

Notes on the Hittite Writing

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ART. XXI.—*Notes on the Hittite Writing.* By Major C.
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FOR the last twenty years the question of the decipherment of the hieroglyphic texts found in Syria and Asia Minor, representing a distinct written character, has excited the interest of Orientalists; and for the last five the question has been much discussed in England and abroad. Fresh monuments have been copied by Puchstein and Hogarth, and a second bilingual has been recovered from Cilicia; but the number of texts which are of any length, or at all complete, is only two dozen, and we are still at the very beginning of the study. We may expect, however, that the successors of those who recovered the Egyptian and Cuneiform systems will, in the end, not fail to conquer a third system, the study of which must be conducted on the same principles, and must result from the same gradual advance, which led to the former final results.

It is proposed in this paper to examine the present condition of the problem, and to state first the points of agreement, and afterwards the conclusions which may be drawn from the ascertained facts. It is not proposed to claim a final solution of a problem which will probably remain in the controversial stage till further sources of knowledge are obtained. But, first, it should be noted that two entirely separate questions are somewhat confused together by the term "Hittite Writing," which is now very generally used for purposes of convenience. The first question is that of the race and language of the Hittites; the second is the quite distinct question of the language of the inscriptions found in North Syria and

Anatolia. It is probable that the two questions are intimately connected, but this as yet has not been proved.

As regards the first question, there is now a very general agreement that the people of North Syria, called *Kheta* by the Egyptians, and *Khati* or *Khatti* by the Assyrians, were the same people called *Khetim* or *Beni Kheth* by the Hebrews: since the latter—the Hittites—lived in the same region in which Egyptians and Assyrians found their *Kheta* enemies. A certain number of personal names of these enemies are recorded in the records of Rameses II., and of later Assyrian kings; and there are representations of the *Kheta* on the Karnak bas-reliefs. These, until quite recently, were the only sources of knowledge as to their race and language. As regards race, the late Dr. Birch was of opinion, on account of their features and their pig-tails, that the *Kheta* were a Mongol people; and his view may now be said to be very generally accepted. The pigtail is very distinctive of the Mongols, and is not of Chinese origin. The features of the *Kheta* are not Chinese-like, but resemble rather those of the Kirghiz and other Turkish peoples of Central Asia; and the absence of beard distinguishes the *Kheta* from the Semitic peoples of Syria on the same monuments—such as the Phoenicians and Amorites.

In the names of the *Kheta* chiefs, one of the commonest elements (as, I believe, Dr. Sayce first pointed out), is the word *Tarku* or *Tarkhu*, which does not appear to be a Semitic word, nor does it recall any Aryan term. When we turn to the Turkish dialects, we find *Tarkhan* to mean a "chief," and in Mongolian *dargo* has the same signification. Chabas, as early as 1862, came to the conclusion that the *Kheta* names indicated a non-Semitic language; and they give indications (as, for instance, in the name *Kheta-sar*) that the definition is on the opposite principle to that of Semitic speech, in which the genitive follows the nominative: thus indicating that the language was either Aryan or Mongolic. It need hardly be said that if it was Aryan the words would probably have been at

once recognized as such, so that by a process of exclusion, as well as by the occurrence of Mongolic words in this vocabulary, we appear to be driven to the conclusion that this Mongol race spoke a Mongol language.

In addition to such indications, we now possess a letter written in Cuneiform about 1450 B.C. by *Tarkhundara*, a Hittite prince, who ruled at *Arzapi*, apparently Rezepth North of Palmyra, which occurs in the Tell-el-Amarna Collection (No. 10, Berlin), and which (as is generally agreed) is not written in any Semitic language. I believe that Dr. Winckler was the first to observe that the pre-cative form of the verb used by this prince is the same as in Akkadian, which—without entering further into the translation of this letter—is a strong argument in favour of the Hittite language having been an agglutinative dialect, resembling that spoken by the ancient non-Semitic race of Babylonia.

On the other hand, M. Halévy and others contend that the Hittites were a Semitic people. Probably this controversy is due to both parties being partly right, and each relying exclusively on partial evidence. It is certain that from a very early period—at least as far back as 1500 B.C.—there was a large population in North Syria which was Semitic. It is also certain that the Hittite power was overthrown about 700 B.C. by Sargon, and it seems not improbable that the Hittites may then have been nearly exterminated, as they do not appear in later history. But when a traveller journeys through this region, in the present day, he finds that it contains a mingled population, partly Turkish and partly Semitic; and we know historically that the same mingled population there existed in the tenth and down to the thirteenth centuries A.D. It is possible therefore that the Kheta represented the non-Semitic, while the Phoenicians, Amorites, etc., represented the Semitic race in North Syria at a very early period, just as the Akkadians and Assyrians belonged to distinct races in Mesopotamia further East.

The only attempts directly to connect the Hittites with

the Semitic population, which I have seen, appear to me to fail in definite result. M. Halévy quotes the inscription of Panammu, found in North Syria, which is not written in hieroglyphics, but in the familiar Phoenician letters. Panammu is known to have lived about 740 B.C., and to have been a chief of the Samalli; but there is nothing to show that the Samalli were Hittites, and the monument belongs to an age when the power of the Hittites was approaching its fall.

Another argument is drawn from the well-known Assyrian statement, that the words *Ekal mat Khati*, "temple of the land of the Hittites," were equivalent, in the "Language of the West" (*Akhari*) to the words *Bit Hilani* (apparently "house of beams"), as has recently been remarked in the *Academy*. But this is not a statement that the "Language of the West" was Hittite; since the *Akhari* or "Western people" are usually the Phoenicians. The "Land of the Hittites," as above remarked, contained a Semitic population, but it is not proved that that population was Hittite. Dr. Sayce prefers to read the word *Amuri*, or "Amorites," which points to a similar conclusion.

On the other hand, the Akkadian texts from Tell Loh show that, at a very early period, Gudea, the Akkadian prince, had penetrated as far as Egypt, Sinai, and Amanus, so that we have historical evidence that by 2500 B.C. the non-Semitic population of Mesopotamia had extended itself into Syria. It is, however, quite possible, as several scholars have supposed, that these invaders were few in number, and represented a ruling caste. This is not a question of great importance, since, in dealing with inscriptions, it is naturally with the ruling class that we have to deal.

The question whether the Hittites were Aryans needs less consideration. Dr. Peter Jensen, of Marburg, has recently proposed to compare their speech with Armenian, which is an Aryan language; but he himself says it was a suffixing language, which Armenian is not; and he has not brought any definite system to bear on his theory. It is rendered fairly certain by personal names and other

terms (especially *Bag* for "God" on a text of Sargon's) that the later Assyrians found Aryans in Armenia; and they, themselves, speak of the Medes in this region or a little further East. Such names as *Kustaspi*, *Bagadatta*, and *Artasirari*, applying to chiefs whom they conquered, are evidently Aryan; but they are not anywhere stated to have been Hittite names, and they belong all to a period when the Aryans were beginning to conquer the more ancient populations of Western Asia. The names of Hittites mentioned by Assyrian writers recall neither Semitic nor Aryan terms.

As regards the geographical extension of the Hittites, and the character of their government, it is to be remarked that all the known inscriptions refer them to Northern Syria; and, from 1500 B.C. down to 700 B.C., they are always noticed as ruled by a number of different contemporary chiefs, in such towns as Carchemish, Aleppo, Hamath, Merash, Rezep, and Kadesh. No record has yet been found of their existence in Armenia, or of their conquest of Asia Minor, or of any Hittite Empire under a single ruler. The single notice of Ashdod as a Hittite city in Sargon's time is at present unexplained.¹

As regards the Hittites, there seems therefore to be some ground for concluding that they were a Mongolic people, living among the Semitic peoples of North Syria, whose most flourishing period was from the fifteenth to the fourteenth centuries B.C.; and this now appears to be the more generally accepted conclusion in the matter.

In order not to prejudice the second question, as to the decipherment of inscriptions, which may or may not be Hittite, it is necessary to pursue the investigation on entirely independent grounds. It is possible that the texts found in Syria itself were written by Hittites, and

¹ Mr. Bliss, excavating the site which I identified with Lachish, came on a curious Scarab, which he kindly showed me. The emblems at the sides appear to be the Hittite signs *ko mo pu div pe*. There is no reason why Hittite remains should not be found near the Hebron mountains, which, according to the Bible, were early inhabited by an Hittite tribe.

those in Armenia and Anatolia by other tribes of the same or of a kindred race, who did not bear the name of Hittite. It is possible, on the other hand, that all the texts were written by the same race or tribe. It is to be remarked that those found in Syria are the most archaic in character, and those from Asia Minor are more hieratic, and represent a more sketchy mode of forming the emblems; and from this evidence it might be deduced, with some show of reason, that the race first settled at Carchemish and Hamath, afterwards extended its conquests to the North and West, and Eastwards at Samosata; but at present all such deductions are very conjectural, and it is only from the texts themselves that we can hope to know more.

