lidialılara ait bir atın calcaneus'u (HOB)
18. Bir Lidialı öküzünün metacarpus ve metatarsus'u (HOB)
19. Bronz devri keçisinin metacarpus ve metatarsus'u
20. a,b- Bir Bizans kıracağının ossa coxae'sı. Tunnel, Lower part of tunnel 1962
21. Sard kazılarının değişik tabakalarında çıkan mollusca'lar.

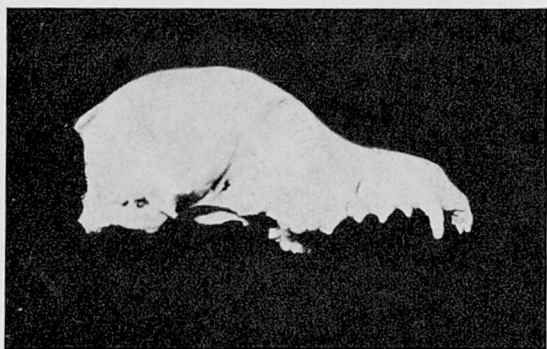


Sard Kazılarında 1958-1963 Kampanyasında Çıkan Kemiklerin Dağılımını Gösterir Liste

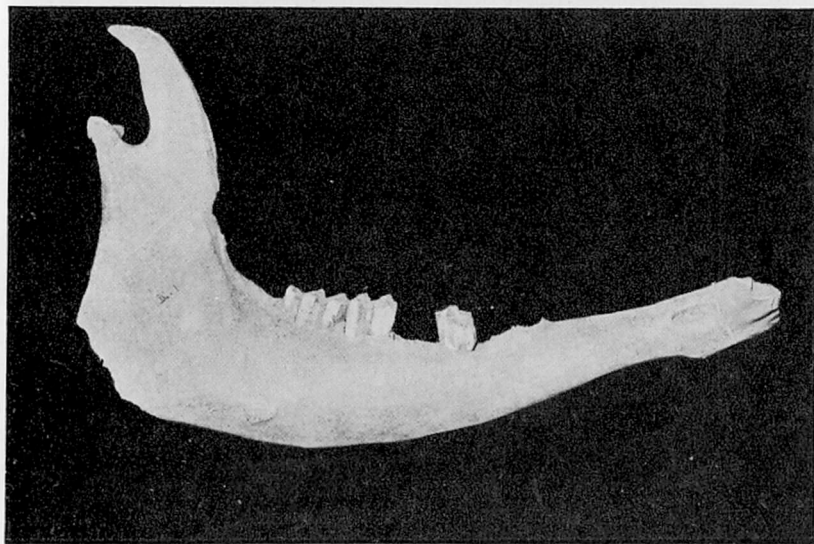
Hayvan nev'i	1958	1959	1960	1961	1962	1963	Yekün
Küçük ruminant	738	393	46	215	533	1260	3185
Büyük ruminant	335	230	44	114	430	523	1676
Manda	7	2	—	3	28	7	47
At	173	37	30	85	144	552	1021
Merkep	4	5	1	4	3	9	26
Domuz	124	—	12	41	121	218	516
Carnivor (Köpek)	68	17	18	46	55	224	432
Kedi	4	2	61	—	251	9	327
Deve	1	13	—	—	3	2	19
Kanatlı	53	46	17	18	86	58	278
Tavşan	2	—	—	—	—	—	2
Geyik - Karaca	2	—	2	—	—	4	8
Fare	1	—	—	208	7	29	245
Tilki	—	—	—	1	—	—	11
Kaplumbağa	8	—	—	—	22	2	32
Ayı	—	—	—	1	—	—	1
Kirpi	—	—	—	1	—	—	1
Balık	2	—	—	—	—	—	2
Kurbağa	—	—	—	3	—	—	3
Mollusca	22	3	—	48	12	90	175
İnsan	24	16	—	1	2	27	70
Teşhisine imkân olmayan kırık kemikler	289	114	9	30	75	560	1077
Genel yekün	1857	878	240	820	1772	3574	9141



