Karatepe, the Key to the Hittite Hieroglyphs

R. D. Barnett

Anatolian Studies, Vol. 3. (1953), pp. 53-95.

Stable URL:
http://links.jstor.org/sici?sici=0066-1546%281953%293%3C53%3AKTKTTH%3E2.0.CO%3B2-I

Anatolian Studies is currently published by British Institute at Ankara.

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at http://www.jstor.org/about/terms.html. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at http://www.jstor.org/journals/biaa.html.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

JSTOR is an independent not-for-profit organization dedicated to and preserving a digital archive of scholarly journals. For more information regarding JSTOR, please contact support@jstor.org.

http://www.jstor.org
Tue Jan 2 14:56:08 2007

KARATEPE, THE KEY TO THE HITTITE HIEROGLYPHS

By R. D. BARNETT

1. A SURVEY OF THE WORK OF DECIPHERMENT.

1. SCHOLARS who attempted the decipherment of the Hittite hieroglyphics [1] began their task with only slender hopes. They had, it is true, before their eyes the successes of their predecessors in solving the secrets both of the Egyptian hieroglyphics and of the Assyrian cuneiform scripts. But these successes had been made possible because in each case a ready key had been at hand in the shape of a bilingual. Until six years ago no bilingual equal to the Rosetta stone or the Behistun texts had been found for Hittite hieroglyphics and, except for the doubtful help accorded by the inscriptions on a seal or two, to which we shall return, the decipherers had to rely upon their own unaided intuition. It is one thing to elucidate the meaning of an unknown language when it is written in an already known script, such as the Etruscan : or when it is a more or less known language written in a mysterious character, such as turned out to be the case with the Assyrian (for the decipherers were much aided by the discovery that it was a Semitic language akin to Hebrew). But when neither the script nor the language nor their authors are known, when it is known neither what the signs are likely to mean nor what sounds they represent nor who spoke them, the task is indeed a hard one. The degree of success which was achieved in spite of all is sufficiently remarkable to deserve a brief description, since it is a feat which it was always said would prove impossible.

2. The history of the decipherment from its clumsiest beginnings to its relatively advanced phase in 1939 is almost spanned by the long career of a single remarkable man, Archibald Henry Sayce. His position in that history was peculiar. For though the first and foremost leader in the work, he lived long enough to see from afar before his death in 1933 the work achieved by others who had learnt from him, but he was not himself picked out by destiny to lead science into the Promised Land. He was born in 1845. Decipherment of unknown tongues was one of his favourite preoccupations

[1] Originally delivered as a lecture before the Institute in London on 4th May, 1951. [For a brief account of the decipherment before 1922 and bibliography see Contenau, *Eléments de la bibliographie hittite* (1922), and *Supplément aux éléments de la bibliographie hittite* (1927) ; for bibliography since 1927 see Gelb, *Hittite Hieroglyphics* (1931) and *Hittite hieroglyphic inscriptions* (1939) ; and Friedrich, *Entzifferungsgeschichte* (1939) (see p. 77 below). In this summary survey I have mentioned only those points in the history of decipherment which seemed to me particularly to have been fruitful. Such a selection is, of course, bound to be a matter of subjective judgment, with which many may disagree. It does not represent a complete bibliography of the subject, nor is it intended to do duty for a detailed analysis of the script and language. That is a task which still awaits tackling. But since as recently as last year an authoritative scholar was able to describe the Hittite hieroglyphs as " unread " (Gurney, *The Hittites*, p. 41, but cf. p. 8), it is hoped that my Part II will help to dispel these illusions and show what has been done. In Part II I have ventured to include a few suggestions of my own, together with the review of those made by others—R. D. B.]

and, notwithstanding his poor eyesight and weak health, an endless stream of books and articles poured tirelessly from his pen. On Carian, Lydian, Cypriot, Vannic, Elamite and Sumerian inscriptions he was amongst the pioneers. It is not surprising that, when the Hittite hieroglyphics came to light—he was then at the height of his powers—they promptly arrested his attention, and retained it for the remainder of his life. His views about the Hittites, he informs us, were at first received *magno cum risu* ; but the time came when certain of them at least won the respectful assent of the scientific world. He himself [1] admitted that much that he did was inaccurate, hasty and bad, but quotes in his defence a wise saying of Max Müller : " Remember that if you want to make discoveries you must be content to make mistakes." In the sphere of Hittite hieroglyphics Sayce did both.

3. The history of the subject began in 1812 when a Swiss traveller, Burchkardt,[2] observed in a corner of the bazaar at Hama, the ancient Hamath, an inscription in what were then utterly unknown characters. For six decades the matter was ignored, but in 1870 two Americans, the local Consul-General, Mr. Johnson, and a missionary, Dr. Jessup, rediscovered this inscription and heard of three others, but were prevented from copying them by the hostility of the natives. In the following year Messrs. Drake and Palmer were sent by the Palestine Exploration Fund and succeeded in visiting them, and Captain Burton, the celebrated traveller, then H.M. Consul at Damascus, was able to publish some exceedingly rough sketches.[3] The natives of Hama, who have always been well known for their religious fanaticism and hostility to strangers, becoming jealous of the attention the inscriptions were attracting, were already threatening to destroy them so that there might be no further intrusions. Fortunately in 1872 a new Governor of Syria was appointed. This was Subhi Pasha, an educated and liberal-minded man. Hearing of the matter of the inscriptions, the Pasha promptly invited Mr. Kirby Green, the British Consul at Damascus, and the Rev. William Wright, an Irish missionary, also of Damascus, to accompany him to Hama. On their arrival, Wright set out to find the stones, and persevered in spite of the natives' evident displeasure. One stone was built into a house in the painter's quarter, a second into a garden wall. A third was in a little shop opposite the house of the French Vice-Consul, while a fourth lay free in the painters' quarter. This last was an object of special concern to the Hamathites since it was considered to possess remarkable magical properties. Persons suffering from rheumatism were accustomed to stretch themselves on it, and were impartially believed to obtain a cure thereby, whether they called upon Mohammed, St. George or the Virgin Mary.[4] Having found the stones, Wright wisely took no risks and caused the Governor immediately to have them protected by soldiers until he was ready to have them removed. With very great labour, amid scenes of great commotion, Wright succeeded in

[1] A. H. Sayce, *Reminiscences*, 1923, p. 474.
[2] *Travels in Syria*, p. 146.
[3] Drake and Palmer, *Unexplored Syria*, I, 335.
[4] Wright, *Empire of the Hittites*, p. 140.

having the precious relics extracted and carried off. Plaster casts were made and the originals then sent to Constantinople. One set of these historic casts is to-day in the possession of the Palestine Exploration Fund ; the other is in that of the Royal Asiatic Society.

4. The question of possession of the stones was now settled. The next problem was : Who were their authors ? Answers were suggested by three authorities. Dr. Hayes Ward, an American, drew attention to certain similarly inscribed seals found by Sir Henry Layard at Nineveh in 1849 ; the Rev. William Wright held on general grounds that they were the work of the Hittites, a great power known to have existed somewhere in Northern Syria, with whom the Egyptian Pharaohs entertained relations ; and Sayce independently arrived at a similar conclusion.[1] Certain facts were noticed in connection with the nature of the script. Dr. Hayes Ward pointed out that the texts were written in lines alternately directed from right to left, and from left to right.[2] To this method, familiar in early Greek inscriptions, epigraphists have applied the name of *boustrophēdon* " as an ox ploughs a field ". Again Sayce noticed that the signs were much too numerous to permit of the script being alphabetic ; it must instead be recognised as mainly a syllabary, that is to say, a form of writing in which each sign represents a syllable. Some signs, however, must be determinatives, that is, they explained the nature of the word which followed, but were not necessarily pronounced ; others, too, were probably not syllables but ideograms, or single signs representing a whole word. This system corresponded to that used in Mesopotamia by cuneiform script. Thus a single sign alone would be held sufficient to convey the word " god ", " city ", " king ", " queen ". Sayce concluded correctly (though his reasoning was somewhat precarious) that the language, whatever it was, was not Semitic. In regard to individual signs, Sayce was already able to make two fruitful observations. The opening sign of the majority of the texts represented a man pointing to his mouth. This Sayce found to be " I " or " we " ; and the frequently repeated sign must, he felt, be some grammatical suffix.

As we have said, it was now generally assumed that the authors of these inscriptions were the ancient Hittites. In 1880 [3] Sayce was able to put forward detailed arguments in support of this theory. It was well known from Egyptian sources of the later 2nd millennium that one of the centres of the Hittites' power in North Syria had been at a spot called Carchemish. In 1876 the site of this important city had been recognised by the ill-fated George Smith, of the British Museum, and by Consul Skeene, of Aleppo [4]— in the vast mound beside the Euphrates at Jerablus. Here were actually to be seen above ground inscriptions in the same characters as those from Hamath. The British Museum had accordingly caused some excavations to be undertaken there, in the course of which further inscriptions and some

[1] In a lecture read 2nd May, 1876 (*P.S.B.A.*, 1877).

[2] In this essay hieroglyphics for convenience are written only from left to right.

[3] In a lecture read 6th May, 1880 (*P.S.B.A.*, II, 1880, p. 76 ; *T.S.B.A.*, VIII, 1882, p. 248).

[4] The references are in Hogarth, *Carchemish*, I, p. 6.

sculptures were unearthed.[1] Sayce pointed to these sculptures and with much acumen and boldness stressed that their curious style reappeared on several sculptured monuments, hitherto somewhat neglected by scholars, dispersed over a vast area in Asia Minor, at Marash and Bulgar Maden in the south-east, Gâvur-Kalesi, near Ankara, Fraktin, Hüyük, Boghaz-köy, Yazili-Kaya, in Central Turkey, and Karabel, near Smyrna. The argument was clinched by the fact that the same mysterious characters as those of Hamath proved to accompany several of these sculptures in Anatolia. The only possible conclusion was that the Hittite Empire covered a much vaster area than had previously been supposed, from the outskirts of Smyrna, on the Aegean, in the west, as far as Hamath, on the Orontes, in the south, though it was perhaps not necessary to assume that all "Hittite" inscriptions wherever found were in the same tongue or the product of a single homogeneous people. These assumptions of Sayce's were, as we now know, almost completely correct; he was wrong only in assigning the sculptures of North Syria and Anatolia all approximately to the same date. We know now that they belong to different periods, although they all represent the same artistic and epigraphical tradition.

Sayce made certain further brilliant observations concerning individual signs: he pointed out that each of the sculptures in the remarkable procession of divine figures at Yazili-Kaya was accompanied by a short inscription, beginning in each case with the sign . This then must be the determinative sign meaning "god"—a most important discovery. He even guessed that the name which frequently followed it at Carchemish probably represented the name of the principal deity of Carchemish. He was in fact right, as it is the name of the goddess Kupapa; but unfortunately he later gave up this idea. Concerning individual syllabic signs, he offered several suggestions, the most important being that the signs were all used as suffixes to nouns.

5. In November of the same year Sayce was able to make a discovery of even greater moment.[2] He recalled that some years before, a certain M. Alexandre Jovanoff, a coin-collector of Constantinople, had acquired in Smyrna a small silver plate having the shape of a segment of a hollow sphere. This object bore in intaglio the design of a human figure, certain strange signs and a cuneiform inscription. It had been published and described by Dr. A. Mordtmann,[3] but had disappeared and was consequently no longer available for consultation. Sayce, in a letter to the *Academy*, broadcast a request for information as to where the object might now be. Mr. Barclay Head, of the British Museum, replied saying that the original had been offered to the Museum in 1860. The Museum had refused it, suspecting from its strangeness that it was a forgery. Nevertheless, they had made an electrotype cast of it, which they still

[1] The inscriptions were published in *T.S.B.A.*, VI and VII; they reappear in Woolley and Barnett, *Carchemish*, Vol. III (1952).

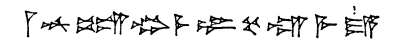
[2] *P.S.B.A.*, II, 1880; *T.S.B.A.*, VII, 1882, p. 294.

[3] *Münzstudien*, III, 1862, pp. 7–9 (Leipzig), and *Z.D.M.G.*, XXVI, 1872, pp. 3–4.

possessed [1] (Fig. 1). Sayce pointed out that the human figure in the centre of the plate wore a close cap and the turned-up boots by now associated with the Hittites. Beside him were five recognisable hieroglyphs, also

FIG. 1.

Hittite, while the whole was surrounded by a line of cuneiform writing. Here at last was the long-needed bilingual. The cuneiform text, which was considered to be in writing of the 8th century B.C., was read as follows :



Tar-rik-tim-me šar mat Er-me-e
" Tarriktimme, Lord of the land of Er-me-e ".

Already Mordtmann had pointed out that Tarriktimme must be akin to certain strange barbaric names of natives of Cilicia, in southern Asia Minor, recorded in Greek literature in the form of Tarkondemos or Tarkondimotos. Apparently, as Sayce suggested, these names were composed with the element *Tarku*, which seemed to be the name of a Hittite god. Erme was concluded to be Arima, a range of mountains in Cilicia.

What then of the hieroglyphics ? These were clearly legible as follows : . By a brilliant guess Sayce concluded that the last two signs which recurred in the text of Carchemish and Hamath were those meaning respectively " country " and " king ", corresponding to the words in the cuneiform. The remaining hieroglyphs must be the names " Tarriktimme ", " Erime ". These guesses for " king " and " country " were, in fact, perhaps Sayce's greatest contribution. But with this the help which this little monument conferred was exhausted. Attempts to extract values for the remaining signs upon it proved unsatisfactory and hampered the decipherment for many years. They are still not wholly understood. In recent times [2] it has been suggested that the cuneiform really reads

[1] An example, said to come from Istanbul and acquired by the Walters Art Gallery, Baltimore, is thought by Miss Hall, who publishes it (*Archiv Orientalní*, 1937, p. 307), to be the lost original. Sayce, *The Hittites, the Story of a Forgotten Empire* (1925), p. 174, says he had heard it was then in a private collection in England.

[2] Ball, *P.S.B.A.*, 1888, p. 429, first pointed out that the cuneiform text really began with *Me-e*. Sayce, in *P.S.B.A.*, 1899, p. 204, eventually considered that the text meant " T., King of the Land of the City ". Albright, however, in *A.F.O.*, 1927, 137, was the first to suggest that the name was really *Tarqumuwa*, a name corresponding to Greek Ταρκυμῶς. But *mē* is no known language for " I am ", and to the present writer it seems more likely that the word *Mē-e* (?) is the name of the city, as originally supposed by Sayce. A possible reading of the hieroglyphs could be *Me-ra*, a country known from Hittite imperial records, or *Me-ta*. Dr. H. H. Figulla plausibly suggests reading : *Tar-ḳu-me-te šar mat alu me-dan.*

somewhat differently from what had been supposed, namely: *Me-e tar-ku-mu-wa šar mat alu* " I (?) am Tarkumuwa, king of the land of the city ". The king's name is thus Tarkumuwa, not Tarkondemos, and the name of the country is not given at all. But even this interpretation is uncertain. It will thus be seen that to call this object the Rosetta stone of the Hittite hieroglyphs was something of an over-statement. Nevertheless, time confirmed that it had given us the true readings for three out of six of its signs, the syllable *Ta-* and the ideograms " country " and " king ". It had also shown that the script was, partly at least, ideographic.

6. The " Tarkondemos bulla ", as it was called, naturally evoked some stir and was energetically discussed. It was universally felt that it marked the beginning of a new phase. Yet in default of fresh material, limited speculations based on it were all that could be undertaken. Sayce himself got little further. He naturally attempted to apply his discovery of the signs for " Land " and " King " to the texts from Carchemish, and tried to find the word for " Carchemish ", which was to be expected in proximity to those two signs. By an unhappy chance he chose the wrong group for this identification. It was a wrong turning which Sayce hugged determinedly, but which mocked and misled his efforts during his remaining fifty years. A Dutch numismatist, M. Six, suggested to him (apparently verbally [1]) the right course, but unhappily his advice was not sufficiently appreciated.

7. Meanwhile real progress was being recorded in the collection of fresh material for study. W. H. Rylands, Secretary of the Society of Biblical Archaeology, drew attention to two objects from Mesopotamia, a seal in the British Museum, of Babylonian type, found at Nineveh, which bore the name of a deity in Hittite hieroglyphics [2]; and a bowl of basalt bearing a long inscription in the same writing, also in the British Museum.[3] Further, in 1883–4 some (not very satisfactory) sketches were published of the inscription, known for some years, in the Mosque of El-Kikân, at Aleppo.[4] New discoveries in the field consisted of a second incised inscription at Bor, in Anatolia, and a text in raised letters on the back and side of one of a pair of carved stone lions, which had come to rest over the gateway of the town of Marash, in northern Syria.[5]

---

[1] *P.S.B.A.*, 1903, p. 142.

[2] *P.S.B.A.*, 1884, p. 228 (M. XXXIX, 10).

