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H. Craig Melchert

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Hittite mān, maḫhan, māḫhan, māḫhanda and māḫhanda

Alwin Klockhorst

In the *Chicago Hittite Dictionary* (Güterbock et al. 1983- , hereinafter CHD), the meaning of mān is given as follows (L-N:143-4): "like (postpos.); just as, as (conj.); how (interrog. adv. in main clause); if, whether (conj., introducing an indirect question); when, whenever (conj.); while (?) as long as (?) ; if (conj., introducing a conditional clause)." The meaning of maḫhan is given in the CHD as follows (L-N:300): "like (postpos.); as, just as (subordinating conj., of comparison); how, that (conj. in indirect statement or question); how (interrogative adv.); when, as soon as (temporal subordinating conj.)." For maḫhanda, a few times also spelled maḫhanda, the meaning "just as (subordinating conj.)" is given (L-N:111).

As we see, mān and maḫhan are practically identical in their use and meaning, whereas maḫhanda is used in a specific meaning that is shared by mān and maḫhan as well. This of course raises the question of what the exact distribution of these three forms is. The CHD does not express an opinion on this matter, and also in the new *A Grammar of the Hittite Language* by Hoffner and Melchert (2008) no discussion of the difference between these three words can be found (maḫhanda is not even mentioned in the entire book). The only observations offered by Hoffner and Melchert (2008) are that the temporal meaning "when" is in OH times expressed by mān, but in NH times by maḫhan, and that the meaning "if" is in NH times only expressed by mān, which replaces older tākku, and not by maḫhan. Nevertheless, already in 1966 Carruba solved most of the basic issues regarding the distribution between mān, maḫhan and maḫhanda/maḫhanda, although some of the details remain unclear, especially concerning the phonetic interpretation of some proposed developments. Although Carruba’s theory is sometimes referred to in more recent literature, its absence in the CHD and Hoffner and Melchert 2008 and especially the lack of clarity regarding some details makes it worthwhile to review it and to try to solve the loose ends.

Carruba’s basic idea (1966:12-4) is that maḫhan is the outcome of older maḫhanda,

It only remarks that "[t]he position of maḫhanda... and m[akh]an in their clauses requires comments" (CHD L-N:102).


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which itself developed out of mānkaṇḍa. This mānkaṇḍa is then analyzed as a unification of mān and kaṇḍa “entwined, gemäß.” However, the chronological, semantic and phonological aspects of this theory require some comments.

Chronology

First we must focus on the chronology of the attested forms. According to CHD 3.25, both māhīṣṣā and mahīṣṣanda/mānkaṇḍa occur in OS as well as MS texts. If māhīṣṣā really developed out of mahīṣṣanda/mānkaṇḍa, as Carra’s theory has it, then how can we explain that both forms occur in texts of the same period? Since our ideas on the dating of Hititite texts are constantly evolving, it is always useful to look critically at the dating of specific forms. As already noted, according to the CHD (L-N:11) mahīṣṣanda/mānkaṇḍa occurs in texts that have to be dated to the OH as well as to the MI period. If we compare the dating of these texts as given by the CHD to their dating nowadays given by Herkonk, we get a quite different picture. It appears that, according to the dating standards of Herkonk, all the texts in which attestations of mahīṣṣanda/mānkaṇḍa can be found, must be dated to the OH period: the CHD dates the text KUB 32.5, where in iv 7 we find m[a-a-ah-la-an-a], as “OH/MS,” but Herkonk nowadays dates this text as “M.”; the text KBO 13.45, where in obv. 7 we find m[a-a-an-ja-an-da] (with word space), is dated by the CHD as “MS,” but Herkonk dates this text too as “M.” As the CHD itself admits, the OH/NS attestation GIM-an-da, cited as a possible semigeneric spelling of mahīṣṣanda, is attested in such a broken context that an interpretation as GIM-an = mahīṣṣā + -ta ‘to you’ cannot be excluded.

