THE ORIENTAL INSTITUTE
of
THE UNIVERSITY OF CHICAGO

ORIENTAL INSTITUTE COMMUNICATIONS

Edited by

JAMES HENRY BREASTED

with the assistance of

THOMAS GEORGE ALLEN

NUMBER 11 IN THE SERIES

ANATOLIA THROUGH THE AGES

DISCOVERIES AT THE ALISHAR MOUND

1927–29

THE UNIVERSITY OF CHICAGO PRESS
CHICAGO, ILLINOIS

THE BAKER & TAYLOR COMPANY
NEW YORK

THE CAMBRIDGE UNIVERSITY PRESS
LONDON

THE MARUZEN-KABUSHIKI-KAISHA
TOKYO, OSAKA, KYOTO, FUKUOKA, SENDAI

THE COMMERCIAL PRESS, LIMITED
SHANGHAI

THE ORIENTAL INSTITUTE *of* THE UNIVERSITY OF CHICAGO
ORIENTAL INSTITUTE COMMUNICATIONS

ANATOLIA THROUGH THE AGES

DISCOVERIES AT THE ALISHAR MOUND
1927–29

By
ERICH F. SCHMIDT

THE UNIVERSITY OF CHICAGO PRESS
CHICAGO, ILLINOIS

COMPOSED AND PRINTED BY THE UNIVERSITY OF CHICAGO PRESS
CHICAGO, ILLINOIS, U.S.A.

FOREWORD

The present work is a brief résumé of a purely scientific report which will appear in the "Oriental Institute Publications" series. Much of the information here presented was obtained during the joint field directorship of Dr. H. H. von der Osten and myself. To him as well as to the other members of the Anatolian Expedition I would here express my appreciation for their participation. In the more extensive report to follow, the courtesy of the Turkish government officials and the help given by our friends and associates will be acknowledged more adequately.

In this work the terms "Alishar I" to "Alishar VII" inclusive are used interchangeably with "Stratum I" etc. (the layers of material remains) and "Period I" etc. (the periods of time during which the corresponding strata were deposited). This is a more elaborate division than that employed in *OIP*, VI, for our increasing knowledge has made more subdivisions necessary.[1]

In the present report Strata I and II are numbered as in *OIP*, VI. The former Stratum III is divided into Stratum III ("Early Hittite"), Stratum IV (Hittite Empire), and Stratum V (post-Empire). Stratum VI includes Hellenistic, Roman, and Byzantine remains, and Stratum VII covers the Seljuk and Osmanli phases of the mound's history.

Current Turkish usage has, it is hoped, been followed in the spelling of modern Turkish personal names. In place-names, on the other hand, our system of spelling is intended primarily to make the pronunciation clear to English-speaking readers. The chief differences occur in our use of *j*, *ch*, *gh*, *zh*, and *sh* where the Turkish now uses *c*, *ç*, *ğ*, *j*, and *ş* respectively. But even in place-names we have in part utilized for the indefinite vowel its Turkish symbol, an undotted *ı*.

This statement, like the fuller "Publications" to follow, rests solidly upon our scientific data. The responsibility for my interpretations, including the chronology and the identification of the various inhabitants of the mound site, is, of course, my own.

ERICH F. SCHMIDT

[1] Cf. our remarks on "Period III" pottery, *OIP*, VI, 243. [See also the Supplementary Note which Dr. von der Osten has kindly contributed.—EDITOR.]

TABLE OF CONTENTS

ABBREVIATIONS

OIC Chicago. University. Oriental Institute. "Oriental Institute Communications"

OIP Chicago. University. Oriental Institute. "Oriental Institute Publications"

AJSL American Journal of Semitic Languages and Literatures (Chicago, etc., 1884——)

I

EN ROUTE TO ALISHAR

ISTANBUL

Der-i-seadet, "Gate of Bliss," the Turks formerly called the city which is now Istanbul. It is true that only the brush of a great painter or the tunes of a great musician can do justice to the magnetic beauty of this spot where East and West meet. Moslem mosques with graceful minarets mark the sky line in Turkish Istanbul (Fig. 1), while Christian churches appear in picturesque vistas in European Pera. By order of Kemal Paşa the colorful native garb has disappeared, but some veiled faces still show disapproval of the indiscretion of Parisian dresses. The contrasts which are everywhere make the city immensely attractive. The Orient Express rolls through the fortress wall of Theodosius II (Fig. 2). On the site of the erstwhile Byzantium, founded in the seventh century B.C., now stand the National Museum, preserving memorials of the past, and the deserted palace of the Osmanli sultans. The "Sublime Porte" also has disappeared. The *Padishah* is banned. No more do his little princes and princesses play in their gloomy, thick-walled residence. Fat eunuchs no longer guard a populous harem the occupants of which at times delighted the eyes of the spiritual head of all the Moslems by most earthly games in a picturesque pond of the palace park.

In the bazaar of Istanbul one still finds precious rugs, beautifully engraved weapons, and the like; but modern trash prevails. Step from the bright Grande Rue de Péra (Fig. 3) into one or another of the paved lanes leading down to Galata (Fig. 4). Instinctively you keep to the middle of the road. Out of semidarkness the light of odd-shaped lamps projects strange scenes in *chiaroscuro*. You think of Sultan Murad IV, who in the seventeenth century used to sneak in disguise to the slums of Galata and personally decapitate the unfortunates whom he found violating the law against smoking tobacco!

A trip on the Golden Horn and Bosporus early on a May morning will leave an everlasting impression on your memory. Fishing boats dot the blue water. Mosques and minarets, crumbling fortifications,

and odd-shaped houses rising in terraces from the shore are outlined against a clear blue sky which is reflected in the water below, where

FIG. 1.—Istanbul. The New Bridge across the Golden Horn, with the Yeni Valide mosque beyond.

FIG. 2.—Byzantine fortifications in Istanbul

umbrella-shaped jellyfish float about. Again, a view from the Tower of Galata embraces the whole impressive panorama of the splendid city. Narrow, angular lanes lie directly below. Farther off is the band

of the Grande Rue de Péra. Busy boats and ferries and large Mediterranean steamers furrow the smooth surfaces of the narrow Bosporus and of the Sea of Marmora, from which rise the idyllic Princes' Islands. Small craft dart about on the crescent of the Golden Horn, which ends where the "Sweet Waters of Europe" join it, and mournful cypress trees guard the cemeteries of Eyüb.

Beyond the silvery blue waters of the Bosporus lies Asia. Haidar Pasha is the terminus both of the Baghdad railroad and of the Anatolian railroad. The latter passes magnificent scenery along the Gulf of Izmit (Fig. 5) before climbing to the stern highlands of the interior.

FIG. 3.—The "traffic cop" on the Grande Rue de Péra.

FIG. 4.—Street scene in Galata

ANKARA, THE GAZI'S CAPITAL

Board the express at Haidar Pasha in the evening. It carries you across the rather dreary Anatolian highland during the night, and in the morning the impressive fortress hill of Ankara rises before your eyes. Legend says that Midas, the famous Phrygian king, founded the town about 700 B.C. As Ancyra it played an important rôle under the

Romans: the Monumentum Ancyranum, inscribed in Latin and Greek on the walls of the ruined temple of Augustus and Roma, bears witness. The powerful and picturesque citadel commanding the town

FIG. 5.—Vista of the Gulf of Izmit

is the landmark of Ankara (Fig. 6). Its high walls and towers, repeatedly destroyed and rebuilt, show many traces of their eventful history. Culture deposits extend down the slope and underneath the town. "Old Ankara" itself (Fig. 7) will soon be a thing of the past. A girdle of new buildings—governmental departments, banks, hotels, private residences, and embassies of foreign nations—rises about the old town and encroaches upon it (Fig. 8).

Mustafa Kemal Paşa, the Gazi, powerful president of new Turkey (Fig. 9), has brought new life to sleepy old Ankara. His transfer of the capital from Istanbul to Ankara was due to the same consideration which made the Russians prefer Moskva to Leningrad. Like Lenin, Kemal Paşa wanted his capital to be near the center of his country, not at its exposed periphery. The period of great action which followed the rise of the Gazi still persists. Turkey boomed. European missions of scientific and technical experts were called to work hand in hand with the Turks in improving almost every feature of the na-

FIG. 6.—Ankara. View of citadel hill from the town.

FIG. 7.—Street scene in old Ankara

tion's life, whether agriculture or hygiene, forestry or railroad building, army or town construction. The native dress was abolished. Only priests are allowed to wear fez and turban. A commission is at work to purify the Turkish language, or rather to free it from foreign influences. The old script has been displaced by European characters. Polygamy is officially abolished. Where there was religious prohibition against drinking wine, the villagers are now obliged to cultivate vineyards. There has probably never been so thorough, abrupt, and dynamic a change of culture during any other period of Anatolian history as that going on before our eyes, though we find parallels in the culture change from the "Early Hittite" to the Hittite Empire period. Disastrous ends of periods, of course, always brought about abrupt changes. We shall watch the future of the Gazi's revolutionary reforms with sympathetic interest.

FIG. 8.—Arrival of the Gazi

The Expedition staff assembles in Ankara before and after the working season. The Ministry of Public Instruction there was headed during our first two seasons of work at Alishar by H. E. the late Necati Bey, thereafter by H. E. Cemal Hüsni Bey, both of whom courteously facilitated our work. From this Department we obtain annually our excavation permit, and at the end of each season the excavated material is turned over to the Turkish officials. We have installed preliminary exhibitions in the Ethnographical Mu-

FIG. 9.—Monument of Gazi Mustafa Kemal Paşa.

FIG. 10.—Ankara. Preliminary exhibit of finds

seum at Ankara (Fig. 10) after closing our seasons in the field, in order to show the results to officials of the Department and to all those interested in the progress of our excavation. For the autumn of 1929 we rented a small house in Ankara's rapidly growing suburb, Yeni Shehir ("New Town"), to avoid hotel life during the laboratory phase which concluded our working season in Anatolia.

II

OUR NEIGHBORS, MODERN AND ANCIENT

NEAR-BY TOWNS AND VILLAGES

About nine hours' ride from Ankara on the slow Ankara-Kayseri railroad lies Haji Shefatli, the station nearest to our Alishar camp. Two or three hours more, spent in an automobile, will bring us to camp. Let us take some notes along the road and in the settlements near by. Figure 11 appropriately illustrates our good Ford meeting its age-old predecessor as means of transport on the Anatolian steppe.

FIG. 11.—On the road

We will first visit the seat of our good friend the vali of the vilayet of Yozgat, in the town of the same name, which is about three hours' ride from the Alishar mound. In front of the stately new government building sit patient Turks, perhaps waiting for an audience. The vista along "Main Street" ends in a picturesque mosque. Busy people, mostly men, shop in the small bazaars lining the street; others just loaf and curiously scrutinize our field costumes. There are a few little restaurants with native food and one or two cafés where the men philosophically suck at their nargilehs and sip thick Turkish coffee out of small cups. A bell tower in the middle of the town square is its most distinctive feature. Pack donkeys and camels, a few veiled

women, and begging children complete the scene (Fig. 12), while the "atmosphere" is supplemented by various culinary fragrances.

When traveling in the neighborhood of Alishar we sometimes see groups of dark brown tents. They are the "villages" of the semi-nomadic Kurds. That illustrated in Figure 13 was close to a swampy

FIG. 12.—Yozgat. Street scene with camels and veiled women

FIG. 13.—Kurdish camp near Kara Maghara

creek, and naturally most of the occupants were sick of fever; nevertheless we enjoyed their hospitality (Fig. 14).

Though the following snapshots were taken in various neighboring villages, most of the scenes could occur in any of them. The Salir mound (Fig. 15) is interesting because a modern village occupies its lower slope and thus shows part of it still alive. After one or two centuries this village also will have become part of the mound.

A crowd of curious men and children will always gather around the Ford and its occupants when we stop in a village. The women are

FIG. 14.—Guests in a Kurdish tent

FIG. 15.—Mound and village of Salir

shy and stand farther away or peep down from the flat roofs of their houses. The bystanders seen in Figure 16 were good-humored tem-

porarily; but they turned rather ugly when we refused to take them *in toto* for a joy ride in the old Ford truck. Figure 17 shows a sight that is welcome to any visitor in an Anatolian settlement, whether Turkish, Kızıl Bash, Cherkess, or Kurdish. Here a Kızıl Bash from Bahatlin pours the drink of welcome, coffee, for the guests of his village. Only twice was the writer refused coffee. Once was when he climbed on top of the façade of Terzili Hamam to make photographs and, looking down on the opposite side of the wall, saw the roofless women's bath—with occupants. No photographs were taken, and the descent was

FIG. 16.—A curious crowd at Kara Maghara.

FIG. 17.—Welcome to Bahatlin

FIG. 18.—Fuel

hasty! But, though his intentions were good, the Turkish men standing around were angry; and there was no coffee that day! The second incident was in the village of Kara Hüyük near Kayseri. There the villagers utterly dislike all archeologists: one of that breed had (fortunately) discovered the villagers' secret source of income, the tablet field at the neighboring site of Kül Tepe.

Treeless Anatolia, or at least part of it, is dependent on a different kind of fuel than wood. The villagers use cattle dung. They make

FIG. 19.—Making butter at Bahatlin

FIG. 20.—Pounding grain

neat disks of this valued material and stick them to the walls of the straw-topped houses (Fig. 18). Fat-tailed sheep and "Angora" goats with beautiful silky wool drift about on the steppe or are gathered in the towns and villages for trading. Some domestic activities are shown in Figures 19–22. A Kızıl Bash woman is making what looks like butter in a large pottery vessel. Neither she nor the pretty girl beside her cover their mouths. We noticed in general that the Kızıl Bash women are less bashful in showing their exposed faces than the women of the Sunnite Moslem villages. The woman in Figure 20, for instance, stopped pounding the grain in the large stone trough in order to cover her mouth, when she noticed our presence. A Kızıl Bash woman from Sivri, screening grain, shows her face to the camera (Fig. 21). The

old man in Figure 22 is making rope with the aid of an apparently adequate device.

The neighboring village of Kadili "went broke," and we received word that the people wanted to balance the budget by selling the rugs from their mosque. Here was a chance to get fabrics colored with the precious old dyes. As usual, there was much bargaining, and in the end we left in disgust. But on the following day a few donkeys brought the rugs to camp, at our own price.

FIG. 21.—Screening grain

FIG. 22.—Rope-making at Alishar

During harvesting time one often sees clusters of multicolored sacks standing near a village (Fig. 23). They contain grain which will later be ground in mills of the type illustrated in Figure 24, or in water mills such as that turned by the creek bordering the Alishar mound.

The Byzantine Basilika Therma, now Terzili Hamam, with its beautiful and well preserved Roman façade, is still valued by the modern Turks. They come from afar to find health in the hot springs. We ourselves enjoyed getting rid of the excavation dust in the hot water and afterward sipping our coffee. Friday, the Moslem day of rest, was the only day of each week when we could find the time for the trip, which took about half an hour each way. Parenthetically we may remark that after the writer's experience which was mentioned above we

heard that the water from the basin of the men's bath flows into the women's laundry. They do not seem to mind!

FIG. 23.—Sacks filled with grain

Once we were invited to a marriage ceremony in the village of Hosman. To describe the whole interesting procedure would take too much space. There was much excitement, much noise, and much food: tender lambs, huge disks of delicious *baklava* (a pastry seasoned with honey and nuts), *kaimak* (sweet baked milk), and the like. The bride was from another village and came with her dowry in carts covered with beautiful rugs (Fig. 25). Fighting games, perhaps symbolizing earlier feuds following the "theft of the bride," were played by mounted boys of the two "hostile" villages.[1] Of course the band was not missing (Fig. 26).

FIG. 24.—A mill at Karayap

[1] [Dr. von der Osten identifies this performance with the *jarīd* game, played by horsemen with headless javelins.—EDITOR.]

FIG. 25.—Marriage carts at Hosman

FIG. 26.—The marriage band

Most village mosques are rather inconspicuous, and minarets are usually missing; but the mosque of Chikrikchi (Fig. 27) has a picturesque substitute in the form of a small tower. A tree curving over the mosque of Hosman gives a beautiful setting to the good old *hoja* (village priest) calling his flock to prayer.[1]

FIG. 27.—Mosque in Chikrikchi

In the illustrations of village scenes and in views of the mound work, types of Anatolian men are amply shown. Many have Mongoloid features; but, as a whole, one can see almost any facial type and hair color of the lighter races of mankind. Pictures of women and children are more difficult to obtain. In the following group several types appear. There is a young mother giving the camera and the photographer an angry look while she nurses her babe on the road beside her house wall (Fig. 28). A shawl covers her mouth in the same fashion as that of a second woman (Fig. 29), who holds spinning equipment in her hand (cf. Fig. 84). Another mother, shown in Figure 30, seems to be more cheerful. She pulls the scarf over her mouth with a coquettish smile. In the background two pretty girls show their smiling faces quite unconventionally. They probably thought they were far enough away for safety. Two Kızıl Bash women (Fig. 31) look curiously and a little resentfully at the photographer, but do not take the trouble to veil their

FIG. 28.—A young mother

[1] See *OIP*, VI, 43.

FIG. 29.—Woman spinning

FIG. 30.—The passing of a convention.

FIG. 31.—Kızıl Bash women

mouths. Finally we see some Kurdish women in conservative attire with their typical high headdress (Fig. 32). Neatly dressed

FIG. 32.—Kurdish women and children

little girls accompany their mothers.

There is an idyllic picture, the proud Turkish father with his youngster sucking contentedly at his thumb (Fig. 33). The only Anatolian feature of the man's dress is his rawhide shoes with upturned toes; they are like those on figurines of about four thousand years ago (cf. Fig. 126). The braids of the little girl in Bahatlin (shown with her father in Fig. 34) are works of art. They are ornamented with many shell and glass beads. Strings of such beads encircle her neck, and shell pendants are suspended from her ears. The little girls of Figure 35, dressed like grown-ups, ape their mothers by covering their mouths or coyly protecting their whole faces from onlookers. Two poor youngsters are shown in Figures 36–37. The small

FIG. 33.—A proud father

FIG. 34.—A Kızıl Bash girl

FIG. 35.—Little girls

FIG. 36.—Little Kızıl Bash boy at Sivri.

FIG. 37.—Abnormal Kızıl Bash girl at Bahatlin.

boy of Figure 36 belongs to the Kızıl Bash village of Sivri. He is cold, and the old rag does not even cover his shivering skin. The little girl (Fig. 37) clinging to the arm of her sister belongs to the Kızıl Bash village of Bahatlin. Her body is abnormally large, due perhaps to some disease. It is a joy to compare the strong youngster and his more completely dressed friends in Figure 38 with the poor children above. He is a little bashful; perhaps he feels that in spite of the summer heat he hasn't quite the dress for posing for the camera!

FIG. 38.—Children at Kara Maghara

EXCURSIONS TO BOGHAZ KÖI AND TO HÜYÜK NEAR ALAJA

Our pilgrimage in 1928 to the ancient capital of the Hittites has been described in another publication of this series.[1] We motored from Alishar to the site of Ḫattushash, where the modern village of Boghaz Köi is situated. The impressive ruin area of the once powerful city is still largely undisturbed (Figs. 39 and 40). Only small parts of it have yet been excavated—temples, sculptured city gates, sections of the fortifications; but cuneiform records of Hittite kings, written in the second millennium B.C., have been found in large numbers. Our trip to the Hittite capital gave us one of our main clues for linking up one Alishar stratum with the period of the Empire. The potsherds which we picked up on the surface and in the excavation trenches of Ḫattushash, in addition to those we obtained from the modern suc-

FIG. 39.—The "King's Gate" at Ḫattushash.

[1] *OIC*, No. 6, pp. 36–42.

cessors of the Hittites, were identical with those of Stratum IV at Alishar. Close to the capital, the sanctuary of Yazılı Kaya with its

FIG. 40.—The city wall of Ḫattushash

FIG. 41.—Sculptured lion at Hüyük near Alaja

impressive galleries of rock-cut reliefs is another destination for archeological pilgrimages.[1]

[1] See *OIP*, V, 109–19 and Pls. X–XXII.

Farther on, Hüyük near Alaja still covers the larger part of important ruins. A formidable stone lion stands in a garden of the modern village (Fig. 41). A gate section, presumably of a palace, has been excavated, besides slabs with reliefs and Phrygian inscriptions. A finely modeled gateway sphinx now bears the nest of a stork family (Fig. 42). Our illustration shows the double-headed eagle symbol which was found by us on objects of Period II at Alishar also (cf. Fig. 135).

FIG. 42.—Gateway sphinx at Hüyük

TEST EXCAVATIONS IN THE ALISHAR DISTRICT

KERKENES DAGH

Following the orders of Professor Breasted, we tested in 1928 the extensive ruins on Kerkenes Dagh which had previously been described by Dr. von der Osten.[1] The site is 23 kilometers northwest of Alishar. Though it is considerably larger than the capital of the Hittites, neither its name nor the period of its construction was known.

During several trips to the site we examined its surface, gathering potsherds which would determine where our tests should be made. In addition to Roman and later fragments, sherds that looked older were present, the surface clues reflecting well the situation which we subsequently encountered underground.

We moved camp, equipment, and laborers to the site and tested the vast ruins for eight days. Individual excavation plots were assigned inside the town, which is inclosed by a border of rock piles, the remains of the defense wall, which was about 7.5 kilometers long (Fig. 43). We found that the highest elevations of the site, the *kaleh* ("castle") and Kiramitlik, had been occupied during the Roman and

[1] "An Unnoticed Ancient Metropolis of Asia Minor," *Geographical Review*, XVIII (1928), 83–92.

Byzantine periods. In addition, a few Greek sherds occurred on Kiramitlik.

The original occupation, coinciding with the construction of the city inclosure, was prior to the Roman period and probably earlier than the Hellenistic phase in Asia Minor. But there is no doubt that the city is later than the Hittite Empire period. None of the typical Alishar IV sherds or earlier ones occurred in the excavation plots; but a number of features, such as arrow points and spindle

FIG. 43.—Kerkenes Dagh. City wall seen from *kaleh* hill

whorls, are identical with Alishar V specimens, the bulk of which originated during the Medo-Persian period. Thus we determined the approximate time of construction of this immensely interesting town, which exceeds the capital of the Hittites in size; but we do not yet know its name nor the people who constructed it. The pots and other specimens uncovered, resembling those of Alishar V, will at some future time link up this site with accurately datable remains of some other site.[1]

The necropolis of the ancient city is situated to the west. We counted sixty-nine large and small tumuli, but those few which we examined proved sterile as to outstanding finds. A copper or bronze

[1] Cf. von der Osten in *OIC*, No. 8, p. 17, and in *AJSL*, XLVII (1930/31), 54.

vessel was the best object, but some painted potsherds found in the same tumulus will prove more important as chronological clues.[1]

HOSMAN TEPE

Our way of celebrating the Fourth of July, 1928, was to bring some variation into the excavation work. With a part of our crew we climbed

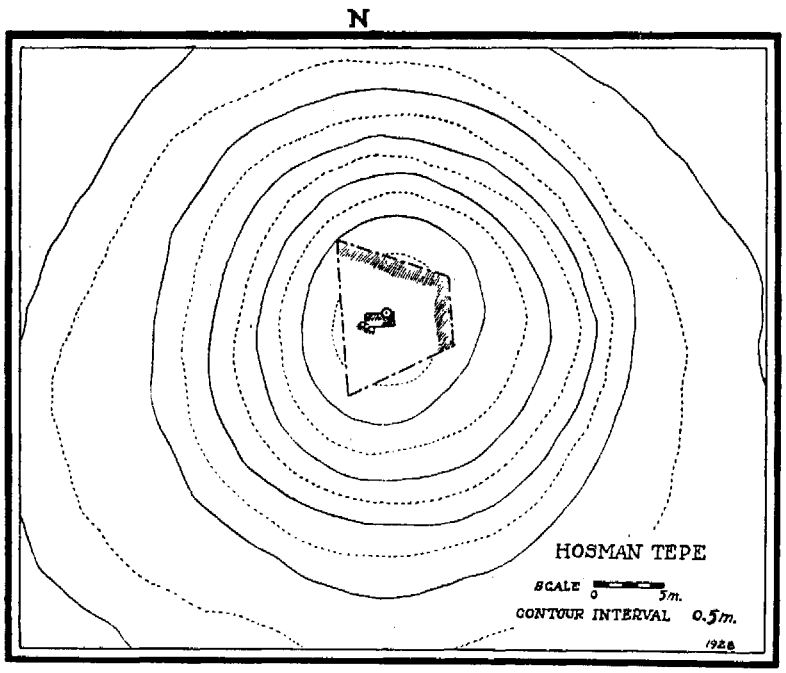

FIG. 44.—Hosman Tepe. Plan of tumulus, test plot, and tomb

on a foothill of the Chomak Dagh to test one of those tumuli lining the sky line visible from the Alishar camp. Mr. Blackburn had made a topographical survey of the hillock (Fig. 44). He had also determined its center, which we wanted to attack. For three days we sunk a vertical trench of trapezoid form into the tumulus. An icy breeze blew from the north, driving our laborers into the protection of the trench walls during the intermissions. The cold wind was the forerunner of a terrific hailstorm which suddenly broke upon us. We all had to run for

[1] For a full description of the work at this site cf. the writer's report, "Test Excavations in the City on Kerkenes Dagh," *AJSL*, XLV (1928/29), 221–74.

shelter into the near-by village of Hosman, but we were caught before we reached the first houses. Hailstones as big as pigeons' eggs swept down on us. This was one of the several occasions when the loyalty of our workers showed most obviously. As soon as the first hailstones thudded down on Richard Martin's and the writer's heads, the "boys" came running and held saddlebags over us, exposing their own heads

FIG. 45.—The tomb is struck

while trying to protect us. In the village later we saw several people with bleeding faces. They had tried to save their fowls and furniture from being swept away by a raging torrent grown out of the lazy thread of water which normally serpentined through the village. It was an interesting experience for us, though much damage was done to the crops of the region.

An exciting moment came when the pick of a laborer went right through the bottom of the excavation at a depth of about 3.50 meters (Fig. 45). The tomb was struck! The hole was widened, and we found that the dirt formed a vault above a shaft cut out of the living rock.

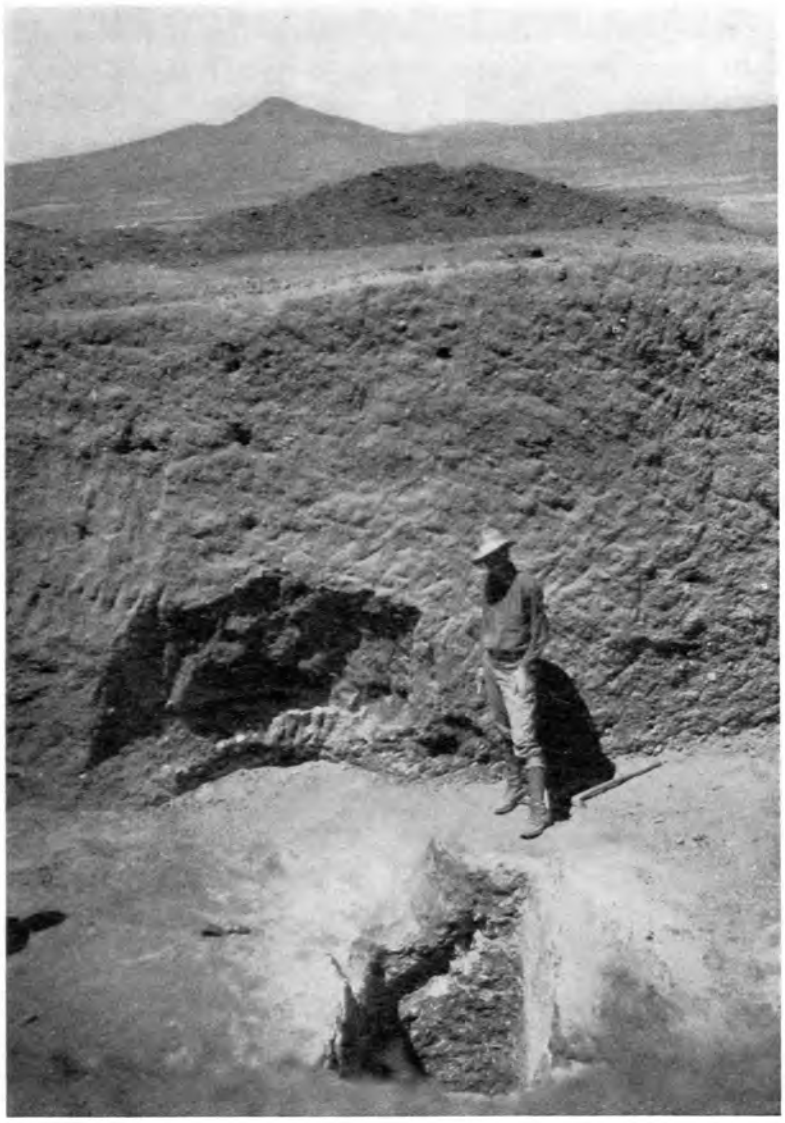

FIG. 46.—View of tomb (in foreground), showing height of tumulus

The position of the dirt indicated that there had been a roof, presumably of wood, which had disappeared entirely. The shaft was almost exactly 1 meter wide and 2 meters long, half-filled with dirt. By turns we excavated it ourselves. It was 2 meters deep—and empty (Fig. 46). Only a fragmentary glass bead, a few bone chips, and what seemed to be the remainder of an iron spearhead rewarded our endeavors. We consoled ourselves with the thought that we had definitely determined the character of the hillock as a tomb, probably of an outstanding person. We tentatively attributed this tumulus burial to Period V of Alishar, i.e., perhaps to the middle of the first millennium B.C.

