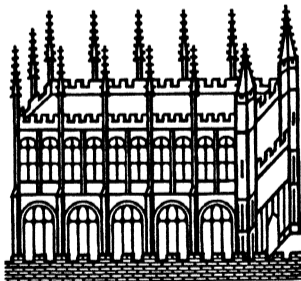


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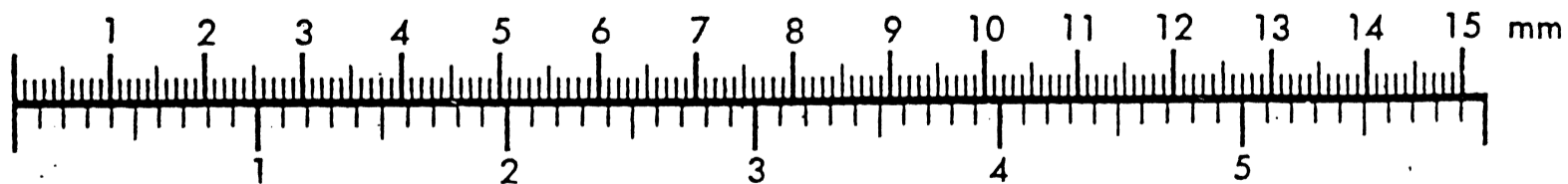
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WARKAH: ITS RUINS AND REMAINS.

BY WILLIAM KENNETT LOFTUS.

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It is now generally admitted that the southern part of Mesopotamia and the adjacent plains extending to the Persian Gulf comprehended the land of Shinar, in which "Nimrod, the mighty hunter," founded the primeval cities of "Babel and Erech, and Accad and Calneh" (Gen. x. 10).

Chaldæa was the appellation likewise given to a portion, if not to the whole, of the same region.

From similarity in name, antiquaries have been induced to fix on Warkah as the site of Erech. Mr. Fraser, at page 115 of his 'Mesopotamia and Assyria,' remarks that Warkah "may possibly represent the Orchoe of the Chaldeans; while, on the other hand, the term Orchoe may be nothing more than a mere modification of the ancient Erech, and Warkah a more modern pronunciation of both."¹

¹ The modern name Warkah may be derived from the Arabic root *عرق* 'irk, 'a vein.' The title *عراق* 'irāk, 'country of arteries,' seems a natural appellation for a region intersected with canals. It must be allowed that the transition is not difficult from Erech and Ur to Orchoe and Warkah. Colonel Chesney, in his work on the

On the authority of the old Arab geographers and their traditions, Colonel Rawlinson was at one time of opinion² that Warkah represents "Ur of the Chaldees," the birthplace of Abraham. His recent discovery of the name "Húr" on the cylinders of Nabonidus³ has however caused him to think differently, and to identify the ruins of Mugeyer with the Biblical Ur.

With due deference to such learned authority I am disposed to believe that Ur refers to a district rather than to a town of the Chaldees, and that both Mugeyer and Warkah were included, the latter retaining a trace of the original name.

Up to this time Warkah has afforded no records by which it can be identified, and therefore no definite conclusion can be arrived at for the present on the subject. Of all the ruins however which exist in the alluvial plains of the Tigris and Euphrates, Warkah can alone be compared with Babylon or Nineveh, either in the extent of ground it covers or in the information and relics it supplies. In one respect it is even more remarkable than those great cities; it is a vast cemetery, filled with the dead of many successive generations.

The ruins of Warkah are situated in lat. $31^{\circ} 19'$ north, and in long. $45^{\circ} 40'$ east, upon the eastern side of the Euphrates, about sixty miles south-east of Diwanieh, twenty miles east of Semava, and sixty miles north-west of Súk-es-Shíúkh, the residence of the

Euphrates Expedition, applies to Warkah the names Mújayah and El Asayáh, but the Arabs on the spot never call the ruins by these names.

² See 'Journal of the Royal Asiatic Society,' vol. xii. p. 481.

³ See the 'Athenæum' of March 18, 1854.

Montefik Sheikh. Just above the junction of the Semava and Hillah branches of the river, Warkah is only four miles distant from the Euphrates ; but, from March to November, it is impossible to gain access to it from this side, except by boat. In consequence of the rise of the Euphrates (owing to the melting of the snows in Armenia), a vast inundation occupies the intervening space, and extends without interruption towards the south-east, until it joins the still more extensive marshes of the Shat-el-Hie and the Shat-al-Kahr, which also renders approach impossible from the east. Towards the end of the year the water subsides, and the banks of the Euphrates are occupied by numerous small tribes of the Montefik Arabs, who follow the retiring waters and cultivate maize on the newly-formed deposit.

It is not at all a matter of surprise, when the nature of the surrounding country and the character of the tribes who occupy it are considered, that, until 1850, no modern traveller appears to have succeeded in reaching Warkah. The officers of the Euphrates Expedition made the attempt, but were prevented by the intervening marshes. Dr. Ross and Mr. Fraser saw the ruins at the distance of about four miles, but did not visit them.

In January of the year above mentioned, however, during a journey to meet the British Commission about to assemble at Mohammerah, I travelled from Baghdad, accompanied by Mr. H. A. Churchill, and, after many difficulties, arrived at Warkah. The extent of the ruins excited desire to explore them more thoroughly than a two days' visit would permit. We carried away a small collection of relics, a few sketches, and

a plan ; these were subsequently exhibited to Colonel [now Sir W. Fenwick] Williams, K.C.B., the British Commissioner, who directed me to return and make excavations on a small scale. The result was the collection of antiquities deposited in the British Museum in the autumn of 1850.⁴

My third and last visit to Warkah was at the beginning of 1854, when I conducted researches there on behalf of the Assyrian Excavation Fund, during a period of three months.⁵ I was accompanied by Mr. W. Boutcher, the artist of the Society, and Mr. T. Lynch, of Baghdad, who took advantage of this opportunity to visit the ruins.

It is proposed in this Memoir to give a detailed account of the ruins of Warkah, and of the discoveries there made during my three visits to that locality. The great difficulty which attended the excavations was the want of water near the ruins. During my second visit I encamped with the Toweybeh tribe of Arabs at the mouth of the Grayim and at Kalát Dúrájí, six and nine miles respectively distant on the banks of the Euphrates. On the last expedition I caused wells to be dug in the desert, midway between Warkah and the little Arab village of El Khuther, at the distance of four miles from the scene of my labours. The water however proved to be salt, and it was found necessary to convey fresh-water daily to the camp from the Euphrates on camels and mules. In the immediate vicinity of the ruins the slightest breath of wind

⁴ A long Report accompanied this collection, as well as Mr. Churchill's beautiful drawings.

⁵ In the Reports published by this Society, the most interesting and important results of the investigations were omitted, in consequence of the sudden death of the Secretary.

raised clouds of fine sand, which frequently drove the workmen from the mounds, filled up the trenches, and rendered our position extremely unpleasant : so dense was the sand-stream that the Arabs themselves were frequently lost in returning to the camp. When these facts are considered in connection with the wild character of the native Arab workmen whom I employed, it may be conceived that my labours were attended with considerable difficulties.

On the banks of the Lower Tigris and Euphrates the Arabs are divided into two classes :—*Fellah*, those who cultivate grain, and *Mádán*, who feed buffaloes. The latter name is used by the more civilized Arabs to designate all the low-caste tribes. Little pity can the solitary traveller expect, it is said, should he chance to fall into their clutches. During my first visits they manifested considerable kindness and good-nature, and, although at all times eager after money, they were always contented with a fair equivalent for the few articles they had to dispose of. On my last visit however nothing could exceed their avarice and rapacity ; and their nightly quarrels for their wages over their watch-fires afforded scenes worthy of a Hogarth. This change in their character was doubtless owing to the fact that for two years the Euphrates had failed to overflow its banks, and there was consequently a dearth of provisions in the neighbourhood. So reduced were they for food, that I have frequently seen them eat the offal thrown away from my camp. For my own immediate party it was necessary to procure provisions from Súk-el-Shíúkh, sixty miles distant. Not a blade of grass even was procurable for my horses in the neighbourhood of the ruins.

The Mádán Arabs are small in stature and slightly built, but their proportions would do justice to an Apollo. In summer and winter their sole garment is an abba ; a keffíeh, or head-dress, is seldom seen among them, their hair being permitted to hang loose or in plaits. Their swarthy countenances beam with intelligence, and a smile discloses a set of beautifully white teeth. Fire-arms are few ; but every man wields his spear or bitumen-headed club, of which he is prepared to make good use whenever opportunity occurs or necessity requires it. The Mádán of the Montefik are constantly at feud among themselves, or with the neighbouring tribes of the Beni-Lám across the Shatal-Kahr, and are liable to attacks from the Shammar, Aneiza, and Dhefyr Bedouins.

For some distance from the Euphrates the land is much cut up by water-channels, but the ruins are situated on a broad tract of desert soil, which extends ten miles eastward to Sinkara, and is never inundated. This slightly elevated tract bears north-by-east, and is caused by a rise of the stratification, which, from the frequency of shells on the surface, is of marine origin of comparatively recent date.

The principal portion of the ruins of Warkah are enclosed within an exterior wall, which forms an irregular circle of about five miles and a half in circumference. From the centre of the enclosed space rises the "Buáriah," the most lofty and ancient structure in the place. The scene from its summit is one of the most desolate yet imposing which can well be imagined : upon all sides is beheld a vast undulating sea of mounds, brown and scorched by the burning sun—a specimen of complete desolation and

decay. The Buáriah stands on an extensive platform between forty and fifty feet high, which runs in a general direction north and south, almost up to the wall. Upon this platform are also situated the other most important ruins. From its west edge, rise in solemn grandeur two massive square edifices of brickwork, whose bleached and lichen-covered sides attest the lapse of ages which have passed since the hand of man reared them above the surrounding desert. On the south of these structures, the platform is divided into two unequal parts by a wide ravine on a level with the exterior desert. Beyond this the remains of a small building crown the summit of a round-topped mound. At the extreme north of the platform, close to the wall, is a large conical mound. On either side of the platform, and between it and the wall, several small detached and irregular masses of low mounds occupy the level space. Outside the wall on the north, at the distance of two miles, is the dome-shaped pile of Nuffayjí, rivalling the Buáriah itself in height, together with several small conical mounds strewed around without any apparent order or design. On the north-east is another large-sized mound resembling Nuffayjí in form. The remains of a small ruin are likewise visible on the south-west. Traces of buildings and other proofs of former habitations are moreover observed to extend three miles beyond the walls towards the east.

The view of the horizon is not more cheering than that of the ruins. In the clear evening sky are faintly discernible in the west the few spots of Arab habitation which mark the course of the Euphrates at the mouth of the Graim, El Khuther, and Kalát Dúrájí.

