EXCAVATIONS AT TELL EL-AMARNA, EGYPT, IN 1913-1914

BY

LUDWIG BORCHARDT

EXCAVATIONS AT TELL EL-AMARNA, EGYPT, IN 1913-1914

BY

LUDWIG BORCHARDT

FROM THE SMITHSONIAN REPORT FOR 1915, PAGES 445–457
(WITH 13 PLATES)

(PUBLICATION 2399)

WASHINGTON
GOVERNMENT PRINTING OFFICE
1921

AKHNATON PHARAOH OF EGYPT
1375-1358 B.C.

The Egypt Exploration Society
at Tell El Amarna

The Egypt Exploration Society, now in its thirty-ninth year, is excavating the most important site in Upper Middle Egypt. Tell el-Amarna, one hundred and sixty miles south of Cairo on the eastern bank of the Nile, is marked by a vast ampitheatre of low, sandy hills worn by water-courses; by a narrow strip of cultivation along the river; by three villages from north to south, and near the largest village heaps of bricks, fragments of stone, broken walls running in every direction, and finally by the half-filled trenches of excavators and one long street among the ruins cleared by the German Oriental Society. The city was built on a regular plan having many cross streets and three long main streets of handsome buildings with fine sculptures and gardens filled with trees and plants of every kind. It was divided into two separate quarters by a valley, now packed with sand and gravel. Here excavation is slow on account of solid debris between house-walls due to alluviation and rubbish from upper buildings.

This corner of the earth has known strange fortunes. From a mere dependency of Hermopolis with no life of its own, it became the seat of imperial administration. For Akhnaton, Pharaoh from 1375 to 1358 B.C., repudiated the Amen-Priesthood, abandoned Thebes, and founded here his glorious new capital "Like Aton in heaven forever and ever." Yet within twenty years reaction set in. The king died; the religious revolution ended; the court returned to Thebes and the wonder city of a Pharaoh's dream was once more a desolate place.

Suddenly in 1887 the attention of scientists was directed to the forgotten capital. Natives, pulling down a portion of the palace wall for building material, came upon a storeroom filled with bricks of very fine grain, each covered with cuneiform writing. Every peasant in Egypt knows the

soil contains treasures. The tablets were hastily heaped in baskets, fastened to the backs of donkeys, and a few days later the dealers in Luxsor and Cairo had on sale the diplomatic correspondence of Amenhetep III and Amenhetep IV (Akhnaton) with the Babylonian and Syrian dynasts. This casual find of documents of absorbing historical interest led Professor Petrie to commence excavation of the actual buildings.

In 1891 he cleared a group of town houses, finding more cuneiform tablets, the great temple and king's palace with its wonderful painted pavements representing ponds of fish, flowering shrubs, leaping animals, butterflies and birds in flight, all rendered in a very naturalistic style. These paintings, among the most valuable monuments in the realistic art of the eighteenth dynasty, were wantonly destroyed by a discharged workman in 1912, a misfortune that emphasizes the need for excavation and scientific record at a site remote and difficult for the government to protect.

From 1907 the German Oriental Society held the site and in 1911 commenced the systematic clearance of the city, building by building. During the summer of 1913 thieves again broke into one of the tomb-chapels and destroyed reliefs to revenge the discharge of a caretaker. This second act of malicious destruction makes it imperative to save monuments so precious without delay. The German work ended in 1914 with the clearance of the long "Street of the High-Priest," which developed into an Egyptian Pompeii of noble villas. Nowhere else in Egypt is there such an opportunity for studying the dwellings of the ancients. The "House of Meryra, High-Priest of the Sun-Disk" with its halls, gardens, kiosks and lake; the "House of the Chief Cattle-Herder of the Sun-God," with its pillared stalls for the sacred animals, its garden of many trees planted in soil brought from a distance; the fine residence of General Rames all afford an intimate acquaintance with the pleasant life in this city of peace. Superb treasures of art were collected from these houses: the studio of the

"Chief Sculptor Thothmes" yielded trial pieces, models, and extraordinary portrait statuary of the royal family, now in Cairo and Berlin.

From the city broad roads, still scored by Akhnaton's chariot wheels, lead to the rock-cut tombs of officials of the court. The scenes painted on their walls complete the work of the excavations. With their help one obtains an idea of the class of buildings to be cleared, of the arrangement of streets and gardens, and can restore in imagination the furniture and decorations. "The Rock Tombs of El Amarna," published in six volumes by the Society are important in connection with the excavations of the site.

The lean, ascetic figure of Akhnaton singing the exquisite hymns which he had composed; or in his beautiful palace teaching a new art to his puzzled artists; or preaching from the temple his doctrine of peace while his empire in Asia tottered and fell, stamps its impression upon one's mind so forcefully that every page and plate is full of interest.

Two-thirds of the town remains to be excavated, with probably as much of value to be found as has already been discovered. But all such work is far more costly than of old and to deal adequately with so large a site the Society appeals for generous support. The quota for this season is $10,000. American Museums are invited to correspond with the secretary, Mrs. Marie N. Buckman, at 503, Tremont Temple, Boston, regarding subscriptions to the El-Amarna Fund. The committee appeals to all who are interested in Egypt to assist the work at El-Amarna either by donation or by becoming members of the Society.

Life-Membership	$150.00
Patron's Membership for the Year	25.00
Annual Membership	10.00

Checks should be made payable to the Egypt Exploration Society and sent to 503, Tremont Temple, Boston, Mass. Send for circulars regarding publications.

FREDERICK P. FISH,
Honorary Secretary for the United States.

EXCAVATIONS AT TELL EL-AMARNA, EGYPT, IN 1913–1914.[1]

By Ludwig Borchardt.

[With 13 plates.]

Following the discoveries of last year, which were mainly at the houses of the chief sculptor Thutmes and his workmen (pl. 1, P 47, 1–3), it was natural this year to investigate the adjoining estates, so far as they had not been previously excavated. The excavation was therefore started westward from the Thutmes' house and following the northern edge of the Wadi extended to the main street which connects the modern villages Hagg Qandil and Et-Till (see pl. 1). This street, corresponding to the main thoroughfare of the old city, was reached at house N 47, 1. There were also laid bare the groups of houses Q 48, 1–3 and O 48, 14–15 among the hills rising from the Wadi. Behind the first row of estates, west of "the street of the high priest" and north of the Wadi, the premises lying westward were disposed of as also a block of smaller estates, Q 46, 18–23, to the north of "the Christmas house" (Weihnachtshaus), Q 46, 1. On the east side of this part of "the street of the high priest," between it and the eastern city line, several estates were cleared up, and the work was considerably advanced northward. The area of the city so far excavated was thus about the form of a T, the upper or horizontal bar running from south-southwest to north-northeast—from M 51 to Q 45—and the perpendicular bar extending from west-northwest to east-southeast—from N 47–48 to Q 48–49. The lower bar at the present state of the work appears split into two strips of houses separated by the Wadi, though it is certain that in ancient times the entire ground was fully built up.