[3] *P.S.B.A.*, 1885, p. 154. This bowl, now B.M. 125004, is published by Messerschmidt in his corpus as nos. 3–4 and described as from Babylon. The *Guide to the Department of Assyrian and Babylonian Antiquities* (*British Museum*), 1922, written by Sir Ernest Budge, describes it as found at Sippar (Abu Habbah). As stated by Gelb in *H.H.M.*, p. 10, there was no information which could be given in 1939 to show where the bowl came from or how the confusion originated. Since then I have learnt the following: it was brought back from Mesopotamia in the eighties of the last century by H. Rassam. Subsequently, however, when Budge went out there a few years later, he claimed to have obtained proof that the object was not, as stated by Rassam, from Babylon but from Sippar. The bowl was exhibited in evidence in the case in which Rassam sued Budge for slander. But Budge's proof does not seem to have been very convincing, for Budge lost the case.

[4] Ibid., 1883, p. 146; 1884, p. 132.

[5] Ibid., 1887, p. 374.

8. This did not help the decipherment very much: it was always easier to find texts than to interpret them. One scholar attempted to develop the generally abandoned view that they were in a Semitic language,[1] but his essay did not lead very far. Of greater value was a work of the Rev. Dr. William Wright, the missionary to whose enterprise and zeal the recovery of the Hamath texts was in the first place due. In 1884 he published a general summary of the then state of knowledge, entitled *The Empire of the Hittites*, with illustrations of all the then known texts. This book is a landmark in the history of the subject, firstly because of its intrinsic usefulness at the time, secondly because it is the first major work ever published on the subject of the Hittites. Its modest aim, the review of what little was known, was excellently carried out. The partisans of the theory of a Semitic tongue were firmly repulsed, and a special chapter by Professor Sayce was included, in which that scholar's view was reaffirmed that the Hittites spoke and wrote an Anatolian tongue.

It was—correctly, as we now know—assumed that they had issued from their native Anatolia at an early date to conquer Syria, of which they were admitted to be the masters by Egyptian and Mesopotamian records of the late 14th and 13th centuries B.C. In his chapter, too, Sayce was able to register an advance at certain fresh points. Firstly, about the common sign . He had previously observed that it was an ending, evidently a case-ending of nouns. He now argued that it was the nominative case: and since the Hittite personal names preserved in Egyptian most commonly ended in " s " or " sh " he concluded that this sound corresponded with the sign " s ". Next, as to the sign : since it was frequently added to the second of two nouns ending with the sign of the nominative, he guessed that it represented the particle " and " which united them. Finally he turned to the question of this people's gods. He drew attention on the one hand to the names of two kings in Southern Anatolia, known from Assyrian records in the 7th century B.C.: Šanduarri, king of Kundu and Siz, and Šandašarme, king of Hilakku; on the other hand there was at Tarsus a local god Sandes or Sandon, who in Greek and Roman times was equated with Herakles and worshipped as the chief god of Cilicia. Clearly Sandes (or the like) was the name of the god in pre-Greek times too. It happened opportunely that a remarkable sculpture of a god of vegetation had recently been discovered at Ivriz[2] in the mountain passes of the Taurus. It was at least a plausible guess that this was a representation of Sandes. If so, the inscription carved beside him: meant " the god Sandes ". This was not all. Names such as Šanduarri and Šandašarme showed that the god's name was often compounded in personal names. Could any example of this practice be detected in the hieroglyphics? Without

[1] Rev. C. J. Ball, ibid., 1888, p. 439; 1887, p. 67; previously the view had been upheld by the Rev. Dunbar Heath and Mr. Hyde Clarke in the same journal and in *T.S.B.A.*, VII, 253, Hyde Clarke endeavoured to see in it connexions with South Arabian.

[2] Davis, *T.S.B.A.*, 1876.

difficulty Sayce found examples on Layard's clay sealings from Nineveh [1] and others from elsewhere stamped with hieroglyphs. Evidently these bore their owners' personal names and some of these included the sign for this god's name, Sandes, . Indeed, Sayce proposed that the stamps from Nineveh bore the very name of Šandašarme, who gave his daughter in marriage to Aššur-bani-pal, and might have been affixed to his actual documents or gifts.

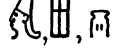
9. Meanwhile ripples of interest in the subject were spreading from this island to the Continent, and scholars abroad began to take a share both in searching for more material and in attempting the decipherment. Sayce had always been most active in enlisting the co-operation of scientific explorers and had even tried to found a British School of Archaeology in Smyrna to further these and similar researches.[2] These schemes unfortunately never came to fruition, but a series of valuable travel expeditions was begun by Sir William Ramsay, who visited many of the known Hittite inscriptions and discovered others which were unknown. For their part, Germany, Austria, France and America sent expeditions into Turkey. In 1883 Humann and Puchstein discovered some new texts and sculptures at Marash [3]; Lanckoronski in the following year added another from the Konya district [4]; in 1883 Chantre made a tour of Cappadocia, visiting Boğaz-köy and photographing the important rock sculpture at Fraktin, in the Anti-Taurus mountains.[5] In 1885 an American expedition dispatched by the University of Princeton garnered fresh harvests.[6]

This acquisitive phase of Hittite studies, in which the number of known texts was very much enlarged, culminated in the publication by L. Messerschmidt in 1900 of a " Corpus " of Hittite inscriptions.[7] The material which had begun thirty years before with four texts at Hamath had swollen by international effort to thirty-seven large texts (apart from small objects or small fragments) from all parts of Asia Minor and North Syria. Later supplements of this useful work [8] brought the number of large texts to forty-two, while the received texts of several were vastly improved upon by fresh collations.

10. Continental scholars, too, were not lacking to take up the challenge of the decipherment. Like the English, they also speculated as to the family to which the language of the inscriptions belonged. All agreed that it was not Semitic. Peiser suggested that it was allied to Turkish [9]; Jensen [10] thought that it might prove to be related to the modern Armenian and

---

[1] Published by Perrot in *Rev. Arch.*, 1882.
[2] *Reminiscences*, 1923, p. 172.
[3] Humann and Puchstein, *Reisen in Kleinasien u. Nord-Syrien*, 1890.
[4] At Kölit-oğlu Yayla (*Städte Pamphyliens u. Pisidiens*, Vienna, 1890).
[5] Chantre, *Mission en Cappadoce*, Paris, 1890.
[6] *Wolfe Expedition to Asia Minor*, Princeton, 1888.
[7] " Corpus Inscriptionum Hettiticarum," *M.V.A.G.*, 1900.
[8] ibid., 1902 and 1906.
[9] *Die hethitischen Inschriften*, 1892.
[10] *Z.D.M.G.*, 1894; *Hethiter und Armenier*, Strassburg, 1898.

attempted a decipherment accordingly. These were merely vague gropings in the dark. Attention devoted to the script itself proved more useful.[1] Peiser discovered the function of a curious sign, ", which stood at the top of some of the vertical groups of signs : it was a " word-divider " or spacer ; while another sign similar in appearance, ' ', indicated the presence of an ideogram. Jensen contributed further useful observations but was hampered by the perverseness of some of his cardinal beliefs. One of these was that the text at Ivriz contained the name " Syennesis " of Tarsus, Syennesis being the dynastic name of the native princes of Cilicia down to the 4th century B.C.[2] Another was that the hieroglyphic script was derived from the Egyptian and was to be read in the same fashion ; consequently the signs forming a word would be only consonants, even if the word in question was spelt out in full. But, he believed, the script was mainly ideographic, and would probably never be read at all, unless the aid of a bilingual were forthcoming. Despite these discouraging sentiments he succeeded in guessing aright the general sense of several of the ideograms which mark the beginning of words. , the opening sign of several of the inscriptions, was not " I say ", as many thought, but " I " or " I am ".[3]  were titles of the speaker in the inscriptions : " queen," " ruler," " high priest " ; was the demonstrative " this ".[4] Further, though Jensen could not read them correctly, he was able to put his finger on the correct sign-group for the king's and the city's name on the Hamath texts, on that for the name of Carchemish in the Carchemish texts,[5] and on that for the city ruled by the king of the inscription of Bor.[6] Again, he saw that the so-called " aedicula ", a group of three signs arranged symmetrically, marked a king's name. These identifications, it is true, were but the next step after Sayce had found the signs for " king " and " city ", but they were a step which scholars had found it unaccountably difficult to take. In short, Jensen made a number of real discoveries, but confused them with a much greater quantity of inapposite learning and idle and perverse fancies. This was to happen repeatedly in the history of the decipherment, and, as is usual, the author's contemporaries found overwhelming difficulty in distinguishing which part of his work was grain and which was chaff.

---

[1] J. Ménant's lectures, 1891–2 (" Eléments du syllabaire hétéen ", *Memoires de l'Acad. des Inscriptions et Belles Lettres*, Vol. XXXIV), deserve mention, although his conjectures proved unfruitful.

[2] Xen., *Cyrop.*, VII, p. 42.

[3] See also J. Halévy, *Introduction au déchiffrement des inscriptions pseudo-hittites*, Paris, 1893.

[4] Jensen, op. cit., p. 350.

[5] ibid., p. 323.

[6] ibid., p. 319. Jensen also guessed more or less correctly the values of two signs, and , as " s " and " t ", the latter from the word for Hamath.

11. The remarks of one of Jensen's critics, L. Messerschmidt,[1] are perhaps worth mentioning for themselves, as they pointed one way out of the general *impasse*. Firstly, he urged, only the most sparing use should be made of those scraps of information about the Hittites and native Anatolians which had survived the wreckage of time in the confused and vague recollections of the ancient Greeks, and which, in default of sounder stuff, scholars were fond of combing out of ancient classical literature. Secondly, he urged that the wisest course would be to look in Assyrian records for names of kings of Syria and Asia Minor, contemporary with these hieroglyphic inscriptions. Such names might then be found to occur in the inscriptions also and their readings would possess a certain prospect of plausibility. Already some scholars, such as Halévy, were beginning to apply this sounder method.

There remained in Jensen's work the mute evidence that something might be got by first finding out the general meaning of individual words, only afterwards drawing conclusions as to the sounds of which they were composed, and as to the branch of language to which they belonged. In other words, he had independently used Sayce's methods and confirmed their soundness. "I have had," wrote Sayce,[2] "for years to preach the doctrine that we must be content with graphic decipherment alone, classifying the hieroglyphs, identifying their various forms and determining the objects which they were intended to represent. Of a decipherment in the true sense of the word I had given up all hope unless fortune brought us a bilingual of some length." Jensen's work, in fact, confirmed that there still remained modest possibilities. Within those limits, in 1899, Sayce was able to grasp the gist of the inscription on the bowl from Babylon.[3] He recognised in another place a fresh title, , and in the realm of grammar saw that must be an ending of verbs (Hamath), and that the ending- , pronounced *-nas* occurring in "Tu-x-x-x-nas KING" (Bor) was an adjectival suffix, giving here the meaning "King of Tyana". was *n*; Jensen's was *ī* or *ȳa*; and (occurring in the word for Tyana) was improved from Jensen's *t* to *tu*.[4]

Most unfortunately Sayce did not confine himself any longer within those limits which he had hitherto observed. It was the worst features of Jensen's work which now fascinated Sayce's somewhat volatile mind. So long as he adhered to the phonetic values of the signs, all was well; but now he proceeded to outdo Jensen in constructing, on a basis of purest conjecture, a word-for-word "translation" of the texts. He was already showing the loss of critical judgment to which would-be decipherers all too easily fall victims. Henceforth, almost sickeningly certain of the

[1] "Bemerkung zu den hett. Inschriften," *M.V.A.G.*, 1895.
[2] *P.S.B.A.*, 1903, p. 141.
[3] ibid., 1899, p. 269, 6; 1901, p. 99.
[4] ibid., 1903.

rightness of his now quite unsystematic arguments, he plunged with each "translation" ever deeper into a quagmire of learned nonsense.[1] He was still able to do good service by drawing attention to discoveries of new texts and by publishing copies, but new contributions of any importance to the decipherment were to come from fresh minds and to be based on fresh material. Nevertheless, throughout all subsequent discoveries, Sayce's initial influence could be traced.

12. The Hittite hieroglyphics had now been available for a generation. Yet, in spite of all efforts, they had mostly kept their secrets. This was partly because the forty-two odd texts so painstakingly garnered during that time were, and remain even now, amongst the more difficult and refractory of the surviving material. In the period which followed those secrets were to be attacked from a new angle. It was now becoming customary to call in the new science of scientific excavation in the field to fill the gaps on knowledge which study in the library disclosed. Two such enterprises were now launched which in quite different ways were to bring a flood of new material. In 1906 the German Oriental Society, then presided over by the great historian Professor Eduard Meyer, sent out an expedition under Hugo Winckler to Boğaz-Köy (near Yazili-Kaya) which soon proved to be the capital of the Hittite Empire.[2] In 1908 the British Museum set about resuming on more modern lines the abandoned works at Carchemish, on the Euphrates. Each of these excavations was destined to throw light on the decipherment in different ways. While that of Carchemish directly helped matters by producing texts more amenable to decipherment than those till then available, the revelations at Boğaz-Köy threw more light on the background of the problems. The contribution of Bogaz-Köy lay in furnishing a partial solution of the first problem which we found plaguing the would-be decipherers of the hieroglyphics, the question, namely, what sort of language did the Hittites speak?

13. The excavation of Boğaz-Köy was no new idea in 1906. Sayce had in fact proposed it in the 1880s to Heinrich Schliemann, the discoverer of Troy, Tiryns and Mycenae.[3] Chantre had found tablets there. In 1905 Sayce had himself started negotiations with the Turkish Government to obtain a permit for Liverpool University to dig the site. But German science coveted the prize. The German Emperor was personally interested in the project, and as a gesture of friendship to him the Turkish authorities

[1] e.g. ibid., 1905, pp. 21, 191; 1906, pp. 91, 133; 1907, p. 207; 1908, p. 181; 1909, pp. 251, 329; 1911, pp. 43, 227; 1912, pp. 217, 279; 1913, pp. 6, 257; 1914, p. 233. By the time the Carchemish material (see below) was made available Sayce was too old to make any effective use of it to modify his system; consequently his articles, *J.R.A.S.*, 1922, p. 537; 1925, p. 207; 1927, p. 699; 1930, p. 756, read like voices from a long-past age. In justice, however, be it said that Sayce himself lamented that his work suffered for lack of colleagues who would or could aid or criticise it seriously.

[2] The same Society had already conducted excavations in 1888–1891 at Zincirli, well within the Hittite region of influence in Northern Syria, but as it happens no written records in Hittite script were found. The only other excavations in Hittite regions were those of the British Museum, at Carchemish in 1878, but these could not well be called scientific.

[3] *Reminiscences*, p. 220.

withdrew the British permit.[1] The Liverpool party, under Professor Garstang, which had already set out, generously paid a friendly visit to the German expedition and lent them some assistance before moving on to a site of their own, Sakca-Gözü, in Northern Syria. The wisdom of those who had advised excavating Boğaz-Köy was soon made manifest. Immense fortifications, stone-built temples, palaces and, best of all, hundreds of clay tablets, inscribed with the cuneiform script of Mesopotamia, began to appear. Little proof was needed that this was the capital of the Hittite Empire of the 2nd millennium B.C. The great quantities of inscribed tablets were evidently part of the library of the kings who ruled there. Yet no hieroglyphics were found.[2]

14. The advances in decipherment seemed like those of Alice in Looking-glass World : the straighter one thought to approach to a point, the further it receded. So with these tablets. Although they were written in the cuneiform of Mesopotamia which could be read, most of them could not be understood (except for isolated Akkadian words incorporated in the texts). The language of the tablets was evidently that of the Hittites, though their writing was that of Mesopotamia. Scholars at once concluded that the language of the tablets was the same as that written in a more native form in the mysterious hieroglyphics.[3] As the cuneiform variety of Hittite could be phonetically read but mostly not understood, and that of the hieroglyphics could not be read at all, the theory was hard to refute. The next step was to try to understand the language of the cuneiform. In 1915 a Czech Assyriologist, Bedrich Hrozný, then serving as an artillery officer, published [4] an essay of no little brilliance in which he proved conclusively that the language of the cuneiform belonged to the same Indo-European family as Greek and Latin, and sketched the beginnings of a translation ; the Hittites therefore must be at least partly Indo-European.[5]

The door was now unlocked by which specialists in the new language were enabled to spread out the garnered stores of precious information about the great Empire of the Hittites, its history, customs and religion.

15. So far, indeed, so good, and on the lines laid down by Hrozný

---

[1] ibid., 327.

[2] Some seals and seal-stamps were found but not published until recently. See below, p. 78.

[3] Peiser (1892) and Sayce (*P.S.B.A.*, 1903, 283, 144) had already suggested this before the dig began on the strength of tablets similar to the present gleaned by Chantre in his visit to Boğaz-köy in 1883.

[4] *Die Sprache der Hettiter*, 1917. Sayce (*J.R.A.S.*, 1920) unfortunately rejected Hrozný's views and interpretation.