III

STUDIES FARTHER AFIELD

KÜL TEPE NEAR KAYSERI AND ARSLAN TEPE NEAR MALATYA

During his explorations in 1928, Dr. von der Osten had found on the Arslan Tepe ("Lion Hill") newly uncovered sculptures.[1] He called this important mound to the attention of Professor Breasted, the di-

FIG. 47.—View of Kara Kimse with rock tombs

rector of the Oriental Institute, who suggested a closer examination of the site during the 1929 season.

Mr. Bolles and the writer left camp in September, 1929, to test the situation. The good Ford truck, with ourselves, the chauffeur, three laborers, and equipment, capably ploughed its way across country. Mounds along the road were examined, their surface potsherds faithfully telling their periods of occupation. Ten villages we passed on the way to Kayseri. Kara Kimse is the most interesting (Fig. 47). In a rock ledge high above the formerly Armenian village the black door-

[1] *OIC*, No. 6, p. 92; also von der Osten in *AJSL*, XLV (1929), 83–89.

ways of tombs are visible. The buildings themselves stand above veritable catacombs with round and square connected chambers, horizontal and vertical grave niches having been cut out of the rock walls. All these tombs may belong to the Byzantine period. In picturesque Chalab Verdi we examined the mound from which, according to the villagers, had come two boulders[1] with hieroglyphic inscriptions, found by Dr. E. Forrer. The deposit shows mainly Hittite Empire re-

FIG. 48.—Bridge across the Kızıl Irmak

mains, but sherds of all the following periods as late as the Byzantine are also present.

We crossed the Halys River of old, now called Kızıl Irmak ("Red River"), which at this point is rather narrow (Fig. 48). The "mileage" was 153 kilometers when we reached beautiful Kayseri (Caesarea Mazaca). Erjias Dagh, held sacred by the people of Anatolia since ancient times, overlooks the town. Clouds wrapped about its snow-capped peaks suggested vividly its former volcanic character.[2] Kayseri is filled with picturesque ruins of earlier times. The most impres-

[1] *OIC*, No. 6, p. 23; *OIP*, VI, 27; Forrer, *Mitteilungen der Deutschen Orient-Gesellschaft*, No. 65, p. 36.

[2] Cf. *OIC*, No. 8, Fig. 12.

sive remains, the citadel and mosques, are creations of the Seljuk period (Fig. 49). The bazaar is fascinating, as in all the large oriental trading centers. There one still finds precious fabrics from Persia, the Caucasus, and Anatolia, made prior to the introduction of the aniline dyes so detrimental to fine craftsmanship.

FIG. 49.—Seljuk castle in Kayseri

About 20 kilometers east of Kayseri a low hill is visible north of the Sivas road. The extensive mound is the famous Kül Tepe ("Ash Heap"), probably covering the ancient city of Kanesh. The mound looks desolate (Fig. 50). Its edges have been torn up by generations of villagers using the culture dirt as fertilizer on their fields and by treasure-

FIG. 50.—The slope of Kül Tepe

hunters selling their finds in the bazaar of Kayseri. Such finds have been multiplied by skilful antiquity-fakers, whose productions have been sold to trusting travelers. The potsherds on the main mound were chiefly similar to those of Alishar Periods I and III. Sherds of Alishar II were found in the soil at the mound edge nearest to the most interesting part of the ruin area, the "tablet field" (Fig. 51), where Professor Hrozný discovered the cuneiform archives of a merchant colony.

FIG. 51.—View of Kül Tepe from the "tablet field"

On the way to Sivas[1] one passes the monumental Sultan Han, a caravansary with splendid stone carvings and lofty vaults (Figs. 52, 53).[2] The Seljuks built it in the thirteenth century. Sivas itself is famous for its silverwork. On leaving it one crosses the Kızıl Irmak on a long bridge, beyond which lies the difficult but beautiful road across the hills to Malatya. About 35 kilometers beyond Sivas we crossed a most impressive, for some people perhaps depressing, landscape. The desertlike steppe is filled at its lowest points with small salt lakes, the shores of which are covered with a white crust. The rough hills inclosing the gray, sterile basin are painted with surprising colors. Green malachite, blue azurite, and dark red iron oxide seem to be cropping out of the hilltops. "White fathers" (vultures) floating high above the painted desert perfected the beautiful picture.

[1] See *OIC*, No. 8, Map VIII.

[2] See also *OIC*, No. 8, Fig. 143.

FIG. 52.—The tower of Sultan Han

FIG. 53.—Interior of Sultan Han

A ride of about 255 kilometers brought us to our destination, Malatya, shortly after we had passed Eskishehir ("Old Town"), the site of ancient Melitene. The energetic and progressive governor of the vilayet must find it difficult to stand against the conservatism of the people, characterized by the attire of the two women in Figure 54. It is even less revealing than that of the women around Alishar. Stubbornly the Malatyans cling to the gold and silver coins of the Sultan; modern paper money is only slowly gaining ground. Here, as elsewhere in Anatolia, mournfully squeaking two-wheeled carts compete with faster vehicles.

FIG. 54.—Veiled women in Malatya

We preferred to pitch our tent at once on the Arslan Tepe, our destination. Later we learned that, while avoiding the bedbugs and fleas of a hotel room, we had slept the first night on scorpion-infested ground! The Arslan Tepe is an impressive mound rising about 30 meters above the surrounding fields and overtopping the high poplars of Ordüzü, the adjoining village. Its slope has suffered in the same manner as Kül Tepe; but valuable sculptures have been uncovered by the burrowing of the natives. After the writer had returned to camp, Mr. Bolles stayed on the mound and made the difficult topographic survey here shown (Fig. 55).

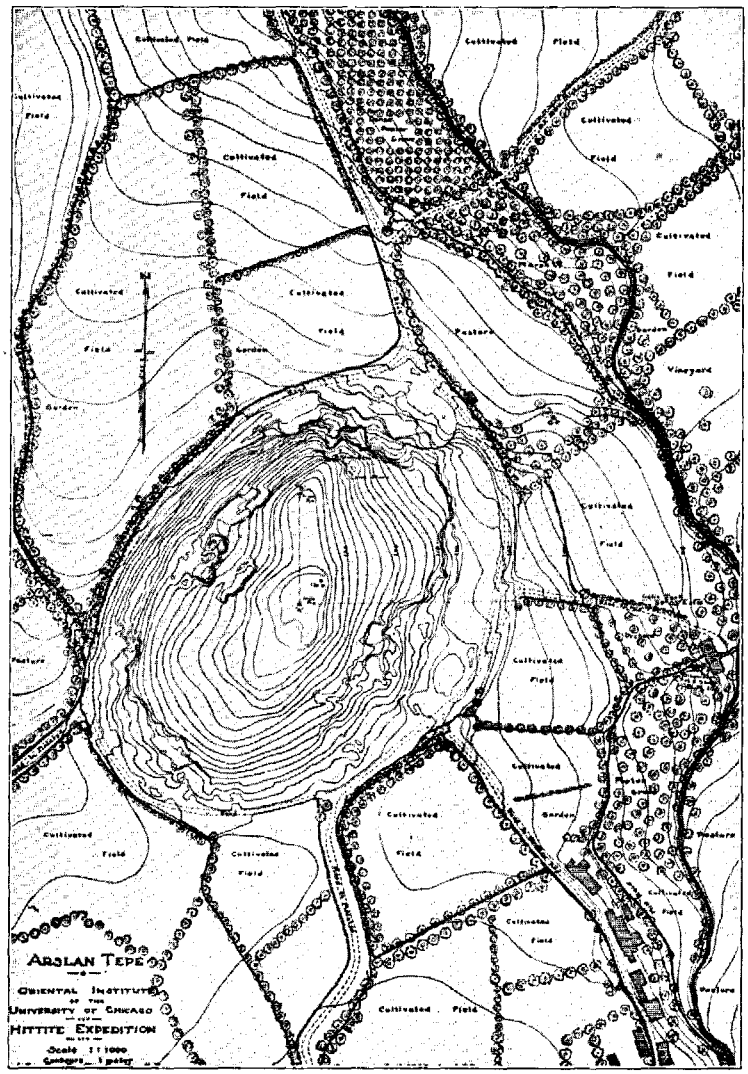

FIG. 55.—Map of Arslan Tepe

IV

THE ALISHAR MOUND

EXPEDITION CAMP AND PERSONNEL

There is an immense fascination about an archeological "dig," penetrating into the buildings of long-forgotten people and handling the things they once used. To be sure, sometimes there are days and weeks without any interesting or instructive finds. There are sudden thunderstorms that injure structures carefully prepared for surveying, and often the mound is wrapped in clouds of dust whipped by strong winds and blinding the staff and the laborers. But the enthusiasm of every real "digger" carries him over such periods. Once he has the "mound fever" only the smell of old dust, the tinkling of potsherds, picks, and shovels, the curses and laughter of the panting and hustling workers will satisfy him; and, when he works up his material in the laboratory, the "breath of the mound" is about the old things and helps him through the sometimes tedious detail work.

Many laborers (Fig. 56) are willing and industrious, but the "enthusiasm" of others has to be stimulated by close watching and by bonuses for finds. Our work in the district has had a decidedly pacifying influence. During the first season, men of different villages had frequent rows, but feuds stopped almost entirely after the participants had been dismissed in a few cases. Figure 57, however, shows that the boys of the individual villages prefer to be by themselves.

The gangs in the individual excavation plots were each headed by a foreman. The pickmen were chosen for their efficiency and carefulness, because they had to do brush and trowel work as soon as structures appeared.[1] The rest of the crew were shovelers. A part of the men had to remove the dump-soil. In 1927 awkward wheelbarrows were used for this purpose (Fig. 58), but they were replaced during the following year by a field railroad (Fig. 59). A few men were always busy washing pots and potsherds (Fig. 60).

The duties of supervising, recording, surveying, and the final labora-

[1] Cf. *OIP*, VI, Fig. 199.

FIG. 56.—Our employment bureau at the start of a season

FIG. 57.—Workers eating in village groups

tory work were divided among the staff members as has been or will be explained in our "Publications" dealing with the excavation.[1]

During our first excavation season (1927) the scientific work was

FIG. 58.—The wheelbarrow train in 1927

FIG. 59.—The dump heap with lorries in 1929

divided between Dr. H. H. von der Osten and the writer, while Mr. F. H. Blackburn made the topographical surveys and assisted at exploratory work. Mrs. von der Osten, little Erimar, and a maid spent this season in camp. The maid was at the same time the camp cook. According to the Turkish law, a government commissioner must be

[1] *OIP*, VI and VII, XIX and XX.

present at each excavation. Our commissioner was Ali Sherafeddin Bey, while Lutfi Tachsin Bey joined the expedition as our interpreter. The always reliable Mr. Josef Reifenmüller was our camp superintendent, aided by Mr. J. Scharer. There was, finally, Hüssein, who had been Dr. von der Osten's chauffeur during his preceding explorations. Visitors to the camp have been mentioned in other publications, but we wish to repeat our appreciation of the beautiful scenes painted by Professor Fritz Wichgraf (Fig. 61).

FIG. 60.—Sherd-washers at the millrace

FIG. 61.—Professor Fritz Wichgraf at work.

The scientific staff of the second season consisted of the same men, supplemented by Messrs. Richard A. Martin and E. K. von Brand. Dr. von der Osten spent part of the season in continuing his exploration of Asia Minor. He was accompanied by our friend Professor von Mészáros and was assisted by Mr. Blackburn. The other members of the Expedition were the same as in 1927, except for the interpreter. We had learned enough Turkish to get along with the workers. Maurice was our new cook. Mr. Franz Forsteneichner, a member of the German Phytopathological Institute in Turkey, stayed with us for a time, a much liked member of the camp circle.

In 1929 the Expedition (Fig. 62) was divided into an exploration party under Dr. von der Osten, assisted again by Mr. Blackburn, and an excavation party with the writer in charge. Mr. Martin again joined the excavation group. New members were our good architect-surveyor, Mr. J. S. Bolles, from Harvard, and Mr. D. W. Lockard, from Chicago. Mr. Lockard, who had made the trip to Turkey on his own account, proved his enthusiasm by loyal and efficient work. Muharem Bey was our new government commissioner. The technical staff (Figs. 63 and 64) included, in addition to Reifenmüller and

FIG. 62.—Exploration staff with Mr. Henry J. Patten at Alishar camp (1929)

Scharer, three Turkish art students—Mehmet Ali Bey, Shemseddin Ruhi Bey, and Reha Tachsin Bey; the photographer, Mr. H. Schüler; the jewel of a cook, Alexandre Galenca; and "Hüssein II," the chauffeur.

There are only two things that count in an out-of-the-way archeological camp: good work and good fellowship. The manner of life on the Anatolian plateau is somewhat rough, and manners are not exactly refined. But there is a humorous and hearty camp spirit dear to every field man and much more sincere than mere social politeness. Certainly camp life does not have attractions for everyone. A college man who is a model student "back home" may be a loss in camp, and vice versa. The valuation of a man is different in the field. After a few months in camp the monotony of the landscape and the routine of a

FIG. 63.—The technical staff in 1929 (left to right: Reifenmüller, Alexandre, Schüler, Scharer).

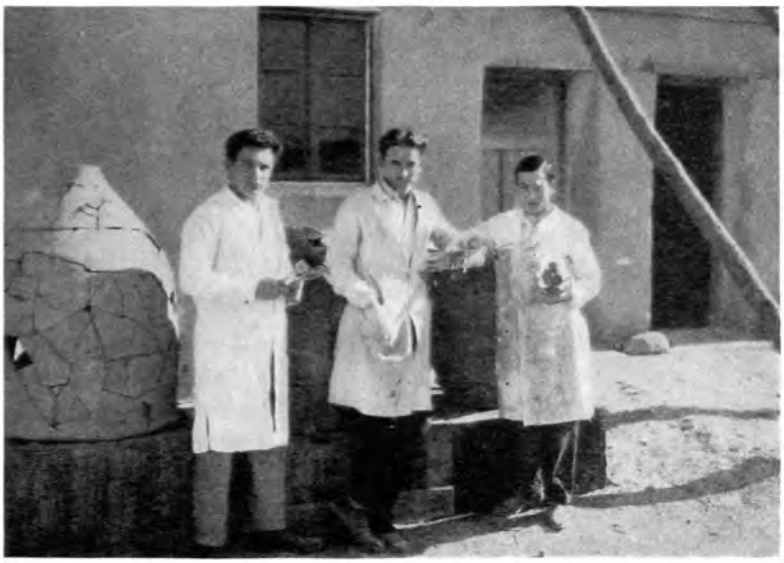

FIG. 64.—The artists in 1929 (left to right: Mehmet Ali Bey, Shemseddin Ruhi Bey, Reha Tachsin Bey).

life without much variation may depress one who is not urged on by a burning curiosity concerning the mound or who does not have enough humor to stand the little discomforts of camp life. He gets "Anatolitis" as we called it. Thursday nights were safety valves for grouches that might have accumulated during the week. On these nights, the Moslem weekends, we got together and said what we thought of one another. This we found to be a wholesome arrangement. Special events, such as the discovery of the first cuneiform

FIG. 65.—Six A.M. On the way to work

tablet or of a burial chamber or the end of a successful season, were celebrated in some appropriate camp fashion.

The week days were entirely filled with work. Mound duties lasted from 6 A.M. (Fig. 65) until 5:30 P.M. (Fig. 66), with intermissions for meals. Then followed the cleaning and cataloguing of the day's finds. After supper we were usually too tired to do anything but sleep until the camp guard hammered against our tents or doors next morning.

Camp would not be camp without dogs. There was Wolf, the writer's Anatolian shepherd dog (Fig. 67), a huge white husky, friendly in the daytime but ferocious at night. No strange person or animal could then approach the camp. There was Tazi, an Anatolian greyhound whose delicate back had to be protected by a coat when the sun was hot. These greyhounds are used by the villagers for hunting rabbits. Gretelein had no pedigree whatsoever; but she did her best to increase

the "kennel" of Alishar camp by seven droll woolly pups. All these dogs made life hard for the poor camp kitty, and she spent much of her life on elevated spots.

FIG. 66.—The end of a working day

Our "zoo" included two hawks, which we tried in vain to tame. As a matter of fact, they succeeded in dispatching our impertinent and amusing magpie. Our hoopoes, beautiful birds with little feather crowns on their heads, could not stand captivity. Our little steppe rat, the "Arab rabbit" of Anatolia, was a faithful counterpart of a pottery sculpture found in Stratum II. The writer's effort to keep snakes with pretty "red neckties" as study objects met with general disapproval. According to the natives, these snakes are poisonous. As to poisonous insects, we noticed only one or two tarantulas in camp. Our live stock included goats (Fig. 68) and sheep, chickens and turkeys (Fig. 69), while the pigeon house and its occupants were purely ornamental.

FIG. 67.—"Wolf" guarding the records

The last weeks in camp were always spent in completing the detailed scientific catalogues. The first and third seasons lasted until November, when the summer heat had given way to dreary fall rains and flurries of snow, and we could just slip away before the ominous heavy clouds that brought winter and the "time of no roads." The antiquities were boxed and transported to Ankara, where they were delivered to the Turkish authorities. The objects were stored and

FIG. 68.—A curious Ankara goat

FIG. 69.—A Turkish turkey

partly exhibited in the Ethnographical Museum (see Fig. 10). During the first and third seasons the Turkish government permitted us to export a small type-collection of finds.

GEOGRAPHY AND TOPOGRAPHY

The geographical position of the Alishar site is shown in the accompanying map (Fig. 70). Its relatively great size and favorable working conditions induced Dr. von der Osten, who first saw it in 1926, to suggest its excavation.

The impressive site (Fig. 71) is surmounted by a large flattened cone (A) from which three projections (B, C, and D) extend toward

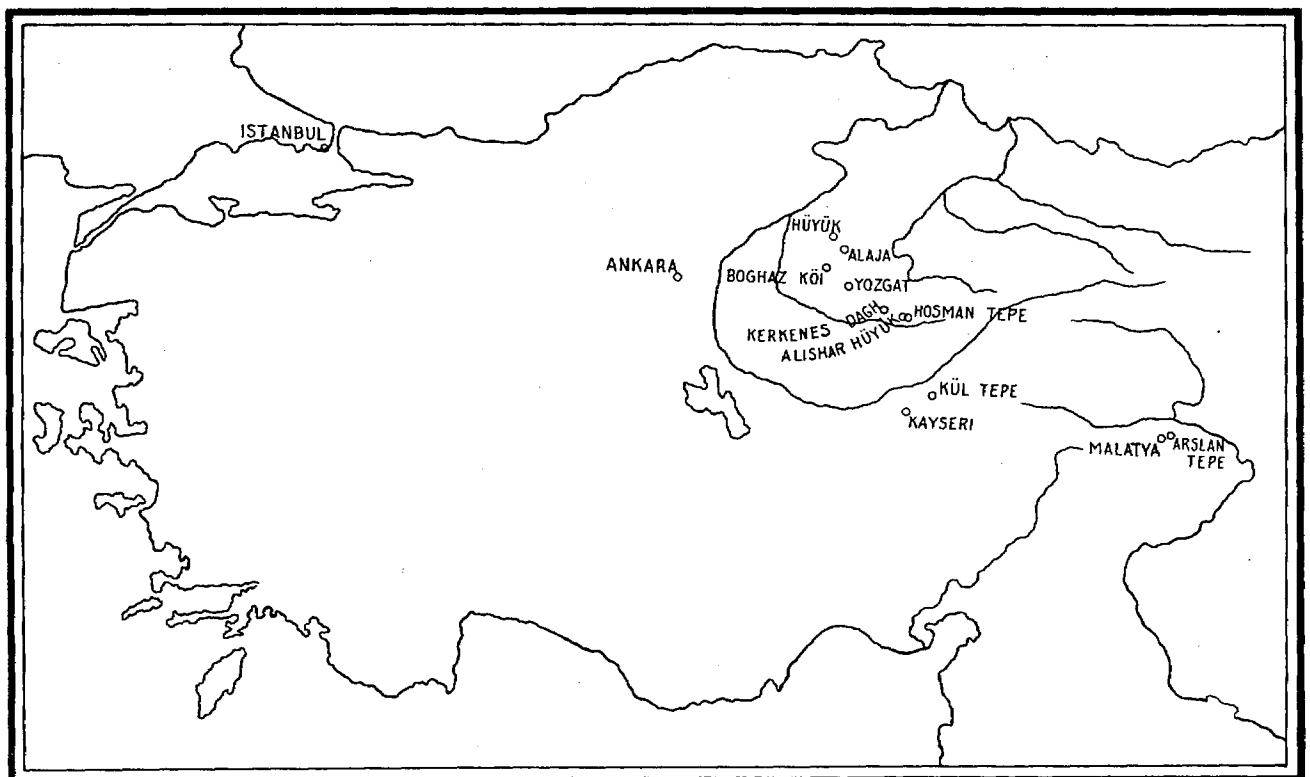

FIG. 70.—Map of Asia Minor, showing location of Alishar Hüyük and of other places mentioned in this report

the west. A lower town terrace adjoins the main mound section at the east and south. When work started in 1927 there was no clue as to what we might expect within this mountain of culture dirt, the volume of which we estimate to be about 750,000 cubic meters. From the top of the main mound shallow depressions and elevations were visible, marking the contours of buildings. All these contours proved later on to be relatively late constructions, from the Roman period to the pres-

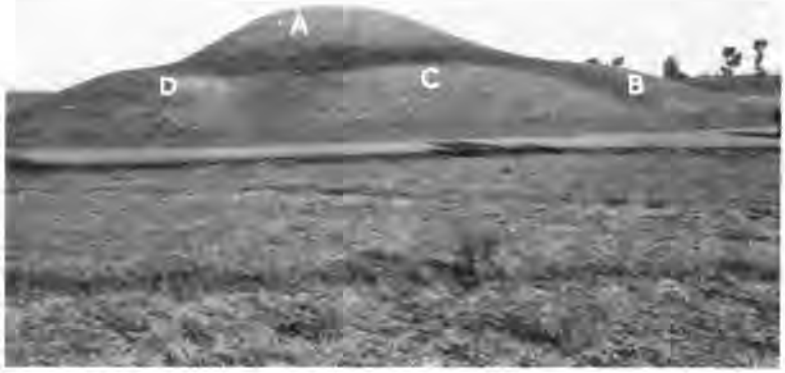

FIG. 71.—The Alishar mound before excavation, from northwest

ent. At the start of work we could not yet "read" the surface, as we are now able to do. The pot fragments lying about were still mute, and a smooth mound shell covered the mysterious hill.

THE EXCAVATIONS

The first aim of our work was to obtain all the information possible about the peoples who had occupied the site, their culture goods, and their achievements—in short, the culture history of the mound. Our second task, interlocked with the first, was the correlation of the local information with the general history of Asia Minor and the Near East.

In this report we cannot more than sketch the way we tried to solve our problem.[1] It was a matter of first determining the chronology of leading types of objects—above all, of the pottery. After that, other finds could be chronologically arranged through their associations with the ceramics. By carefully watching and recording the associations of the numerous objects and fragments which appear during excavations, the archeologist can determine which remains belong to particular periods and can define the culture status of the successive periods.

In this volume the results of three seasons' work (1927–29) are combined. The first season was hard. The staff was small, the gang had to be trained, and the equipment was rather primitive. But we succeeded in determining by stratigraphic studies (Fig. 72) the presence and the relative chronology of the principal culture strata, and to a certain extent their layout at the site.

During the second season we sliced the main mound, excavating, recording, and removing layer after layer of occupational remains from the Romans to the Hittites. We hope that at some future time this work can be continued. During each season we used limited areas as excavation units; but, whereas we used irregular plots in the first season, from 1928 on we employed the system of oriented squares (10×10 meters).

In 1929 we devoted most attention to those sections of the site not touched before. Test squares sounded the deposits and expanded to larger excavations at those points where conditions demanded it. During this third season we concentrated first on a fortress of Period V (post-Hittite), then on Stratum II. The climax of the season was our first discovery of cuneiform tablets in Stratum II.

It is fascinating to see time expressed by space. At the end of the third season a test square had reached a point more than 16 meters (about 50 feet) below the top of the most outstanding elevation. These 16 meters of remains of human habitation had accumulated during three to four thousand years, from the first phase of the Early Anatolian period (Alishar I) to the Roman period (Alishar VI) at the beginning of our era. About 9 meters consisted of remains deposited prior

[1] For methods of excavation see *OIP*, VI, 64 ff. and 214 ff.; also the author's report on work in the American Southwest, *Anthropological Papers of the American Museum of Natural History*, Vol. XXX, Part V (1928).

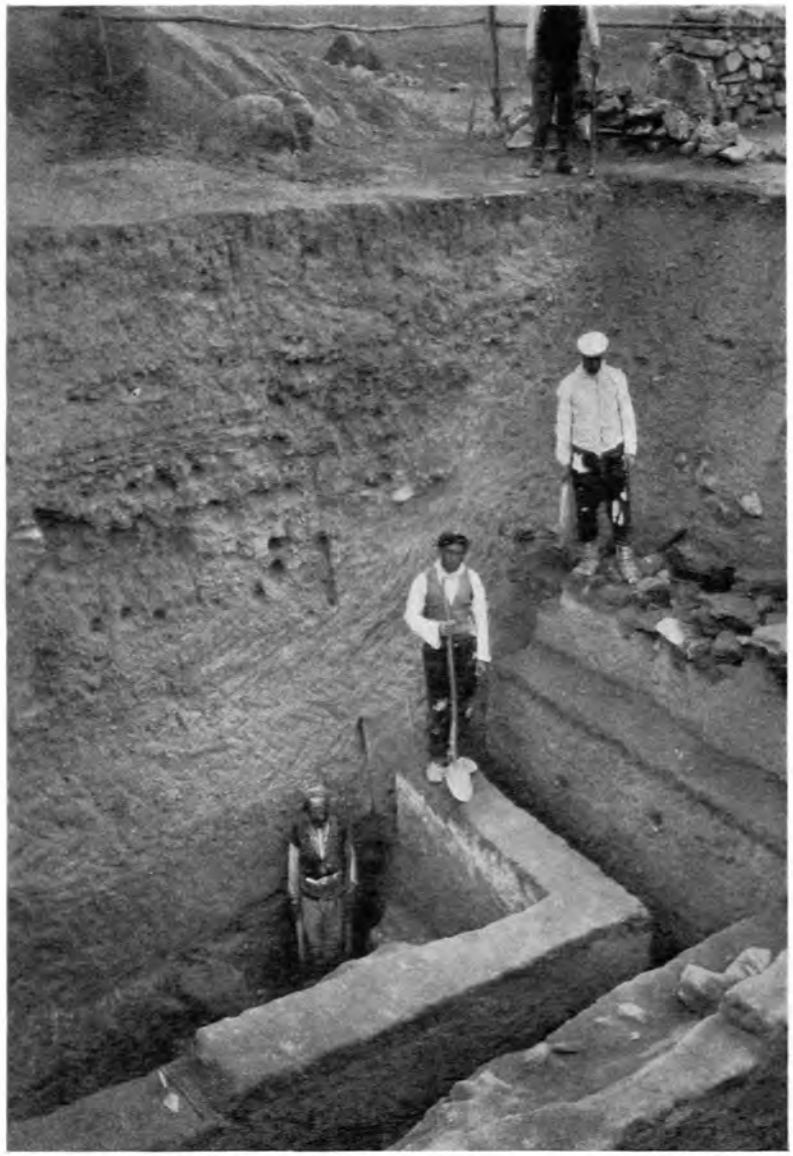

FIG. 72.—A finished stratigraphic test plot, showing superimposed structures of successive occupations.