Strange as it may appear, the ancient Egyptians in building up an area did not take the precaution to leave the lower levels free of structures. They apparently disregarded rains in distant parts of the desert which caused torrents to rush into the Nile Valley carry-

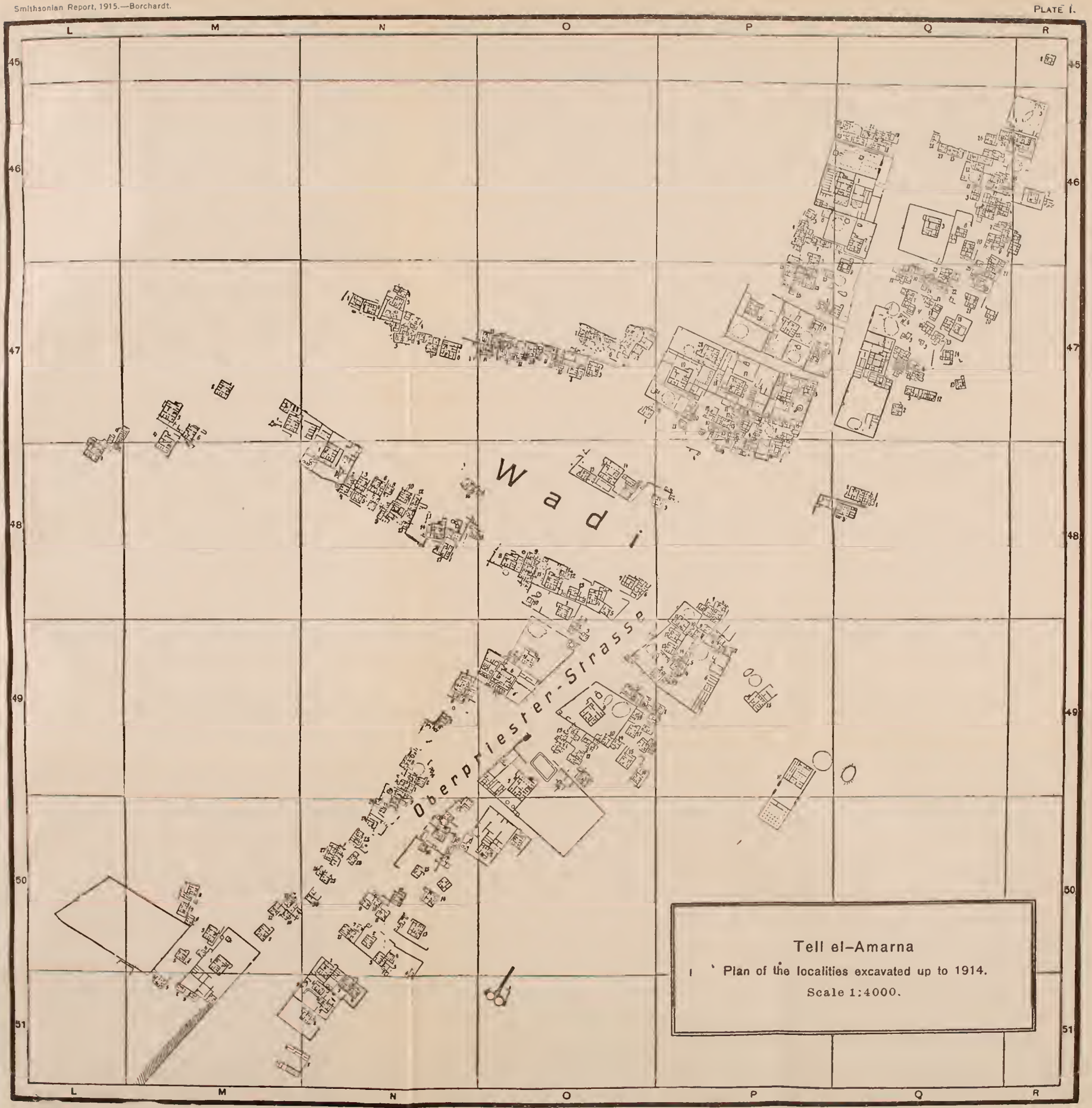
[1] Abstract translated from Mitteilungen der Deutschen Orient-Gesellschaft zu Berlin, No. 55, December, 1914, pp. 1–45.

ing everything before them, although the experience of millenniums should have taught them better. The difference of level which thus far could be established between the floor of house Q 48, 3 and that of N 47, 6 amounts to 4.50 meters which is quite a marked difference considering that these houses are only about 480 meters apart. The same mistake was made in the palace of Amenophis III, south of Medinet Habu, and elsewhere. The ancient Egyptian architects were, however, not alone in committing this error, for their modern colleagues and even Europeans building in Egypt do no better. As a result of this thoughtlessness and carelessness of transient engineers, parts of the railway dams, even in the recent decades, have often been swept away by floods, and in 1895 an entire corner of the place of Heluan in Cairo was carried off.

The appearance of the excavations in the Wadi differs from that in the rest of the city area. Elsewhere the house ruins appear as flat, desert hills where the still remaining upper rows of masonry are brought to light with the first stroke of the pick. In the Wadi a layer of sand or pebble, 0.5 to 1 meter deep, must first be removed before the upper parts of the walls, 1.5 meter or more in height, appear. The débris between the walls is here also more compact, due to alluviation and not merely to the rubbish from the upper buildings.

As the Wadis, which now form a break in the city area, must once have been fully built up, the extensive interruption of the ruin field in the neighborhood of the modern cemetery of Et-Till must be considered as only incidental, and those parts of the ruins formerly termed northern settlements must once have been directly connected with the present main part of the city.

We thus obtain a city area of about 7 kilometers from north to south with a greatest width of only 1.5 kilometers. This elongated form of the city, probably in part conditioned by its location along the river, is accounted for chiefly through its origin, which is even now clearly perceptible. The city was built on a long street which ran parallel to the course of the river or, since the river limited its development on the west side, more toward the east on the main street. This main street, which probably already existed as a country road when the city was founded, originally connected the palace and temple quarters near modern Et-Till with the similarly important quarter at the modern village Hagg Qandil. This main thoroughfare still exists as a connecting road between these villages, and appears on the plan (pl. 1) between the premises M 47, 2–6 and M 47, 1. The first plan of the city was probably limited to the building up of both sides of the main street and later other broad streets were laid out, running parallel to the main thoroughfare, but bending toward it from the



Tell el-Amarna

Plan of the localities excavated up to 1914.

Scale 1:4000.

north and south, and probably leading from certain important centers to the main street. The first of these broad parallel streets which thus far can be traced, may be seen on the plan in front of house L 50, 1, between the houses N 48, 15 and O 48, 8, in front of the house O 48, 13, and between O 47, 2–4 and P 47, 19. The next, apparently the most extreme parallel street, is the one termed Oberpriester-Strasse (street of the high priest) and has been fully described in Mitteilungen der Deutschen Orient Gesellschaft, No. 52, page 7.