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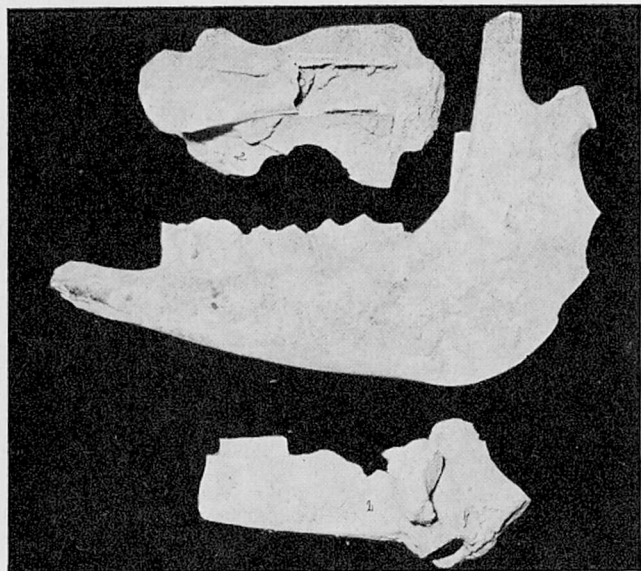


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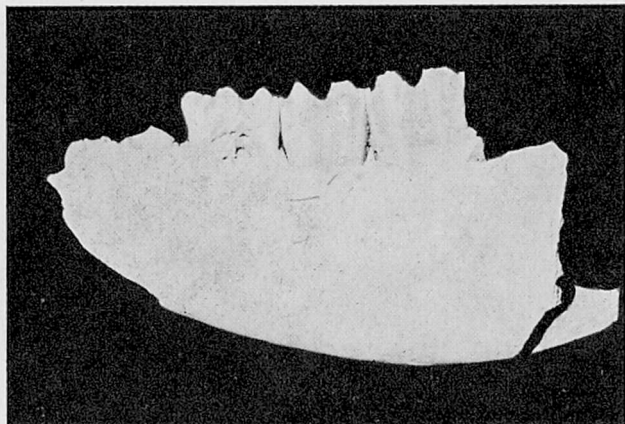


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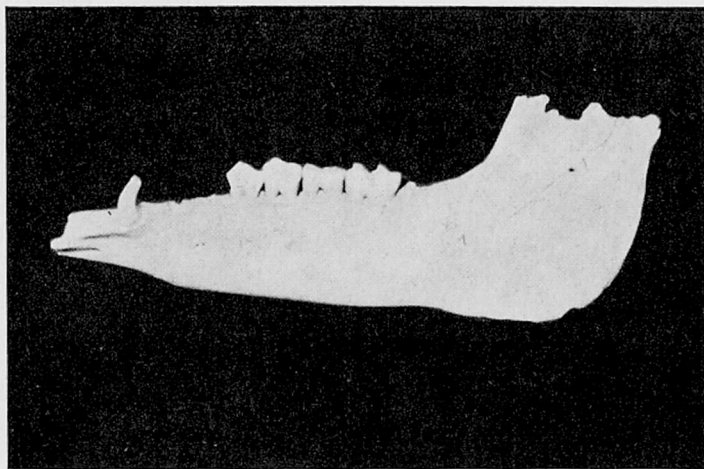