In the case of māhīṣṣā, the CHD (L-N:100) states that it can be found in OS, MS as well as NS texts. If we compare the dating of the texts in which attestations of māhīṣṣā are found as given by the CHD to their dating as nowadays given by Herkonk, it turns out that the one alleged OS text containing māhīṣṣā in fact might be younger: KBO 9.7, where in obv. 9 we find m[a-a-ah-la-an], is dated by Herkonk as “ah/2/mh.” Beside this one alleged OH example of māhīṣṣā cited in the CHD, Erich Neu cites a form “m[a-a-ah-la-an-m-a]” in his transliteration in the OS text KBO 25.87:7 which he then analyzes as māhīṣṣā “mit Partikel -na.” This reading cannot be correct, however, as in OH times the particle -na only occurs after vowels, its postconsonantal variant being non-geminative -n. The form is therefore better read as m[a-a-a-la-an-d-a]. This means that there are no secure examples of māhīṣṣā in OS texts.

Schematically, we get the following overview:

<table>
<thead>
<tr>
<th>mahīṣṣanda/mānkaṇḍa</th>
<th>māhīṣṣā</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS</td>
<td>+</td>
</tr>
<tr>
<td>MS</td>
<td>-</td>
</tr>
<tr>
<td>NS</td>
<td>-</td>
</tr>
</tbody>
</table>

As we see, mahīṣṣanda/mānkaṇḍa and māhīṣṣā now turn out to be in a chronologically complementary distribution: mahīṣṣanda/mānkaṇḍa only occurs in OS texts, whereas māhīṣṣā only occurs in MS and NS texts. Carra’s theory that māhīṣṣā is the younger variant of mahīṣṣanda/mānkaṇḍa has now gained chronological support.

Semantics/Function

The second point we should look at is the semantics of the two forms: do mahīṣṣanda/mahīṣṣanda and māhīṣṣā have the same function and meaning? The best way to check this is by using a younger copy of the OS originally where mahīṣṣanda/mahīṣṣā is used. In doing so, we find that in all such cases the younger copy shows māhīṣṣā. A first example of this is KBO 6.2 + KBO 23.65 iii 19-20 (OS):

(19) \[ ... m[a-a-ah-la-an-da a-re-[e-i]-me-el] \]

(23) \[ ... m[a-a-la-an i-ti-i-te-e]]

You, too, must do just as your comrades.

In a younger copy of this text, mahīṣṣanda has been replaced by māhīṣṣā:

KBO 6.3 iii (OH/NS)

(22) \[ ... m[a-a-ah-la-an a-re-e-i-me-el lu-m[e-i-a] \]

(23) \[ a-p-e-ni-ti-la-an e-e-la-e-n \]

fē-sa-a-e-nil-la-e-nil (KUB 32.3 i 1), which Neu (1987:64) analyzes as nom.pl. bēšat “mit ‘aus ‘über’ and Pronomen -w’.” This cannot be correct either: in OH times the acc.pl. form of the enditic pronoun is w, which only in NH times is replaced by -al. Since we cannot be dealing with nom.sg. -e either (the sentence already contains a nominative form, namely bēšat), the form can only be analyzed as fē-sa-a-e-nil-la-e-nil “the rains for you,” (note that the NS copy KUB 32.3 i 1 has fē-sa-a-e-nil-la-e-nil “without any enditic”.

Collation on the basis of a photograph of this tablet (available through Herkonk) shows that the last signs indeed can be read as d[a]; compare on the same photo the sign da as found in KBO 35.70 ii 4 (which is a join to KBO 23.65). Note that this attestation of mahīṣṣā should be added to the CHD.