The inspection of the texts shows very clearly that they are written *boustrophedon* wise, that is alternately from right to left and left to right, and (as is more usual) begin on the right for the first line. It is also clear that the emblems are arranged one below another in the line, just as they are in the old Akkadian texts of Tell Loh, which however, all read from the right. These are points which will not be disputed.

It was also early noticed, that there are similarities between the Syrian emblems and those used by the Akkadians and the Egyptians, namely, in the occurrence of heads, legs, arms, feet, animal heads, and such objects as thrones, bowls, vases, sceptres, pyramids, birds'-wings, etc. It is only natural to seek some aid from such resemblances in endeavouring to find the meanings of the signs; but, on the other hand, there are many Syrian emblems which are distinctive, and unlike any in other systems; so that it appears clear that the system was distinct, and could, at most, have only an early common origin with any other that was known before.

The discovery of several new texts shows that the number of emblems in common use was limited; and they reappear with hardly a single new form on each new text that is recovered. I estimate that not more than about 120

emblems in all—not counting reduplications or compounds—are to be recognized; and this contrasts with the large number of signs used in Egyptian (about 400), and in Assyrian (about 550); while, on the other hand, the Akkadian texts of Tell Loh are written with about 170 signs, which are mainly syllabic, with a few ideograms or determinatives. From such considerations we may fairly conclude that we have to deal, not with a picture writing—such as Egyptian itself was said to be before Champollion's time—but with a syllabary, consisting of a definite number of syllabic signs, with, no doubt, a few ideograms and determinatives in addition.

In this conclusion, which will, I think, be admitted by all who have studied the Syrian texts, and who know the history of the Cuneiform, we find the first basis of a possible study. If the sounds of this syllabary can be recovered, we shall be able to spell out the inscriptions. If only arbitrary values are given to the emblems, no convincing result can be expected; but, on the other hand, it is clear that if we could ascertain the class of language with which we have to deal, the inquiry might be advanced more quickly. Now it has been noticed that the smaller constantly recurring signs, which accompany the more important emblems, are almost invariably under them; whence it is natural to suppose that we have to deal with a language which used suffixes rather than prefixes; and as this is now held by Dr. Sayce, Dr. Peiser, and Dr. Jensen alike, however much they differ on other points, it may, I think, be taken to be rapidly becoming an accepted principle of study.

It is also natural to suppose that we have to deal with an agglutinative, and not with an inflexional language, the main reason being one long since pointed out by Dr. Sayce, that all the known hieroglyphic systems belong to agglutinative speech—whether Egyptian, Akkadian, or Chinese: the inflexional languages being more complex, and requiring for their expression alphabets rather than hieroglyphs. So the Persians converted the Cuneiform into an alphabet,

and the Phoenicians invented that used by the Greeks, all these races speaking inflected languages; while the Chinese, whose speech remains agglutinative in its barest form, have retained their hieroglyphic script.

But if the language of these texts be suffixing and agglutinative, it cannot be Aryan or Semitic. All languages of these two classes make great use of prepositions, and are inflexional. It is not probable that the Syrian texts represent a language *sui generis*, and it is certain that the script is not Egyptian. To call it Alarodian, or Proto-Armenian, or indeed by any other name, gives us no help, unless it can be stated what was the speech of the people to whom such names are applied. The only known agglutinative and suffixing languages of Western Asia are Mongolic languages; and it appears inevitable that, if these principles of examination are adopted, it is to the Mongolic languages that we must turn for purposes of comparison. In addition to this, there are heads represented on the Syrian texts, and on the accompanying monuments, which present us with the same Mongolic physiognomy remarked in the portraits of the Kheta; and in some cases they have pigtails. The evidence of the monuments thus points to their being the work of a Mongolic race, who, it is natural to conclude, may have spoken a Mongolic language.

In addition to the recent recovery of the Mitani language there are two ancient Mongolic languages known in Western Asia—the Akkadian and the Medic—each of which has independently been considered (by Drs. Oppert and Hommel) to have been nearer to pure ancient Turkish than to any other Mongolic speech; and having personally studied the grammar and vocabularies of both these languages, in the works of Lenormant and Oppert, and compared them with the grammar of the Yakut, and other pure Turkish dialects, I find that not only is the grammatical construction the same, but that some 300 Turkish words may be easily compared with Akkadian and Medic. When we consider that this seems also to apply to the language of Mitani spoken in a country immediately adjoining that in which

the Syrian monuments occur, and that such monuments occur in Mitani itself; and when, in addition, we notice that the type of face on their monuments, like the type of the Syrian Kheta, is nearer to the Turkish than to the East Mongol physiognomy, it appears natural to seek comparisons for the language in question in that of the Akkadians, early Medes, and Mitani people; and to verify such comparisons by reference to Turkish speech, which must, however, be studied, not in the Ottoman vocabulary, which is so much mixed by the introduction of Persian and Arabic, that only about one word in ten in use is really Turkish at the present day, but in the older and purer Turkish of Central Asia, which can be studied in the Yakut, and in the other dialects of which Vambéry has furnished a comparative vocabulary.

To Dr. Sayce we owe the first indications of the direction in which to seek for the sounds of the language to be studied, in his comparison with the Cypriote syllabary, and in his indication of two short bilinguals; and no serious student of the subject can overlook the value of these indications. All hieroglyphic systems have produced hieratic—or, so to say, a running-hand—script, due to the natural desire to render writing easier and more rapid. The hieratic character, which grew out of the Hittite, has been recognized in the Cypriote syllabary, first explained by George Smith.

This syllabary did not apparently originate in Cyprus. It was used in Asia Minor by the Carians, and texts have been found so written in Lycia, as well as in tombs in Egypt, where it was employed by an ancient people, apparently Carians.¹ In Cyprus it was used by Greeks, from the sixth to the fourth century B.C., but it does not follow that it was of Aryan origin. The Cuneiform was

¹ The early art of Mycenæ and Troy has by some been connected with the Carians. The only remains of early writing found at Troy were a few Cypriote syllables. The actual treasures (including ivory, bronze, jade, and amber, with leaves of gold) show a marked connection with the contemporary art of Mitani, as described in the list of presents sent by the Dusratta to Egypt, including ivory, bronze, jade, and leaves of gold. The Carians seem to have been a branch of the Mongolic race of Armenia, afterwards Aryanised.

not originally a script invented by either Semitic or Aryan races, though it came to be used by the Assyrians and the Persians. The Greek alphabet was of Phoenician origin: the Roman text is used by Hungarians, who are not Aryans. Script and language generally have no necessary connection. But it is always found necessary to modify a script, when it is used for a language for which it was not originally intended, as we see in the introduction of long and short vowels into Aryan alphabets, which were not originally needed in Phoenician.

Now with regard to the Cypriote, it is at once evident that the script was but ill adapted to express the many vowel and consonantal variations of the Greek; and the representation of sound is very imperfect. This syllabary consists of fifty-four emblems in all, representing seven vowels and forty-seven syllables, consisting of a consonant followed by a vowel, such as *Ta Te Ti To Tu, Na Ne Ni No Nu*, and so on for other sounds. It is to be noted that among these *D* is not distinguished from *T*, nor *B* from *P*, nor *M* altogether from *V*. The gutturals are *K, G* and *Kh*: the sibilants are *S* and *Z*, representing two sounds only: the liquids distinguish *L* and *R*. This vocalization, while insufficient for the purposes of Aryan languages—especially those of the East Aryan languages—agrees with that of the Akkadian syllabary, which, in like manner, gives no very clear distinction of *P* and *B*, or *T* and *D*, or *M* and *V*; but distinguishes the gutturals as in Cypriote, and has also a small distinction of sibilants. It seems, therefore, that the Cypriote would be more fit for use with a Mongolic than with an Aryan language.

The sounds of the Cypriote were recovered by George Smith in 1872, and in 1888 Dr. Sayce compared a good many of the emblems with those of the Syrian hieroglyphs. Since then both systems have become better known, through fresh discoveries; and it appears to me that the comparisons can now be established in forty-six cases out of fifty-four. It is of course probable that, as in Cuneiform, so in Syrian, the emblem had more

than one sound; but by these means we may recover the common syllabic values of the vowels, and of the syllables in which a vowel followed a consonant, in nearly all cases, thus giving us something approaching to half the sounds required.

As regards the remainder, they would include syllables in which the vowel preceded the consonant—probably amounting to about forty emblems—and this leaves only some thirty signs to be accounted for. Following the analogy of the Cuneiform, we should expect these thirty emblems to include syllables in which a consonant preceded and followed a vowel—such as *Tar*—and a small number of ideograms and determinatives. In Akkadian the determinatives are not as numerous as in Egyptian, or even as in the later Assyrian. Thus in the Tell Loh texts there is no prefixed sign to determine personal names, and the commonest signs of this class are those for “country,” “city,” “Lord,” and “God,” with the sign of the plural. These also we should expect to find in Syrian; but on seals, and on the bilingual Boss of Tarkondemos, the Hittite or Cilician texts show no indication of any special sign marking the proper name: so that there is some reason to suppose that in this script, as in Akkadian also, no such sign was in use.