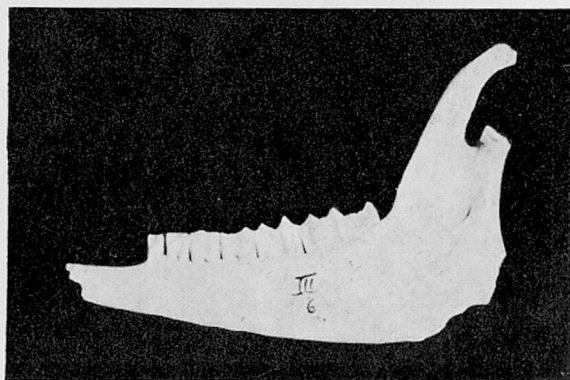
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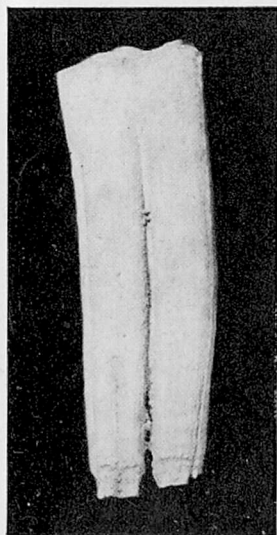
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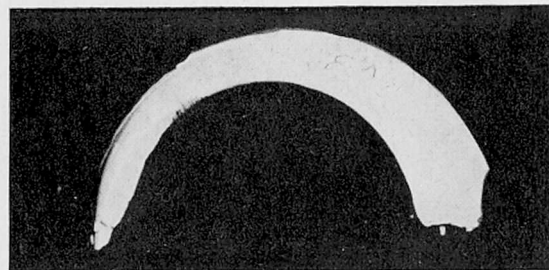
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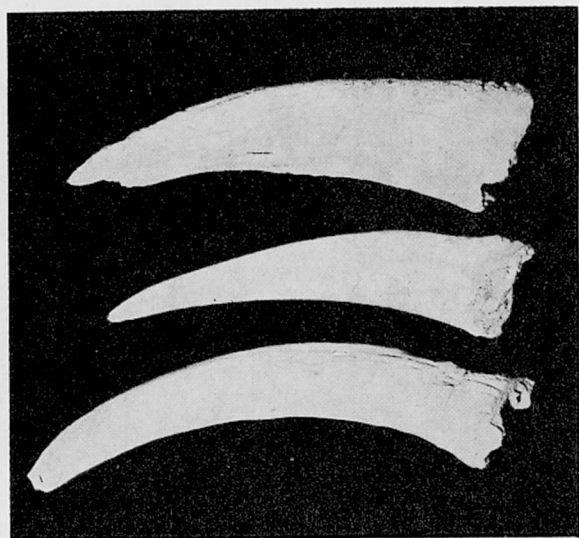
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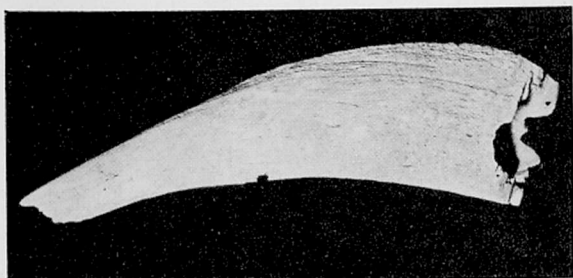
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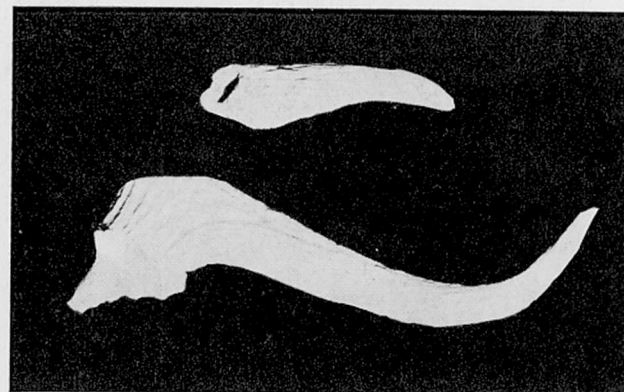
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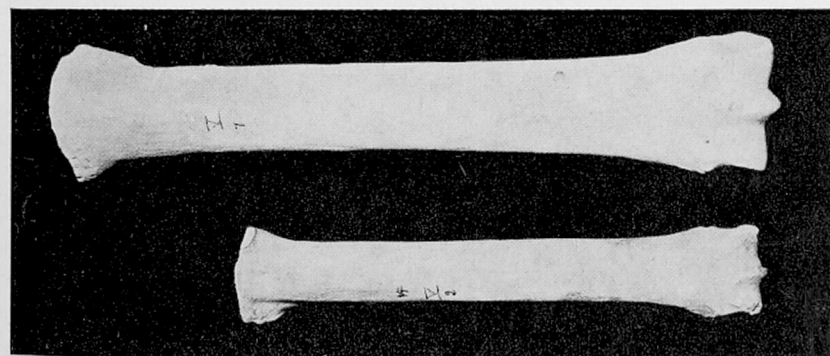
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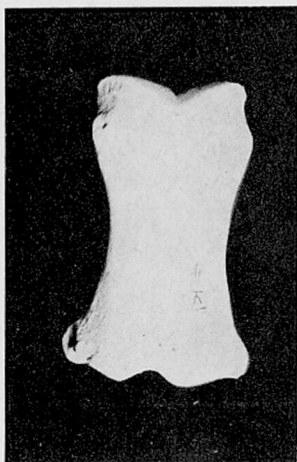
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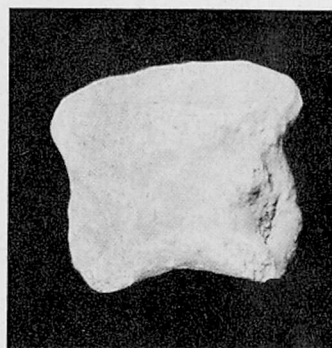
13



