Linguistics & Grammatology

The Problem of the Origin of the Hittite Cuneiform*

Thomas V. Gamkrelidze

Academy Member, G. Tsereteli Institute of Oriental Studies, Tbilisi
Georgian National Academy of Sciences

ABSTRACT. One of the basic problems of Hittite studies is the question as to the origin of the Hittite cuneiform writing. The solution of this problem is of major importance for the early history of the Hittites, as well as for establishing the ways in which the cuneiform writing system of Ancient Mesopotamia spread in the Near East.

Key words: cuneiform writing, Hittite script, Accadian syllabary.

It has been suggested by a number of scholars that the Hittites borrowed the syllabic cuneiform script from the Hurrians and adapted it to the needs of the I.-E. Hittite language.

This theory, which was fairly current among Hittitologists, involves, however, certain difficulties of orthographic-phonetic and chronological character. Some features of the Hittite syllabary cannot be accounted for, if we assume the Hurrian origin of the Hittite script. This compels us to re-examine the idea of a Hurrian origin for Hittite cuneiform.

It is a well established fact that the Hittite writing goes back to a form of cuneiform script, which antedates the Old Babylonian writing.

This poses the question as to whether the Hittite system of writing was derived directly from Old Akkadian script or from an intermediate source, which goes back to Old Akkadian syllabary.

Every attempt at determining the ways of provenience of the Hittite writing must proceed from the combined evidence of similar systems of the cuneiform syllabary of corresponding and earlier dates.

Some orthographic features of the Boghazkoy cuneiform system are shared by the Akkadian syllabary from Nuzi, which dates from the middle of the second millennium B.C. In the cuneiform tablets from Nuzi the sign PI is used with the value [wa], [wi], [wu], whilst the syllable [pi] is represented by the sign BI (= pí). The cuneiform script from Nuzi lacks special signs for Semitic emphatic consonants, the sign QA being a mere homophone of KA and GA.

The Nuzi syllabary, as that of Boghazkoy, fails to distinguish consistently between corresponding voiced and voiceless consonants. The script of Nuzi differs from Akkadian cuneiform contemporary with it also in the representation of the set of Akkadian sibilants. The phonemes [z], [s] and [*z] are denoted by the z-signs: cf. e-zi-ib, i-zi-ib-šu from ezēbu “leave, abandon”; Sem. *z-h; al-zi, li-il-zi (from šasū “call, invoke”; ú-uz-zi, uš-te-zi (from wašū “go out”), etc.

Akkadian [s] resulting from the Semitic interdental spirant [t], (Arab. [t], Hebr. [s]) is represented in the Nuzi syllabary by the š-sign, whilst the Akk. [s] resulting from the Semitic sibilants [*s] and [*š] (Arab. [s] and [š], Hebr. [š] and [ś]) can be indicated by the symbols for s, s or z, cf. ša-š-ir beside sa-š-ir (from šašir “write”, Sem. *šēr); i-za-az-zi, a-za-az-zi (from šašū), etc.

The lack of signs for the emphatics, the indiscrimi-
nate use of signs for corresponding voiced and voiceless plosives, as well as the peculiarities in the representation of Akkadian sibilants, may be accounted for on the assumption that the Nuzi system of writing is a direct descendant of Old Akkadian syllabary.

In the Sumerian cuneiform system of writing adapted for Akkadian, there were special signs for the sibilants š, s and z. The Akkadian phoneme resulting from the Semitic interdental \[^t\] (Arab, [t], Hebr. [š]) was represented in Old Akkadian syllabary by the š-signs, whilst the s-signs were used to denote the Akkadian descendant of the z-signs (Arab [ṣ] and [ṣ], Hebr. [ṣ] and [ṣ]). The remaining Sumerian signs with the initial z-value were used to denote the rest of Akkadian sibilants, i.e., [s], [z] and [ṣ]. The use of the š-signs to indicate Akkadian [š] resulting from Semitic \[^t\] and of the s-signs to indicate Akkadian [š] resulting from Semitic \[^s^\] points to the fact that in old Akkadian dialect [š] corresponding to Arab. [t], Hebr. [ʃ] was distinguished from [š] corresponding to Arab. [s] and [ṣ], Hebr. [ṣ] and [ṣ]. These two varieties of Akkadian [š] began, however, gradually to merge still in Old Akkadian times. This is immediately apparent from the interchange of š with s occurring in Old Akkadian texts; cf. dam-ši-il-su alongside dam-ṣi-il-su (Sem. *m[t]l, u-ša-hu alongside tu-sa-hu (Sem. *w[t]b).