In another NS copy of this text, KBO 19.4, we only find i (6) [ ... m[a-a-a-la-an ... ], which breaks off at the crucial point.
The same is true for KBo 6.2 + KBo 19.1 ii 44-6 (OS). The formal aspects of māḫḫau. This word is spelled ma-a-af-la-an as well as ma-aḫ-lu-an. According to the CHD (L-N:100), in MS texts and in NS copies of OH and MH compositions we find ma-a-af-la-an as well as ma-aḫ-lu-an. In NH originals, however, we only find ma-af-la-an. This implies that the variants ma-a-af-la-an/māḫḫau are chronologically distributed: older ma-a-af-la-an vs. younger ma-aḫ-lu-an. This fits in well with the observation that OH long /ā/ in the sequence /āCCV/ has been shortened to /ā/ in the course of time (cf. Klockhorst 2008:98). This means that we are here dealing with a phonetically regular development of older ma-a-af-la-an /māHan/ to younger ma-af-la-an /māHan/. Now we should focus on the development of māḫḫauuda to māḫḫau. According to Carruba (1996:34), the disappearance of the final syllable -da of māḫḫauuda could have taken place via two scenarios. It has been lost either (1) “infolge der enaktischen Stellung, vor allem am Anfang des Satzes”; or (2) “über ein gesprochenes māḫḫau, da ungeschützt t nach n im Heth. ausfällt.” Some of the scholars that follow Carruba’s derivation of māḫḫau from māḫḫauuda remain agnostic about the phonetic side of this development. For instance, Tischler (1990:87) talks about a “shortening” “aus unbekannten Gründen” and Puhvel (2004:41) comes up with “an apocopated variant *māḫḫau*,” without explaining what he means by this. Melchert (1994:182) is more explicit, however. According to him, “[t]he loss of the final syllable in māḫḫauuda > māḫḫau [...] is surely specially conditioned in a weakly accented conjunction,” whereby he follows Carruba’s first scenario. Yet, as far as I know, no other specially conditioned phonetic developments in weakly accented conjunctions have taken place in the (pre)history of Hittite. I am therefore inclined rather to follow Carruba’s second scenario.

At first sight, we would tend to interpret māḫḫauuda phonologically as /māHan/ with a full word-final vowel /-a/. Yet, it seems impossible to me that an OH form /māHan/ would develop into younger /māHan/, even in sentence-initial position, where it might have been weakly accented: other OH words in /-anta/ always remain as such, e.g. plp.pres.mdl.f. forms ending in -anta, nom.-acc.pl.n. forms like humanta, and, more importantly, an adverb like māḫḫauuda ‘facing, opposite’, which must have stood in unaccented position as well. I therefore reject a phonological interpretation of māḫḫauuda as /māHan/.

Phonological developments

The last point we have to investigate is how we can account for the development of māḫḫauuda/māḫḫaunda to māḫḫau on a phonological level. First, a few remarks about

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4The one attestation ma-af-la-an (KUB 13.28 obv. 9 (MS)) must be a scribal error; compare erratic gal-gal-ta-(u)n in the preceding line (cf. CHD L-N:100).

5The shortening of /ā/ to /ā/ as seen in the development of OH me-nu-af-la-an da to NH me-nu-af-la-an-da must be explained as due to loss of accenetation in ending position (I will expand on this topic on another occasion). Note that the three attestations of ma-na-af-la-an, without final -da (KUB 13.28 ii 29, KUB 10.11 iii 17, KBo 21-29 i 6), which are added by Neu (1974:68 n. 34) as possible parallel cases to the loss of -da in māḫḫauuda > māḫḫau, must in at least two cases be regarded as scribal errors, as is clear from the facts described by Neu himself, namely that the first form occurs on a tablet that also contains the form me-na-af-la-an-da, with -da (ibid. ii 29), and that the last form occurs on a tablet that contains other scribal errors as well. Therefore, these three attestations, which are clearly aberrant when compared to the enormous numbers of attestations with -da or -ta (more than 100 examples in my files), must be regarded as non-probative.

It is also possible, however, to phonologically interpret māḥḥanda in a different way. Consider the spelling of the following instrumentalas: hār-la-an-ta 'with the head', i-hā-ān-da 'with blood', i-hi-ma-an-da, i-ḥi-ma-an-ta 'with a rope', u-ī-da-an-da, u-ī-ta-an-ta, u-ī-e-an-da 'with water'. Since we know that the instrumental ending originally consisted of *t only, these forms are generally phonologically interpreted as follows: ḫās-ta < ḫrasts-ta, /is/stant < ḫrasts-ta, /is/stant < ḫrats-ta, /us/stant < ḫrats-ta. Since in these words the spellings -Ca-an-da and -Ca-an-ta clearly represent /-t/, it is also possible that in māḥḥanda, māḥḥa is spelled ma-a-ḥa-ḥa-an-da as well as ma-a-ḥa-ḥa-an-ta, the spelling -Ca-an-da/ -Ca-an-ta represents /-t/. It is therefore unproblematic to interpret māḥḥanda phonologically as māḥḥa without a full word-final vowel */-t/.

