Cultures and Societies in the Middle Euphrates and Habur Areas in the Second Millennium BC I

Scribal Education and Scribal Traditions

Edited by Shigeo Yamada and Daisuke Shibata

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Hittite Scribal Culture and Syria
Palaeography and Cuneiform Transmission

Introduction

Speakers of Hittite occupied the area of central Anatolia from at least the 20th to the 12th centuries BC. From their central city of Hattusa, modern-day Boğazköy-kale, in the middle of the area surrounded by the river known today as the Kızıl İrmak, their influence expanded especially from the mid-15th century BC onwards to include all of Western Anatolia, although the degree to which they had political control over much territory West of the Anatolian plateau is highly debatable. From the mid-14th century onwards, after the partial elimination of their main imperial rival, the Hurrian state of Mittani, they held numerous Syrian cities and operated a vice-regency in Karkamish on the Euphrates, from where they held sway over most of northern Syria, again with varying degrees of effective control. It is in this larger context that the movement of scribal knowledge should be assessed.

After considering some isolated examples of common practice between Hittite Anatolia and northern Syria we will turn to some issues of cuneiform palaeography, where the typically Hittite cuneiform writing style seems to demonstrate historically identifiable changes on a large scale which may be due to contact with state-organised north Syrian scribal culture. The main questions behind this are: what aspects of cuneiform scribal culture can one possibly use to illustrate movements of scribal knowledge and what does this say about the social and political contexts in which major knowledge transfer occurred? It is my contention that a great deal can be contributed to answering these questions by looking at the writing itself, i.e. the study of palaeography and orthography. This is in large part due to the very standardized sign-forms and scribal practices used by Hittite scribes, which appear to emanate from a coherent, or possibly even centralized context for scribal education, or at least parts of it. This education functioned within an imperial framework, which contributed to the Hittite variant of cuneiform script being easily identifiable and datable no matter where it is found within the areas subject to Hittite influence.

The immediate context of Hittite cuneiform is undoubtedly northern Syrian. From the time when the Hittites first start using the cuneiform script it is in a form that closely resembles the

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1 The main documents are collected in Sommer 1932; Beckman et al. 2011; Selected philological discussions are to be found in Forlanini 1998: id. 2012; Gander 2010; an archaeological summary in Niemeier 2008.
3 Weedon 2011a, 2011b; Torri (2015: 584) posits an early stage of scribal education in the family followed by more advanced training in the state scriptoria and archives.
script used for the Old Babylonian of Alalah Level VII. The most economical interpretation of the current state of the evidence would seem to suggest that a script-type similar to this was adopted by the Hittites quite possibly around the time of the campaigns in the area conducted by Hattusili I (ca. 1600 BC), although the earliest evidence we have for the Hittites writing their own language in this style of cuneiform comes from about 100 years later. If they were writing in this style in the meantime, the products of their endeavours have not survived. The situation of the earliest Hittite cuneiform is thus still unclear, although Syrian scribal centres must have played a role. In what follows we shall look at cases where some minor aspects but also some major changes in Hittite scribal practices are likely to have been the result of Syrian influence or shared practice of one kind or another. Such relations are here divided into three types for heuristic purposes: punctual commonalities in scribal practice that may be due to shared habits of scholars; transmission of isolated phenomena that carry a distinctive Syrian hallmark; more global changes in the appearance of Hittite cuneiform that may have a Syrian background.

1. Wandering scribes and wandering texts

Mobile scribes are attested in the Late Bronze Age travelling from one area to another and educating local elites in the art of cuneiform writing. Yoram Cohen identified possibly the best example of one of these: Kidin-Gula, the foreign scribe attached to a merchant-colony in Emar, who taught the scribes of an influential family of diviners. Kidin-Gula most likely hailed from Suhu to the south of Emar or from northern Babylonia. A colophon of a tablet written by a student of his is partially written in an archaizing monumental script. There is nothing unusual about this on Late Bronze Age literary cuneiform tablets. However, it is striking that a fragment of a colophon from Boğazköy also uses this style of writing, where such writing is only found on a very limited number of objects at the site. It is unusual that a colophon be written entirely in this exaggerated form of cuneiform script (fig. 1), although extravagant forms of individual signs are attested elsewhere especially in colophons. What is interesting about this particular colophon, is that the scribe has an Akkadian name (Ilu/
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Hillile, is son of someone whose name appears to be written logographically, and characterizes himself as the “apprentice” (GÁ.B.ZU.ZU) of another man, whose name is not preserved and furthermore, that he wrote the text under the supervision of a man called LÚ = “man.” This has to be the name Ziti, the word for “man” in the Luwian language, which is attested for a number of scribes in the Late Bronze Age.

KUB 4.38 Colophon:
1) [ŠU ša ʾDINGIR-ub-lat-a[n-ni]]
2) [DU]MU ʾSUM-GAR.GAR (?)
3) [GÁ.B.ZU.ZU (kabzuzu) ša x[...]]
4) [...] KI (itti) P4-NI ʾLÚ
5) iš-tur

[Hand'] of Hi-u/Ili-ublan[ni], [so]n of ..., apprentice of x[...], he wrote in front of Ziti.

Fig. 1: Copy of KUB 4.38, colophon

Shai Gordin has reconstructed numerous details about the operations of two different “offices” of scribes during the 13th century BC in Hattusa, and points out that occasional use of these exaggerated monumental sign-forms is attested for scribes belonging to one of these groups rather than the other, namely the group of scribes associated with the high court official Anuwanza, which appears to trace its ancestry back through some 200 years of scribal activity at the capital.11 Gordin’s reconstruction is fascinating, but for the moment I wish to concentrate on the fact that here a scribe with an Akkadian name is writing at Hattusa under the supervision of a Hittite.

Other scribes with Akkadian names are attested among the Hittites, especially from the Hittite provincial seat of Maṣat Höyük, ancient Tapikka.12

11 Gordin 2014: 70.
Adad-bēli\(^{13}\) HKM 46, 2 \(^{d}10\)-be-li \(^{d}\)UTU-Šī
HKM 58, 25 \(^{d}10\)-be-li
HKM 65, 2 \(^{d}IŠKUR\)-be-li
HKM 65, 20 \(^{d}10\)-be-li
HKM 66, 1 \(^{d}IŠKUR\)-be-li-š

Ilī-tukulkīti HKM 58, 26 DINGIR-lim-du-gul-li
Ilī-kakkabu HKM 95, 7' DINGIR-lim-MUL
Ilum-bēli HKM 77, 1 DINGIR-\([b]e-li\)
Mār-ešrē HKM 22, 9 DUMU-UD.20.KAM
HKM 31, 20 ma-re-eš-re-e
HKM 33, 34' [m]a-re-eš-re-e
HKM 53, 10 [DUMU].UD.20.KAM

Šūriḫ-ilī\(^{14}\) HKM 2, 15 šu-ri-ḫi-DINGIR-lim
HKM 3, 15 šu-ri-ḫi-DINGIR-lim

From their frequent appearance in postscripts to other people’s letters it is fairly clear that these are scribes/administrators. There is nothing to indicate that these scribes wrote anything other than standard Hittite language using the easily identifiable and completely normal style of Hittite cuneiform.\(^{15}\) It is thus possible and even likely that these were local Hittite scribes who used Akkadian names as a sign of prestige.\(^{16}\) We cannot therefore use the

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\(^{13}\) Alp 1991: 52–53.

\(^{14}\) Thus following Hoffner’s interpretation of the name as Akkadian (Hoffner 2009: 91–92; Gordin 2014: 67 more cautiously) as opposed to Alp’s reading of it as an Anatolian name in -ili (Alp 1991: 94).

\(^{15}\) If anything it is the scribe with the Hittite name Tarhunmiya who uses rare and possibly learned Akkadographic writings: AR-TE-KA-MA for arākama‘ (mistaken construct state for arākama) “your slave”, otherwise always written IR-KA-MA in Hittite texts (HKM 27 rev. 19); further his use of A-ḪU-KA-MA for more usual ŠEŠ-KA-MA (HKM 56, 4); his use of the rare BE-Tī for Akkadian bēlti, otherwise attested at Emar during the Late Bronze Age (information courtesy Y. Cohen; Weeden 2011c: 177). The writing BE-LU-us-sa-an for “real” Hittite isbas=san, “lord”+ enclitic particle, attested in two of his letters (HKM 52, 25; 80, 5) and nowhere else in Hittite texts, may indicate that he was partially speaking/thinking in Akkadian. See also his extended although not unparalleled greeting formula: A-NA BE-LI]-BE-EL MA-AD<- KAL>-TI BE-LI]-IA MA-AH-RI-IA QI-BI-MA (HKM 27 rev. 18); A-NA BE-LI]-hi-mu-DINGIR-LIM BE-LI]-IA MA-AH-RI-IA QI-BI-MA (HKM 52 obv. 19). Tarhunmiya was clearly active outside of Mašathöyük, but had a house there, as the texts from the so-called Tarhunmiya dossier reveal (van den Hout 2003; Weeden 2011a). This example alone should warn against associating scribal habits with the ethnicity of scribal names without specific proof.

\(^{16}\) The names Ilī-tukulkīti and Ilī-kakkabu look decidedly odd from the perspective of Akkadian onomastics.
names of scribes as evidence for direct channels of influence from Syria or anywhere else in the cuneiform world, even though it is tempting to interpret the comparison of the format of Ilu-ublanni’s tablet with that of Kidin-Gula’s students as an indication of shared practice. Rather it is merely to be concluded from this that the Hittite scribes participated in the same tendencies towards scholastic experimentation as are typically found all over the cuneiform world during the Late Bronze Age and that the Akkadian language was everywhere the language of scholarship. To have an Akkadian-sounding name was one sign of being a scholar.