As a result of merger of these series Akk. [š] coming from the primitive Semitic \[^t\] and \[^s^\] began gradually to be denoted exclusively by the š-signs, the s-signs being set free to differentiate the etymological samekh from [z] and [s], which were previously indicated solely by the s-signs. The use of the s-signs for etymological [s] is characteristic already of Old Babylonian script. The Nuzi syllabary has preserved the s-signs in their archaic usage as mere variants of the š-signs denoting the Akkadian descendant of Semitic \[^s^\]. All these peculiarities of the Nuzi system of writing must be traced back to Old Akkadian syllabary.

These features of the Nuzi syllabary are paralleled in the Hurrian syllabic script of the Mitanni letter, respectively. In Hurrian orthography double writing is used to indicate phonemes resulting from Indo-European voiceless plosives. Double writing of a consonant has phonemic value in Hurrian writing too and is used to indicate lack of voice.

All these peculiarities in Hurrian cuneiform give some scholars grounds for the assumption that the Hittites borrowed their system of writing from the Hurrians and modified it to suit the requirements of the I.-E. Hittite language. The method of indicating lack of voice by double writing of consonants which originated in Hurrian cuneiform was transferred, according to these scholars, into the Hurrian system of writing to mark the difference between voiceless and corresponding voiced plosives written single.

Alongside such similarities which indicate a close relationship between the two systems of writing there are, however, some characteristic differences which prevent us from deriving the Hittite script directly from the Hurrian syllabary.

These differences are apparent first of all from the specific use of the Akkadian signs for sibilants in Hurrian cuneiform, and the Hurrian syllabic script of the Mitanni letter, respectively.

In Hurrian writing there are no symbols for s. I.-E. \[^s^\] is usually represented by the š-signs. The š-signs denoted Hitt. [ṣ] as is clearly seen from the Egyptian transliteration of Hittite names. The phonetic value [ts] for the z-signs in Hittite is immediately apparent from the instances, where the clusters of t/d+s are represented by the z-signs.

Consequently, we have to posit in the phonemic system of Hittite the phonemes /s/ and /c/ = [ts], which were indicated by the š- and z-signs, respectively.

For the Hurrian phonemic system four distinct phonemes within the sibilant range are being assumed transcribed as s, z, š and ẓ.

The phoneme [s] was met comparatively rare. However, its existence is revealed by such forms as \(\text{psm}, \text{usgr}\) in the Hurrian alphabetic texts from Ras Shamra, and the
forms i-si, i-su-di-išt and ma-ra-sa in the syllabic texts from Mari executed in the same variety of cuneiform script as the local Akkadian documents of corresponding date (Hammarupi time), where the s-signs were already used to denote etymological [s]. This gives a basis for defining the phonemic value of the s-signs occurring in the syllabic script of the Mitanni letter as [s].

The z-signs of the Hurrian syllabic script denoted apparently a phoneme corresponding to Sem. [z]. The š-signs were used to indicate a Hurrian phoneme represented in the alphabetic texts by the interdental spirant [tʃ], e.g., RSh. ū(u)wš = Mit. Ša-šu-pa-aš; RSh. ṭb-š = Mit. ṭe-šu-pa-aš. This Hurrian phoneme transcribed by the symbol š, was apparently realized as a sound intermediate between [ʧ] and [s].

In some cases š alternates with z in Hurrian syllabic script: š-zi-ib-pa-lu. The underlying phoneme is transcribed as z and regarded as a voiced counterpart of š.

