

Phœnicia itself, with rulers from the East, seems to be indicated; thus confirming the traditional view as to the derivation of the Semitic Phœnicians from Chaldea. We hear nothing of the Hebrews, for they were as yet not a power in Palestine, but we hear perhaps of the "Sons of Seir," who were organised under a king when Israel came from Egypt to Edom.

There are other tablets of this series still to be read, which may give us other interesting notes as to Palestine. The find is one of the most important yet made in connection with the monumental history of Syria.

C. R. C.

VIII.

RECENT NOTES ON THE HITTITES.

THE recently-published Proceedings, Biblical Archæological Society, contain papers in which some useful notes on the Hittites appear. We should not reproach the author (Rev. C. J. Ball) for his conversion from the belief that the Hittites were Semitic, and in many respects he appears to have profited by recent publications. Armenian, on which he in great measure relies, is not a safe guide, since it is known to be a very mixed language, with a large Turanian vocabulary. Questions of etymology are generally very vexed, but while regarding the Hittites and other tribes as Aryan, he has come to see that some of their names are comparable with Etruscan and other Turanian words. That he does not acknowledge the prior publication of these facts by the Palestine Exploration Fund is of little importance, in view of the furtherance of truth by the acceptance of their work. That he is right in regarding some of the tribes encountered at a late period by the Assyrians as Aryan will probably prove to be the case. This does not touch the question of the Hittite nationality a thousand years earlier. It is to be regretted, however, that he has not treated of words of *known* meaning, such as have been enumerated in the last number of the P. E. F. *Quarterly Statement*.

At the British Association at Bath Prof. Sayce allowed that it was now the general opinion that the Hittites were Mongolic. Dr. Isaac Taylor has published his belief in this view, and I believe I might mention two other authorities who consent. Mr. Ball, however, has not called attention to the existence of some of the words he notices (such as Tarku and Sar) in Turkic and Mongolic dialects. He compares *Tutamū* with Homer's Pelasgian Teutamus ("Iliad," ii, 843), but assumes the Pelasgi to have been Aryans. He discovers the survival of the Hittite name Saplel in a Syriac account of an Armenian King Sapul (as Halevy has previously noted), which is very interesting, but not a safe indication of Aryan origin for the name. He compares Tarku with the Etruscan name Tarcho ("Æn." viii, 506, 603), and Lara with the Etruscan Lar, in both of which remarks he is preceded by my papers in the *Quarterly*

Statement. Etruscan comparisons show, however, a Turanian and not an Aryan affinity. The comparison with the Scythian Targitauš also probably tends in the direction of Turanian origin. The Parthian *torkis*, "king," which he also compares, is, according to Spiegel, not an Iranian (*i.e.*, Aryan) word. *Kamru*, a word he takes to mean house, does not occur in Hittite records.

As regards the inscriptions, he follows "Altaic Hieroglyphs" in comparing the deer's head with *Tar*, *Dara*, and *Darag* (or *Tark*) in Akkadian, but Akkadian is not an Aryan language. He also compares the *Dim* of the bilingual with the Cuneiform *Dim*, as I have previously done in "Altaic Hieroglyphs." He adds an interesting note that the amulet (Hittite, *Ra*) which, as I have noted, was used in Phœnicia and at Carthage, also occurs on Sassanian coins as the emblem of the Fravashi or guardian spirit. He accepts the first emblem of the Hamath stones as meaning "speech," comparing it with the Egyptian determinative, as I have already done in 1883; and he accepts my value *Ne* for the Hittite pronoun emblem. The following principles, which he lays down, are all strictly adhered to in my decipherment, but were, in cases 2 and 3, disregarded by Mr. Ball, when he attempted to read the Hamath stones as Hebrew in 1887.¹

(1.) The inscriptions are to be read *towards* the faces (meaning from the end, towards which the faces look).