These, with the great mound called Tel Ede or Yede, on the north-north-east, Sinkara ruins on the east-south-east, and a few trees towards the east on the Shat-al-Kahr, are all that the eye finds to dwell upon in the distance. The intervening space is a dry, barren, and dismal desert, without water, vegetation, or inhabitants.

I now proceed to describe the ruins *seriatim*.

'THE "BUÁRÍAH."

This conspicuous central ruin appears to have originally been a tower 200 feet square, of sun-dried bricks supported by remarkable buttresses of kiln-baked bricks, which were concealed under rubbish until disclosed by the excavations. The total height of the Buáríah above the plain is about 100 feet. On the north side about twenty-seven feet of the sun-dried brickwork emerges from the surrounding rubbish, but this is deeply cut by ravines. The summit of the still-existing structure measures sixty-eight feet from north to south, and is perfectly level. The bricks are of various sizes and shapes, and differ from any I have observed among the numerous ancient edifices of Babylonia. They are rudely formed in slightly-dried mud, in which are fragments of pottery and fresh-water shells. They vary in size from seven to nine inches in length, by seven inches in width, and from three to three and a half in thickness.

The name of "Buáríah" signifies "reed-mats," and is similarly applied to other mounds in Mesopotamia, in the construction of which the reed-mat is conspicuous. Layers of reeds are placed at intervals of four or five and a half feet between the bricks. Each

layer is four inches in thickness, and is composed of three or four rows of reeds at right angles to each other; their ends form a series of projecting eaves beyond the exterior broken surface of the brickwork. Four or five rows of bricks are placed horizontally in the usual manner immediately upon and under each layer of reeds. The remainder of the building is constructed of bricks lengthwise on edge, having alternately their flat surfaces and narrow edges facing outwards.

At irregular distances are the oblong apertures which usually characterize Babylonian ruins of this description. At the Buárah they are twelve or fourteen inches long, and six and a half or seven and a half inches wide; but I could not ascertain whether they pass completely through the body of the ruin: they appeared to be filled in with rubbish.

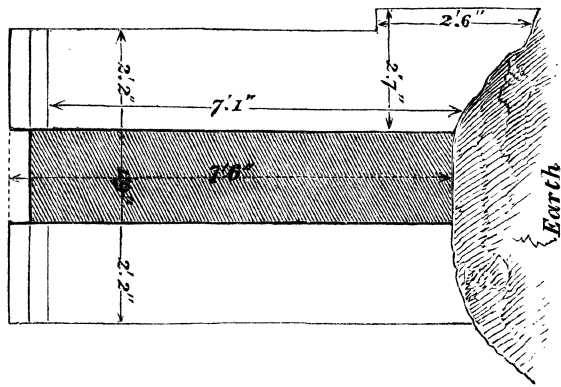
The cement used between the bricks is merely mud mixed with barley-straw, and had been freely applied; but at some places there are interstices of two or three inches, where it was either omitted or has been washed out.

The rubbish, extending from the base to the top of the pile, and resting against its base, appears to have fallen from some superstructure of kiln-baked bricks bearing cuneiform legends, but broken into fragments. Lumps of bitumen prove that this substance was used as cement.

I dug a considerable distance into the west angle of this massive pile of brickwork, in the hope of discovering the dedicatory cylinders which are usually deposited at the corners of Babylonian edifices: the result was unsuccessful, probably in consequence of the dis-

integrated condition of the external layers among which these valued records occur.

In the centre of the north-west and south-east sides (and most likely on the other two) are huge buttresses eighteen and a half feet high, and six and a half feet wide at the back. Each of them projects nine feet beyond the central unbaked-brick mass, tapering slightly as it ascends. Each buttress is double, and each portion two bricks (or two feet two inches) thick; these are connected together by an intermediate wall at the



back. The ground-plan of a buttress is here given, the shaded portion representing the space between them. These buttresses are built of flat kiln-bricks, the greater portion of which bear the impression of a stamp with eight lines of complicated monogrammatic cuneiform inscription, and are cemented with bitumen. According to Colonel Rawlinson this legend merely records the dedication of the edifice "to the Moon" by King Uruk about 2234 B.C.⁶ A few bricks are inscribed with simple cuneiform, and exhibit the mode in which the monogrammic characters are formed.

⁶ Before the time of Abraham, according to the received Chronology.

The remains of a wall were discovered on the summit of the Buáriah, from the bricks of which Colonel Rawlinson obtained the name of Sin-Shada, 1500 B.C.

A large enclosure evidently existed around the foot of this ruin, traces of which still remain ; but the walls are so encumbered with drifted sand and rubbish that it is difficult to define their exact outline. They are built of vitrified bricks, with inscriptions of Mero-dach-Gina, who reigned about B.C. 1400. A portion of a wall 270 feet long, but scarcely elevated above the platform, occurs on the south-west at about 150 feet from the great mass of the Buáriah. At right angles on the north-west a more distinct wall runs 350 feet, and is separated from the former by a space of fifty feet, which was probably an entrance. A deep ravine terminates this wall at the other extremity. On the south-east the enclosure is bounded by a low wall or terrace 240 feet long, and thirty-five feet high, which likewise bounds the south-east edge of the great platform. The terrace is built of inscribed bricks, and at its north extremity is a square projecting turret or bastion. The place between this and the Buáriah is traversed by several deep ravines, which expose various inner walls of small red bricks pierced with six holes, and firmly embedded in thick layers of bitumen. Several trenches were dug at this side of the Buáriah, but they revealed nothing but a solid mass of unbaked bricks, upon which the terrace was constructed. The north-east wall is very indistinct. Within the above-described quadrangle are portions of walls and foundations, but so dilapidated and encumbered that it was impossible to determine the original plan.

“ WUSWAS ” BUILDING.

The name of this edifice is derived from an Arab tale, which is to the effect, that—“ A Negro called Wuswas, having discovered a wall on the south-west side, excavated in it for gold. He found a valuable ring, but was alarmed by a vision to such a degree, that he made off with his spoil, and was never afterwards heard of.” The superstitious Arabs have not since dared to enter the excavation, which they declare to be haunted. The name preserved in this legend may probably be the ancient one.

At the distance of 840 feet due west from the Buária, is the east corner of the quadrangle which surrounds this, the most interesting of the two large structures, on the edge of the great platform. From their general disposition it is presumed that they were temples.

The enclosure is oblong, and embraces an area of about 36,000 square yards. It is bounded by massive walls, which have long since fallen, and now form extensive and high ranges of mounds composed of broken bricks; the north and south angles point duly in those directions. The north-west and south-east sides are the longest, and measure 650 feet each; the others 500 feet each. An oblong court occupies the east angle of the quadrangle.

The most conspicuous and important portion of the Wuswas ruin is situated on the south-west side, and consists of a massive building of brickwork, 250 feet by 173 feet square, the summit of which is eighty feet above the plain. It is surrounded on three sides by terraces of different elevations, while the fourth pre-

sents a perpendicular façade. The architectural peculiarities herein exhibited are so remarkable and original as to pronounce at once the undoubted antiquity of the structure: they afford us also the first glimpses of the external ornamentation of Babylonian edifices. It is true that Colonel Rawlinson has recently made known the result of his researches at the Birs-i-Nimrúd, which is described as standing on the summit of seven consecutive terraces; and that Mr. Taylor, of Busrah, has explored the great building of Mugeyer; but, in both these cases, little or nothing of the superstructure remains. That of the Birs-i-Nimrúd is by far the more perfect of the two, yet there is nothing left by which any notion can be gained of its exterior.⁷ In the Wuswas, however, we have a façade of $173\frac{3}{4}$ feet in length, and in some portions 23 feet in height, from which it is not difficult to complete a restoration to that height. This discovery is the more important, since it enables us to form a true notion of the external architecture of the Babylonians as well as of the Assyrians. For the first time we have some positive data by which to reconstruct the walls of the Ninevite palaces.

My attention was mainly directed during the last excavations to the south-west face of the Wuswas, where I had previously remarked certain architectural peculiarities. These are represented in Mr. Churchill's series of drawings, which are deposited in the British

⁷ Since the above was written, I have learned that Colonel Rawlinson discovered on the basement terrace of the Birs-i-Nimrúd, an arrangement of seven half-columns similar to that hereafter described, although not identically the same, as on the Wuswas façade.

Museum. Trenches were therefore directed against this façade, where there appeared a probability that an entrance might be effected into the interior of the edifice. The edge of the broken wall at the summit having been laid bare, its uniformity of outline induced me to excavate at four different points. It soon however became evident that neither entrance nor window ever existed on this side. In consequence of the enormous accumulation of fallen brickwork and loose rubbish, the greatest care was necessary to prevent the workmen being buried by the falling in of the trench walls.

In further describing the results of the excavations at the south-west façade, I cannot do better than quote from Mr. Boutcher's Report on the subject, drawn up at my request for the Committee of the Assyrian Fund.

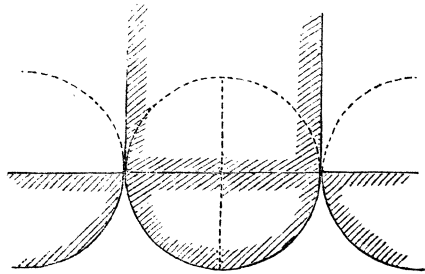
“ Like all other Babylonian and Assyrian ruins, the ‘ Wuswas ’ building at Warkah is elevated from the plain on a lofty artificial platform. Although the portions now uncovered possess no beauty comparable with the artistic productions of subsequent ages, a broad air of grandeur must have attended the immense size and height of the edifice. It now furnishes an additional page to the annals of architectural art.

“ At the height of some 50 feet above the plain a terrace of baked brick, 3 feet 5 inches wide, coated with a thin layer of white plaster, was in one place discovered. This, we presume, runs the entire length of the front, as there is no projection against which it might be stopped.

“ From this terrace, in one unbroken perpendicular line, without a single moulding, rises the main wall

of the building. It is built of square baked bricks, bedded in thick mortar, and coated with a single layer of white plaster varying from 2 to 4 inches thick, which seems to have suffered more from the fall of the upper portion of the building than from its anterior exposure to the weather. The entire length of the front (in brick measurement) is 173 feet 4 inches. It is subdivided by slight recesses 12 feet 6 inches long. A wall of baked bricks 3 feet 6 inches thick at the north-west angle, and a mass of sun-dried bricks at the south-east, are traced under the rubbish, continuing the line of frontage some 15 feet on either side: these are, without doubt, the work of a later age. The characteristic features of the façade, repeated on the flank walls, distinctly mark the subsequent additions.