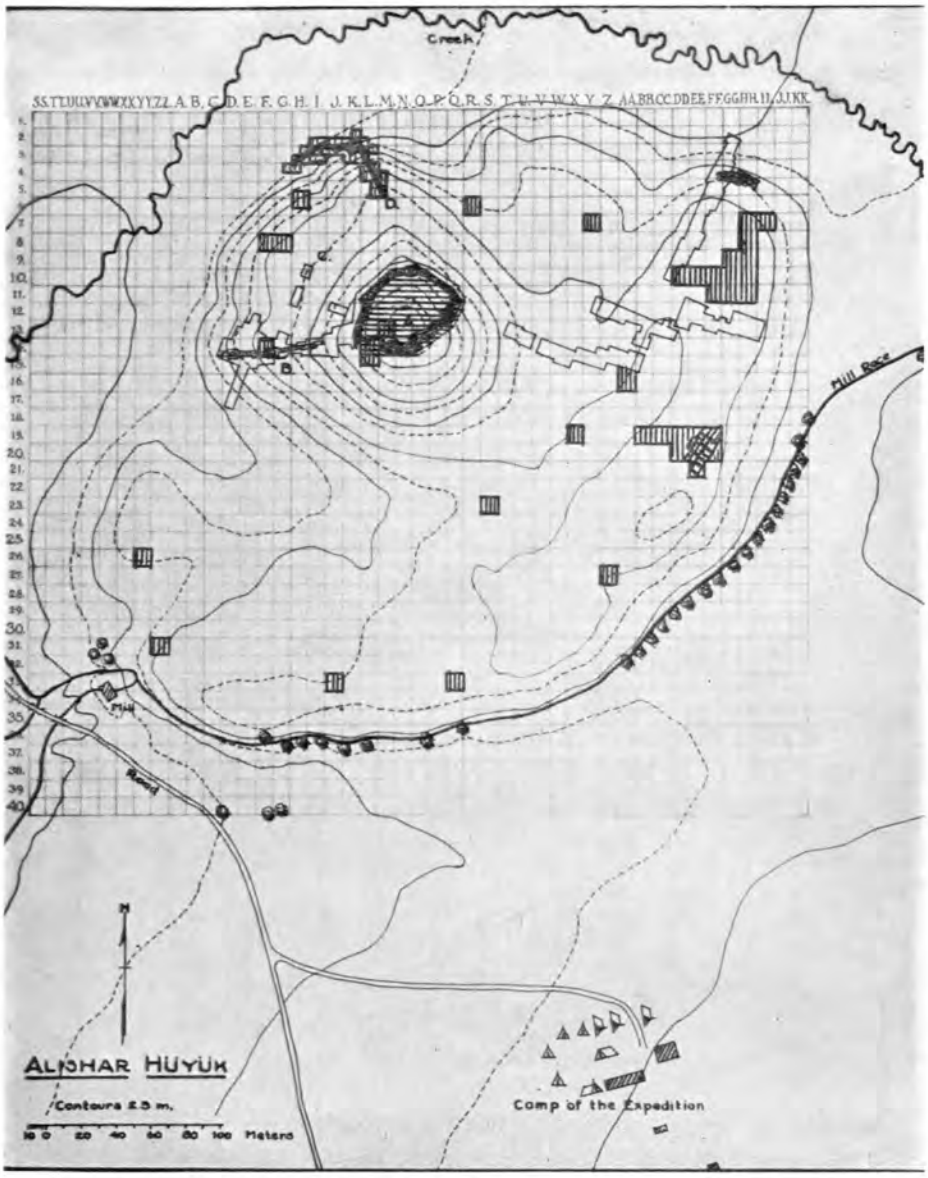

FIG. 73.—Map of Alishar mound, showing areas excavated in 1927–29

to 2000 B.C., while the rest had accumulated during the following millennia.

The accompanying plans and diagrams show the work and the results of the three seasons. On the plan in Figure 73 the areas of irregu-

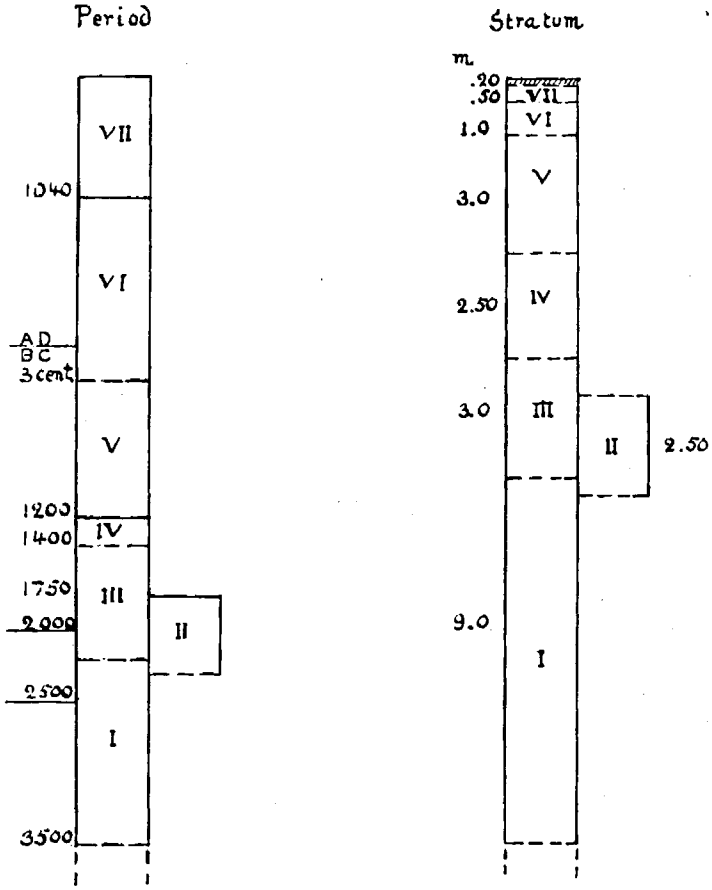

FIG. 75.—Correlation of the periods with the mound strata

lar, angular shape, outlined by narrow solid lines, were excavated in 1927; areas horizontally hatched, in 1928; those vertically hatched, in 1929. The heavy black bands in some of the excavated areas show ancient fortification walls; diagonal hatching in 1929 excavation areas roughly indicates ancient buildings. A creek runs north of the mound;

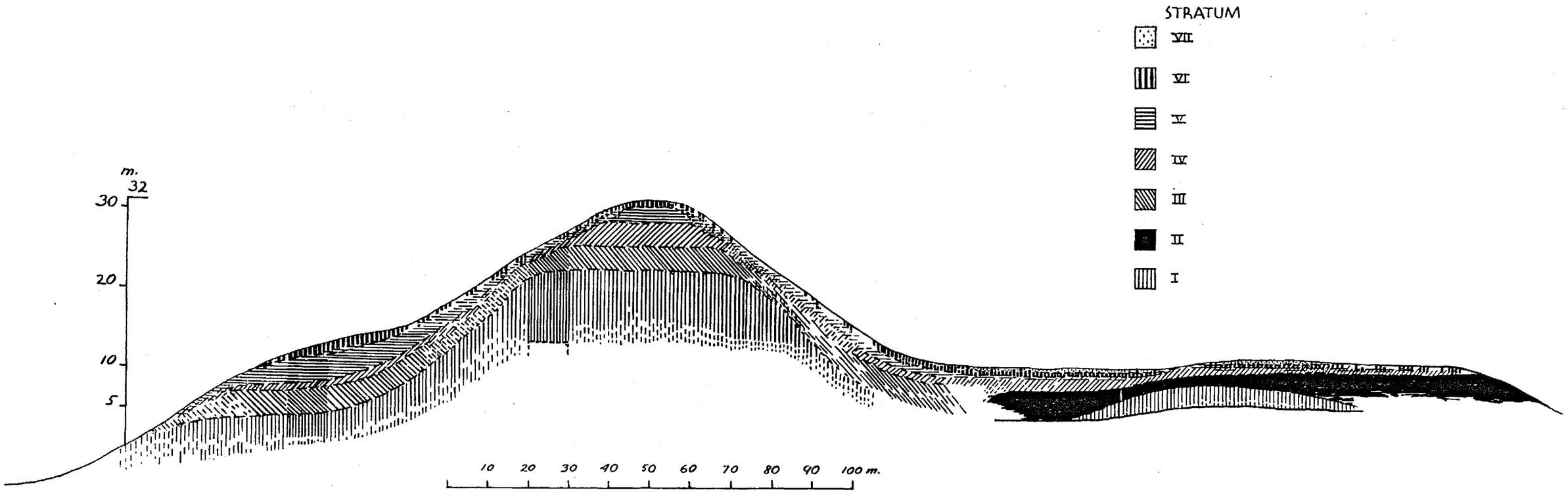

FIG. 74.—Cross-section of the mound, showing its culture strata

FIG. 76.—Plan of Stratum I

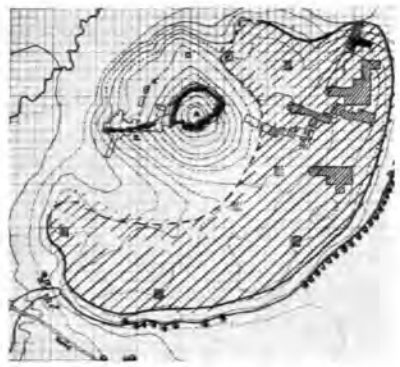

FIG. 77.—Plan of Stratum II

FIG. 78.—Plan of Stratum III

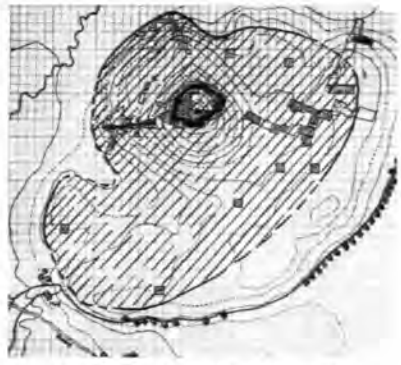

FIG. 79.—Plan of Stratum IV

FIG. 80.—Plan of Stratum V

FIG. 81.—Plan of Stratum VI

a mill race, bordered with trees, runs close to its south and east edges. The Expedition camp, a group of buildings and tents, lies farther to the south.

The cross-section of the Alishar mound (Fig. 74) shows the culture stratification; Figure 75 explains the historical relations of the mound strata and contrasts the relative lengths of the historical periods, as we now understand them, with the relative thickness of the Alishar strata. In the following chapters we shall consider the individual phases of the mound's life and show the contents of the settlements plotted in Figures 76–82.

FIG. 82.—Plan of Stratum VII

The road to civilization was not a smooth ascent, either in Anatolia or in other regions of the earth. Periods of great accomplishment were followed by times of sterility or even decline; in many regions periods of splendor were only ephemeral, living on in the legends of descendants who are now in the rear guard of civilization. However, whether or not Anatolia has fulfilled the promises of certain phases of its past, it has had a fascinating career, faithfully reflected in miniature by the Alishar mound.

V

THE SUCCESSION OF CULTURES

STRATUM I. THE EARLY ANATOLIANS

When the "Early Anatolians" settled on the site of the present mound (Fig. 76) they found already an artificial hillock covering the remains of a still older people. We dare not even estimate the antiquity of those first settlers.[1] They do not seem to have known the use of metal: they were people of the New Stone Age, whose culture was presumably related in many respects to that of their contemporaries far beyond the borders of Asia Minor.

The next dwellers on the Alishar mound were the carriers of a culture typical for Asia Minor. Since at the end of our 1929 season we had not yet succeeded in defining the culture complexes of the earlier Stone Age settlers, we called the Early Anatolian stratum "Alishar I."

The skull of the Early Anatolian (Fig. 83) is predominantly mesocephalic. It is low and has a fairly well arched forehead. A high, narrow nose is set in a narrow face of average height. The jaws tend to protrude somewhat; that is, there is a slight prognathism. The sex characteristics are weak. We shall see later that the skulls of Alishar II are utterly distinct from this type.[2]

Certainly many culture features persisted from the Stone Age; but the use of copper in addition to stone tools marked the beginning of a new epoch, the Age of Metal. We do not know what brought about the culture change. The history of the Early Anatolians is still almost as dark as that of their neolithic predecessors, though Egypt and Mesopotamia were already recording their history in written

[1] [The presence of this early stratum was thoroughly demonstrated in 1930. See Dr. von der Osten's Supplementary Note.—EDITOR.]

[2] The skeletal remains found in 1927 are preserved at the University of Chicago. Those found in 1928 and 1929 remain in charge of the Turkish government. Of these Mr. Martin made photographs and records in the field.

Professor W. M. Krogman, of Western Reserve University, has made a careful study of the data. His report will appear in *OIP*, XX. Dr. Krogman calls attention to the fact that the number of skulls found is so limited that any conclusions drawn from them must be far from final.

form. The most impressive monuments of Egypt, the pyramids, were built at a time when in Asia Minor rather inconspicuous settlements were scattered over the central highland, including the Alishar district.

Within the crumbled remains of their houses, in the charcoal-blackened floor strata, near crudely constructed fireplaces, in the refuse inside and outside of the buildings, we found objects lost, forgotten, or abandoned by the ancient inhabitants. In the mound terrace we uncovered the skeletons of those who once lived in these buildings. Now their homes are buried below immense masses of culture dirt accumulated by those who followed them and then met a similar fate.

FIG. 83.—A well preserved Early Anatolian skull.

They were an agricultural and pastoral people. Doubtless sheep played an important rôle in their daily lives, perhaps even more than in the modern villages. Their wool was spun on spindles of wood or bone. We have a pretty illustration of Early Anatolian life in the modern Anatolian woman spinning her wool on a spindle as did her ancient precursors. The ancient spinners are gone, as are the fabrics made by them. Most of their spindles have probably decayed,[1] but one part of their spinning device has come down to us—the whorl which gave momentum to the spindle. Its modern counterpart in wood is visible in Figure 84 (cf. Fig. 29).

Strange as it may seem, these humble spindle whorls rank with the pottery as the most important "guide fossils" for defining the culture strata of the Alishar mound. About seven hundred whorls from all layers of the mound are in our collection. Their chronological position had first to be determined in the same manner as that of the pottery.

[1] Cf. p. 60.

Thereafter they served as faithful guides in defining the chronology of other objects associated with them.

BUILDINGS

The fundamental features of Anatolian houses have not changed very much since these early, long-forgotten people built their houses at the Alishar site. The present Anatolian houses, with their brick walls on stone foundations and their flat-topped roofs composed of beams, layers of branches, and mud, may still illustrate the buildings of their predecessors of some five thousand years ago. Figure 85 shows a plot wall with remains of an early, but not the earliest, occupation of Period I at the bottom, and, on top, a fortress wall of the Hittite Empire period. Another illustration (Fig. 86) shows remains of a settlement closer to the top of the Early Anatolian stratum. The contours of the rooms are marked by rows of foundation stones which formerly carried the upper structures of sun-dried bricks. Their material, called *kerpich* by the Turks, is mud tempered with straw, in contrast to the untempered adobe structures of our prehistoric American Indians.

FIG. 84.—Modern Anatolian woman with spindle.

POTTERY

To the archeologist the most important class of human manufactures is the pottery. It is his most faithful friend and guide, his "chronometer," comparable to certain typical and frequent "guide fossils" of geological times which enable the paleontologist to date his strata. Pottery leads the archeologist on his thorny path to the cradle or cradles of certain cultures; it shows him where to look for the origin of individual intrusive features; it often indicates the culture

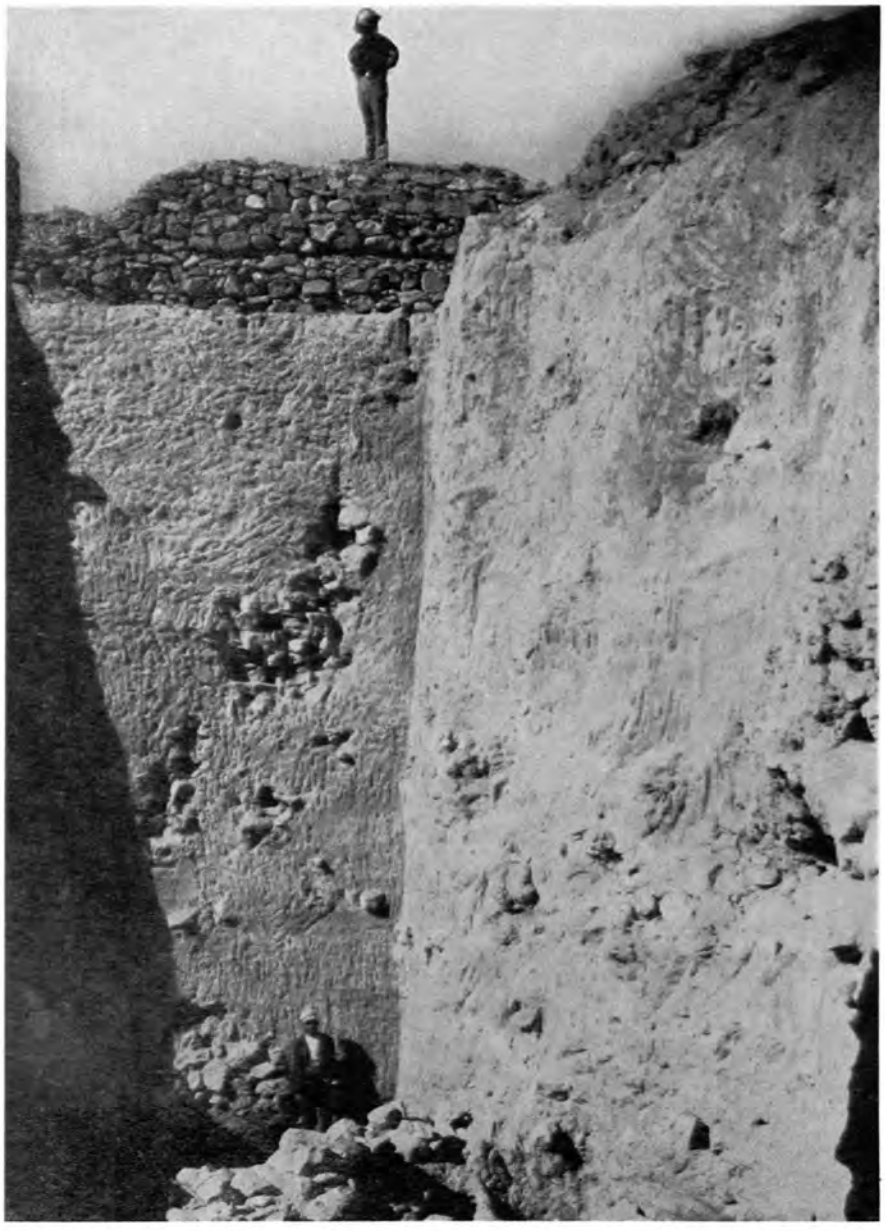

FIG. 85.—A test square. Period I structures below, a Hittite Empire wall above

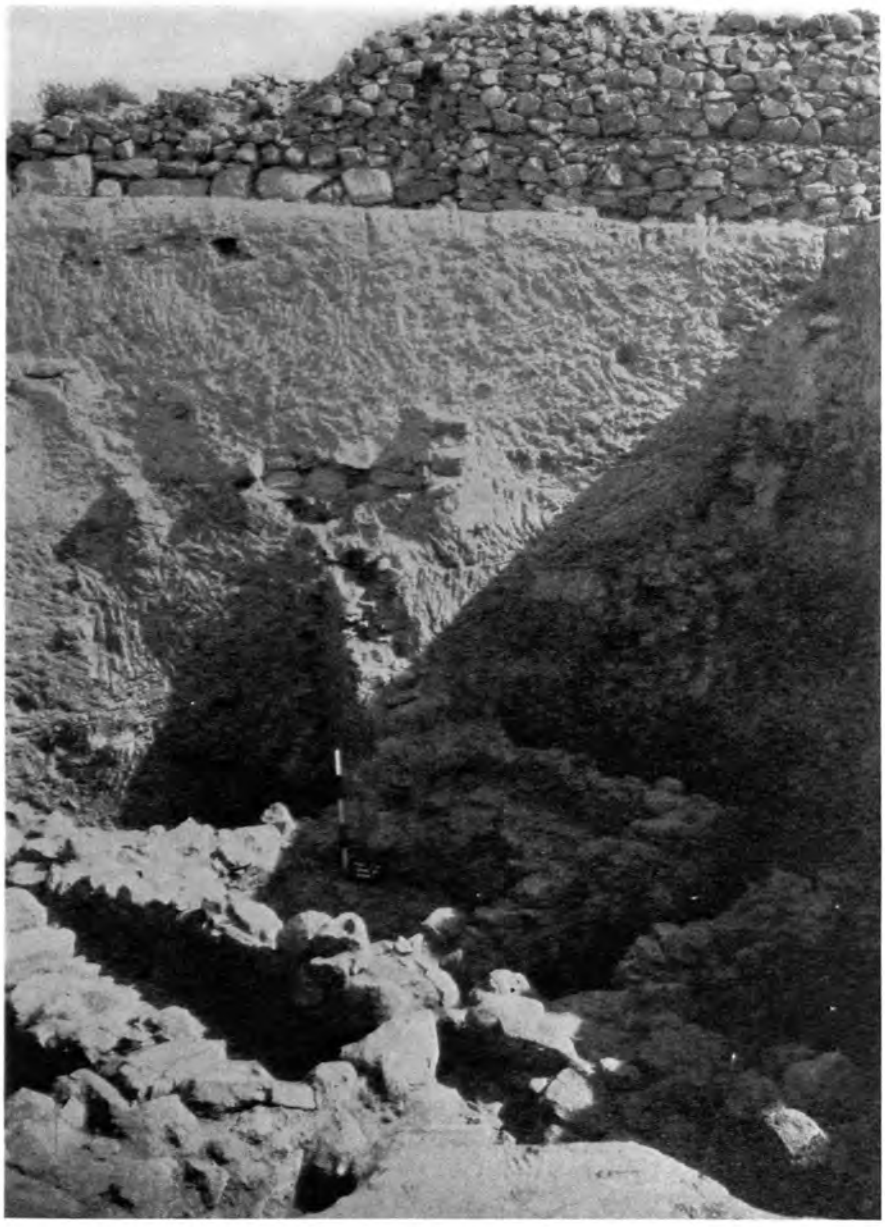

FIG. 86.—An Early Anatolian building

status of a people and registers faithfully its rise and decline. Pottery decoration many times reflects aspects of the life of a people which are less tangible than those expressed by the general run of the material remains. Many phases of the history of mankind are indelibly inscribed on bits of pottery for those who try hard enough to read them.

However, the friendship of lifeless things must often be won with as much effort as that of persons. A mound of the size of Alishar contains millions of broken pottery bits. At the start of work we could see only an amazing mixture of types of forms, decorations, and techniques. Hundreds of thousands of potsherds had to be handled and examined. In a small test plot the culture deposit was carefully sliced, and

FIG. 87.—Red-slipped bowl, typical of Stratum I. Scale, 1:2

the superimposed ceramic types were defined. The chaos then began to turn into order; but still, after three years of work, the process of sorting has not yet been completed. First, large divisions were determined. They were then subdivided, until the present main types and their variants were established to form the backbone of the entire chronology of the mound.

The typical pottery of the Early Anatolians is unpainted, often highly polished, red ware (Fig. 87). The potter's wheel was evidently not yet known, for all the vessels of this period were made by hand, their walls being built up by coils of clay bands in the same manner as most potteries of the American Indians. Shallow bowls and small jars with one handle are the forms most frequently found; but there were also large vessels for storing water and grain (Fig. 88) and large, crude urns destined to be the last resting-places of the dead.

There were some sporadic attempts at ornamentation. We must

admit that the flutings on the small jar in Figure 89 have a pleasing effect. Another small vessel has some grooves and raised concentric rings as ornaments. On its light brown surface certain depressions are

FIG. 88.—Large pot for storage

visible which we attribute to plant tempering, apparently frequent during this early period. Again, there is a well modeled chalice (Fig. 90) of Troy II type, painted with brown-red bands over light brown. A small pitcher (Fig. 91) shows already a somewhat advanced geomet-

ric pattern; it is actually a forerunner of the age of painted pottery which follows.[1]

SPINDLE WHORLS

The spindle whorls (Fig. 92) of Stratum I were made of pottery and of serpentine. Whorls may have been made of wood also, but if they

FIG. 89.—Jar with fluted ornament. Scale, 1:4

FIG. 90.—Chalice. Scale, 1:2

existed they will have decayed.[2] The pottery whorls are neatly ornamented with groups of parallel lines in patterns of rotating dashes, con-

[1] A description of pottery spindle whorls follows. Pottery figurines are described on p. 61.

[2] [See, however, Dr. von der Osten's Supplementary Note, which mentions objects of wood found in the Neolithic stratum during 1930.—EDITOR.]

centric rings, cross-shaped figures, and the like. The typical stone whorls have cross-shaped incisions with their arms radiating from the perforation. In addition, plain whorls of both materials and of various shapes occurred.

FIG. 91.—Decorated pitcher of last phase of Period I. Scale, 1:2.

FIGURINES

Immensely interesting objects are the pathetically crude human idols of pottery (Fig. 93).[1] They range from plain objects with circular body and a protuberance for the head to specimens which indicate some body details, such as hair on the head and on the sexual part. The simpler forms could be defined as idols only by their relative resemblance to the more

FIG. 92.—Spindle whorls. Actual size

elaborate specimens. We consider these little figurines as female fertility idols, which in spite of their crudeness fulfilled their purpose as well, or as poorly, as the more elaborate Ishtars of Mesopotamia.

[1] We found a few idols of unbaked clay and of stone also.

We may only guess that the neatly executed serpentine figurines of conventionalized sheep (e.g., Fig. 94) had a magical purpose, namely,

FIG. 93.—Fertility idols. Scale, 4:5

to increase the flocks. But a practical use too is suggested by their abraded sides. Perhaps they were employed for grinding cosmetics in the same way as certain Egyptian specimens, or perhaps they were used as polishing-stones pure and simple. A few serpentine figurines representing dogs indicate that the faithful friend of modern man was the companion of the Early Anatolian also.

FIG. 94.—Sheep figurine. Scale, 2:3

SEALS

Crude little stamp seals of copper or bronze (Fig. 95) and of stone, with simple geometrical patterns, are the oldest dated specimens of their class yet found in Asia Minor.

METAL

Great quantities of pins and other objects of copper or bronze appeared in certain sections of the stratum, though they were rather scarce in other parts. At any rate, we know that the Early Anatolians were experts in the working of copper. Chemical analyses have shown that bronze too (i.e., an alloy of copper and tin) had come into use,

presumably during a relatively late phase of this period. Apparently the discovery of bronze did not affect the life of the people very deeply, since it was not paralleled by other culture changes. Copper and bronze were certainly used side by side, just as both continued in use after the discovery of iron at a much later date.

That many pins (Fig. 96, *A*) were garment pins is suggested by their position near the shoulders or on the chests of skeletons. Large and small spindle-shaped points (Fig. 96, *C*) were probably arrowheads and spearheads. Though they might also have been used for various other purposes, their use as weapon points must have been primary, for the simple reason that we found no stone points which could have filled their place. Large and small rings (Fig. 96, *B*) were finger rings,

FIG. 95.—Stamp seal of copper or bronze. Actual size.