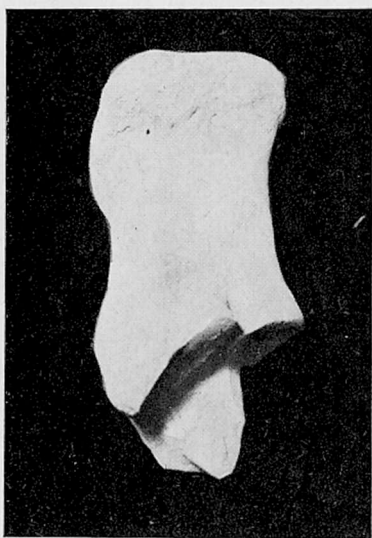
14



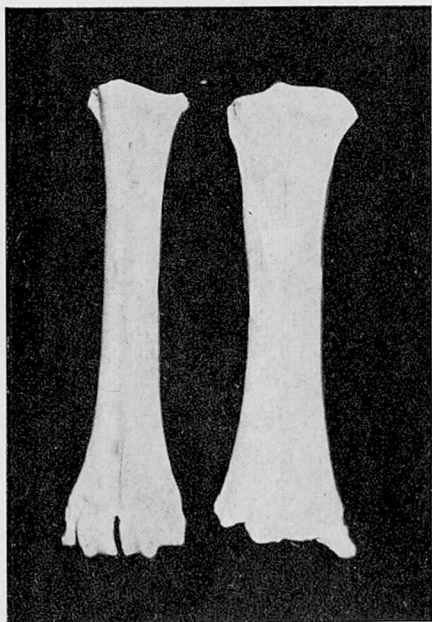
15



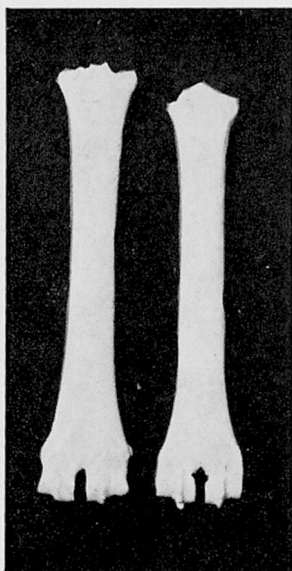
16



17



18



19

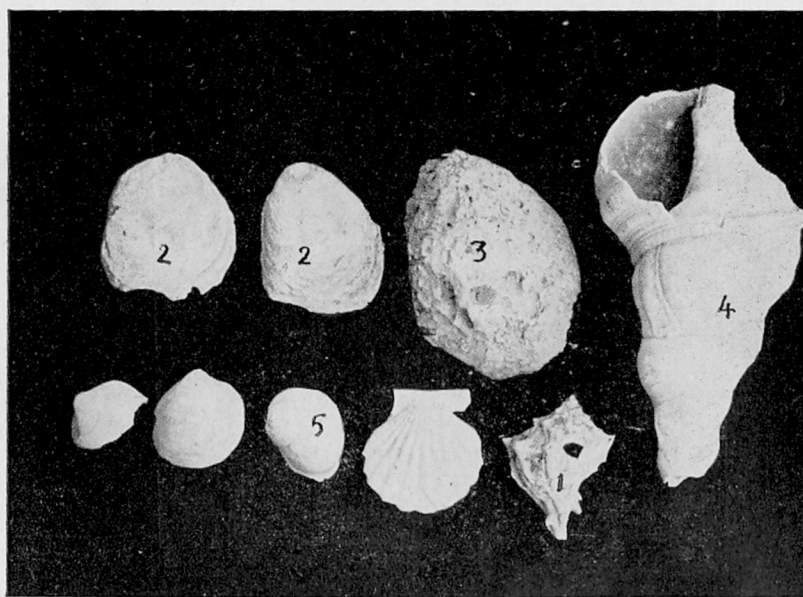


20 a (dorsal view)