Moving from Akkadian names and the use of exaggerated monumental script to more unconscious habits of writing such as spelling, it is only very occasionally that specifically Syrian habits of writing, i.e. punctual, contemporary Syrianisms rather than the more general Syrian background to Hittite cuneiform, can be identified in Hittite writing practice. The prism KBo 25.5+6 which contains a version of the lexical list Ura concerned with writings for items made of wood, uses one example of the spelling si-iq-tum for Akkadian šiqdu, “Almond.” This is a specifically Syrian writing of the sibilant. The use of the sign series SU-SI-SA to express the Akkadian sibilant usually expressed by /š/ is rare at Hattusa. This writing appears to suggest that the transmission of the text of this prism had come through Syria, although the style of cuneiform script used on the prism is entirely Hittite. The same word is spelled normally elsewhere in Hittite versions of Mesopotamian lexical texts as well as in Akkadian texts from Hattusa. This is an observation that is only valid for this particular object.

Of course, we also have examples of texts written in the Hittite style of cuneiform that were found in Syria, quite apart from letters that were sent from Hattusa. The famous Sumerian-Akkadian-Hittite trilingual poem from Ugarit is very likely to have been imported from Hattusa or written there by a Hittite, for example. From Alalakh Level III/II in the ruins of the Hittite fortress, a large tablet was found with a text of omen enquiries, again written in what would appear to be the typical Hittite ductus of the 13th century BC. It contains a spelling that is so unusual for Hattusa that its editor, Oliver Gurney, was prompted to ascribe its writing to a “local Hittite scribal school.” If we are only talking about one single spelling then it is perhaps more logical to talk about a Hittite-trained scribe who had spent time in Syria and come under the influence of Syrian spelling conventions.

These are isolated examples of single objects, carrying a text which would appear to have passed through Syria in some way, or which were written in Syria by Hittites or sent there from Hattusa. They do not allow us to say anything more or less historically interesting than that there were scribal contacts between Anatolia and neighbouring Syria during the Late

Weeden 2011c: 84 n. 393; See Cohen 2009: 46 (with n. 148) for an overview of literature on scribes with possibly spurious Mesopotamian names at various peripheral centres during the Late Bronze Age.

17 KBo 26.5+6 Bi 6 [gi]š si-iq-tum (Weeden 2011c: 114, 120-121); Scheucher 2012: 490, KBo 26.5+6 Bi 26' reads [gi]š si-zar-tum, which partially reflects the copy. Collation of the original shows what appears to be IS mixed with ZAR!


20 si-iq-du KUB 3.98, 3 (Diri).


22 ha-šš-ši-ir AIT 454 ii 18, Gurney apud Wiseman 1953: 117-118.

23 Gurney (loc. cit.) also cites the use writing of GUŘ-i for Hitt. tammai “other” as a further example of non-Hittite orthography. In fact, this is relatively well attested at Hattusa (Weeden 2011c: 239-240, 506).
Bronze Age. We should now consider more general tendencies in Hittite writing which may be related to Syrian influence. The main issue for us now is the development of and shifts in the sign-forms in the style of cuneiform writing that is typically used across the board at Hattusa to write Hittite texts.

2. Hittite cuneiform palaeography: the main categories

It is generally agreed that the Hittites must have inherited cuneiform writing from northern Syria in some form, although the precise details of this transfer are currently still obscure. There is one tablet from Boğazköy that looks very similar in script-type to a tablet that must have originally come from the palace of King Tunip-Teššub of Tigunanum, who must have been a contemporary of Hattusili I from northern Syria. The Akkadian language narrative concerning the siege of Uršum, KBo 1.11, is perhaps among the earliest tablets from Hattusa. What is more, the clay of the Uršum tablet found at Boğazköy has now been subjected to X-Ray fluorescence analysis, and it has been shown that the clay is not of Hattusa fabric, but has more in common with that of the Middle Euphrates. The Uršum text and the Tigunanum letter, therefore, do not belong to regular Hittite cuneiform, although the one is an isolated example of writing found at Hattusa on a topic relevant to the Hittites using Syrian scribal style. As argued already by Klinger on palaeographic grounds, these tablets do not fit into the developmental framework of Hittite cuneiform.

Hittite cuneiform writing at Hattusa can be roughly divided into two or three developmental stages, all of which can be ascribed in some sense to contact with Syria: Old/Middle Hittite and New Hittite script. For reasons of clarity it is customary to call these categories I (Old) - II (Middle) and III (New script), with each of these being further subdivided into subcategories a-b(-c) which are defined according to particular sign-forms that are characteristic for each. Whether these categories are interpreted chronologically or typologically, or as a mixture of the two, is a matter of deciding what the evidence will allow, given that there are so few securely dated Hittite cuneiform tablets.

What we traditionally refer to as Old Hittite cuneiform using the typical Boğazköy ductus (Script Type I) is now dated to the end of the 16th and beginning of the 15th centuries BC. The most closely comparable cuneiform writing style known from Syria is that of Alalah level VII, the Late Old Babylonian archaeological stratum of a city which is supposed to have been sacked by Hattusili I in the mid-17th century BC. Where Alalah VII has a multiplicity of sign-forms for the same sign, Hittite cuneiform tends to use a reduced variation in sign-forms for any one text at least in its earlier phases. It is a characteristic development of Hittite cuneiform to reduce ambiguity: particularly the forms of the signs ŠA and TA, easily confused in Late Old Babylonian cursive script-types, are kept strictly separate. The script categories I and II are difficult to separate out, because they use essentially the same regular set of sign-forms. A series of prosopographically dated Land Donation tablets from the late 16th down to the late 15th century BC now provides a guide for the occurrence of sign-forms

26 Klinger 2003.
within this period. The diagnostic sign-forms that can be identified are not radically different from other forms of the same sign.

During the 14th century BC changes in the script occur which are used by palaeographers to date a new stage in Hittite writing: that of the Empire period. On the one hand these changes consist of minor alterations to the sign-form such as a levelling of the tops of the verticals in signs such as E, URU, RU. On the other hand significantly different new sign-forms begin to be introduced. This particularly but not exclusively affects the signs IG, AG, Ü (slightly later also LI) and is referred to in palaeographic studies as category IIIa (with LI signalling the category IIlb). Gernot Wilhelm has pointed out that in these key cases the new sign-forms correspond to those that were found in the Mittanian sign-repertoire as exemplified by the letters found at El-Amarna in Egypt written by the Mittanian king Tušratta to the pharaoh.

A further development in the history of Hittite cuneiform is held to have taken place during the second half of the 13th century BC, and is referred to as script-type IIIc. During this century a new wave of sign-forms begins to make itself more apparent, which all bear a striking resemblance to Assyrian shapes. Traditionally Hittitologists have not hesitated to link this development to the increased contact with Assyria that the Hittites “enjoyed”, or rather did not enjoy, during the 13th century BC, especially after the Assyrian defeat of Mittani. The sign-forms in question are particularly HA, KI, DI, KU, SAR, NI. In all these cases, once again, these sign-forms correspond to those which characterized the Mittani repertoire, but also the Assyrian.

Here we should briefly consider the origins of that script-type that we most commonly associate with Middle Assyrian, that used in Assur especially during the 14th century BC. Clearly it is very different from the archaic Old Assyrian writing found at Kültepe/Kaniš. As a number of studies have shown, the correspondences between Mittanian sign-forms and Assyrian sign-forms are so striking as to warrant the hypothesis that the one must be derived from the other. Indeed historical priority would force us in such a case to consider that the typical Middle Assyrian style of writing must indeed be a sub-type of Mittanian. This makes perfect sense historically, given that Assyria was for a long time Mittanian territory. Typologically there are problems with this hypothesis, as indicated by cuneiform writing at Nuzi, which was also dominated by Mittani, and did not take over the Mittanian script-type wholesale.

However, even if the so-called Assyrian signs in Hittite that are traditionally attributed to the second half of the 13th century BC are ultimately Mittanian, this does not alter the fact that their introduction into Hittite cuneiform might be due to direct Assyrian contact in the context of Assyria’s continued rise to international prominence during the 13th century. We

28 Rüster and Wilhelm 2012.
29 Theo van den Hout, on the other hand, has emphasized the fact that these “new” sign-forms were largely already available in Syria at the time of the Hittite adoption of cuneiform and occasionally occur already in older Hittite texts. The change that saw the emergence of the sign-forms that characterize the Hittite New Script is therefore not characterized by new sign-forms that have been imported from outside, rather these are sign-forms that appear to have been dormant but were part of the repertoire (van den Hout 2012: 166–167). The motivation for the re-activation of such dormant sign-forms and the genesis of the New Script-type still needs to be found, however.
30 Wilhelm 2010: 260. Here the typically “Hittite” form of Ü (HZL 265/10–25), which emerges around this time, is not taken into account (Starke 1985: 25). This does not find a corresponding form in either Mittanian or Assyrian and its origin still needs to be found.
should thus theoretically be able to distinguish between layers of Mittanian and Assyrian influence on the sign-forms of Hittite cuneiform. The questions of specifically where these sign-forms come from and by what processes they are being introduced into Hittite writing at Hattusa have important ramifications for the way we conceive of contact between scribal cultures. However, at the current state of research it is very difficult to answer such questions definitively. In the following I will attempt to give some idea of the extent of the problems.

There are two poles to the hypotheses concerning mechanisms of transfer from one scribal culture to another. At the one end we have the wandering scholar bringing new practices from a centre to a periphery or vice-versa through employment by local individuals. This is the example of the scribe Kidin-Gula at Emar, for example (see above). At the other there is the planned supra-regional exchange of documents, educational practices, texts and ideologies which might accompany high-level contact between territorial states. In this last scenario we might expect there to be either specialised scholars involved in copying and drawing up drafts of documents at Hattusa or that certain scholars were more frequently posted abroad than others and thus came into contact with external habits of writing cuneiform.