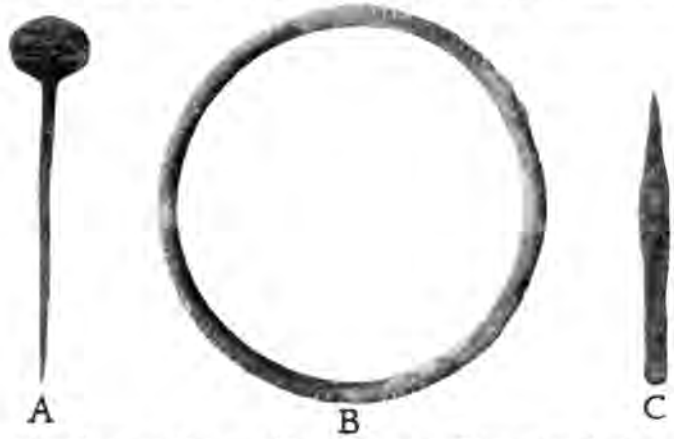

FIG. 96.—Copper or bronze objects: *A*, pin; *B*, bracelet; *C*, arrow point? Actual size.

ear pendants, and bracelets. Metal seals have been mentioned on page 62.

STONE OBJECTS

Simple hand mills of stone were used to grind wheat, charred remains of which were fortunately preserved. The mills were roughly shaped slabs (Fig. 97, *A*) on which the grain was ground with smaller

FIG. 97.—Stone mills, door sockets, and grinding-stones

oval stones (Fig. 97, *C*). No one would think of a culture connection between these people and the prehistoric Indians of the American Southwest; but no archeologist could distinguish certain *metates* and *manos* of the Gila region, such as are still used by some Mexicans of the present day, from the corresponding objects of Early Anatolia, separated from them by thousands of miles and of years. These and many other objects such as celts, polishing-stones, pestles, flakes of

FIG. 98.—*A*, stone implements; *B*, bone awl. Actual size

chalcedony or obsidian, small polished stones of many shapes, bone awls and the like (Fig. 98), which occur in utterly unrelated regions of the earth, simply show a similarity in the response of the human mind to similar living conditions dependent on the same raw materials.

A mace headed by a stone ring (Fig. 99, *A*) was apparently the most usual weapon of the Early Anatolians, if we may judge from the great number of fragments. Small stone hatchets (Fig. 99, *B*) and larger hammers (Fig. 99, *C*) were among the tools they invented. These stone implements persisted, in part, during times long after this period, as did the omnipresent door sockets (Fig. 97, *B*).[1]

[1] Stone spindle whorls have been described on pp. 60–61. Stone figurines and stone seals were mentioned on p. 62.

The foregoing objects are those which perhaps best illustrate this early period. But many other objects of stone, metal, bone, and pottery were found.[1]

BURIALS

The Early Anatolians treated their dead with little ceremony. Burials were made either directly in the earth or, frequently, in large, crude mortuary urns (Fig. 100). To date only one skeleton has been found that had been placed in a stone cist with paved floor. The heavy stone slabs that sealed the mortuary urns (Fig. 101) make us feel that

FIG. 99.—Stone implements. Scale, 2:5

these people were afraid of their dead and wanted them to stay where they had gone! Again, there was a skeleton of a person who had been pushed into the urn head first, with his feet sticking out of the orifice. What is probably the earliest skeleton yet found had been "rolled up" in a storage or refuse pit which extended into the original surface below the mound and was inviting as a burial site on account of its filling of soft rubbish. An infant found its last resting-place in a cooking-pot which, to judge from its looks, had ceased to be of use for its primary purpose. Certainly the dead of Alishar I tell us strange things about the mentality of the living.

There was apparently a special burial ground for at least one phase

[1] For detailed descriptions of our finds see *OIP*, VI–VII and XIX–XX (Vol. VI published, the others in preparation).

FIG. 100.—An earth burial and urn burials

of Alishar I, for all the skeletons of this period yet uncovered were found within a relatively limited area.

THE END OF PERIOD I

The extraordinary thickness of Stratum I indicates the long duration of this period, and the general uniformity of the material remains

FIG. 101.—Urn burial with slab sealing

from bottom to top suggests a lack of dynamic forces among the Early Anatolians. Certainly their culture was far behind that of their southern contemporaries in Mesopotamia and Egypt.

We tentatively designate the culture period which displaced the Early Anatolian as the "Early Hittite" period. However, the "Early Hittite" period did not accumulate the second stratum of the mound as we found it, but forms instead our "Alishar III" (see Fig. 75). Before we consider it, we must turn to Alishar II, the most extraordinary deposit of the mound.

STRATUM II. THE ALIEN PEOPLE

Stratum II shows many differences from Stratum I. In the first place, the typical skull of Stratum II, unlike that of Stratum I, is brachycephalic, rugged, and high; the face is broad and without prognathism (cf. p. 53). It seems probable that the people of Period II came from some other locality and established themselves at Alishar around the end of the third millennium B.C. Their relationship to the people of Period III is not yet determined (cf. p. 101).[1] However, there is more in common between the culture features of Stratum III and Stratum I than between those of Stratum II and Stratum I. Therefore, for the present at least, we shall refer to the Early Anatolians of Period I and the "Early Hittites" of Period III as "native population" in contrast to the alien race of Period II.

Features unknown before the coming of the aliens include the wheel in general, wheelmade pottery, the needle, lead in general, the pear-shaped mace head, and glazing. The oldest sickles appeared in their stratum. They brought with them elaborate symbols such as the double-headed eagle (persisting to our own day), the griffin, the beautiful "Cappadocian symbol" (see p. 89), and the like. No other stratum of the great mound was as fertile in attractive and interesting objects as Stratum II.

However, in some features the natives excelled the newcomers. For instance, there is the pleasing pottery decoration introduced by the "Early Hittites" of Period III. Even the simple geometrical patterns which ornament some Early Anatolian vessels are more elaborate than the crude band designs found on some pots of Stratum II. The native population surpassed the aliens in the design of their spindle whorls also.

CUNEIFORM TABLETS

Stratum II is the only one at Alishar which gave us cuneiform tablets (cf. p. 74). Even so, only two were found during 1927–29. The first one (the larger in Fig. 102) has fragments of its text preserved. It is an inconspicuous bit of gray clay with some wedge-shaped impressions; but that little lump of clay meant more to us than can be expressed in words. It is of immense value because it is the oldest

[1] [Cf. Dr. von der Osten's Supplementary Note also.—EDITOR.]

written document yet found at the Alishar site. The next oldest record is a coin of the end of the fourth century B.C. (cf. p. 141).

At the author's request Professor Julius Lewy, of the University of Giessen, kindly examined casts and photographs of the larger tablet. He found that it was a legal document listing numerous signatories, among them "Anita the prince."[1] Professor Lewy classed this tablet with the well known "Cappadocian tablets" found at Kül Tepe, stating that the writing in both cases is Early Assyrian[2] and that the parties here mentioned bear such non-Semitic names as occur at Kül Tepe also and in part in "Early Hittite" and Hittite Empire documents. Now we shall see that the area occupied by Alishar II lay, like the Mesopotamian merchant settlement at Kül Tepe, beside

FIG. 102.—Fragments of two cuneiform tablets. Actual size

rather than upon the citadel mound. Further parallels exist between the cultures of the two groups, not only in tablets but in pottery and symbolism.[3] These suggest that the groups themselves were similar, both alike established presumably with military backing to trade for raw materials, such as metals, which their homeland lacked.[4] The partial contemporaneousness of Periods II and III (cf. Fig. 75) would account for the names found on our tablet.[5]

A small fragment of a second tablet (Fig. 102) appeared in a test

[1] A facsimile, together with transliteration, translation, and commentary, based on the original tablet, will appear in the final publication.

[2] This style of writing, on account of its local peculiarities, is commonly called simply "Cappadocian."

[3] As intimated by our notes on pp. 82 and 89.

[4] Cf. B. Landsberger, "Assyrische Handelskolonien in Kleinasien aus dem dritten Jahrtausend," *Der Alte Orient*, Bd. XXIV, Heft 4 (1925), esp. pp. 7 and 4.

[5] This whole hypothesis is, of course, subject to revision as the results of later excavations at Alishar become available.

square, J 33. It was so abraded as to be undecipherable, but its very occurrence in Stratum II checked the find conditions of the first tablet and indicated the presence of other documents in unexcavated sections. A beautiful large jug (cf. pp. 81 f.) and a small pitcher of a usual type were in the same layer with the tablet, and hundreds of Alishar II sherds above and below the find-spot defined its period.

SETTLEMENT AND BUILDINGS

Stratum II surrounds the main elevation of the mound in the form of a large crescent lying to the south and east (cf. Fig. 77), whereas the Early Anatolian (Period I) and "Early Hittite" (Period III) settlements centered on the main mound (cf. Figs. 76 and 78). During the early phase of Period I the native town extended much farther than during the later phase, which coincided with the beginning of Period II. In fact, Stratum II is superimposed in part on the early Period I deposits. The "Early Hittite" town of Period III occupied only the main elevation and its western projections. Toward the end of Period II it would seem that the alien settlement shrank and became confined to the marginal strip along the eastern mound edge.

In tracing the fascinating Stratum II, pottery was as usual our faithful guide. To the uninitiated Turks it was weird to see the excavation staff skirmishing over the surface of the mound edge and "calling the spirit of the mound" by bowing down every so often to small bits of pottery, which were put back after examination. These potsherds from the culture layers below had cropped out at the surface for various reasons. Surface indications first showed the great extent of Stratum II. The long occupation of the site by the alien people is indicated by the fact that at least two superimposed series of architectural remains were encountered at most spots. The upper and lower main levels were, as a rule, connected by remains intermediate in time.

The western portion of the stratum was deeply buried below the remains of later occupations, but at the eastern edge of the mound the crust had hardly been broken when typical pots of Stratum II began to emerge. The tops of sun-dried brick walls were actually flush with the present mound slope; and at one spot the rims of large storage vessels appeared, still standing in a row as they had stood about four thousand years ago (Fig. 103). More than thirty vessels of many

sizes and forms were uncovered in this storeroom (Fig. 104), perhaps that of a wealthy merchant.

We do not know exactly what goods were stored here, for all the objects of perishable nature have vanished. But the tablets of Kül Tepe tell us the wares handled by merchants of the time, and these suggest a picture. In our imagination we see the large pots filled again with grain, the jugs with fine oil or beer; "spiced bread" may have

FIG. 103.—Rims of storage vessels appear

filled the bowls. Rolls of fabrics, such as garments, black cloth, or undergarments, rested on top of skins and leather bags(?). Copper and lead in bars lay piled there. Chains of copper, silver, and gold, serving as money, were presumably stored in a strong box in the living-room of the owner, where we found great numbers of neatly incised bone slips. Perhaps they had been inlaid in the furniture as ornaments. In the kitchen the cooking-pots stood beside the fireplace, which had the "skull" shape characteristic of Stratum II (Fig. 105). Provisions were also kept in the many storage pits which everywhere perforate the stratum (Fig. 106). These pits are now filled with loose gray refuse; but often they contain well preserved pots, hand mills of the common type, and other objects.

FIG. 104.—A row of storage vessels excavated

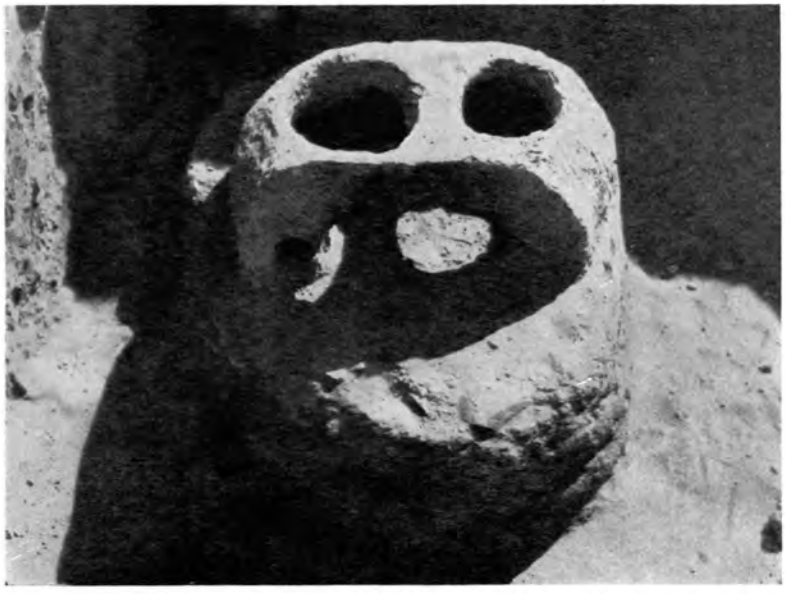

FIG. 105.—A hearth typical of Stratum II

The most impressive section of the building was a "burial chamber" in which were preserved the skeletons of those who had produced or gathered the interesting objects found in their former home. There were sixteen skeletons, of men, women, and children. The same extraordinarily fertile building-complex also presented us with the first cuneiform tablet found at the Alishar mound (cf. pp. 69 ff.). Below

FIG. 106.—Ali ready to excavate a storage pit

this complex there was an extensive group of structures (Fig. 107). It contained characteristic objects of Stratum II, but they were much less abundant than in the upper buildings.

In another area, excavated during the third working season, the upper layer of Stratum II contained intricate structural remains which seem to correspond in time to the "fertile complex" above considered. In these upper buildings many of the usual household utensils occurred, in addition to some valuable cylinder seals (cf. pp. 88 ff.).

We believe that a building uncovered during that 1929 season (Fig. 108) had been a community storehouse. It belonged to the lower ar-

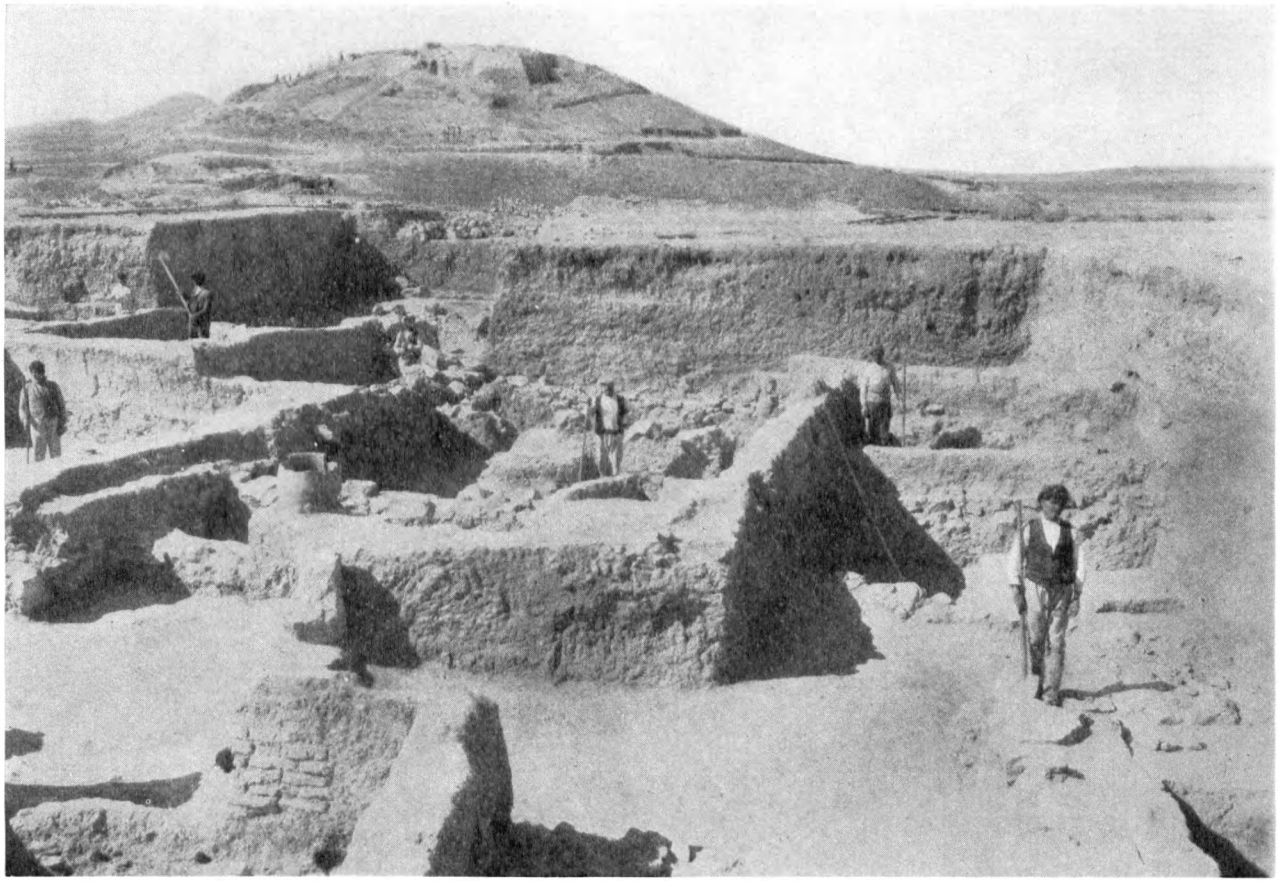

FIG. 107.—Below the "fertile complex," main mound in background

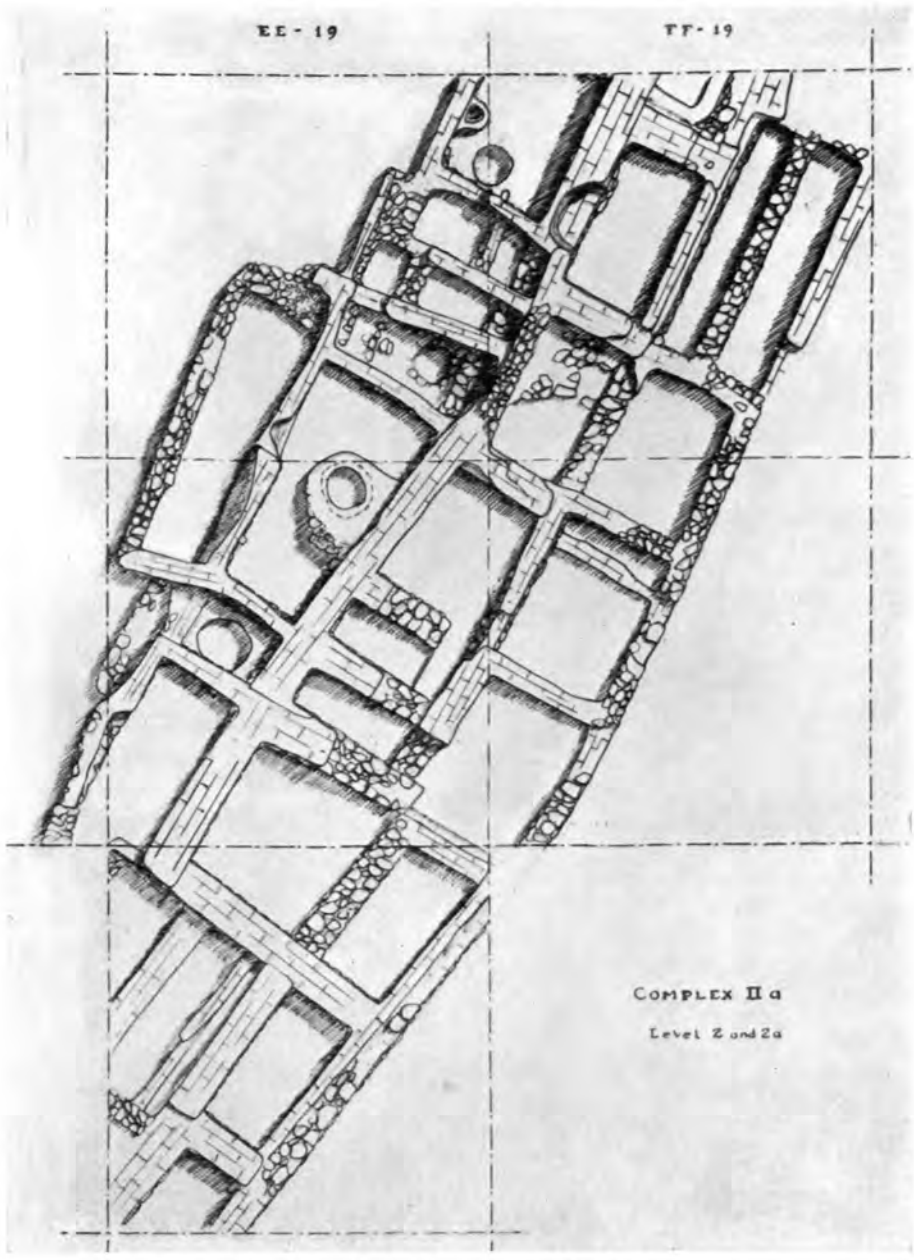

FIG. 108.—Plan of "community storehouse"

chitectural level in this area. This "storehouse" lay east of an ancient roadway which had evidently extended, during all the phases of the settlement, along the eastern mound edge. Nothing of its former wealth of supplies remained. As a matter of fact, its very sterility was the first indication of its former use as other than an ordinary building. There were no fireplaces, no domestic utensils. One inclosure only, perhaps the guardroom, contained a number of such objects as we were used to finding in great quantities in the other buildings. However, there were a few interesting objects appropriate to the purpose of the building. They were little fertility idols, mostly representing women with pronounced sex characteristics (cf. pp. 85 f.). Extremely strong walls, unpierced by doors or windows, were built of large sun-dried bricks resting as a rule on equally strong stone foundations. The building consisted of four tiers of rooms of various sizes. It was in use for a considerable time, as proved by several building-phases.

This "storehouse" and the "fertile complex" gave us the most important information and finds, because at these spots we excavated extensive tracts of Stratum II. In addition, we tested Stratum II in several individual squares, determining its extent and increasing our collections of objects.

POTTERY

The "Early Hittites," some of them contemporaries of the Period II people, gave us the most striking geometrical patterns; the Empire Hittites created the most elegant designs of conventionalized quadrupeds; the post-Empire peoples of the first millennium B.C. painted elaborate sphinx and bird patterns on their vessels; the Romans produced pots of superior technique; but the vessels of the alien people of Alishar II surpassed all of them in beauty and variety of form.

We found one group of outstanding specimens, a unique "set of dishes." All of us looked upon these vessels with the tenderness a mother feels toward her babe—a feeling understood by all excavators who have to turn about a hundred cubic meters, at an average, to find one beautiful specimen. There is a splendidly modeled chalice with a four-lobed orifice, ornamental incised lines, and a coating of dull brown-red (Fig. 109, *A*). A pitcher of ideal "teapot" form is highly polished with delicately tinted brown-red shades (Fig. 109, *B*). Another highly polished brown-red pitcher has two breastlike protuber-

ances and a bill-spout equipped with a strainer (Fig. 110). In our irreverent camp idiom these Alishar II dishes received more colorful

A B

FIG. 109.—Chalice and pitcher. Scale, 1:5

designations. To us the chalice was a "cookie jar," though in our more solemn moments we called it "the Holy Grail." The second vessel was, of course, "the teapot," while the strainer-pitcher was "the beer jug."

FIG. 110.—Pitcher with strainer. Scale, 1:5.

In addition, the "set" included a small "cream pitcher" with a large, clumsy bill-spout, looking like a caricature of the graceful "teapot." Jar stands of perishable material must have kept this vessel and all the other pots with pointed bottoms in an upright position. A "sugar bowl" was, of course, not wanting. It is a pleasingly modeled zoömorphic vessel representing a duck or goose, its hollow body serving as container (Fig. 111). Wings and tail are indicated by tongue-shaped protuberances, while the head and neck form the handle. The exterior of this interesting vessel is brown-red; the interior has the light brown, granular surface of most Alishar II pots and fragments. There is also some powdered mica present. This was applied on some vessels in such quantities that it produced a golden or silvery luster.

The people who used these vessels did not forget to "say grace" in their particular way. A bowl with an oxhead for spout and a smooth light gray-brown surface was presumably used for pouring libations to the deities. The last piece of this unique group is an exquisite bowl perfectly balanced on a small ring-bottom (Fig. 112). This thin-walled vessel has a highly polished brown-red exterior, while the interior is light brown. Near these rare pieces were found a graceful brown cup and a "water pitcher" with a tall vertical bill-spout (Fig. 113). This has an unusually light reddish buff surface showing much powdered mica. Many beautiful vessels such as these were placed in the graves as mortuary offerings (cf. Fig. 144). In some cases (e.g., the pitcher of Fig. 113) the pot was so close to the body that portions of the surface were decomposed.

FIG. 111.—Duck bowl. Scale, 1:3

The vessels just described are much more beautiful than the series to follow; but the former are outstanding works of this period. Most of them were deposited with the dead in the communal burial chamber (pp. 74 and 97). Hardly any occurred within those thousands of cubic yards which we removed from other sections of Stratum II. Some sherds of such masterpieces were found, but they gave no clue to the forms of the complete vessels. Hence the humbler but very frequent types of pots to be considered next are of much greater value to the archeological field worker. Fairly complete specimens occur now and then. From them we know the forms of vessels now represented chiefly by hundreds of thousands of fragments. It is these ordinary household vessels which are our archeological "guide fossils."

FIG. 112.—Fine bowl. Scale, 1:5

Technically the most outstanding feature of all the ceramics of Stratum II is the fact that the pots were modeled on the wheel, in

contrast to slow and less efficient shaping by hand, the contemporary native method used by both the Early Anatolians and the "Early Hittites." The majority of the pots of Stratum II vary from light yellowish brown to light gray-brown, but vessels with brown-red surfaces occur. The uncoated pots usually have a granular surface. "Gold" or "silver" ware was produced by the mixture of much powdered mica in a surface wash of the same color as the paste.

FIG. 113.—Pitcher. Scale, 1:5

The most characteristic shapes of Stratum II pottery are pitchers with oval bodies and cut-off bill-spouts, one-handled jars with biconoid bodies truncated above, and conoid bowls (Fig. 114). The pointed bottoms of these and many other vessels required the use of jar stands. These three pots and the bone objects illustrated in Figure 141 (cf. p. 94) are so typical of Alishar II that should we find all of

FIG. 114.—Pots typical of Stratum II. Scale, 1:5

these forms at another site we would be justified in identifying the two cultures.

There are modifications of the foregoing, as well as additional types

of vessels. Among the latter are two small pitchers (Fig. 115), which accompanied the first Period II skeleton uncovered during the season

FIG. 115.—Two small pitchers which accompanied the dead. Scale, 1:4

of 1927, and a small two-handled pitcher with smooth golden brown exterior, two ornamental grooves, and two small "breasts" opposite the handles (Fig. 116). A small pitcher of unique form (Fig. 117), red-brown and highly polished, lay in a storage or refuse pit which extended below the bottom of the

FIG. 116.—Two-handled pitcher. Scale, 1:3.

FIG. 117.—Unusual pitcher. Scale, 1:3

stratum. Its ware is as fine as that of the beautiful bowl of Figure 112. A thick-walled shallow ladle of crude ware, with a knob handle and a spout (Fig. 118), had been used for ore. Remains of copper or copper alloy still adhered to its surface.

A beautiful large jug with light reddish brown surface appeared

in the test plot in the same layer in which the second Alishar tablet was found (cf. pp. 70 f.). The strong walls of the vessel had withstood the blows of crumbling house walls and roofs and the pressure of 3 meters of culture deposits above it (Fig. 119). Only the high handle, which had extended to the back of the curved bill-spout, was missing.[1]

FIG. 118.—Ore ladle. Scale, 1:3

Vessels intermediate in size between ordinary household pots and storage vessels were frequent. That of Figure 120 was used as a burial urn for a child in the same manner as were larger ves-

FIG. 119.—Large jug, partly cleared

sels that accommodated the adult dead. These pots usually have four handles (as in Fig. 120) or handles and knobs. The flaring mouth

[1] A complete jug of the same type, from Kül Tepe, is shown in *OIC*, No. 8, Fig. 15.

is sometimes "terraced" inside. Faint grooves or crudely painted bands and zigzags in red-brown decorate some specimens.

Large storage pots occurred everywhere. As a rule they stood singly in a corner of a room where they had been sunk into the floor, but Figures 103 and 104 show rows of such large vessels, perhaps used by wealthy merchants to store their merchandise. Mortuary urns of characteristic form were made for holding the dead. Large storage vessels also were used as burial urns (Fig. 121).