20 b (Ventral view)



## 1964 ADİLCEVAZ KEF KALESİ KAZILARI

EMİN BİLGİÇ — BAKİ ÖĞÜN

Bitlis iline bağlı Adilcevaз ilçesi Van Gölü'nün kuzey batı kıyısında bir Urartu kalesi olan ve "Kef Kalesi" adını taşıyan müstahkem şehir, Adilcevaз'ın 6 km. kadar kuzeyindeki volkanik bir tepenin üzerine kurulmuştur<sup>1</sup> (Lev. I). Bu tabii tepenin üç

<sup>1</sup> 1959 yılından beri Van bölgesinde araştırmalar yapan A. Erzen, Y. Boysal ve bu makalenin yazarlarından müteşekkil hey'etimiz üyeleri, o tarihten sonra bölgede yaptığı araştırmalar sırasında Adilcevaз yöresindeki Urartu kalelerini de çeşitli zamanlarda birkaç kere ziyaret etmiş ve bu arada C. A. Burney ve G. R. J. Lawson tarafından (AS 8 (1958), s. 211-216 Lev. 33) yayınlanan Adilcevaз'daki Urartu kabartmalarını Van Müzesi'ne naklettirmiştir. Hey'etimiz 1962 yılında Kef Kalesi'nde kazılar yapmağı kararlaştırmış, fakat çalışmalara bilfiil ancak 1964 yılında başlanabilmiştir.

Urartu bölgesinde şimdiye kadar yapılan kazılar ve araştırmalara dair bk.:

a. 1960 yılına kadar Türkiye'de yayınlanmış olan makaleler: A. M. Mansel, İstanbul Üniversitesi Van Haftası, 1945, s. 113-137, Bibliyografya: s. 138-139; E. Akurgal, Anatolia IV (1959) s. 67-114 Lev. 13-32; E. Bilgiç, TAD IX-1 148, Lev. 42-43.

b. 1960 dan sonraki araştırmalar ve yayınlar: A. Erzen - E. Bilgiç - Y. Boysal - B. Öğün, TAD X-2 (1961), s. 5-22, Lev. 1-16; B. Öğün, ZDMG 111-2 (1961), s. 254-282, Lev. 1-4. A. Erzen - E. Bilgiç - Y. Boysal - B. Öğün, TAD XI-2 (1961) s. 30-32 ve 33-35; XII-1 (1962) s. 19-20; XII-2 (1963) s. 34-36, iki resimle; K. Balkan, Anatolia V (1960) s. 99-158 Lev. 31-34; Y. Boysal, Belleten 98 (1961) s. 199-212, 5 resimle; T. Özgüç, Belleten 98 (1961) s. 253-290, 24 resimle; 103 (1962) s. 620 ve 623-24; 107 (1963) s. 536 ve 541-42; 111, (1964), s. 562 ve 568-572; A. Erzen, AA (1962), s. 383-414, 23 resimle; T. Özgüç, Anatolia VII (1963) s. 43-57, Lev. 11-18; W. Kleiss, IM 13/14 (1963/64) s. 1-14, 13 resim ve bir levha ile; Y. Boysal, Ankara Üniversitesi Haftası (1963) (Ankara Üniversitesi Rektörlüğü Yayınları No. 57), s. 66-87, 20 resimle; K. Balkan, Patnos'ta keşfedilen Urartu tapınağı ve Urartu sarayı (Atatürk Konferansları, Türk Tarih Kurumu XVII. Seri No. 1), s. 235-245.

c. Urartular üzerindeki eski araştırmalar ve neticeleri hakkında toplu ve genel bilgi veren yeni eserler: A. Götze, Kleinasien (Kulturgeschichte des Alten Orients, Bd. III, 1: Handbuch der Altertumswissenschaft III, 1, 3, 1957, s. 187 vd.); T. Beran, Urartu (H. Schmölkel, Kulturgeschichte des Alten Orient) (1961) s. 605-657, Bibliyografya: s. 745-750.