In studying the texts it is found that certain signs, amounting to about fifty in all, are of very frequent recurrence, appearing to represent the grammatical forms—cases of nouns suffixed to larger emblems, with pronouns and common verbs—and these appear often to agree with the sounds of similar parts of speech in Akkadian. Thus towards the end of clauses we often find the emblems *Mo-ne*, followed by another which might represent the verb, just as we so often in Akkadian find, *Mu Na* “I it” with a verb ending the sentence. In addition to this indication we have the fact that the sound recovered from the Cypriote appears to give the Akkadian name of the emblem represented by the Syrian hieroglyph. Thus, for instance, *Le* is the sound which appears to belong to the

bull's head, and *Le* is also a sound for the bull's head in Akkadian. *Mi* is the sound for the emblem of "country," and *mi* is a common Mongolic word for "land," "earth," etc. *Ti* is represented by an arrow, and the arrow emblem in Akkadian has also the sound *ti*. These indications seem all to agree with the proposed comparison with ancient Mongolic speech.

As regards determinatives, that for "god" in Cuneiform and Egyptian is a star; and the star also appears in Syrian with the sound *a* or *an* (Akkadian *an* "god"): the sign for "Lord" in Cuneiform is a throne, and this throne also appears on Syrian texts. The Syrian emblem, which seems to mean "country" on the Boss of Tarkondemos, represents two mountains. In Cuneiform the sign for country represents mountains, and the same is the case in Egyptian. In both these latter systems the plural is represented by three or four strokes, and four strokes occur as a suffix to nouns in Syrian, which may well be the plural. As to numerals, a hoop is used in Cuneiform and in Egyptian for ten; and the discovery of the Gurun text shows very clearly that the hoop in Syrian script was also used to represent a numeral: such groups as eighteen and twenty-eight being found on that monument. The sign for "city" is at present unknown; but if it resembled that used in Cuneiform, it would be a symbol representing a seat.

Turning to the two short bilinguals in Syrian and Cuneiform, which are not only valuable in themselves, but give us hopes of further bilinguals in these two scripts, it is to be noted that the characters on the Boss of Tarkondemos represent Cuneiform not of a very early period, whereas the seal from Cilicia in the Ashmolean gives Cuneiform at least as old as about 1500 B.C. That the Syrian script was in use in or before the fourteenth century B.C. is clearly indicated by the fact that the cartouche of Rameses II. is cut on the field of the statue on Mount Sipylos, which has Syrian emblems in relief. These raised emblems must have been already carved, therefore, before the arrival of Rameses II.; and the indications so enumerated seem to

show that the Syrian script was employed between 1500 and 700 B.C. In addition, it must be remembered that the hieratic character—or Cypriote—had been developed before 500 B.C.; and that the more archaic of the hieroglyphic texts would naturally be a good deal older, since on the Asia Minor monuments we find the script becoming more cursive and conventional, and so approaching nearer to the Cypriote. The Phoenician alphabet (which I have tried to show some years ago to have been derived from Cypriote), apparently came into existence between 1400 and 1000 B.C.; and the Syrian hieroglyphic script was, no doubt, considerably older than this latest product of the same system. It appears from such reasoning incorrect to suppose that all these texts can have been carved as late as the eighth century B.C., when the Phoenician alphabet was in common use throughout Syria.

From the two bilinguals we also recover a few sounds for Hittite emblems. The Cuneiform text on the Boss of Tarkondemos reads *Tarkudimme Sar Mat Ermē* (or *Erimē*). The native characters—six in all—give us *Tar* for the goat's head (Akkadian *dara* "deer"), *Ko* (as in Cypriote) for a peaked crown or obelisk, *Dim* for a sign very like the Cuneiform *dim*, and three others, of which one is *Mi*, as in Cypriote. The Ashmolean seal gives archaic Cuneiform symbols reading (according to the impression which I have obtained) *Indilimma ben Serdamu Abd itu Iskhara* "Indilimma, son of Serdamu, servant of Iskhara." There are only four native emblems, the first of which is the head of an ass, which also occurs often on the Syrian monuments, and the third is the Cypriote *Ra*. The sound *Is* might be given to the asses head, and compared with the Turkish *esek* for "ass," of which the root is *es*. I should suppose that the four may read *Is-khe-ra ba*, meaning probably "Iskhara's servant"; but the only certain sign is the *Ra*.

The recovery of the sounds represents the only true method of dealing with the problem. Many attempts were made to read other systems without the aid of the sounds

by arbitrary suppositions; but all these were swept away by Champollion and Sir Henry Rawlinson, who both proceeded on the two principles which must govern all such enquiry—(1) The determination of the syllabic values of the common emblems; and (2) The determination of the character of the language, by comparison with known tongues of the same grammatical character and giving the same sounds.

There are certain well drawn emblems, the value of which may be reasonably conjectured from their forms and position in the sentence, independent of their sounds, by analogy of the use of similar signs in other hieroglyphic systems. Thus it is easy to conjecture that a pair of legs walking means "to go" or "a march," as the same emblem does in Cuneiform and in Egyptian. The "hand" no doubt means "take" "have" "power," as it does in Cuneiform and in Egyptian. The figure with hand raised to mouth no doubt signifies "speech," as in Egyptian; and the figure of a tablet on the same principle will mean "inscription." But the fact that there are only about 120 signs used on the Syrian texts shows clearly that the majority at least of the emblems must be used syllabically, and that we are not dealing with a purely picture writing.

The next important observation concerns the syntax of the language. If it be granted—as has been so generally allowed—that we are dealing with an agglutinative suffixing speech, one thing becomes certain, namely, that the verb must stand at the end of the clause. This is a law of syntax of all the known languages of this great class in Western Asia, both ancient and modern. Consequently it seems safe to suppose that on a Syrian text in such a language the emblems at the beginning are nouns, and those at the end of the text are verbs; and it is noticeable that such emblems as the foot, the hand, and others, which most probably stand for the roots of verbs, never occur at the beginning of any text. It should also be noted that in the agglutinative languages, the roots are all monosyllables, so that these would naturally be represented by

single syllabic signs in writing, with others for cases and pronouns attached. If this be granted, we then obtain some light on the character of the suffixes : for those which accompany the first emblems in a text would be cases of nouns, and those which end a text would be tenses or persons of verbs.

It seems to me that the indications and principles so stated will hardly be liable to be upset by further discovery ; but though they may plainly indicate the character of the language, and even suggest the subject in some cases, they are far from enabling us at present to make definite translations. Any further work must be purely tentative. Yet the sounds may to a certain extent be checked, on the principles which are laid down in reading Cuneiform, and which Dr. Sayce has stated very clearly in his grammar of Assyrian (pp. xiv. xv.). There are several common combinations which demand special study, but unfortunately there is very little agreement as to the meaning of these groups. After long study of the texts it appears to me, however, that certain combinations connected with the verbs, occurring at the ends of texts or of their clauses, give indications by their frequent recurrence of important grammatical forms. Those which may be chiefly noticed are the following :

Mo-ne preceding verbs. Akkadian *Mu Na* "I it."

Me ke after verbs. Turkish *mek* for infinitive.

Neke following nouns. Akkadian *nak* "thereof."

duke for a verb, apparently "come" or "become."

Sa-ne perhaps the subjunctive. Medic *sne*, Mitani *senā*.

Among the nouns we find a pigtailed head with a sign above it, which group is thought to mean King or Chief : and a pair of tiaras for which a similar meaning has been conjectured ; but there is at present no means of checking these suppositions. Another group which may, by aid of the Cypriote, be read as *Ri-lum-me*, seems to me to signify "writing," from comparison with the Medic verb *Ri-lu* "to write." A sign, which clearly seems to represent an

altar with a burning flame, is found very frequently towards the end of clauses, and never at the beginning. I conjecture that its sound was *bar*, which is the sound of the emblem representing an altar in Cuneiform; but it is so frequent, and always in the position of a verb, that it cannot be taken to be a noun merely meaning "altar," but must be regarded as a syllable. It may, perhaps, be the old Turkish verb *bar* or *var* "to be," which is also recognizable in Medic. I believe we may also recognize the pronouns *Mo* "I," *Ne* "he," *Bu* "this," and possibly the conjunction, with the sound *Yak* "and" as in Medic; but these views will by others be regarded as conjectural only.

