

## LIEUTENANT CONDER'S REPORT.

## No. IX.

## HESHBON AND ITS CROMLECHS.

*Ain Faneili, 17th September, 1881.*

SINCE my last report the Survey has been advancing steadily in spite of a week of most intense heat— $112^{\circ}$  F. in the shade with a difference of about  $40^{\circ}$  between the wet and dry bulbs and with a hot dry ozone—less east wind.

*Base.*—Two cool days were selected, and on these the base line was measured. The north end is directly connected with the highest point in the ruins of Heshbon, the south end is on a knoll at the ruin of Kufeir. The total length is about 3·8 miles, and the two measurements (taken with a light chain compared with a standard chain before and after use) agree within two links (1·3 feet).

This cannot but be considered a highly satisfactory result, and could only be obtained by such careful and experienced surveyors as Messrs. Black and Armstrong are well known to have proved themselves. The ground was hardly as good as could be wished, and much inferior to that on which the two former bases were measured. The Ramleh base gave a difference of only 4 inches between its two measurements in 1871, in a distance of about four miles. The Esdraelon base had a difference of three links or 1 foot 10 inches in about four and a half miles. The character of the new base is thus quite equal to that of the previous work west of Jordan. The new base is *prolonged*, as it is termed, at its north end by a line measured at an angle of  $60^{\circ}$ , forming one side of an equilateral triangle, and thus exactly equal in length to the distance not measured on the main line; which construction was necessitated by the rough ground in the ruins of Heshbon. The prolonged portion (about a quarter of a mile long) was twice measured by Lieutenant Mantell and myself with a steel tape, and the results agreed within 2 inches, the ground being good.

*Triangulation.*—Twenty theodolite stations, including the sites of Heshbon, Nebo, Elealah, &c., have been selected, and observations have been taken from eight of these with the excellent 8-inch theodolites furnished by the Committee. We were fortunate in obtaining clear weather in which to observe our old stations west of Jordan, and we were even able to obtain a good line from Siâghah to Neby Samwil, whence Jaffa—the original longitude station—can be seen. We also observed Rujon el Bahr in the Dead Sea, Jebel Kürüntal above Jericho, Kasr el Yehûd near Jordan, and Kurn Sartabeh east of Shechem, and were thus able to fix our new triangulation in its proper position respecting longitude

and latitude. The junction is not yet as complete as it will be made finally, but our rough calculations show that the results derived from the new base are likely to agree in a most satisfactory manner with the calculations depending on the western bases. The new Survey may thus, I think, be considered to rest on a firm basis, and our subsequent work will constantly be checked by observations to the stations on the western watershed, where cairns exist which we rebuilt in the earlier summer months of the present year.

The American Survey cairns are well built, and the stations skilfully selected. The use of these stations has saved us several days of labour, in addition to which the Arabs have a most fortunate propensity towards the construction of cairns on every high top—a reminiscence perhaps of the worship of Nebo or Mercury—and we are thus often able to make use of structures which are not likely to be disturbed because custom has made them familiar to the wild shepherds of these mountains.

The survey of detail has commenced, and the examination of the ruins by Lieutenant Mantell and myself, in a few days some 100 square miles of the new Survey will be completed all round Heshbon.

*Heshbon.*—The ruins of the capital of Sihon are at first sight disappointing. Shapeless mounds of hewn stones, rude pillars and cornices of Byzantine origin, a great pool on the east, a ruined fort on the south, numerous caves and cisterns with remains of a colonnaded building on the highest part of the hill, are all that we have found. The details have been measured with the same amount of accuracy observed in the important ruins west of Jordan; but no inscription has yet rewarded our search, and although the site is very extensive, its buildings are evidently all of late origin (4th to 6th century probably). One curious illustration of Scripture appears, however, to be presented by the site. The eyes of the Shulamites (Cant. vii, 4) are likened to the “fishpools of Heshbon by the gate of Bath Rabbim,” and Canon Tristram points out that the bright pools in the stream which runs beneath Heshbon on the west, are probably intended. The plateau on the edge of which the city stands is reached, from this stream, by an ancient road which, at the top of the ascent, passes through a sort of passage cut in the rocks about 8 or 10 feet high and 3 or 4 yards wide. This entry to the site of Heshbon from the north-west is known as the *Bueib* or “gates,” and these gates looking down on the fishpools of Heshbon may perhaps be those noticed by the author of the Song of Songs under the name Bath Rabbim “Daughter of great ones.” From Heshbon a good view is obtained to the south over the great Belka plateau, and from the high top west of the ruins the Jordan valley becomes visible, with the mountains beyond, the thorn groves of Râmen being seen through the gap caused by the deep gorge of Wâdy Hesbân.