“The most striking feature of the front settles, I think, the moot question whether the Babylonians employed the column as an architectural embellishment. Seven times on the lower portion of the building is the same sacred number of half-columns repeated, the rudest perhaps which were ever reared, but built moulded with semicircular bricks bonded together, and each alternate layer tailed securely into the wall. The entire absence of cornice, capital, base, or diminution of shaft, so characteristic of other columnar architecture, and their peculiar and original disposition in rows like palm-logs, suggest the type from which they sprang. There is not a line in the face to which foreign influ-



ence can be traced. In the place of a plinth, a fillet of plaster, $1\frac{1}{2}$ inch high, reconnects the line of wall broken by the receding curvature of the columns. A horizontal band, flush with the wall, passes over the top of the columns. From this, immediately over the three central columns of each group, rises a stepped recess 1 foot 9 inches deep, surmounted by a larger and a smaller crescent, a sacred emblem of Chaldæan worship. On either side of these recesses, over the first and seventh columns of each series, is a chasing, containing in its upper half a similar column to those before described, carried on a stone template. When coated with plaster, on account of the projection from the abutting, the column here employed could have had the appearance only of a convex-backed panel.

“The rest of the front, at intervals, is perpendicularly subdivided by chasings, 7 inches deep, extending uninterruptedly from the terrace to the highest point of the building now remaining. This chasing is visible in many other Babylonian ruins at the Mugeyer and at Sinkara; and when, as in this instance, it is coated with plaster, forming double recesses of $9\frac{3}{4}$ inches and 4 inches respectively, it has precisely the appearance delineated on one of the sculptures at Koyunjik (see Layard's ‘Nineveh and Babylon,’ p. 647). The nearer arrangement of the two groups of columns at each end vary in some measure the otherwise monotonous character of the façade.

“The whole of the front has been undoubtedly coated with plaster. There is not only no trace of colour, but no space whereon the gorgeous representations described by ancient authors could ever have been depicted.”

Having failed to gain access from the exterior to the chambers supposed to exist within, I caused trenches to be opened upon the summit, where certain hollows and linear elevations indicated the probability of there being rooms. A long excavation at length led to the discovery of a small chamber, and hence, by tracing the tops of the walls, to that of six others. Beyond this, on account of the cost of excavation, it was deemed unadvisable to proceed. The general arrangement of these chambers resembles, in a remarkable manner, that of the Assyrian palaces, as regards their want of uniformity in size and shape, and the position of the doorways at the sides rather than at the centres of the rooms. The largest chamber measured 57 feet by 30 feet; the smallest 30 feet by 9 feet. A shaft was dug in the former, and the rubbish entirely cleared from the latter to the depth of $23\frac{1}{2}$ feet. In both a brick pavement was reached, but not a fragment of stone was met with which might lead to the supposition that sculptured bas-reliefs were used in the decoration of the edifice. The internal pavement is on a level with the external terrace.

Of the interior Mr. Boutcher reports that, "the walls of the chambers are plastered, but no trace of colour is discernible. Portions of date-wood, 6 inches by 4 inches, were found in the small chamber; and apertures for beams are traceable in the walls, 12 feet high from the pavement. They extend however only partially the length of the room, leaving a species of well, down which light might have passed to the lower apartment. The other chambers must have been lit in some measure from above, but the precise mode is conjectural. There is neither window nor door along

the whole length of the front uncovered, by which light could have been admitted.

“The rubbish on all sides is of immense extent, rising from two to six feet above the ruins, completely filling every chamber, and extending from twenty feet to thirty feet from the base of the outside walls. This, and the great thickness of the outside walls remaining, gives some idea of the size of the fallen superstructure. The flank walls are thin compared with the front and internal walls. This peculiarity may possibly yield a suggestion as to the form of the fallen portion of the ruin.”

It is necessary here to remark that the flank walls measure ten feet, while the front and some of the internal walls are no less than twenty feet in thickness. The impression produced was that these walls served to sustain arched roofs, above which there probably were additional stories.

With the exception of numerous fragments of glazed enamelled bricks, some with representations of seven-rayed stars, there was nothing discovered to indicate the mode of decoration employed. The fragments were obtained among the rubbish, both within and without the building. The colours of the enamel were black, white, yellow, green, and blue.

The principal entrance was subsequently exposed on the north-east face of the edifice. It leads into a large court or hall, in direct line with the centre of the great chamber above alluded to. The doorway is not in the centre of the front. On either side were plain brick jambs, one of which I pulled down in the vain hope of discovering a barrel-cylinder or other historical record. Fragments of ancient bricks, bear-

ing the legend of Sin-shada, most probably taken from the Buáriah, were built into this jamb. This serves to limit the antiquity of the Wuswas to a period subsequent to the date of that monarch.

With this exception every brick used in the construction of this edifice has a triangular stamp deeply impressed on its under side ; they measure $12\frac{1}{2}$ inches square and 3 inches thick. Lime-mortar is used. There were observed a few bricks having, in addition to the triangle, the impression of an oblong stamp, with thirteen lines of cuneiform writing. The characters were, from their size in all cases, exceedingly indistinct, being but slightly larger than those usually seen on clay records. Colonel Rawlinson examined the most perfect of these legends, and, from the apparent simplicity of the characters, was inclined to consider them as belonging, not to the Babylonian, but to the Parthian, or even to the Sassanian Era. I nevertheless believe that the Wuswas ruin will ultimately yield records to prove its Babylonian origin. This opinion is derived from the fact that, subsequently to the discoveries at Wuswas, buildings, which undeniably date back to the time of Sargon, and which exhibit precisely the same external architectural features, were exhumed in Assyria. It certainly appears improbable that a style of architecture so rude—we might almost say unsightly—should have remained unchanged during the dynastic convulsions which occurred in those regions, and the foreign influences which produced them. We know, on the contrary, that during the Greek occupation a far higher style of art was introduced, which had a sensible effect wherever it penetrated. We know also that Greek influence

was materially felt in Persia and Mesopotamia during the Parthian Era, and I shall shortly have occasion to show that a highly decorated building of this period actually existed in Warkah, very different from the one now described. Under these circumstances I consider it extremely improbable that the Wuswas is as late as the Parthian times.

Allusion has been made to three terraces of different elevations, which complete the circuit of the remaining sides of this great chambered edifice. That on the north-west is the lowest, not exceeding thirty-five feet in height. It extends however from the main structure to the enclosure-wall in one direction, and the whole length of the enclosure, or 650 feet, in the other. It is built of sun-dried bricks, although portions of rude walls and a kiln-baked brick pavement are here and there visible; these may be of comparatively modern construction. The other terraces are probably similar, but the rains have committed great havoc in their form, while masses of crumbling ruins cover their whole surface.

The north-east terrace extends at right angles from that on the north-west up to the south-east wall, and gradually ascends towards the south-east and highest terrace. This last occupies the space between the enclosure-wall and the edifice.

The remainder of the enclosure is taken up with a spacious court, which is only a few feet raised above the external platform. Two high walls separate this court from the north-west and north-east terraces.

There appear to have been three entrances to the enclosure; one from the south-east into this court, and two leading to the north-west terrace.

The exterior walls of the enclosure are of coarse kiln-baked bricks, bearing the usual triangular stamp. Some few are inscribed with complicated cuneiform, but are highly vitrified.

At 110 feet respectively from the extremities of the north-west wall, are two corresponding entrances above mentioned, each thirty feet in width. On the left of the northern entrance the bricks are much vitrified, bent and contorted, adhering to each other in masses, as at the Birs-i-Nimrúd. Upon the terrace within, upon the right, are the remains of a small square building of rough bricks. From this point the wall takes an irregular twist, but regains its original straight direction before reaching the other entrance. Here the left wall is of sun-dried brick, fifteen feet wide, the foundation being broken pottery. At right angles to this wall is another of baked bricks on edge, apparently part of a building corresponding with that at the other entrance. The rain-channels find an exit by these entrances.

Around the western angle the wall becomes low, and consists entirely of scoria and slag, but it afterwards rises above the surface-level of the terrace and terminates against the great pile.

A wide excavation has been made at the summit of the south corner, probably for bricks. A large block of limestone has been burned here; and in various other parts of the ruins similar stone has been destroyed by the Arabs in search of gold.

Outside the north-west wall, and immediately opposite the north entrance, is a small square mound covered with scoria. A similar mound stands near the centre of the south-east wall.

THE LARGE TEMPLE.

A deep ravine on the south of the Wuswas separates that building, with its enclosure, from a second edifice, which occupies an area of about the same size, and is similar in its general form.

It consists of a great square pile of brick masonry, and terraces on the north-east and north-west sides ; but has no exterior court as at the Wuswas. The temple itself is more massive, and attains a somewhat higher elevation ; but both of these structures were probably erected about the same date : the bricks are of precisely similar size and make, and bear the same triangular stamp ; and low mounds of brick rubbish in like manner cover the summits.

The south-west and south-east sides were originally perpendicular ; and it is somewhat remarkable that an excavation has been made likewise in this ruin at its south angle. It exposes a wall of unbaked bricks, probably a subsequent enlargement of the edifice.

The terraces in all respects resemble those at the Wuswas, but the remains of shallow buttresses are observable along the face of the north-west terrace-wall.

The entrance or entrances have undoubtedly been on the north-east, along which side of the enclosure is traceable a wall of inscribed and vitrified bricks.

Between the Buáriah and the two great ruins above described is a level space, which may have been a court or enclosure connecting them together.

CONE-BRICK EDIFICE.

At the very base of the great platform at the south angle of the Buáriah enclosure is the remain-

ing fragment of an exceedingly remarkable building. From its position, scarcely above the level of the desert, I regard it as one of the earliest relics discovered at Warkah. It consists of a wall, 30 feet in length, composed of terra-cotta cones, each $3\frac{1}{2}$ inches long, which are imbedded in a cement of mud and chopped straw. The cones are laid horizontally, and therefore have their circular bases outwards. Their natural colour is a dirty yellow, but the bases of many have been dipped in black or red paint. With these three colours they are arranged in various ornamental patterns, such as diamonds, triangles, zigzags, and stripes. The plan of the wall is as follows:—A plane surface, 14 feet 10 inches long, of which 3 feet 3 inches are broken away, projects 1 foot 9 inches beyond a series of columns: two of these columns are visible on one side, and nearly six on the other. They are arranged side by side, as in the Wuswas façade, and indicate a similar origin. Each column differs from its neighbour in design, but that nearest to the projection on either side presents a front of only 1 foot 8 inches, which is ten inches less than the others. It is much to be regretted that the wall did not extend further, as it would have been interesting to ascertain if the number of columns abreast agreed with that at the Wuswas, viz. seven. The highest point of the wall did not exceed six feet. Cross-trenches failed to disclose other portions of this edifice. No trace of walling behind the cones could be distinguished from the mass of surrounding earth; but that such a wall, possibly of sun-dried bricks, once existed, is evident from the slender nature of the remaining relic.