The necessary connections between these main arteries of the city were narrow cross streets varying from 1.50 meter (?) to 10 meters in width. They are clearly visible, as shown on the plan between the premises extending from Q 46 to P 48, but good examples of them are also recognizable south of the Wadi at the end of the "high priests' street." These cross streets do not always run in a straight line, but some are of a rectangular outline, as the one between Q 46, 2 and Q 47, 9.

So much concerning the streets within the city the system of which is gradually becoming more distinct. But likewise as regards the long-known street outside of the city area, to which the mapping of the region has added a large number, some views may now be given which may correct former statements on this subject. In the first place, a sharp distinction must be drawn between earlier streets of the time of Amenophis IV and later ones. One of the older streets was no doubt the one which led far into the desert to the alabaster quarry of the Old Kingdom, having a length of 17.5 kilometers, and in some places presenting for its time creditable "art structures," such as ramps and fortified side slopes. Two other roads on the eastern plateau lead still farther into the desert and to the stone quarry located 24 kilometers from the Nile in an air line. This is an alabaster quarry. Its original circular entrance shaft led through a sandstone elevation rising from the surface of the desert (pl. 2, fig. 1, top, on left side), but at present the entrance is somewhat more accessible because of a break in the covering, as shown in the central portion of the figure. In the interior there opens, first, an irregular space, from which passages lead down to other rooms, and from these to still lower levels. In some of the rooms late Roman potsherds were found, bearing witness to the age of the working of the quarry, which is also attested by the rude relief in the wall of the uppermost room on the left side, near the present entrance (pl. 2, fig. 2). This relief represents a priest sacrificing a gazelle before a row of five gods—Re, Atum, Thot, (?), and Har-si-ese. As the age of the quarry furnishes the date of the two roads which lead up to it, they must be disregarded in the reconstruction of the road-net at the time of Amenophis IV. There remain, therefore, for this

period only the so-called "round roads" which above, upon the mountain, connect the tombs and the frontier stelæ, and their connecting roads which lead through the plain from north to south, as also the roads from the tombs to the various points of the city. The "round," or encircling, roads possibly served for the military guard of the city territory. As regards the object of the other roads, the most plausible assumption for the present is that they connected the working places, unfinished tombs, and frontier stelæ with one another and with the factories in the city.

In this year's campaign only a few large estates, but very many small premises were cleared, especially such as already had been investigated and rummaged by our English and native predecessors during the excavation of the city, so that little was learned as to the general arrangement of buildings on large areas. But one assumption which was formerly questioned was definitely proved. What was formerly, though with some doubt, designated as a front garden on the street, is now proved to exist at house O 48, 14 (pl. 3, fig. 1) in the form of tree holes regularly arranged with a rectangular border of bricks. The general arrangement seems to be that the house garden proper was inclosed within high walls and thus hidden from public view, but in front of the high wall there was another garden surrounded by low fences, so that passers-by could enjoy the trees and bushes. This consideration for the public, however, is not a characteristic of the oriental, who timidly conceals his possessions behind high walls. But the customs of the ancient Egyptians, especially those practiced in the home and the family, must not be measured by the customs of modern Mohammedan Orientals.

One remarkable habit which was this year firmly established, though it was in former years often observed, but not clearly recognized, shows how conservative Egypt is. On the estate of a wealthy man (house P 47, 17) the main entrance on the street and the entrances to the dwelling were walled up. The walling-up was executed when the wooden doors were still in their frames. Later the white ants, which at Tell el-Amarna devour anything made of wood or similar substances, destroyed the wooden doors behind the masonry. The owners who departed from this estate, probably on their return to Thebes, secured their property, which they perhaps expected to use again, by walling it up against housebreakers. This custom had already been practiced in the Old Kingdom, as in the mortuary temple of King Sahu-re', near Abusir, and is still employed in Egypt. Thus several years ago the German consul general, after all the packing cases of his predecessor had been lost, had the storeroom which held his own properties walled up on the advice of natives who were familiar with the conditions of the country, and with the desired result, for the boxes were all there when he departed, though some-

1. ENTRANCE TO THE ALABASTER QUARRY OF LATER TIMES.

2. BAS-RELIEF IN THE ALABASTER QUARRY OF LATER TIMES.

1. FRONT GARDEN ON THE STREET IN FRONT OF HOUSE O 48, 14.

2. ALTAR OF BRICKS IN HOUSE P 47, 22.

what musty. There are instances, however, in Thebes where the officially walled-up tombs served merely as a cover for the pillagers of reliefs to perform their work of destruction. Every method for security leads to devising a corresponding method for breaking in.

The largest and best preserved house excavated this year, and which, because of its excellent condition, permitted the reproduction in a colored drawing of one of the main rooms, the deep hall, was that of General Ra'-mose and his housekeeper 'Jnet (House P 47, 9), where the incomplete tombs, already known for some time, lie in the row of the so-called southern tombs in the eastern mountain of Tell el-Amarna. The house is of special interest because its owner is known, and the more so since it supplies some information about his personal history. Under the father of the king he had been active in the high administrative position of "superintendent of the house of King Amenophis III." His name at that time was Ptah-mose, but under the young king he became "General of the king of both lands," and after he had moved with his master to Tell el-Amarna he changed the name to Ra'-mose (pl. 4). With the constantly growing emphasis of the sun-cult, names in which other than solar deities played a part became unfashionable in good society.

This custom of altering names, which has its foundation in the persecution of those gods who were not affiliated with the sun-cult, and therefore must have originated at the time of the highest development of the Aten cult, is important in the chronology of this remarkable religious movement. The house of this "General" is quite close to the confines of the city, which was not founded before the fourth year of Amenophis IV, and was therefore probably built a considerable time after the court had moved to Tell el-Amarna. The name was changed when the house was nearly finished, perhaps even considerably later. Hence the opposition to the names of the nonsolar divinities, as we see it in the above alteration of the name Ptah-mose, regarded as characterizing the period of Amenophis IV, may be considered the last acute stage of the "reformation" of that king, which took place in the last decades of his reign. The introduction of the Aten cult was therefore not an abrupt, sudden phenomenon, but a gradual development, beginning probably far earlier than the time of Amenophis IV. In fact, there is in the British Museum a statue belonging to the time of the father of the king bearing a regiment's name, "the god Aten sheds his rays upon King Amenophis III. Thus the so-called new god of Amenophis IV must already have been highly respected under Amenophis III, else a regiment would hardly have been named for him. Thus, after all, Amenophis IV, both as the ruler of a gigantic empire and as the founder of a religion, was only an heir, and, as the results in both spheres has shown, not a fortunate heir.

But to return to the house of General Ra'-mose. The first thing noticed was that all the doors, not only that of the main entrance but even those of the inner rooms, were framed in ashlar. This was later often observed in other, even plainer, houses, though they had no inscriptions as on the doorframes of Ra'-mose's house. These stone frames of interior doors are of some importance in connection with the colored reproduction of an inner room to be described below.