FIG. 120.—Large jar. Scale, 1:16

Stratum II is amazingly fertile in small objects of pottery and of unbaked clay. There are great numbers of clay "cakes" (e.g., Fig. 122, *A*). Among them are conoid disks with depressed tops, plain or ornamented with nail-prints; plain star-shaped "cakes"; "sun cakes," ornamented with small sun symbols; and others supplied with oblique grooves suggesting rotating disks. To explain these curious objects we can only suggest that they may have been used as charms. A small hoard of "sun cakes" occurred in a storage pit. Pottery "stars," each with one perforated point, may have fulfilled a similar purpose, whereas the pottery "handles" (Fig. 122, *B*)

FIG. 121.—Storage jar used as burial urn. Scale, 1:16.

may have had a practical use in connection with merchandise. Some bear one or more impressions of simple stamp seals.[1]

FIG. 122.—Clay "cake" and "handle." Scale, 1:2

FIG. 123.—Fertility goddess. Actual size.

SPINDLE WHORLS

The people of both Stratum I and Stratum III employed neatly ornamented spindle whorls of characteristic forms, but Stratum II was almost without whorls which could be attributed to the aliens.[2] That they had to turn to the native spinning devices is evidenced by the many typical Early Anatolian (cf. Fig. 92, *B*) and "Early Hittite" whorls which we found in Stratum II. The humble whorls become, therefore, immensely valuable clues for establishing the time-relations of the first three culture layers of the mound. It would seem that spinning had played no part in the life of the aliens before their intrusion.[3] In any case, the relative frequency of whorls of native types in the quarters of the outsiders suggests that in the new environment much spinning was done, either by alien women who had learned the art or by native women living in the settlement.

[1] Pottery figurines are described on pp. 85 ff. and pottery seals on pp. 88 f.

[2] Two glazed frit whorls, though found in Stratum III, are believed to have belonged to Period II.

[3] Or did they use perishable wooden whorls? Cf. pp. 54 and 60.

FIGURINES

It was a delight to see the precious creations of an artistic people emerge from the rubbish which had slowly buried them during the last four millennia. Compare the elaborately dressed fertility goddess molded in lead (Fig. 123) with the rather pathetic idols of the Early Anatolians. Apparently the deity had risen from the level of a magical symbol, though the basic idea of idol and goddess was about the same. Two other lead figurines represented males (Fig. 124). One wears a

FIG. 124.—Lead figurines. Actual size

conoid headdress. Though he is bearded, his breasts are as pronounced as those of the female deity. The markings below may indicate ribs or possibly armor. An oblique line at his waist suggests a belt. While this effigy apparently represents a warrior, the symbolism of the other male figure perhaps indicates a deity with birds as attributes.

Human forms in brown pottery, more or less well baked, are more frequent than are those made of lead. All the females (e.g., Fig. 125, *A*) wear round headdresses like that of the lead deity, though less elaborate. The breasts of all of them are pronounced, and in most cases the hands touch one or both breasts. In some cases one arm is raised. All the males wear conoid headdresses like that seen in one of the lead figures. In some cases the hat is ornamented with disks. One

male (Fig. 125, *B*), looking very much like a member of the Ku Klux Klan, has a long dress and seems to carry a sack on his back. Another is a phallic figure wearing a belt and with a disk on his chest. A model shoe of typical Period II pottery (Fig. 126) shows already the typical upturned toe which appeared later in connection with the Hittite Empire (cf. p. 116) and survives even today in Anatolia (cf. Fig. 33). There is also a potsherd with a presumably male figure in relief (Fig. 127). The man clings with exaggerated hands to the vessel's rim and seems to be peering over its edge. A part of his head is missing.

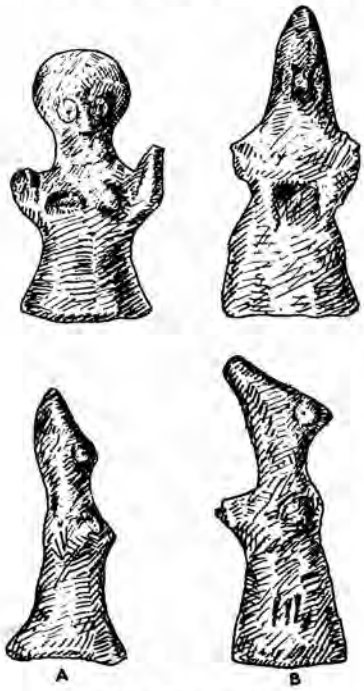

FIG. 125.—Pottery figurines. Scale, 1:2.

Though the human figurines are of greater interest to us, from the artistic viewpoint some splendidly modeled animal heads of pottery are the most admirable creations of Period II. There is an exquisite head of an ox (Fig. 128), formerly some part of a vessel, with very smooth surface. It is painted with pleasing, though in part perhaps accidental, tints of brown-red and gray, shading here and there into black. A buffalo-head spout, less striking but more graceful (Fig. 129), is another of the few pottery objects of the present stratum which bear painted decoration. Brown-red lines are applied on its light buff-brown surface. Another buffalo or oxhead, with horns set like those of a ram and painted brown-red, once formed the spout of another

FIG. 126.—Shoe figurine. Scale, 2:5

vessel. The living representative of a beautifully modeled steppe rat (Fig. 130) is now called "Arab rabbit" by the Anatolian villagers. This figure of smooth gray pottery represents the steppe rat in jumping position, with his little forelegs and his long ears lying close to his body. His hollow eyes were perhaps originally inlaid.

FIG. 127.—Potsherd with human figure. Scale, 1:2.

Bird figurines are frequent. The anterior parts of birds of prey occur (Fig. 131), though none of them suggests a model of the majestic vulture of the Anatolian plateau. Heads of ducks(?) and other creatures formed the handles of bowls.

In the case of one immensely important specimen we must shamefacedly admit that we made a serious slip. We first recorded it as a "baked piece of clay, possibly an envelope" (cf. p. 88). When the whole material was being worked up for the final scientific catalogue the light was more favorable, and markings were noticed on the inside. A cast showed another fine sample of an Alishar II "rabbit," of which the "baked piece of clay" was the mold (Fig. 132). Most of the beautiful animal figures of this category may, then, have been created by outstanding artists and multiplied by means of such molds.

FIG. 128.—Pottery oxhead. Scale, 1:2

There is, finally, a series of rather crude but very characteristic small clay figurines of animals (e.g., Fig. 133). In most cases they are

unbaked and frail, but some were fired and hence are better preserved. Their frequency and uniformity suggest a definite purpose, not merely playful imitation of animals. We consider them fertility charms. They may have been used in the same manner as the small sheep effigies of the Navaho Indians of the Southwest. These Indians used to bury miniature editions of their sheep in the pastures, hoping to increase the fertility and the well-being of their flocks. The little figurines of Stratum II are mostly of sheep and rams; but dogs and (perhaps) a doe, a donkey, and a pig also are represented.

FIG. 129.—Pottery buffalo head. Scale, 1:2.

SEALS

The clay envelopes in which cuneiform tablets were inclosed bear impressions of cylinder seals of stone or bone which had been rolled over the soft clay. At the Alishar mound we found cylinder seals in

FIG. 130.—Pottery steppe rat. Scale, 1:2

Stratum II only (cf. p. 74), corresponding to the occurrence of cuneiform tablets. The seal impressions here pictured (Fig. 134) show (*A*) a group of bird-headed men, (*B*) a sacrificial scene, and (*C*) two animals, with other details obscure. In addition to cylinder seals we found numerous stamp seals of pottery, bone (cf. Fig. 141, *E*), and

stone. The stone stamps include the most beautiful specimens of this category found in any stratum of the mound. Drawings of impressions of two of these stamps are shown in Figure 135.

The "Cappadocian symbol,"[1] as we called an exceedingly pleasing design, occurred both on a pottery stamp (Fig. 136) and in the form of impressions on fragments of vessels.[2] Simple patterns also are represented.

FIG. 131.—Pottery head of a bird of prey. Scale, 1:2.

Cylinder impressions were found on envelope fragments only, whereas impressions of stamp seals occurred on pots, tags for merchandise, and "handles" (see Fig. 122, *B*). Simple, badly baked pottery "stamps" had a problematic purpose. Perhaps they were used for body-painting, though we do not have the least proof for such a practice among these people.

FIG. 132.—Pottery mold and modern cast. Scale, 2:3

[1] Called "*marque royale*" by the eminent French scholar, de Genouillac, in his *Ceramique cappadocienne* (Paris, 1926), I, 33. We, however, prefer a designation connecting it with Cappadocia.

[2] *OIC*, No. 8, Fig. 14, shows such a fragment from Kül Tepe.

FIG. 133.—Clay quadruped. Actual size

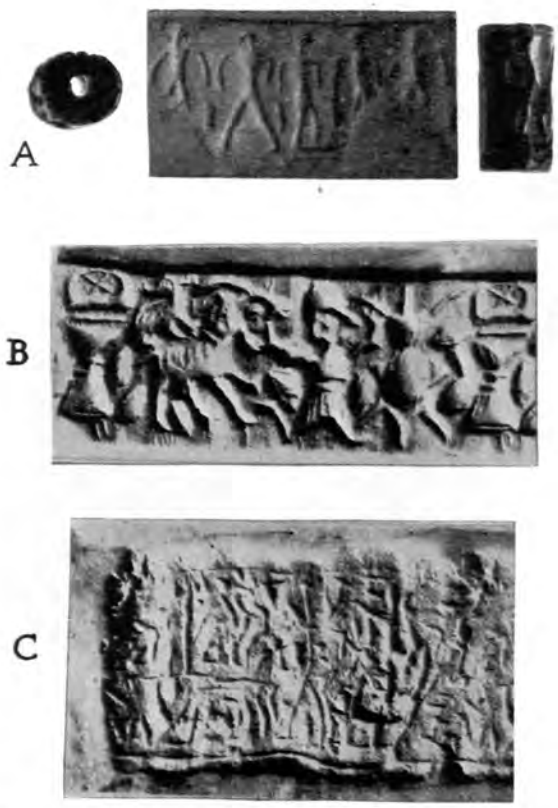

FIG. 134.—One cylinder seal and three seal impressions. Actual size

METAL

The aliens excelled in the working of metal as much as they surpassed the natives in most other culture features. Of copper or bronze objects, the sickle (Fig. 137, *A*), for tearing rather than cutting stalks, appeared first in Stratum II, and seems to have persisted since that

FIG. 135.—Stamp seal, with sketches of impressions from this and another seal: double eagle and griffin. Seal, actual size; impressions, 2:1.

time. Our friend, Professor von Mészáros, of the Ethnographical Museum in Ankara, tells us that the modern Anatolians still use it. Efficient knife and dagger blades (Fig. 137, *B*) are plentiful. Admittedly, many Early Anatolian objects recur in Stratum II—for instance, spindle-shaped points for arrows and spears; but socketed celts (Fig. 137, *C*) and points appear for the first time. The aliens also invented a thin-bladed lance head with a long stem to be securely fastened to the shaft. The bronze or copper needle is another immensely important invention of these people. Pins occurred in great numbers in the Early Anatolian stratum; but the elaborate head of the pin in Figure 137, *D*, representing presumably two conventionalized birds' heads, is a new product of Period II. The bracelets and the small finger rings or earrings of the Alishar II people were about the same as those of the natives.

FIG. 136.—The "Cappadocian symbol" on a pottery stamp. Scale, 1:2.

The Early Anatolians did not know the use of lead,[1] whereas great quantities of rings of this material appeared in Stratum II. Lead rings of various sizes—closed, open, or combined in chains—were indeed the "small change" of the time, employed in addition to copper or bronze, silver, and gold rings. We should certainly have hesitated to designate the lead rings as "money" if cuneiform tablets from Kül Tepe had not defined their character.[2]

FIG. 137.—Metal objects. Scale, 2:3

Except for a small copper or bronze tack with a gold head, we found no precious metal in this stratum, though doubtless there was once plenty of it in so rich a settlement. However, we believe with the noble Incas of pre-Spanish Peru that the yellow ore has value only after it has been wrought into a beautiful form. A figure modeled of common clay is of immensely greater value to the archeologist than a piece of gold not wrought into a definite shape.

[1] [But cf. now Dr. von der Osten's Supplementary Note.—EDITOR.]

[2] Lead figurines are described on page 85.

OBJECTS OF STONE, BONE, GLASS, AND SHELL

It is a somewhat puzzling fact that most of the native types of stone objects are found in the stratum of the aliens also. We should

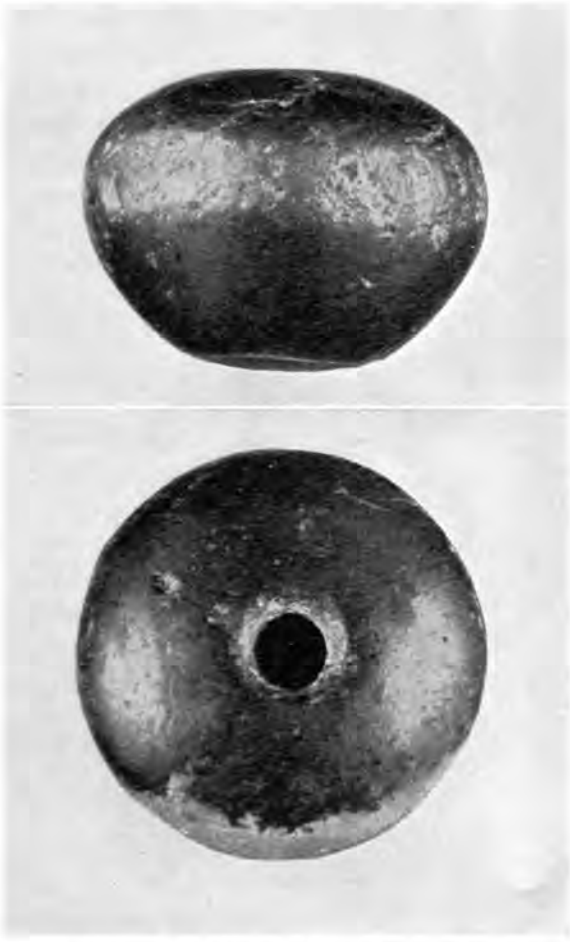

FIG. 138.—Hematite mace head. About actual size

have expected that these people would at least have modified the tools of the native population; but we find in Stratum II mace heads, hammers, flakes, mills, etc., just like those in Stratum I. However, there are some stone objects of new types. The aliens used a (presumably

imported) pear-shaped mace head, sometimes made of hematite (Fig. 138), a material not used for this weapon by the natives. A beautifully shaped unfinished hammer also occurred in this stratum. The most important new stone tool to be mentioned is a rectangular slab (Fig. 139), as a rule perforated at the head end, with a polished depression in the base. Perhaps it was a drill socket. The most beautiful ornament so far found in Stratum II is an elliptical toggle[1] of translucent stone with octagonal cross-section (Fig. 140).[2]

FIG. 139.—Stone drill sockets? Scale, 1:2.

Of all the strata of the mound, only Alishar II and, to a less extent, Alishar I contain many "guide fossils" of bone. Figure 141 shows a series of characteristic Alishar II specimens (cf. p. 80). There are a fragmentary ornamented awl (*A*), two pins representing several hundred specimens (*B*, *B*), a bone point of a common type with rounded polished head (*C*), flakes ornamented with incised centered circles and with lozenges (*D*, *D*), and the top of a stamp seal (*E*). Both top and base of the latter are ornamented with centered circles. A small series of pins with double bird heads links up with the copper or bronze pins. Polished bone tubes also are frequent in this stratum, while small ornamented boxes are the most pleasing objects of bone left us by the aliens. But again numerous objects of native manu-

FIG. 140.—Stone toggle. Actual size

[1] Cf. protodynastic Egyptian toggles. See Petrie, *Abydos*, Part II (London, 1903), front. and Pl. VIII, Nos. 141–43.

[2] Stone seals are described on pp. 88 ff.

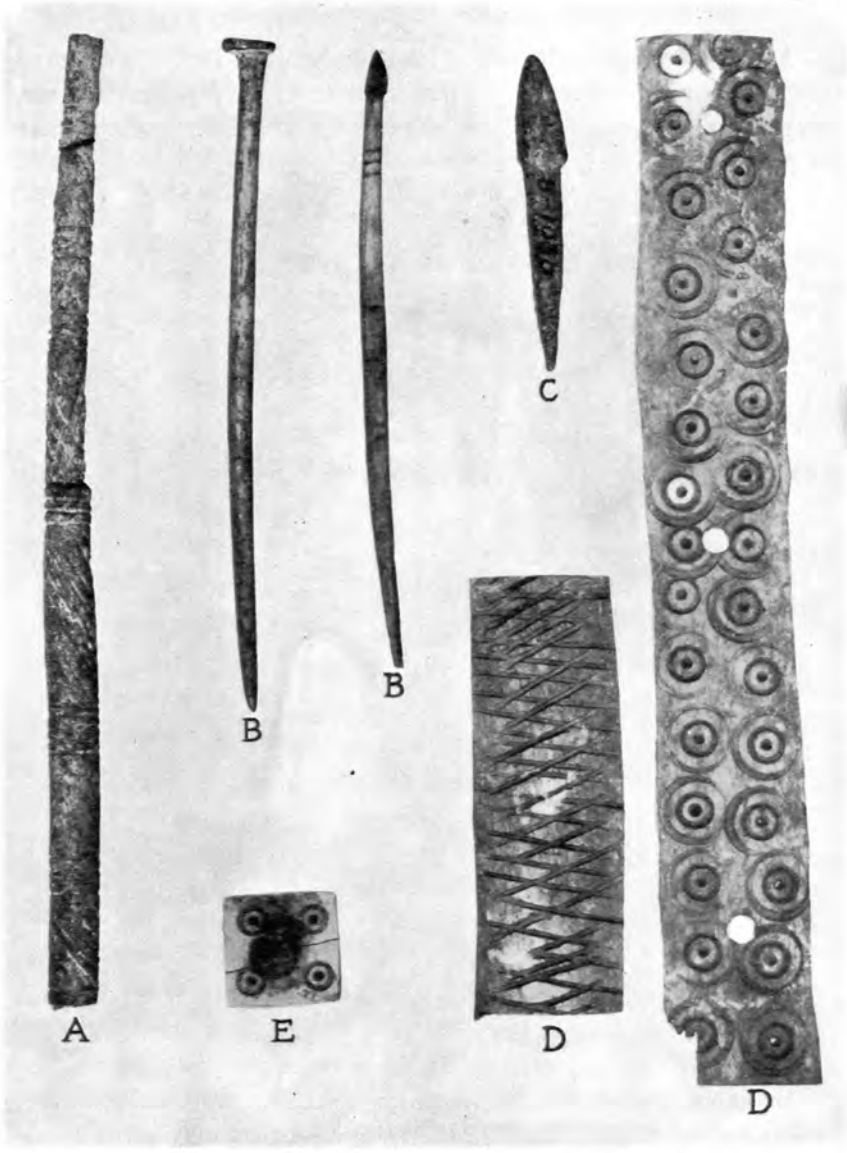

FIG. 141.—Typical bone objects of Stratum II. Actual size

facture, or at least of indigenous types, are found among Alishar II remains.

Another new culture feature of far-reaching importance is evidenced by a series of pins with glazed frit heads and by a few glazed beads, forerunners of true glass. There was also one well authenticated piece

FIG. 142.—Shells. Actual size

of glazed pottery. Two glazed frit spindle whorls found in Stratum III are believed to belong to Period II.

We do not hesitate to attribute the frequency of wrought and unwrought shells among these alien people to their commercial relations. Examination of the Alishar II shells by an expert may provide evidence of connections with either the Persian Gulf or the Mediterranean. Thus even humble shells (Fig. 142) can give important information.

BURIALS

We had no reason to anticipate the veritable treasure of objects and information which came to light in "R(oom)9, L(evel)1, C(omplex) I of P(eriod) II," as the burial chamber (Fig. 143) in the uppermost level of the "fertile complex" in Stratum II was designated in our prosaic surveying idiom. A fireplace of unusual form was first uncovered. Several vessels were present in the floor layer, but fireplace and ves-

FIG. 143.—The burial chamber

sels suggested at first an ordinary room rather than the burial chamber of a whole family group. Our foremen, however, trained during three seasons, suspected the soft dirt of the floor at the level of the fireplace. Stubbornly and cautiously they dug down until their trowels scratched pottery. Soon parts of human bones appeared, protruding between fragments of large pots. Larger areas were cleared, and one by one the sixteen silent occupants emerged after their long repose. They had been laid away in large storage pots or directly in the earth. In some cases two or three vessels had been required to accommodate extended bodies, whereas other skeletons were in contracted position. That the burial chamber was in use for a considerable time,

FIG. 144.—A skeleton provided with two pottery pitchers

perhaps two or three generations, is indicated by burials that had been disturbed by subsequent interments.

Ring pendants still adhered to the sides of the skulls where the ears had been. Of mortuary garments only the bronze or copper pins re-

FIG. 145.—Individual burial in the lower level of Stratum II

mained. It was here we found the most beautifully modeled vessels yet recovered at the Alishar mound (e.g., those shown in Fig. 144; cf. pp. 77 ff.). The people of this period were not afraid of their dead, but supplied them with food and drink for the hereafter in beautiful vessels valued by the living.

We hoped, of course, to find more burial chambers in the other buildings; but up to the present only single burials have been discovered in the remaining excavated sections of Stratum II (Fig. 145). These bodies lay either unprotected in the earth or in mortuary urns of definite type. Some had with them characteristic bowls and pitchers of common household ware. However, there were some persons, both in the burial chamber and elsewhere, who seem to have been neglected by their survivors. But though no enduring mortuary gifts were with them, they may have been supplied with articles of perishable nature.

FIG. 146.—Victims of the catastrophe

THE END OF PERIOD II

The ruins of Stratum II are filled with highly important and beautiful remains; but the most impressive finds were a few skeletons lying in the upper complex of structures above the "community storehouse." Even a skeleton tells whether a person passed away peacefully or fought a hard battle for life, and whether survivors followed the current burial customs.

The skeletons uncovered at this spot were those of persons who had been killed. One was an old woman who had died in terrible agony. Her body was twisted, her head thrown back, and both her hands pressed

toward her abdomen (Fig. 146). Perhaps she had been dispatched by a missile or by a spear thrust. Close to her lay the skeleton of a small child, and a few meters away lay two more skeletons of children. The fact that all of them had met a common fate suggests that Period II reached a catastrophic end under the attack of a powerful foe.

STRATUM III. THE "EARLY HITTITES"

Period III, like Period II, is perplexing. The cultural features in many ways resemble those of Period I. The skulls, however, seem to be like those of Period II—brachycephalic, rugged, and high, the face being broad and without prognathism (cf. p. 53).

Period III apparently coincides with the rise of Hittite influence in Anatolia. Early in the second millennium King Anittash of Kushshar[1] captured Ḫattushash and made it his capital.[2] This was the beginning of what is sometimes called the "first Hittite empire." Synchronous with a part of the "Early Hittite" period in Anatolia is the Hyksos invasion of Egypt, perhaps in some way connected with the temporary expansion of the Anatolian peoples. Furthermore, though we have not yet found in Anatolia particularly outstanding remains of this period, in North Syria the art of rock-sculpturing was fairly well advanced, as indicated by the oldest reliefs of Tell Halaf and Senjirli. Reliefs of the same or similar type occur in Anatolia at a later date, suggesting diffusion from Syria.

Many carriers of the Period III culture may not have been Hittites at all, racially, linguistically, or politically. For this reason we use "Early Hittite" as a collective term designating the period during which the "Hittites" first appeared in history, the culture complex attributed to them, and the people who carried this culture, whether they were of Early Anatolian stock or of true Hittite origin. On account of the similar cultures of Periods I and III we speak of

[1] It is tempting to identify this King Anittash (the *sh* is merely the nominative case ending) with the Prince Anita mentioned on our cuneiform tablet from Alishar (cf. pp. 69 ff.). This would link the Alishar site with the important capital city of Kushshar. However, this cannot at present be suggested as more than an obvious possibility.

[2] Hrozný, "L'invasion des Indo-Européens en Asie Mineure vers 2000 av. J.-C.," *Archiv Orientální*, I (1929), 273 ff.

both as "native," contrasting them with the alien race of Period II (cf. p. 69).

The manner of life seems to have been essentially the same in Periods I and III. The people were agricultural and pastoral. It is impossible to say at present whether or not certain features of Period III were simply survivals from Period I. In addition to the mode of life in general, certain pot forms, the manner of burial with contracted legs, and the copper or bronze pins are the same in both strata; but relations with Period II people are shown by the occurrence of a number of objects typical of Stratum II.

So far we have determined only three culture features which distinguish the "Early Hittite" stratum from that of the Early Anatolians. Why, then, are we justified in speaking of a different period? The explanation is given by the character of the distinguishing traits: the pottery, the spindle whorls, and the skull shape of the people themselves.

SETTLEMENT AND BUILDINGS

The "Early Hittite" settlement (cf. Fig. 78) covered the crown of the hill that had been accumulated during the occupation of the site by the Early Anatolians and their predecessors, and extended down the western slope. That the Period III settlement was entirely distinct in location from that of Period II was indicated by our results in several test squares dug on the main mound and on its western projections. Everywhere in this section of the mound a deep layer of "Early Hittite" remains was encountered, while Period II ruins were lacking. "Early Hittite" remains were frequently associated with the foundations of the superimposed Hittite Empire (Period IV) citadel. As to the houses, we found only a few foundations, in certain cases surmounted by some sun-dried bricks, indicating that the buildings were constructed in fundamentally the same way as those preceding and succeeding them.

POTTERY

In contrast to the plain red pottery of the Early Anatolians, the typical vessels of Period III are painted with pleasing and relatively elaborate geometrical designs in two or three colors. The transition from the early plain type to the painted ware of Period III took place over a long period. Even in early Period I deposits there were a few

sherds painted with some parallel or angular lines; but they may have been due to the playfulness of Early Anatolian pottery-makers rather than to an outside influence. In the uppermost structural remains of Period I more complicated geometrical designs occurred (cf. Fig. 91), which may have been forerunners of the events to come. Above Stratum I there was a definite transitional layer containing a number of vessels painted with brownish purple lozenge patterns over reddish brown or orange surfaces (Fig. 147).[1] We attributed this thin layer to Stratum III because we assume that it accumulated during the period of indirect influence prior to the actual arrival of the carriers of the "Early Hittite" culture. The transitional character of this layer is emphasized by the fact that remains of Periods I and III were here intermingled (cf. Fig. 75). As an interesting chronological check we may mention that a broken bowl of Period II was found in this same early Period III layer.

FIG. 147.—Cup of transition type. Scale 1:2

On top of the transitional layer follows the main "Early Hittite" deposit, about 2.50 meters deep on Mound A. Here typical two- and three-color patterns occur on hundreds of sherds found all the way from the bottom to the top of the stratum in the excavation square which sounded the deposit. Due to our limited work in this stratum, few complete vessels of this period were found, but the sherds show that in them the main shapes are represented.

The forms are rather clumsy. The vessels are handmade, like those of the Early Anatolians; in fact, we find quite a few resemblances as to shape in the wares of the two periods. But the decorations of some vessels are striking. The main patterns on the usually buff or light brown surfaces are in gray or black, and brown-red lines or fillings are frequently introduced. A jar and a bowl were found as here pictured (Fig. 148), with the bowl serving as a lid. A beautiful and exception-

[1] Shown in color in *OIP*, VI, Pl. I (upper figure). Its handle is lost.

ally well preserved jar (Fig. 149) is painted with a dark brown design over a light brown surface. The color of the pattern, which appears to be sunk into the surface, is dull, in contrast to some lustrous decora-

FIG. 148.—Jar and bowl of Period III as found. Scale, about 1:3

tions on other vessels. This jar with its perishable contents had apparently been hidden outside of an "Early Hittite" structure still buried underneath an Empire fortress wall which stands about 2 meters above the find-spot.