[5] The idea that the language was Indo-European was in itself not wholly new. The language of the few Hittite texts acquired by Chantre at Boğaz-Köy had on comparison been found to be identical with two curious letters included in the famous hoard of tablets from Tell-el-Amarna. These letters, of which one is from Amenhotep III to Tarhundaraba, King of Arzawa, and another from an unspecified Hittite prince, were called " the Arzawa letters ", and as early as 1902 Knudtzon, the editor of the Tell-el-Amarna texts, had declared that on internal evidence the " Arzawa letters " were in an Indo-European language. But it was one thing to make a suggestion, another to work out the meaning, as Hrozný began to do.

the process of understanding the tablets was developed. As usual, it was soon found that the situation was less simple than had appeared. While it remained true that the language interpreted by Hrozný was the principal, indeed the official, language of the Hittite Empire, it was evidently not the only one. In 1919 Emil Forrer, a Swiss *savant* working in Germany, specifically distinguished six languages in use in the Royal Library.[1]

(i) The Indo-European language which was evidently spoken by the ruling class and called *Našili*, perhaps meaning " the language of Nesa ", a forgotten town of central Anatolia.

(ii) *Hurlili* or Hurrian, an agglutinative language of non-Indo-European type. Texts in language of this sort, which are not yet fully understood, had been found in northern and eastern portions of Syria [2] and Mesopotamia.

(iii) *Hattili*, an archaic non-Indo-European language which was evidently spoken in Anatolia before the advent of the Hittites,[3] perhaps of Caucasian origin.

(iv) *Luili*, or Luwian, an Indo-European tongue, very close to *našili*, probably spoken in the kingdoms of Arzawa and Kizzuwadna, in the west or south of the Empire.[4]

(v) *Pabilili* or Babylonian.

(vi) *Palaumnili*, an Indo-European language used in the cult of the god Zibarwa of the city of Pala.[5]

Remains of the *našili*, of course, form 99 per cent of the library from Boğaz-köi. Of *hurlili*, *hattili*, *luili*, *palaumnili*, varying amounts survive: with which of these candidates then was the language of the hieroglyphics to be declared identical? Indeed, the answer has not yet been certainly given. Attempts, therefore, to read into the hieroglyphics the language of the cuneiform and to translate accordingly did not work.

16. Meanwhile the English excavators at the more southerly Hittite capital of Carchemish were finding almost the opposite of their German colleagues at Boğaz-köy. At Boğaz-köy there were enormous numbers of cuneiform clay tablets but virtually no hieroglyphic texts: at Carchemish exactly one clay tablet was found (it was not Hittite but Assyrian), but fair numbers of hieroglyphic texts. Another interesting point was that the finds at Boğaz-köy belonged to the Hittite Empire which was overthrown by some internal disaster in about 1200: while the inscriptions at Carchemish

---

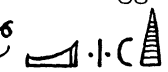
[1] " Die Acht Sprachen der Boghaz-köi Inschriften," *S.P.A.W.*, 1919, *M.D.O.G.*, p. 61.

[2] See Speiser, " Introduction to Hurrian," *A.A.S.O.R.*, Vol. XX (1940–1), and review by Sidney Smith, in *Antiquity*, December 1942.

[3] Sometimes called " proto-hittite " or " hattic ". See Güterbock, *K.U.B.*, XXVIII, and E. Laroche, " Études protohittites," *Rev. Ass.*, 1947, pp. 67–98.

[4] See Rosenkranz, " Die Stellung des Luwischen im Hatti-Reiche," *Indogerm. Forsch.*, LVI, 1938, and Bossert, *Asia*, pp. 90–114. According to Forrer it was people who worshipped the gods Tarhu and Sandon who spoke Luwian, and it was to Luwian that the numerous Anatolian and Greek place names in *-assos* and *-anda* were to be assigned (*M.D.O.G.*, 61, p. 23).

[5] See Otten, " Zum Palaischen," *Z.A.(N.F.)*, 14, Vol. 48, 1944, and Bossert, *Ein Hethitisches Königssiegel*, Ch. III.

appeared to belong to a period some time after this, when the city had been fought over, burnt and resettled by an immigrant population, probably from Anatolia, who appear to have introduced the extensive use of the hieroglyphic script. The excavations of 1911 chiefly centred round the " Sacred Way ", which Boscawen had found to be lined with sculpture and inscriptions, and produced one long text.[1] Subsequent campaigns produced several more inscriptions from the " Sacred Way ". The effect which this newly increased material could have, particularly on a fresh mind, was soon shown. R. Campbell Thompson, a cuneiform scholar, then of the British Museum, having taken a large share in the excavations, felt moved to take up the study of the hieroglyphics. Going back to the point where Sayce had stood in 1903 he attempted to evolve a fresh, though eclectic, system of decipherment of his own.[2] Immediately the decipherment, which had become clogged and immobilised from fallacies, like a frozen river, began to show signs of thawing into life. As it happened, the greater part of Thompson's system was as wrong as any other. He based it on the false assumption that the language of the hieroglyphics was the *našili* of the cuneiform ; and he threw overboard Six's important identification of the correct group for the name of Carchemish, which Sayce had eventually accepted.[3] But if he failed to make good use of the new material from Carchemish, he had more success with the old from Hamath. In the group which Jensen had suggested was to be identified with Hamath, but had not analysed,  *x-tu-wa-na* city, the values *x-tu-ana* were already legible from their occurrence in the name *Tu(w)anu(w)anas* " Tyanean " p. 62. Thompson drew the conclusion that the first sign was *Ham* or *Am*, reading the word as *Am-tu-wa-na* " of Amtu " (Hamath).

Actually he and Jensen had failed to quote the group in its entirety, assuming that its first letter belonged to the word before. It was properly *a-ma-tu-wa-na* CITY, the value of the missing initial sign being *A*, and of the second, *ma*, not *am*. But Thompson's next success was when he pointed to the name which recurred in three of the Hamath texts : *x-x-x-na* KING, of which so far only the ending *-na* was legible. Might not this name be identified with *Ur-hi-li-na*, the powerful king of Hamath who opposed the Assyrian Shalmaneser III in the 9th century B.C. ? The theory was supported by the most rickety arguments, but the guess was correct and gave us three new sign-values, for *u(r)*, *hi* and *li*. He followed up his discovery in another inscription, the Marash lion. In the 9th century B.C., to which the association with Urhilina suggested that these inscriptions should be assigned, Marash stood in a district called by the Assyrians Gurgum. Now the king of the city mentioned on the lion was called Mutallu, recognised by Thompson as " belonging to the city of

[1] A. 11a. For report of this season see *The Times*, July and 9th October 1911 ; Hogarth, " Hittite Problems and the Excavations at Carchemish," *Proc. Br. Ac.*, December 1911.

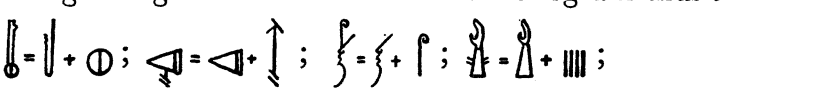
[2] R. C. Thompson, " A New Decipherment of the Hittite Hieroglyphs," *Archaeologia*, XLIV.

[3] *P.S.B.A.*, 1903 (see above, p. 58).

x-x-am ", taking the value of the third sign as *am* from his partly erroneous reading of *Am-tu* for Hamath. The first sign, which was repeated, was then easily guessed to have the value *gu*, giving *gu-gu-am-a-na-x* city. Since it is actually *gur-gu-ma-wa-na-as*, Thompson was not far wrong. His identification of the correct group for the name Urhilina led him to make the important discovery that personal names such as this were usually indicated by an oblique tag, ˋ, before them. Lastly, conclusive proof was clearly emerging that the script was *syllabic*, that is, the signs usually possessed the value of a syllable consisting of a consonant and vowel. Thompson's discoveries confirmed the truth which Messerschmidt laid down in 1898 that the safest road was by the identification of personal or ethnic Hittite names preserved in contemporary—in practice this meant Assyrian—records. Thompson's instant success was due to the good judgment with which he applied this principle.

17. Sayce's mantle fell still more squarely on the shoulders of another English scholar, Dr., later Sir, A. E. Cowley, a distinguished orientalist and Bodley's librarian. The first series of inscriptions from Carchemish was published in 1914.[1] In 1917–18 Cowley published the discoveries he was able to make amongst them in the *Journal of the Royal Asiatic Society* and in the set of lectures which he delivered before the British Academy.[2] Cowley had the advantage over his predecessors both by the possession of this new material and by being more careful and systematic and, at the same time, less over-ambitious. The unproved assumption that cuneiform Hittite was the language of the hieroglyphics did not convince his judicious mind. " That cuneiform Hittite should be allied to the hieroglyphic language is to be expected, but the relation is not yet proved. To decide the extent of it we must wait till more of the cuneiform Hittite language is published." Cowley was personally readier to connect the hieroglyphics with Vannic, Cassite or Mitannian. Turning to the texts, he was able to point out that the preamble of the Carchemish inscriptions was a regularly repeated formula of which one or two factors such as the signs for " king " and " city " were already known. This preamble must be something as follows [3]: " *Thus says X, priest of So-and-so, King of Carchemish, Great King, (son) of Y, Great King : I have dedicated . . .*" This, as it happens, was nearly but not quite right. It should be : " *I am X, priest, Lord-of-the-land of Carchemish, son of Y, Lord of the Land.*" Cowley had mistaken the word for " son " in the original to mean " dedicated ", and had assumed the necessary word " son " to be understood. He had wisely followed Sayce and Six over the word for " Carchemish " but abandoned Jensen's " I am ". But in the field of the individual signs he made many fruitful observations :

(i) That two signs might be combined into a monogram thus :



[1] Hogarth, *Carchemish*, Pt. I, 1914.
[2] Cowley, *The Hittites* (Schweich Lectures), 1920, see also *J.R.A.S.*, 1917.
[3] op. cit., p. 72.

(ii) That two or more signs might be interchanged in different spelling of the same word, and therefore possessed similar or identical values : thus could be substituted for ; for ; for or (s).[1]

(iii) That since the common sign was sometimes omitted in similar spellings of the same word, it was probably a helping-vowel, such as ā, and might be dropped after a syllable which already ended in a similar vowel-value.

(iv) That when two or more words were closely connected, " the last sometimes has the ending , which would thus seem to be an enclitic conjunction in some cases, like the Latin -que." (It was already recognised by Sayce to be the particle " and ".)

(v) That for not very obvious reasons, was *p*.

(vi) That since sentences often began with the word , of which the end was legible as *-me-a*, and the Arzawa text began with the Sumerian loan-word UMMA " thus ", they might be the same, and = *u*. The premise was wrong, the conclusion as to sound nearly right, for though means not " thus " but " and me " or " my ", has the value *wa*, and *w* and *u* are much akin.

(vii) The oblique tag attached to certain letters had the value " *r* ", notably in the name (*Kar-ga-me-sa-ia-s* CITY) " the city of Carchemish ".

(viii) Attempting to read some form of *Markasi*, the ancient name of the city of Marash, into the text of the Marash lion, he wrongly picked upon the group which we now know to be not the city's but the king's name, Muwatallis. Nevertheless, by reading it as *Murkass* he stumbled on the correct value of its first sign as *Mu*. It occurred in the names of two peoples mentioned elsewhere in the Carchemish texts *Mu-sa-ia* CITY and *Mu-s-ka-ia* CITY. The value of the first syllable had been all that was needed to give him their correct reading, and these he saw must be Mysians and Moschians, both known peoples of Anatolia. Cowley possessed the decipherer's instinct for the right solution, although his arguments were often wrong. It is strange that in the circumstances he appears to have found no use for the genuine discoveries of Thompson.[2]

18. The tempo of the decipherment was now accelerating, but the scene of further efforts was transferred to Germany. An Assyriologist, Carl Frank, contributed the next step in 1923,[3] improving on Cowley by a more systematic and orderly analysis of the material which perhaps the

[1] Halévy had already noticed that two of these signs were interchangeable, but assigned them a wrong value. Jensen had added a fourth equivalent, *vid. supra*.

[2] Had he not ignored them he would almost certainly have been able to correct Thompson's *gu-gu-am* to *gurgum*.

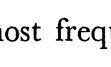
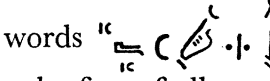
[3] " Die sogenannten hethitischen Hieroglypheninschriften," *Abh. f. d. Kunde des Morgenlandes*, XVI.

study of cryptography during the Great War had shown to be the best method. " When one approaches inscriptions in an unknown script and tongue," Frank summed up, " it is best first to look if personal names, whether specially indicated in some fashion or not, can be distinguished, especially, too, those of countries, towns, rivers, etc. The beginnings and endings of the texts deserve note, and finally the medley of signs itself must be studied to see whether groups of signs separate themselves out of the chaos, and recur perhaps with variations, so that the text can be divided up and the single groups studied by themselves. Not all these avenues will always be open ; the two last will be mainly more so than the first. Meanwhile the question in what language the text is written can be entirely ignored at the start." In accordance with this programme Frank compiled most useful lists of names of gods, persons and places. Unfortunately what Frank made up in diligence he lost in lack of intuition. He proposed a system of transcription for the signs which rejected most of the important discoveries of his predecessors.[1] His interpretation of the names collected were consequently very wide of the mark. Frank also discussed the question, what the language of the texts might be. It was most improbable that it was the *našili* of the cuneiform tablets. The hieroglyphics were after all rarest in Anatolia itself, but commonest in Northern Syria. Yet if they contained the native tongue of Hittites of the 2nd millennium, as this theory held, was it not extraordinary that they should be so scanty in the Hittites' native home, and most abundant only in their most newly acquired provinces ? Of the remaining languages of the Empire, *hattili*, or Protohattic, could be ruled out, since it was known to be formed by the use of prefixes and that of the hieroglyphics was not. Luwian was not very likely. Palaite was only possible because almost absolutely unknown. But the view he preferred was that it was Hurrian which was now known to have been spoken over a wide area, from the Taurus almost down to Palestine, and the hieroglyphic script, it was suggested, was the invention of the Hurrian peoples. In spite of his meagre success, Frank's useful labours entitle him to a place in the dynastic succession of the decipherers. His fate was chiefly to be the preparer of material for others to use. His successors, Meriggi, Forrer, Bossert and Hrozný, utilised his compilations and brought to their task the spark of intuition which he had lacked.

19. Piero Meriggi, an Italian lecturer at the University of Hamburg, wrote his article in 1928, but did not publish it till 1930.[2] Much like Frank, he grouped and analysed the signs and noticed several things : while ideograms were properly indicated by the sign , ‹, this could sometimes be omitted ; ideograms normally consisted of but one sign, yet at times they consisted of a pair, treated as a single compound. Rarer signs marking an ideogram were ◡, ⁘, ˋ. This last was also used (i) to indicate

[1] He made one apt observation. The symbol ||||||| had been considered to be simply the number 9. Frank pointed out that it occurred so often than it must have some other value. It has, in fact, the value *nu*, perhaps the first syllable of some word such as *nuwa*, Indo-European for " nine ".

[2] *Z.A.*, 1930.

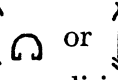
personal names, (ii) as an independent sound which Cowley had rightly taken as *r*. But Meriggi's most important contribution concerned the word  , most frequent in the openings of the inscriptions, among the names and titles. It was, he pointed out, the word for " son ", hitherto looked for in vain. Cowley had missed it because he took this group for a title. The donor of the inscription evidently regularly gave his father's and grandfather's names and described himself as " So-and-so, the son of So-and-so, son of Such-another ". In one inscription, the Marash lion (M XXI), the phraseology was different : there it was clearly " So-and-so, son of So-and-so, grandson of So-and-so, great grandson, etc.", and the appropriate words  , etc., were clearly connected by the fact of all possessing the same ideogram.

20. This discovery of Meriggi [1] was like the last touch which is necessary to start an avalanche. Following upon it progress in discoveries was rapid and revealed firm ground beneath. As usually occurs in these cases, what one man discovers another puts to account. Emil Forrer, as we have said, had made a special study of the new cuneiform Hittite texts from Boğaz-köy. Some years before he had startled the scientific world by discovering in them references to a great power called Aḫḫiyava, living to the west of the Hittite Empire who, he claimed, were to be identified with the Greeks, the Achaeans of the *Iliad* and *Odyssey*. Forrer now turned his attention to the subject of the Hittite hieroglyphics and delivered to the Orientalist Congress, of September 1931, at Leyden, a lecture [2] on the subject which must rank as the most brilliant treatment of it since that other lecture of fifty years before, which Sayce gave to the Society of Biblical Archaeology in 1880 and laid the foundation for the serious study of the hieroglyphics. Forrer began by stressing that to understand what a picture-script was describing was one thing, but to find the true sound values of the signs was another and was less important. (There was nothing new in

[1] The correct group for " son " was curiously enough stumbled on almost simultaneously, apparently independently, by P. Jensen, who now returned to the contest after many years of retirement with a long and otherwise not very progressive article (" Weitere Beiträge zur graphischen Entzifferung der sogenannten Hettitischen-hieroglyphen-inschriften ", *Kleinasiatische Forschungen*, I, 1930). Jensen here is still hampered by his obsession that each sign represents an ideogram for an entire word, not a phonetic syllable. Thus a group of signs which we now know to consist of syllables representing particles, case endings, etc., for him was a list of titles and honorifics. While his argument might be partially true of certain primitive or abbreviated forms of the script it was demonstrably false as a guiding maxim and led nowhere.