Of this hilltop (el Kerûmfyeh) there is more to be said later, for here we first came across one of the great centres of rude stone monuments which form one of the most interesting features of the new country, and present the oldest remains as yet found in Syria.

*Identifications.*—Several names of Biblical interest we have already

collected, among which the most important are apparently the five following :—

*The Field of Zophim* (שדה צפִים Numbers xxiii, 14) was at or identical with Pisgah or Nebo. The word signifying “views” comes from a root identical with the Arabic *Saft*, “clear” or “shining.” My Arab guide volunteered the information that the ascent leading up from the 'Ayūn Mūsan to the top of *Jebel Neba* is called *Tal'at es Safa*. Thus on the side of Nebo we still find the name Zophim preserved unchanged, and this discovery, which is I believe entirely new, serves to confirm the ordinary identification of Nebo with *Jebel Neba*. We can have little hesitation in identifying the “Field of Zophim” with the plateau of arable land, a rich red field at the top of *Tal'at Safa*, from which the knoll of limestone called *Rās Neba* rises some 50 feet on the west. In connection with this question I may mention that I have taken careful notes on the spot of the view from Nebo, as former travellers have given different accounts of the prospect. It must be confessed that in many respects the panorama is disappointing, especially as it seems to be an impossibility that the utmost (or western) sea can be seen either from Nebo or from any other mountain in the district.

2. *The Ascent of Luhith* (Isaiah xv, 5 ; Jeremiah xlvi, 5) is mentioned in connection with Zoar and Horonaim. The valley leading up to the plateau west of *Neba*, on the south side of the ridge, seems still to preserve this name in the form *Tal'at el Heith*, which is well known. This *tala'h* or “ascent” communicates between two of the main roads leading towards *Madeba* from the plains of *Shittim*.

3. *Ja'zer* (יַעֲזֵר), an important boundary town of Reuben and Gad (Joshua xiii, 25), would seem to answer to the large ruin of *Beit Zar'a*. The Arabic and Hebrew contain exactly the same radicals, but the guttural would seem to have been displaced, in a manner not unnatural, and of which other well known instances will be recalled. The situation of the site north-east of *Heshbon* where the plateau, called *Mishor* in the Bible, begins to rise into the wooded uplands of Gad, seems to suit well with the idea that the old tribe boundaries were as the modern still are, marked by natural features. *Beit Zar'a* is also possibly the *Zara* of *Josephus* east of *Jordan*.

4. *Sibmah*, mentioned (Numbers xxxii, 3-38 ; Joshua xiii, 19) with *Pisgah*, *Beth Peor*, *Beth Jeshimoh* (*Sueimeh*), *Nebo*, *Heshbon*, *Elealah*, &c., would possibly be the present important site *Sûmia*, where are ancient tombs, and a curious tablet close to the stream measuring 7 feet 3 inches in height by 8 feet in width, but entirely without inscription or sculpture. The “Vine of *Sibmah*” is mentioned (Jeremiah xlvi, 32), and it is interesting therefore to remark that the hill above *Sûmia* presents remains of several large wine-presses, and ruined vineyard towers. The Onomasticon places *Sibmah* 500 paces from *Heshbon*, which might perhaps be intended to represent the site of *Sûmia*. Remains of a Byzantine town exist here, and of a monastery, the masonry of which was used by *Makbil* in *Nimr* about a century ago in the construction of a little fort.

On one of the lintel stones in this building I found carved the cross potent or Jerusalem cross, which I have never before found in any other building in the country.