A pitcher neck, pleasingly decorated in black-brown and red-brown, suggests the head of a bird (Fig. 150). Its bill-spout is a detail adopted

from the contemporaneous pottery of Period II. The bowl illustrated in Figure 150 is instructive. Its lower body is painted red, and it is obvious that mere fragments of such red-painted portions could not be distinguished from the technically very similar Early Anatolian pottery. The rim of the present bowl is coated light buff and bears in

FIG. 149.—Painted jar. Scale, 1:5

addition a decoration in black-brown and red. The cup of Figure 151 is a fair sample of the "Early Hittite" potter's art. In form it resembles the more delicate specimens of Stratum II. The pointed bottom, so frequent in Stratum II, is present here also, as is the high oval handle. But there remains the fundamental contrast between the clumsy, handmade, painted vessel of Stratum III and the graceful, wheelmade, plain vessel of Stratum II.

The immense importance of pottery as a culture feature is demonstrated not only in these two strata but everywhere throughout the

mound. A vessel is more than just a pot. It has a history of its own, reaching back to the very beginnings of pottery—to the time when it took the place of some natural growth (a pumpkin, a shell, or the like)

FIG. 150.—Pitcher neck and bowl. Scale, about 1:3

or of a container of different material, such as stone or wood or skin. At the same time a vessel combines features which have little or nothing to do with its primary purpose, that of a container. It is a complex culture record for those who take pains to decipher it. Let us consider the "Early Hittite" vessels once more from this viewpoint. They combine features surviving from or identical with those of Early Anatolian pottery (e.g., certain forms, the technique of manufacture, and the red surfacing) with details adopted from the aliens (e.g., the bill-spout and pointed bottom). Finally, they introduce a new and extremely important feature, painted decoration of a definite style. This is another signboard to guide future explorers to the homeland of the culture-carriers of Period III, whether they be Hittites or another people.

FIG. 151.—Decorated cup. Scale, 1:2

Some odd crude pottery objects with two horns (Fig. 152) were tentatively called "altars." They remind us of the "horns of consecration" associated with the cult of the "God of the Double Ax" in the

Aegean and in Egypt.[1] They occurred in the "Early Hittite" stratum, but we do not yet know whether they are characteristic for that period. Pottery spindle whorls are described in the next section.

FIG. 152.—"Horned altars." Scale, about 1:12

SPINDLE WHORLS

Once more we take the stand in defense and praise of the humble whorl. Why should the Early Anatolians change their perfectly efficient and, at the same time, attractive whorl type, which had done service for untold generations? Why does the whorl of stone disappear almost entirely? These are significant changes which seem to justify our conclusion that, after a time of indirect importation of culture features which we call "Early Hittite," the vigorous disseminators of this culture appeared in person and imposed themselves and their culture on Early Anatolia. The mushroom-shaped pottery whorl of Period III, plain or ornamented with incised and punctated patterns (as in Fig. 153), may become a clue to the original homeland of its users.[2]

FIG. 153.—Pottery spindle whorl of Period III. Actual size.

[1] On the "God of the Double Ax" see P. E. Newberry, "Two Cults of the Old Kingdom," *Annals of Archaeology and Anthropology*, I (1908), 24–29, and "An Unpublished Monument of a . . . . 'Priest of the Double Axe,' " *Annales du Service des antiquités de l'Egypte*, XXVIII (1928), 138–40.

[2] On whorls cf. also p. 84, n. 2.

METAL, STONE, AND BONE OBJECTS

Typical Stratum II copper or bronze daggers or knife blades are found in Stratum III also (cf. pp. 91 f.). As to the stone objects, there is no difference discernible between those of the Early Anatolians and those of the "Early Hittites" (cf. pp. 63 ff.). The series of bone objects from Stratum III parallels these conditions faithfully; there are no characteristic new types (cf. pp. 94 f.). Those which were found either had persisted from the Early Anatolian period or had been adopted from the contemporaneous alien settlement.

BURIALS

We found only three skeletons in Stratum III, and we must admit that they were in a layer mixed with the remains of Stratum II. No pottery accompanied these skeletons, all of which had been inhumed with contracted legs.

STRATUM IV. THE HITTITE EMPIRE

Historical records are silent concerning the Hittites from the time of Telibinush, last king of the "first Hittite empire" (about 1650 B.C.), until the beginning of the great Hittite Empire in the second half of the fifteenth century B.C.

Period IV may have begun somewhat prior to 1500 B.C., but by far the bulk of its remains must have accumulated during the fourteenth and thirteenth centuries B.C.[1] The royal city of Ḫattushash, now the site of a little Turkish village, Boghaz Köi, was then one of the great centers of the ancient world. Its Hittite kings were on equal terms with the other great rulers of their time, and Hittite arms were victorious in the countries south of the Taurus Mountains. The Alishar IV settlement was close to the heart of activities at this period. Ḫattushash was only about 185 kilometers away as the crow flies; and we may be sure that the events in the capital were faithfully paralleled, on a minor scale, in the Alishar town.

The Hittites, however, were only the ruling class. What was the race of the Alishar IV populace? Again we face a problem. The skulls found in Stratum IV seem to resemble those of Stratum I in most characteristics, showing a high, narrow face, weak sex characteristics, and a general impression of frailty. But the skull of Period IV intro-

[1] Cf. *OIP*, VI, chap. i.

duces an important variation: it tends to length. From this time down to the Turkish period the Alishar skulls are typically dolichocephalic (cf. p. 53).

The appearance of hieroglyphic writing, the building of a new fortress and the expansion of the town, new styles in pottery, and the use of iron are the distinguishing features of Period IV.

There was now life again where, a few feet below, slumbering earlier races awaited their day of judgment after their disastrous end. Children were playing about again, mothers were calling to them; town people and peasants, merchants and warriors, went about their affairs, kicking up the dust of the ever growing mound which was one day to swallow them, their houses, and their fortress, too.

Perhaps these people found some attractive things made by the long-dead aliens. Perhaps they liked to use those curious figurines as charms, just as the modern Anatolians like to use charms against all sorts of evils. From the archeologist's viewpoint such a re-using of accidental finds is a horrid habit. It becomes a pitfall to him; and it may happen that he actually falls into the trap, considering re-used objects as contemporaneous with associated finds of later origin.

HITTITE HIEROGLYPHIC WRITING

The rulers of the Empire employed Babylonian cuneiform to record the affairs of state at their court in Ḫattushash. But a new script appeared in Anatolia during this period, the enigmatic "Hittite hieroglyphic."[1] It may have originated earlier, possibly outside the borders of Asia Minor. At any rate, at Alishar it appears in Stratum IV for the first time. We have not yet found there any long rock-carved records such as those of North Syria, Malatya, and elsewhere; but two inscriptions have been discovered at Chalab Verdi, about 50 kilometers south (cf. p. 30), and one at Karga,[2] some 23 kilometers east of Alishar. In Stratum IV alone small button-shaped seals and impressions with hieroglyphic legends occurred (cf. p. 116).

[1] [See Ignace J. Gelb, *Hittite Hieroglyphs*, Part I ("Studies in Ancient Oriental Civilization," No. 2 [1931]). Another paper, recounting important progress in the decipherment of Hittite hieroglyphic by Dr. E. Forrer, was likewise read by its author at the Leyden Congress of Orientalists in September, 1931, and it too will soon be published by the Oriental Institute. The dating of the monuments has been discussed by Dr. von der Osten, "Four Sculptures from Marash," *Metropolitan Museum Studies*, II (1929/30), 112–32.—EDITOR.]

[2] *OIC*, No. 6, Fig. 160.

SETTLEMENT AND BUILDINGS

The expansion of the Empire is reflected in miniature by the growth of the Period IV settlement as compared with the "Early Hittite" site (cf. Figs. 78 and 79). Almost everywhere on the mound we found the remains of Period IV superimposed on the strata of the two preceding settlements, those of the "Early Hittites" and of the aliens. The Hittite Empire town (Fig. 154) was surmounted by a small but strong fortress, the seat of the local ruler, his court, and his guards. Outside the fortress walls the town descended in terraces, spreading down the hill, which had grown almost 3 meters higher since the coming of the "Early Hittites." Buildings arose in depressions where a smooth crust had formed over the long-forgotten homes of the Early Anatolians. On elevations along the eastern edge of the mound the desolate ruins of some buildings of Stratum II may still have protruded from the ground.

The Hittite Empire citadel was a formidable little fortress, though if transplanted to Ḫattushash it would have played only a small part in the impressive fortification system protecting the heart of the Empire. The wall (Fig. 155) inclosing the roughly oval Alishar IV citadel averages 4 meters in breadth. We have no clue whatsoever as to its height; it may have stood 8–10 meters above its base. Its powerful foundation was constructed of hundreds of thousands of stones. That many of these foundation stones had been rifled from earlier structures is indicated by their ground-off edges. The main wall section (i.e., the upper structure) was of sun-dried bricks. We were fortunate enough to find one small patch where a few courses had been preserved; a conflagration which destroyed the fortress had burned these bricks to the consistency of soft stone. The site of the fortress gateway was only suggested by the form of the defense wall and its expansion in the southern section of the citadel. The actual gate construction had disappeared. The wall itself and particularly the structures it incloses are architecturally complicated, not on account of elaborate construction, but because of various rebuildings that took place during the time of occupation.

We cleared not more than two-thirds of this important complex, and it would require a full working season to excavate it thoroughly. In many sections we uncovered the last building only. Earlier architec-

FIG. 154.—Hypothetical sketch of Alishar IV town and fortress

tural levels of Period IV are still buried below. Moreover, those structures which appear in the upper level of the stratum and are shown on the plan (Fig. 156) may not all have been inhabited simultaneously. The relations of many structures will not become clear until the citadel in its whole extent and with all its sublevels has been excavated.[1]

After we had removed the cap of the main mound in 1927, we found Roman remains as the uppermost stratum at this point. In one deep

FIG. 155.—Outside of citadel wall

and narrow shaft we sounded the lower deposits and happened to strike a storeroom of Stratum IV; but its relation to the fortress was not clear until (in 1928) all the superimposed architectural remains had been "peeled off." The storeroom (Fig. 157), one of a series of rooms situated east of a large inclosure roughly trapezoid in outline, proved to contain the largest storage pit so far uncovered on the mound. Perhaps the pit was kept filled with grain and the four huge vessels in the storeroom with water, to provide food and drink for the defenders of the citadel and for those who would seek refuge there in case of siege. In certain rooms we found well constructed and well

[1] For the northern portion of the wall see *OIP*, VI, 199–213.

preserved sun-dried brick walls strengthened originally by wooden beams and ties. Such inclosures, leaning against the inner face of the defense wall, had the character of casemates.

Some of the structures excavated in the western section of the fortress seem to be more recent than the eastern rooms; but, at points in

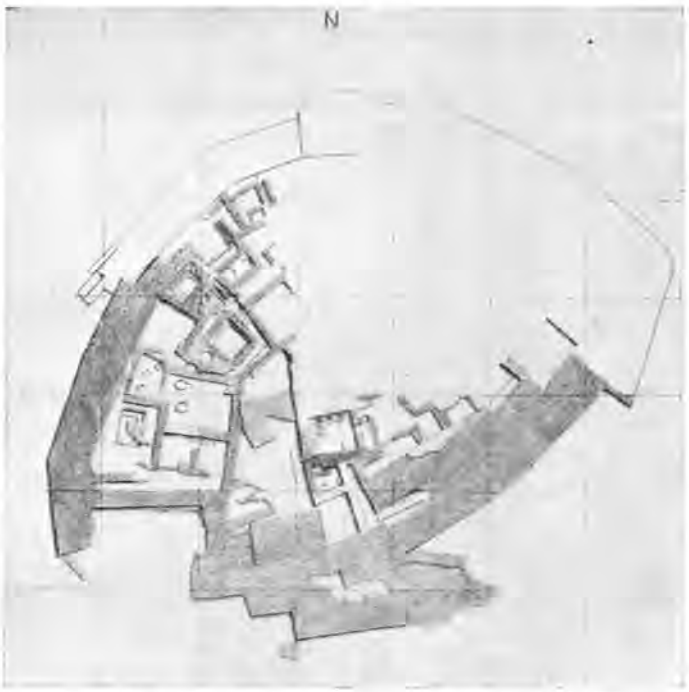

FIG. 156.—Plan of Alishar IV citadel area. Scale, 1:400

both wings where the excavations penetrated deeply enough, refuse of the "Early Hittite" period appeared at the base level of the defense wall. In the west wing too some associated rooms are recognizable; but superpositions of several sublevels complicate the situation.

Although we may reasonably assume that the citadel was the governmental center of the town and its environment, neither especially striking finds nor outstanding structural remains suggest the seat of a wealthy Hittite prince. Perhaps the unexcavated section of the fortress covers more palatial ruins, or perhaps they are present at a lower level.

POTTERY

The potters of Period IV used the wheel, which the conservative or indifferent "Early Hittites" had refused to accept. One of the main differences between Alishar III and Alishar IV ceramics is, therefore, the relative gracefulness of the later vessels as compared with the clumsiness of the earlier handmade pots. Elaboration of details, such as handles and rims, went hand in hand with the advanced technique.

FIG. 157.—Storeroom with large vessels

In addition, the decoration became more vivid. New elements, such as horned or odd-shaped animals and concentric rings (characteristic of Hittite pottery), were introduced. Curvilinear elements became frequent. Red was less frequently employed as a surface color; the other surface shades of the earlier pottery persisted along with bichrome and trichrome decoration. The most frequent forms are shown in Figure 158.[1] Such jars, large or small, are decorated mainly with pleasing geometrical designs, horned animals, and concentric rings.

The handles of some plain jars were modeled to resemble animal heads. The highly polished black vessel in Figure 159 has, in addition,

[1] Some of these vessels are reproduced in color in *OIP*, VI, Pl. I (lower figure) and Pls. II–IV.

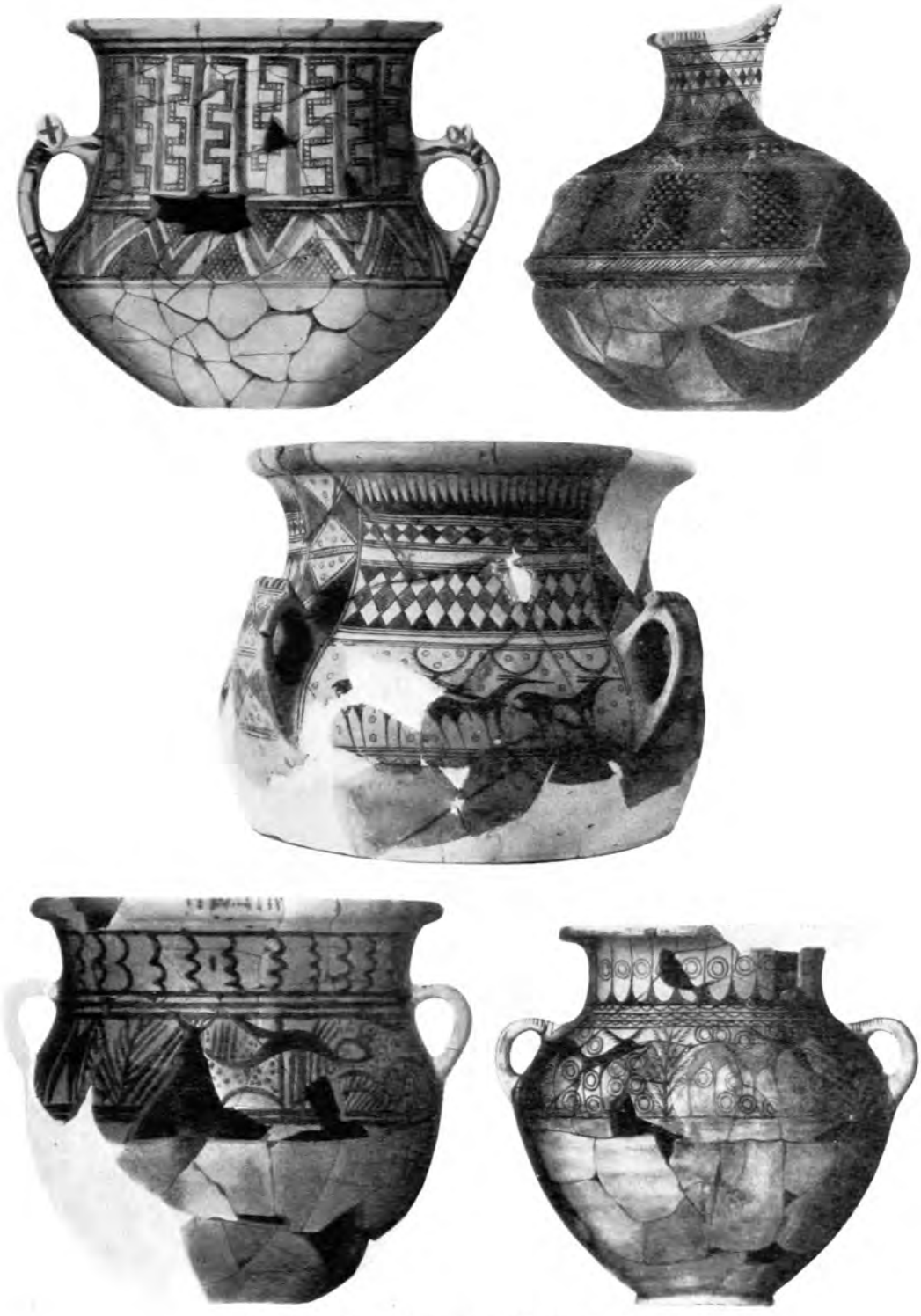

FIG. 158.—Typical jars of Alishar IV. Scale, 1:5

a fluted ornamentation. Storage vessels smaller than those found in the storeroom of the citadel were quite frequent. An interesting example is here illustrated (Fig. 160). It had been broken while in use and had been repaired by means of lead ties connecting holes at opposite sides of the fracture (cf. p. 118).

SPINDLE WHORLS

The typical Alishar IV spindle whorl seems to be a large hemisphere of pottery, though there are many pottery whorls of less characteristic form. Stone whorls are scarce.

FIG. 159.—Polished jar. Scale, 1:6

FIGURINES

Some perforations in a fragmentary quadruped painted in typical Alishar IV style suggest that it was perhaps modeled on a frame of perishable material. A fine model of a leg wearing a boot with upturned toe (Fig. 161) reminds us of the shoe figurines of Stratum II (e.g., Fig. 126); but the painted decoration of the present specimen definitely assigns it to the Hittite Empire period. There are also reground potsherds crudely imitating animal forms.

SEALS

Button-shaped stone seals bearing hieroglyphic signs (Fig. 162) are characteristic of this stratum (cf. p. 109). An Egyptian scarab, too, of a type which fits perfectly into the centuries of the Hittite Empire, was found here (Fig. 163). Such objects were used by the Egyptians as both seals and charms. If, as seems probable, this object was imported, its presence agrees with other evidences for the international intercourse of that day.

METAL

The Iron Age in Asia Minor began with the Hittite Empire. Though individual finds of wrought iron in Egypt and Crete have been at-

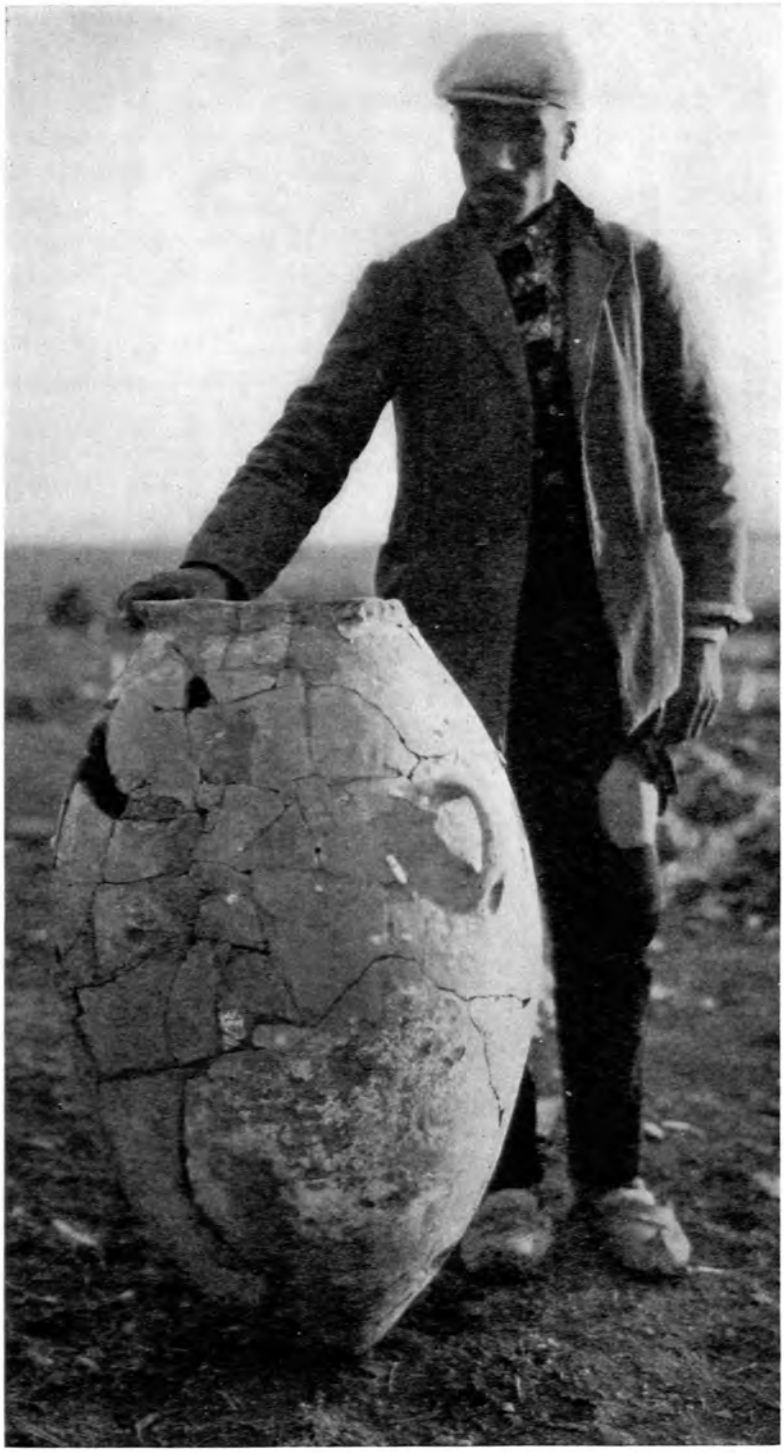

FIG. 160.—Vessel mended with lead ties

tributed by their excavators to times prior to the Hittite Empire, we know that during that period itself the Egyptians were dependent for iron on imports from the Hittite country. It is significant that the new metal was employed chiefly for making weapons—arrowheads, spear points, and blades (Fig. 164)—though it was used for other objects also. It is quite possible that the introduction of iron played a decisive rôle in the victories of the Hittite armies.

FIG. 161.—Model of a booted leg

The copper or bronze pins, spindle-shaped points, bracelets, and rings of Stratum IV are of types surviving since the Early Anatolian period. Needles, celts, and socketed points had persisted since Period II. But during the Hittite Empire period a fibula or clasp of elaborate type (Fig. 165) appears for the first time, except

FIG. 162.—"Hittite hieroglyphic" on a stone seal, with modern impression. Actual size.

for one plain specimen found in the "Early Hittite" stratum. A new weapon type is the arrowhead with socket and triangular cross-section (Fig. 166, at left).

Lead rings (of the same type as those used in Period II for money) still occur, while lead ties for repairing pots (cf. p. 116) appear for the first time in Stratum IV.

FIG. 163.—Egyptian scarab found in Stratum IV. Actual size

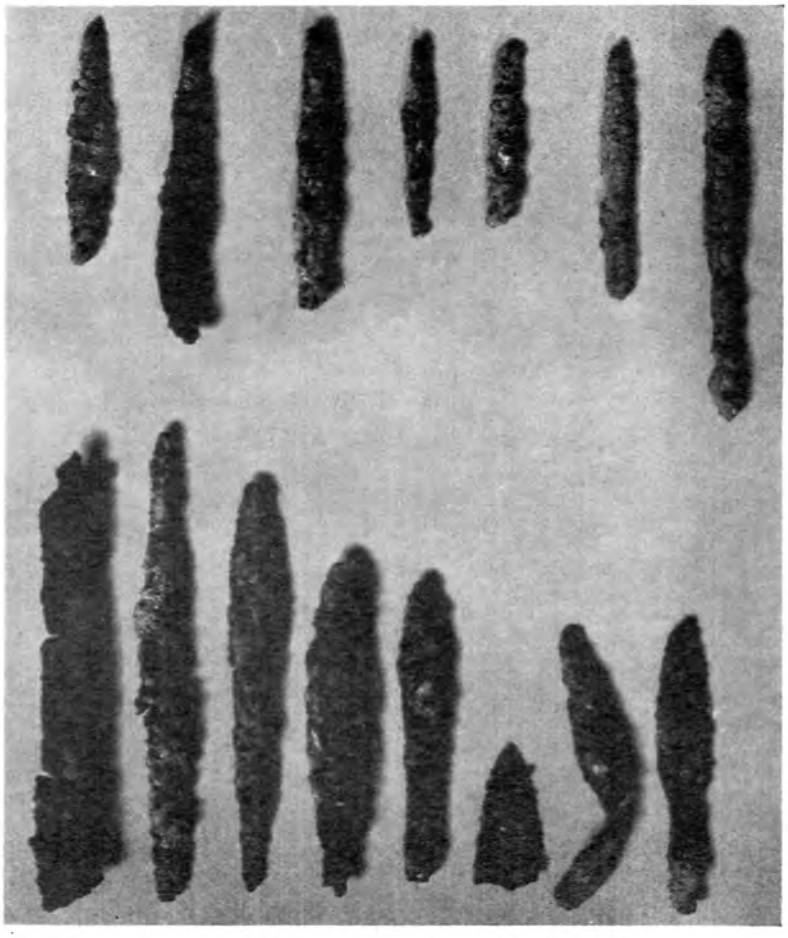

FIG. 164.—Iron spear- and arrowheads. Actual size

STONE, BONE, AND GLASS

Characteristic objects of stone or bone are too infrequent in Stratum IV to be of use as chronological guides; but the appearance of a few fayence and glass beads suggests that true glass[1] was first introduced during that period.

FIG. 165.—Copper or bronze fibulae

FIG. 166.—Copper or bronze arrow- and spearheads

THE END OF THE EMPIRE SETTLEMENT

Once more a period ends in violence. The skeletons of a woman and some children (Fig. 146) had borne grim testimony to the downfall of the alien settlers. Now we find the bones of an Empire family (Fig. 167). The skeletons, presumably of father, mother, and child, were piled up on top of one another. One arm of the man was still raised, just as he had lifted it to ward off the death blow. Then the crumbling walls of their home engulfed them, and, as before, later generations built their houses on top of the débris. It is probable that Alishar IV did not long, if at all, survive the Hittite Empire, which perished about

[1] Frit was found in Stratum II; see p. 96.