Similar, but much larger, cones are found in ancient

Egyptian tombs, inscribed with hieroglyphs on the base; they are said to have been let into the wall above the entrance, but have not been seen in that position. The hieroglyphs were probably the names of the deceased. From their resemblance to the Egyptian cones, it is not unreasonable to conclude that those found at Warkah were used for a similar purpose; and that the edifice ornamented with them was a sepulchral monument. None of the cones however bore inscription or other mark whereby this point could be decided; but the fact that Warkah was a vast necropolis is strongly presumptive evidence in favour of this conclusion.

Cones of the same description were not unfrequently dug up in various parts of the great platform. In some cases they were firmly fixed in strong gypsum-plaster or cement; but they constituted no portion of a building remaining *in situ*. Excavations on a large scale would probably disclose additional information on this remarkable style of architecture, and on the age at which it prevailed.

For my own part I have no doubt of its Babylonian origin. Terra-cotta cones are usually found in undoubted Babylonian ruins which have not been built upon by later Dynasties. Cones, or rather horns, of terra-cotta occur on the same ruins. Specimens of these are now in the British Museum, from Warkah and elsewhere, bearing inscriptions of very early date in cuneiform around the outer surface, but not on the base, as in the Egyptian cones.⁸

⁸ The plan and elevation of this edifice of cone-bricks, exhibiting the designs on its surface, are given in the first Report published

SOUTH-WEST BUILDING.

Within a stone's throw south-west of the Wuswas façade are the remains of another curious and original building, exhibiting certain points of resemblance to that last described. It rises from the level of the desert to the height of about sixty feet, and appears to have been a tower of unbaked brick. The enormous quantity of broken pottery on its surface and around its base attracted my attention. On excavating on the north-east side I discovered a species of basement, or perhaps terrace, of unbaked bricks abutting against a mass of compact earth. Upon the latter was raised a wall which consisted of alternate layers of unbaked brickwork and a peculiar species of vases. This wall was traced about 100 feet, and seemed to have been built without any regular plan. At one point it projects outwards four feet, is rounded off, and then recedes eight feet. After following its original direction 43 feet, it forms an obtuse angle and again bears as before. Above the foundation are a few layers of unbaked bricks, superimposed on which are three rows of vases. These are arranged horizontally, with their mouths outwards, and immediately upon one another.

This order of brick and pot-work is repeated three times. Above the last row of vases is a considerable mass of unbaked brick.

The vases vary in size from ten to fifteen inches in by the Assyrian Excavation Fund. One of the cone-bricks is also drawn full-size on the previous page of the Report.

In Mr. Taylor's account of his excavations at Mugeyer and Abu-Shahreïn (see 'Journal of the Royal Asiatic Society,' vol. xv. part 2) mention is made of similar terra-cotta cones, and inscribed horns or priapi, as having been found in his trenches at those localities.

length ; the general diameter at the mouth being four inches. The cup is only six inches deep, consequently the conical end is solid. From their thickness throughout they would bear considerable superincumbent pressure : the greater number were however broken.

With their circular mouth outwards, these vases produced an effect even more strange than that of the cones in the last-described edifice.

Except for the purpose of ornament, it is difficult to conceive the utility of these vases.⁹

An excavation was made into the centre of this structure, but failed to discover anything but earth and sun-dried brick.

SCULPTURE.

As connected with the buildings of the same period, I may here describe the only piece of sculpture as yet discovered at Warkah.

On the first day of my last visit to the ruins, previously to the commencement of the excavations, as we were struggling over the soft yielding soil of the mounds, Mr. T. Lynch directed my attention to a lump of basalt which cropped (to use a geological term) out of the ground about 100 feet south of the cone-brick edifice.¹⁰ On being uncovered and turned

⁹ At Mosul and other Oriental towns the walls of the terraces, upon which the natives sleep during the hot nights of summer, are very tastefully ornamented with vases and pipe-tiles, forming pretty open-work patterns. I have seen no instance in modern houses of foundations or lower walls of pottery.

¹⁰ I had previously observed this block, on my second visit to Warkah, and had set two Arabs to dig it up : they were unable to move it. My attention was called to other matters, and the block of stone was forgotten.

over, it proved to be a block of columnar basalt, measuring 3 feet 10 inches long by 1 foot 5 inches wide on each of its four faces. Three sides are rough and uncut, but the fourth, which was undermost, bore a figure sculptured in low relief, 3 feet in height. It represents a warrior in short tunic, which is confined at the waist by a girdle, in which is placed a dagger or short sword. The hair is long; round the head is a narrow fillet. The left arm crosses the breast, while the right is raised; the hand wielding a short spear, as though in the act of transfixing a prostrate foe or animal. In every respect it resembles the wild Arab of the present day. The design is spirited, and the outline correct; but the execution is rough, and the block appears to have suffered generally from long exposure and ill-usage. There is a certain archaic character about the bas-relief which marks it as one of the earliest relics from the ruins. The block was broken into four pieces, the effect probably of the fires lighted by the Arabs for the purpose of discovering gold inside.

Many trenches were dug in the immediate vicinity of this bas-relief, in the hope of meeting with other remains of similar nature, but without success.

THE WALLS OF THE CITY.

Among the more ancient ruins of Warkah I class the city walls. These may be traced with little difficulty throughout their entire circuit round the ruins. They take the form of an irregular circle of five and a half miles in circumference: at the cardinal points slight angles are perceptible.

The highest portion of the walls is on the north-

east side, near a conical mound.¹¹ At this point they still reach forty feet in height above the plain, while the quantity of rubbish at their base shows that they have been originally much higher.

From the north-east to the south the average height is from 20 to 25 feet. Numerous breaks exist along this portion of the walls, three or four of which were undoubtedly entrances. Pottery, vitrified and inscribed bricks, scoria, and glass, are found here in abundance, as well as elsewhere among the ruins. The brick foundations of the wall itself, seven feet wide, may be distinctly traced at several places.

From south to west the course of the wall is only traceable on a level with the desert by means of the darker colour of the soil, and the remains of semi-oval turrets or towers, fifty yards apart. These were open towards the interior of the city, and had a wall of from 4 to $5\frac{1}{2}$ feet thick facing the desert.

On the north-west the wall may be followed over several high mounds of slag and scoria, while others, covered with the same substances, are here visible on the right and left.

The difference in height of the walls on the north-east and south-west sides is somewhat remarkable; but this may be satisfactorily accounted for by the fact that a large river or canal flowed along the north-east wall, which must of necessity have been sufficiently strong to withstand any sudden and extraordinary rise of the stream.

Many of the relics, such as glass, etc., on the surface of the walls, indicate that the city was occupied at a late period of its history by the Parthians; for to them

¹¹ Marked F on the Plan.

is most probably to be ascribed the large quantity of glass which usually covers the sites occupied by their Dynasty.

I have thus far endeavoured to describe such edifices as belong, in my opinion, to the period anterior to the time of Alexander the Great. I cannot attempt to determine the precise date of any of these remains, but I class them generally as Babylonian. I now proceed to describe certain conspicuous conical mounds of doubtful age, but which may eventually prove to belong to the same early period, although we are at present without sufficient data to pronounce a deliberate opinion upon them.

CONICAL MOUNDS.

Only two structures of this kind exist within the circuit of the city walls.

Of these the more important is situated about 250 feet from the north-east side.¹² Its height is 45 feet, including 15 feet of mound or platform upon which it stands. Trenches were dug completely through this cone from summit to base. It consists entirely of unbaked brick, and failed to yield a single relic: it has probably been a watch-tower.

The great platform, so often mentioned, commences from this conical mound, and slopes gradually upwards until it attains its highest elevation near the Buáriah. Few remains of buildings are to be seen near the north and north-east wall, although now and then a brick with a triangular stamp is met with, to indicate that such formerly existed.

¹² F of the Plan.

About midway between the above-described mound and the Buáriah is a second but smaller cone.¹³ It was likewise cut through, and revealed a foundation of bitumen in its centre, halfway up.

Outside the walls are several other conical mounds of similar description.

Of these the most important and conspicuous is that called Nuffayjí,¹⁴ about two miles due north of the Buáriah. Its height is 90 feet, and the circumference of its base 950 feet. The sides are so steep as to render the ascent to its summit both difficult and dangerous. It appears to be a pile of solid loam, but on the west side near the summit is a great quantity of broken pottery. Nuffayjí is one of the most remarkable objects at Warkah, standing solitary in the desert, but towering to an equal height to the Buáriah.

It is difficult to imagine the purpose of erecting a structure of such magnitude outside the walls ; and it is the more curious, as the isolated position of the Birs-i-Nimrúd has hitherto formed the principal obstacle to the determination of the topography of ancient Babylon. The Arabs have a tradition that it was raised by a besieging army ; but that, finding it to be too far distant from the city, they built a second mound,¹⁵ similar to Nuffayjí, nearer the walls.

Between Nuffayjí and the walls are numerous small conical mounds, two of which correspond in size and height.¹⁶ They seem also, from their position, to have been in some way connected with the

¹³ H of the Plan.

¹⁴ K of the Plan.

¹⁵ O of the Plan.

¹⁶ L and M of the Plan.

large mound : they are 28 feet high, and measure 526 feet in circumference each.

The last remaining conical mound¹⁷ is situated about 800 yards from the north-east wall. It measures 40 feet in height, and 170 feet in circumference at its base. At 800 feet from its north-west base are the remains of an enclosure 450 feet square, with a mound 20 feet high at its east corner.

The space between these mounds and the city walls is strewn with evidences of former industry ; and they extend for a distance of three miles into the desert on the east.

Having failed to obtain any information by excavating in the two conical mounds within the walls, I did not venture to make further experiments on those outside.

While describing the conical mounds without the walls, it may not be amiss to mention a small and apparently insignificant one,¹⁸ of a different shape, just outside the south-west wall : it measures 76 paces by 110 paces square, and its highest point does not exceed 14 feet. Strewn over the surface of this area were numerous kiln-bricks of a fine quality, moulded as spiral columns and ornamented capitals (?) of a peculiar character. One brick bore in relief a sun or star with twelve rays. None of these were *in situ*, but they lay scattered about indiscriminately. Several specimens of these bricks are deposited in the British Museum. In addition to the above, there were found here nearly every variety of inscribed bricks which occurs elsewhere among the ruined buildings and mounds of Warkah : they have evidently

¹⁷ O of the Plan.

¹⁸ Q of the Plan.

been conveyed hither from them. The same kind of greenish scoria and other relics are strewed around as in other portions of the ruins within the walls.

The edifices I am now about to describe belong without doubt to a much later date than the larger and more massive ruins. It would probably be more correct to include them in the account of the great feature of this remarkable "City of the Dead,"—the Necropolis, but that I think it best to finish with the architectural portion of the subject.

THE SOUTH OR PARTHIAN (?) RUIN.