3. The diffusion of IIIc sign-forms: date

For the purpose of dating one has to distinguish between texts of which there are duplicate copies and those of which duplicate copies were not usually made. Those of which duplicates are not usually made are such as letters, edicts and omens, although there are exceptions. It is only these which can be used to establish a date for the use of a sign-form, although outlier texts or single occurrences of signs are to be regarded with suspicion. The model of Hittite palaeography that has been current since the late 1980s sees the introduction of signs associated with the palaeographic label IIIc during the reign of Tudhaliiya IV in the second half of the 13th century BC. This has more recently been shown to be slightly too late, in that texts that are demonstrably earlier than Tudhaliiya IV also show this script-type, although they are isolated phenomena:

- KUB 18.2 - Suppilluliuma I (c. 1355–1322) - oracle (IIIc: Kl, HA)
- KBo 1.28 - Mursili II (c. 1322–1293) - edict
- KUB 19.5+ - Muwatali II (c. 1293–1275) - letter
- KUB 14.3 - Hattusili III (c. 1260–1240) - indictment
- KUB 22.25 - Hattusili III - oracle
- KUB 5.1 - Hattusili III (?) - oracle
- KBo 14.45? - Hattusili III - sealed edict
- KUB 26.58 - Hattusili III - edict
- KUB 21.19+ - Hattusili III - prayer

Table 1: An earlier dating for the IIIc script-type

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32 van den Hout 1989: 326–343; Klinger 1996: 37–38. It should be noted, however, that these scholars use partially different signs to characterize the category IIIc.

33 Moro and Giorgieri 2004: 34–37; Weeden 2011c: 49–50; Devecchi 2012a: 49; Weeden 2012: 245–246. See already Archi 1975. Goedegebuure (2014: 10, n. 4) disputes the value of KUB 26.58, KBo 14.45, KUB 21.19 and KUB 21.8 in establishing dating for sign-forms, as these tablets could be later copies. However, they belong to genres that are not copied often.
Shai Gordin's recent PhD thesis on the scribal habits evidenced by 13th century tablets "signed" by named scribes in their colophons has also contributed significantly to the discussion, also supporting an earlier dating of the use of IIIc sign-forms in Hittite texts, at least as early as Hattusili III.34 While many Hittitologists would agree that the eight cases of IIIc writing from the reign of Hattusili III warrant a back-dating of IIIc writing to his reign, as yet few would agree with the back-dating of IIIc sign-forms to Suppiluliuma I, although this oracle tablet clearly uses the IIIc form of the sign KI with two verticals, along with other late features (HAA, LII, ID, DA, SAG). A dating to his reign is the only circumstance under which an introduction of the IIIc sign-forms directly into the standard Hittite repertory could possibly be explained as a consequence of contact with the Mittanian imperial state, unless the transfer of signs was something that happened slowly and at first only in certain circumstances and spheres. The alternative explanation would have to be that a first wave of sign-forms came into fashion at the time of contact with Mittani, say during the reign of Suppiluliuma I, while a second group of sign-forms, which are coincidentally identical with other Mittani-style sign-forms, started to be used more frequently after increased contact with Assyria during the 13th century.

While not relevant for the question of dating it will be of interest to see what proportion of manuscripts belong to the category IIIc from among larger groups of texts, both using genre categories that have been invented in the modern era (such as "historical texts") and for texts which have multiple parallel manuscripts. Such an overview may help us to understand the dimensions of the category IIIc as a part of the Hittite corpus.35

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Table 2: Distribution of IIIc tablets within the New Script category (Historical Texts). N/A = Not Applicable

The above table gives a breakdown of the New Script tablets from Hattusa according to S. Košak's Konkordanz and the proportion of those which exhibit the IIIc sign-forms from

34 Gordin 2011: 265–266.
35 Figures from S. Košak’s Konkordanz der hethitischen Keilschrifttafeln (accessed 03.01.2015). Košak’s categories ja(g) (jehitisch) and s(ehr)j (ung)jehitisch correspond to the palaeographic categories IIIa-b and IIIc respectively. The data and evaluations in the Konkordanz are continually updated, so these figures cannot be taken as absolute totals. No attempt has been made to integrate variant palaeographic assessments of my own.
36 The figures from the category “State Letters” do not correspond to any category in Laroche’s Catalogue des Textes Hittites, but correspond to a corpus constructed for the study of Hittite State Correspondence published in Weeden 2014.
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<td>1</td>
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Table 2: Distribution of IIIc tablets within the New Script category (Historical Texts). N/A = Not Applicable

The above table gives a breakdown of the New Script tablets from Hattusa according to S. Košak’s Konkordanz and the proportion of those which exhibit the IIIc sign-forms from

34 Gordin 2011: 265–266.
35 Figures from S. Košak’s Konkordanz der hethitischen Keilschrifttafel (accessed 03.01.2015). Košak’s categories j(ung)h(ethitis) and s(chr)j(ung)hethitis correspond to the palaeographic categories IIIa-b and IIIc respectively. The data and evaluations in the Konkordanz are continually updated, so these figures cannot be taken as absolute totals. No attempt has been made to integrate variant palaeographic assessments of my own.
36 The figures from the category “State Letters” do not correspond to any category in Laroche’s Catalogue des Textes Hittites, but correspond to a corpus constructed for the study of Hittite State Correspondence published in Weeden 2014.
among some of the historical texts of which multiple manuscripts are preserved. Naturally this does not prove anything about the date of at which the sign-forms start being used, but the distribution of the selected multi-manuscript texts from the historical texts is of some interest in that the later text, the Apology of Hattusili III, does not necessarily have the most frequent manuscripts with these sign-forms. It cannot be excluded, however, that the manuscripts of Mursili’s Annals (CTH 61) or of the Treaty of Muwatalli II with Kupanta-Runtiya (CTH 76) needed to be re-copied in the later part of the 13th century for whatever reason, thus explaining the cluster of manuscripts with IIIc forms for these compositions.

Sh. Gordin has also further contributed to the perspective that scribes carried on writing manuscripts using non-IIlc sign-forms until the very end of the 13th century, with the obvious possible corollary that the use of the IIIc sign-forms is a matter of scribal education, habit, textual tradition or factors other than simply the time of inscription. As noted above, he has identified two major offices of scribes, one led by the family of Walwaziti and one by that of Anuwanza, who he thinks can to a degree at least be distinguished by means of certain scribal habits. Despite ascribing the introduction of IIIc sign-forms to the tradition of the alleged newcomers, according to his interpretation, of the family of Walwaziti and his father Mittanamuwa, he is unable to demonstrate that there is any clear-cut distribution of manuscripts between the two groups of scribes according to their use or ignorance of IIIc sign-forms. This possible avenue of explanation thus turned out to be a partial blind alley. One is still left with a considerable gap between the alleged exposure to Mittanian sign-forms in the mid-14th century that will have ushered in the script-type III, characterised by IG, AG and then later LI, and the more extensive use of Mittanian (or Assyrian)-style sign-forms that seems to be developing throughout the 13th century BC in the script-type known as IIIc. In what follows I will investigate briefly the textual traditions of selected Akkadian texts found at Boğazkoy. The aim is to isolate patterns of copying or composition practice as illustrated by sign-forms that might suggest not necessarily when but how Mittanian and/or Assyrian sign-forms entered the Hittite cuneiform repertoire.

4. The diffusion of IIIc sign-forms: the processes

It is likely that the process of copying imported texts will have played an important role in activating the use of the new (or re-activated) sign-forms, although this remains a hypothesis to be demonstrated. Other models are also possible, although in my view less open to verification, such as that scribes spent time in foreign environments as part of a diplomatic entourage, or were specially trained in reading and writing specific types of texts which may have contained such sign-forms. In the following an attempt is made to test the applicability of these hypothetical explanations on the basis of the copying traditions of particular Akkadian texts. Here one needs to consider the complex question of the palaeography of Akkadian-language texts at Hattusa, which has been discussed in some detail over the last three decades, although there is still a great deal of work to be done. In particular the questions

37 Gordin 2011: 265.
38 Gordin 2014.
39 Gordin 2011: 293. There is, however, a tendency within the Anuwanza circle of scribes to use more archaic sign-forms (Gordin loc. cit.).
of the applicability to Akkadian-language texts of the palaeographic methods used for Hittite-language texts and the concomitant question of "mixed ductus-types" are of importance. The questions of foreign specialists writing tablets in Hattusa, versus Hattusan scribes practising foreign ductus-types to write Akkadian are also related. It is primarily the tablets which exhibit the mainly Boğazköy script-type which interest us here. However, if the Akkadian texts with foreign script-types were written by foreign specialists, this would explain why there is a gap between the appearance of such signs at Hattusa in Akkadian language texts and their apparently later appearance in Hittite language texts. An alternative explanation might be that only certain Hittite scribes were responsible for Akkadian texts, and that over a period spanning several generations.

In his 1994 publication of the Medical Omens in Akkadian language found at Boğazköy, G. Wilhelm raised the point that if tablets have been copied from a Mittanian textual tradition, where key diagnostic signs are identical with the sign-forms of Hittite New Script cuneiform as well as being used much earlier, it is impossible to use these sign-forms in the process of dating according to the usual criteria for Hittite tablets. The sign-forms could simply have been taken over from their Mittanian originals. J. Klinger, on the other hand, has presented an overview of Akkadian-language texts arguing that it is possible to use Hittite palaeographic methods. The contention behind this approach is that precisely the fact that these tablets had been copied from foreign tablets allows us to distinguish those sign-forms which have been copied from elsewhere and do not belong to the contemporary Hittite repertoire. Such "foreign" signs correspondingly do not need to be taken into consideration when dating. Other tablets, he contended, would appear to have been written by foreign specialists. In some cases this view is now in need of some review.

Here one should mention the group of Akkadian-language texts that are frequently referred to as being written in an "Assyro-Mittanian" script-type. There is in fact no such thing as an "Assyro-Mittanian" script-type as opposed to an Assyrian or a Mittanian one.