[2] For this lecture see *Actes du VIII Congrès Int. des Orientalistes*, p. 47. This lecture formed the first part of his work and was fully published in *A.J.S.L.*, XLVIII, 1931–2, pp. 137 ff. The second part was delivered as a lecture in Geneva on 15th March 1932. Both appear together as *Die hethitische Bilderschrift*, Chicago, October 1932. Forrer asserts that he did, in fact, think out all the points in those articles as early as June 1923, but that time prevented him publishing them before. But this claim is quite irrelevant. What matters in any claim to priority of discovery is the date of publication. Meriggi, in a long article in *R.H.A.*, IX, 1932, claims feelingly that Forrer had plagiarised Meriggi's idea from a lecture which he, Meriggi, gave to the Vth Congress of German Orientalists at Bonn in 1928.

this.) Further, that if one could but get a reasonably well-founded notion of the contents of a text, one could proceed to see the functions of the individual words, their relations with one another, their syntax and their grammar. Herein lay Forrer's special contribution. He proceeded in an orderly series of steps :

(i) Comparing portrait sculptures with the inscriptions which, as for example at Carchemish in the " family procession ", usually accompany them, he pointed out that the personal name beside each figure was preceded by the group or  *īs* must therefore be " this " [1] and , *pa-wa* enclitic separable particles, the whole phrase being " this (is) So-and-so ".

(ii) In certain of the signs the pictorial element was more clear than others, in particular, there were several which came first in their word and whose meaning might be guessed from their appearance, or if they followed " this ", from the object on which they were written. Thus on

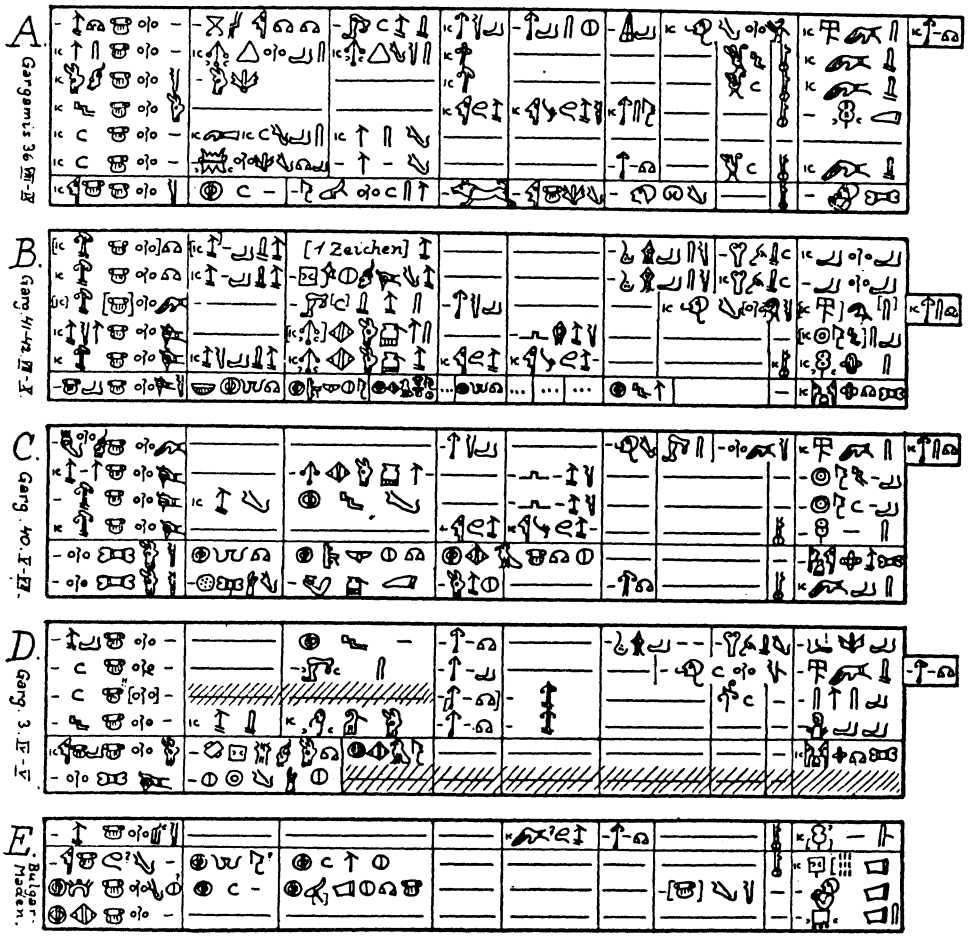
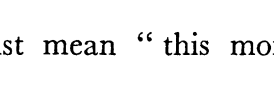
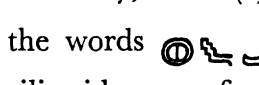


Fig. 2. Forrer's diagram of parallel curse-formulae (from Carchemish and Bulgarmaden inscriptions).

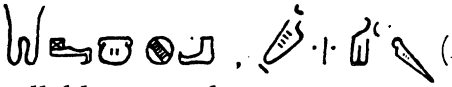
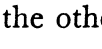
[1] Jensen has pointed most of this out many years before (see above, p. 61, § 10).

a stele must mean " this monument " [1]  on the stone bowl in the British Museum, " this (stone) bowl." which recurs with other words evidently meant " hewn ", " worked ". So, too, occurring in an inscription from the gateway at Carchemish was the word for " gateway ". Such signs were clearly ideograms.

(iii) Following the advice of Frank, Forrer paid special attention to the beginnings and also the ends of royal inscriptions, the composition of which was so much alike in many cases that one could speak of them as formulae.

21. The opening formula was now already elucidated in its outlines thanks to Cowley, Meriggi and others. It usually began " I am X, King of Such-and-such a country, noble (?), son of Y., king of the country ". There often followed the words  , *x-na-da x-ī-me-s*. The first sign was the familiar ideogram for " god ". What more likely than that the phrase meant " beloved by the gods " ? This was rather important if it was true, for then , long recognised as a case ending, must be the ablative or instrumental case, while *x-ī-me-s* must be the passive participle " beloved ".

What of the names actually occurring in these opening formulas ? Forrer, too, sought to try his hand at the now familiar game of fitting known historical personages to the available names in the inscriptions.

On the Marash lion, thanks to Meriggi, the speaker's pedigree could now be seen carried back through seven generations. Now at least two kings of Marash (ancient Gurgum) were known by name from the records of Tiglathpileser III of Assyria. They were Halparunda and his father Muwatallis. Two names in the pedigree on the lion fitted them well,  (*Hal*?)*-pa-x-da*, *Mu-wa-ta-x*. Of these, some syllables, namely *mu-*, *wa-*, *pa*, *-da* were already readable. The values of the others then,  = *hal*, = *ru*, = *ta*, = *li*, were therefore useful new discoveries.[2]

Next for the concluding formula of the inscriptions, which no one else had hitherto attacked. Here, too, Forrer's intuition was keen. " In the Ancient East," he argued, " it was customary from the remotest times to protect a monument by means of a curse, which at the start has a short form : ' whoever shatters this inscription, may the Sun-God tear his roots out and annihilate his seed.' But as an insurance policy cannot specify enough cases which it does not cover, so it is gradually found necessary to enumerate as fully as possible all possible forms of damage. Accordingly the curses on the Stele of the Laws of Hammurabi begin thus :

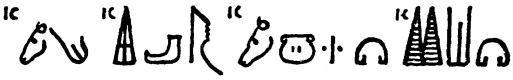
[1] Or perhaps " altar ", as it is now thought.

[2] In the case of the second name, Halparunda, Forrer, though alighting on the right word, attributed the values Hal-pa-runda to the wrong signs.

> ' If a prince does not respect my words, which I have written in my inscription, despises my curses, does not fear the curse of the god, wipes out the law which I have given, confounds my words, alters my monument, expunges my name, and inscribes his own name ; or because of those curses causes another to do it, whether king or lord, prince or noble, may Anu, the great father of the gods, who has ordained my rule, take away from him the glory of kingship, break his sceptre, and curse his fate . . .'

and then follow forty-six further such sentences of imprecation. Was not something of this kind to be discerned in the concluding formula of the hieroglyphics?" The spirit of the time, Forrer points out, causes such texts in all the ancient Near East to take like forms under the circumstances, irrespective of boundaries of speech and script.

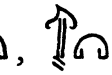
With unerring assurance Forrer picked out for a start the sentence corresponding to Hammurabi's " be he a king or a lord, prince or noble ". This was the sentence in the hieroglyphics :



ma-n KING-*da*-S *ma-ba-wa-s* LAND-TITLE-*s*

" whether he be a king, or be a prince of the land . . ."

Then for the main part of the curse. That of Hammurabi was a conditional sentence : " whoever does so-and-so, may the gods punish him." So, too, with the Hittite. The subject of the second half, " the gods," was plain to see, . The sign must then signify the nominative plural. The last word of the sentence, ending regularly in or , *-da* or *-tu*, must be the verb in the imperative. Evidently this was an Indo-European tongue which had an imperative of this form, like Greek ἔστω, Lat. *esto*. There were other facts pointing to the same conclusion. The word which ushered in the sentence " may the gods punish him " was either FACE-pa-pa-wa, *pa-da-pa-wa-ta-x* or *wa-tu-ta-x*. *Pa-wa-x*, *pa-wata-x*, were enclitic participles, FACE-*pa* or *pa-da* to which they were attached, must be " him " or " to him " in the dative or ablative case. Similarly *wa-tu* must be another pronoun in the dative case, like the Greek τῷ. Other features suggesting that this was an Indo-European language were the ablative in *-da* and the passive participle in *-mes*, exemplified in X-*ī-mes* (" beloved ") above.

The other half of the curse " whosoever does so-and-so " was introduced by the word , , dative  . This must be the group for " whoever ", and the sign which Forrer (by entirely wrong reasoning) rightly guessed to have the value *-ha*, was attached to the indefinite relative with a generalising force, like *-que* in the Latin *quisque*. Elsewhere, in fact, it was used like Latin *-que* with which it was perhaps connected, to mean " and ", as Sayce and Cowley had suspected.

Thus Forrer at a single stroke had both revealed the grammatical structure of the hieroglyphics, and had shown fairly clearly that they were in an Indo-European tongue, achievements which, it had been thought,

would prove impossible. Indeed, there was even more evidence. The name of a god was frequently preceded at Carchemish by the expression *me-a-x-s* X-*na-na-s* ; the second word being a title found commonly in the preambles, " lord," the first could hardly be anything but " my " and be akin to the Latin *meus*. Again, the first word *x-mu* of the preamble at Bulgar-Maden must be " I " and be akin to Latin *me*, Greek ἐμὲ and cuneiform Hittite *ammug*. In the word *ku-ma-n*, too, he recognised " when ", akin to the Latin *cum*.

22. Nor was this all. Some years before, the German excavators of Aššur, the capital of Assyria, found seven little rolls of lead concealed beneath the floor of an Assyrian house.[1] When unrolled, they proved to be covered with texts incised in Hittite hieroglyphs. Forrer pointed out they all began with a similar preamble. He took them to be letters, and judged the formula to mean " Behold, to So-and-so . . . speak ! " This is in keeping with the usual phraseology of Babylonian letters, which were thought of as *aides-mémoire* for a scribe who read them out to their recipient. It is certainly not far wrong, though the rest of the texts still remains most obscure.[2]

23. What could now be said as to the identity of this mysterious language ? It was Indo-European and therefore akin to the cuneiform Hittite. Certain features in it resembled those of Luwian. In each the first person singular of the past tense ended in *-ha*, and there was a possessive ending *-sas*. But Forrer did not press the view that this script and Luwian were the same, instead he preferred to call the language of the hieroglyphs " Tabalian ", after Tabal, the Assyrian name for the neo-Hittite kingdom in Cappadocia and the district north of the Taurus.[3] As we shall see, there was something in favour of the Luwian hypothesis.

24. We have given some reasons why in our view Forrer, for his originality, insight and succinctness of exposition, should receive the palm for genius in decipherment. Yet, even so, it was not won without the dust of competition. The conjunction of the stars about this time seems to have been singularly fortunate for hieroglyphic studies. An American, Ignace J. Gelb,

---

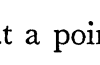
[1] Andrae, " Hethitische Inschriften auf Bleistreifen aus Assur," *W.V.D.O.G.*, 1924. The latest edition is by Bossert and Steinherr, " Die Bleibriefe aus Assur," in *Bibliotheca Orientalis*, VIII (1951).

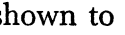
[2] It must be noted that this suggestion was published before him by Gelb, *Hittite Hieroglyphs*, I, p. 72, in December 1937.

[3] The idea had already been put forward by Sayce (*J.R.A.S.*, 1917, p. 962) that this script was connected with the Moschi, a Phrygian people closely associated with the Tibareni, who settled in southern central Anatolia and called it Tabal. The evidence for this connexion of the script with the Moschi, as advanced by Sayce, was very slender, depending on a chance mention of that people in the Carchemish texts. But as this mentions them almost certainly as an outside, foreign power, so the script cannot be Tabalian, though a local form was current in Tabal in the 8th century (see below, p. 92). The fact that numerous inscriptions in hieroglyphs were soon found which belonged to the Hittite Imperial period, before the advent of the Phrygians, has since rendered the Tabalian argument pointless. Another wilder idea of Forrer's was that the inventors of the hieroglyphs were Pelasgian.

read an important paper [1] on the subject at the same Orientalist Congress as Forrer. Whereas Forrer had attacked the general sense, Gelb was concerned chiefly with the values of the signs themselves, and carried on the careful documentation and analysis begun by Frank and Meriggi. He confirmed several points :

(i) The ordinary signs were syllabic and consisted each of a consonant-plus-vowel, and were fifty-six in number.

(ii) Whereas ideograms at the beginnings of words, marked usually by the sign , ,, consisted normally of a single sign, they could on occasion consist of two, which were treated as a single compound sign. He pointed out that signs  occurred at a point in the inscription from Aleppo (ancient Halpa) where the city's name appeared to be mentioned. The same three signs recurred in one of the royal names at Marash, where it was known from Assyrian records that certain of the local kings were named *Halpa*runda. These three signs must thus be a compound sign for *Halpa*, not merely *hal*, as read by Forrer.

(iii) By closely studying the variant spellings of words he found some useful new equivalents. Thus  was shown to be interchangeable with ; = *pa* ; = *te*, = *tu*. He was also able more or less correctly to read the name of the great goddess of Carchemish, Kupapa. His observation that there were fifty-six syllabic signs led him to revive the comparison and theory of connection with the Cypriote syllabary, which has a similar number, and with the Cretan scripts.

25. Meanwhile similar ideas had been occurring to Bossert,[2] though originating from another starting point. In the British Museum is an Egyptian papyrus of the 2nd millennium B.C. dealing with medicine, which contains an interesting quotation. This is described in Egyptian as " spell against the Disease of the Asiatics, in the language of the Keftiu ", and runs : "*sa-n-ti ka-pu-pu wa-i-ia-im-a-n ti-re-ka-ka-ra.*" Now it is unfortunate that no one can yet say with certainty who the Keftiu were, beyond the fact that they were either Cretans or inhabitants of coastal Syria, or even Anatolia, under some strong Cretan influence.[3]

Bossert believed that they were Cretans. The strange fact remained that an invocation in their language existed, apparently calling on Santas and Kupapa, both nowadays recognised as deities once worshipped in Cilicia and at Carchemish and elsewhere in north Syria. Bossert jumped to the conclusion that Santas and Kupapa were known in Crete, that the

---

[1] Published as *The Hittite Hieroglyphs*, I, Chicago, 1931.

[2] " Santas and Kupapa," *M.A.O.G.*, VI, 3, 1932 (see Meriggi, *O.L.Z.*, 1932, p. 657). Bossert, op. cit., p. 22 n., claims that his work was completed without use being made of either Forrer's or Gelb's results.

[3] For an ancient mythological allusion to a settlement of Cretans in Pamphylia, see Barnett, " Mopsus," *Journ. Hellenic Studies*, 1953. See also A. Scharff, " Ägyptologische Bemerkungen zur Frage der Lokalisierung des Landes ' Keftiu ',' *Jahrb. f. Kleinas. Forschung*, II, pp. 101 ff.

Hittite hieroglyphs in which they could be read were related to the Cretan scripts, and the one might be read with the aid of the other, a rather large assumption. Fortunately this thorny point remained a side-issue in his study. Bossert's solid achievement was the identification of the King of Tyana in the Bor-Ivriz inscriptions. Throwing overboard Frank's hopeless " Syennesis ", he correctly read the name of *War-pa-la-was*, a king of Tyana, mentioned by Tiglathpileser in about 738 B.C. under the form Urpalla.[1]

26. Hard on the heels of Forrer, Meriggi, Gelb and Bossert followed Hrozný,[2] the decipherer of the cuneiform Hittite, anxious to conquer fresh fields. But the outlines of the mystery had now been solved and he could only improve on what the others had achieved. He was able to point to several similarities between the grammatical details of the hieroglyphics and the Hittite cuneiform, which were clearly somehow related. Hrozný further conjectured correctly the meaning of certain important words in the texts, such as those for " father ", " grandfather ", " built ", " gave ", " made ", " libations ", " offerings ". He was also able to identify on the sculptures from Malatia the name of Sulumel, another local king, contemporary with the Assyrian Tiglathpileser.