It has been already mentioned that a ravine of 380 feet in width, probably a main road or watercourse, divides the great platform into two unequal parts on the south of the large edifices. On the south-east corner of the smaller division, but separated from it by a deep incurved channel, stands a small square mound reaching to a height of 40 feet. On the summit are the remains of a chamber 45 feet long by 25 feet wide; it was completely filled with rubbish. The walls inside were plastered. The entrance is at the north-east, on either side of which is a three-quarter column; while another of similar kind stands at each of the two corners of the south-east side. These columns are built with triangular moulded bricks, without mark. The others bear generally the triangular stamp so peculiar to the Wuswas and its fellow-ruin; but they have evidently been used here at a much more recent period, as they are built in with other materials in a rude manner.

At a lower level, on the south side of the same mound, two connected chambers were excavated. The remains of an arched doorway led into the first, and an oval brick sarcophagus was built into a recess of the second and inner room. This tomb was plastered inside, and was filled with rubbish from the fallen building. Both the walls and floors of the two chambers were likewise plastered, and the floor of the inner slopes towards a square hole in the front wall. It is possible that this edifice was a lavatory for the dead ; hence the use of the sarcophagus and sloping floor. Many of the bricks are stamped with the Wuswas stamp, but are rudely built with mortar, and frequently placed on their edges. From the discovery here of a broken clay figure, and from the generally rude character of this edifice, I am inclined to attribute it to the Parthians.

Near to this chamber was a pavement of vitrified slabs, a substance frequently noticed in Mesopotamia ; this is however the first time I have seen a pavement composed of it. These slabs measure 2 feet 4 inches square, and are polished on the surface, though rough elsewhere. *

The ascent to this mound appears to have been by flights of steps on the south-east and south-west, conducting to a terrace. At the angle formed by the above-mentioned sides is a projection of brickwork twenty feet square. It is of pyramidal form, and was ascended by steps, which are now broken away.

OTHER BUILDINGS OF THE SOUTH PLATFORM.

The remaining portion of this platform attains the height of 40 feet, and upon it are fragments of a build-

ing or buildings constructed of kiln-bricks which are placed alternately flat and on edge. Masses of this kind of brickwork are seen on the surface; one remains *in situ*, five feet square, appearing like the jamb of a doorway: a coat of plaster, three inches thick, covers the whole exterior. The bricks are distinctly marked on their under surface with impressions of reed matting; but not one bears the Wuswas stamp, nor are any found with inscriptions. The lime cement is of a grey colour, and was thickly applied.

Several blocks of similar brickwork rest on a foundation of broken pottery; and, as the whole surface of the mound is covered with fragments of funeral vases of the same description, there is no doubt of the comparatively recent construction of these buildings. These, from the peculiar method of laying the bricks, may undoubtedly be assigned to a late period of the Parthians.

Numerous other instances occur of Parthian buildings at Warkah; but these are of little or no importance compared with that which I shall now describe on a small detached mound, the most easterly within the walls, and which has afforded some of the most valuable relics and information obtained at this locality.

GREEK AND PARTHIAN MOUND.

This mound is situated about half a mile south-east of the Buária, is of an irregular oval form, and attains the height of 40 feet above the plain. Having picked up a few fragments of ornamental plasterwork, I was induced to make excavations on its summit. The result was the discovery of a chamber 40 feet long by

28 feet wide, of which the walls remaining did not exceed four feet in height : these were formed of unbaked bricks, covered internally with coloured plaster. The floor was completely covered with fragments of fallen cornices, capitals of half-columns, and innumerable other architectural ornaments, all bearing strong symptoms of the influence exercised by Greek art in this remote region, while they exhibit an Oriental origin. The larger objects are constructed of moulded bricks covered with a thin layer of fine white plaster ; the smaller ones are cast in plaster alone. Rich and fantastic colouring is everywhere visible.

One fragment of cornice bore, among other devices, a spirited crouching griffin, having a remarkable resemblance to the same figure on a frieze at the ruins of Al Hathr, near Mosul. It was accompanied by the Greek echinus-bead.


Three of the capitals are Ionic, but the proportions of the volutes and other members are peculiar. A fourth description of small capital has peculiarities of its own. A large and elegant leaf rises from the neck, and bends under each corner of the abacus. In the centre, springing from behind a smaller curled leaf, is the bust of a figure wearing an enormous head-dress,¹⁹ especially characteristic of the time of the Sassanians.

For the large capitals there were found no corresponding columns, but the walls appear to have been adorned with numerous small Ionic columns having half-smooth, half-fluted shafts : these were highly coloured. The lower and smooth portions were striped

¹⁹ This head-dress also occurs, as will be hereafter noticed, on the surface of coffins discovered also at Warkah.

diagonally with red, green, yellow, and black; the flutes were painted black, red, and yellow alternately, the level ridges between them being left white. In some cases the flutes were quartered with the same colours.

Among the *débris* may be enumerated the following smaller articles:—bases of columns, friezes; on which are introduced bunches of grapes alternating with leaves; gradines ornamented with a six-rayed star and circle in relief; fragments of open screenwork, exhibiting on each side a different geometric pattern of complicated design, but not to be confounded with the arabesque; and portions of the painted plaster which had fallen from the ceilings and walls. There were likewise many pieces of plaster figures, coloured and sometimes gilded: (1) the lower part of a draped figure with a lamp in the left hand; (2) a well-formed leg; (3) two feet; 4, another foot wearing a sandal; and (5) a left arm supporting drapery.

I was at first inclined to ascribe this edifice to the Greeks; but the ultimate discovery of what may perhaps be Pehlevi characters  scratched on a piece of plaster, the strange head-dress, and the general character of the ornamental details, induced me to arrive at the conclusion that it was erected by the Parthians.²⁰

Among the most important discoveries made at Warkah may be classed that of eight baked clay tablets, which were dug up within twenty paces from and at three feet below the level of the chamber above described. They differ in many respects from

²⁰ A selection from the plaster ornaments discovered in this chamber is now in the British Museum.

the tablets hitherto obtained: they are made of a peculiar kind of reddish-yellow clay, measure an inch in thickness, and bear, round their flat edges, the impressions of seals with the name of "the party to the deed" written below in cuneiform characters. Above each seal are the characters $\simeq \ddagger \ddagger \blacktriangleright$. Many of these seals are remarkable for their extreme beauty, and exhibit the perfection attained in the art of gem engraving. The largest tablet measures $4\frac{1}{2}$ inches by 4 inches. Each is inscribed with from twelve to twenty lines of writing on each side; but the characters are so minute and complicated as to require examination with the microscope. They were found close to the surface of the mound, among charred date-wood, and lying on decayed straw-matting imbedded with bitumen.

A description of these tablets, as far as I am able to give it, may not be uninteresting.

No. 1. Size $4\frac{1}{2}$ inches \times 4 inches. Lines of inscription 20 and $18\frac{1}{2}$. Number of seals 12, *i. e.* on each edge 3, all oval, some elongated and pointed; the largest and most important are central at top and bottom. Of these, one, rather indistinct, appears to represent the winged Deity, before whom is a well-defined isosceles triangle, precisely resembling that on the bricks of the large temple at Warkah.²¹ On the right of this impression is a very fine head, having a likeness to Socrates. On the centre of the opposite edge is a very expressive Greek face, beardless, and by no means unlike Alexander the Great. To the left of this are represented two figures, male and female;

²¹ This is additional evidence that this building and the "Wuswas" are not of Parthian origin.

the former with his back turned to a graceful column, apparently without base, but crowned with a voluted capital. At the side of this tablet is a Greek head with helmet and plume: the other impressions are less distinct.

No. 2. Size $4\frac{1}{2}$ inches \times $3\frac{1}{2}$ inches. One corner is broken off: it appears to have had originally 20 or 21 impressions. There occur on this tablet a spirited Sphinx, the head surmounted by a four-turreted crown; several other Sphinxes; and several damaged seals.

No. 3. Size $4\frac{1}{2}$ inches \times 4 inches. Lines of inscription 20 and 17. Number of seals 18, some of which are remarkably beautiful, perfect, and spirited. They comprise: (1) a roaring lion, a moon and star; (2) a wild ass trotting, crescent above; (3) winged sagittarius, crescent in front; (4) winged griffin, with single horn, resembling the same figure on the rock tombs at Persepolis; (5) a Sphinx. The other impressions are less distinct, but the crescent is discernible in all.

No. 4. A smaller tablet, with only two distinct impressions: (1) the fish-god Ovannes (?), with goat's head and fore-legs, a star in front, an eagle with outstretched wings (Hormuzd ?) hovers behind; (2) a male figure, followed by a female.

No. 5. The only impression very distinct is that of a Babylonian (in profile), with long robe, and bearing a staff in one hand.

The impressions on the three remaining tablets are more or less damaged.

The frequent repetition of the heavenly bodies, and the presence of zodiacal signs, are worthy of notice:

they seem to imply some connection with Chaldæan worship. This idea is confirmed by Colonel Rawlinson's examination of the inscriptions upon the tablets. The matter relates entirely to the domestic economy of the temples. The names attached to the seals are in many cases Greek written in Babylonian characters. They are dated in various years of the reigns of Seleucus and Antiochus the Great; thus satisfactorily proving that the cuneiform writing was practised as late as about 200 years B.C. These tablets therefore are the latest known documents of the cuneiform period. Before this discovery the most recent records of this style extant were the Persian inscriptions of Artaxerxes Ochus at Persepolis, and on the porphyry vase at Venice, about 350 B.C. It is very remarkable that no monuments of the intermediate 150 years have ever yet been brought to light; yet that period cannot be without its cuneiform memorials. Let us hope therefore that these may in course of time be discovered, to add to our knowledge of that eventful era.

Having now described all the principal edifices and mounds at Warkah,

THE NECROPOLIS

next attracts our attention.

It is a very remarkable fact that, while the excavations in Assyria have failed to afford us any information relative to the disposal of the dead in those early times, nearly every site examined in Chaldæa abounds with funeral relics. This bears out the statement of the Greek historian Arrian, that the old Assyrian Kings were buried among the marshes of this region. From the enormous accumulation of human remains,

it would appear that the Warkah was a peculiarly sacred spot, and that it was so esteemed for many successive centuries. The custom of conveying the dead from a great distance to be buried at a holy shrine prevails at the present day among the Persians. Thousands of coffins are annually brought from all parts of the Shah's dominions, some even from India, to be deposited in the cemeteries of Meshed Ali and Kerbelah, about 130 miles distant from Warkah, on the west of the Euphrates.

No description can possibly convey a correct idea of the piles upon piles of coffins which astound the visitor to Warkah. With the exception of the triangular space between the three great ruins, every other portion of the platform, every foot within the walls, and an unknown distance beyond them, is filled with the bones and relics of the dead. I have nowhere been able to ascertain the depth to which these remains extend. Some of the sepulchral mounds attain the height of sixty feet, but, owing to the looseness of the soil, it was impossible to penetrate deeper than thirty feet²² without enormous expense.