The Ra'-mose house also furnished new data concerning the "quadrangular" room hitherto regarded as the master's room, but now as that of the lady of the house. Its presumed function as the master's room was derived from the fact that it overlooked the courtyard and the storerooms. This would presuppose that it had a window from which one might look out. But Egyptian windows in the lower rooms, with the exception of the "audience windows" in the palace, are arranged for lighting the inner rooms, being placed high up, almost at the ceiling. So that this reason for considering it the "room of the master" fails. On the other hand, there are two reasons favoring its designation as the "room of the lady" in the case of the house of Ra'-mose. In the first place this is the only known instance where the name of the mistress of the house appears on the frame of a false door, in exactly the same manner that her husband's name is preserved architecturally pendant from a real door. But as all the doorframes of the house have not been preserved, it can not be asserted that the name of the wife occurred only on this one frame and that therefore the "quadrangular" room must be considered as that of the wife. But there is another and stronger reason. An annex to the "quadrangular" room, accessible through a short corridor, is evidently a wardrobe room. On two sides of this wardrobe or dressing room are wooden benches, about 70 centimeters high, resting on brick bases, and wide enough so that on and under them the clothing and ornaments of the lady could have been placed. This may seem a bold assumption, but not if it is recalled that in the female apartments of the palaces of Amenophis III, south of Medinet Habu, each bedroom of his numerous chief wives had a wardrobe chamber fitted up with like wooden benches, though of correspondingly greater dimensions. The wardrobe chamber near the "quadrangular" room therefore decidedly favors the assumption that it was the "room of the wife." However, it will be the safest plan to defer a positive statement as to such use of the "quadrangular" room until women's apparel and children's playthings have been found in such a room.

The painting on the walls of the "deep hall," the dining room of General Ra'-mose, is well preserved and offered a very interesting study which was gladly taken up, though with the consciousness that it can not at present be definitely interpreted, so that what has been accomplished must necessarily be considered as only a first attempt

DOORPOST IN THE HOUSE OF GENERAL RA'-MOSE.

WEST SIDE OF THE "DEEP HALL" IN HOUSE P 47, 19 OF GENERAL RA'-MOSE.

to reconstruct in a drawing the interior decoration of an Egyptian living room.

The "deep hall" or the dining room of the General Ra'-mose house was 7 by 7 meters in size, with entrances from the northwest through two vaulted doors in the center, and on the eastern side of these a single door counterbalanced by a false single door on the western side (pl. 5, right half). In this way there was produced that symmetry which is an absolute requisite in Egyptian architecture. Double doors with an additional single door between two rooms was at that time customary. The two side walls exhibit the same architectural arrangement: in the center are double niches with single doors or niches on either side of these as might be needed. The back wall, however, has only the two side doors, without the central vaulted doors or niches; in their stead there is on the floor the usual low elevation thought to be the place for the seats of the master of the house and his wife. Corresponding to this at the center of the west wall, there is the usual platform made of limestone, with raised sides (pl. 5, left half), perhaps the seating place during meals, since it is provided with receptacles for waste water, the washing of the hands before meals playing an important part in ancient Egypt. In this dining room there are also traces of four pairs of columns which stood in two rows (pl. 5, the two holes in the brick plaster of the front), and the limestone base of one of these columns may still be seen. The arrangement of the windows can be determined from the position of the staircase, which renders an opening for a window in the middle of the wall impossible, for there was space only for the door lintel, the fragments of which were found on the floor. It may seem strange that the doors were so low, but in Egyptian houses they were made just a man's height.

So much about the ground plan of the room and its architectural construction.

The painting on the walls, made directly on the Nile-mud plaster, is everywhere nearly as high as the remains of the walls themselves, reaching in some parts 1.30 meters above the floor. On the floor of the room were found fragments of the painting fallen from the upper parts of the walls, including parts of richly painted door headpieces, chamfers, tore, etc. Such were the data from which to reproduce a colored drawing of the room. The result is quite satisfactory, but as here represented in black and white (pl. 13) the light and shade effects of the colors could not fully be preserved, though the general impression is accurately rendered. The color tone of the wall is greenish-brown, like Nile mud. The doors have black-bordered white frames and white chamfers. The idea underlying this color combination must have originally been to represent limestone doors set in brick masonry. But in the present case this idea

was forgotten in the choice of colors, showing that we have here not something original but a mixing of various older motifs. The door frames are not of stone color, but that of red-brown wood, superposed by bright yellow hieroglyphic lines. They should represent an inlaid decoration in two wood colors. But glaring as the yellow tone of the hieroglyphics is in itself, it has an excellent effect in mass upon the dark-red brown. The folding doors are yellow, while the wider doors, which naturally would consist of several vertical boards in red brown, are yellow and red brown, each board separate. The papyrus stalk between the two halves of the double niche is likewise painted in natural colors, green with yellow basal leaves. Naturalism prevails also in the color scheme of the door headpiece of the tombs of Tell el-Amarna and the temple of Abydos, which is painted in the yellow and red-brown wood colors. The painting of the chamfer of the door headpiece is remarkable. Perhaps originally a frieze of uraei (sacred asps) was intended or erroneously laid on, while in the painting coarsely executed rosettes in different colors were employed. The yellow tone of the window grating is due to the fact that these structures date back to the period of original wood construction. Of the painted garlands which ran as a frieze around the walls, and which in the New Empire were always rendered in the correct forms and colors of the flowers, enough fragments were found to permit an accurate reconstruction.