These are tablets of Akkadian texts found at Boğazköy which closely resemble both the Mittanian and the Middle Assyrian script of the 14th century BC, where it is currently virtually impossible to make a distinction between the two of them on the basis of sign-forms. The term "Assyro-Mittanian" is merely used to indicate that we are unable to decide in some cases whether they are Assyrian or Mittanian, or to leave it open that the tablet comes from a related but not identical tradition. I have suggested that a number of the tablets from Boğazköy currently labeled "Assyro-Mittanian" are perhaps more accurately described with the label "Middle Assyrian" from the point of view of the script, but it is difficult to tell.

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44 Klinger 2003.
47 The corollary is that the Assyrian script-type is a form of Mittanian (see above). Distinctions can, however, be made on the basis of spelling. Assyrian tablets are more likely to preserve the distinction in voicing between stops, whereas this is often ignored in Mittani-Akkadian. See Weeden 2012: 242–244. The main difference between 14th century Middle Assyrian and Mittanian script-types registered by Schwemer (1998: 16–17) is the writing of the sign KISIB mostly with MES in Assur and with UM/DUB in the Mittanian sphere.
48 I have suggested that the use of a particular form of the sign KA, with an exaggerated top initial wedge, might be one criterion for deciding whether a script-type is Assyrian rather than Mittanian (Weeden 2012). This did
Just how difficult it can be to tell the difference between texts in the Mittanian Script-type to those in the (14th century) Assyrian script-type can be illustrated by reference to the paucity of sign-forms that apparently differ between them, a number which decreases with every new study and the incorporation of more texts into the comparison. By way of a further example to those already mentioned in previous works we can look briefly at the sign UM.

The sign UM is sometimes taken to have a different form in Mittanian texts to those of Assyrian texts, and this appeared to be illustrated by the study of Schwemer (1998), which took into account 15 Middle Assyrian tablets from the 14th century, the Tušratta letters kept in Berlin and the Mittanian documents, including the Hurrian Letter, from Tell Brak. Schwemer was not attempting to give a palaeography of either Middle Assyrian or Mittanian script-types, but to work out the filiation of some of the so-called “Assyro-Mittanian” documents from Bogazköy. However, it becomes clear that the more “Mittanian” and 14th century “Assyrian” texts are entered into the equation, the less clear this distinction between the two becomes as regards the distribution of this sign-form (see below, fig. 2). In particular KBo 1.2, the treaty tablet from Bogazköy, which exhibits a “Mittanian” script-type also shows this mainly “Assyrian” form of the sign UM, while undoubtedly being a tablet written by a scribe working in the Mittanian tradition (see below). On the other hand the so-called “Mittanian” form of UM is also attested at least once on Middle Assyrian tablets of the 14th century BC. Thus the presence of the “Assyrian” UM may raise the percentage of likelihood, when considered in combination with other features, that a tablet was written in an Assyrian tradition, but it is not absolutely diagnostic.

![Fig. 2: Distribution of the sign-form of UM](image)

Boğ. Assyrian/ Mittanian

<table>
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<th>Schwemer 1998</th>
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<tr>
<td>A II 50</td>
</tr>
<tr>
<td>B II 22</td>
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“Mittanian”

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<tbody>
<tr>
<td>T 6:4 10:5 MMA:3</td>
</tr>
</tbody>
</table>

Additions

KBo 1.2, 4 IBoT 1.34, 5 KAJ 66, 6

I am grateful to Ms Zenobia Homan for giving me access to the database of Middle Assyrian sign-forms that she is compiling for her PhD, where this attestation was found.


50 See also Wilhelm 2010: 260 for this UM as a “Mittanian” form and already Schroeder 1915: 81.

51 Thus, similarly to the case of KA (above n. 48) the form of UM raises the likelihood that the “Assyro-Mittanian” tablets from Boğazköy reviewed in Schwemer 1998 and Weeden 2012 can be sensibly categorised as Middle Assyrian in script, but it is not definitive.
Some of the texts on these “Assyro-Mittanian” tablets also exist in copies made at Hattusa in the more typical Hattusa cuneiform script-type, but they also include some of the allegedly very late sign-forms. Such a context, the copying of imported texts by local scribes, is one possible model for the transfer or “re-introduction,” to use the terminology of Th. van den Hout, of the new sign-forms to the Bogazköy repertoire. We will look at some of the text-groups containing tablets with Assyrian or Mittanian script-types below in our brief consideration of the palaeography of scholarly texts in Akkadian, to which category many of the “Assyro-Mittanian” tablets belong.

The phenomenon of a “mixed ductus” was recently revisited by Elena Devecchi in an exhaustive study of the palaeography of KBo 1.8, the treaty of Hattusili III with Benteśina of Amurru.53 Devecchi raised the question of whether in this particular case the apparently late Hittite signs could be explained by the hypothesis that they were reflecting the current Hittite palaeographic repertoire of the time of Hattusili III after all.54 This seems all the more likely in view of the back-dating of IIIc sign-forms to earlier in the 13th century than Tudhaliya IV. There are also sign-forms on the Benteśina treaty-tablet which cannot be explained at all from any kind of Hittite sign-repertoire.55 The question remains whether these can be explained (1) as part of the transmission (copying process), using a foreign exemplar as original, (2) as part of the compositional process of the text that we have on the tablet as we have it in Boğazköy, which may have involved various stages and parties in various different geographical areas, or (3) as part of the training or range of experience that the scribes who wrote this particular tablet had at their disposal, where these might have been operating abroad for some time or have been trained in copying particular types of tablets.

4.A. Copying of Akkadian-language treaties

J. Klinger has briefly reviewed the palaeography of the Akkadian-language treaties, and E. Devecchi has studied one of these in detail (see above).56 A brief overview of the provisional results achieved by these studies is given below. The tentative and provisional nature of this assessment needs to be stressed, as there is still a great deal of work to be done on the palaeography of these texts.

<table>
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<th>palaeographic remarks</th>
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<td>C16/15</td>
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<td>Bo. IIb</td>
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<td>KUB 31.82</td>
<td>C16/15</td>
<td>Ispuṭašu, Kizzuwatna</td>
<td>Bo. IIb57</td>
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53 Devecchi 2012a.
54 Devecchi 2012a: 49.
55 Devecchi 2012a: 52 lists alternate forms of DUB, ŠA, LAGAB, TI and AH as non-Hittite with identifiable parallels from outside the sphere of Hittite writing. Forms of AL, IL, KUR, TAR and Ü are listed as non-Hittite and unparalleled.
57 Klinger 2003: 239, n. 9. The palaeographic label is ascribed on the basis of the features: word-space, lack of ligatures in i-na, a-na, old U, mixture of older and middle URU. Given the recent softening of the resolution in delimiting between Old and Middle Script, especially in the light of the publication of the Land Donations (Rüster and Wilhelm 2012), it is difficult to date on palaeographic grounds. These fragments could be contemporary copies from around 1500 BC, or copies made a century later.
<table>
<thead>
<tr>
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<td>C15</td>
<td>Eheya, Kizzuwatna</td>
<td>Bo. II</td>
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<td>KBo 28.107</td>
<td>C15</td>
<td>Šunaššura, Kizzuwatna</td>
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<td>C14</td>
<td>Aziru, Amurruru</td>
<td>Bo. Ilc⁶¹</td>
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<td>C14</td>
<td>Šattiwazza, Mittani</td>
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</tr>
</tbody>
</table>

⁶⁰ Thus G. Wilhelm (unghethitisch at: www.hethiter.net, INTR 2014-02-19, accessed 11.02.2015). The form of KI in 8, 12 is usually ascribed to Hittite script-type Ilb, which would make this a later copy (Neu and Klinger 1990: 154, n. 23), but could just as well be interpreted as a Syrian form, which would make this a Syrian manuscript (cf. Schwemer 2004: 76) This last option is made less likely by the “Hittite” form of ŠA at obv. 2’, although this is not exclusively a “Hittite” form. See discussion at Devecchi 2012a: 49–50. An alternative to these two options is that the form of KI has been copied over from a tablet with a Syrian script-type, and thus has no value for the dating. Note “Syrian” so-nu-ri for šami in Il. 9, 11. There are, however, no further tablets of this text showing this script-type.
⁶¹ There seems no reason not to class this manuscript as late Middle Script (pace Klinger 1998: 373). The form of LA (with one initial horizontal, obv. 11’) is essentially alien to the Bo. script-type at this stage, but this is the only sign-form that does not fit a Middle Script assessment.
⁶² The duplicates of the Aziru treaty are either later, if judged according to the regular criteria for Hittite palaeography or they represent an early intrusion of later sign-forms due to influence from a foreign writing tradition not represented by ms A.
⁶³ Klinger 2003: 241. Ille KI obv. 38. No examples of Ille HA drawn by Figulla (obv. 1, 3, 3, rev. 23) are supported by photo-collation (BoFN 1749, 1750, 1753).
⁶⁴ Ille NI copied at KBo 28.11 obv. 6’ is not supported by photo collation (N 2995).
⁶⁵ “Syrian” ŠA col. i, iv 22, 23, 24, 25, 27; Hitt. ŠA column ii 14, 22, 29, 31, 50; iv 28, 29, 30–32, 38, 40; late DI (for KI) obv. i 14, late KI iv 51 (colophon); Late UM obv. i 1, ii 30, 40, 48, 50, iv 50 (DUB); Ille Û throughout col. i, iv 37, but older Hitt. Û i 14, Û = IGI+UDU ii 2, 6, 9, 17–20, 27, 28, 32, 34; iiii passim; iv 41, 47; ID with unbroken central horizontal: ii 21, 23 iiii 27, 49. LI = ŠE+ŠA iiii 57, Ille LI iv 14, 19. otherwise “old” LI: Ille NI iiii 58, iv 19; Ille URU iv passim. Weeden 2011c: 76, to be modified according to the distribution of “Syrian” forms listed above.
The backdating of the typically IIIc sign-forms HÁ, KU, KI and DI to Hattusili III and possibly Muwatalli II allows these features that were previously interpreted as “foreign” now to be understood as contemporary Hittite, even if they are used sparingly at this time.\footnote{This is the suggestion made by E. Devecchi for understanding part of the palaeography of KBo 1.8, the Treaty of Hattusili III with Bentešina of Amurru, although a number of sign-forms from that tablet remain obscure under this analysis.} Klinger saw an undoubtedly striking disparity between the earlier Treaty texts, at least Tudhaliya I to Suppiluliuma I, which display a palaeography that is largely compatible with those of contemporary Hittite-language texts, and those after Suppiluliuma I, which have a more regular palaeography.