As regards a portion of these funeral relics, their precise age is at present only conjectural. Although we are able to make a tolerable guess on the subject, they have as yet afforded no positive data by which they may be classified beyond the reach of cavil. Still however we have sufficient evidence to prove that the necropolis was used from a very remote age, down to about the fourth century after Christ. It was

²² The walls of one trench at this depth gave way, and buried the workmen, one of whom had his shoulder-blade broken by the accident.

certainly deserted before the Mohamedan conquest of Persia, since not a coin nor other vestige of that era is to be found.

Among the more ancient relics I would include :—

1. The inscribed terra-cotta horns previously alluded to. According to Colonel Rawlinson they are dedicated to Belus: they were found on the surface.

2. Several dark-brown tablets of unbaked clay, measuring 9 inches \times 7 inches, inscribed with columns of cuneiform. One of these gives the names of various trees. They were dug up from the desert-level at the north side of the ruins, where they were arranged horizontally upon a fragment of brick pavement.

3. Small terra-cotta figures, among which are—a naked female clasping her breasts, and an old man wearing a skull-cap and long robe bound round the waist with a belt, and holding some unknown object in his hands.

4. At the very base of the Greek mound were two well-built brick vaults, cemented with bitumen, and lined with plaster. Near to them was dug up a rude jar containing fragments of linen, in which had been folded a thin silver plate, 2 inches long by $1\frac{1}{16}$ inch wide. This is embossed with a beautiful female figure, having both hands raised in the attitude of adoration. The hair hangs loosely behind: the dress folds naturally from the waist to the feet.²³

I was not fortunate in discovering at Warkah any tombs of undoubted early antiquity, but the above

²³ The whole character of this relic proclaims its great antiquity, while the attitude and dress of the figure recall to mind the rock sculptures of Mal Amír, in the Bakhtiyari Mountains of Persia.

objects indicate the existence of such at this locality as well as at Sinkara, Mugeyer, and other sites. If it were possible to penetrate the vast accumulation of more recent deposits, we should undoubtedly arrive at very ancient sepulchres beneath. The very fact that the usual accompaniments of these tombs are found on the outskirts of the mounds, ought to be admitted as evidence of their existence.

The next objects in point of antiquity are those exhumed from the edge of the great platform east of the Buáriah. I one day observed the corners of two large bricks projected from beneath the rubbish on the summit. As they possessed the vitrified appearance which generally at Warkah indicates an inscription in cuneiform, I removed them for examination, and, in doing so, exposed two small but broken tablets of unbaked clay, covered on both sides with minute Babylonian characters. On searching further I discovered others, and eventually succeeded, with a penknife, in extracting and preserving a series of about forty, more or less perfect.

There were many others, but, notwithstanding all the pains taken, several were unavoidably broken, from being imbedded in tenacious earth; while some were destroyed by the shrinking of the brick pavement on which they lay disposed, in regular order, side by side. The rain has unfortunately filtered through the superimposed earth and rubbish; hence a deposit of brown mud has accumulated between the terrace or pavement and the tablets, which are on this account generally injured on one side. From the same cause a great many were decayed, and fell to pieces on exposure. The specimens preserved differ in size, and vary

from 2 to $4\frac{1}{2}$ inches in length, and from 1 to 3 inches in breadth.

The largest tablet contains on one side twenty, and on the other twenty-one lines of exceedingly delicate cuneiform characters. In some cases the lines of writing are continued along the edges or carried over upon the ends.

On clearing away the rubbish from the surface of the bricks, I discovered that they formed the flooring of a terrace 32 feet long and 4 feet wide, but which had probably been somewhat wider. One brick alone bore an inscription,²⁴ and was of finer quality than the rest, which were without legends. At the back of the terrace was a wall of sun-dried bricks, 10 or 12 feet thick, and about 4 feet high. The whole were covered with two feet of rubbish and charcoal. Lying upon the terrace were several exceedingly interesting articles, of which the most important are the following:—

1. A piece of burnt alabaster, in form of a cone, 3 inches long, drawn out at the back into a kind of ridge which runs lengthwise. The base is nearly circular, and has in it, as if for the insertion of a rod, a round hole. The top of this cone is broken off at a point where there is a slight projection, probably portion of a grotesque head. Two scrolls, delicately engraved, extend downwards from the fracture: at the left side of one of these is a broken inscription in Assyrian.

2. Portion of the hinge and left valve of a bivalve shell (*Tridacna squamosa*). On the exterior are represented, in delicate carving, the heads, necks, and fore legs of two horses at full speed, as in the act of

²⁴ It precisely resembled the bricks of Uruk in the buttresses of the Buárah, from which it is probably taken.

drawing a chariot, which is unfortunately wanting. The necks and shoulders of the horses are covered with trappings and armour. They are without bits; but a species of rein is attached to the under jaw, and from it depend two bells or tassels. The driving reins are fastened to semicircular processes behind the horses' ears, similar to those depicted on the bas-reliefs at Nineveh. Flowers of the lotus, in every stage of expansion, from the bud to the full-blown flower, are introduced upon every available space around the horses and over the hinge. The interior of the shell²⁵ bears an ornamental basket (?) filled with buds and flowers of the same plant: the inner surface is slightly discoloured with iron rust, from its contact with—

3. Fragments of a sword, having a brass knob at the handle.

4. A clay goblet, of elegant form.

5. An ivory panel, 4 inches long, but in a state of rapid decomposition. It is only possible to distinguish upon it two small scrolls proceeding from a central point, and the figure of some animal. It is pierced with two holes for the purpose of attachment.

6. A circular piece of thick alabaster, 7 inches in diameter, flat on one side, with a large mammillated projection, 3 inches high, on the other: this had evidently been formed by the lathe.

7. Another piece of alabaster, apparently the base of a small column.

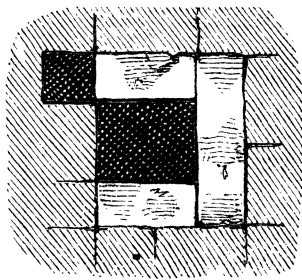
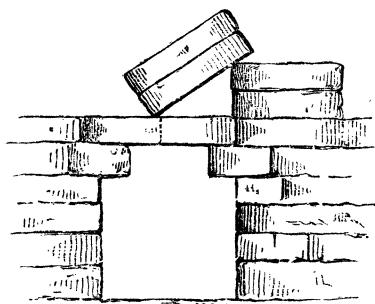
8. Fragments of two large mushroom-shaped cylin-

²⁵ Mr. Layard, in 'Nineveh and Babylon,' p. 563, gives a drawing of this engraved shell, and remarks on its similarity to one from an Etruscan tomb, now in the British Museum.

ders, upon the flat tops and stems of which are cuneiform records. They exhibit marks of fire, as do all the other objects found near them.

9. A broken brick, with a stamp, in relief, of a circular-topped altar on a pedestal, surmounted by a seven-rayed star.

Beyond the spot where the greatest part of the tablets were extracted, two more bricks were observed in precisely the same position as those which first attracted my attention; they rested against two others, as shown in the accompanying Section. Beneath the shelter thus formed were three more tablets, lying upon a large brick, 17 inches square, and $2\frac{3}{4}$ inches thick: a hole in the centre enabled me to raise it. A well-built vault, $13\frac{1}{2}$ inches \times $10\frac{1}{2}$ inches square and 21 inches deep, was disclosed, having a second but only partial covering of three bricks resting as a ledge, as shown in the Section and Plan. The vault was filled



with earth, and the fragments of one or two large jars or sepulchral vases. Whatever their contents had originally been, there were no traces of them left. The sides of the vault were constructed of small sun-dried bricks: it was without flooring. At the left corner, and towards the front of the terrace, was a small square hole (shown in the Plan), in which lay a broken dish

or earthenware jar, and upon which a large flat brick had rested. At the back of the terrace, behind the two inclined bricks, was a broken vase, which contained reed ashes and burned bones reduced to small lumps and crumbling to powder.

At the north extremity of this terrace was another vault. The bricks were cemented with bitumen, and the roof had fallen in. It in every respect resembled the one just described, except that, instead of the small square recess being placed anglewise to the vault, it was in direct communication with it. Broken pottery, burnt reeds, and date-stones were found within; and, near the top, portions of a lamb's jaw.

This terrace was terminated by two bricks, bearing the stamp of the sun and altar. The stamped sides were turned against a turret or projection of the mud-brick wall. At a few feet above the level of the pavement, but in a turret, was a vault or grave 6 feet long, rifled of its contents.

On the opposite or north side of a deep ravine, which doubtless was a principal access to the Buáriah enclosure, excavations were made, and a second terrace discovered; this measured 40 feet long by 4 feet wide. It was paved with bricks, each of which bore an indistinct inscription of Cambyses, the brother of Cyrus, a personage of whom we have no historical notice. The cuneiform characters are in relief. The only articles found here were among a quantity of charred date-wood near the ravine. They comprise a series of round-headed nails of iron and copper, pieces of copper plates through which the nails had passed, a few beads, and a large ornament for the neck, of rhomboidal form. Two vaults were here discovered similar

to those on the other terrace, but they were only covered by a flat brick having a hole in the centre, and were without the two bricks resting at an angle upon two others. The square hole outside was on the right hand, and communicated directly with the vault. A row of bricks placed on their edges against a sun-dried wall terminated this terrace.

Colonel Rawlinson examined the objects obtained upon these two terraces, and states concerning the tablets that "they were official documents issued by order of the King, attested or indorsed by the great officers of state, and referring to specific amounts in weight of gold or silver. He could not help suspecting that the Babylonian Kings, in an age when coined money was unknown, used these pieces of baked clay for the mere purpose of a circulating medium. The smaller cakes, he thought, corresponded to the notes-of-hand of the present day, the tenor of the legends being apparently an acknowledgment of liability, by private parties, for certain amounts of gold and silver. The more formal documents seemed to be notes issued by the Government for the convenience of circulation, representing a certain value, which was always expressed in measures of weight, of gold or silver, and redeemable on presentation at the royal treasury."²⁶ Each tablet is inscribed with the precise year of the king's reign in which it was issued. The following names have been deciphered:—

Nabopollasar	625-605 B.C.
Nabonidus	538- —
Cyrus the Great	536-525
Darius I.	521-485

From this list it would appear that the tablets and

²⁶ See the 'Athenæum' for March 15, 1851.

articles associated with them were deposited in the position where they were discovered about the commencement of the Achæmenian period.