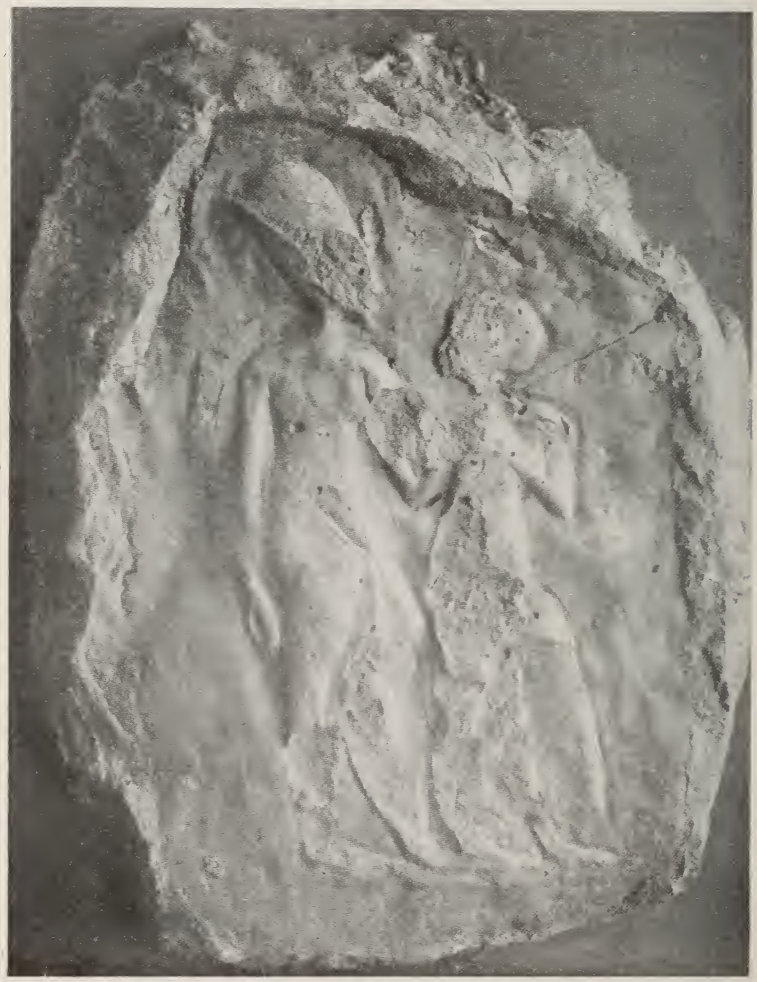
But now we come to the rather doubtful elements of the construction, the columns and architraves. Besides the white bases only the red-brown color of the shafts of the columns, traces of which can be discerned upon the bases, is assured. The form of the columns as palms was selected after old representations of the dining room in the palace of Amenophis IV, and consequently a green color was assumed for them. The avaci and architraves, as carried out in the reconstruction, may have been yellow, remains having been found of wooden architraves in another excavation.

These are the data for the attempted reconstruction which, in many cases, have shown that this dining room was quite a comfortable place and that the color scheme, even to our taste, was not coarse or glaring but produced rather a pleasing and harmonious effect. Life in such rooms must have been quite pleasant, although they were not very well lighted as evidenced by the frequent finds of lamps and lamp stands.

In exploring the environments of the atelier of the sculptor Thutmes some pieces which had been carried away from his workshop fell into our hands, notwithstanding that a considerable number of the finds of this year were from house ruins which had been already exploited by natives and, perhaps, also by our scientific predecessors at Tell el-Amarna. This year's experience has thus

1. MODELED HEAD OF A BABOON, FOUND IN HOUSE Q 48, 1.
Resin composition. Natural size.

2. MODELED HEAD OF A BABOON, FOUND IN HOUSE O 47, 5.
Limestone. Natural size.



AMENOPHIS IV WITH HIS WIFE.

Relief model of resin. Front side. About one-half natural size. Found in house P 47, 25.

shown that in making museum collections it is worth while to examine methodically places already rummaged, aside from the purely scientific results which such work always yields.

In house Q 48, 1, about 100 meters from the atelier of Thutmes, toward the southeast, there was found an exceedingly well executed model of the head of a baboon (pl. 6, fig. 1). In the same house there also came to light beautiful ivory carvings, which later on will be discussed. It need not be assumed that the baboon's head came from the workshop of Thutmes, for some artisan probably lived there in house Q 48, 1, who could make such a good model of the baboon, especially since, together with the baboon's head, there was found a small saucer containing remains of the material from which the model was made. The most remarkable feature of the baboon mask is its material, a brown and now hardened stuff at first designated as "resembling wax." This, then, was the material for modeling, and not clay, and from this first model a copy was made in stone. By chance we also found the head of a baboon made in limestone (pl. 6, fig. 2). It came from the house O 47, 5, about 100 meters from the atelier of Thutmes, toward the west. Judging by the location of this find, it may have come not from the atelier of Thutmes but from some other not yet discovered center of sculptural works. It need not be assumed that the limestone baboon was worked after that in "wax," though many details suggest it. The task of molding the head of a baboon, the sacred animal of Thot, the god of wisdom, must often have presented itself to the sculptors of Tell el-Amarna, since the center of the cult of this god, to whom the sun cult of Amenophis IV was not at all opposed, was at Eshmunejn, close to Tell el-Amarna.

Although the authorship of these two models must be left undetermined, yet that of the next and most important model (pls. 7 and 8) may safely be assigned to Thutmes. This one was found in house P 47, 25, about 125 meters north of Thutmes's atelier, in a region which is still within the circle of this atelier. Looking first at the back or reverse of this find (pl. 8), it shows nothing more than the accurate impression of a board which was roughly planed with an adze. The board itself, like all woodwork at Tell el-Amarna, had been devoured by white ants, but the impression reproduces all the details, even the grain marks. The material of which the model is made must therefore once have been so soft and flexible that it could with great sharpness adapt itself to the smallest differences in the surface of the original. At present it has the same glass-hard consistency and the identical brown color of the "wax-like" model of the baboon head (pl. 6, fig. 1). Prof. Schmidt, of Cairo, who made a preliminary examination of a small particle of the stuff, recognized it as a kind of gum resin, probably Oliban (frankincense) or bdellium, with an earthy (Nile-mud) admixture.

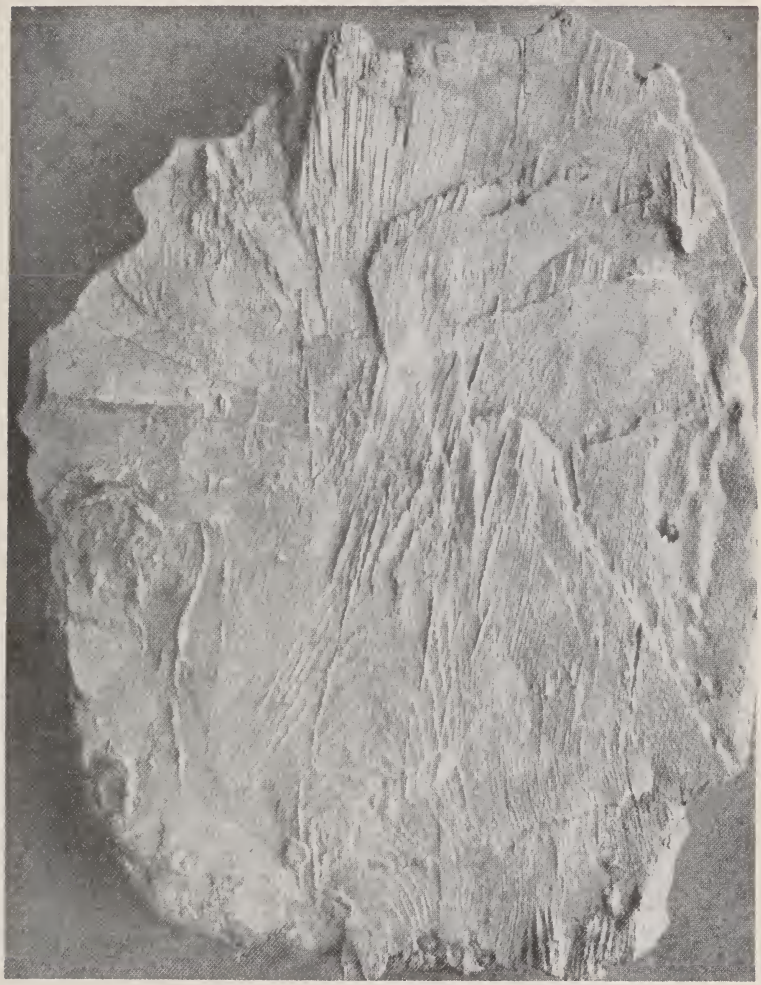
This stuff must, therefore, have been poured upon the board while liquid and presumably warm, and then the sculptor modeled into its surface, perhaps with a heated metal instrument, the charming reliefs represented in plate 7. The sculpture represents the king and the queen. He has embraced her with his left arm and loosely lays his hand upon her shoulder; she turns with her face to him and, with her right hand busying itself at his bosom, she nestles on his broad neck ornament. Costume, type, and treatment of the bodies leave no doubt as to the date of this art work. Even if the location where it was found were unknown, every connoisseur would unhesitatingly attribute it to the time of Amenophis IV, and, on account of the unartificial, dashing execution, with the same certainty would pronounce it the first sketch of a relief. This will suffice for the present. There are obviously connected with this find many other questions which are to be discussed later, such as the real composition of the "resin mass," the origin of the several ingredients, their workableness when combined, the instruments with which they were worked, their suitability for casts in gypsum, etc.