The two questions thus separately investigated appear to lead to the conclusions—(1) that the Hittites of Syria were a Mongolic people speaking a Mongolic language; and (2) that the Syrian hieroglyphic texts were written by a Mongolic people in a Mongolic language, about the same historic period during which the Kheta flourished in Syria. It seems, probable therefore, that the Syrian texts were written by the Hittites, whatever be the case as to those in the same character and language found in Asia Minor and in Armenia

The only writer who has so far pronounced in favour of a comparison with Turkish speech is Dr. Peiser, in Germany, whose work I have not yet had an opportunity of consulting, but I believe that the theory which I put forward in 1887 gives, as Dr. Isaac Taylor and the late Mr. C. Bertin have both since stated, the simplest solution of the problem, so far as the determination of the language is concerned. In conclusion, a few words may be devoted to the description of the principal texts as far as known.

Texts from Jerablus.

Three of these in the British Museum were found by George Smith, in the ruins of the ancient Hittite city of

Carchemish. They are the most beautifully executed of all as yet known, and, though broken, are the most distinct.

No. 1. A text on the door-joints of a building, in five lines, is remarkable for its repetition of certain groups, consisting of three or four emblems each.

No. 2. A headless figure of a king or god, with eight lines of beautifully carved emblems, also broken on the right, contains, twice repeated, a rare emblem representing two persons who seem to be swearing faith to each other. A similar emblem in Egyptian signifies "alliance" or "brotherhood." I am inclined to suppose that this sign really represents the name of the Hittites—*Khat*; and in Turkish *Khat* signifies to "be joined," "connected," or "related." The *Khati* might, therefore, in Mongol speech mean "allies" or "brethren." It was the name of a very important Turkish people, whose centre was on the south shores of Lake Balkash. They are noticed by Ptolemy, and they ruled all Central Asia in the tenth century A.D., and invaded China. The old name of Cathay was taken from them, and the Mediæval Jews of Bactria identified them with their old enemies, the Hittites. Considering the migrations of Mongol tribes, and the great distances apart at which sections of one tribe are often found, it is not impossible that these Khati of Central Asia were a section of the same people called Khati by the Assyrians in Syria.

No. 3. Written round a curved surface of a pillar, with a figure on the back. It is broken at the top, and includes five lines of much decayed writing, which (as on most of the texts) is in relief. This text is remarkable for a head with very long ears, which recurs several times, but which is rarely found on other texts. It seems to represent a noun, and it recalls the figures in the British Museum, by which demons are represented on Assyrian monuments, with long ears like those of the ass. If the text referred to demons it would no doubt be a charm, like those of which so many are known in Akkadian literature; but it is equally possible that the sign was used syllabically, as the sign for "ghost"

is used in Cuneiform to mean "weak." We may perhaps suppose that this emblem indicates an "enemy"—mortal rather than demonic—in which case the text would be probably a memorial of war; and a study of the last line seems to indicate that it refers to enemies in connection with a city.

Texts from Hamath.

Five stones from Hamath, one at least of which was seen by Burckhardt in 1812, are now in the Stamboul Museum, where I have seen them. Two sets of casts are in England. They are remarkable for the repetition in three cases of the same initial formula, and they are perhaps the most archaic of known Syrian texts.

No. 1. Consists of three lines, and begins with the symbol for speech. It appears to be complete.

No. 2. Also of three lines, is very similar in the first and second lines to No. 1.

No. 3. In two lines, very similar but shorter.

No. 4. Is different. It appears to me to contain in the first line a personal name *Dutar*, as being that of the writer of the text. It is to be remarked that *Totar* was the name of a Hittite mentioned in the time of Rameses II., and it is quite possible that these texts are as old as 1350 B.C.

No. 5. Is the longest of the Hamath texts, consisting of five long lines. It presents the peculiarity that lines three and four both read from the right, the usual alternate arrangement being here discarded. In this, as in the previous texts from Hamath, Nos. 1, 2, and 3, the second noun is represented by a throne, with the symbol *un* beneath, and may I think be read *En-un*, meaning "Lord."

Texts from Merash.

There are three of these texts from the city at the foot of the Taurus, west of Carchemish, all of which are more

irregularly written than the preceding, and seem to be later.

No. 1. A lion with seven long lines of writing running round the side and front. It was found by Dr. Gwyther, and is now at Stamboul; but a cast is in the British Museum. This is the longest text yet known, but the emblems are very crowded, and not always very distinct. It appears to me that the first line states that the inscription was erected by a certain *Tarko man* or *Tarkoku*, the syntax of the first sentence presenting the usual sequence of object, subject, and verb. The demon head, in this case with horns, occurs once, perhaps indicating a contest; and the name of a prince seems to occur in the fourth line, where I think we may perhaps read *Khalupu-ne* "of Aleppo." Immediately after come combinations, which might perhaps give the sounds *Uru-ne-bar-sa barak*, "his city was ruined"; but this is purely tentative, and a great part of the text contains very indistinct emblems.

No. 2. A figure holding a staff, covered with writing, was found by Puchstein, and photographed; but the text is so indistinct that it cannot be treated.

No. 3. Two rudely carved figures on a rock, seated facing each other, with a sort of table or altar between them. The person to the right holds a sceptre, and the one to the left a cup. Above is a very irregular text, which has been copied by more than one traveller. The sequence of the syllables is uncertain.

Ibrees.

A group on the rock above the stream, of a gigantic horned deity, holding grapes and corn, faced by a king or priest to the right. There are three short texts—one (A) of three lines by the head of the god, who wears a beard; a second (B) of four lines behind the king, also bearded; and the third (C) much decayed hard by. They have been copied by Major Fischer, in 1838, and by Mr. Hogarth, in 1890, and were rediscovered in 1875 by the Rev. E. J.

Davis. In the third line of the text (B), referring to the king, occurs the emblem of a head with tiara, supposed to mean "chief" or "king," followed by *pe*, which probably indicates the nominative definite.

Tyana.

A monument with the figure of a king, brought from Bor, was here discovered by Prof. Ramsay. Mr. Hogarth has recently discovered that the lower part of the monument exists, with other lines of writing, but these have not been copied. The upper half includes four lines, the writing incised and more hieratic in character than any of the preceding.

Bulgar Maden.

This text, also incised, is one of the most complete yet found, and has been very carefully copied by Mr. D. G. Hogarth. It consists of five lines, which are very hieratic in character, and specially remarkable for a sign just like the Cypriote *va*, which is not recognizable elsewhere with certainty.

Gurun.

This site yielded two texts, discovered by Sir C. W. Wilson, K.C.B., and carefully copied by Mr. Hogarth. They are hieratic in character, but much damaged by weather. No. 2 is specially remarkable for groups of vertical strokes, connected with hoops, which seem very clearly to be numerals. The text includes seven lines, and in line three I think the name *Tarkadimme* may be recognized. In line five occur the numerals "nine" and "eighteen"; in line six we find "eight," and probably a personal name; and in line seven the numeral "twenty-seven," and the pair of legs walking, which—as in No. 3 at Jerablus—no doubt signify "march." Hence I am led to suppose that this rock cut text refers to the expeditions

of Tarkondemos. The name of Tarkondimotos, as a Cilician king as late as the time of Augustus, has been pointed out by Dr. Mordtmann; and the Cuneiform characters on the bilingual Boss of Tarkondemos are thought to be as late as the time of Sargon. There is nothing so far to show that he would have called himself a Hittite, or that the inscriptions bearing this name, which was apparently a common one, all refer to the same person. But the character of the writing at Gurun appears to me clearly to show that the text is a very late one.

The Babylonian Bowl.

This bowl, now in the British Museum, was probably brought as spoil from the country where the Syrian script was used, and has a text written round it outside, also in hieratic script, with incised characters. It is not easy to know where to begin reading, and many of the emblems are so rudely formed as to be indistinguishable. It is remarkable for a very clear occurrence of the Cypriote *ni*, and for an unique emblem which seems to represent the bowl itself.

Izgin.

The new text just published by Mr. Hogarth consists of seventy short lines, but it was hastily copied, and is much defaced, so that it does not shed much new light on the subject. They run round four sides of a limestone obelisk eight feet high, and are cut in relief. Several familiar groups are recognizable.

Palanga.

A text in four lines beginning on the left, incised writing, and hieratic in character: on the front, left side, and back, of the lower part of a basalt statue of a seated figure.

Kölitolu Yaila.

Three lines beginning on the right, well carved in relief, but much injured: of red calcareous stone. It seems to contain a personal name.¹

These twenty-two texts, together with an imperfect example from Samosata given by Puchstein, and other fragments from Carchemish and Tyana, represent the principal sources of knowledge of the script. On the figure at Mount Sipylos, Dr. Sayce copied a small group in relief of six or seven emblems, including the signs *Ko Le* and *Du*; and at Karabel, near Ephesus, the famous statue of Sesostris has a text of six or seven emblems, including the "tablet" and "bird." There are in addition seventeen seals belonging to M. Schlumberger at Paris, which appear to be in the same script, one of which represents a deity standing on a lion, like those in the famous rock sculptures of Pteria, which accompany an illegible text in the same character. On one of the seals a lion's head is carved, which is not otherwise found. Mr. Hogarth also possesses a seal with similar characters. A seal discovered at Nineveh by Sir H. Layard, presents a very common group of unknown meaning including the "Eagle." This, so far, is all that has been found, and what is most needed is the recovery of a bilingual of sufficient length to allow of further study of the language.