A comparison of the Hurrian syllibar system with the sibilant phonemes of Hittite and the mode of their representation in the Hurrian syllibar script and the Hittite writing, respectively, reveals certain inconsistencies, which cannot be accounted for, if one assumes the Hurrian provenience of the Hittite system of writing.

Thus, on such an assumption, it remains incomprehensible that the s-signs which were current in Hurrian syllibar cuneiform and represented obviously the phoneme [s] were not borrowed to denote Hitt. [s]. The same assumption leaves unexplained the use in Hittite of the š-signs to represent the phoneme [ʃ], since in Hurrian the š-signs indicated the phonemes [SH] and [Z], which differ considerably from [S] phonetically. It is, further, difficult to admit that the Hittites should represent their affricate [TS] by the Hurrian z-signs, which in the Hurrian syllabic script denoted the phoneme [TS] or, in alternation with š, the phoneme Z.

On the other hand, the use of the š- and z-signs in Hittite syllabary to indicate [S] and [TS], respectively, is easily accounted for on the assumption that the Hittite script is a direct adaptation of an Akkadian system of writing, which goes back to Old Akkadian syllabary.

It was shown above that in the Old Akkadian dialect Akk. [S] resulting from the original Semitic [*SH] was differentiated from [ś] resulting from the original Semitic [*SH]/[*ś]. This distinction was marked by the š- and s-signs, respectively. When this two series gradually merged into one s-signs began to interchange irregularly with the š-signs. The s-signs were, later on ultimately superseded by the s-signs to represent the common descendant of Sem. [*SH] and [*SH].

The s-signs were set free by this process to indicate the etymological Samekh, which was denoted previously, alongside the phonemes [Z] and [S], by the z-signs.

Hittite cuneiform must have been borrowed from Akkadian at a time, when the š-signs indicated in the Akkadian syllabary the sibilants [S], [Z] and [S]. The z-signs, which denoted in Akkadian the phoneme [Z], were used in Hittite to indicate the affricate [TS]. Therefore, the same signs were not used by the Hittites to denote their sibilant [S]. For this purpose the system of Akkadian writing afforded the fairly common š-signs and the rare s-signs, which occurred sporadically as mere variants of the š-signs (as is shown above, the s-signs began to represent Akk. [S] only in Old Babylonian Cuneiform). In such conditions it is quite natural that the Hittites used the š-signs to indicate their sibilant [S].

The theory of the direct provenience of Hittite cuneiform from Akkadian is further supported by the extensive use of Sumero-Akkadian ideograms and determinatives in Hittite, this being a feature not characteristic of the Hurrian system of writing, which is distinguished by its avoidance of ideograms and a sparing use of determinatives.

The theory of the Hittitan origin of Hittite script involves also certain difficulties of chronological character. The fact that the Hittites did not get their cuneiform system of writing from the Cappadocian syllabary, which was current in Asia Minor about 1900 B.C., may be accounted for, if one admits that at the time of the introduction of old Assyrian cuneiform into Asia Minor the local population was no longer in need of it possessing a cuneiform system of their own. On these grounds we have to push back the origin of the Hittite system of writing to a period prior to the introduction of the cuneiform script of the Assyrian merchants into Cappadocia. This excludes direct connections of the Hittite writing with the Hurrian syllabic script of the Mitanni letter, which originated apparently at a later period.

The inference of such an early date for the origin of the Hittite system of cuneiform writing is in full accord with the historical and archaeological evidence for the appearance of Indo-Europeans in Asia Minor. On the basis of the analysis of proper names occurring in Cappadocian tablets, the presence of tribes speaking I.-E. Hittite in Eastern Asia Minor at the time of Assyrian colonization can be documentarily established. The appearance of the Hittites in Asia Minor must be assigned to a period prior to the settlement of Assyrian merchants in Cappadocia, i.e., not later than the end of the third millennium B.C.