It was intimated above that in the square of houses O 47 we seem to have come across a new center of sculptural finds, for in this region there came to light many unfinished granite pieces to be laid into reliefs, representing wigs, a very beautiful torso of the statuette of a queen, though the wooden head of the queen is unfortunately totally decayed, the baboon's head mentioned above (pl. 6, fig. 1), etc. Only two of these finds will here be specially considered. There is first of all a small limestone mask (pl. 9, fig. 1) doubtless copied from a life-size gypsum mask, many examples of which have been found in the modeling chamber of Thutmes. The wrinkles on the forehead, at the base of the nose and around the nose wings and the mouth are here, and in a non-Egyptian fashion well indicated, though in a more schematic manner than on the large masks.

Only 50 meters from the above there was found another study (pl. 9, fig. 2), a portrait of Amenophis IV, which in its almost incredible delicacy can confidently be placed by the side of the best reliefs of this king. The artist succeeded best in reproducing the eyes, cheeks, and front of the neck. As the main concern was the portrait, the accessories of the royal costume, such as the headcloth, the frontlet, and the asp (uraeus), are treated in a secondary manner and even to some extent merely indicated.

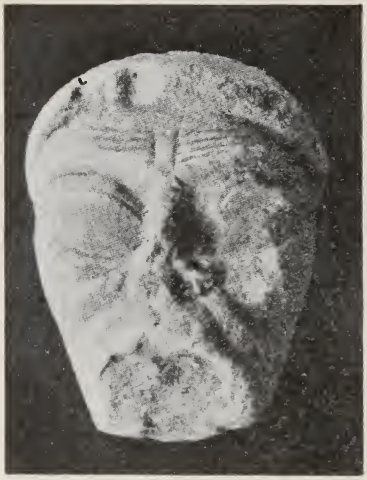
So much concerning the finds of models in this region which, as stated, is in the environs of a new center of sculptural works, not before carefully explored, though it may have been rummaged by our predecessors.

The last find to be mentioned came from an entirely different district, from house Q 48, 1, which is also remarkable for the frequent occur-



IMPRESSION FROM THE MOLDBOARD FOUND IN HOUSE P 47, 25.

Relief model of resin. Back side. About one-half natural size.



1. REDUCED MASK MODEL, FOUND IN HOUSE O 47, 9.

Limestone. Natural size.

2. AMENOPHIS IV. RELIEF STUDY, FOUND IN HOUSE O 47, 13.

Limestone. About one-half natural size.

rence of art finds. The baboon made of gum resin, mentioned above (pl. 6, fig. 1), comes from this house, but the other objects found there are of ivory and as far as they are dated are older than Amenophis IV. Among these is the cover of a box from the time of Amenophis III (1411–1375 B. C.), and the exquisite carving (pl. 10), to be presently discussed, belongs to the time of Thutmosis (Thotmes) IV (1420–1411 B. C.). These dates lead to the assumption that these objects had been collected by some craftsman who inhabited house Q 48, 1, to serve him as copies of patterns.

The art work in question consists of the outer shell of part of an elephant's tusk, about 12 centimeters long, bisected lengthwise and carved in pierced work. Its surface thus forms the half mantle of an obtuse cone,and it is therefore nearly impossible to reproduce it by photography and by drawing except through unrolling. The work which was made still more difficult because of the brittleness of the original,was executed by the skillful hand of Mr. A. Bollacher.

Fig. 1.—Cuff with representation of "King striking down a captive." Fragment of a relief from the mortuary temple of Ne-user-re' at Abusir. Limestone. One-sixth natural size.

The carving shows King Amenophis IV striking with the raised sickle sword a Libyan who fell on his knees before him and whom he grasps by the hair. In addition, the King also grasps a bow and arrows, as customary in this ancient type of representing "a king striking down a captive." This incredible deftness of the hand, which the Egyptian kings displayed at this ceremony, at least on pictorial representations, is already shown in an instance of the Vth dynasty, from the mortuary temple of King Sahu-re'. Behind the king, over whose head the sun disk is to be noticed, the uraeus serpent rises upon papyrus stalks, the heraldic plant of Upper Egypt. The scene plays before a statue of the god Montu of Thebes, who presents to the king the sickle sword and holds the rib of a palm, the symbol of everlasting duration. In front of the god is inscribed what he is saying to the king: "I hold the sickle sword for you, oh beautiful god! With it thou shalt slay the chiefs of all foreign lands." There is nothing of particular interest either in the composition or the contents of the carving. But the workmanship is finer, particularly the neat execution of the costume of the king and the exquisitely modeled faces of the prostrated Libyan, and still more so of the king.