27. By a second volume of his work (1934), and a third (1937), Hrozný laid his colleagues under a debt of gratitude. For although his theories are often wide of the mark, he rightly recognised that what was wanted was some edition of the texts. In these volumes he collected, published and printed in a good new type new transcriptions of the scattered texts. Before publishing the third volume Hrozný even made a special expedition to Anatolia to photograph and check several of the inscriptions. With his wild interpretations one must all too often disagree, but subsequent work is greatly indebted to his texts.

A further step forward was taken by the edition of some Carchemish texts by Meriggi,[3] the publication of a number of new texts by Gelb [4] and the discovery of new inscribed seals, notably at Boğaz-köy, Tarsus and Atchana during excavations. Bossert, in *Santas and Kupapa* (see § 24), had made an invaluable palaeographic study of the forms of the signs. Meriggi in due course improved on this by providing a complete sign-list which is still to-day indispensable.[5]

28. Articles of all sorts and criticisms and reviews of the preceding works now flowed thick and fast. It is not necessary to refer to each in detail. But the large measure of general agreement which they admitted

---

[1] Bossert also observed the use of = Runda in one spelling of the name Halparunda ; and showed that signified " temple ".

[2] *Les Inscriptions Hittites Hiéroglyphiques*, 1933. The preface states that the substance was delivered in a lecture on 7th December 1932.

[3] " Die längsten Bauinschriften in ' Hethitischen ' Hieroglyphen," *M.V.A.G.*, 39 (1934).

[4] *Hittite Hieroglyphic Inscriptions*, 1939.

[5] *Revue Hittite et Asianique*, 27, 1937, pp. 76–96.

showed that the decipherment had really taken place (Fig. 3). There was no longer any serious dispute about the approximate values of most of the commonest signs ; difference of opinion chiefly reigned as to what was implied by the fact that two different signs were often interchanged. Meriggi thought this meant that they possessed the same consonant but were followed by a different vowel ; Hrozný thought that they possessed the same vowel but that there might be slight differences in the value of the consonant. The main battle was now over. In the moment of this final victory which the new generation of decipherers had won there died, in extreme old age, A. H. Sayce, the pioneer and guide of all. There was perhaps some pathos in the fact that few now paid any more attention to the views of one who had been rightly called " the High Priest of Hittitology ".

29. Such then, in briefest outline, was the state of decipherment which had been reached by 1939. Methodical and systematic organisation of the material had proved of the greatest importance and had, up to a certain point, extracted fruitful results. The wilder fancies of Sayce, Jensen and others had been rejected. It is true that the cautious but successful attempts of Meriggi to wring partial translations from the longer texts at Carchemish and elsewhere had been followed by Hrozný's over-ambitious claims to make sense of them from beginning to end. Fortunately Hrozný's subjective interpretations did not widely commend themselves. Nevertheless the decipherment had progressed to a point which could be considered very satisfactory if the difficulties were considered which it had been necessary to overcome. An account of the gradual decipherment was published by Johannes Friedrich in 1939,[1] in which he left the reader in no doubt that the decipherment was now " auf richtigem Wege ". Yet it remained a fact that the distance still to be trodden was still very considerable. The nature of the script had been firmly settled. It consists of some fifty regular syllabic signs, usually, if not always, representing a consonant-plus-a-vowel, and a very much larger number of ideographic signs. The syllabic signs were often used as " phonetic complements " to spell out the ends of the words concealed under the ideograms. While there was general agreement on the values of most of the syllabic signs, there was little means of getting to know anything at all about those of the majority of ideograms, as their meaning could not be discovered. Next, the general nature of the language had been established. It was an Indo-European tongue, apparently not identical with any of the Hittite languages hitherto found among the cuneiform texts of Boğaz-köy. Yet in spite of all, the general interpretation of the texts had not really advanced much beyond the brilliant conjectures of Thompson, Cowley and Forrer, which had proved that the texts usually began with one stereotyped formula and ended with another. It was clear that the age of guesses was past, and that the future lay in detailed and

[1] *Entzifferungsgeschichte der Hethitischen Hieroglyphenschrift*, Kohlhammer-Verlag, Stuttgart (Sonderheft 3 der Zeitschrift " Die Welt als Geschichte "). Reviewed by Meriggi, *O.L.Z.*, 1941, pp. 159 ff. ; Dhorme, *Syria*, XXII, pp. 176 ff. ; Thureau-Dangin, *R.Ass.*, XXXVII, 80.

methodical study and comparison, unless a bilingual of fair length should be discovered.

30. In 1934 the German expedition, which had resumed the excavation of Boğaz-köy, found a store-room in the royal palace containing nearly 300 clay sealings, of which about 100 bore royal names written bilingually, after the pattern of the Tarkondemos seal.[1] It appears that this was the type of building known from other sources as *parna KIŠIB*, or "Seal-house", and it would seem that the sealings were preserved there as receipts or tallies.[2] They constitute a find of three-fold importance. First, they enable us to date these types of seal to the 14th and 13th centuries B.C. Secondly, inasmuch as they already use cursive forms of some signs, they help to establish the palaeography of the subject. Thirdly, the royal seals not only give us some information about the hieroglyphs and their values but also contain fresh historical matter. Whereas the "Tarkondemos" seal and a bilingual seal-impression of Išputahšu (presumably the king of Kizzuwadna of that name in the 16th century B.C.) found at Tarsus in 1935 [3] had established a connexion between this script and the peripheral kingdoms of the Hittite Empire, the present finds conclusively linked it also with the central government and hinted at the date when its use by the latter began. The earliest datable royal seal from Boğaz-köy with hieroglyphs is that of Šubbiluliuma. I have always suspected that it was he who introduced it as the official monumental script from the powerful kingdoms of Arzawa and the south, where it was at home. Doubtless it was seen as a gesture of conciliation to those regions which he had overcome. As to the antiquity of the script in those parts, a seal and an inscribed sherd [4] found at Atchana, in Niqmepa's palace, shows the hieroglyphs were used there in the 15th century, while an inscribed stamp seal and inscribed weapons from Soloi seem to carry it back perhaps to the 19th century B.C.[5] Thus the script on present evidence clearly came to the Hittite capital from an original home in the south or south-east.

31. Many royal inscriptions on the seal-impressions are damaged or incomplete, but could be convincingly restored, and already in 1936 Bittel

[1] For the account of the discovery see Bittel, "Vorlaüfiger Bericht über die Ausgrabungen in Boğaz-köy, 1936," *M.D.O.G.*, 75, 1937, pp. 31–2, and p. 52 (account of the sealings by Güterbock). For the publication of the seals see Güterbock, *Siegel aus Bogazköy*, Erster Teil: "Die Königssiegel der Grabungen bis 1938" (*Archiv für Orientforschung*, Beiheft 5), Berlin, 1940; Zweiter Teil: "Die Königssiegel von 1939 und die übrigen Hieroglyphensiegel" (Beiheft 7), Berlin, 1942.

[2] But for a different explanation, see below, § 48, note 5.

[3] Götze, *American Journal of Archaeology*, XL, 1936, pp. 210 ff.

[4] Barnett, "Notes on Inscribed Hittite Objects from Atchana," *Antiquaries Journal*, 1939, pp. 33–5. Whether the "Indilimma" seal (Hogarth, *Hittite Seals*, No. 181), much discussed as a bilingual in the last century, contains any hieroglyphics at all is doubtful.

[5] Bittel, "Der Depotfund von Soloi-Pompeiopolis," *Z.A.*, 46, 1940. See, too, § 42 below. [On this subject see now Bossert, "Wie lange wurden hethitische Hieroglyphen geschrieben?" *Die Welt des Orients*, 1952. Here Bossert (i) quotes evidence that the script goes back to the end of the 3rd millennium B.C., (ii) finds the latest use of the script to be on coins of Antiochos IV of Commagene (A.D. 38–72). Unlike myself, he believes that the general language of the Hittite people was the Hittite hieroglyphic language, not Hittite cuneiform *našili* (see *Belleten*, XVI, 1952).—R. D. B.]

and Güterbock recognised on one the name of Šubbiluliuma, and by combining this with a hieroglyphic inscription at Nişantaş, in which Šubbiluliuma gives his father's and grandfather's names, identified the hieroglyphs for Tudhalia and Hattušili respectively, thereby confirming the attribution of the rock inscription of Fraktin to Hattušili and Putuhepa.[1] They also were able to identify the hieroglyph of Urhi-Tešup. Nevertheless, Güterbock largely despaired of being able to read the majority of the seal inscriptions, even with the help of cuneiform.[2]

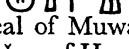
[1] Putuhepa was read by Bossert in *O.L.Z.*, 1933, XXXVI, p. 86, and Gelb, *Hittite Hieroglyphs*, II, p. 17.

[2] Güterbock, II, p. 46. When we turn to examine the hieroglyphs which correspond to certain of these royal names on the seals we face a strange puzzle. Whereas some, such as Muwatalli and the queens Danuhepa, Putuhepa and perhaps Malnigal, are written phonetically, certain other royal names are demonstrably not. Thus Šubbiluliuma is written TU.HA.ME. Hattušili is written with a TRIDENT (normal value HA) transfixed with KNIFE (normal value LI). Tudhalia is represented by the figure of a mountain deity plus the sign TU. ; while three more cannot be read at all. How are these unusual renderings to be explained ? Clearly one explanation will not cover them all. Thus Tudhalia, as Güterbock points out, bore the same name as a mountain, Mount Tudhalia, which he thus depicts to spell his name as a sort of rebus or *type parlant*. On the other hand, Hattušili's name is obviously connected with the city Hattuša (Boğaz-köy). Is TRIDENT the ideogram for Hattuša ? Hrozný thought so in 1937 (*L.I.H.H.*, II, p. 8). Güterbock (op. cit., p. 3) suggests it is the symbol of a god, No. 41, at Yazili Kaya, and identifies him with the " Storm God of Hatti " of the cuneiform texts. It is possible ; but it is odd that the symbol for " Storm-God " does not also accompany him on the Yazili Kaya sculpture. But if true, then HA + LI is read ideographically *Hattuši-li*. (In that case the value *ha* for TRIDENT is derived from *Hattuša* on the acrophonic principle.)

Another very difficult case is the spelling of the name of Urhi-Tešub, said to be written : CITY-tag-LI ! Normally in the hieroglyphs the word for " city " is *x-menas*, which hardly suggests Urhi-Tešub, while the word *Urhi* appears to mean " firm, upright ", which hardly suggests ideograms for either city or knife. On the other hand, the same signs, differing only in that the knife transfixes the CITY sign, occur for Muršili at Sirkeli, in an inscription of Muwatalli, son of Muršili and father of Urhi-Tešub (Gelb, *Hittite Hieroglyphic Inscriptions*, No. 48). The correctness of the reading of this name as Muršili rather than Urhi-Tešub would seem to be confirmed by an unpublished inscription at Adana, on the reverse of the stele illustrated in Or. Inst. Comm. 8, Fig. 871 (now Adana 1721), where the name is written CITY + LI$^{i\text{-}la}$. The same name CITY + LI (city transfixed with knife), also occurs on the inscription Karadağ V (Kızıldağ) (Güterbock, " Alte und neue heth. Denkmäler," *Halil Edhem Festschrift*, 1947), apparently a dedication of someone described as the father of Hattušili, i.e. Mursili again. (That case suggests incidentally that Karadağ is Hattušili's kingdom of Hakpišša.) On the other hand, Karadağ VI bears the same name of Hattušili's (?) father, Muršili, written as Urhi-Tešub's name is usually supposed to be written, CITY-LI., with CITY not transfixed ! In fact, both forms of this name seem to represent not Urhi-Tesub, but Muršili. One despairing explanation of Güterbock and others is to give up attempting to read these in the form known to us from the cuneiform and to assume that they are " throne-names ", i.e. alternative or substitute names. Such names were *de rigueur* in Egypt and occurred in Assyria (see Sayce, *Cambridge Ancient History*, II, p. 178). In some parts of Anatolia it seems to have been possible for a king to have two names ; thus Kili-Tešub, king of Kutmuhi, " who is called ' Irrupi '," is mentioned by Tiglathpileser I (Luckenbill, *Annals*, § 222). But there is no evidence at present, as far as I am aware, of this practice among the Hittites. Another alternative explanation seems possible—that these are riddling writings of kinds which we do not at present understand. Esarhaddon " wrote his name in the likeness of the stars " (Luckenbill, *Annals*, II, p. 656), and the proof of it is the " black stone ", B.M. 91207 (B.M. *Guide to the Bab. and Ass. Antiq.*, 1922, p. 228), and there is evidence of similar writing on the part of Sargon.

How does this fit the three royal seals which, as said above, cannot be read at all in

32. In 1941, after long silence, H. Bossert returned to the subject of the

the hieroglyphs? It happens that in all three cases we can guess them to be writings of the name of Muwatalli, since his name occurs in the cuneiform *Beischrift* in two, while in the third we have that of Danuhepa. This lady, who was concerned in some scandal, was as Güterbock shows not the mother of Muršili but most probably the queen of Muwatalli, and *tavannanna*, or High Priestess. As the latter office was independent of that of queen, she continued to figure as high priestess on the seals of her stepson Urhi-Tešub, the successor of her husband. But can we show that the hieroglyphs there represent Muwatalli? Now Muwatalli is not a name of a type usual among Hittite kings. It is an adjective meaning "vigorous", "potent", and by a significant word-play it is usually rendered into Hittite cuneiform by Sumerian ideograms as $^{(m)}$NIR.GAL, which is itself read by the Akkadian word *mutallu* "heroic". We know there was nothing unusual in Hatti for a mortal to bear the name of a deity; there are men called Hašameli, Iarri, Inara, and a woman called Kupapa. Muwatalli is in fact the description or epithet of a god, as Phoebos is that of Apollo. In fact the God Muwatalli is mentioned as a deity of Kizzuwatna, and Goetze accepts the identification of him with both ^{GOD} STORMGOD NIR.GAL and STORM-GOD *MULTARRIHU* (*Kizzuwatna and Hittite Geography*, pp. 67–8). The god Muwatalas is mentioned, too, in the hieroglyphs at Carchemish (Ala) and occurs at Til Barsip, as Mūtalas. Thus the explanation of the epithet Muwatalli is that it really covered euphemistically that of the Storm-God NIR.GAL. This was a deity for whom both Muwatalli and his father Muršili had a special regard. The Storm-God NIR.GAL causes Hašameli to make Muršili invisible in battle, as Aphrodite does to Paris before the walls of Troy (*KBo.*, V, 8, 3, 41). Muwatalli, in his Treaty with Alakšandu, speaks of his patrons, the Storm God *pihaššašši*s, the Protecting Deity of the King, ^{GOD} Lama and Storm God NIR.GAL. Now on seals nos. 38 and 39 (the two which belong to Muwatalli but bear inscrutable hieroglyphs) the king is shown cuddled by a *bearded*, i.e. *elder* Storm God, labelled GREAT-STORMGOD-BOWL. From Karatepe we know now that BOWL is the sign for Heaven. This thus reads "Great Storm-god of Heaven". The accompanying *Beischrift* in cuneiform mentions the Sun-God (i.e. the king), Tešub *hellipi* (= Hurrian for Heaven?), ^{GOD} Šarruma, and ^{GOD}LAMA (or protective god). Now ^{GOD}LAMA, as Güterbock points out (II, p. 11) is the god of the stag (Runda or Karhuhas in hieroglyphs); and Karatepe, by translating Karhuhas-Runda as Reshef SPRM (Reshef of the birds?) confirms that LAMA is a god of stormgod, bowman type. On the Haci Bekli relief (Bossert, *Altanatolien*, Fig. 817) we have an illustration of ^{GOD}LAMA, as Brandenstein pointed out ("Heth. Götter nach Bilderbeschreibungen", *MVAG.*, 46, 2, p. 79). He is wearing a long garment, is a bearded bowman, and stands on a stag, whose head is lost but the tip of whose antlers can be seen. Above him is the symbol of the king or sun god whom he protects, as described in the Alakšandu Treaty. An unpublished cylinder seal at Aleppo shows ^{D} LAMA again followed by his stag and marching under the winged sun disc as before. Behind is the sign for "heaven" and a royal name which cannot be read,  . This time he is still bearded but wears a kilt.