As however it is known that such bilinguals were made, in at least two instances, we need not despair of final settlement of this curious question; and, in conclusion, I would urge that what is most needed is excavation at Carchemish, the border city between Hittites and Assyrians, where, if anywhere, we might hope to obtain the needful clues. In the incomplete state of our knowledge the present contribution to the question may however prove useful to others.

¹ The Texts from Ibreez, Bulgar Maden, Gurun, Tyana, Kölitolu Yaila, Izgin, and Palanga are given by Prof. Ramsey and Mr. D. G. Hogarth in their "Pre-Hellenic Monuments of Cappadocia." Paris, 1891 and 1893, with full account of the sites.



TYANA.

NOTES ON THE SYLLABARY.

- No. 1. *A*, a pot. The Cypriote is read *ya*, but in Carian *ā*. In Akkadian *a* means "water."
- No. 4. *O*. The Cypriote sign seems to represent the growth of an herb. In Akkadian *u* stands for herb.
- No. 11. *Ak* is conjectural, but seems to give a probable sound. The emblem is a suffix on the texts.
- No. 12. *Ik* seems to be a key. The Cuneiform emblem also resembles a key, and with the sound *ik* means "open" in Akkadian.
- No. 17. *Khu*. The Cuneiform is supposed to be a bird, and with the sound *khu* means "bird" in Akkadian.
- No. 20. The sound *ga* in Akkadian means "turn" "bend," and the emblem is apparently a crook.
- No. 21. *Gu*. The emblem appears to mean "speak," and occurs as a verb at the end of texts. The Akkadian *gu* "speak" is represented by a somewhat similar Cuneiform sign.
- No. 26. *To* is very like the Cuneiform *tuk* "to have" or "take."
- No. 33. *Du* is the same sign used in Cuneiform, with the sound *du* in Akkadian, meaning "to come" and "to become."
- No. 34. *Sa* seems to be a sickle or knife. It occurs as a suffix to nouns, perhaps meaning "in."
- No. 35. *Se*: the hand extended. In Akkadian *se* means "to give."
- No. 36. *Si* resembles the Cuneiform *si* for the "eye." In Medic *siya* is "to see." The sign is usually a prefix, and may be used as a determinative.
- No. 43. *Shi* seems to represent "horns." In Akkadian *shi* means "horn."
- No. 46. The sound of the Cypriote is not certain. The emblem resembles in Cuneiform *zi*. In Akkadian *zi* means "spirit," and the sign is not unlike the Chinese emblem for "wind."

- No. 49. *Uz* seems to represent a "quiver." The Cuneiform emblem which signified a quiver had the sound *uzu*.
- No. 50. Resembles the Cuneiform *Ba*, which appears to have been a "pyramid."
- No. 51. *Bi*. In Akkadian *bi* is "two."
- No. 52. *Bo* is a common sign, and seems to stand for the demonstrative pronoun, which is *bu* in the language of Mitani, *ibba* in Akkadian, *appo* in Medic, and *bu* in Turkish.
- No. 53. *Ab*, only found once, resembles the head of a camel. Akkadian *abba* "camel."
- No. 57. *Pe* is a vase. In Akkadian *bi* is an emblem, apparently a vase, and means "cup."
- No. 58. *Pi* is a common suffix of the nouns. Probably it is the nominative definite, as in Medic and in the Mitani language.
- No. 59. *Pu* resembles the Cuneiform emblem of the same sound, which, in Akkadian, means "to extend" "to be young," or generally "to grow." It is a common Turanian root meaning "to grow," and is represented apparently by a bud.
- No. 61. *Le*. One of the Akkadian sounds for the bull's head is also *le*.
- No. 64. *Lu* is a "yoke," and the Cuneiform emblem for the yoke has also the sound *lu* in Akkadian.
- No. 74. The sound is taken from the Boss of Tarkondemos.
- No. 75. A dog's head. Akkadian *Ur* "dog," represented, as Mr. Bertin showed, by a dog's head in Cuneiform.
- No. 79. *Mo* is like the Cuneiform sign for female, which has the sound *muk* in Akkadian. It is known to mean the pudenda.
- No. 82. *Am* only occurs doubtfully once, and appears to be the head of a wild bull. The Cuneiform sign for the wild bull has the sound *am* in Akkadian.
- No. 84. *Um* is a tablet, like the Cuneiform *um* (also *dub*).
- No. 86. *Ne* seems to be the phallus, and to mean "male" "he." The Cuneiform *na* is somewhat like, and also signifies "male" and "he."

- No. 93. *Un* is the sign for "ten." Akkadian *un*, Turkish *aun* "ten."
- No. 95. *Bad* in Akkadian means "to strike" or "slay." The emblem is a hand and dagger. It forms the group *baddu* very often.
- No. 96. A sheep's head. The Cuneiform emblem for "sheep" also represents the head, and has the sound *dib* in Akkadian.
- No. 98. *Dur* is very rare. The Cuneiform emblem *dur* means "to stand."
- No. 103. *Gal* resembles one of the wooden keys used in the East. The Cuneiform sign of the same sound means, among other things, "to cause to open."
- No. 105. The Cuneiform sign *khir* means originally "growth," but is used for "writing."
- No. 107. *Khul*, a demon. The word in Akkadian means "evil," and is common in Turanian speech with the meaning of "devil" "death" "foe," etc.
- No. 108. *Sak*, a head. In Akkadian *sak* is "head." This gives us the words *sakpe* and *sakdu*, perhaps "vow" (Akkadian *sakba*) and "chief" "top."
- No. 109. *Sig*: the Akkadian word *sig* means "to fill."
- No. 110. *Luv*: the emblem appears to be a flame. In Medic *luva* is "to burn."
- No. 111. *Nun*. The Cuneiform sign means "prince" "chief," representing a hand and sceptre. The Hittite emblem is a rare one.
- No. 112. *Gug*: a ram's head. The sign seems to signify "fighting." In Akkadian we find *gug* among terms for sheep, evidently the Turkish *koch* "ram."
- No. 113. *Kas*, "a pair." In Akkadian the sign *kas* represents two. Turkish *kos*, "a pair."

This does not quite exhaust the Hittite emblems, only 88 being placed in position including the determinatives. These are nearly all common, but to them we must add:



Often reduplicated. A tiara. Perhaps *Kha* or *Khan*.

-  Also seems to be connected with royalty. Perhaps *Man*.
-  Not frequent.
-  Somewhat like a Phrygian cap.
-  Is like the Cuneiform sign for the sun.
-  Appears to be a snake. It only occurs in certain words.
-  Is apparently a tree, and may be *Mu* as in Cuneiform.
-  Resembles the sacred tree on monuments. Perhaps *So*.
-  Seems to be a snake. It is like the Cypriote *ye*.
-  Very rarely found, means, apparently, "to march."
-  Only twice found. Perhaps "to stand still."
-  Is like the Chinese sign for "baby." Perhaps means "small."
-  May be only a variant of *lu*.
-  Only once, at Ibreez. Is like one form of the Cypriote *Re*.
-  Perhaps a combination *i-ak*. It is usually a prefix, and occurs double. Perhaps the conjunction. Medic *Yak*.
-  Might be a variant of *Pe* or of *A*.
-  Only occurs once at Jerablus (No. 2 text).

-  A seated person rarely found. Perhaps a woman.
-  A hare. Only occurs once, on the Merash lion.
-  Also on the lion.
-  Only as yet on Jerablus text, No. 3.
-  Perhaps a swallow, in which case it would be *Nam*.
-  On Jerablus text, No. 2, is an animal like a bear.
-  On Jerablus text, No. 3, is very like the Cuneiform sign for "opposition." It is followed by the sign of "house" or "city." Perhaps "the resisting city."
-  Perhaps a spear head, or a monument.
-  Appears to be a variant of *Pu*.
-  Only once found, on Jerablus text, No. 2.
-  Perhaps only a variant of *Se* or *Da*.
-  On the Tyana text, seems to be a "chain."
-  A common sign, apparently a knife. Perhaps *Khas*. These, with a few doubtful and indefinite signs, bring up the total to about 120 emblems.

COMMON GROUPS.

Recurring on the Monuments.