What purpose did this art work serve, or to what object was it attached? The answer to these questions is furnished by an earlier find from our excavations. In the mortuary temples of Ne-user-re' was found a fragment of a relief (fig. 1) representing the left arm of a king shooting with the bow. The wrist is protected with a cuff against the rebound of the bowstring, and upon the cuff appears in minia-

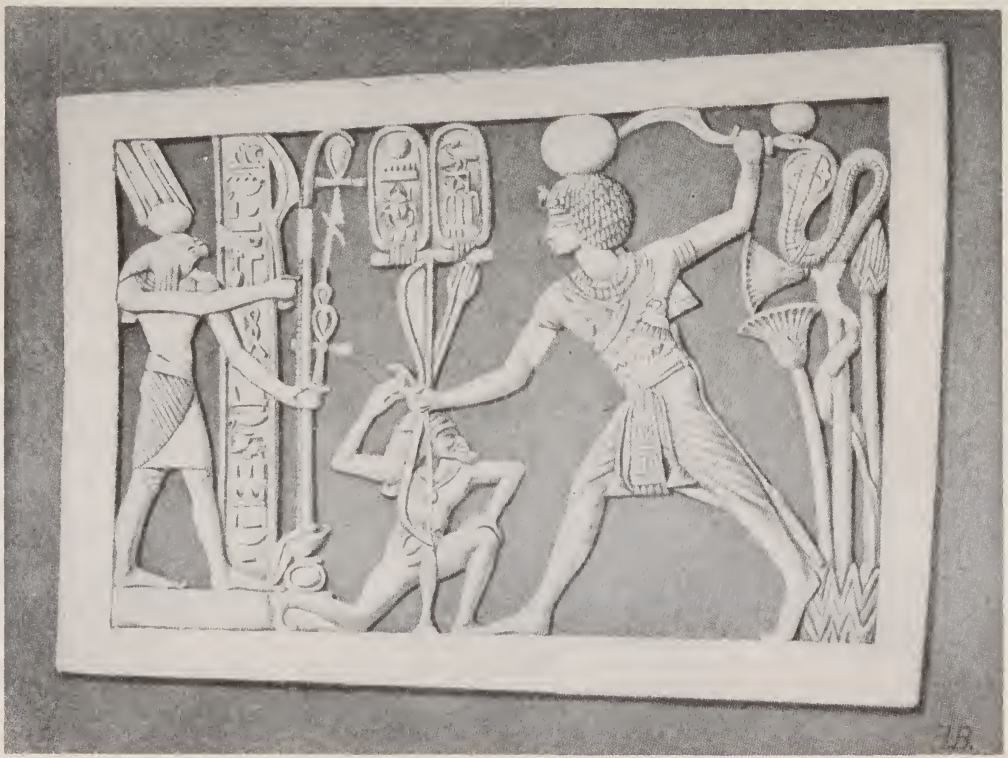
ture the scene of our ivory carving, "the king striking down a captive." In its form the ivory carving, which is to be imagined as backed with some stuff, corresponds exactly to the half shell of such a cuff in natural size. It would comfortably cover the half of an Egyptian slender wrist. But this neat, fragile carving could hardly have stood a practical use. It could only have been put upon a statue of life size; that is, one which according to the inscription of Thutmosis (Thotmes) IV represented the king shooting with the bow.

It is not surprising that an object with the name of Thutmosis IV was found in the city of Amenophis IV. It may not even be assumed that it was brought from Theves or elsewhere. It has been long known that the city "Horizon of the sun cult" already existed before Amenophis IV, perhaps, even probably, under another name, as was then the case as to personal names, such as Amenophis changed to 'Ich-n-aten and Ptah-mose to Ra'-mose.

On account of the great find of tablets made in 1887 in the "house of the royal letter writer" in the royal archives in the palace quarter, not far from the village Et-Till, the surroundings of this house had been again and again searched throughout by various investigators with the result of adding merely a few unimportant pieces to the original find of upward of 350 tablets, but since the early '90s of the last century hope and further search were given up. So that on December 15, 1913, when Mr. Dubois, the Government's superintendent of buildings and of the excavations, announced the discovery of a clay tablet in house O 47, 2 it seemed scarcely credible (pl. 11; pl. 12, fig. 1). A portion of another tablet was found on December 19 in house N 47, 3 (pl. 12, fig. 2).

Both these pieces were found in premises which already had been thoroughly excavated, the first near the wall of a courtyard, where it became fastened on the upper edge about 30 centimeters below the surface. Though the surface humidity was slight, yet it caused much flaking of the left margin of the obverse and the corresponding part of the reverse side of the tablet. The second piece lay considerably deeper in the débris, and therefore escaped this damage. The surroundings of both places where the finds were made were diligently dug up in search for other pieces, but without success.

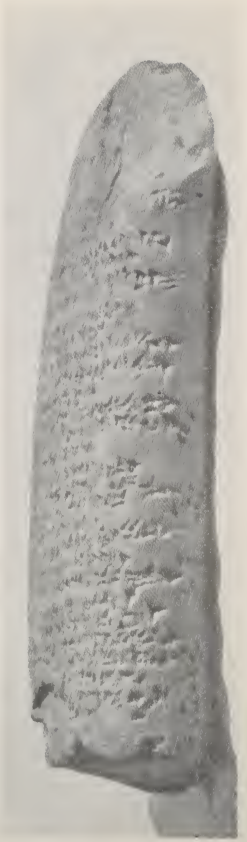
In the division of the finds these two valuable documents fell to the share of the Egyptian Service of Antiquities, and its courtesy in lending them for examination and study is here gratefully acknowledged. Dr. Otto Schroeder of the division of western Asia in the Berlin Museum prepared a provisional translation and explanation of these tablets. The smaller one (pl. 12, fig. 2) is of light-brown clay with darkish spots, probably due to contact with chemical salts. It is 6.1 centimeters high by 3.6 centimeters wide, its greatest thickness 2.65 centimeters. It is inscribed on the obverse only and contains a



IVORY CARVING, FOUND IN HOUSE Q 48. 1.

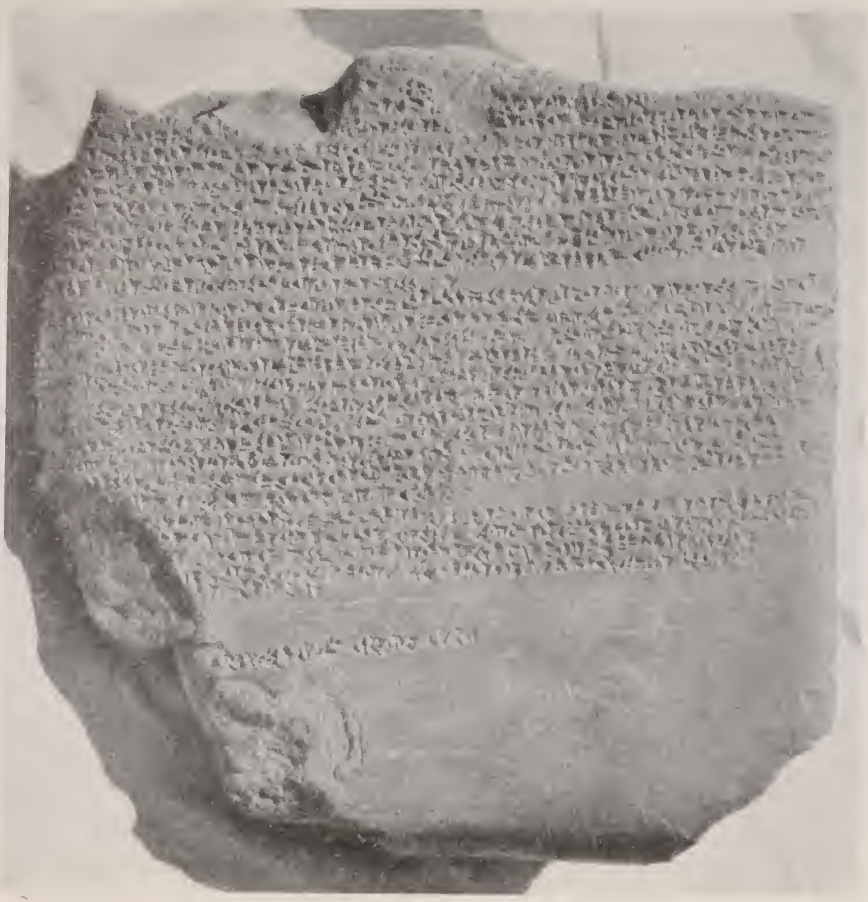
Drawing made from the unrolled carved surface. Natural size.