The third seal of Muwatalli from Bogaz-köy (No. 38), as we have said, shows the Storm God or Tešup of Heaven embracing the king, while in the "aedicula" containing the king's name according to custom, we have not Muwatalli but the signs STORMGOD—GREAT KING. Quite clearly this confirms the fact that Muwatalli is the name of one of the various STORM-GODs. But which is not so clear. If the signs are to be understood as STORMGOD (*of*) THE GREAT KING we get little further. If, however, as is rather more likely, they mean "THE STORMGOD, GREAT KING", one cannot entirely resist the suspicion that there is a play on the name of the god Šarruma, whose name is sometimes written in Hittite cuneiform with the Akkadian word ŠARRU "King" as *ŠARRU*-ma. If this identification is correct, it will explain the appearance of Šarruma on the *Beischrift* of no. 38. Šarruma is described in the Ulmi-Tešup treaty as "son of the STORM-god", i.e. of the older, bearded STORM-god. From his appearance at Yazilikaya (no. 42) Šarruma too (see Güterbock, *op. cit.*, II, pp. 21 ff.) would also seem to be a form of younger (beardless) Storm-god. This last point is relevant because on seals 39–41 and 42–44, we find Muwatalli's name written in three or four hieroglyphs as x-x-ba. Sedat Alp, it would seem rightly, recognises in this sign group the values *te-su-ba* for the name of Tešub "Bemerkungen zu den Hieroglyphen des het. Monuments von Imamkulu," *AOr.*, xviii, 1950, p 6.

hieroglyphs in a lengthy work on the bilingual seal of Šubbiluliuma.[1] His attitude was far from being as pessimistic as Güterbock's, and the angle from which he approached the solution of the readings was that signs normally read syllabically may also have an ideographic value. This is a slight but important extension of the previously held conceptions regarding the script, which it had been usual to assume was to be divided into ideographic and syllabic signs, without overlap.

33. Bossert's contribution lay in at least offering an explanation of the reading of Šubbiluliuma's hieroglyphs. It is a complicated argument deriving from a suggestion by Hrozný [2] that the name Šubbiluliuma, meaning " he-of-the-pure-fountain " from *Šuppi-* " pure " and " *luli* "— " a fountain ", might be written in Hittite cuneiform with the Sumerian ideograms KU(G) " pure ", " bright " and TUL " a well ". But KU(G) also possesses a secondary meaning of " silver ", because it is bright, and Bossert argues that the sign *tu*, the first of Šubbiluliuma's three hieroglyphs, really depicts an ingot of silver, while the sign *ha*, represents a well. The word represented by the latter sign can be very plausibly connected with the Hittite word *hantessar*, meaning a hole or the like, and it may be inferred that the value *ha* is derived from it, on the usual acrophonic principle.[3] Unfortunately this support is wanting in the case of the *tu* sign since the usual word for silver in Hittite is *hattu*.[4] Bossert assumes that the sign *tu* like the Sumerian KU(G) has a second value meaning " pure ", i.e. = *šuppi-*. This argues a closer correspondence between the thought-processes of Mesopotamian and " Hittite Hieroglyphic " scribes than has hitherto been shown to exist. As a variety of cuneiform was in regular use in Anatolia from early times, a strong influence from it may be reasonably expected on the hieroglyphs. Bossert, however, is inclined to underrate Mesopotamian influence and to lay stress on that of Egyptian.

34. In 1942 there appeared Part III of I. Gelb's work entitled *Hittite Hieroglyphs*.[5] The author had already expressed the view in 1935 that the

---

(The Haci Bekli relief, now in Adana Museum, has a hieroglyphic inscription on the back. Unfortunately this is so covered with lime deposit that it is at present illegible. But it would seem that removal of this coating by chemical means might produce some useful information.)

[1] *Ein Hethitisches Königssiegel* (Istanbuler Forschungen, 17, Berlin, 1944).

[2] *Les Inscriptions Hittites Hiéroglyphiques*, p. 437.

[3] There is now fair evidence that this principle of acrophony was used in evolving the hieroglyphic script. Thus TRIDENT, *ha*, is apparently derived from the word *haššuš* " king " ; the sign value *te* apparently from the name of Tesup ; value *a*, apparently from the *našili aiš*, a mouth. *u* from *ulubatas*, an ox ; *nu* from the word **nuwa-* " nine ". So, too, *hi*, apparently from the name of the goddess Hepat (see Bossert, " Die Göttin Hepat," *Belleten*, 1951, p. 318, who considers this ideogram to represent a liver, Grk. ἧπαρ, ἥπατος . . .).

[4] There was, however, another word in Hittite as well for silver, namely KUBABBAR-*ni-wa-*, K. Bo., V, 2, iv, which if we knew it all, might save the argument of Bossert.

[5] I. G. Gelb, *Hittite Hieroglyphs*, III (Oriental Institute of Chicago : Studies in Anc. Or. Civil., 21).

number of true syllabic signs in this script was so small that it was obvious it could be neither an alphabet nor a syllabic script in the accepted sense.

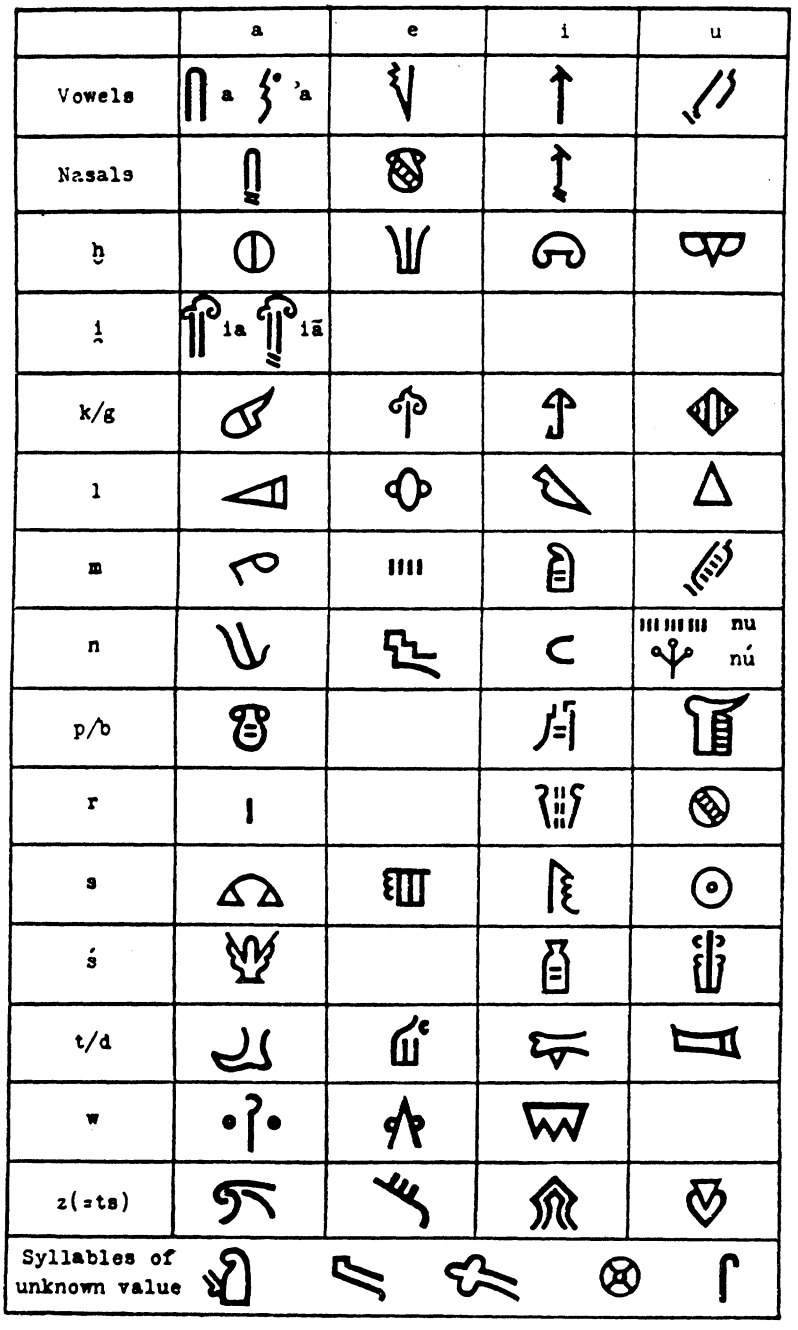


Fig. 3. Gelb's scheme of values, 1942.

The number around sixty was too many for an alphabet and too few for a true syllabary " in the same sense as in Assyrian cuneiform, because the number of signs would have to reach at least two hundred to express all the

various open and closed syllables. But if this writing . . . is syllabic, its nature must be such as to permit of expressing all the signs in the Hittite language by means of the smallest possible number of signs ". Gelb went on to point out that there exist two syllabic writings in which the number of signs approximates most closely to the Hittite hieroglyphs : the Cypriote syllabary possessing fifty-four signs and the Japanese with forty-eight, both of which disregard (at least in writing) the distinction between voiced and voiceless consonants, and use only signs either expressing a vowel alone or a consonant-plus-a-vowel. In the present work he assumed that our fifty-seven signs represent a syllabary organised on the framework of the four-vowels a, e, i, u, which can either stand alone, or in a syllable, in which they follow one of twelve consonant-sounds, e.g. *ba*, *be*, *bi*, *bu*. A half consonant *i* and three nasals are added, giving a neat schematic table (Fig. 3). Unfortunately there is still considerable disagreement among scholars as to the values even of several of the " true syllables " which he lists. Nor has his theory that nasals are indicated after a, e, i, carried great conviction.

35. At last, when the river of inspiration was beginning to run rather dry and the fields it fed had been all but exhausted, aid came in the form it had long been hoped for.

In 1946 Bossert, now a professor at Istanbul, learnt of a site called Karatepe, in a lonely and inaccessible valley of the Upper Ceyhan River, in the slopes of the Taurus mountains in Eastern Cilicia.[1] Here was a

[1] Bossert and Çambel, *Karatepe*, 1st Report, Istanbul, 1946 ; 2nd Report, 1947. The principal publications of the bilingual text are :

Phoenician Text.

J. Friedrich, " Eine Altphönizische Inschrift aus Kilikien," *Forschungen und Fortschritte*, XXIV, 1947, 77–9.

A. Alt, " Die geschichtliche Bedeutung der neuen ph. Inschriften aus Kilikien," ibid., pp. 43–57.

R. D. Barnett, J. Leveen, C. Moss, " A Phoenician Inscription from Eastern Cilicia," *Iraq*, X, 1948, pp. 56–7.

A. M. Honeyman, " Phoenician Inscriptions from Karatepe," *Muséon*, LXI, 1948.

J. Oberman, *Discoveries at Karatepe*, American Oriental Society, 1948.

A. Dupont-Sommer, " Notes sur le texte Phénicien," *Oriens*, I, pp. 193–7.

R. Marcus and I. J. Gelb, " The Phoenician Stele Inscription from Cilicia," *J.N.E.S.*, VIII, 1949, pp. 116–120.

A. Dupont-Sommer, " Étude du texte phénicien des inscriptions de Karatepe," *Oriens*, II, pp. 121–6.

A. Dupont-Sommer, " Azitawadda, roi des Danouniens," *Révue d'Assyriologie*, XLII, 1948, pp. 161–188.

A. Dupont-Sommer, " Étude du texte phénicien des inscriptions de Karatepe " (Suite II), *Archiv. Orientalní*, XVIII, 1950, pp. 34–8.

R. O'Callaghan, " The Great Phoenician Portal Inscription from Karatepe," *Orientalia*, XVIII, 1949, pp. 173–205.

J. Leveen and C. Moss, " The Second Recension of the Karatepe Inscription," *Journal of Jewish Studies*, I.

Phoenician and Hittite Hieroglyphic Text.

H. Bossert, " Die phönizisch-hethitischen Bilinguen vom Karatepe " (publishing lines I–X), *Oriens*, I, pp. 163–192, and *Belleten*, XII, 1928, pp. 515–531.

do., do., Erste Fortsetzung (publishing lines XI–XXIV), *Oriens*, II, pp. 73–120.

do., do., Zweite Fortsetzung (publishing lines XXV–XXXI), *Symbolae Hrozný (Archiv. Orientalní)*, 1950.

small citadel of Hittite appearance on the right bank of the river, where there were remains of sculptured slabs, a figure of a lion and parts of a life-size statue. Both these last two monuments were inscribed with parts of a longish text in Phoenician characters. It might at first sight seem surprising to find an early Phoenician text in this remote corner of Anatolia. But at Zincirli, only some 75 kilometres away to the south-east as the crow flies, the excavators of 1902 found inscriptions, the oldest of which, that of Kalammu (dated to about 875 B.C.), is in Phoenician. But this route to the plateau from the coast is a region in which Phoenicians had important commercial interests. In the 7th century, too, Esarhaddon of Assyria found himself in conflict with a Šanduarri, king of Kundu and Siz, in the Ceyhan valley, who was an ally of the King of Sidon. And the genealogy of the sons of Noah in Genesis x, commonly regarded as based on a Phoenician map of the then known world in the 7th century B.C., seems to be well acquainted with Eastern Asia Minor.

36. The inscription on the lion was incomplete, but Bossert was able in 1949 to complete it by another copy found in a second area, which he also excavated, lower down the northern slope of the hill on which the citadel is perched. It soon appeared that both the north and south towers of the citadel were ornamented with a pair of lions and sphinxes which guarded between them the approach to a monumental gateway of Hittite type. The corridors of the double gateways are flanked by sculptures of a provincial, almost barbaric style, half Phoenician, half Anatolian. In each gateway on the south side, on unsculptured slabs adjoining the sculptured orthostats, was a perfect version of the Phoenician text. There resulted the longest known Semitic inscription, of sixty whole lines. Even more important was that the panels and bases of the north side of each gate bore hieroglyphic inscriptions which Steinherr, Bossert's pupil, soon recognised as corresponding to the Phoenician text. The true bilingual had been discovered at last.[1]

37. So far only forty of the lines of hieroglyphics, as against sixty of the Phoenician version have been published, and as yet only in transcript.[2] But they leave no doubt of the truth of the discoverer's claims. (According to Bossert, the Phoenician version is made from the Hittite and contains some slight mistakes.) As we have said, a copy of the hieroglyphic version was turned up in both the upper (southern) as well as the lower (northern) gate. This fact alone, by supplying in many instances different ways of spelling the same word, has already given us the values of

---

H. Bossert, Dritte Fortsetzung (publishing lines XXII–XL), *Jahrb. für Kleinasiatische Forschung*, I, pp. 264–295.

H. Güterbock, "Die Bedeutung der Bilinguis vom Karatepe für die Entzifferung der heth. Hieroglyphen," *Eranos*, XLVII, 1949.

I. J. Gelb, "The Contribution of the new Cilician Bilinguals to the decipherment of Hieroglyphic Hittite," Chicago, 1950; and *Bibliotheca Orientalis*, VII, 1950, pp. 129–151.

[1] Bossert, *Oriens*, I, 1948, p. 163. The curious thing is that the Hittite text runs from slab to slab, often jumping a sculpture orthostate to do so. Carch. A1 and 2 are doubtless similarly parts of a longer text dispersed over two or three slabs.

[2] Now the remaining lines have been published by Bossert, *JKF.*, ii, 1953.