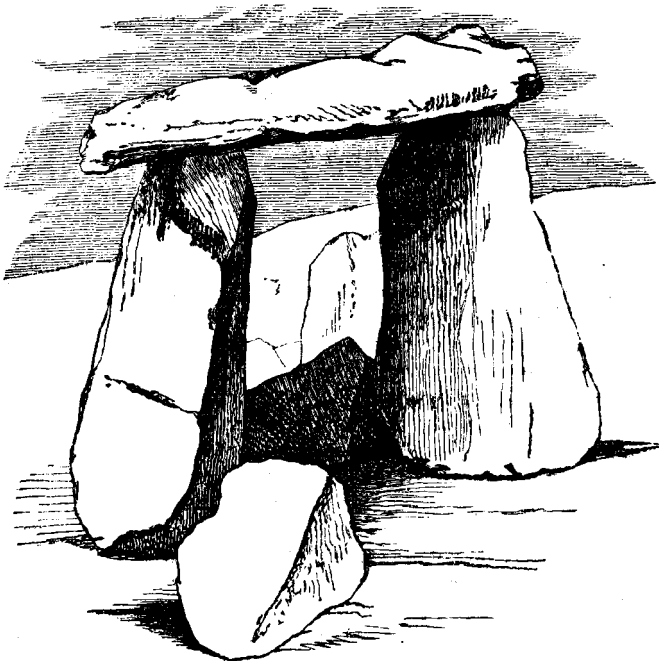
5. *Minnith* (Judges xi, 33) might be conjectured to be the present Minieh south of Nebo. The Onomasticon, however, places it four Roman miles from Heshbon. The mention in connection with Aroer would seem to suggest a southern situation like that of Minieh.

I find on careful enumeration that we have only some 40 Biblical sites to discover between the Arnon and Hermon, and besides those already given I have several to propose which await confirmation by further enquiry.

*Heshbon Cromlechs.*—My time and attention for several days have been wholly devoted to the wonderful rude stone monuments with which this district abounds. The contrast in this respect with the west of Jordan is very striking, and is perhaps accounted for by the supposition that the Jews deliberately destroyed all traces of these structures—connected as they must clearly have been with the barbarous religion of the early aborigines. In Galilee, where Jewish influence was probably never predominant until a late period, a few cromlechs still exist. In Moab and the Jordan valley they are marvellously numerous. On one hill I have gathered 26 examples, and in three days nearly 50 cromlechs have been planned, sketched, and photographed. At Jebel Neba and el Maslûbiyeh other groups occur, and we are informed that they are even more plentiful in the Ghor.

Time will not allow of a detailed account of the various specimens, but some of the general results are of sufficient interest to be summarised. In the first place it seems to me that these monuments are not sown broadcast over the country, but that they are referable to certain centres which represent the old sacred places of the primitive inhabitants. One of these centres appears to be the rounded summit west of Heshbon, already noticed and called el Kerûmiyeh. There is a flat plateau west of the summit some 200 feet lower than the highest top. This runs out westwards about 300 yards, and terminates in a knoll commanding a view down Wâdy Hesbân. The lower knoll was once apparently crowned by a cairn, of which the foundations remain, and a circle of stones of moderate size surrounded the cairn, the circle being about 40 feet in diameter. Lower down the hill on the west are remains of a second circle of about 200 yards diameter, consisting of two rows of stones with a path or interval of 8 feet between them. Outside this circle, on north, south, and west, are groups of cromlechs of every size and form. At least 26 were clearly recovered, and others fallen, or of less distinct character, were noticed. The best specimen is on the north near the fort of the spire which rises some 800 feet above the valley. This specimen, found and photographed by Lieutenant Mantell, has a table stone measuring 9 feet by 8 feet, supported by two very square, standing stones, and measures 5 feet 6 inches in the clear under the table stone. On the plateau north-east of the central cairn and circle is another fine cromlech of equal dimensions. These

two are the largest and most lofty, the average height of the standing stones being about 3 feet, with a table stone 5 feet square.



There is a second group of cromlechs on the north side of Wady Hesbân, more than a mile west of the Kerûmfyeh hill, and it is remarkable that these, numbering at least 16 in all, are placed so as in every case to obtain a view of the Kerûmfyeh hill east of them. They all occur on the east slopes of the hill, and none are found on the west. Other specimens occur on the south slope of the hill north of el Kerûmfyeh. From this circumstance it seems likely that the Kerûmfyeh hill—the highest near Heshbon—with its cairn and circles, was a sacred mountain, and that the cromlechs were built facing it, just as the modern Arab builds his little stone piles—degenerate offspring of the mighty works of former times—in positions whence the sacred centre might be seen with the sun rising behind it.

It is remarkable that the mountains thus covered with cromlechs are also those where the modern Arabs pile their stone heaps or kehakîr, which they are accustomed to place in sacred spots or along roads, at points where shrines first come into view. They explain these piles to have reference to Neby Mûsa west of Jordan, but they are more probably

intended to propitiate the Ghouls, for the cromlech obtains the name *Beit el Ghâl* or "Ghoul's House" from the Bedawin.