In 1952, the excavations at Boghazkoy at the bottom of the level Büyükkale IVc revealed in situ a fragmentary
The discovery of an original Hittite tablet with the system of cuneiform writing identical with that of the rest of the material from Boghazkoy supplies further evidence to the fact that at the end of the eighteenth century B.C. the Hittites possessed a fully developed system of cuneiform writing which remained on the whole unchanged for several centuries. Such a degree of stability of the Hittite cuneiform script becomes comprehensible on the assumption that at the end of the 18th century B.C. the Hittites had already a long tradition of composing written documents in this variety of cuneiform. Consequently, the Hittite cuneiform writing must have originated at a period not later than the beginning of the second millennium B.C.

In view of these conclusions, it is quite natural to assume that the archaic inscription of king Anittas, son of Pithanas (20th–19th cent. B.C.), the text which has come down to us in a later copy was composed originally in I–E. Hittite and executed in the same variety of cuneiform as the latest Hittite documents from Boghazkoy.

On grounds of the considerations expounded above we can conclude that the Hittites possessed a cuneiform writing system identical with that of the latest Boghazkoy texts as early as the beginning of the second millennium B.C.

It follows that the correspondences between the Hittite writing system and the Hurrian syllabic script of the Mitanni letter are due not to the provenience of the Hittite system directly from the Hurrian, but to their common origin from an Akkadian system of writing, which antedates the Old Babylonian cursive.

The cuneiform characters of the Akkadian script in the Old Akkadian period, being more archaic in shape, differ considerably from the corresponding characters of the Hittite script. This prevents us from deriving the Hittite writing system (and the other systems of Akkado-Hittite Syllabary) directly from Old Akkadian Cuneiform. We have therefore to admit that the Hittite writing was borrowed not immediately from the Old Akkadian Script, but from a variety of the Akkadian system of writing, which goes back to Old Akkadian Syllabary. The Hittite writing system must be traced back to Old Akkadian Syllabary through the mediation of an Akkadian descendant of the latter.

The most probable source of the Hittite system of writing must be considered the Akkadian cuneiform current in Northern Syria in the beginning of the second millennium B.C. In the period concerned there existed in North Syria a number of powerful kingdoms, which maintained close cultural and economic relations with the states of Ancient Mesopotamia. The mightiest and most important among these kingdoms was Yamhad (Ia-am-ha-ad⁴), which is often mentioned in the cuneiform tablets from Mari and is located in North Syria. Yarim-Lim, king of Yamhad, a contemporary of the great Babylonian King Hammurapi was considered one of the most powerful monarchs of his time. “Twenty kings follow Yarim-Lim, king of Yamhad”, is reported in one of the letters addressed to Zimri-Lim of Mari. Of particular interest in this respect are the events narrated in the Old Hittite inscription referred to above, which mentions “the man of Ḥalap” who started from the city of Ḥalap with his troops and war-chariots in a military coalition against the Hittite king. All this indicates close links between North Syria and the Hittite world as early as the beginning of the second millennium B.C. These collisions between the two great powers put at last an end to the dynasty of Yarim-Lim during the reign of Mursili I who “went to Aleppo and destroyed Aleppo”.

North-West of Aleppo was situated the ancient city of Alalakh (A-la-la-ab⁵), which belonged at the time to the kingdom of Yamhad.

During the excavations at Ashtanah, on the site of ancient Alalakh in 1937-39 and 1946-49 one hundred and sixty inscribed tablets were discovered. The cuneiform tablets from the Level VII are the oldest and belong to the 18th-17th century B.C.

The system of Akkadian cuneiform from Alalakh shows many-significant correspondences with the cuneiform system of the Akkado-Hittite group. The cuneiform characters of the Alalakh tablets are on the whole identical with those of the Boghazkoy material.

The cuneiform script of the Alalakh tablets does not distinguish between voiced and corresponding voiceless plosives. The signs for a voiced plosive and its voiceless counterpart are used indiscriminately: cf. i-ba-tar (SAT 92.9), i-ba-at-tar (AT 92.14) from pašaru “release” (Sem. *ϕρ'; ta-am-gu (SAT 361.7) from damāgu “be favourable”; i-mi-[i]-ta-šu (SAT 455.45) alongside i-mi-id-da-šu (AT 78.15) from imittu “right hand” (fem. to immu, Sem. *ίμμν), i-ra-ag-gu-mu (AT 7.38) alongside i-ra-aku-mu (AT 41.16) from ragāmu “claim (in court), sue” (Sem. *ργμ), etc.

