

DEAD SEA OBSERVATIONS.

By DR. E. W. G. MASTERMAN.

(Continued from Q.S., 1913, p. 197.)

AUTUMN VISIT, 1913.¹

ACCOMPANIED by Mr. Hornstein I left Jerusalem at 10 a.m., November 14th, and reached the lower khan on the Jericho road at 1.15; left the khan at 2.15 and reached the north shore of the Dead Sea about 6. The atmosphere was brilliantly clear, and the Moab mountains stood out with every detail visible. The scene just at and after sunset, as we crossed the plain towards the Dead Sea, was one of extraordinary beauty. To the west the jagged outlines of the dark Judæan hills made a sharp contrast with the brilliant glow of the sunset sky; between us and them, the low ground, studded with bushes and small tamarisk trees, was overlaid by long horizontal layers of white smoke—like a mysterious mist—arising from upwards of half a dozen charcoal-burners' fires. To the east, beyond the weird broken cliffs bordering the Jordan, the whole eastern range was bathed in a rosy hue deepening in tint till at length the mountains appeared the colour of old bronze, variegated by dark blotches, the shadows of the numerous valleys. The eastern sky passed from a rosy pink to a lemon yellow: to the south, the glow died, and then suddenly the full moon—like a great flat disc—sharp in outline and moving with a stately mechanical precision—passed upwards into the sky. By the time we reached the shore the whole valley was flooded with moonlight. We spent the night on the shore itself. The sea on our first arrival was extraordinarily calm, with scarcely a ripple. The wind was from the north and continued so, more or less, all night, but was never more than a gentle breeze. At about 8.30 we were struck with the noise of what seemed like waves

¹ These notes, written at the time, were unfortunately mislaid.—E.W.G.M.

breaking all along the eastern shore. Then an hour later we heard a loud commotion due east of us, near the mouth of the Jordan, and then at 9.40, very suddenly, long diagonal waves running from S.E. to N.W. began rippling along the shore near us. They were not large waves, but they greatly incommoded some observations we were taking; they were most curious to watch as they glided diagonally past us, running in long succession along the beach. They made a considerable noise and continued for some hours—till 1 a.m. or later—but in the morning all was still. The caretaker of the hut at the shore told us that such a severe commotion was by no means constant every night, but I feel sure it has some explanation in the considerable fall of temperature which occurs some little time after sunset. Thus, though when we arrived the atmosphere was warm, we had soon to put on our great coats, and the latter part of the night we were shivering in spite of great coats and rugs. I wish particularly to call attention to this phenomenon—which I observed once before when I spent a night on the beach some years ago—because it accords so well with the observations of the Rev. Putnam Cady (*Quarterly Statement*, 1901, p. 47). He says: "A phenomenon on the Dead Sea that interested me may not be out of place here. On three successive nights" (spent, I may add, on the *east* shore) "at about 7.30, when no air was stirring, a heavy breaker would suddenly come pounding on the beach. After an interval another would come, and then a perfect bombardment would follow for an hour. Up to this time the sea would be perfectly quiet and during and after it no air stirred." Except that I would hardly describe the first waves as "heavy breakers," the description tallies with what we observed and the sounds on the eastern shore of breaking waves, which very probably were going on some time before we noticed them—would well fit in with this account of Mr. Cady. But if so the waves must have run first towards the east and then there must have been a recoil, as it were, producing the diagonal waves, running N.W. which we observed. I may add that when we first heard the waves I could not believe the sound could be produced by water, the sea near us was so absolutely calm, but thought it must be wind in the gullies of the Moab hills. Lastly, I think this phenomenon must have much to do with the formation of that long line of foam, the "white line," which seems to drift most mornings across the lake from the east to the west shores. The effect of the waves, where we were, was

to produce quite a considerable line of foam upon the small-pebble beach. I may say that the wave phenomenon is nothing to do (as Sir Charles Wilson suggested, *loc. cit.*, p. 49) with seiches, because I was actually engaged in recording seiches at the time, and the seiches, which were well marked before, disappeared temporarily during the wave bombardment.

We left our quarters on the north shore at 8.30 a.m. (November 15th) and rode to 'Ain Feshkhah by a road passing 'Ain Jehayar. Near this latter spot we passed a low hill called *Tell Rakaban*, where, we heard, several columns were recently unearthed by the Bedouin who hastily covered them up again for fear of the government. The man in charge of the hut showed us a number of Roman coins (*circa* second century A.D.) which he *said* he had found at this site.

We passed several charcoal burners loading their sacks of fuel upon donkeys. The oasis of 'Ain Feshkhah was well populated by Bedouin herdsmen with camels, goats, and sheep. The reeds were very flourishing. There was no stream running from *Haish el-Mukdam*. Sand partridges were plentiful all over the rocks inland. We arrived at 10.30—at once proceeded to the Observation Rock, returned to the pool, bathed, lunched and started for Jerusalem at 1 p.m. We came home by *Nebi Mûsa* and the old road, reaching Jerusalem about 8.30 p.m.

Measurements.—At P.E.F. rock, 13 feet 8 inches, a fall of 25 inches since the Spring. At the pool the level of the water was 13 inches *above* the mark, a fall of 15 inches.

REVIEWS AND NOTICES OF PUBLICATIONS.

THE decipherment of unknown scripts is very much to the fore just now. In *The Expository Times*, Dec., 1916, Prof. James Hope Moulton gives a brief account of a recent German solution of the Hittite problem.¹ The *Mitteilungen der deutschen Orient-Gesellschaft zu Berlin*, No. 50 (Dec., 1915), contains a detailed study by

¹ Since this was written, the news has arrived of the sad and untimely end of this great scholar. Of the many beloved and accomplished scholars who have lost their lives during this war, few will be so much missed in the field of Biblical scholarship.