In a former report I have noticed the stone circles still erected by the Arabs. We had an opportunity the other day of observing the cultus of these sacred circles, which consists in placing a small offering on the lintel or cromlech, which in most cases occurs on the west side of the circle. The worshipper then touches the lintel with his forehead and mutters an invocation to the local divinity. We have found a single example in which the lintel was on the east of the circle, but this was in the vicinity of a very sacred place, Kabr 'Abdallah, towards which the worshipper at the lintel thus faces.

The theory that the cromlechs were graves seems to me to be contradicted by the fact that the three stones stand in most cases on the live rock. In many cases circular holes are found in the top stones of the Heshbon groups; these are sometimes 8 or 9 inches in diameter and 2 or 3 inches deep. Possibly they may be connected with the use of the cromlechs as altars, either as receptacles for blood or for fire.

The cromlechs have no special orientation. They occur generally on the hill slopes, not on the summit, and are found where fallen blocks were abundant and where open ground sufficient for a few worshippers exists. They are raised high enough to command a view of the sacred centre, but the labour of climbing to the top of the hill, or perhaps the yet more serious difficulty of transporting large blocks to the heights, seems to have induced their builders to choose comparatively accessible positions. The two standing stones do not appear to be essential, but the top table stone may be supported in any convenient manner, so long as it is propped in a fairly horizontal position. Large flat blocks with a single small stone inserted beneath, occur among the cromlechs, and seem to have been less ambitious attempts at constructing a rude altar. Strata of rock in other cases have been prized up, and supported by a stone on the lower side, while in some instances three flat stones stand one on the other. Circular holes are often excavated in the live rock close to the cromlech.

The existence of cromlechs surrounding a large cairn on Nebo is of great interest. The mountain where Balak's altars were built took its name apparently from Nebo—the planet Mercury, and for this reason is said to have been changed by the Reubenites—possibly to Pisgah; (cf. Numbers xxxii, 38), and Nebo like Baal Peor and Baal Meon was no doubt a centre of Pagan worship.

Mercury or Hérmes was one of the earliest of the Semitic gods, and under the names Set and Thoth was worshipped by the Egyptians, the Hittites, and the Phœnicians. He was essentially a stone-god. The Talmud records the practice of throwing stones on to a heap in honour of Marculim, and the Latin proverb recalls the same curious species of worship. Not only Nebo but possibly Jebel 'Attârûs, with its great cairn, may be connected with this ancient cultus, the name of the latter being very close to the Arabic 'Attârûd, the name of the planet Mercury.

Should the fact of the relation of the cromlechs to these mountain

centres be established by further observation, we may perhaps obtain a clue for the discovery of Baal Peor, and Bamoth Baal, both of which are as yet doubtful.

Some curious rock-cut chambers are found in connection with the cromlechs. They are generally 3 to 5 feet long, 3 feet broad and high. In other cases they are 6 or 7 feet long, and were evidently once tombs, but the shorter ones, which are the more numerous, seem hardly to have been intended as sepulchres. They are almost always excavated in detached cubes of rock 10 to 15 feet wide, and in many cases these blocks have been subsequently overthrown by earthquakes or landslips. There is as yet no evidence whether these excavations are as old as the cromlechs, nor indeed do we know how old the latter themselves may be. The cromlechs appear to occur in connection with ancient towns, and this may account for the association with the rock chamber. We have not found any flint instruments or chips near the cromlechs, though several specimens of rude flint instruments occur at 'Ain Hesbân on the flat ground near the stream.

North of 'Ain Hesbân we have as yet seen no cromlechs, but specimens are known to exist in Mount Gilead. It might perhaps be suggested that the "throne" of King Og (עֶרֶשׁ Deut. iii, 11), rendered "bedstead" in the English version, and usually supposed to have been a sarcophagus, may really have been a cromlech. The dimensions (12 feet by 9 feet), are rather larger than those of the cromlechs as yet measured. This throne was to be seen at Rabbath Ammon, and cromlechs still exist at 'Ammân, which we shall measure with unusual interest.