66 The smaller fragments of CTH 53 largely follow the same mixture of sign-forms as exhibited by the main manuscript.

67\footnote{Klinger 2003: 246 with n. 32. Note that LI (= ŠE+ŠA) is never found in this form in Hittite language texts to my knowledge.} Klinger 2003: 246. Copy dated to Muwatalli II. The regular forms of ŠA and LI (= ŠE+ŠA), and AH in this tablet are virtually never used in Hittite language texts, IL also has a slightly unusual form. The scribe has now been identified through collation as a Hittite: Ziti son of 'NU,KIRI, (Devecchi 2010: 13). Other signs are used in later Hittite texts according to conventional Hittite palaeography: IIIc HA, NI, DUB, IIIb URU. Less frequently used even in later texts is the sign-form of LA.

68\footnote{Klinger ibid.: Non-Bo. ŠA, but the clearly “Hittite” form of Ū.} Klinger ibid.: IIIb 1G; IIIb LI; IIIc HA, NI; “Syrian” URU; non-Bo. ŠA.

69\footnote{Photo BoFN 12272e seems to indicate typically Hittite ŠA (I. 7, 8); LA (I. 7) as well as the earlier (i.e. non-IIIc) forms of HA. Any conclusions based on such a tiny fragment are of course inconclusive.} Klinger 2003: 244–245. Not ever regular in Hittite euneiform are: DA, LA, ŠA, ŠUM, US; More regular later in Hittite euneiform, although also attested in Hittite texts from the time of Muwatalli II and Hattusili III: DI, KI, KU, HÁ; Only (?) attested later: UB, IJUR. The “old” (from a Hittite perspective) form of LI is frequently also attested in later texts (e.g. the Bronze Tablet).

70\footnote{The one IIIc version of KI at KBo 1.1 obv. 38 is either a result of copying from a Mittanian original or to be accounted for in the sense of van den Hout 2012, where isolated early occurrences of later sign-forms are supposed to have been already known in Hattusa, just not regularly used.} See n. 55 above.
good number of non-Boğazköy sign-forms. This he accounted for by the presence of (foreign) specialists who may have been responsible for drafting such tablets, whereas in previous centuries the Hittite writing tradition had developed largely in isolation. This is a powerful analysis. 76

KBo 1.6, the main copy of CTH 75, the treaty between Mursili II and Talmi-Šarruma of Aleppo, which dates from the time of Muwatalli II, was written by a known Hittite scribe, Ziti, as collation of the tablet by E. Devecchi has shown. 77 This contains sign-forms that are, with certain exceptions, essentially alien to the script-type commonly used for Ign) specialists who may have been responsible for drafting such tablets. Whereas ous centuries the Hiilite writing tradition had developed largely in isolation. This contains sign-forms that arc also those which apparently occur later in the Hiilite- language repertory may indicate that contact specifically with Mittani or Assyria does not have to have been the only geographical conduit for the increase in popularity of the use of these sign-forms at Hattusa. Their use may just as well have been inspired by contact with areas in North-Western Syria that had previously been under Mittanian influence.

The procedure involved in preparing a text for a high-level treaty, which we can see fairly clearly by means of the Egyptian correspondence from the time of Hattusili III in preparation for the Treaty of Qadeš, must have entailed mutual visits of responsible ambassadors and experts and exchange of versions. 78 Indeed, it is rather clear that the Akkadian version of the treaty as preserved on two manuscripts found at Boğazköy is in fact a composition in Akkadian by Egyptian scribes reproducing not only the Egyptian side of the agreement but also features of Egyptian syntax. 79 They may even be copies of the famous silver tablet of the Treaty itself, which Ramesses II had sent to Hattusa, although L. Wilhelmi suggests that certain minor features of the text typical of the Akkadian of Boğazköy might be evidence for Hittite interference in the composition process. 80

The same procedure may not have been followed in the preparation of less prestigious treaties. Such easily identifiable evidence for the use of Akkadian as an interlanguage by speakers of other languages apart from Hittite does not apply to all the other treaties in Akkadian which show “foreign” palaeographic features, as demonstrated in a PhD by L. Wilhelmi. 81

76 Klinger 2003: 246.
77 Devecchi 2010: 13. It is not demonstrable whether this Ziti (I) is the same Ziti who wrote the calligraphic colophon to KUB 4.38 (see above), although this is an intriguing possibility. Gordin 2014 suggests the association of the scribal group around Anuwanza, to which both scribes named Ziti belonged, with the use of archaic (Babylonian) sign-forms. The sign-forms displayed in KBo 1.6 which never occur in Hittite language texts (SA and LI) are certainly Babylonian rather than Assyrian, and archaic, but in this case I would be more convinced by seeing the origin of these sign-forms in some way connected to the Syrian context of the Treaty. Similar sign-forms are displayed by most of the more fragmentary duplicate copies, although these may not have been written by the same person.
80 Wilhelmi 2011: 206.
81 The term “interlanguage,” referring to a version of a language spoken as a second language by non-native speakers who may intersperse features of their primary language into the second language or indeed create wholly new forms of expression that are only valid for that “inter”-language, is to be used with care. It is doubtful to what extent Akkadian at Boğazköy could ever be considered anything more than a “written foreign language,” to use the phrase chosen by Wilhelmi (2011: 273). Note, however, the comments of Schwemer
With some minor exceptions, the Syrian treaties with Duppi-Teššub, Aziru, Tette, Šattiwaza and Bentešina do not show particularly noticeable West Semitic or Hurrian features of syntax, rather they show those which are more generally found in Akkadian texts which are likely to have been composed by Hittites due to their showing specifically Hittite substrate features. A similar conclusion is reached for the tablets of the treaty between Šattiwaza of Mittani and Suppiluliuma I. What isolated traces of syntax or phraseology typical of other Akkadian texts composed in a Hurrian or West Semitic milieu there are can be explained by the exposure of the Hittite scribes and diplomats to those milieux, presumably during the process of drawing up the treaty documents. A similar explanation can be found for the rather few sign-forms that stand out in these documents as alien to the Boğazköy tradition. What cannot be thus explained are the orthographic differences that appear to hold between the writing of Akkadian and Hittite-language texts, especially as regards the more frequent use of CVC signs for the former. It appears there was a particular way to spell Akkadian as learned at Hattusa. This cannot necessarily be compared with Hittite spelling.

4.B. Copying of scholarly texts: Mittanian and Assyrian

The above very brief overview of the Treaty texts suggests that the majority of them were written by Hittites and that the later ones particularly contain foreign signs which may have made their way into the text due to their writer’s exposure to foreign writing environments. What these texts of course do not show is that the aberrant sign forms they use are also being employed more widely in contemporary Hittite texts. Some of the sign-forms are never integrated into the Hittite cuneiform repertoire (e.g. ŠA with four horizontals and LI = ŠE+ŠA), while the typical IIIc sign-form HA seems to be being used in Akkadian texts (e.g. KBo 1.6) coevally with its possible first appearance in Hittite-language texts of the reign of Muwatalli II. It does not appear that copying tablets with a foreign script-type (e.g. KBo 1.2) necessarily entailed the spread of sign-forms within duplicates made in the Hittite script-type (e.g KBo 1.1, KUB 3.1+). In other cases all or most of the duplicates of a single text show alien sign-forms (CTH 75, 91). The situation appears to have been extremely complex, with different circumstances likely contributing to the transmission of sign-forms in each case. In what follows we shall look at the distribution of the IIIc sign-forms within a selection of scholarly texts, in order to assess to what extent the likely heritage of the copying tradition has an effect on the spread of sign-forms.

A brief overview of the palaeography of various manuscripts of Akkadian language magical, ritual and incantation texts from Hattusa was recently made by D. Schwemer (see below, Table 4). Of these mostly fragmentary texts only a very few were manuscripts that could be assigned to the same texts let alone duplicates of the same passages of a text. Schwemer’s presentation, which was designed to show the distribution of “foreign” versus “Hittite” exemplars of Akkadian magical material, used the label N eo-H (ittite) to stand for script-types

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2013: 149–153 on passages of Akkadian recitation in Hittite rituals. The written form of these seems to have corresponded to the norms of “peripheral” Akkadian writing. Whether this bore any relationship to what was actually spoken is impossible to say.

85 Schwemer 2013: 153–156.
belonging to the Boğazköy-style, without including any further subdivisions into Hittite script-types IIIa-b and IIIc.\textsuperscript{86} Although the evidence is slim, it does appear that “Hittite” exemplars of texts from groups that are otherwise also preserved on tablets containing Assyrian or Mittanian script occasionally show IIIc sign-forms:

| KUB 37.44+ | 804.A | Middle Babylonian\textsuperscript{87} |
| KUB 37.43 | 804.B (dupl. of A) | Mittanian/Assyrian |
| KUB 37.51+ | 804.C | Hittite IIIc\textsuperscript{88} |
| KUB 37.52 | 804.D | Mittanian/Assyrian |
| KBo 36.38+ | 804.E | “Non-Hittite”\textsuperscript{89} |
| KUB 4.99 | 804.F | “Non-Hittite” |
| KBo 9.47 | 804.G | Mittanian/Assyrian |

Table 4: Manuscripts containing texts associated with \textit{ana pišeri kišpi} (CTH 804)\textsuperscript{90}

The only manuscript that shows a basically Boğazköy-style script-type contains one example of a Mittanian/Assyrian form of the sign KI.\textsuperscript{91} This is hardly a large basis on which to posit that the copying process of Mittanian or Assyrian exemplars has resulted in transfer of a sign-form into the regular Hittite syllabary!