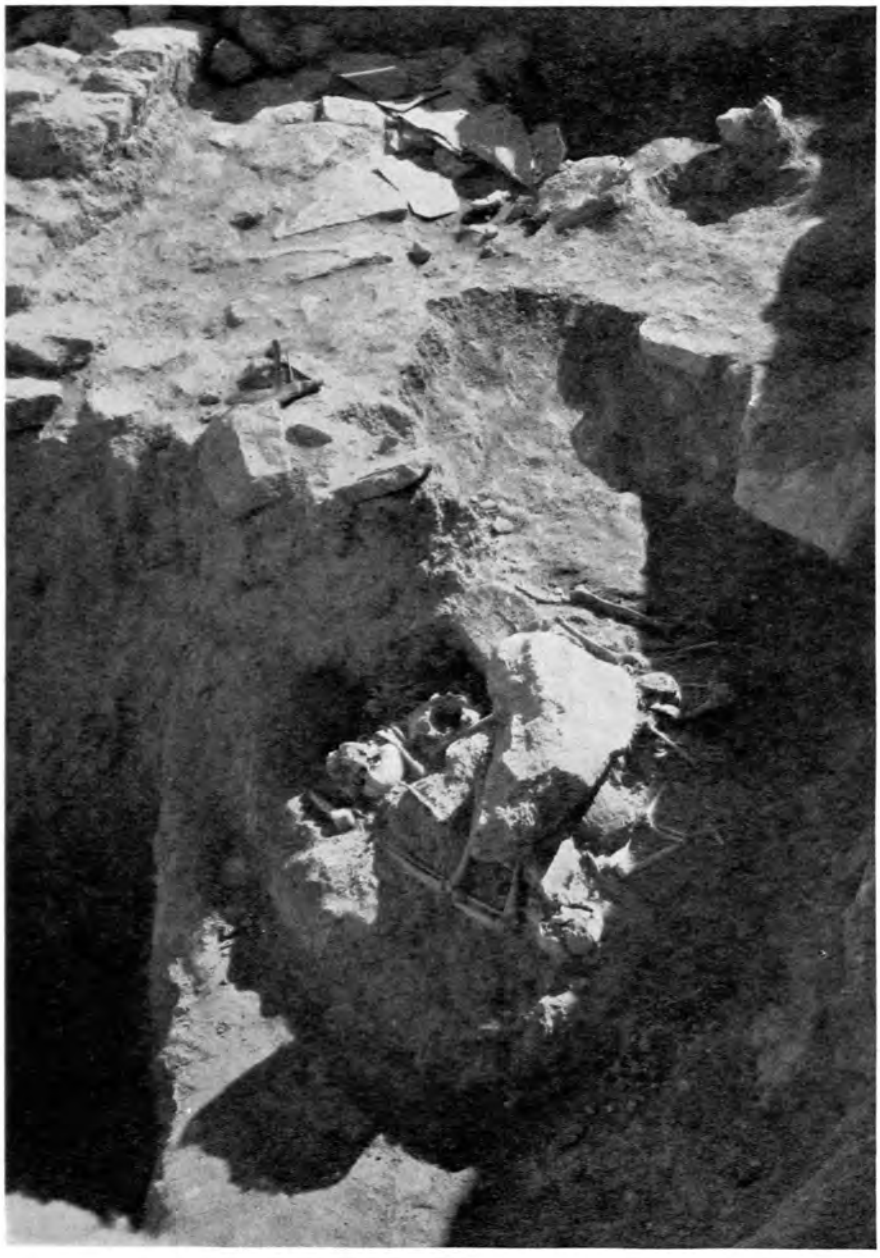

FIG. 167.—Skeletons of an Empire family

1200 B.C. The citadel succumbed to a violent conflagration, perhaps at the hands of its defenders themselves; for we found in it no traces of a battle, no skeletons, and no great number of weapon parts.

STRATUM V. POST-EMPIRE: PHRYGIAN TO MEDO-PERSIAN

In some principalities in Anatolia and in Syria, Hittite culture survived the downfall of the Empire; but the Alishar settlement had suffered too severely to recover from the disaster. Only a desolate mass of ruins was left. In our imagination we can picture the scene after the ravaging conquerors had departed. The deadly silence in the devastated town was broken only by the hoarse shrieking of large Anatolian vultures feasting on man and beast alike. Slowly the walls and roofs that had withstood the conflagration crumbled. The mound closed over Stratum IV. Only a few returning refugees may possibly have perpetuated certain features of their old culture.

Certain similarities between post-Empire objects and Phrygian remains suggest that the influence of the Phrygian empire (which lasted from the eleventh century until about 700 B.C.) extended as far as Alishar. Legend ascribes the founding of the present Turkish capital, Ankara, to Midas, the last Phrygian king. When Midas' kingdom was destroyed by the Cimmerians, doubtless the Alishar site, poor though it was, suffered also. In addition to traces of the Cimmerians and related tribes, we may expect to find Assyrian and Lydian influences in Stratum V. The invasion of the Scythians may have affected the country much as did that of the Cimmerians.

SETTLEMENTS AND BUILDINGS

During the centuries following the Empire's fall, the site may at times not have been inhabited at all. But finally a settlement rose again upon the remains of Alishar IV. Some of the last Hittite structures within the fortress were by that time buried under a stratum of detritus more than 2 meters thick (Fig. 168). To be sure, the bulk of this layer consisted of fallen walls and roofs; but it may be that a thin mound crust also had formed on top of the ruins before the first actual settlement of Alishar V was begun. Its ruins (Fig. 169) give one the impression of an unimportant village perched anxiously on top of the main mound. There were no fortifications to protect it from hostile attacks, but its dominating position gave it some security.

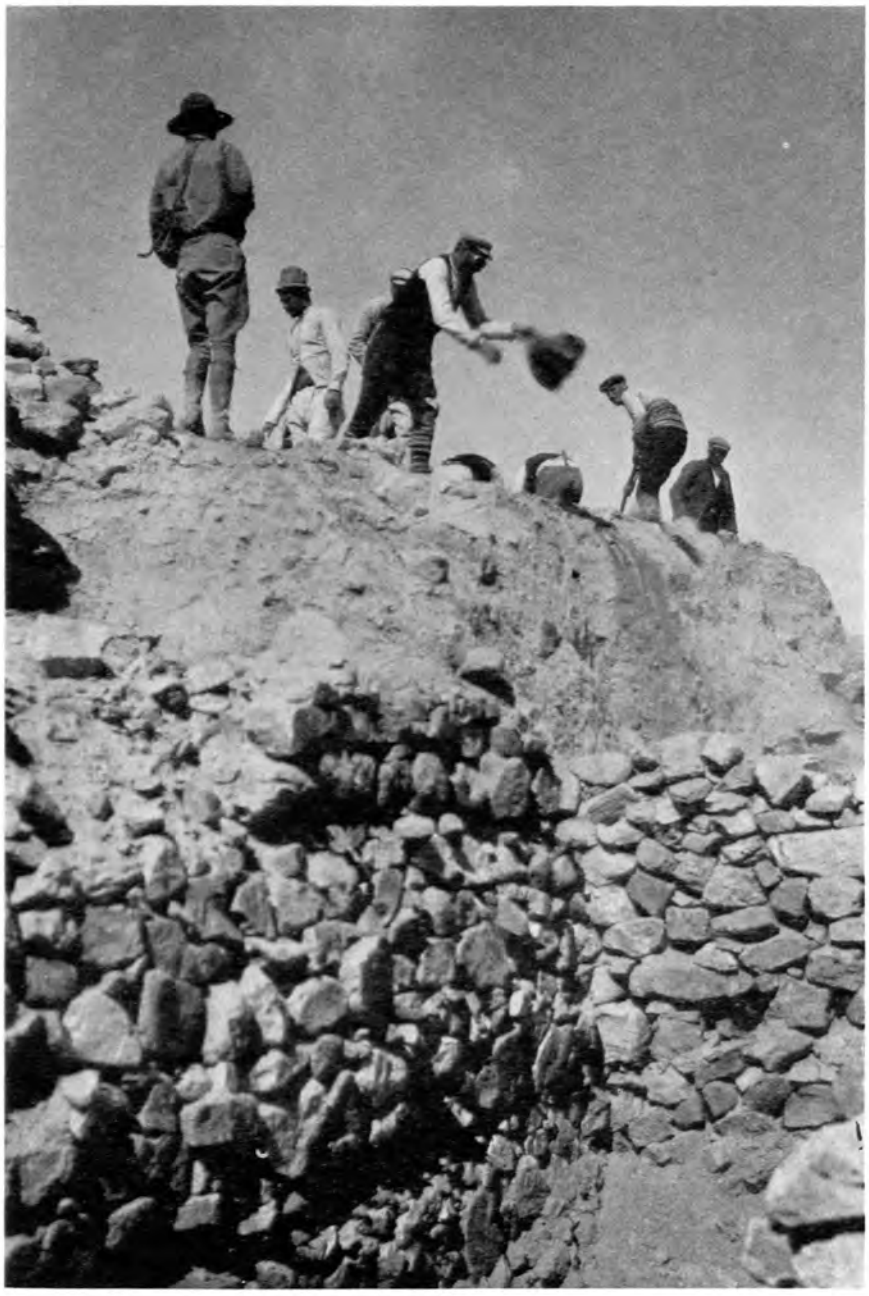

FIG. 168.—Work in Stratum V above the Hittite Empire fortress

Similar small villages and scattered buildings seem to have occupied the site down to the Median period. Under Median and Persian rule, however (i.e., between the sixth and the fourth centuries B.C.), a fortified governmental center again existed (Fig. 170). To this phase we ascribe the bulk of the Period V remains. Even so, the town was probably smaller than the Hittite Empire settlement (cf. Figs. 79 and 80).

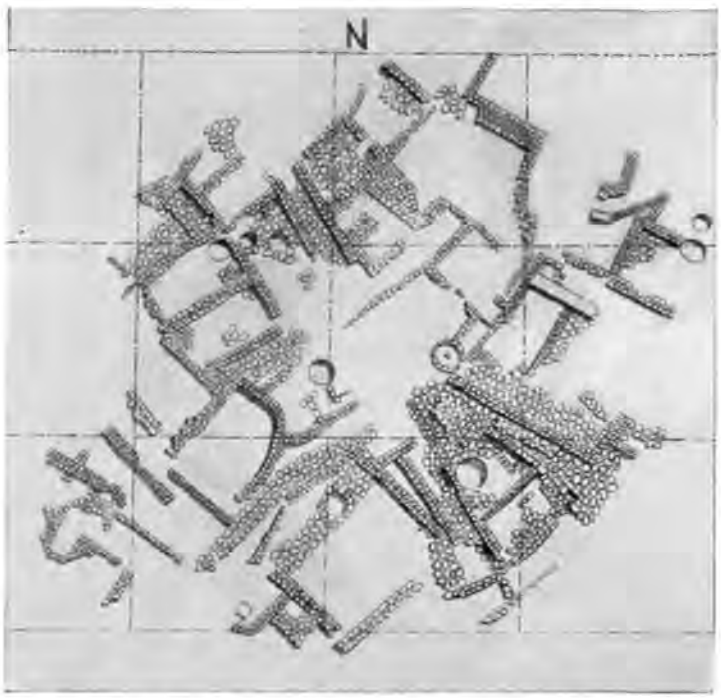

FIG. 169.—Plan of Period V village on Mound A. Scale, 1:400

After a long period of stagnation, the Alishar site had again become the focal point of its district. But it was now a border town rather than the seat of a prince close to the political center. Not a Hittite prince, but a Median or (later) a Persian noble was ruling the fertile area round about a stronghold (Fig. 171) which rose above the ruins of the earlier village on top of the main mound. Narrow fortlike constructions girdled the mound top; even more important was the strong wall which descended from the highest elevation of the site to its

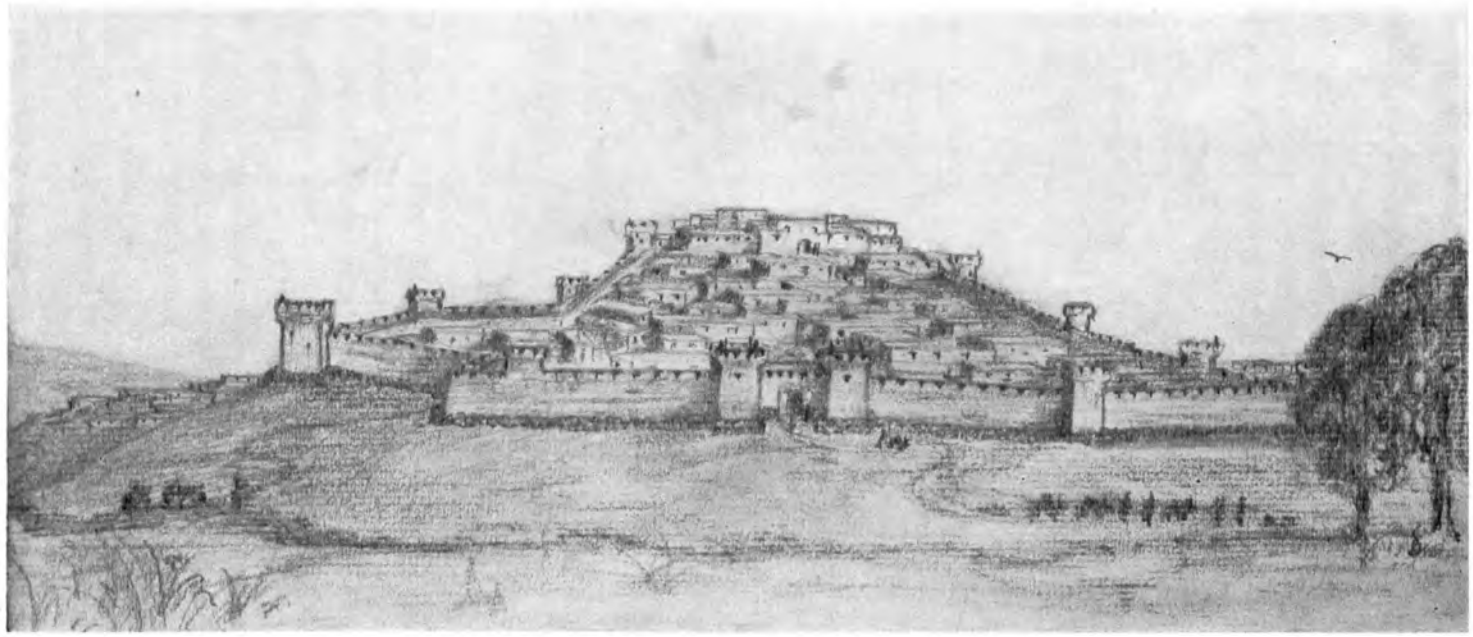

FIG. 170.—Hypothetical sketch of the Period V fortress

northwestern spurs and followed their periphery. The frontier lay to the west, and westward pointed the fortress of Alishar V.

We struck the southern section of this fortification on Mound B in 1927 (cf. Figs. 71 and 73). Its time-relations, however, were not clear until 1929, when our excavations were carried to its base. Then the

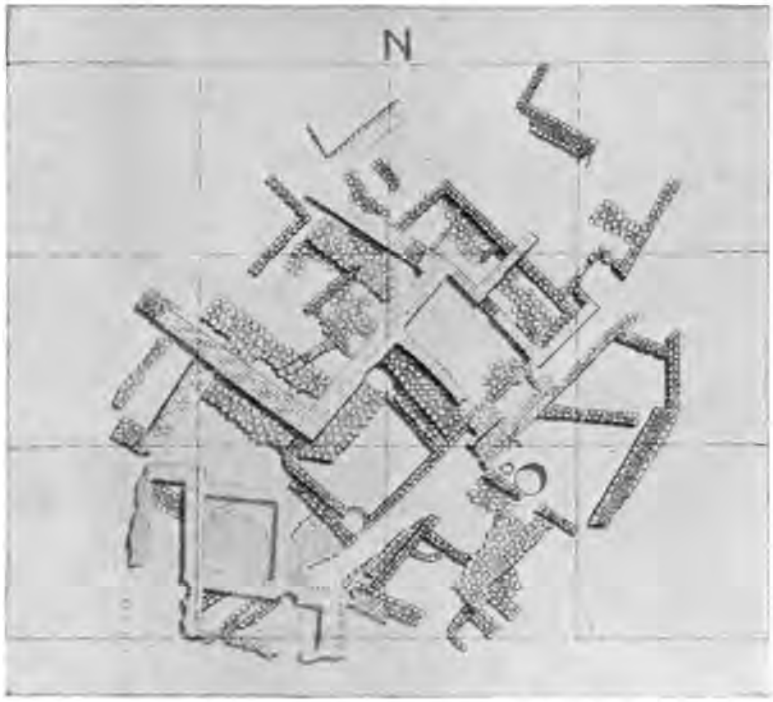

FIG. 171.—Plan of Period V town: the section on Mound A. Scale, 1:400

material which was associated with the bottom layer could be identified. Successive occupations of the fortress had filled the entire interior with building remains of Alishar V, and ruins of Hellenistic and Roman times were above them. The labyrinth of ruins shown in Figure 172 illustrates the complex situation.

The strongest part of the fortress was finally uncovered on Mound D (cf. Fig. 71). A faintly marked strip of sparse growth, descending from the main mound and following the sharp edge of Mound D (Fig. 173), indicated the course of the well preserved northern wall (Figs. 174 and

175). A test square exposed its top 1 meter below the surface; its base was about 5 meters deeper (Fig. 176). This interesting structure slanted inward at the top, and its outer face sloped correspondingly. The base was protected on the outside by a secondary wall of stone. A strong tower defended the northernmost point of the wall. It seems certain that from this point the wall extended toward the southwest

FIG. 172.—Section of fortress on Mound B, with later structures also

and connected with the fortification on Mound B; but time and weather have obliterated the larger part of that section.[1]

Though there were a few important buildings of the Alishar V town on Mound A, the well constructed remains of at least three architectural levels of this period filled the interior of the fortress on the western projections. This fact was best demonstrated in two test plots on Mound C, where parts of important buildings were uncovered. In many cases superimposed structures of the three main levels rested on top of earlier walls. The houses of all phases were oriented alike.

[1] For a more detailed description of this fortification, written by Dr. von der Osten at the end of the season of 1927, see *OIP*, VI, 195–213.

FIG. 173.—Surface of Mound D

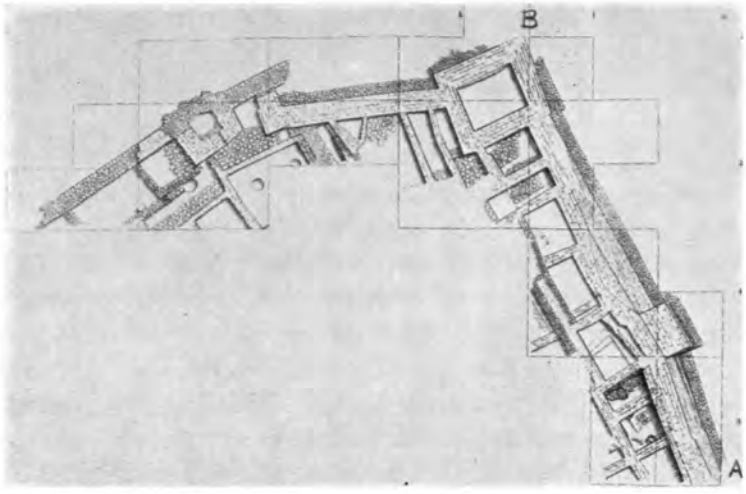

FIG. 174.—Plan of fortress on Mound D. The letters *A* and *B* correspond to those in the following figure. Scale, 1:600.

In the northeast part of the terrace we came upon part of a town wall (cf. Fig. 80) that once protected the Alishar V settlement outside the fortress. The fortification at that spot consisted of two walls, their

FIG. 175.—Reconstruction of wall on Mound D. Scale, 1:600

FIG. 176.—Excavated wall on Mound D

foundations built of boulders. The original superstructure of sun-dried bricks had been washed down. Apertures connected by a narrow pavement formed a postern gateway.[1] The uneven and complex growth of the mound is illustrated by the fact that below the base of

[1] For more details see *OIP*, VI, 182–89.

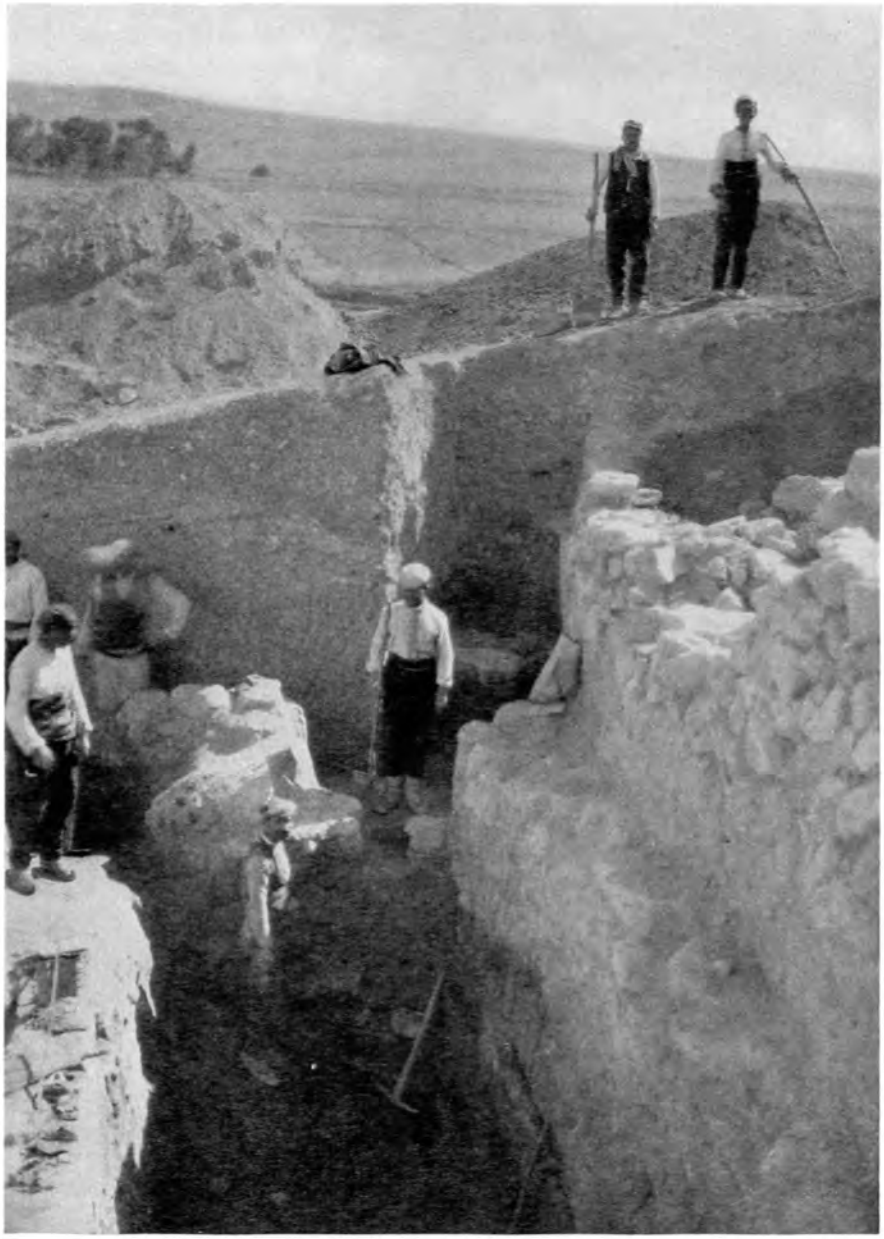

FIG. 177.—Period V town wall superimposed on structures perhaps of Period II. The lowest workman is standing beside a Period II bowl.

this presumably Medo-Persian town wall we uncovered a sun-dried brick wall perhaps as old as Period II (Fig. 177).

Both village and town of Period V were built of sun-dried bricks on stone foundations, like the houses of both the Early Anatolians and the modern villagers. Probably the roofs were flat. Many buildings of upper Stratum V show strong foundations and well faced, well preserved walls in contrast to poor walls of the village buried under-

FIG. 178.—Door sockets

neath. Well set stone pavements of large slabs cover the floors of some rooms. Large door sockets of stone (Fig. 178) with deeply worn holes tell of the weight of heavy gates that turned upon them. The windows and doorways of Alishar V dwellings were identified by dark refuse filling the former openings in the walls. Hearths were simple fireplaces or fire pots of crude ware. There was also an unusual circular hearth (Fig. 179) in the earliest Period V village.

POTTERY

The beautiful and unique vessel shown in Figure 180[1] was found in the upper layer of the fortress on Mound B, and a jar fragment with

[1] Reproduced in colors in *OIP*, VI, front.

another bird pattern turned up in the top refuse of this stratum on Mound A. Such bird designs seem to be relatively late. Other somewhat rare designs are those of winged animals with human heads (e.g., Fig. 181). The simple brown-red band decoration of the vessel in Figure 182 is more frequent and typical for Period V. The jar illustrated in Figure 183 also shows simple coloring. Period V had great numbers of unpainted household vessels, however; in fact, painted

FIG. 179.—Fireplace in the Period V village

potsherds are much less common in Stratum V than in the two preceding strata. An exquisite bowl decorated with conventionalized quadrupeds (Fig. 184) may be an imported specimen.

The vessel in Figure 180 shows beauty of form as well as of painted design, whereas the jar in Figure 183, found in one of the later rooms of the fortress on Mound D, is more notable for beautiful modeling than for its color. There were a few vessel handles shaped as animal heads. Figure 185 shows one of these, attached to a fragment of a painted vessel. A trough with relief ornamentation (Fig. 186) was sunk into the lowest floor of the fortress, directly beneath its overhanging wall. Plain bowls, small jars, small pitchers of pleasing form (e.g., Fig. 187),

FIG. 180.—Pottery jar with bird pattern. Scale, about 1:12

FIG. 181.—Painted pottery fragment. Scale, about 2:5

FIG. 182.—Typical Period V pottery design. Scale, 1:8.

FIG. 183.—Elaborate jar. Scale, 1:12

FIG. 184.—Unusual bowl (restored). Scale, 1:4.

FIG. 185.—Handle of vessel. Scale, 2:5

a little duck-shaped vessel, and odd jars with perforated bottoms (Fig. 188) were frequently found near the fireplaces, in corners, or

FIG. 186.—Trough. Scale, 1:12

along the walls of the rooms. Graceful little bottles (Fig. 189) began to appear during Period V. Two pitchers (Fig. 190) show that these people, like the Empire Hittites (cf. pp. 116 and 118), were loath to throw away a cracked vessel. Both made repairs in the same way, by means of lead ties connecting holes bored at either side of the fracture.

FIG. 187.—Small pitcher. Scale, about 1:2

Lamps or incense burners of definite shape occurred for the first time in Stratum V (Fig. 191). Most of them are crude, but blackened spots suggest their purpose. Pottery loom weights, which had been oval in form during all the preceding periods, now became roughly pyramidal, with trapezoid faces. Pottery spindle whorls and a pottery amulet are described below.

SPINDLE WHORLS

The whorls of Stratum V again become important "guide fossils." The incised whorl of Period I had been replaced by the "mushroom"

FIG. 188.—Jars with perforated bottoms. Scale, about 1:3

FIG. 189.—Small pottery bottles. Scale, 2:5.

whorl of Period III, and the latter had given way to a large hemisphere during Period IV. Now appear two new types: a plain or incised conical stone whorl with flattened top (Fig. 192) and a plain biconical pottery whorl, often highly polished (Fig. 193). It would be well worth while to plot the distribution of these humble household utensils over the Near East and so determine their original centers of diffusion. The results might be surprising.

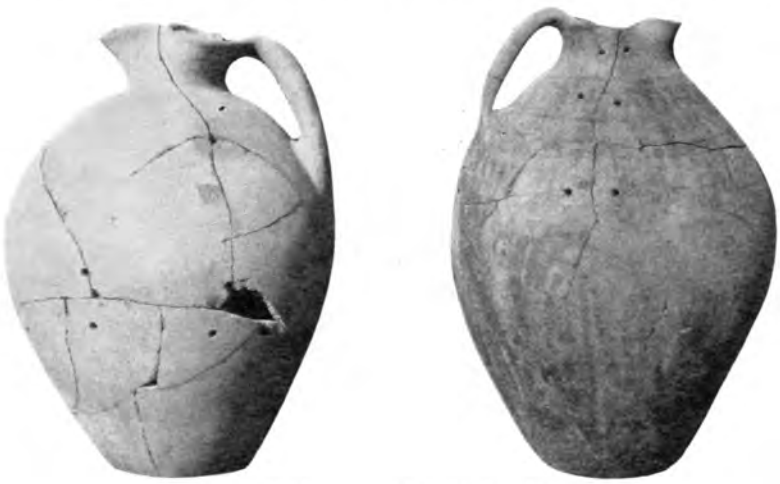

FIG. 190.—Pitchers, mended. Scale, about 2:13

FIG. 191.—Pottery lamp or incense-burner. Scale, about 1:3.

FIG. 192.—Stone spindle whorls

FIG. 193.—Pottery spindle whorls.

FIGURINES

There was a delightful little bronze or copper figurine of a dog. The thick oxide had made it a droll long-haired pup, but a thorough cleaning proved it to be quite short-haired and skinny (Fig. 194). Its ribs show plainly, and it wears a neatly modeled necklace. The animal represents neither the present Anatolian shepherd dog nor the Anatolian greyhound.

FIG. 194.—Bronze or copper dog. Scale, 4:5

FIG. 195.—Bird figure and Egyptian eye amulet. Actual size.

FIG. 196.—Bronze or copper arrowheads. Scale, 1:2

A small bird carved in bone and an Egyptian sacred eye amulet of pottery (Fig. 195) are other interesting objects which occurred in this stratum.