- (1)  This begins texts at Hamath, Jerablus, Merash, and Izgin, and clearly means "speech," with a suffix.
- (2)  Especially at Jerablus. Perhaps *Ri-lumme*, "writing." It is apparently a noun.
- (3)  At Jerablus, and at Gurun. *Tarkodivmi* and *Tarkadimme*: apparently a noun, probably a king's name.
- (4)  At Jerablus, Bulgar Maden, on the Babylonian bowl, on Layard's seal (by itself). Perhaps a personal name or an ideogram for "prince." It is not a common form and is apparently a noun.
- (5)  On the Babylonian bowl, at Ibreez, Tyana, Bulgar Maden, and Palanga. Apparently a noun.
- (6)  At Merash and Hamath; appears to be a noun, and by position would be the object in one case.
- (7)  At Hamath, and Izgin, and Palanga; seems to be clearly a noun. Common without the upper sign.
- (8)  At Jerablus and Merash. A verb, probably *Baddu*; occurs in the infinitive. (Compare *Medic Batto* "put.")
- (9)  At Jerablus and Kolutolu Yaila; at Hamath *Meka* perhaps answers to this *Meke*. It is clearly a verbal suffix.

- (10)  At Hamath, Tyana, Izgin, etc. Precedes verbs, and reads *Mo-ne*. Apparently the pronouns "I, it."
- (11) 
 At Bulgar Maden, Merash, on the bowl, at Tyana, etc., appears to be a suffix of nouns reading *ne-ke*, "thereof."
- (12)  At Bulgar Maden, Merash, etc., appears to be a verb suffix reading *sa-ne*. Perhaps the Precative form. (Medic *sna*, Mitani-*sena*.)
- (13) 
 At Bulgar Maden, Kolutolu Yaila, Palanga, Merash, etc., a form of the verb, reading *Du-ke*, apparently "come" or "become"—the past participle active.
- (14) 
 Sometimes the last sign is *mo*, sometimes *du*. Occurs at Hamath, Jerablus, on the bowl, at Merash and Izgin. It seems to be a noun.
- (15) 
 Twice repeated on Jerablus, No. 1, reading from the left. It appears to be probably a verb in the first person.
- (16)  At Jerablus and Izgin. It seems to be a verb or a suffix of some kind.
- (17)  Very common on all texts at the end of clauses, possibly the verb substantive. It occurs reduplicated.
- (18) 
 At Jerablus and Merash. Perhaps *Sak-du*. It appears to be a noun, perhaps "top" "summit."
- (19) 
 At Tyana, Jerablus, Izgin, etc. A reduplication of the verb *du*, "to become," probably the causative.
- (20) 
 At Hamath. May be read *Gu-me-ka*, and seems to mean "sayings" or "words."

- (21)  At Bulgar Maden. Another form of the verb "to become." Probably *Du-sa*, "it becomes" or "he becomes."
- (22)  A noun at Pteria. The second sign is a common suffix. The group might be read *Si-is*.
- (23)  At Kolutu Yaila and Jerablus. Appears to be a verb. The ram's head is common in other words.

The commoner combinations show pretty clearly the syllabic character of the writing, very few of them suggesting an ideographic explanation. The verb *du* "to become" "to be" "to come," represented as in the Cuneiform by a foot, would have the same meaning as in Akkadian and in Medic, in both which languages *du* means "to be"; and we obtain the forms *duke*, *dusa*, *dudu* for "was" "is" "is made be," *dua* "being," and *du-un*. One of the most interesting signs to recover would be the eagle, and it is remarkable that so far the eagle is never found except in one particular word. The following points will, I believe, prove to be ascertainable as to the grammar of the language.

Syntax.

The order is object, subject, and verb: the adjective follows the noun: the genitive is prefixed, or if following has a suffix: the pronouns precede the verb: the possessive pronoun is suffixed—all agreeing with Mongolic syntax.

The Noun.

The cases will include the suffixes *-pi* (nom. def.), *-s* (nom. indef.), *-ne* (gen.), *-sa* ("in"), *-lu* ("with"), *-ka* ("for"), *-da* ("from"), *a* ("to"), *e* (accusative). The plural precedes the case suffix.

The Verb.

The infinitive is probably *-meke*; 3rd present *-sa*; 3rd past *-da*; 3rd precativative *-sane*; 3rd imperative *-s*; passive *-lu*; part. *-ke*.

The Numeral

Precedes the noun to which it refers, and is not written syllabically, but by strokes for units and *un* for "ten."

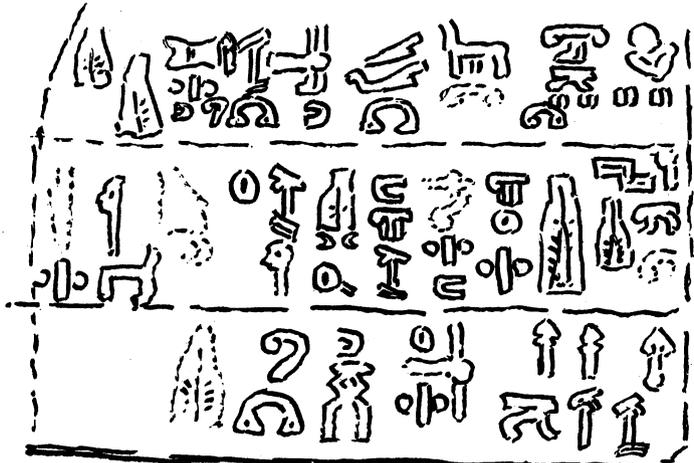
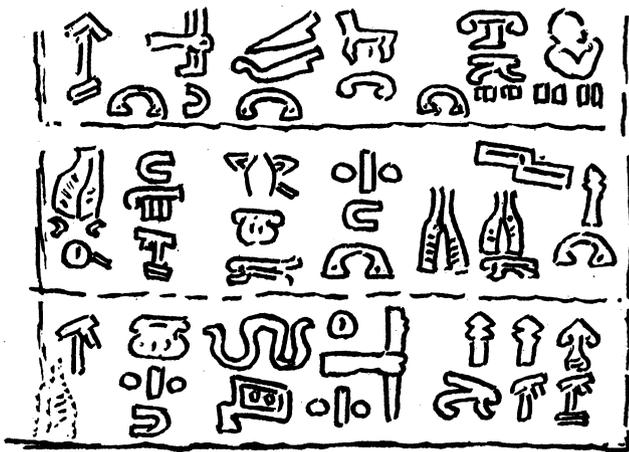
C. R. CONDER.

Southampton, 20th May, 1893.

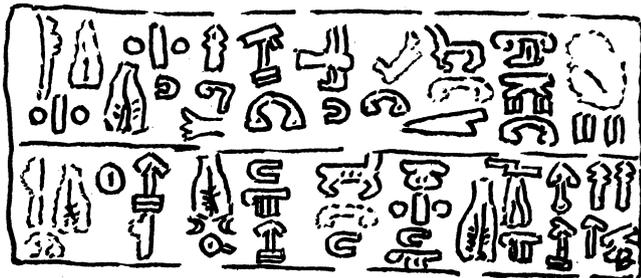
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H²