All manuscripts of the incantation series “Forerunners of \textit{Utukkū lemmūtu}” are in Mittanian/Assyrian script-type except for one fragment, KUB 37.111, which largely coincides with the Boğazköy script-type.\textsuperscript{92} The fragment does not duplicate any text directly from the other preserved fragments. It contains only two examples of Boğazköy IIIc-style KI (both rev. 4').\textsuperscript{93} Otherwise, as noted by Schwemer, it also contains regular writing of ŠA with four horizontals, in the Mittanian/Assyrian style, although this is not a form which ever came to be used frequently in Hittite-language cuneiform texts. Thus in this case we have some evidence for the copying process being a factor in the transfer of signs from a Mittanian or Assyrian original through to a fragment written primarily in the Boğazköy script-type although this is not restricted to sign-forms that came to be used in Hittite language texts.\textsuperscript{94}

\textsuperscript{86} It is doubtful whether the fragment KUB 4.20 can be classed as NH (i.e. Boğazköy script-type) with Schwemer 2013: 156. The Hittite IIIc forms of DI, UM and NI fit with this classification but not that of GA with three verticals (obv. 10'), which is rarely attested on Hittite language tablets. However, it occurs in Hittite copies of Mittanian texts.

\textsuperscript{87} Abusch and Schwemer 2011: 27–39.

\textsuperscript{88} Abusch and Schwemer 2011: 40–42. This is not a duplicate of CTH 804.A, but contains text that partially belongs to the same type.

\textsuperscript{89} The label “non-Hittite” is used by Schwemer to refer to non-Boğazköy script-types that are not more precisely identified.

\textsuperscript{90} Schwemer 2013: 154–155.

\textsuperscript{91} Konkordanz “(s)ehr jung (ehitischen),” accessed 16.02.2015. Only one instance (KUB 37.51 rev. 1') of the sign KI warrants this label for this fragmentary tablet. Contrast regular “Hittite” KI at KUB 37.53 rev. 7', part of the same tablet. Abusch and Schwemer (2011: 40) book the fragments as “Hittite script, late 13\textsuperscript{th} century.”

\textsuperscript{92} Mittanian/Assyrian: KBo 36.11+; KUB 37.101+; 107; 143; KUB 4.16. Schwemer 2013: 154 with further literature.

\textsuperscript{93} Contrast KI at rev. 13'. Photo not collated.

\textsuperscript{94} Compare the case of KUB 4.77, which duplicates the Mittanian/Assyrian tablet KBo 36.29, where it is difficult to decide whether the script is Boğazköy-style or not, due to the appearance of ŠA with four horizontals and LA with one (Schwemer 2013: 155).
4.C. CTH 537: the medical omens

The Akkadian medical omens edited by G. Wilhelm were mostly found in Büyükkale building A, with a few exceptions from other places on the citadel.\(^9\) Wilhelm identified most of the manuscripts as essentially belonging to the New Script type of Hittite cuneiform with a few exceptions which to different grades or at different removes seemed to be products of foreign scribal traditions, which he identified as being Mittanian due to the overlap of the sign-forms with those of the Mittanian repertoire and the presence of a scribal signature of a scribe with a Hurrian name (Agit-Teššub) on a possibly related tablet that appears to have been used for practice purposes.\(^9\) Wilhelm concluded that this scribe was most likely to have been resident at Hattusa when he wrote that particular tablet. The tablet uses forms of the sign KA and UM that are reminiscent rather of Middle Assyrian tablets, rather like the other tablets that have been labeled as Assyro-Mittanian at Boğazköy, which were mentioned above. There we pointed out that the “Assyrian” form of UM with three verticals on the right of the sign also occurs in a Mittanian tablet of the Suppiluliuma-Šattiwaza treaty. It is still not definitively clear quite what the status of those tablets that use KA and UM in these forms is supposed to be, whether Assyrian, Mittanian or a combination, but it should be clear enough that this tablet (KUB 4.53) belongs with them.

Most of the tablets of the medical omens are extremely fragmentary and can hardly be used for a full palaeographic study. However, it is worth briefly outlining the main palaeographic characteristics of these tablets, in order to illustrate what contribution they make to the understanding of the palaeographic category IIIc.\(^9\) As noted above, Wilhelm commented on the impossibility of using sign-forms from the Mittanian tradition as dating criteria for Hittite tablets, due to the possibility that the forms had been taken over from originals that were either imported or written by foreign specialists. In the following we are not so much interested in the question of dating as in the question of identifying practices in the transmission of text-groups that appear to have either Mittanian or Assyrian connections as opposed to those which do not.

KUB 34.6++ ms. A, Bk A, 4 CTH 537.1.1
Given the category jh in Konkordanz, i.e. Boğazköy script-type. Non-Boğazköy: GA with three verticals beside regular Boğazköy GA. Typical signs for Boğazköy: Ib: AR; IIc: RU; IIIa: IG, AG (old and new types); ZU; Ö: old LI; IIIc: K1 (besides regular K1).

KUB 37.211++ ms. B, Bk. A, 5 CTH 537.1.2
Boğazköy script-type (IIIa?), note old LI, but late ZU, older IG, older AL. No classic IIIc sign-forms, with exception of “Mittanian” UM.

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\(^9\) KUB 4.53. Wilhelm 1994: 5. See Rutz 2012 for further definition of the tablet’s function as a Sammeltafel and the consideration that the medical part of KUB 4.53 belongs with a different class of omens to that contained on the other medical omens tablets edited by Wilhelm. It may therefore be a different text entirely, although it is difficult to talk of a stable text of an omen collection at this early stage. The lack of distinction in voicing between stops is also a good indicator of a Mittanian rather than a Middle Assyrian scribal tradition for this tablet, although such a phenomenon might also be found on Akkadian text written by Hittites. The Akkadian incantation tablet KBo 9.44, which has a similar script, does not appear to show this feature, for example.

\(^9\) For the detailed exposition reference should be made to Wilhelm 1994: 6–8, where note is also made of the young form of ḪA.
<table>
<thead>
<tr>
<th></th>
<th>N KUB 4.53</th>
<th>H KUB 37.31</th>
<th>J1 KUB 37.187</th>
<th>J2 KUB 4.14</th>
<th>D1 KBo 9.49</th>
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<td><img src="image69" alt="Image" /></td>
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</table>

Table 5: Selected sign-forms from the medical omens (photographs courtesy of Hethitologieportal Mainz)
<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<td>D2</td>
<td>B</td>
<td>C</td>
<td>A</td>
<td>E</td>
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<td>KUB</td>
<td>KBo</td>
<td>KUB</td>
<td>KUB</td>
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<td>37.211+</td>
<td>36.53+</td>
<td>34.6+</td>
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<td>obv. 11'</td>
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<td>obv. 18'</td>
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<td>obv. 8'</td>
<td>obv. 11'</td>
<td>rev. 18'</td>
<td>obv. 4'</td>
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<tr>
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<td>obv. 4'</td>
<td>obv. 12'</td>
<td>KBo 36.52 obv. 10'</td>
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<td>7'</td>
<td>4'</td>
<td>rev. 7'</td>
<td>rev. 4'</td>
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<tr>
<td>4'</td>
<td>rev. 7'</td>
<td>11'</td>
<td>10'</td>
<td>4'</td>
</tr>
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</table>
The above seven manuscripts (on the right in table 5) all appear to display the typical Boğazköy script-type. Five fragments exhibit IIIc sign forms, four if one discounts UM as an indicator. The preference for writing older (in terms of Hittite palaeography) LI on the Boğazköy-style manuscripts is interesting: only mss. N, the practice tablet or Sammeltafel written by Agi(t)-Teššub, if it belongs with this group at all, and H, which contains a number of further Mittanian or “new” forms for Boğazköy, exhibit the “new” form of LI. Note also the older Boğazköy AG in ms. A. Either the Boğazköy scribes are making an effort to use locally more traditional sign-forms, or these tablets may have been written before the introduction of the later form of LI into the regular Hittite cuneiform repertoire. Again we are dealing with very small fragments of texts, so the conclusions drawn are limited. However, there seems to be a sliding scale among the manuscripts, with ms. N appearing to be entirely “Mittanian,” ms. H containing a few typically Hittite forms, and the rest being mainly Boğazköy-style, with a few new forms. At this end of the scale the most representative of the Boğazköy-style manuscripts is ms. A, although this too uses one case of GA with three verticals, which is never taken up by the standard Hittite script-type. One cannot necessarily conclude that the new forms have crept into the Boğazköy-style script through copying tablets containing them, certainly not from copying the practice tablet of Agi(t)-Teššub, which only contains a fragment of medical text beside part of an Akkadian hymn to Asalluhi (or Šamaš, according to Rutz 2012). On the other hand, it does indicate the likely heritage of the copying tradition from which these tablets came to Hatnusas. Agi(t)-Teššub’s practice tablet attests to someone with a Hurrian name copying medical tablets in a script with overall the greatest similarities to that used on Middle Assyrian tablets of the 14th century. That the other tablets contain the IIIc or “Assyrian/Mittanian” forms is likely due to copying practices involving similar tablets to his or to exposure to educational contexts that included tablets with a similar provenance.