The sign BI denotes the syllable [pi] (cf. pi-šu SAT 455.35. from pū), while the sign PI is used to indicate the
The Problem of the Origin of the Hittite Cuneiform

syllable [wa]: cf. wa-aš-bu (SAT. 21.7) from wašābu “settle, dwell”; a-wa-tam (SAT. 455.9) from awātim “word; authority”.

The cuneiform system of Alalakh tablets lacks special signs for the emphatics. Akkadian emphatic consonants are denoted in this script by the signs for corresponding non-emphatics: cf. ba-al-tu (AT 42.8) from balātu “live”, ip-tu-ur-šu-nu-ši (SAT 29.8), ip-tu-ur (SAT 30.7) from pašāru “release”; pa-ti-šu-nu (AT 56.4) from pāšu “boundary, border”; li-il-ki (AT 7.21,23), i-li-ig-gi (SAT 94.17), i-li-gi (AT 92.9) from leqi “take, seize” (Sem. *laḫ); i-šar-ra-ku (AT 4.11) from šarāqu “steal, conceal”, etc. The sign QA is used with the value [ka] and [ga]: i-ša-aq-qa-nu (AT 2.53) beside šakānu “put, place; appoint; do, perform”, i-ša-aq-nu (AT 2.29) from magāru “be favourable”, etc.

There is full correspondence with the cuneiform system of the Akkado-Hittite group also in the representation of Akkadian sibilants. The z-signs are used to denote the phonemes [z], [s] and [s], as in Old Akkadian Syllabary: [z], za-ku (AT 2.35) = zakā “pure; free of obligations”; za-a-zī-im (AT 7.27) from zāṣum “divide”; [s]: zi-ip-ta (AT 50.4) from šptu “interest” (esētu “combine, add”); šu-zī-aš-nu-ti-mi (AT 113.9) from waṣṣu “go out”; [s]: i-na-aq-za-šu (SAT 455.45), in-na-aq-za-aḫ (AT 56.42) from nasāqu “tear out, draw, remove” (Sem. *nṣē); li-iz-zu-ṣu-ma (AT 7.21), iz-zu-ṣu-ma (AT 7.29) from nasāqu “choose”, a-zi-ri (SAT 261.5), a-zi-ra (SAT 246.21) from asiru “prisoner, captive” (esētu “capture, seize”, Sem. *ṣr), etc.

The s-signs occur rarely and interchange with the š-signs: cf. ši-ṣal-šu (AT 17.4), ši-ta-il-il-šu-nu (AT 116.17) alongside sa-a-al (AT 116.4) from sa-ālu “ask” (Sem. *šl); i-ša-ad-da-ad-ši (AT 92.11) beside i-sa-at-ta-at (AT 16.16) from  šadādu “pull”, etc. But alongside such a use of the s-signs, there are a few occurrences of them with the etymological s-value in a-si-ri (SAT 246.22; 251.14; 252.7) from asiru “captive, prisoner” (Sem. *ṣr). This suggests the inference that the s-signs, which were used in the Akkadian syllabary of North Syria in their old function as mere variants of the š-signs, began in some cases to indicate, along with the usual z-signs, the ethnological Samekh. This innovation in North Syrian writing must have occurred, to judge by the Alalakh tablets, not earlier than the end of the eighteenth century B. C. Such a use of the s-signs characterizes a comparatively late stage of development of Old Akkadian cuneiform.

A similar system of cuneiform has come to light in Northern Syria, south of Aleppo, in Mishrifû, on the right bank of the Orontes, in the territory of ancient Qatna. The city of Qatna is identified with ancient Qatanum (Qa-ta-nim), which is frequently referred to in the tablets or Mari as the capital of a powerful kingdom at the time of the Ḫammurapi dynasty.

The cuneiform tablets from Qatna belong to the middle of the second millennium B. C.