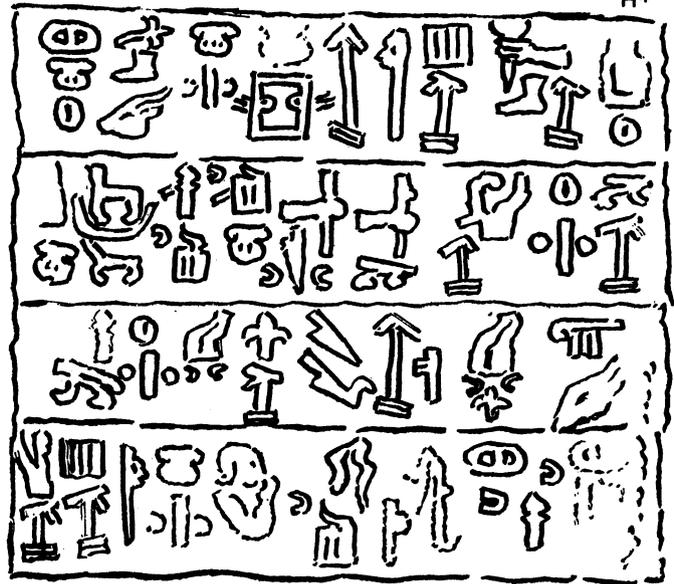
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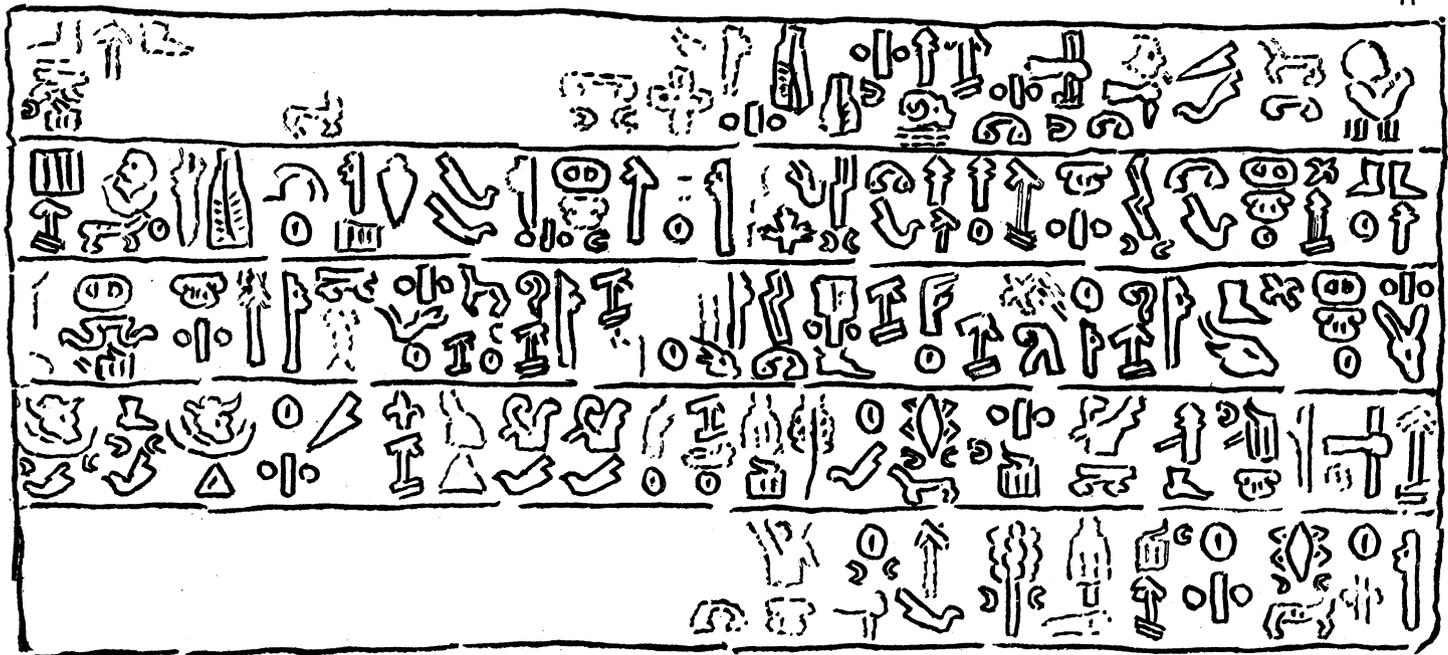
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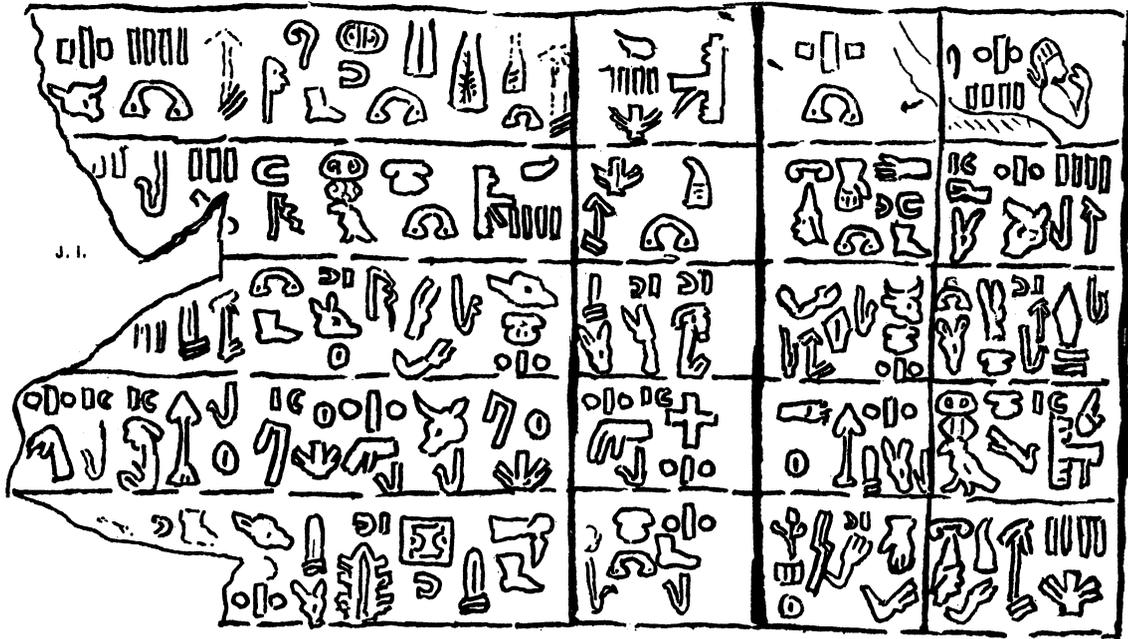
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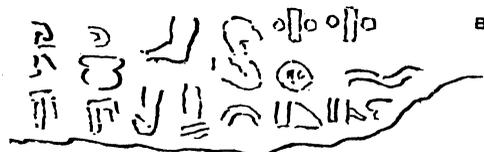
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JERABLUS.

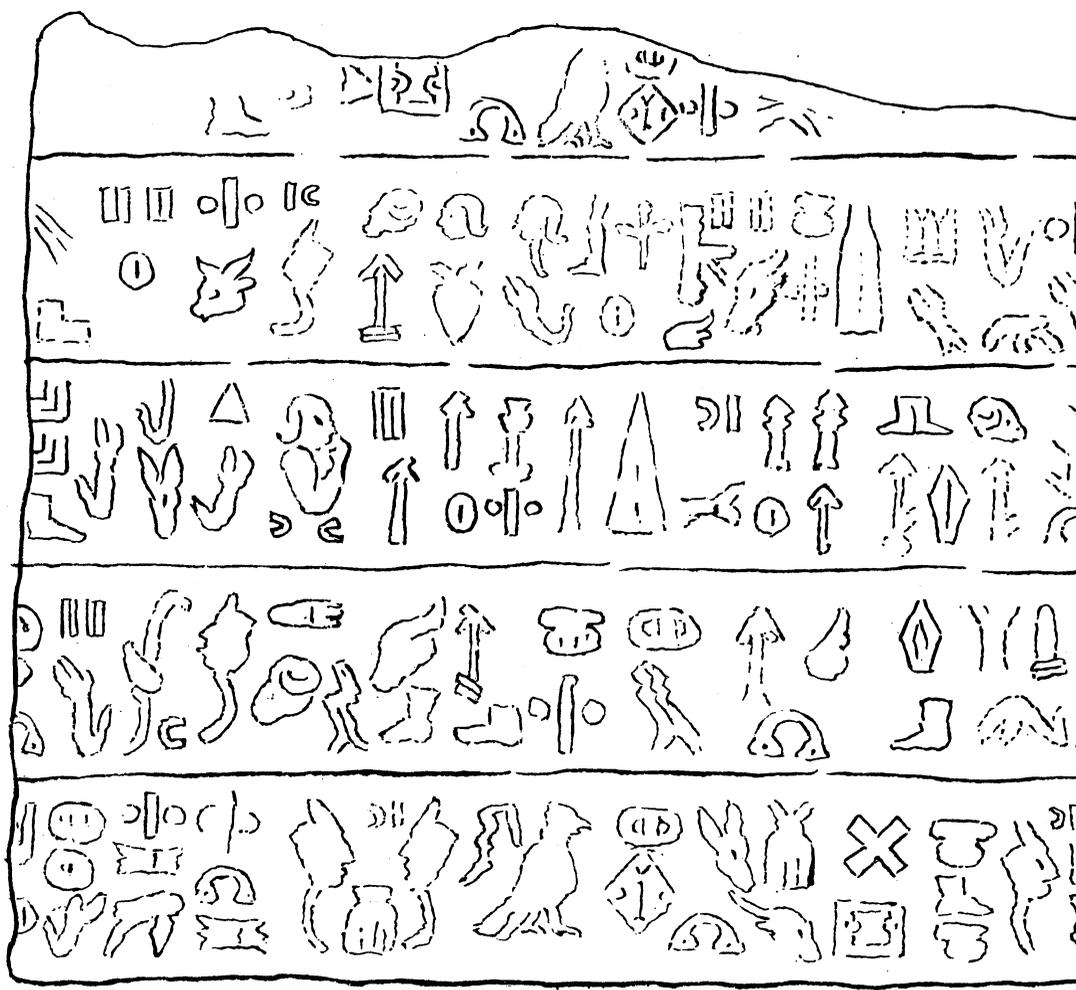
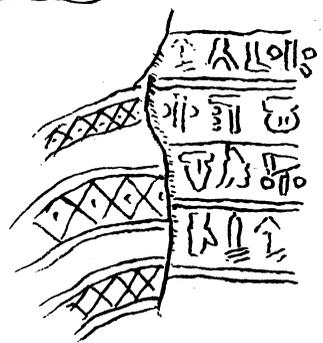


IBREEZ.