METAL

Though bronze or copper arrowheads of Period IV type with triangular cross-section (cf. Fig. 166) continued in use, a type with lance-

olate blade and a barb (Fig. 196) first appears in the Period V town. Elaborate fibulae like those of Period IV also occur (Fig. 197). A

FIG. 197.—Bronze or copper fibulae. Scale, 1:2

figurine was described on page 138. Of iron objects, weapon points undergo little modification, though a new ax shape appears (Fig. 198). A thin oval piece of gold in the top refuse of the stratum may have served as an ornament.

FIG. 198.—Model or ceremonial iron ax blade of new type. Actual size.

STONE, BONE, AND GLASS

Stone mills of an entirely new and elaborate type occurred frequently. These mills consisted of two parts. The lower stone was identical with the hand mills (cf. Fig. 97) which had persisted for several millennia; but the upper stone (Fig. 199) was hollowed out to receive the grain, which trickled through a perforation in the bottom to be ground between the two stones. Depressions at the rim accommodated a handle to turn the mill. Like other newly appearing features, this type of mill should be traced to its center of diffusion.

As to other stone objects, only a stone die is of particular interest. It is curious because its numbers run from 2 to 7 instead of 1 to 6.[1]

[1] The heavy door sockets in use have been mentioned on p. 131. Stone spindle whorls were described on p. 136.

Most types of bone objects occurring in this stratum had persisted from earlier periods. A small bone bird was mentioned on page 138. A fan-shaped object accompanied the skeleton of a woman found in the fortress on Mound D.

FIG. 199.—Hand mill

Glass beads were evidently favorite ornaments of the Alishar V people. There were some ring-shaped beads with eye dots; but apparently the most characteristic beads were barrel-shaped, with white dragged patterns in a blue matrix (Fig. 200).

FIG. 200.—Glass beads. Actual size

BURIALS

Only a few burials occurred in the excavated parts of Stratum V. The practice of burying in urns had stopped long before; the bodies, with contracted or extended legs, were laid directly in the earth. Since few objects accompanied them, only the find-conditions identified the burials which we assign to this period.

THE END OF PERIOD V

We are certain that the Alishar site experienced disastrous events during Period V. During its hundreds of years, devastating hordes which swept across the country must have left traces of their unwelcome visits. But so far our excavations have not revealed any traces of a dramatic close, by massacre or conflagration, in any occupational level of this period. Of course, the dire effects of foreign invasions may be preserved in untouched parts of the site. We are certain that they are marked at other settlements of this period.

Historically, the conquest of Asia Minor by Alexander the Great (336–323 B.C.) marked the end of Period V in Anatolia. Archeologically, however, this culture period lasted longer. Its end came gradually with the infiltration of Hellenism into the central highland of Anatolia. Alishar V faded into Alishar VI.

STRATUM VI. HELLENISTIC, ROMAN, AND BYZANTINE

Though we found a coin of one of Alexander's direct successors, Philip Arrhidaeus (323–316 B.C.), on top of the Alishar V fortress débris, we are not yet able to separate sharply the Hellenistic remains from the latest deposits of Stratum V. The Alishar district was for a time under the rule of the Diadochi; then it became part of the relatively independent kingdom of Cappadocia. In the third century B.C. the Galatians became presumably unwelcome neighbors. The climax of Hellenization fell perhaps in the second century B.C., while at the same time Roman influence was growing.

The formation of the Roman province of Cappadocia in A.D. 17 marks politically the beginning of the Roman period at the Alishar site. During the succeeding centuries invasions of Parthians, Sassanians, or Huns may have left their traces in the district; but we have not yet been able to identify any features attributable to these peoples.

We call Byzantine the culture period from Justinian (sixth century) to the battle of Manzikert (A.D. 1071), when the Seljuks were decisively victorious. During this time, too, culture features may have been imported by Persian and Arab invasions.

SETTLEMENTS AND BUILDINGS

Structures of the Hellenistic phase appear to be directly superimposed on those of Period V. Most of the Period VI buildings appear to

belong to the Roman phase. We found no traces of fortifications, though the town must have been extensive (cf. Fig. 81). During one or another phase of the Roman period buildings existed all over the mound, but during Byzantine times the outskirts of the mound were apparently preferred. A Roman guardhouse stood on top of Mound A, the highest elevation. It was the last structure on this impressive mound (Fig. 201), which now rose some 32 meters above the surrounding plain. Over the ruins of this Roman lookout nature had then formed a crust, so that when we started our excavations Mound A was only an imposing cone of earth with cattle browsing on its flattened apex.

FIG. 201.—Man standing on the level of the Roman guardhouse. A Period V structure is in the foreground.

The walls of the Roman guardhouse were built with mortar, and patches of slab pavement were associated with them. As a rule, the structures of Period VI were better built than those of earlier times. Well set and straight-faced foundations (Fig. 202) were frequent, and were dated by the typical "fine wares" of the period. Deep storage pits extended from this stratum into the earlier deposits, but such archeological pitfalls were easily identified with the aid of the characteristic pottery. In addition to the well constructed buildings of this period, we found rather badly built walls which in no respect excelled earlier remains. Such characterless architecture was uncovered, for instance, in a test plot at the foot of Mound A, where the buildings were dated by coins of Alexander Severus (A.D. 225–35). Late houses, perhaps Byzantine, were uncovered in the northeastern portion of the mound. Here we found two bathlike structures suggesting baptistries.[1]

[1] On one of these see *OIP*, VI, 176–78.

A ROMAN TREASURE

In archeological parlance each hoard or cache containing directly associated objects is a "treasure" because it proves their contempora-

FIG. 202.—A Roman wall below Seljuk(?) and Osmanli(?) foundations

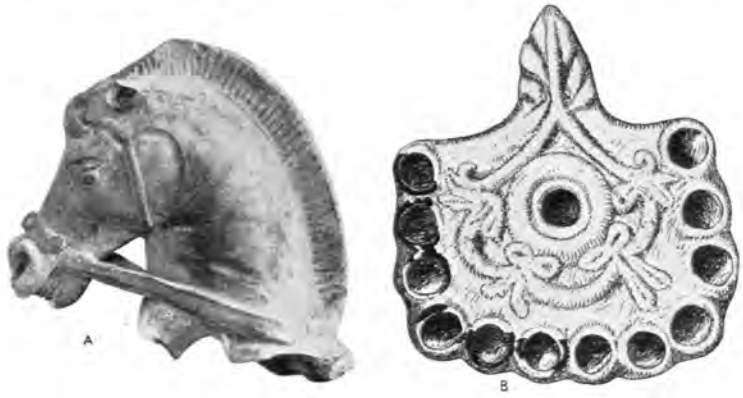

FIG. 203.—Pottery objects found in a Roman hoard. Scale, about 2:5

neous use. It is not at all necessary that such a treasure contain objects of precious metals or stones. One hoard found by us had been buried sometime during the Roman period in the top refuse of Stratum

II. It contained a few bronze coins which will date the find accurately when examined by an expert numismatist. But the most striking object was a horse's head splendidly modeled in pottery covered with a red wash (Fig. 203, *A*). Close by were an elaborate pottery lamp (Fig. 203, *B*) and an alabastron (Fig. 204, *E*). A string of beads had in part preserved its original order, but many individual glass, fayence, stone, and shell beads (Fig. 204, *A* and *B*) were scattered about. A frit button or stamp seal (Fig. 204, *C*), a pottery whorl (Fig. 204, *D*) of modified Period V form (cf. the stone whorl of Period V, Fig. 192), and several bronze or copper and iron objects were also in the group.

FIG. 204.—Other objects found in the Roman hoard. Scale, 6:11

POTTERY

Two odd-shaped vessels[1] may belong to the Hellenistic period, to judge from their position above Stratum V. However, the typical wares of Stratum VI are Roman bowls of *terra sigillata* (Fig. 205) and of Aretine type, with pleasing molded designs on the exterior (Fig. 206).[2] These varieties constitute technically the most advanced pottery of all that we have found at Alishar. The metallic tinkling of the potsherds as they are gathered is enough to tell the bystander that a Roman layer is being excavated. Most specimens of these fine wares are red, but brown and gray shades also are frequent. A simple lamp

[1] Shown in *OIP*, VI, Figs. 222 and 223.

[2] See also *OIP*, VI, Figs. 216 and 217.

FIG. 205.—*Terra sigillata* bowl. Scale, 2:5

FIG. 206.—Bowl of Aretine type. Scale, 2:5

FIG. 207.—Late Roman lamp. Scale, about 2:3

(Fig. 207; cf. the compound one found with the hoard) may be a late Roman product.

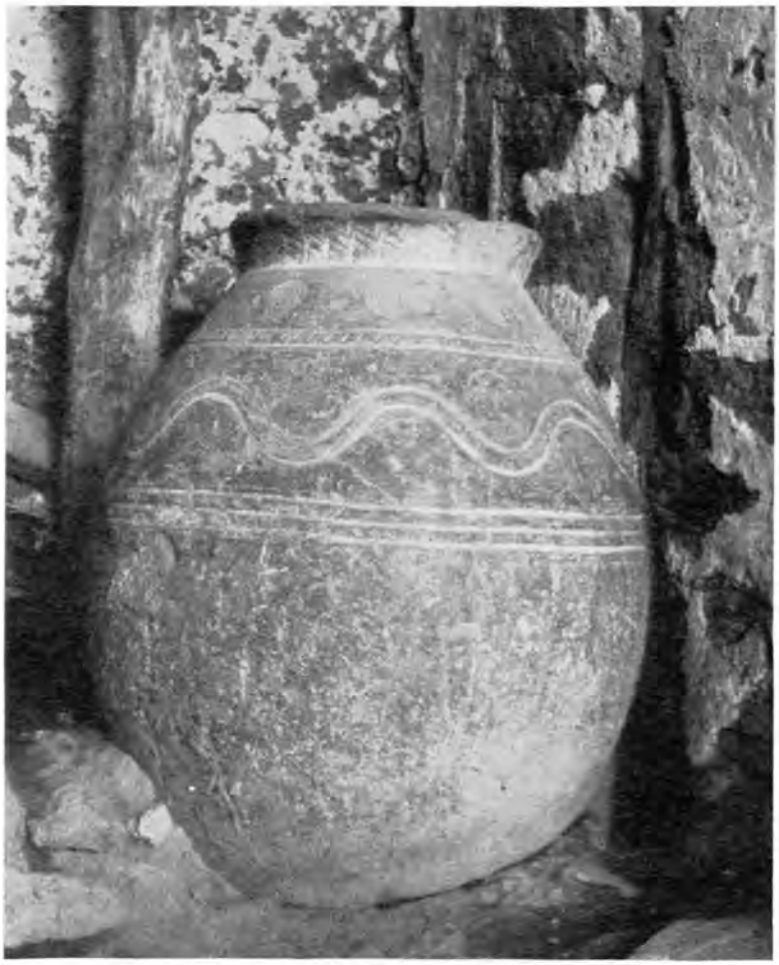

FIG. 208.—Byzantine storage jar still in use

As to Byzantine pottery, only a few sherds with greenish glaze occurred on the mound. However, huge, thick-walled vessels of that period (e.g., Fig. 208) may be seen here and there in the modern Turkish villages, where they still fulfil their original function as storage pots.

A ROMAN FIGURE

A coin of Alexander Severus (A.D. 225–35) dates the interesting bronze or copper object (Fig. 209) near which it was found. A bird of prey sits upon the head of a deer, which in turn is supported by a pedestal with hollow base. Perhaps the whole formed the tip of a staff or standard.

FIG. 209.—Bronze or copper tip of a staff? Scale, 2:3

THE DECLINE

The provincial Roman town, the last settlement of any importance on the Alishar mound, lacked important buildings or other outstanding remains such as we usually associate with the term "classical ruins." After it too had passed from the scene, only farms or villages occupied the site.

STRATUM VII. SELJUK AND OSMANLI

The Seljuks, a Turanian tribe, came from Turkestan via Persia. Alp Arslan led them into Asia Minor, defeated the Byzantine emperor Romanus in the battle of Manzikert (A.D. 1071), and devas-

tated the country. So ended Byzantine culture in Central Anatolia. The Seljuk sultans ruled the country first from Nicaea and later from Konya. They Mohammedanized Asia Minor. Then in 1244 the Mongol hordes of Jenghis Khan came and crushed the Seljuk power.

The Osmanli Turks, under their leader Ertughrul, first appeared in Asia Minor in the thirteenth century. From a small band of warriors with their families, they expanded to become a world power. The Turkish conquest of the West began under Osman, the founder of the dynasty; it was crowned by the fall of Constantinople in 1453. At the beginning of the fifteenth century new Mongol hordes swept into Asia Minor, this time under Tamerlane. Turkish rule recovered from the onslaught, and the Osmanli empire expanded farther into Asia, Africa, and Europe. But after the rule of Soliman I, the Magnificent (1520–66), the empire stagnated and finally declined; its collapse and the end of the Osmanli dynasty have occurred in our own generation. Gazi Mustafa Kemal Paşa with his loyal followers has saved Anatolia; before our own eyes the Gazi's revolutionary changes mark the beginning of a new culture period in Asia Minor.

TURKISH SKULLS COMPARED WITH THOSE OF THEIR PREDECESSORS

We do not doubt that in certain parts of Anatolia the skull types of early periods persist; but at the Alishar site, according to Dr. Krogman,[1] the Turkish skulls are different from any type that preceded them. They are high and extremely broad, and the faces are short and broad. This Turkish skull type displaced the long skull which had apparently persisted since the Hittite Empire (Period IV).[2]

SELJUK REMAINS

Almost the only evidences of Seljuk occupation at Alishar were coins of the twelfth and thirteenth centuries. There were also a few potsherds of the Rakka type, glazed bluish green and covered with an iridescent film. Some foundations also, excavated during the first working season, may belong to this phase of the mound's life.

OSMANLI REMAINS

Other weakly built structures belong to the Osmanli period. Foundations of upright slabs and small stones inclosed rooms containing characteristic semicircular fireplaces. Had we not found some tobacco

[1] See p. 53. [2] Cf. pp. 53, 69, 101, and 108 f.

pipe heads, we should have been doubtful about the origin of such walls; but, since tobacco was introduced into Asia Minor in the seventeenth century, these structures cannot antedate that time. In one room of this period we found a fragmentary Byzantine tombstone re-used as a wall slab (Fig. 210).[1] Baking ovens occurred which, according to our laborers, had been introduced by the Armenians. An Armenian village, Manzor Oghlu, west of the mound, has been de-

FIG. 210.—Byzantine tombstone re-used in building an Osmanli wall

serted within the last generation. Our Turkish laborers explained that living conditions had become "too unhealthy" for its occupants. The buildings of this latest mound phase had fallen into ruins too long ago to be remembered by the near-by villagers.

In addition to the pipe heads of pottery we found glass beads and bracelets, some iron objects, and potsherds which looked rather recent. The vessel illustrated in Figure 211 has a coat of green glaze with yellow and black decoration. We found it at the bottom of an extremely deep storage pit, where it was hobnobbing with objects of Stratum II some thirty-five hundred years older!

[1] For further description of this building, see *OIP*, VI, 158–61.

FIG. 211.—A glazed Turkish vessel

FIG. 212.—A burial protected by stone slabs

MOSLEM BURIALS

Skeletons which we uncovered in a test square were presumably the remains of Turks who had inhabited the Osmanli buildings. There were no surface traces of graves. The headstones had disappeared, but the method of disposal was that still employed by the modern villagers. They dig a trench and scoop out a lateral extension in which the body is laid. Rows of inclined stone slabs (Fig. 212) protect the body from the earth when the grave is filled. Such rows of slabs covered many of the skeletons which we found. The bodies had been oriented in a general east-west direction. Nearly all the skeletons lay at full length, most of them on the right side. Child mortality appears to have been high.

VI

RETROSPECT

The earth had closed over the buildings of Stratum VII long before the picks of our laborers scarred the smooth surface of the impressive hill. The fortress mound, more than a hundred feet high, guarded the dead towns and the graves of their former occupants. About fifty-five centuries of human history—and prehistory—were expressed here in terms of crumbled stone and brick walls, pots, tools, ornaments, and other remains of the daily life of long-forgotten peoples whose very bones had united with the ever growing mound. An epic story is emerging from this awe-inspiring human ant hill; but we must sadly admit that, though we feel its spirit, we can decipher only fragments of the epos.

The uniformity of the remains in the extraordinarily thick Early Anatolian Stratum I suggests inertia on the part of the Early Anatolians. Their Stone Age implements tell of an earlier culture out of which their copper and bronze culture developed. Their red pottery of simple forms is the guide fossil of the stratum. The pathetic little fertility idols give a hint as to their religion. Their figurines and their whorls show how prominent a part the sheep played in the life of these people. Their treatment of the dead implies fear of those who had gone to the Unknown.

What a contrast to the truly enlightened aliens of Stratum II. These seem to have had the background of an advanced civilization which they transplanted into their new homes and preserved there. The cuneiform tablets of this period mark the beginning of recorded history in Asia Minor. Whether we look at the little lead goddess of fertility, at the animal figurines, at the advanced technique of the pottery vessels, at the splendidly carved seals, or at the loving treatment of the dead, we feel the spirit of these extraordinary people.

The "Early Hittite" period marks the beginning of the painted pottery age in Asia Minor, which lasted for some two thousand years. Enough has been said about the value of pottery and pottery decoration. The pottery designs, together with the characteristic spindle

whorls of the period, may some time guide us to the homeland of the "Early Hittites." Let us emphasize once more the fact that the little whorls of Periods I and III occurring in Stratum II were our main clues for establishing the time-relations of these three periods.

The great Hittite Empire accumulated Stratum IV at the Alishar site. How do we know? Walk over the impressive ruins of the Hittite capital, Ḫattushash, and you will find bits of wheelmade pottery decorated with designs of Alishar IV type. The cuneiform royal records found there, still in process of translation, are bringing forth a wealth of information. At Alishar, however, the only writing we found in this stratum during 1927–29 was on a few seals and sealings which bore legends in so-called "Hittite hieroglyphic" characters. The Anatolians had at last found a script; but it is still a question whether they had invented or borrowed it. Corroded iron objects are not very spectacular, but the fact that they first appeared in Stratum IV is immensely important. It is just as significant that most of them are parts of weapons—the weapons that brought victory to the Hittite armies. But *sic transit gloria mundi.* The fire-blackened walls of the Hittite fortress and a group of skeletons tell the tragic story of the last days of an empire and the end of another culture period.

If the site had recovered quickly from the disaster of 1200 B.C., industrious hands would have cleared away the débris, walls would have risen on the solid house foundations, the defense wall would have been rebuilt. Nothing like that happened. A few miserable survivors may have found refuge in the chaos of the ruins, but the walls and roofs were left to crumble. They had formed a layer more than 2 meters thick before new occupants of the main mound began to accumulate Stratum V. A village first, then a town with powerful fortifications, rose above the dead Hittite stronghold. We need to know more about the archeology, mainly about the modest household utensils of those peoples that played a rôle in central Asia Minor during the first millennium B.C., in order to be able to ascribe the subdivisions of Stratum V to definite historical phases. But this will be only a matter of time. At present the sometimes intricate architectural levels of the stratum tell at least their local story of the growth of the settlement. Perhaps they reflect more general historical events also. A few clues connect the climax of Period V with the Medo-Persian period. Eye beads of

glass, sherds of imported Greek pots, and a coin of Alexander's half-brother were found on top of the stratum. Sphinx patterns on pottery and on a seal may help to clarify the external relations of this rather complex stratum. Pot forms and designs in general, typical or unique objects of other sorts, and construction methods employed in the fortress—all will tell their story sometime when comparative material recorded with equal care becomes available.

FIG. 213.—The Sivri, landmark of Alishar

The painted pottery age in Anatolia came to an end with Period V. The latter fades into Period VI, reflecting archeologically the historical situation in central Asia Minor. The lack of a distinct Hellenistic layer suggests that Hellenization did not gain much of a foothold on the central plateau within the Halys bend. Then came the Roman legions, their routes of march cleared by the pro-Roman attitude of the Cappadocian kings and other Anatolian princes. The Romans grafted their culture upon the age-old Anatolian tree. Eastern Asia Minor became the outpost of their empire toward the East. Fortresses, temples, baths sprang up; but no such structures have appeared in Stratum VI at Alishar. Only the characteristic fine wares and occa-

sional coins found in the refuse date the associated objects. The lack of fortifications and of outstanding public buildings shows that the Roman town of Alishar was off the main route. It has remained so ever since.

The mound had grown old. The most splendid phases of its life were long since ended. Slowly it was passing into oblivion. Byzantine villagers preferred to settle around its edges. Farms or tiny settlements of the Seljuk and Osmanli periods (Stratum VII) once more occupied bits of its surface. They were the last to be swallowed up by the mound. Then it died. But juicy herbage, springing from its rich humus after rains, transmitted its life-giving strength to the modern villagers' goats, sheep, and cattle browsing on the dead hill.

SUPPLEMENTARY NOTE

By H. H. VON DER OSTEN

At the request of the editor I am glad to mention briefly here such results of our 1930 and 1931 excavations at Alishar as bear most directly on the contents of Dr. Schmidt's 1927–29 report. The last two seasons' work, which will be published later, has not only corroborated many earlier conclusions but has also led in a few matters to modification of previous ideas. The following observations are chronologically arranged, beginning with the earliest culture which we have yet discovered.

THE NEOLITHIC AGE

Since the finding of a primitive potsherd in 1927[1] there has been no doubt in my mind that the Alishar mound contained Neolithic remains. During 1930 we dug deeper in L 14–15 in the southern part of the citadel mound, where much work had already been done in 1929. At a depth of about 26 meters we struck Neolithic strata. Four principal types of pottery could be distinguished, but the area was too small to permit certainty as to their relative age. The commonest type is a thick coarse gray ware, handmade, with polished black slip. Next in frequency is thick gray ware with incised ornamentation, of which the 1927 fragment is a sample. In these two wares a typical form is elongated like a modern "rosebud" vase. Relatively few fragments of the other two types have been found. One of them is a painted ware, red-brown on buff; the other is a fine black ware, sometimes with neatly incised ornamentation.

Though the smallness of the excavated area has limited the quantity of our Neolithic finds, the number of fairly well preserved wooden implements has been astonishing. Stone implements, mostly small flint knife blades, have been relatively scarce. Flat bone awls also are typical. Geological investigations made by Dr. Gerhart Bartsch of Hanover indicate that virgin soil is still 10 meters below the bottom of our excavation and confirm the hypothesis that our mound was once surrounded by a lake.[2]

THE COPPER AGE (PERIOD I)

Metal analyses already made or now being made will probably entitle us to call this period the Copper Age. A most interesting new discovery in its stratum (it was in fact the last and lowest piece of metal that we found) was a circular stamp seal made of lead. The great importance of this Copper Age set-

[1] Cf. *OIP*, VI, p. 246 and Fig. 210.

[2] See *OIC*, No. 2, pp. 33–34.

tlement is evident from the thickness of its deposits and also from the strength of its fortifications. Parts of the latter were unearthed in 1931 on the citadel mound at a depth of 14 meters and on the terrace at a depth of 6–7 meters.

THE EARLY BRONZE AGE (PERIOD III) AND THE ANCIENT HITTITES (PERIOD II)

Our last two seasons' work suggests one major divergence from Dr. Schmidt's interpretations. Figure 74 illustrates clearly how uncertain our excavations of 1927–29 had left the sequence of the strata called II and III, for Stratum II had been found on the eastern terrace only, between Strata I and IV, while Stratum III had been found immediately above Stratum I over the rest of the area explored. No further evidence has turned up to corroborate Dr. Schmidt's find of a Period II bowl fragment in an early Period III layer (p. 103). In 1930, however, we found in a test plot within the citadel, below Stratum IV, two distinct building levels of Period III. The fact that in the lower of these levels typical Period III pottery was found mixed with the type (transitional between Periods I and III) illustrated on page 103 would indicate that Period III came directly after Period I. Dr. Schmidt himself has, indeed, carefully pointed out many relationships between those periods. In the upper level, on the other hand, Period III and Period II pottery were thoroughly mixed. The same sequence was found when unearthing the citadel gateway in 1931. There pottery of Period III alone was found on the pavement. Higher up, separated from the pavement by a layer of débris, Period III pottery was found mixed with that of Period II. In several other places during 1930 and 1931 we found mixtures of Period I and Period III potsherds below the Period II levels. Furthermore, in W 24 and I-J 24–26 a definite Period III stratum occurred beneath two levels of Period II. I would conclude from the foregoing discoveries that Period III is definitely an outgrowth of Period I, that it began before Period II, and that it was ultimately supplanted by Period II. The partial contemporaneousness of Periods III and II is, of course, as Dr. Schmidt has stated, indubitable.

For determining the identity of the people of Period II some additional data are now available. Stratum II is very thick and shows three to four distinct building levels. In 1931 we were fortunate enough to find at various points more cuneiform tablets *in situ*. All of them occurred in the middle levels. This should mean that the Period II people were firmly established at Alishar before they began to use cuneiform writing and that they did not continue to use it to the end. The fact that all our tablets so far are of the "Early Assyrian" type known from Kül Tepe means, then, not that the settlement as a whole belonged to the writers of the tablets, but simply that "Assyrian" merchants or scribes were in contact with the Period II people for a time. So far as I know, not a single piece of pottery yet found in Mesopotamia bears any resemblance to that of Alishar II. As to the power and importance of the Period II people, Dr. Kurt Bittel, the field director of the German expedition

which has recently been continuing its work at Boghaz Köi, where the Hittites established their capital in the nineteenth century B.C., informs me that the main fortifications and settlement on Büyük Kaleh there represent our Period II culture. At the Alishar mound itself during 1930 and 1931 we excavated on the terrace parts of strong outer fortifications of that period. Hence it would appear that in these vigorous and highly cultured (but evidently not Mesopotamian) people of Period II we should really see the ancient and original Hittite invaders.[1]

THE NEW HITTITE EMPIRE (PERIOD IV)

As to the remains assigned by Dr. Schmidt to Period IV, our later work has shown that the citadel was originally constructed by the Early Bronze Age people, then remodeled and re-used by the people of the New Hittite Empire and later still by the Phrygians. The New Hittite Empire level had before 1930 been reached in only two or three rooms in the interior.

THE PHRYGIAN AND MEDO-PERSIAN PERIODS (PERIOD V)

It has proved possible to differentiate from Periods IV and V a Phrygian period. To it I would assign the fortifications on Mounds B, C, and D, the latest phase of the citadel, and such vases as the upper two in Figure 158 and that in Figure 184.

No further evidence concerning the Medo-Persian period has come to light.

THE HELLENISTIC AND ROMANO-BYZANTINE PERIODS (PERIOD VI)

Our recent excavations, especially those of 1931, have shown that Alishar Hüyük as a whole was densely settled during the latter part of Period VI. That it may have been a rather important settlement would not be surprising in view of its situation on an important road the route of which is proved by many ancient remains.[2] Early in this period falls a Galatian intrusion, evidenced, I believe, by such pottery as the jar of Figure 180.

THE SELJUK AND OSMANLI PERIODS (PERIOD VII)

It now seems probable that there was no actual settlement at the Alishar mound under the Seljuks. The whole present vilayet of Yozgat lacks Seljuk remains. According to Dr. Paul Wittek, who has made a detailed study of this question, nomadic tribes which the Seljuks were never able to subdue seem to have come either with the latter or slightly later and to have roamed this district. How far back it is permissible to date the actual remains of the Osmanli period here is still doubtful; they may begin as late as the eighteenth century.

[1] Cf. my statement in Schede, "Archäologische Funde: Türkei," *Archäeologischer Anzeiger, Beiblatt zum Jahrbuch des Deutschen archäologischen Instituts*, 1930, cols. 467–71.

[2] Cf. E. T. Newell, *The Küchük Köhne Hoard* (New York, 1931), pp. 26–28.

The periods as I would now designate them may be tabulated and compared with Dr. Schmidt's terminology as follows:

NEW DESIGNATION	DR. SCHMIDT'S NO.
Neolithic	
Copper Age	I
Early Bronze Age	III
Ancient Hittite	II
New Hittite	IV
Phrygian Medo-Persian	V
Hellenistic Galatian Roman Byzantine	VI
Seljuk Osmanli	VII

INDEX

[PRINTED IN U.S.A.]