The presence of word-final postconsonantal */t/ ("ungeschütztes t," in Carruba’s terminology) is rare in Hittite. In fact, we know that in the prehistory of Hittite, word-final postconsonantal */t/ was regularly dropped: e.g. the nom.-acc. form of participles in */-en/ yielded Hitt. */-a/. Only in cases where there was a model for analogical restoration was it restored. For instance, in the instruments just mentioned, */-t/ must have been restored on the basis of instrumental of nouns with a stem ending in a vowel where it was regularly retained. It is clear, however, that the presence of postconsonantal word-final */t/ in these instruments in */-an/ remained awkward, and in the post-oh period, they are therefore all replaced by forms in */-a/, e.g. ḫš-a-ni-i-eh 'with blood', ḫši-ma-ni-i-eh 'with a rope', ḫši-ta-ni-i-eh 'with water'. This indicates that the elimination of word-final postconsonantal */t/ was still an ongoing process in Hittite. It therefore seems quite possible to me that an OH-form māḥḥa has been retained, whatever be the origin of the word-final */t/ in it (which we will discuss in more detail below), yielded post-OH/maḥḥa, spelled ma-a-ḥa-ḥa-an, by regular sound change.

This means that Carruba’s theory that māḥḥanda within Hittite develops into ḫšaḥa is not only supported by chronological and functional observations, but also can be regarded as phonetically regular as well.

māḥḥanda

Now it is time to look at the origins of māḥḥanda = /maḥḥanta/ itself. As we have seen, māḥḥanda is a few times also spelled māḥḥanta, and once even mān ḫanda, with word space, which led Carruba to the assumption that these forms go back to a universion of mān and ḫanda. According to him, "das anlautende -n von mān [ist] vor */-t/ assimiliert worden" as e.g. in ma-a-am-ma-an < *mān-ma-n.

Although Carruba is right that -n- seems to regularly drop before certain consonants, like */-m/, */-f/, */-w/ and */-y/, it does not unconditionally drop before */-p/. For instance, the oldest forms of the paradigm of the verb ḫnin < */-pi/ to seek, to clean’ show that the -n- is only dropped before */-p/ when another consonant follows, but is retained when a vowel follows: ḫa-al-mi vs. ḫa-an-be-er. Since in māḥḥanda the */-p/ is not followed by a consonant, the loss of */-n/ is not expected. Melchert (1994:124) therefore states that the "consistent loss (or assimilation) of the first n in māḥḥanda > māḥḥan 'at' is especially conditioned in a universion." Although this may not be impossible, we could perhaps also explain the loss of */-n/ in māḥḥanda in another way. The loss of */-n/ in ḫnin is determined by the heaviness of the cluster: in a heavy cluster */-n/ is dropped, in a light cluster it is retained. It seems quite possible to me that the presence of a long vowel before the cluster */-n/ in māḥḥanda makes this cluster heavy as well, */v-n HSV/, and that this is the reason why */-n/ is dropped in this form.

māḥḥanda > māḥḥanta > māḥhan > maḥḥan

Taking all evidence into account, we can now set up the following chronology: the universion of mān/mān and ḫanda /ḥanta/ yielded the OH form māḥḥanda /maḥḥanta/, in which the */-n/ was regularly dropped in OH times already, yielding māḥḥanda /maḥḥanta/. A little while later, at the end of the OH period, word-final */t/ was regularly dropped, yielding the MH form maḥḥan /maḥḥan/. Within the course of the MH period, the long */i/ of maḥḥan was regularly shortened as it stood in a non-final closed syllable, yielding maḥḥan /maḥḥan/, which is the form that is found in some (late) MH originals, but especially in NH originals.

mān vs. mān ḫanda

The last question we should now ask ourselves is: what exactly is this element ḫanda? And what was the initial semantic and functional difference between mān and mān ḫanda < māḥḥanda > māḥḥanta > māḥḥan > maḥḥan? We therefore have to first look more closely at the function and meaning of mān as attested in the oldest texts. If we schematize the semantic description of the OH attestations of mān as given in the CHD (I-N:143-4), we get the following table:

On the basis of forms like s-kw-a-ta 'he drank' (not */-m-an/ and i-lu-in-ha-ta 'he swore' (not */-t/-t), we can tell that the postconsonantal sg. pre.act. ending of the mi-conjugation was */-a/, and not */-t/, as is sometimes assumed. This means that we have to assume that the PIE sg. pre.act. ending */-t/ was regularly lost, and was subsequently replaced by the corresponding middle ending */-a/ < */-t/, cf. Kloekhorst 2003:92-1.