A

C



JERABLUS.



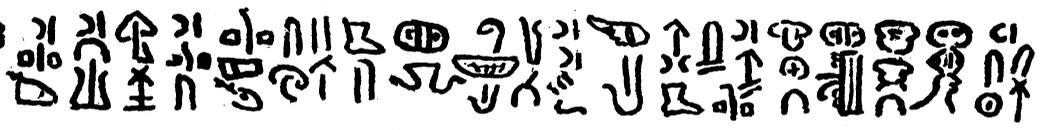
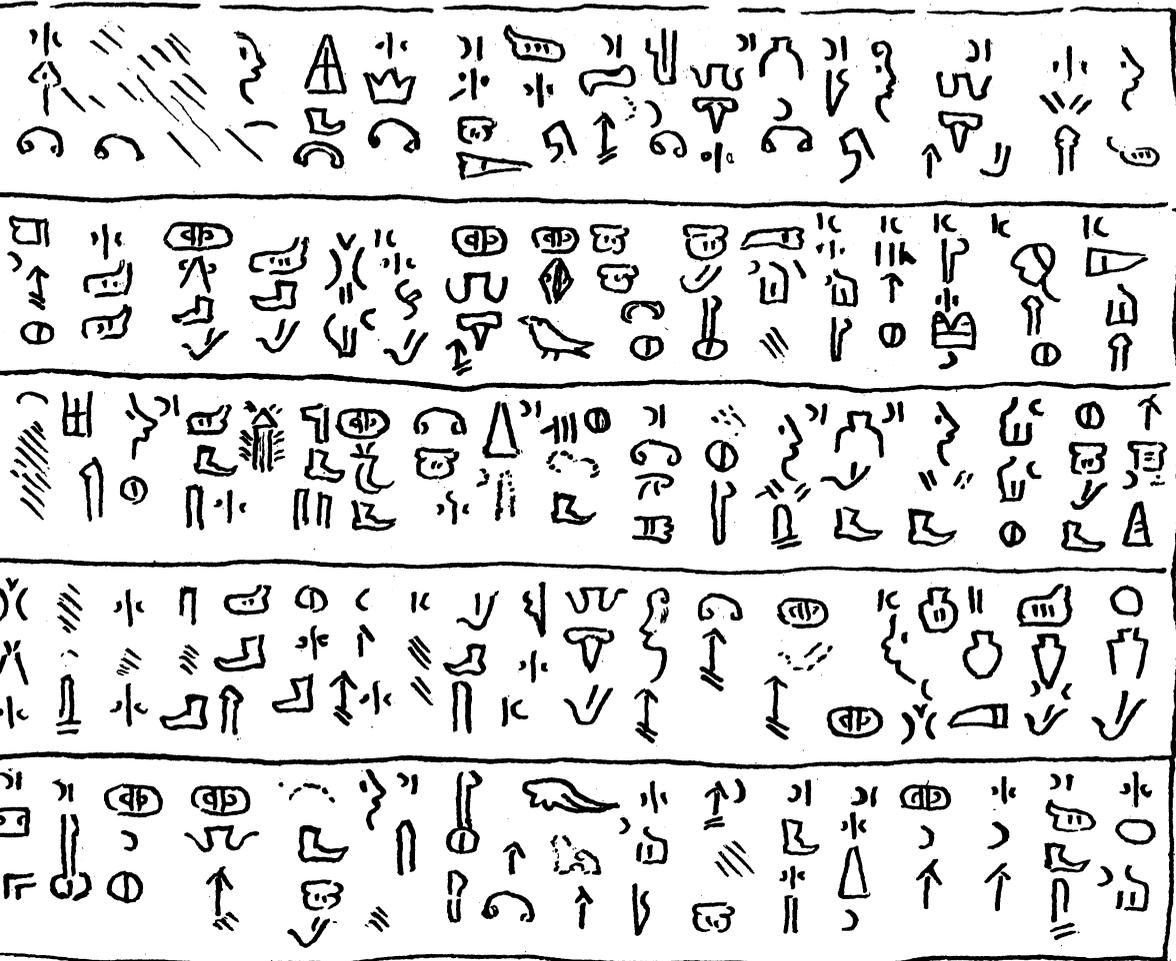
JERABLUS.

ROCK INSCRIPTION, BULGAR MADEN.



BABYLONIAN BOWL.

ROCK INSCRIPTION, BULGAR MADEN.



BABYLONIAN BOWL.

THE HITTITE SYLLABARY.

| SOUND | HITTITE | CYPRIOTE | CUNEIFORM | SOUND | HITTITE | CYPRIOTE | CUNEIFORM |
|--------|---------|----------|-----------|--------|---------|----------|-----------|
| 1 A | | | | 23 TA | | | |
| 2 E | | | | 24 TE | | | |
| 3 I | | | | 25 TI | | | |
| 4 O | | | | 26 TO | | | |
| 5 U | | | | 27 TU | | | |
| 6 KA | | | | 28 AT | | | |
| 7 KE | | | | 29 IT | | | |
| 8 KI | | | | 30 UD | | | |
| 9 KO | | | | 31 DA | | | |
| 10 KU | | | | 32 DI | | | |
| 11 AK | | | | 33 DU | | | |
| 12 IK | | | | 34 SA | | | |
| 13 UK | | | | 35 SE | | | |
| 14 KHA | | | | 36 SI | | | |
| 15 KHE | | | | 37 SO | | | |
| 16 KHI | | | | 38 SU | | | |
| 17 KHU | | | | 39 AS | | | |
| 18 AKH | | | | 40 ES | | | |
| 19 UKH | | | | 41 IS | | | |
| 20 GA | | | | 42 US | | | |
| 21 GU | | | | 43 SHI | | | |
| 22 GO? | | | | | | | |

THE HITTITE SYLLABARY.

| SOUND | HITTITE | CYPRIOTE | CUNEIFORM | SOUND | HITTITE | CYPRIOTE | CUNEIFORM |
|--------|---------|----------|-----------|-------|---------|----------|-----------|
| 44 ZA | | | | 65 AL | | | |
| 45 ZI | | | | 66 IL | | | |
| 46 ZO? | | | | 67 UL | | | |
| 47 AZ | | | | 68 RA | | | |
| 48 IZ | | | | 69 RE | | | |
| 49 UZ | | | | 70 RI | | | |
| 50 BA | | | | 71 RO | | | |
| 51 BI | | | | 72 RU | | | |
| 52 BO | | | | 73 AR | | | |
| 53 AB | | | | 74 ER | | | |
| 54 IB | | | | 75 UR | | | |
| 55 UB | | | | 76 MA | | | |
| 56 PA | | | | 77 ME | | | |
| 57 PE | | | | 78 MI | | | |
| 58 PI | | | | 79 MO | | | |
| 59 PU | | | | 80 MU | | | |
| 60 LA | | | | 81 VE | | | |
| 61 LE | | | | 82 AM | | | |
| 62 LI | | | | 83 IM | | | |
| 63 LO | | | | 84 UM | | | |
| 64 LU | | | | 85 NA | | | |
| | | | | 86 NE | | | |
| | | | | 87 NI | | | |

THE HITTITE SYLLABARY.

| SOUND | HITTITE | CYPRIOTE | CUNEIFORM | SOUND | HITTITE | CYPRIOTE | CUNEIFORM |
|----------|---------|----------|-----------|-----------|---------|----------|-----------|
| 88 NO | | ✕ | | 107 KHUL? | | | |
| 89 NU | | ⋈ | | 108 SAK? | | | |
| 90 AN | | ✱ | ✱ | 109 SIG | | | 𐎗 |
| 91 EN | | | | 110 LUV? | | | |
| 92 IN | | | | 111 NUN | | | 𐎗 |
| 93 UN | | | 𐎗 | 112 GUG | | | |
| 94 BAR | | | 𐎗 | 113 KAS? | 𐎗 | | 𐎗 |
| 95 BAT | | | | GOD? | | ✱ | ✱ |
| 96 DIV | | | | KING? | | | |
| 97 DIM | | | 𐎗 | LORD? | | | 𐎗 |
| 98 DUR | | | 𐎗 | LAND? | | | 𐎗 |
| 99 TAR | | | | CITY? | 𐎗? | | 𐎗 |
| 100 TAS? | | | 𐎗 | PLURAL | 𐎗 | | 𐎗 |
| 101 TIL | | | 𐎗 | SPEECH | | | |
| 102 GAR | | | 𐎗 | FULL STOP | 𐎗 | | 𐎗 |
| 103 GAL | | | 𐎗 | ONE | 𐎗 | | 𐎗 |
| 104 KAR | | | 𐎗 | TEN | | | 𐎗 |
| 105 KHIR | | | 𐎗 | | | | |
| 106 KHAT | | | | | | | |