4.D. Copying of scholarly texts: not Mittanian or Assyrian

An interesting example of a transmission for a text that does not belong to a Mittanian or Assyrian context, a fact which seems to be reflected in sign-forms used on the larger part of the copies that were made in Hattusa, is provided by the collection of sun-omens that is listed as CTH 534. Here we shall look at the main text contained on the tablet KUB 4.63 and its duplicates. With the exception of one fragment, these do not contain IIIc sign-forms. The manuscripts seem to fall into one larger group from Building A on Büyükkale, which seems
to have close orthographic and script associations with an unprovenanced, large, older tablet (ms. A), besides isolated fragments from Buildings F and K on Büyükkale and the Haus am Hang, which also have a reasonably different palaeographic and orthographic profile from the tablets of this text found in Building A.

<table>
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<tr>
<th>Text</th>
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<th>Palaeography</th>
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<td>534.1.1.A</td>
<td>IIc?</td>
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<td>Bo.106</td>
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<td>III104</td>
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<td>?</td>
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<td>2782/c</td>
<td>534.1.2</td>
<td>III105</td>
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<td>51/c+</td>
<td>534.1.2</td>
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<td>190/q</td>
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<td>534.1</td>
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<td>KUB 37.160</td>
<td>224/’f</td>
<td>534.1.3</td>
<td>II/c?</td>
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<td>Bo.</td>
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<td>KBo 13.30</td>
<td>147/’s</td>
<td>534.1.2</td>
<td>sjh- IIIb?</td>
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<tr>
<td>KBo 13.22</td>
<td>435/t</td>
<td>534.1.2+</td>
<td>Bo. with Ass-mit influence</td>
</tr>
</tbody>
</table>

Table 6: The sun-omen tablets of CTH 534

4.E. Büyükkale, the Building A group, KUB 4.63

K. K. Riemschneider held that KUB 4.63 was an imported tablet, due to the presence of a number of apparently non-Bogazkoy sign-forms (called “ductus”) and the presence of a

99 Late URU (HZL 229B), old LI, ŠE = ina, old KÜ (HZL 69A).
100 KUB 37.151 appears to have a complementary text to KUB 37.154, corresponding to the main tablet KUB 4.63 obv. 18’–27’. It also shares the mistaken writing of TUK-šš as KAB. However, the paragraph boxes appear to be of different sizes on the photographs of the two fragments, so a join is unlikely, although it cannot be excluded. “Hittite” New Script U (HZL 265/12), New Script DU (HZL 128B), ŠE = ina.
101 Old LI, “Hittite” New Script RU, TE, New Script DU, HUR, E; ŠE = ina.
102 Mistaken writing ID-US for it-tab-šš (obv. 2’, rev. 2’), shared by KUB 37.156 (1. 4’), which may join to its reverse. ša-šš-[r]ı] obv. 5’ for saduru. Unusual form of TIM rev. 3.’
103 Duplicate to KUB 30.9, 9–15. Old LI, SA with high initial vertical. ŠE = ina.
104 KUB 30.9+KUB 37.157+KBo 9.55+ABoT 1.42. Old LI, URU, KÜ; “Hittite” New Script Ü, RU, DU, ZU.
105 May join to KUB 37.161 above. ŠE = ina.
108 ŠE = ina.
single instead of a double column-divider.\textsuperscript{109} This opinion was challenged by J. Fincke, but it is unclear to what extent other recent commentators explicitly endorse it.\textsuperscript{110} The hypothesis should, however, be reviewed. The tablet is not alone in having a single column-divider. As now demonstrated by the study of Willemijn Waal, the presence of a single column-divider is a feature of list-type documents and is also found in “older” Hittite tablets, but it remains the case that it is not otherwise attested on omen-tablets.\textsuperscript{111} The “aspect” of the writing on the tablet, to use a term that is recommended for the description of features such as depth of impression, crowding of signs, closeness of writing to the edge, may resemble quite closely that of some of the older Hittite tablets as far as this is visible from photographs, although this remains extremely subjective.\textsuperscript{112}

Regarding the sign-forms, we need to distinguish between those which are very rare in or completely alien to the Hittite-language Boğazköy writing tradition and those that are only introduced comparatively late during its period of existence, i.e. the forms characteristic of script-types IIIa-b and IIIc. Here the analysis is restricted to those sign-forms which can be verified on the photographs. The vast majority of the 136 signs on this tablet are written regularly and conform to the Boğazköy standard: typically “Hittite” are the forms of LA and RU. The basic Hittite distinction between ŞA with one vertical and TA with two appears to be upheld, although this is not always clear from the photographs.\textsuperscript{113} The complete lack of the form of ŞA with three to four horizontals, which is frequently found on tablets with Syrian connections, is striking. Of this standard Hittite repertoire most cases belong to an older Hittite Script version of the sign, where there is a difference to the newer script form: RU, ID, AL, LI, IG, SAR, E, AG, MEŠ, URU, ZU, TAR, EN, HA.\textsuperscript{114} Sign-forms from the copy that appear in the characteristic IIIa-b or IIIc form are shown by collation of the photographs to be insecure at the least, although collation of the original would doubtless bring more certainty in this matter.\textsuperscript{115} NI with two verticals, as it appears on the copy, which would usually be assessed as a sign that belongs to the IIIC category, appears according to the published photographs to have either one vertical or none where this can be verified.\textsuperscript{116} The form with one vertical would in fact be an example of a non-Boğazköy sign-form, which is found for example at Alalah VII, but needs collation of the original to establish its authenticity on

\textsuperscript{109} Riemenschneider 2004: 46.

\textsuperscript{110} Fincke 2009; Wilhelm 2009: 115 “babylonische Omentafel.”

\textsuperscript{111} Waal 2010: 86–87; 392. According to the data presented there, tablets with single column-dividers in Old Script are mostly narrative compositions.

\textsuperscript{112} See BoFN01613, 614 at: www.heithiter.net. Compare Laws ms. A (KBo 6.2) BoFN02275, 2276; Rüster and Wilhelm 2012: no. 15 (plate XVIII), no. 40 (plate XXXVI). The broad irrelevance of such criteria for dating within the sphere of older tablets is explicitly demonstrated at Rüster and Wilhelm 2012: 59–60. For our purposes it is only necessary to point out that from the perspective of Hittite tablets generally, KUB 4,63 makes an older rather than a later impression, although this remains very subjective.

\textsuperscript{113} The apparent form of GA without any internal verticals (i.e. identical to BI) is another case where the photographic evidence has to be doubted, and collation of the original might be more fruitful. This again would be a non-Boğazköy sign-form. The peculiar form of GIG on the copy at 121 is not verifiable from the photograph.

\textsuperscript{114} Old E at i 32, i 14; later E in the copy at i 16 is not verifiable; ID is generally but not always “stepped.” AG in the copy at 19 appears in a form with two broken horizontals, which is rarely attested on later Hittite tablets (e.g. KBo 3.4 i 74) but this is not verifiable from the photograph. AG at i 27 appears from the photo to have the older form (HZL 81A), although it may have one horizontal on the right rather than two. A strange looking MES at i 28 in the copy has on the photograph an entirely normal form for older Hittite tablets. Old AL at i 13; Old LI passim. Old TAR i 25.

\textsuperscript{115} KI in i 21.

\textsuperscript{116} NI no verticals i 11; NI 1 vertical: i 14? i 32?; NI unverifiable: i 10, 12, 14, 16, i 27.
KUB 4.63. The form of Ū conforms to the later Hittite form (IGI+UDU, HZL 265B, 26-29), which is otherwise well known in northern Syria many years before.\footnote{117} The only sign that is certainly not ever found in the Hittite-language Boğazköy-repertoire to my knowledge is that of KŪ.\footnote{118} The form used here has an archaic quality (see fig. 3).\footnote{119} Most importantly it is not an Assyrian or Mittanian sign-form, but Babylonian.

Fig. 3: KŪ on KUB 4.63

KUB 4.63 would then appear to be a Boğazköy copy either of a foreign tablet, possibly preserving some elements from that tablet’s palaeography, or written by a Boğazköy scribe who was trained in writing tablets that regularly included such sign-forms. The former explanation is more likely to be the case given that there is only one definitely non-Boğazköy form out of the total number of signs (KŪ), one more that comes to be used in Hittite language texts at Boğazköy considerably later, although it is used earlier in Syria (Ū), alongside a very small number of possible non-Boğazköy forms (one or two examples of NI). Of course the copy does not have to have been made in Hattusa, it could have been made somewhere else, but I would contend that the scribe who made it had already been trained in the Hattusa style of writing cuneiform.

One particular feature of the orthography on this tablet is striking. The Akkadian preposition ina is here written almost exclusively with the sign ŠĒ, not only on this tablet but also on most of its duplicates, certainly on all of the ones found in Bk. A. While ŠĒ for ina is otherwise attested at Boğazköy, for example in the Akkadian-language treaty of Suppiluliuma with Tette of Nuḫaššu (passim), the use of ŠĒ for ina was until recently restricted to this text and its duplicates, as far as I am aware. The recently excavated and published fragment of the processus pyramidalis from a life-sized liver-model from Boğazköy, which is inscribed with Akkadian omen texts in a non-Hattusan style of cuneiform, now adds a further example of this peculiarity.\footnote{120} In his publication of this important find, D. Schwemer points to an example of ŠĒ = ina from an omen text (šumma izbu) from Tiginānum.\footnote{121} An overview of the duplicates made from our tablet (KUB 4.63) also shows that all of those found in Bk. A use this same orthographic peculiarity, with the exception of the one tablet, where the preposition is written AŠ.

The other 8-11 separate tablets from Bk. A are mostly too small to be assessed reliably but are exclusively written in the Boğazköy script-type, seem to be later (particularly the forms of DU, RU, Ū), and do not contain any IIIe sign-forms. There is also no single attestation of the later form of the sign LI among them. They present a homogeneous aspect which may be consonant with their having been written in one context. Two of them show copying errors.

\footnote{117} The originally “Hittite” form of Ū that is used in New Script texts (from IIIa: HZL 265/10-25) is found consistently in the duplicate manuscripts to KUB 4.63 from Büyükkale A. The spelling of the connective “or” is also spelled ʾu lu at i in 5, a spelling known from northern Syria more frequently. At Boğazköy it is also found in: KBo 3.22 rev. 62; KBo 10.1 obv. 37. Weeden 2011: 63.