*Geology.*—The observations as yet are not sufficiently numerous to allow of important deductions, but the general succession of the strata is unmistakable. The Nubian sandstone attains to a thickness of some 2,000 feet above the Ghor as seen in Wâdy Hesbân, and is of all colours from slate and mauve to light buff or white. Above this follows the hard dolomitic limestone, found west of Jordan, forming a second step in the hills, and a third step is made by the soft chalk, with flint bands, which forms the substratum of the Belka plateau. The water sinks through this formation, and there are consequently no springs on the plateau, but only a few wells, while on the sides of the great slope of 4,000 feet leading to the Ghor, beautiful streams burst forth at the base of the chalk, above the impervious limestone. Every valley at this level, some 2,000 feet above the Mediterranean, has its springs and streams, fringed with oleanders and canes, which flow murmuring down the gorges falling in cascades over the rocks. The contrast of this rich water-supply with the scantiness of streams west of Jordan is striking. So far as has yet been observed the dip of the strata downwards towards the west is much less marked than on the west side of the Ghor, thus seeming to confirm the conclusion of Lartet that the valley was neither more nor less than a gigantic fault. Traces of volcanic action, and a hot spring, were noticed near Kefrein, but no basalt occurs in the district at present surveyed.

CLAUDE R. CONDER, *Lieut. R.E.*

## SUMMARY OF THE FIRST SURVEY CAMPAIGN.

1st November, 1881.

THE work was commenced on the 17th August, and carried on until the 29th October, when the party returned to Jerusalem; during this period of eleven weeks a total of 500 square miles was surveyed, but a great part of the time was taken up in preliminary reconnaissance, necessary before establishing the triangulation, and in measuring the base line. The actual rate of progress, after these preliminaries had been completed, was about 250 square miles per month, which is an average higher than any reached during the former survey, except during the campaigns which I conducted in 1875, when, however, the European Staff included three surveyors, whereas during the last fortnight of the present campaign only one surveyor has been working, in addition to the two officers.

The cost of the work, in spite of the heavy payments to the Arab escort, has been less than at any previous time, principally on account of the cheapness of food and forage. The collection of the names has given comparatively little trouble, as the Arabs knew the nomenclature well, and imparted information readily. Over 600 names were collected, and more than 200 ruins were examined. Some 400 cromlechs were found, and careful plans, sketches, and photographs of the best specimens were made. The idea put forward in a former report that these cromlechs are referable to certain centres was fully established, seven such centres being explored where the cromlechs occur in numbers, whereas in the other parts of the country not a single cromlech is found. In addition to cromlechs some very interesting *Menhirs* or standing stones were also found, and ancient stone circles occur in connection with both classes of these monuments.

Among the sites explored are Heshbon, Elealah, Madeba, Baal-Meon, Nebo, and Pisgah, the hot springs of Calirrhoce, Rabbath Ammon—where the party remained fifteen days among the ruins, and of which site a special survey has been very carefully made. In the Jordan valley search was made for the Cities of the Plain, but without any very conclusive results.

I think that we have also fixed with great probability the sites of Baal-Peor and of Bamoth Baal, in positions entirely unsuspected before, and we have some interesting suggestions to make in connection with the "bedstead" (or more correctly "throne") of Og in Rabbath Ammon, as well as respecting the history of Balaam and Balak.

At 'Arâk el Emîr we made an interesting discovery of the probable method by which the enormous stones were brought from the quarries to the palace of Hyrcanus, and we explored carefully the existing ruins and copied the inscriptions and details of architecture.

The number of photographs taken by Lieutenant Mantell is 36 in all. A short account of these is attached, and copies will be sent as soon as possible



to England. The large majority of subjects have, I think, certainly never been photographed previously.

The discoveries of inscriptions have been few and of no great value. Two Greek inscriptions were found fairly preserved, and fragments of others were also discovered. A Roman milestone with a Latin inscription was also found by Lieutenant Mantell, and there are remains of a Greek inscription in the great Temple of 'Ammân. The Arabs, however, state that no stone like that of Dibon has ever been since found by them, although during the last twelve years they have been constantly searching for such relics.

A building explored at 'Ammân is likely to prove of great interest to architects. It has been previously described as a Byzantine church and as a mosque, but there can be little doubt that it is of Sassanian origin, probably about the same age as the Mashita palace discovered by Dr. Tristram. Its architecture, together with that of an early moslem Mosque in 'Ammân, seem likely to illustrate in an interesting manner the question of the style of the Dome of the Rock at Jerusalem. Plans, sketches, and photographs of these and all the other buildings of 'Ammân have been obtained.

A number of interesting Arab traditions have been collected, some of which have a considerable mythological value. Statistics respecting the names, numbers, and property of the eastern tribes have also been obtained, although with some difficulty.

Full reports on the heads above enumerated will be forwarded as soon as possible, but the great press of work at the present moment renders it impossible to give more than a rude summary of the most interesting of our discoveries.

CLAUDE R. CONDER, R.E.

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