From the result of excavations made in the neighbouring ruins of Sinkara, we derive the information that, in some instances, the Babylonians burned the private records and other property with the body of deceased. Such appears to have been the case in the present instance ; the bones of the dead being deposited in a vase and placed in a vault, the records arranged over the vault, and the whole submitted to the flames.

This however was not the only mode of disposing of the dead. Burial in urns or vases was customary from very early times, and was much practised at Warkah. From the discovery of coins in connection with many of these urns, it would seem this mode was very prevalent with the Parthians, to whom it was handed down from antiquity. The usual form of the urns resembles a top ; they are lined inside with bitumen, and are usually covered with bricks at the mouth ; many however have a cover, which is cemented to the urn. Vessels of this description contain a single head, or the bones of a human being, and are at Warkah laid horizontally. Inside are found engraved cylinders or gems, beads and neck-ornaments, and rings of shell. It is by no means uncommon to meet with a coffin (if such a term is applicable) formed by two such urns, one slightly smaller than the other. They are placed mouth to mouth and then cemented together, containing one or more bodies. There are various other forms of these burial-pots, but they all sink into insignificance when compared with those glazed earthen

coffins, whose fragments occur in such amazing abundance on the surface as to mark them as one of the chief peculiarities of this remarkable spot. As civilization progressed, they appear to have superseded the more rude descriptions of burial-vases, and to have been generally adopted. The piles on piles of these coffins are self-evident proofs of the successive generations by whom this method of burial was practised. I will not venture a guess at the date of their first introduction, but they were certainly in use, and that commonly, at the time Warkah was abandoned under the Sassanians.

These remarkable coffins have somewhat the form (to use a homely similitude) of an elongated "slipper-bath," gradually tapering towards the feet, and with an oval aperture for the admission of the body: they are however much more elegant and symmetrical than the household article alluded to. The aperture is flattened, and furnished with a depressed ledge to receive an earthenware cover, which is either plain or glazed. On the corpse being placed in its final resting-place, the cover was cemented to the coffin with lime-mortar. At the lower extremity, near the feet, is a semi-oval hole, doubtlessly intended for the escape of the condensed gases. Upon the upper surface of each coffin generally, and on the lid sometimes, are five rows of embossed small figures, which extend from the aperture to the foot. They are separated from each other by elevated ridges, plain or ornamental. The figures are all alike, and represent a warrior in short close-fitting tunic, and long loose nether-garments. He is armed with a short sword at the left side, and stands with his legs wide apart, and his hands resting on his

hips. On his head is an enormous coiffure, either natural or artificial, giving the figure a very singular appearance. The whole costume bears a remarkable resemblance to that we are acquainted with from the coins and sculptures of the Parthian and Sassanian period. The whole visible surface of the coffins is covered with a thick glazing of rich green enamel on the exterior, and of blue within the aperture: the latter was probably the original colour of the whole, but it has changed from chemical decomposition and long exposure. This enamel was applied when the coffins were placed in an erect position, as I ascertained from the droppings. The material of which the coffins are composed, is clay mixed with straw and half-baked. The upper and unglazed surface of the inside, as well as the bottom, is marked with the impressions of the reed-matting on which they rested during the progress of manufacture, similar to those observed on the under side of Babylonian bricks.

The above is a description of the generality of the Warkah coffins; but in some cases they are glazed, though without the figures,—in others perfectly plain without either glazing²⁷ or figures. One bore three figures in relief, which differed considerably from the

²⁷ Dr. Hyslop, of Baghdad, at my request, obtained the following native recipe for the manufacture of the glazed jugs and utensils at present made in many Eastern towns:—

“Take of pebble-stones and alkali, of each one pound; grind these ingredients to a very fine powder, which, fused in a well-heated furnace, will run to glass. When cold, grind it again to a fine powder, and add—for *green* glaze, oxide of copper one-fortieth part; for *blue* glaze, calcined lead one-fortieth part; for *white* glaze, calcined tin one-fortieth part. Temper the mixture with cold water, lay it on, and put the ware into a furnace to flux the mixture on it.”

others. They represent females in short dresses, and carry a square box (?) in both hands. Upon their heads are large bushy wigs, confined with netting. A portion of this coffin is in the British Museum.

In one instance only did I observe two lids to one coffin. The glazed and figured specimen in the Museum was broken, and lay within the aperture. It was protected by another of unglazed pottery, raised in the centre and pierced with a hole, so that it exactly resembled the crust of a huge meat-pie.

By far the greater number of coffins are simply surrounded with earth, and lie without order, piled upon and near each other : they have no general direction. Others, however, are built up singly or two together, in brick vaults of somewhat peculiar construction, the roof being formed as shown in the accompanying Section. The bricks used in these vaults are always of the same description, about 8 inches square, of a light yellow colour, sandy, and slightly baked ; on one side they are ridged and furrowed. They are cemented with lime-mortar ; and it is worthy of notice that the lid of the coffin is closed with the same. From this, I conclude that the dead were brought to the coffin *in situ*, and there placed within it. The weight of the coffins, as well as their fragility, is opposed to their being carried with the dead inside.

The great depth (30 feet) at which I have observed these coffins, with or without vaults, is strongly opposed to their having been buried in the usual mode. It is generally supposed that the ancient Persians, at least the Sassanians, exposed their dead like their modern descendants the Parsees. I am therefore much inclined to believe that a kind of exposure was prac-

tised at Warkah ; that the body was placed in the coffin and left on the surface of the mound. The sand-drifts, which I have already mentioned as being exceedingly dense and piercing, would rapidly cover it. In this way we can account, not only for the depth of the coffins, but also for the small layer of fine earth which intervenes between the vertical rows, and the irregular order of their deposition.

There was only one instance observed which appeared to contradict this view. One coffin was strongly cemented to one beneath it. The lower one actually passed through the top of a third and was cemented to it, the remains in the last being permitted to rest undisturbed. This may be accounted for by supposing that the lowest coffin gave way, from the superincumbent weight, when that above it was deposited, and that they were cemented together in that position.

The object of my second visit to Warkah was to collect a series of such antiquities as it afforded, and more especially to obtain one of the glazed coffins which might be sent to the British Museum. As the colour of those near the surface is affected by exposure, I tried to procure a good specimen from below ; but, the deeper I dug, the more saturated with moisture and brittle they became, so that, the moment an attempt was made to move one, it fell to pieces. Finding it impossible to succeed at any depth, I came to the conclusion that the only chance for me was to try at the surface. As the Arabs were much more adept at digging with their spears and hands than with the spades which I had brought with me, I permitted them to follow their own mode of searching. Their cupidity is attracted by the treasures contained within

the coffins, to procure which many hundreds are broken and searched every year. Their method of proceeding is simple enough : they pierce the loose soil with their spears, until they chance to strike against some solid substance ; by the vibration produced, the Arab knows at once whether he has hit upon a coffin or the vault containing one. The spear is then thrown aside, and, after the fashion of a mole, the wild fellow digs a hole with his hands. If an obstacle presents itself, the spear is again had recourse to, and in this manner perseverance secures the object of search. When the coffin is rifled, a hole is broken through the bottom to ascertain if there be one below. In riding or walking over the mounds considerable care is requisite on account of the innumerable holes made by the Arabs, who of course never take the trouble to fill them up again.

During every day of my stay several coffins were uncovered, and numerous expedients adopted to remove one unbroken ; but, notwithstanding every precaution, they broke with their own weight. Pieces of carpet and Arab abbas were tied tightly round them, the earth inside was either partially or wholly removed, and poles were placed below to give support ; all however to no purpose. Having broken about 100 coffins, I almost despaired of success. As a last resource I despatched a messenger to Semava, a small Arab town a day's journey distant, where he was fortunate in purchasing some strong paper. Another coffin was discovered in a tolerably good condition. Paper was pasted over it, inside and out, several layers thick : being left exposed to the air all night, it had become like a piece of pasteboard before morning. As much

earth was then removed from the under side as was deemed safe, two strong tent-poles were placed beneath, by means of which it was lifted upon a board, covered with the workmen's clothes, and carefully secured with ropes, etc.; fascies of spears and spades were then fastened to the board; and, upon this primitive bier, I saw the coffin conveyed to the banks of the Euphrates. It was not however without considerable anxiety that I superintended its progress across the desert. The ground was in parts exceedingly rugged, and the weight so great that it required twelve men, with frequent relief. I was kept in constant alarm lest any of them might trip, and destroy all the fruit of my labour. My satisfaction was great when I saw the burden safely deposited at my tent, nine miles distant from the ruins. The papering plan succeeded admirably, and I was subsequently able to secure two more in the same manner.²⁸ The three coffins are now in the British Museum.

When the cover remains unbroken in its place upon the aperture, it is frequently possible to see that the corpse was arranged as in Europe at the present day, except that the arms were bent and the hands placed upon the breast. The skeletons usually fell to pieces on exposure to the air, and were soon reduced to powder. In one instance, portions of a light-coloured garment, fine in texture, still adhered to the bones; in some places so thickly as to leave me in doubt whether it or they had not been soaked in some oily or waxy substance. If however cement was used, it

²⁸ They were afterwards embarked in a boat and conveyed 150 miles down the Euphrates to Busrah, where they were packed in cases and despatched to England.

cannot now be detected either by touch or smell. I endeavoured to preserve some of this garment, but, like the mouldering remains it partially covered, it fell to powder, and was dispersed by the breeze.

Inside or outside of every coffin are found small objects of considerable interest, the personal property of the deceased, or the parting gifts of friends. With the exception however of a few copper Parthian coins strewed in the earth close at hand, there has been nothing discovered which affords any clue to their date.²⁹

The personal relics consist of gold rings with carbuncle-stones, and silver rings for the fingers; silver and brass armlets and bangles, with rings for the toes; necklaces of agate beads, small old cylinders; and, now and then, gold beads are not uncommon, as well as massive gold earrings and ornaments for fillets, some of which are exceedingly tasteful and elegant. Small pieces of thin gold-leaf, which appear to have been placed as veils over the face, frequently occur. Sometimes one or two narrow strips of thin gold lie on each side of the head. One of my workmen stated that he, on one occasion, found a massive pointed head-dress (perhaps a helmet) of the same material, which he melted down and sold to the Jews, who periodically visit the Arab tribes for the purpose of collecting antiques.

Deposited within the coffins are frequently objects

²⁹ I should not however omit to mention that a coffin was discovered at the depth of four feet below the flooring of the Parthian chamber previously described. It is of course impossible to say whether it was deposited in that position before or after the erection of the building, or even before or during the Parthian period. My impression is, that this mode of burial in "slipper-bath" coffins was in vogue long before that time.

of a different description : drinking-vessels, and dishes of pottery, glass bottles, boxes of wood joined with glue and bound or enclosed in iron, hideous bone idols, or more probably dolls, and rude clay figures of men and animals. Upon the skull in one coffin, of which the lid was broken, I obtained a single small copper coin : it may have fallen in with the earth ; and much value must not be attached to this circumstance, as similar coins abound upon the surface of the mounds. They are flat on one side, and moulded with a slightly rounded protuberance on the other. The edges are generally sharp, and possess two little processes opposite to each other. The types are exceedingly indistinct, but sufficiently so to admit of their being identified as Parthian.