\footnote{118} The form of KA 169, 19 (Amarina letter from Amara) is comparable in the copy (VS 11.93, 19), but it is not clear that this is accurate when one compares the photograph (edt. P271104).

\footnote{119} The most similar form in Fossey (1926) is 58381 (p. 924, Hammurapi, Babylon).

\footnote{120} Schwemer apud Schachner 2014: 126, with literature in an. 128–129.

\footnote{121} Schwemer apud Schachner 2014: 126; George 2013: 123–125.
of a kind that betray a lack of knowledge of Akkadian on the part of the copyists: ID-UŠ = it-tab-šī, KAB = TUK-šī. They all share the use of ŠĒ for ina where it is attested.

4.F. The other fragments of duplicates and parallel texts

The fragment KUB 37.160 from Bk. F is not a duplicate, but a related text, covering similar material to KUB 4.63 ii 1'-8': UD 4UTU TUR la-wi-ma “If the sun goes round a yard.”122 Though small, KUB 37.160 clearly comes from a very different transmission context in terms of script, orthography and language. The script may be pre-New Script and the orthography contains syllabic rather than logographic writings, including a writing of i-na instead of the peculiar logogram ŠĒ which was used in the copies from Bk. A.123 Given that it has a slightly different text it is unsurprising that it may have had a different textual transmission in as far as this can be seen from the elements reviewed here.

Of great interest are the two fragments from the Haus am Hang. Again these are very small, but KBo 13.22 shows possible evidence of association with an Assyrian context of transmission. The form of AH (obv. 4) with three verticals is particularly significant, as is the use of AS for ina (rev. 3') which excludes an earlier date of inscription than the 13th century BC.124 The form of AH is also the regular form used on Mitannian tablets, but the dating indicated by the use of AS for ina makes a Mitannian origin less likely. KBo 13.22 does not include any of the classic IIIC sign-forms. However, it is also tantalizing that the other fragment of the text found in the Haus am Hang also seems to display some later sign-forms, although not necessarily those that are diagnostic for the IIIC writing style.125 However, it also contains the orthographic feature ŠĒ = ina that we saw was characteristic of the tablets found in Bk. A.

It thus appears that we may have at least three different possible historical or geographical contexts for the copying of this text, each of which may have brought with it its own set of scribal habits. The tablets in Bk. A and the unprovenanced tablet KUB 4.63 appear to belong together. While KUB 4.63 may be older, the other tablets from Bk. A might well have been copied from it in a similar environment together, with some of them being copied by scribes who were unaware of what language they were using.126 There is no use of any IIIC sign-form on any of them. Also probably older, but different to this group, is the fragment from Bk. F. The two fragments from the Haus am Hang are later (e.g. 13th century), but do not contain any of the diagnostic IIIC sign-forms, which may be an accident, although one of them does contain an Assyrian sign-form (AH) which is not transmitted into the standard Hittite repertoire.

122 Riemenschneider 2004: 130.
123 Script: older TAR (HZL 7A), “Hittite” LA; older AL (HZL 183A); orthography: an-ia-al-ű-u (obv. 5', 7') rather than AN.TA.LU; ur-ba-ša (obv. 2', 4', 6', 8') rather than TÜR; i-na[a] (obv. 1') rather than ŠĒ; language: la-mi-ma (obv. 2', 4', 6') as opposed to la-wi-ma.
124 The traces before the break at obv. 2 indicate a phonetic spelling: i-[ma].
125 KBo 13.30. The forms of DA and ID with an unbroken central horizontal are often found in association with IIIC manuscripts, but also occur with other script-types as well. I have labeled as IIIBib those manuscripts that contained these sign-forms but not the other IIIC diagnostics (Weeden 2011e: 51–52). The form of U used on KBo 13.30 is also rather peculiar.
126 G. Wilhelm’s speculation that KUB 4.63 was utilised in interpreting an eclipse of the sun in Mursili II’s 10th year might be consistent with the palaeography of the duplicate copies that were found in Bk. A, which does not exclude a dating to his reign (see Wilhelm 2009: 114–115). It is my view that KUB 4.63 itself is somewhat older.
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<tr>
<th>Sign</th>
<th>KUB 4.63</th>
<th>KUB 37.159</th>
<th>KUB 37.151</th>
<th>KUB 37.150</th>
<th>KUB 37.155</th>
<th>KUB 30.9++</th>
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This is a very small basis on which to posit a particular line of transmission for this text. It may extremely tentatively be hazarded that the text on KUB 4.63 was borrowed into Hattusa either before the wholesale import of texts from Mittani occurred, or from a scribal centre where such influence was never felt, either way presumably from northern Syria. One may have a contrast between the copying of tablets in Bk. A versus the grouping in the Haus am Hang. However, there is some contrast with the medical omens, where some of the tablets are clearly written by either Mittanian or Assyrian scribes and most of the others, which have a predominantly Boğazköy script-type, contain albeit isolated examples of IIIc sign-forms.

Of course, using the regular dating criteria for Hittite texts, it is quite possible to explain this difference solely by the date of inscription of the duplicates. The duplicates of the collection of sun-omens may well have been written earlier in the period covered by New Script than the Hittite script duplicates of the fragments of medical omens. It may simply be that the historical circumstances that made the collection of sun-omens relevant enough to re-copy in Bk. A were earlier than the date of the historical circumstances that occasioned the transmission and copying of the medical omens. However, the distribution of the sign-forms according to the tradition of copying a particular text is reasonably striking, and should be borne in mind as a possibility when trying to account for the diffusion of new or the reactivation of already known sign-forms.

5. Concluding remarks

The above comparison of the way sign-forms are transferred through the copying process from foreign texts to texts written in the Boğazköy-style, between one text that contains Mittanian or Assyrian sign-forms and one that does not, appears to vindicate partially the hypothesis that the copying of foreign texts was one means by which these IIIc sign-forms entered the Hittite repertoire. This may also apply to the cases of treaty texts that were copied or composed using drafts written in a foreign script-type. If it does, it is interesting that this does not seem to be happening with the earlier treaties, as J. Klinger has noted, possibly due to the long-time isolation of the Boğazköy writing tradition before the middle of the 14th century BC. After this time more Hittite scribes would have had experience of being abroad and writing in foreign milieus through diplomatic engagements, while foreign experts will almost certainly have been more frequently present in Hattusa, themselves writing and copying texts.

The explanation of sign-form transfer through copying will not apply, however, to letters written in Akkadian which employ non-Boğazköy signs, where copying processes are not demonstrably involved. Here one might hypothesise that scribes are employed who have been involved in the diplomatic service abroad already, and are responsible for texts written not just in Akkadian but specifically for communicating with particular areas. A more extensive survey of the palaeography of the Akkadian letters may bring some further illumination here.

127 The fact that both sets of duplicates appear to prefer the old form of LI may, but does not have to, indicate that both were written somewhat earlier than the time when this sign-form became more normal (around Muwatalli II).


129 See for example the letters of Suppiluliuma I found at Amarna, which clay analysis has demonstrated to have been written on Hattusa clay (Goren et alii 2011; Devecchi 2012b).
There is still no explanation why certain signs from the Mittanian and Assyrian script-types transferred into Hittite usage and others did not. The forms of ŠA with four horizontals and the AH with three to four verticals both appear in copies that are made of texts that must have come from a Mittanian or Assyrian tradition, but they never become regular in Hittite cuneiform.

There is still no demonstrated explanation why the transfer of the Mittanian, and later Assyrian, sign-forms into standard Hittite writing practices took so long. Mittanian or Assyrian tablets are found at Hattusa in a script-type resembling that of the 14th century in Assur, and these tablets were also copied in Hattusa with transfer of sign-forms being demonstrable to a limited degree within the Akkadian copies. However, it is some time, perhaps 50–75 years, until such signs start being used in Hittite texts, much longer before they become popular. It is a possible hypothesis that there was a more or less strict division of labour between the Hattusa scribes who had experience of writing Akkadian in diplomatic or scholastic contexts and those who did not. This has some repercussions for our assumptions about the level of Akkadian knowledge that scribes writing regular Hittite texts at Hattusa might have been exposed to. Perhaps this was little more than that needed to understand the Akkadographic writings they used.

Thus it appears that the deepest changes to Hittite scribal practice that can be associated with Syria are those that are in some way related to the Mittani-state, including the cultural shadow it cast over the nascent state of Assyria. Apart from punctual idiosyncrasies that may have arisen because the one or the other person travelled to Syria, or a Syrian travelled to Hattusa, it was prolonged exposure to scholastic, diplomatic and other types of writing styles in the process of inter-imperial contact that brought about the most noticeable changes in the way the Hittites wrote cuneiform. With a certain degree of time-lag, Hittite cuneiform seems to be following changes that happen within the Syrian area, from an earlier orientation after Babylonian sign-forms to a more widespread use of Mittanian sign-forms later on. The history of this Mittanian influence on script-types in Syria has yet to be written.

According to the tentative and still ongoing analysis of the palaeography of the cuneiform transmission of some of the Akkadian-language texts at Boğazköy, it may at some point be possible:

(1) to hypothesise a process through which changes in the shape of Hittite cuneiform signs permeated firstly from one cultural area to another,

(2) but also then how they spread through the corpora of Hittite texts at different speeds.

I hope to have demonstrated that in the consideration of Hittite palaeography and its relationship to external influences it is not only important to consider the “when” but also the “how.” It is likely that any picture that emerges will be extremely complicated, as single texts, as we saw in the case of the collection of sun-omens CTH 534 above, appear to have had different sources of transmission even within the history of their own propagation at Hattusa. They were introduced, copied on particular occasions and for particular reasons, reintroduced at other times quite possibly from a different source and re-copied.
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