Obverse. Natural size.



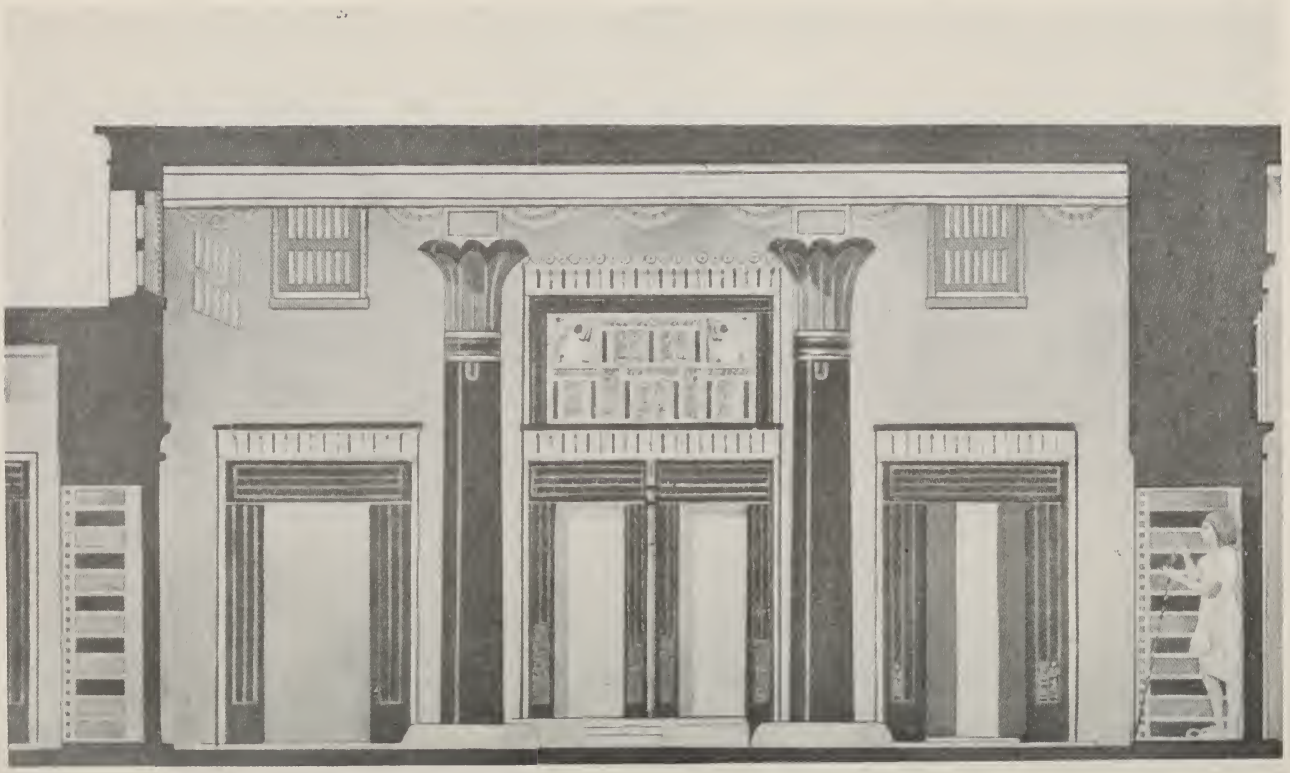
Right edge.

CLAY TABLET, FOUND IN HOUSE O 47, 2.



1. CLAY TABLET, FOUND IN HOUSE O 47, 2
Reverse. Natural size.

2. FRAGMENT OF A SYLLABARY, FOUND IN HOUSE N 47, 3.
Natural size.



THE "DEEP HALL" IN THE HOUSE OF GENERAL RA'-MOSE.

After a provisionally colored reconstruction. Scale, 1:55.

portion of an Assyrian syllabary. Syllabary is the designation of tabular arrangements in different columns of cuneiform characters, their names and values. Usually they consist of three columns. In the middle column are placed the cuneiform signs which are to be explained; the column to the left gives the pronunciation and syllabic value of the character, while the column to the right contains the names of the signs. The present fragment is either the writing exercise of a dragoman who was intrusted with the cuneiform correspondence to western Asia, which the large script would suggest, or a reading exercise provided for such a dragoman in western Asia.

Of much more interest and value is the larger fragment (pl. 11; pl. 12, fig. 1). It is made of a fine light-red clay, with a height and width of 10 centimeters and a thickness not exceeding 2.4 centimeters. It is closely inscribed on both sides with the so-called "Hittite" stroke of the cuneiform script, the several paragraphs being separated by lines. As far as made out, it is the first part of a serial literary work, bearing the title "King of the Battle" (Šar tamḫari), which treated of a military campaign in western Asia, of which the present fragments delineate the causes and the beginning. Unfortunately, the name of the author or scribe, with which Assyrian tablets are usually signed, is here wanting. In its place is some wiped-out Egyptian red ink and the impression of a finger besmeared with red ink, which might suggest that the Egyptian name of the author or scribe in Egyptian script was intended to be placed there.

The first question which pressed for answer was, Did these pieces come from the well-known archives, or are they the harbingers of the existence of deposits of cuneiform tablets apart from the public archives in Tell el-Amarna? The contents of the two tablets do not hinder their having come from the archives, for syllabaries had before that been found in the archives by Professor M. Flinders Petrie and the existence of literary texts in the archives may likewise be asserted. There was found there, belonging to the library of Amenophis III, a faience label of a wooden case of a papyrus which contained, obviously in Egyptian script, the tale of the "Sycamore and the Date Palm." But the great distance of the location of the find from that of the "house of the royal letter-writer," about 1¼ kilometers, would indicate that it did not come from the archives. We should have to assume either that in ancient times pieces from the archives had been scattered over the field of ruins, or that the peasants of Et-Till, who discovered the archives in 1887, have in an incredible manner thrown some of the pieces around. But whatever may have been the origin of the two new tablets, it is certain that there is hope of still further finds of tablets in Tell el-Amarna, where search had been completely abandoned.