(2.) Symbols placed one above the other are to be read vertically downwards from top to bottom, and this order is invariable. This is true, and is the case in the Akkadian texts of Tel-lo. Mr. Ball formerly read without regard to this law.

(3.) Like the Egyptian the character is partly ideographic, partly phonetic. This has been pointed out clearly in my previous papers, but I think Mr. Ball hardly gives enough attention to the ideographic value.

(4.) The text J. 1 reads A. B. C. D. This is clear when the original is inspected. Prof. Sayce, reading from a photograph, has unfortunately been misled into reading A. C. B. D.

¹ As showing the vague results of etymology from single unknown sounds we may instance *Antar*. Mr. Ball renders "forest" from Armenian. In Etruscan, *antar* means "eagle." *Thamima*, "sea," he compares with *Támara*. Surely it is as near *Tiamat*, the Akkadian "ocean." If the Aryan *çara* means "head," "leader," so does the Turanian *Tsar*. If *Bag* is to be compared with the Aryan *Bágha*, it equally compares with the Turanian *Bak*. These facts are in some cases explained by the Aryan and Turanian roots being the same, but if exception be taken to comparing Hittite with the earliest languages of Western Asia, which are not Semitic, that objection is tenfold stronger when modern languages of mixed character, like Armenian or Georgian are used. The same applies to comparing Cypriote direct with Cuneiform. Mr. Ball gives twenty-six cases, of which I believe *three* are correct. As to his proposals for translating a few groups on the monuments, the arguments do not appear to be very strong, and further study of the symbols may lead him to see that the proposed values are untenable.

The objections in principle which, it seems to me, will be raised to Mr. Ball's system are, 1st, that he has paid no attention to words of *known* meaning, but relies on etymologies of names which he compares without distinction with Aryan and Turanian languages, and with mixed languages like Armenian. 2nd, that in comparing Cypriote and Cuneiform he compares *late* forms, which are always misleading, and does not adhere to one epoch (which should be the *oldest* known), and places his Cuneiform emblems erect or prostrate, as suits the comparison, instead of adhering to the oldest erect forms. 3rd, that when emblems which differ occur in groups with emblems the same in the groups compared, the different emblems are regarded as equivalent. Prof. Sayce has done the same, but there is no safe ground for such a supposition any more than if we were to find C. A. B. on one text and C. O. B. on another, and should argue that therefore A. is the same as O. There are only about 130 known Hittite emblems, of which about 50 (probably phonetics) are very common. The presumption, therefore, is that these (as in Medic and other syllabaries) had each a distinct sound, and not that two or more had the same sound, and were used as equivalents. 4th, that he has made no exhaustive study of any single emblem as regards its position in the texts; and 5th, which is also a matter of principle, that he reproduces in many cases the work of others without any acknowledgment.

C. R. C.

NOTE ON MR. I. C. RUSSELL'S PAPER ON THE JORDAN ARABAH AND THE DEAD SEA.

By Professor EDWARD HULL, LL.D., F.R.S.

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I HAVE been very much interested in reading Mr. Russell's two communications published in the "Geological Magazine" for August and September last.¹ The analogy which he draws between the history of the Dead Sea valley and that of some of the lake valleys in the western part of North America is instructive as showing how similar physical features can be accounted for on similar principles of interpretation over all parts of the world. Mr. Russell very properly draws attention to the paper by his colleague Mr. G. K. Gilbert on "The Topographical Features of Lake Shores," in which principles of interpretation of physical phenomena are laid down applicable to lakes both of America and the Jordan-Arabah valley.² With some of Mr. Russell's inferences regarding special epochs in the history of this valley I am very much disposed to agree; more particularly in reference to the mode of formation of the Salt Mountain,

¹ "The Jordan-Arabah Depression and the Dead Sea," "Geol. Mag." Aug. and Sept. 1888, pp. 337-344 and 387-395.

² Gilbert, Fifth Annual Report U.S. Geological Survey (1883-84).