SOME NEW WORDS OBTAINED FROM THE KARATEPE BILINGUAL

	xv	כל	‘ all ’ ‘ every ’
	xii	ארץ	‘ land ’
	iv	יהו	‘ cause to live ’
	v, xxxii	ירהב	‘ enlarge ’
	vii	מלא	‘ fill ’
	xiv	בן	‘ build ’
	xxxix	ללכת	‘ to go ’ (infin.)
	xxix	ירד	‘ bring down ’
	xxxiii	שתע	‘ fear ’
	xxv, xxviii	ענ	‘ afflict ’
	xxi	עבד	‘ put ’, ‘ do ’
	xi	שבר	‘ break ’
	vi, xxvi	מנעם	‘ pleasant-ness ’
	vi	שבע	‘ satisfaction ’
	xviii	צדק	‘ righteous-ness ’
	xviii	חכסה	‘ wisdom ’
	i	עבד	‘ servant ’
	xx, xxxiv	אדם	‘ man ’
	xxxv	אשת	‘ woman ’
	iii	אם	‘ mother ’
	xxxix	שם	‘ name ’
	xxii	פעם	‘ foot ’
	xxxiii, xxxiv	דרך	‘ road ’
	xxxii	ים	‘ day ’
	vii	עקר	‘ store-house ’
	xv	שרש	‘ root ’ ‘ family ’ (?)
	xi	מלץ	‘ rebellious ’
	ix	מגן	‘ shield ’
	x	מחנת	‘ camp ’
	xix, xxx	גבל	‘ frontier ’

	xx	רע	‘ evil ’
	xii	,,	,,
	xix, xxv	עז	‘ strong ’
	xxvii	בל אש	‘ no one ’
	xxv	מבא שמש	‘ west ’
	xxx	מצא שמש	‘ east ’
	xii	ב־	‘ in ’
	xxv, xxx	עד	‘ towards ’
	xxvi	לפני	‘ before ’
	viii	על	‘ upon ’
	xiii	תרק	‘ destroy ’

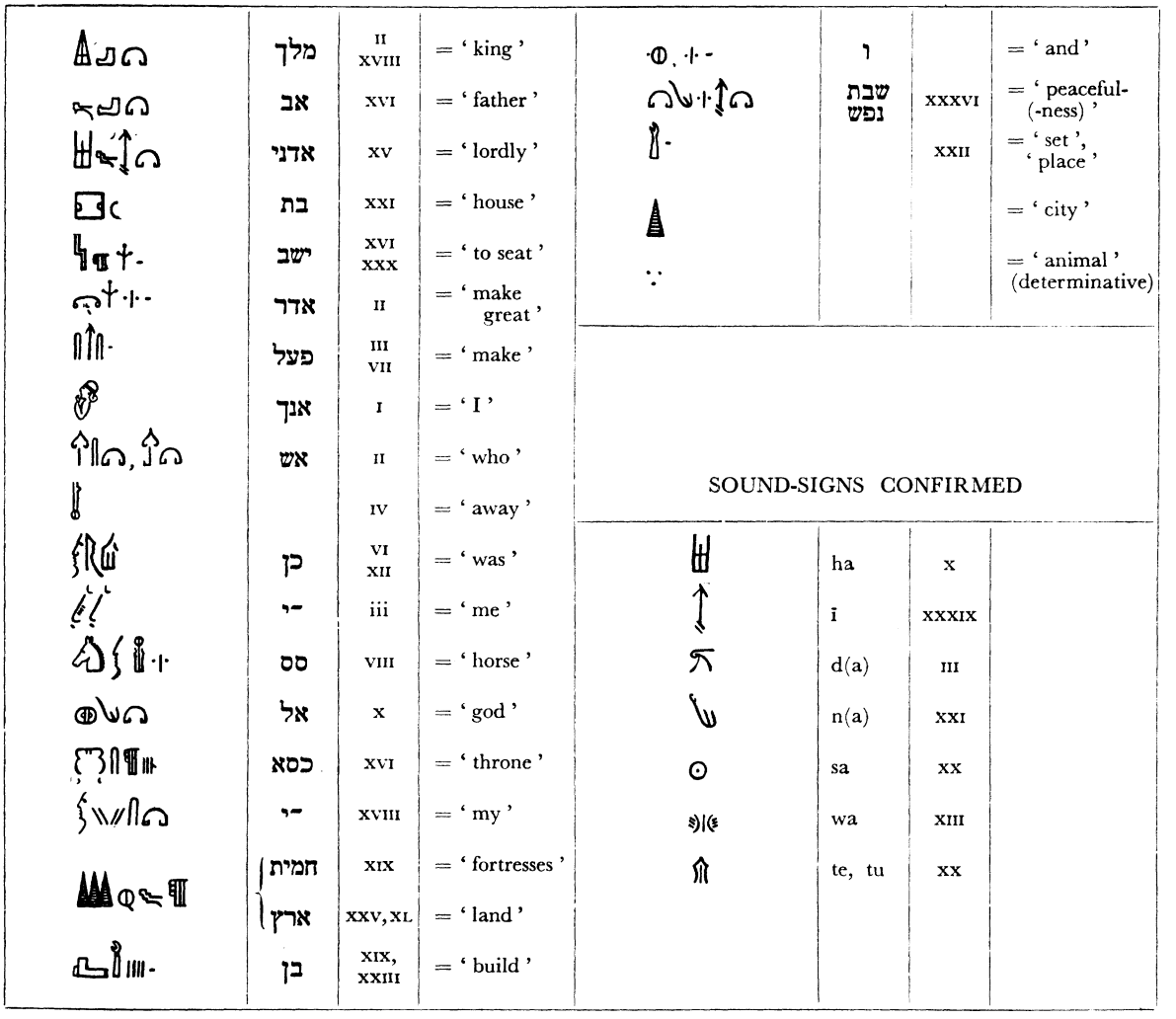
NEW SOUND-SIGNS

	=	si	xxviii
	=	ma	xxiv
	=	ma, me	xxv
	=	i	xx, xxvi
	=	i	xxvii
	=	wa	xvi
	=	wa	xi
	=	(u) ta	xxii, xxviii
	=	ta	xxx, xxxiv
	=	r, t/d	passim
	=	na	xxvi
	=	tas	xii
	=	dana	v, vi
	=	si	xxxix

FIG. 4.

fifteen sound-signs and the meanings of some twenty-five ideograms previously unknown, and confirmed the values of eight signs and meanings of sixteen ideograms previously correctly guessed. Needless to say, the bilingual has also given us many entirely new ideographic signs for which the interpretation is provided ; at least forty-two words are now interpreted for us for the first time, while twenty others previously known but not for

SOME WORDS PREVIOUSLY CONJECTURED, NOW CONFIRMED



מלך	II XVIII	= ' king '	
אב	XVI	= ' father '	
אדני	XV	= ' lordly '	
בת	XXI	= ' house '	
ישב	XVI XXX	= ' to seat '	
אדר	II	= ' make great '	
פעל	III VII	= ' make '	
אנך	I	= ' I '	
אש	II	= ' who '	
	IV	= ' away '	
כן	VI XII	= ' was '	
-י	iii	= ' me '	
סס	VIII	= ' horse '	
אל	X	= ' god '	
כסא	XVI	= ' throne '	
-י	XVIII	= ' my '	
חמית	XIX	= ' fortresses '	
ארץ	XXV, XL	= ' land '	
בן	XIX, XXIII	= ' build '	

ו			= ' and '
שבת נפש	XXXVI		= ' peaceful-(-ness) '
	XXII		= ' set ', ' place '
			= ' city '
			= ' animal ' (determinative)

SOUND-SIGNS CONFIRMED

ha	X	
ī	XXXIX	
d(a)	III	
n(a)	XXI	
sa	XX	
wa	XIII	
te, tu	XX	

FIG. 5.

certain correctly interpreted were shown to have been correctly guessed (Figs. 4, 5). There are some surprises, too. Thus we learn that some signs regarded hitherto as ideograms can also be used sometimes as vowels or syllables[1] even in the middle of a word. A good example is the word for Adana, written CITY *A-dana-wa-na-is*. Further, there is more proof of

[1] There were already isolated instances known of this practice, e.g. on the Babylon stele, " C.I.H.," Pl. II, l. 1, and at Topada.

" polyphony " in the fact, now established,[1] that the " thorn " hitherto read as " *r* " can also have the value " *ta* " or " *da* ". The consequences to Gelb's theory are disconcerting; for there would appear to be now not one sign for *i* but three, and at least three for *wa* and four for *da*. Most important, too, is that the relative particle is established as *was* and the frequent sign with which it begins is *wa*. There are also, of course, considerable gains in understanding the syntax. There can be little doubt that in Bossert's discovery at Karatepe we have certainly one of the more important of Near Eastern archaeological discoveries, the value of which is limited only by the slightly disappointing amount of historical content of the hieroglyphic texts in general.[2]

2. The historical contribution of the hieroglyphic inscriptions

38. The author of the Karatepe inscription is no Phoenician but bears an Anatolian name, Azitawad. This is compounded with the word *asi-*, which Bossert showed [3] in 1946 to be the correct reading of the verb meaning " to love ". Azitawad (or Asitawad—in the hieroglyphs),[4] is king of the Dananiyim, and vassal of Awarkuwas, apparently to be identified with Urikki or Uriaik of Kue, or Cilicia who, after fighting beside Sarduri of Urartu submitted to Tiglath-pileser in 738 B.C. According to the Karatepe inscription the kingdom of the Dananiyim is the plain of Adana, the *'Emek Adan*, and Adana is evidently their capital. With a wealth of verbiage Azitawad describes his foundation of a city called Azitawadi (presumably Karatepe) after himself, and refers to his pacification of the country from east to west and his fortifications.

39. It was, of course, promptly seen that the Dananiyim, who are here mentioned for the first time in history as a real people in a specific geographical area, are to be connected with the Danauna, or *dnwn*, who invaded Egypt in the 12th century B.C.[5] The *Dnwn* are represented at

---

[1] This fact, however, is still disputed by Gelb and Meriggi.

[2] An article on this subject entitled " Le iscrizioni storiche in eteo geroglifico ", in *Studi classici e orientali* (Pisa), II, 1952, is promised by P. Meriggi, whose return after long silence to the subject of hieroglyphs is an important event.

[3] *Asia*, Istanbul, 1946. This elaborate discussion of the origin of the name of Asia produced incidentally the true meaning of the word " syennesis ", attempts to read which into the hieroglyphs had caused such trouble to the early decipherers. Bossert shows it most plausibly to mean " lover of the god ".

[4] This transition in this region from z to s is evidently (as Bossert pointed out, *Oriens*, I, p. 92) a local feature. It explains why Tarsus should be represented on local coins with Aramaic inscriptions as *Tarz*, while in Assyrian it is *Tarzi*, once *Tarsis* (Luckenbill, *Annals*, II, p. 710 q.v.). There Tarsis (written erroneously Nusisi) is mentioned by Esarhaddon as a centre of " the kings of the sea from Iadanana (which is Javan) as far as Tarsisi ". In Hebrew it is Taršiš. The second *s* is, of course, the Hittite nominatival ending. Azitawadas or Azitawa(n)-das, according to Bossert, means " lover of (the sun-god) Wa(n)das ". There is as yet little evidence for this god, but such Anatolian Greek personal names as Ουανγδαμόας and Ουανγδιβασσις, Ουανγδανεσις (Sundwall, *Namen der Lykier*, p. 237) may be cited as including his name.

[5] For a good summary of the historical data concerning the Dananiyim see O'Callaghan, *Orientalia*, XVIII, pp. 193–9.

Medinet Habu, with the *Pulasati* and *Tkr* dressed exactly like them. They are mentioned as the Danuna, a people of Kinaḫna (Canaan) in one of the Amarna letters, in the same breath as Ugarit. They must therefore have been in or near Cilicia by the 14th century and their continuity into the Iron Age is significantly paralleled by that of the Luqqa or Lycians. Historians had long linked the Danauna with the Danaoi, a name used in Homer for the Greeks at Troy, and one which Greek tradition explained by deriving it from a dynasty of oriental origin which had established itself at Argos. Danaos, its eponymous founder was said to be the son of Belos, the Babylonian god Bel, i.e. an oriental. For this modern identification of Danaoi and Dananiyim the Karatepe bilingual brought some unexpected confirmation. Azitawad speaks of himself as belonging to the House of *Mpsh.* As Alt and the present author pointed out,[1] this can hardly be other than Mopsus, a somewhat misty figure of Greek legend.

40. The kingdom of Mopsus was thus already nearly three centuries old when Azitawad wrote his inscription. In the 11th century Aššurnaṣirpal I (1047–1029) claimed on the obelisk in the British Museum to have defeated the land of Dannuna and captured five cities. Dannuna must have long formed part of the realm of Kue or Cilicia which, known as Kode to the Egyptians, was still called Kuwe/Kume in neo-Babylonian times.[2] In the 10th century B.C. already Kue, the successor of the kingdom of Kizzuwatna, was in commercial relations with the kingdom of Solomon, and hence also no doubt with Phoenicia. From the Bible, by an obviously correct emendation of the meaningless text of 1 Kings x, 28, we learn that " Solomon had horses brought out of Egypt and Kue, and the king's merchants were of Kue. They received them out of Kue at a price ". This explanation that the plains of Kue were used for horse rearing is confirmed by Azitawad's statement that he " added horse to horse " (line 7). In about 841 B.C. the Dananiyim are found " oppressing " their neighbour the king of Sam'al, who invoked the aid of the Assyrian Shalmaneser against them. In the reign of Sangon Urikki of Kue again was on the anti-Assyrian side. As to the relations of Azitawad with Assyria, we can only assume that not long afterwards his independence ceased, for Sargon, by his thirteenth year, had already annexed Kue as a province of the Assyrian Empire. Perhaps this took place as early as 720 B.C., when a campaign against Tabal is recorded.[3]

41. The contribution of the remaining Hittite hieroglyph texts to history is till now a little disappointing. They fall into two great groups, those of the Empire and those of the neo-Hittite kingdoms. In the Empire they are commonly inscribed on the vertical faces of rocks, apparently for

---

[1] For an account of Mopsus, his relations to the Hittite kings and the Greek legends concerning him, see R. D. Barnett, " Mopsus," *Journal of Hellenic Studies*, lxiii, 1953.

[2] On the localisation of Kode or Kedy see Gardner, *Ancient Egyptian Onomastica*, I, pp. 134 ff. On Kuwe/Kume see Albright, *Bull. Amer. Sch. Or. Res.*, 120/1950.

[3] Luckenbill, op. cit., 1198.

religious purposes,[1] often accompanying a figure or figures of a god. The earliest are those of Šubbiluliuma. There are also some inscriptions on slabs, as at Kölitölü yayla, and altars, as at Eski Kišla and Emir Gazi, apparently dedicated by one of the Tuthalia's, probably Tuthalia IV.[2] It is possible that the same monarch is also author of the famous rock carvings at Karabel, near Smyrna.[3] They are probably rightly connected with the expedition to Aššuwa, and mark the extreme western extension of Hittite suzerainty. Important for geographical reasons is the Fraktin inscription [4] (Fig. 3), which is dedicated to the god Aiš (?) of the land HAND.HAND HOLDING CUP.na, apparently a spelling for Kizzuwatna by a pun of some kind, Hittite cuneiform *kessar* = hand, CUP suggesting *watar* = gen-*wetenas* " water ", producing *Kezz-weten-na-*.[5] The copies of the signs given by Hrozný in *L.I.H.H.* are incorrect. For the change of s to z we have already noticed parallels, while the spelling of " Adana " at Karatepe shows us that a sign can be used as an ideogram in the middle of a word and that it can represent more than one syllable.

42. The other principal hieroglyphic inscription of the Empire of historical interest is the long-known inscription in the Mosque of the Storks (El Kikân) at Aleppo. This has been correctly shown by Güterbock to describe the dedication of a temple to the divine pair Hepat-Šarruma by Ta(l)-mi-Šarruma. This monarch was a son of Šubbiluliuma, who installed him as king of Aleppo.[6]

43. In the inscriptions of the neo-Hittite kingdoms we are able to recognize many of the names of the petty dynasts of Northern Syria encountered by the Assyrians. At Tell Taiyinat, in the Hatay, there are fragments mentioning the name of Halparunda, most probably the king of Hattina, subservient to Shalmaneser III. At Boybeypınarı, near there, is

---

[1] The true explanation of this custom is discussed by R. D. Barnett, " The Phrygian Rock-Facades and the Hittite Monuments," *Bibliotheca Orientalis*, X, 1953.

[2] Bittel (*AfO.*, XIII) has emphasized the presence of a second figure. cf. Bossert, *Asia*, 72.

[3] Tudhalia is also the author of the inscription from Karakuyu, west of Malatya.

[4] Hrozný, *L.I.H.H.*, p. 432 ; 4, ibid., p. 435 ; Gelb, *AJA.*, XLI, 289.

[5] Bossert, *Belleten*, 1951, 320, reads the name of Lawazantiya, the city of Putuhepa, in a newly found inscription from Karahoyük, near Elbistan (Özgüç, Karahöyük). J. Lewy, however (*Orientalia*, 21, 1952, p. 291), places Lawazantiya near the Beilan Pass and at Malatya.

[6] Güterbock, op. cit., II, p. 22, and *Belleten*, VII, 1943, p. 308. Alp, however (*Zur Lesung von manchen Personennamen* . . . p. 38), while rightly taking the name as Tal-mi Šarruma, wishes to take the first sign, now much obliterated, as Meriggi 214. Gelb has shown some reasons (*H.H.*, 3, p. 14, comparison of A 11 a 5 with M XI 5) why that should be *ri*, though I think it can also be read *ka* on the strength of the seal *Sendschirli V*, pl. 47, i (*Bara-ka-ba-s* = Barrakab). But after examining the original stone at Aleppo I think the first sign there is certainly not Meriggi 214, but a form of Meriggi 61, 2. This sign is used to begin the word read *ta-na-me-* " all " (Steinherr, " Hittite Hieroglyph for ' all ', ' every ', ' whole '," *Oriens*, II). It would thus support the reading of the name *Talmi-* as against *Rimi-*šarma in cuneiform and indicate that the sign could be read *tal* or *ta*. But that it can be Meriggi 214, and that this can be *tal ri* on the pattern of the cuneiform, as argued by Alp, I do not believe. Cf. Güterbock's sketch, *Siegel*, II, Pl. 81, Figs. 259–261.

a dedication of Panamuwadas, who calls herself the mother of Šubbiluliuma (written, as for the great monarch, *tu-ha-me*), son of Hattušili. This is almost certainly not the great Šubbiluliuma, but probably refers to a son of a king of Kummuh (Commagene) whose name Aššur-nazir-pal knew and misrendered as Katazili for Hattusili. At Malatya we have the sculptures inscribed with the name of Sulumel and his wife and son, whose name is also given : Tuwa(te).[1] This name may probably be identified with that mentioned in an inscription of Argišti of Urartu (*c.* 785–753),[2] who speaks first of his conquest of the land of Hate belonging to Hilaruada, then, in l. 15, of his invasion of Hati and his reaching " Melidea ", the city of the son (or descendant) of Tuate. As Argišti's son Sarduri elsewhere [3] calls Hilaruada the son of Sahu, it would seem that the meaning " descendant " rather than " son " " of Tuate " is to be preferred. The Sulumel of the Malatya sculptures will then belong to the 9th century and correspond to the Suluhawali mentioned by Menua or Urartu [4] about 810 B.C. Sulumel's son Tuwate may be the same as the ruler Tuwada, whom the dedicant of an inscription from Kululu, near Kayseri, claims as his overlord.[5]

From Hamath we have the inscriptions of Urhilina already mentioned (9th century). From the discovery of another of his inscriptions at Apamea, as well as at Restan, and from the mention of the town of Lakē, on the Euphrates, in a text of Urhilina's son (not otherwise known as a king of Hamath) it is clear that Hamath ruled a very large domain in the 9th century B.C.