In addition to the above, a few other coins are found on the surface of the coffin-mounds.

Close to the side or foot of the coffin are generally one or more water-jugs and drinking-cups. A very beautiful glazed jug was found standing in a small recess left for its reception in the side wall of a vault, within arm's-length of the coffin. The bones of a fowl, together with a flint and steel, frequently lie on the top of the coffins. The custom of depositing such articles in these positions is undoubtedly connected with the superstitions of the period.

The surface of the coffin is often a receptacle for small relics, as the following list taken out of the same vault will show :—seven different forms of exceedingly fragile coloured glass bottles ; two small and curiously formed yellow glass bottles ; a glazed terracotta lamp ; four bone stilettos ; two small iron implements ; the bones of a bird (small) ; fragments of a

bunch of flowers (!) and an ornamental reed-basket (the plaits of the reeds being quite distinct), containing two pieces of kohl, or black paint for the eyelids, and a tassel-bead: these articles probably belonged to a female.

Among other objects found near the coffins I may enumerate short iron swords, long alabaster bottles, jars containing remains of date-stones, plumb-leads (?) of clay, lamps of the same material, round stones rubbed into the form of rude cubes (probably weights), knife-blades, etc. etc., and several terra-cotta figures, which were probably the Penates of that time. Clay figures have already been described; but they undoubtedly belong to the Babylonian period, and are found at the base of the mounds. Of the rest a few are to be probably attributed to the Greeks, and these are of course much superior in point of design and execution. Two female heads are deserving particular notice: they possess the usual characteristics of the Greek face; the hair is arranged in long ringlets, and the lofty head-dresses are peculiar: upon the cheeks are traces of colour. To the Greek period may also be referred a small tablet bearing the representation of a sturdy figure, with a robe fastened by a brooch at the right shoulder, but flying loosely and leaving the rest of the body naked. On the legs are large ankle-rings. The head is broken off. He stands upon small rounded projections, and holds one in the left hand. This figure is probably intended for Hercules.

To the Parthians undoubtedly belong the figures of a reclining warrior holding a cup (?) in the left hand. The costume, consisting of a coat-of-mail or padded tunic, which reaches to the knees, and of a helmet

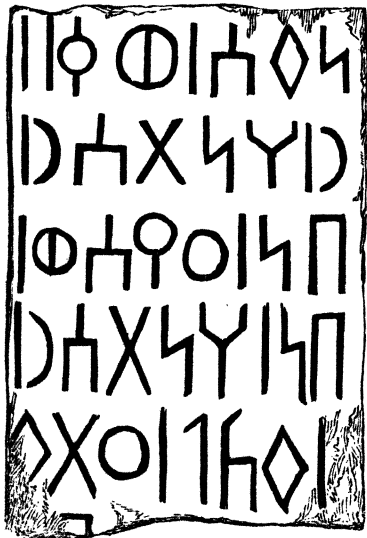
with an ornament in front, has a striking resemblance to that on Parthian coins.

The remainder of the figures are also, probably, Parthian:—naked Venuses, similar to those of the earliest period; a female attired in a loose robe, and a veil attached to a two-pointed head-dress; an old man and woman in long dresses, which exhibit traces of colour,—the female carries a square box or basket. Other figures have shoes with rosettes coloured black.

These figures are interesting, as affording some information on the ordinary costumes worn probably two thousand years ago.

HIMYARITIC INSCRIPTION.

Among the relics of the latest date discovered at Warkah is an Himyaritic inscription. It occurs upon a rough limestone slab, 2 feet long, 1 foot 5 inches wide, and 4 inches thick, found at the entrance to a brick vaulted tomb, at the base of the same mound which yielded the sealed tablets of the Greek age.



The slab stood on end, having the inscribed surface within the tomb, which had been previously searched, and which measured $7\frac{1}{2}$ feet by 4 feet.

The inscription is an epitaph to Hanat-asar, son of Esau, son of Hanat-asar, probably an Arab merchant, who died during the Sassanian Epoch about the fourth century after Christ.

The discovery of this record is of considerable in-

terest, inasmuch as it is the first of the kind which has yet been found in the basin of the Tigris and Euphrates.

Among other heterogeneous articles found on the surface of the mounds or discovered in the trenches, but not apparently connected with the burial of the dead, may be mentioned:—

1. Arrow-heads of copper from the north portion of the ruins.

2. Serrated strips of obsidian and flint: they precisely resemble the sacrificial knives used by the ancient Mexicans.

3. A flat oval pebble, of dark green serpentine, from the conical mound north of the Buária. This pebble has been cut across the middle and sharpened like a wedge. It is not unlikely that it may have been used for writing cuneiform characters on tablets when the clay was in a soft state.

SHAT-EL-NÍL.

A city of such importance as Warkah has evidently been in the days of its prosperity, must have stood on or near the banks of some considerable stream. It was not until after a long search, that I succeeded in detecting the bed of an ancient river or large canal. It passes at a distance of 350 paces west of the Nuffayjí pile, and within thirty paces of a small conical mound³⁰ toward the most northerly point of the city wall. From thence it bears round the wall toward the east, and appears to divide into two branches; one proceeding towards Sinkara eastward, and the other continuing its course southward. I did not succeed in tracing

³⁰ L of the Plan.

either branch very far. Beyond Nuffayjí I traced it for several miles in a direction bearing $24^{\circ} 30'$ west of north. Near this mound its channel is 120 feet wide, and its level a few feet above the desert-level,³¹ its banks being about five feet high. Traces of the secondary canals proceeding from it on the west are visible, eighty feet in width. At the point where it first meets the city wall, an opening probably admitted a branch or branches into the interior. If such were the case, all traces have long since been filled up by *débris* from the mounds and by drifted sand.

An intelligent old Arab, whom I interrogated on the subject, remembered that this channel was known to the fathers of the present generation as an "ancient river," and that it was called the "Níl." He had no knowledge as to whence it came or whither it flowed; he had never heard of the existence of a "Shat" of the same name further to the north.

At the period of the Arab conquest there was an ancient canal or branch of the Euphrates which passed the mound of Al Hymar at Babylon, and flowed south-east to the then existing city of Níliah. It probably joined the Tigris near the mouth of the modern Shat-el-Hie. It is supposed that this main branch of the Níl gave off a large stream to Ziblíeh and Niffer (situated midway between the modern courses of the Euphrates and Tigris). Remains of this are still to be seen, and they are called the "Giant's Road." About two days' journey south-south-east of the last-named ruin I met with a considerable ancient river-bed

³¹ Important rivers and canals in Babylonia flow in channels below the desert-level. In this case I believe the bed to have become filled up with sand.

called "Skaim." I am disposed to believe that Níl of Warkah is nothing but a continuation of the Skaim, the Giant's Road, and the Níl of Babylon. It is, at any rate, very remarkable that the name of Níl occurs at two such distant points as Babylon and Warkah; it implies a connection between them.

The term "Shat-el-Níl" indicates its importance: it is, I believe, the only ancient artificial canal (*nahr*) which has received the appellation of "Shat," or large river; and, as etymology offers no ready solution for the name Níl, it is probable that it was derived either from its being thought worthy of comparison with the Nile of Egypt, or else in commemoration of some important event in the intercourse between the Egyptian and Chaldæan nations.

CONCLUSION.

In conclusion I feel that some apology and explanation are due for the unwonted length of this Memoir. I am aware that, in describing these remarkable ruins, many of the arguments which I have advanced are open to objection from want of requisite data: I have therefore thought it best to be somewhat prolix and tedious in details, rather than omit anything which might be considered useful in guiding the antiquary or the explorer towards a complete knowledge of the locality and its remains.

If there be a scarcity of early annals and of more positive information than could be desired, the fault must be assigned to the extraordinary difficulties which attend excavations at such an inaccessible spot as Warkah. The enormous quantity of brick rubbish within and around the temples, and the yielding na-

ture of the soil composing the mounds (apparently the result of continual sand-drifts), render it exceedingly dangerous to excavate to any great depth. I did not feel justified, on account of expense, to explore on a larger scale, nor would time admit of my doing so.

The results obtained are however by no means unimportant. We have ascertained,—

1. The existence of a new style of architecture, perfectly original, uninfluenced by the exalted taste of Greece, and, it is presumed, of much greater antiquity.

2. That there are remains at Warkah ranging from at least 2200 B.C. to about 400 A.D.

3. The site of a Necropolis, whose character and immense extent indicate the extraordinary sanctity attached to the locality for many centuries.

4. The different modes in which the dead were disposed of during the period above alluded to.

5. That cuneiform writing was practised as late as 200 B.C.

With regard to the glazed coffins so peculiar to Warkah, it is, I think, evident that the remains of the dead were not buried, but merely exposed with their sarcophagi on the surface of the mounds. This corresponds with the accounts handed down to us of the mode in which the later inhabitants of Persia disposed of their dead. We, have, however yet to learn whether they did more than merely adopt a custom which prevailed during the earlier ages of the Babylonians. Further researches in the Necropolis will probably throw much light on the ceremonies which attended the burial of the ancient people.

Now that we are fully assured of the existence of records in the cuneiform character during the Greek occupation of Babylonia, it is not too much to hope, as Colonel Rawlinson has happily remarked, that we may hereafter fall in with a cuneiform version of Alexander's campaigns: such a discovery would indeed be valuable.

If bilingual records in cuneiform and Greek are to be found, Warkah is undoubtedly one of the most likely localities in which to search for them. It is therefore desirable that particular attention should be devoted to the examination of those ruins at such time as excavations in Babylonia may be resumed.

There is no site, either in Babylonia or Assyria, which has hitherto afforded, or which will hereafter produce, information of such varied character, and concerning so many different races, as have occupied the site.

In order however to complete a thorough examination of Warkah, a sum of considerable amount would be required to be expended annually during a series of years.

Unlike the mounds of Assyria, where the palaces are buried at a comparatively shallow depth, the mass of mounds at Warkah require to be examined to their very base before the most important remains can be reached. These, occurring below an accumulation of more recent deposits, will undoubtedly yield information of the most valuable kind.

For the sake of science, it is therefore to be hoped that at some future period, not far distant, excavations will be resumed; and I have no hesitation in stating my conviction that Warkah will eventually yield re-

ords and relics of the utmost value to the antiquary and to the cuneiform student, and which will throw additional light, not only on the Babylonian and Persian, but also on the Greek and subsequent eras down to near the time of Muhammed.

WM. KENNETT LOFTUS.

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