E.g. hu-e-mi 'I kill' < * hunna > *junna, or ma-a-am-ma-an < *mān-ma-n, cf. Kloekhorst 2003:87-8 for details.

E.g. hu-e-mi 'you kill' < *junna, ha-a-am-en 'eagle' < *junna.

E.g. hu-e-mi 'we killed' < *junna-.
meaning of this clause. Since main is semantically ambiguous in sentence-initial position only, it cannot be used as a substitutional conjunction in sentence-initial position as well. These two facts must be interconnected.

We have already seen that mahlhanda/mahlhanda probably is the result of univerbalization of main and hasna, as is especially indicated by the one attestation where we find main bandu with word space. I assume that in cases where the word main was ambiguous as to whether it meant ‘when’ or ‘just as’, namely when it was used as a sentence initial conjunction in a main clause with a present verb that was similar to the verb of the following clause, the meaning ‘just as’ was reinforced by using the word hasna /Han/. The nom.-acc.sg. form of the noun hasna ‘face, forehead’, which in its adverbial use could mean ‘in view of (the fact that), in accordance with’; in other words, by adding hasna ‘in view of, in accordance with’, which is semantically comparable to the meaning ‘just as’, the meaning of the semantically ambiguous conjunction main ‘when, just as’ was disambiguated in favor of the meaning ‘just as’. Apparently, main and hasna soon univerbalized and came to form a new conjunction mainhanda ‘just as’, which then phonetically developed into mainhanda, etc.

This scenario also explains the presence of word-final postconsonantal -i in mainhanda/mainhanda /main/nHan/. Within the paradigm of main ‘forehead’ < *hant-, the nom.-acc.sg. form *hant should regularly have lost its word-final -i. Yet, on the basis of the other case forms within this paradigm, *hant-i, the *-i was restored, yielding Hant. Soon after the moment of univerbalization of main and hasna /Han/ to mainhanda /mainHan/ which subsequently developed into mainhanda /mainHan/ the link with the paradigm of main ‘forehead’ was lost, however, and word-final postconsonantal -i was regularly dropped after all.

Later developments

Already within the OH period, we see that mainhanda/mainhanda spreads to other syntactic contexts as well, as can be inferred from KBo 25.122 ii (14) A-NH [bel-[gw-<i>nu-<i>vi ma-a-an-an-an-a] (15) ma-a-an-ba-as-ta QA-TAM-MA ‘just as he chants before the bulpi, (he chants) these things in the same way’, where mainhanda is not used in sentence-initial position, but rather as a postposition. In NH times, where mainhanda > mainhanda has phonetically developed into mainhanda > mainhanda, the use of mainhanda becomes more widespread. Since the OH word takku ‘if’ disappeared and its function was taken over in NH times by main, a new ambiguity arose. In cases where main is used as the conjunction of a main clause with a present verb, it can now mean both ‘if’ and ‘when’. In order to resolve this ambiguity, mainhanda is used increasingly in the meaning ‘when’, and by NH times, the normal word for ‘when’ is mainhanda, whereas main is used as ‘if’. It also seems that mainhanda begins to replace main in other functions that originally only belonged to the latter. It would, however, go beyond the scope of this paper to investigate these replacements in great detail.

The CHD says in nine of the ten attestations, but in fact mainhanda/mainhanda occurs sentence-initially in ten of the eleven attestations.
Conclusions

I hope to have shown that NH mahljan /mahHan/ < MH mahljan /mā Han/ is the phonetically regular outcome of OH mahljan /mā Han/ < mānhanda /mā nHant/, which is the result of univerbation of mān and handa /Hant/, and that the collocation of mān handa was originally used to better distinguish the usage of mān ‘when’ and mān ‘just as’ in the one context where there could be doubt about its interpretation, namely when used as the sentence-initial conjunction of a main clause with a present verb form that is similar to the verb form of the following clause. After the univerbation of mān and handa, the word mānhanda underwent several phonological developments, yielding mahljan > mahljan > mahljan, which can now all be shown to be due to regular sound laws.

References