The cuneiform script of these tablets is identical with the writing of the Akkado-Hittite group. The distinction between voiced and voiceless plosives is not marked. The sign PI is used to denote the syllable [wu]: Hu-wwa-wa (1.163), the syllable [pi] being indicated by the sign BI (pi-I 154.70, etc.). There are no special signs for Akkadian emphatics, which are represented by the signs for corresponding non-emphatics: cf. un-ku (1.296) = unqu “ring”; ar-ku (1.4,21) = arqu “green; verdure” (Sem. *wṛq). The Akkadian emphatic [s] is indicated by the z-signs: zi-nu (1.51) = šēnu “small cattle” (Sem. *n’un).

It is highly probable that a similar system of Akkadian writing was used at the beginning of the second millennium B. C. in the whole of North Syria, where at that time there were several powerful unions of states.

The Old Akkadian system of writing was introduced into these areas apparently at an early period as a result of close cultural and economic relations, which existed between Syria and ancient Mesopotamia. Old Akkadian syllabary developed here independently and yielded a special variety of Akkadian cuneiform, from which the Hittite writing system (at the beginning of the second millennium B. C.), as well as the other cuneiform systems of the Akkado-Hittite group were derived.

The Hurrian tribes who in the Old Akkadian period dwelt East of the Tigris began at the epoch of Hammurapi to penetrate gradually into Upper Mesopotamia and Syria. A study of proper names occurring in the cuneiform tablets from Alalakh makes it clear that as early as the eighteenth century B. C. the Hurrians were settled in North Syria. The Hurrian element along with the Amorite-West Semitic constituted, at this period, the bulk of the population of North Syria. Here the Hurrians got probably familiar with the North Syrian cuneiform writing and adopted it later on for inscribing records in their own language in this variety of Akkadian cuneiform. It was here that the Hurrians borrowed the syllabic cuneiform of the Mitanni script. Owing to its later origin from Old Akkadian syllabary of North Syria, as compared to the Hittite writing, the Hurrian syllabic script of the Mitanni letter uses the s-signs to render the phoneme [s], this being a feature, which must have originated in Old Akkadian syllabary of North Syria obviously not earlier than the end of the eighteenth century B. C.

Summing up all the facts discussed above, we may conclude that the manifest correspondences which exist
between the Hurrian syllabic script of the Mitanni letter and the Hittite writing system are due to their common origin from the Old Akkadian cuneiform of North Syria.

Some of the common graphic features peculiar only to Hittite and Hurrian cuneiform, being a result of specialized development of the two systems, may have different values. This is true of the double writing of plosives in the Hittite and Hurrian systems of writing. This peculiarity of both scripts originated to represent a set of phonemes, which Old Akkadian syllabary failed to differentiate or which were wholly absent in the phonemic system of Akkadian.

In the Hurrian syllabic script double writing of a consonant indicated voiceless consonants, as opposed to their voiced counterparts which were written single.

Double writing of obstruents in the Hittite system was used to render aspirated plosives, as opposed to corresponding non-aspirates written single.*

As the Akkadian syllabary of North Syria failed to distinguish between a voiced plosive and its voiceless counterpart, the two series of obstruents in Hittite (aspirates : non-aspirates) could not be differentiated by the signs for voiced and voiceless plosives, respectively (or vice versa). In such conditions double writing of a plosive was used in the Hittite writing system as a means of rendering the aspirate, which is characterized phonetically by a more intense and prolonged articulation as compared with the non-aspirate indicated in the Hittite script by single writing of the corresponding consonant. This graphic pattern having originated in the Hittite writing system may have influenced the Hurrian syllabic script to differentiate the Hurrian pairs of obstruents (voiceless : voiced) by means of double and single writing of corresponding consonants.

* I have tried elsewhere to show that as a result of the consonantal shift in Hittite the former correlation of Indo-European obstruents changed to the correlation aspirates ~ non-aspirates. A three-plosive system of Indo-European was reduced in Hittite to a two-plosive system, in which the pairs of obstruents were differentiated by aspiration. This phonological distinction was marked by double (aspirates) and single (non-aspirates) writing of plosives.