Usually, indeed, these hieroglyphic texts are somewhat barren of historical information. But from Tell Ahmar, near Carchemish, there emerges by inference a point of some interest. Aššur-nazir-pal mentions having installed a certain Hamatai as governor of Suru, in Bit Haluppi, on the Habur river, which had been conquered by 884 B.C. (Not to be confused with him is one, Hamatai of Lakē, who was tributary to Shalmaneser's father Tukulti-Ninurta II.)[6] In any event, Hamatai of Suru was murdered in 884 by emissaries of Ahuni, king of Adini, opposite *Carchemish*, one of Aššur-nazir-pal's bitterest enemies (a crime no doubt of great interest to Urhilina of Hamath). One of two stelae from Tell Ahmar is actually dedicated by Ham(e)atas, the son of Mašiwadas, who on the fellow stele from the same place is called the son of Ahuni. It becomes apparent that

---

[1] Bossert, *Altanatolien*, Fig. 768.

[2] Sayce, *J.R.A.S.*, 1882, XXVIII IV 6.

[3] Izolu inscription, Sayce, ibid., LI.

[4] Palu Inscription, *Corpus Inscriptionum Chaldicarum*, p. 31. In this dating it will be seen that I differ both from the dating of Akurgal in his *Remarques stylistiques sur les Reliefs de Malatya*, and Bossert *Zur Chronologie der Skulpturen von Malatya*. The former would date the sculpture of the gate 1050–900, the latter about 875.

[5] Kululu Inscription I, Bossert, *Jahrbuch f. Kleinasiatische Forchung*, I (1951) ; Meriggi, *Rivista degli Studi Orientali*, XXVII (1952).

[6] An account of an important stele recently discovered and now in the Museum at Aleppo was read by Père Tournay at the XXIInd Congress of Orientalists. It is inscribed with an account in cuneiform of the capture of Lakē by Tukulti-Ninurta II, and is to be shortly published by Tournay and Subhi Sawwaf.

Hamatai was originally a Hittite, probably a grandson of Ahuni, who changed his coat and paid for doing so with his life.

These inscriptions from Tell Ahmar are of importance from another angle because they afford a precise dating *ante quem*, for Tell Ahmar (Til-Barsip) was destroyed by Shalmaneser and became an Assyrian province in 856 B.C. From them we are able to cross-date the similar inscriptions at Carchemish. They have been shown in *Carchemish*, Vol. III (1952), to belong to three successive dynasties. The first is that of Luhas (*c.* 950), whose great-grandson Katuwas built the inscribed gateway leading to the citadel. Next comes the house of Asdaruwas (*c.* 820–780) whom we first find using the title not merely Lord of the land of Carchemish but " lord of the land of CALF'S HEAD ". In 1949 [1] I surmised that this stood for Hatti, the geographical term under which the Assyrians regularly referred to Carchemish. In the Karatepe bilingual we now find the ideogram CALF'S HEAD = *hasas*, meaning " well-being ". Now in Hittite cuneiform we find there was a word *hattu-latar*, also meaning " well-being ", of which *hasas* is evidently a dialect variant.[2] Clearly the ideogram CALF'S HEAD could be read *hattu(latar)* and by a sort of solemn pun *Hatti* was written as the " land of well-being ".

44. The last of the three dynasties of Carchemish mentioned in the hieroglyphs is that of Araras (*c.* 780–730 ?).[3] He no longer calls himself king. Indeed, as he nowhere mentions his parentage we may conclude he was an upstart, " a son of nobody," as in the Assyrian annals such people are called, who seized power in Carchemish probably with outside help, overthrowing the dynasty of Asdaruwas. His outside help is likely to have been Urartu, but it is nowhere mentioned. There are historical texts of Araras, but it is still too early to make much of them. In one (A6) [4] he mentions some sort of supremacy exerted over Muški, Mysians, Lydians, and others, and in another (A156**) some kind of homage by the kings of Sur (Tyre ?) *Tamanu* (= bit Zamani), in Syria, even of the king of Assyria—events which are well in keeping with the period of extreme Assyrian weakness under Assurnirari VI, but concerning which the Assyrian annals are silent. Another text speaks of bringing back the statue of Hadad of Aleppo which the Assyrians had carried off.[5]

45. In the procession scene carved in stone at Carchemish, Araras is at pains to legitimate his son Kamanas by introducing him personally into the presence of the god, whose statue stood near by. Kamanas, in the

---

[1] *Iraq*, X, p. 128.

[2] This exchange of t with s is also witnessed in reverse at Carchemish in the name of Atarluhas, which appears to be a rendering of Asari-luhi, a name of Marduk in Babylonia.

[3] Akurgal, in his excellent study, *Späthethitische Bildkunst*, wishes to date Araras into the time of Sargon. The difference between us in dating is small.

[4] Bossert promises a fresh publication of this text. [This is now available as " Zur Geschichte von Karkamis ", in *Studi Classici e Orientali*, University of Pisa, 1951. This translation is far ahead of anything yet made of this important text. I differ from Bossert, however, in believing that the ideogram THRONE + TABLE, which is described as being set up, is not a residence but a festival ; cf. the Greek inscription from Nimrud Dağ.—R.B.]

[5] Bossert, *Archiv Orientalni*, XVIII, 1950, p. 21.

inscription of Jekke, near Azzaz,[1] calls himself " lord of the land of CALF'S HEAD ", thus assuming the full titles of Asdaruwas. This inscription, set up at Azzaz, some 80 kilometres distant from Carchemish, shows that under Kamanas the realm of that city was certainly not confined to its immediate neighbourhood. H. Bossert has now shown that Kamanas in this text explicitly acknowledges Sarduris of Urartu as his overlord.

46. We have already referred to Urpalla of Tyana, whose name appears as Warpalawas, king of Tuwana, in the inscriptions of Bor, Ivriz, and Nigde (Nahida),[2] in central Anatolia, north of the Taurus.

At Bulgar Maden,[3] in the Taurus, there is an inscription of a person named Tarhunasis, son of Tarhu-war-x-as, vassal of Warpalawas. Tarhunasis is the same name as Tarhunazi [4] of Milid, whom Tiglathpileser describes as a vassal of Urpalla but, as the inscription of Bulgar Maden does not mention Milid, we hesitate to identify them. Urpalla himself was, however, a minor dynast of the Asia Minor Confederacy, and between the lines of Tiglathpileser's official history [5] we discern that his real enemy, who kept in the background, was Uaššarme, king of Tabal, or southern Phrygia. There can be little doubt that the long and difficult inscriptions of Topada (Karapınar), south-west of Kayseri,[6] written in a sort of queer script of hieroglyphic Hittite, is really an inscription of Uaššarme (who spells his name Wa-aš-šarruma).[7] He calls himself, as behoves the head of a confederacy " Great King ", and speaks of his city of Bar-wa-tas, i.e. the capital of Tabal, known to the Assyrians as Bit-Burutaš. With this inscription go two others written in similar script from Çiftlik, near Kayseri.

47. Maraṣ was the capital of Gurgum, another kingdom which became tributary to Tiglathpileser. Its king, Halparunda, son of Mu-

---

[1] Barnett, " Hittite Hieroglyphic Inscriptions at Aleppo " (*Iraq*, X, 1948).

[2] The text gives the actual ancient name of Nigde : Nahida (MXXXI, CI, see Gelb, *Hittite Hieroglyphs*, p. 17).

[3] Hrozný, *L.I.H.H.*, p. 267.

[4] For s = z, see note 4, p. 87 above.

[5] Luckenbill, *Annals*, § 802.

[6] *L.I.H.H.*, pp. 351 ff.

[7] This name is read by Hrozný *Wa-lu-Dattamimas*. For Šarruma as the correct reading of the name of the god formerly read Dattamimas, see Güterbock, *Siegel*, II, pp. 20–4. My reading of the present name involves taking the second sign, the triangle usually read *lu*, as *aš* (by polyphony). This triangle is often represented on Hittite seals in the hands of gods (see Güterbock, op. cit., I, p. 46) and may be identified with the object referred to in Hittite cuneiform descriptions of the gods' images (Brandenstein, *Bildbeschreibungen*, p. 87, *Das Heil-symbol* . . .) as SIG_5 = *aššu* = " good " in Hittite. This derivation of the value of the sign, of course, produces yet another example of " acrophony " (see p. 81). The reading *aš* for this sign is confirmed by a fragment from Carchemish A 25 a, where *-ha*-x " Great Queen " is evidently to be read *ha-aš-šar-*. This tallies neatly with the word for queen **haššusaraš*, postulated by Gurney in " Hittite Prayers of Muršiliš ", p. 45 (*L.A.A.A.*, XXVII). It also involves accepting the sign Meriggi 346, as *sa*, as Bossert, *Asia*, p. 137, and I argued in *Iraq*, X, p. 131, rather than *si* as desired by Gelb, *H.H.*, III, p. 17.

Meriggi independently arrived at the identification of Uaššarme with the author of the Topada inscription, *Athenaeum*, XXIX, 1951, p. 45, while Landsberger, *Samal*, p. 20, n. 39, identified the city's name at Topada, Bar-x-ta, with Bit-Burutaš (as the lesser kingdom of Tabal was called by the Assyrians). Whether Bit-Burutaš is to be also connected with the Byzantine town of Barata, near Eregli, is obscure.

watallis, is the author of the long text on the Maraş lion, now at Istanbul. Forrer pointed out that this dynast's pedigree went back from *c.* 750 B.C. for seven generations to about 950, i.e. that his house appears to have been founded on the ruins of the Hittite Empire after the confusion of the Muški invasions had subsided. Another inscription of Halparunda (M.LII) mentions military exploits against the city of Alawasa,[1] otherwise unknown.

48. It remains to sum up a few of the facts concerning this language as far as they can be discerned. It is neither Luwian, Palaite nor the language of the Hittite cuneiform, though particularly close to Luwian. It does not tally with any of the Indo-European languages of Asia Minor of the Iron Age—Lycian,[2] Lydian or Phrygian but appears to belong to the *satem* group. It has no name and cannot yet be identified with certainty with any known people and only roughly with an area, the south-eastern part of Anatolia. The names of several gods who appear in its inscriptions—Rundas, Santas, Wandas—are peculiar to that region and survive there until late in the classical period, incorporated in personal names of Cilicia, Lycia or Pamphylia[3]; the names of the three principal figures of the pantheon, Kubaba, Šarma and Tarhu are on the other hand much more widely spread through Anatolia.[4] And of these three, Kubaba could be shown to have an ultimately Mesopotamian origin. In her case, Hurrian influence may be the explanation for her transference to Anatolia as it certainly is with that of Hepatu and with Šarma, and probably Nakar (Nikkar or Ningal) the goddess of the underworld. But this does not tell us who invented the script. Bossert (*Rev. Hitt. et As.*, IX, 14) suggests that it was created in Kizzuwatna by the Danuna themselves or some similar " Sea-people ". It now seems clear that the language belongs to the *satem* branch of Indo-European languages and that the words for " dog ", " horse " and " horn " are to be read *suwanas*, *asuwas* and *surna*. Perhaps it was from this people that the Hebrews and Egyptians got the horse, which they called in their respective tongues *sūs* and *ss-m*.

49. I believe the script was invented in Arzawa or Kizzuwatna at an early date, at the beginning of the 2nd millennium B.C., primarily for carving on wooden tablets, hence the raised letters. For this view there is some support in the Boğaz-köy texts.[5] The earliest example of the script seems to be the curious seal discovered at Atshana[6] in Level IV, *c.* 1500 B.C., bearing curious signs which might be prototypes of later Hittite hieroglyphs. At about the same time we have the Phaistos disc with its pictographs, long

[1] Bossert, *Archiv Orientalní*, XVIII, 1950, p. 21.

[2] For recent studies see Tritsch, " Lycian, Luwian and Hittite," *Archiv Orientalní*, XVIII, 1950; and Petersen, *Lykisch und Hittitisch*, 1945.

[3] See Sundwall, *Die Einheimischen Namen der Lykier*.

[4] See Keil, " Die Kulte Lydiens," in *Arch. Studies presented to Buckler*.

[5] For wooden tablets and scribes of wooden tablets see Güterbock, " Das Siegeln bei den Hettitern " (*Symbolae Paulo Koschaker dedicatae* 1939) also Bossert " Schreibstoff und Schreibgerät der Hethiter," *Belleten*, XVI, 1952. Bossert believes that the wooden tablets were sealed with the seals described above in § 30, and that their find spot was where the wooden tablets were kept.

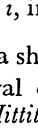
[6] R. D. Barnett, " Notes on Inscribed Hittite Objects from Alalakh," *Ant. J.*, XIX, 1939.

associated by scholars with Anatolia. We note that not only were its signs imprinted in clay with a movable type (an anticipation of printing which remained still-born for 3,000 years) but they are impressed by using raised letters. Raised signs also occur on the stamp seal found with the hoard of weapons from Soloi (see above, p. 78).

50. Forrer and Bossert have at times hinted that the Hittite hieroglyphs were as old as the 3rd millennium and were influenced by early Sumerian pictograms. This is uncertain. The script was probably merely one of several attempts made in the Middle Bronze Age in the Eastern Mediterranean to reduce the exuberance of signs represented by cuneiform to a more tractable system. The Hittites, in their version of cuneiform, cut down the number of usual signs to about a hundred. The hieroglyphs ordinarily seem satisfied with about eighty. The Cypriot syllabary is more strict, and has fifty-four. The Ras Shamra alphabet but thirty-two. Minoan, Class B, has sixty-four. Our hieroglyphs may, for all one knows, owe something to the Cretans, but whether this is so cannot well be judged until the Cretan script is read.

51. It would seem likely that when Šubbiluliuma annexed Arzawa in the 14th century B.C. and expanded the Hittite sway from the Central Anatolian plateau to Syria, he took over this script as a gesture to his southern subjects. He and his successors used it sparingly on account of its clumsiness, and used it mainly ideographically, the words not being spelt out in full. After the fall of the Hittite Empire, about 1200 B.C., the small diadochic or neo-Hittite states of south-east Anatolia and Syria, having formed a loose confederacy together, revived and considerably developed this script for something like nationalistic reasons, enabling it to be used for texts of some length. When these states, in their turn, were overthrown by the Assyrians piecemeal, between the 9th and 7th centuries B.C., the writing disappeared. One of the latest examples seems to be the inscription from Palanga,[1] perhaps of the late 7th or early 6th century B.C., though influences on Greek scripts and dialects lasted into late times.[2]

[1] M. XX (= *M.V.A.G.*, 1906, Pl. XX). See Barnett, *J.H.S.*, LXVIII, p. 20. Bossert, *Die Welt des Orients*, 1952, dates it to the 8th century B.C. ; see above § 30 and note 5.

[2] An example of the influence on language seems to be the " barbarism ", called σολοικισμός, perpetrated by the inhabitants of Soloi, which consisted in splitting up a partitive genitive into a sort of parataxis : οἱ ἵπποι, τὰς κάτω βλεφαρίδας οὔ φασιν αὐτοὺς ἔχειν (Aelian), or οἱ δὲ Ὡρεῖται, χαλκαῖ μεν αὐτοῖς πέτραι (Philostratus)—see Bentley on Phalaris, p. 320. This is apparently a survival of such expressions as *tada* THRONE-*asitar-da* " (to), my father, on his throne " = " on my father's throne " (*Karatepe*, XVI). Parallels to this, however, also occur in Hittite cuneiform, so that this expression may be a common heritage of Anatolia from Hittite languages. Examples of survival of Hittite hieroglyphic influence on script seem to be (i) in the Pamphylian dialect of Greek, the use of double ι, to mark length, e.g. Ηιαρος, for Attic ἱερός, where double ι seems to reflect  , now proved to represent a long *i*, indicated as doubled by the two strokes below it, (ii) the curious sign on coins of Caria shown by Mr. E. S. G. Robinson (*Num. Chron.*, 1936, pp. 6–7) to be probably a survival of the hieroglyph for " mountain ". (iii) In Lycian, where Pedersen (*Lykisch und Hittitisch*, § 16) notes that the occasional punctuation between syllables clearly derives from an originally syllabic system of writing. (iv) Other examples are quoted by Bossert, see above, § 30, n. 5.

52. Anatolia is a little-explored country, which in antiquity, as to-day, owed much of its importance geographically and culturally to being a bridge between continents. Its rôle in the transmission of culture from east to west, especially during the childhood of Greece and Europe, is still not at all fully understood, and every new step in understanding its strange tongues is to be welcomed. Bossert's efficiency, determination and good luck have given us much. The rest of the bilingual is still to come.[1] We give him and his colleagues our thanks for what they have produced in the face of many difficulties. But who knows what Anatolia has still to offer to those who wish to search ?

[1] Now published. See above, p. 84, n. 2.