The transmissional and functional context of the lexical lists from Ḫattuša and from the contemporaneous traditions in Late-Bronze-Age Syria

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PART C: Synthesis

Chapter 13: The transmissional and functional context

The present chapter presents a synthesis of the philological evidence as collected in chapters 5-12. In reference to the theoretical framework developed in chapters 2-4, it formulates the four main theses of the study (set in bold letters in the table of contents). Following the basic research questions, its structure is tripartite, dealing with the long-distance transmissional context (sect. 1.), the short distance transmissional context (sect. 2.), and the functional context (sect. 3) of the three main textual corpora investigated.

For a reconstruction of their transmissional and functional context the smaller corpora from Alalaḫ, El-Amarny, Ortaköy, and the Palestinian sites are far too small in scale to be used, they are therefore almost wholly excluded from the following synthesis (except with the Alalaḫ corpus in sect. 1). Sect. 4. adds a few notes to the textual traditions of these sites on the basis of a comparison with the more sizable main corpora.

1.1. [The long-distance transmissional context – the textual communities identified and the levels investigated] By reconstructing the long-distance transmissional context of the LBA western peripheral lexical lists, the present study investigates eight distinct textual communities: Hatt-IIIa and Hatt-IIIb/c (Ḫattuša), Em-Syr and Em-SH (Emar), Ug-Rap/MT, Ug-Urt, and Ug-Lam (Ugarit), as well as Alal (Alalaḫ). Therefore, the main distinctive criteria leading to the communities' identification are: the archival context, the paleography used, features of the tablet layout, characteristics of the (cryptic and elaborated) colophons, and, with regard to Hatt-IIIa and Hatt-IIIb/c, major differences in the configuration of the curriculum (as for Hatt, also see the summary in sect. 1.3.1.).

Among the three Ugarit communities, there are some overlaps between the archival contexts and the paleography: Ug-Lam mainly consists of manuscripts in Babylonian paleography (Ug-Bab), but also investigates a small share of manuscripts in local paleography (Ug-loc). Ug-Rap/MT and Ug-Urt mainly house manuscripts in local paleography, but also house small shares of manuscripts in an alternative North-Syrian paleography (Ug-NS). In the following, the Ugarit traditions will basically be dealt with according to their archival context, with annotations given to the paleography when necessary. A potential fourth textual tradition is Ug-GP, which was probably chronologically earlier than the other three (cf. chapter 6, sect. 5.1.3.); formally and with regard to content, the relatively little remains are hardly distinct from the manuscripts of Ug-Rap/MT. According to the paleographic and archival dates, Hatt-IIIb/c, Em-SH, the three (main) traditions from Ugarit, and Alal are treated as principally contemporaneous, extending to the 13th century

BCE and being active until the (equally more or less simultaneous) abandonment of the sites. Hatt-IIIa in turn is congruent with the late 14th century, whereas Em-Syr overlaps with the late phase of Hatt-IIIa and the early phase of the remaining traditions.

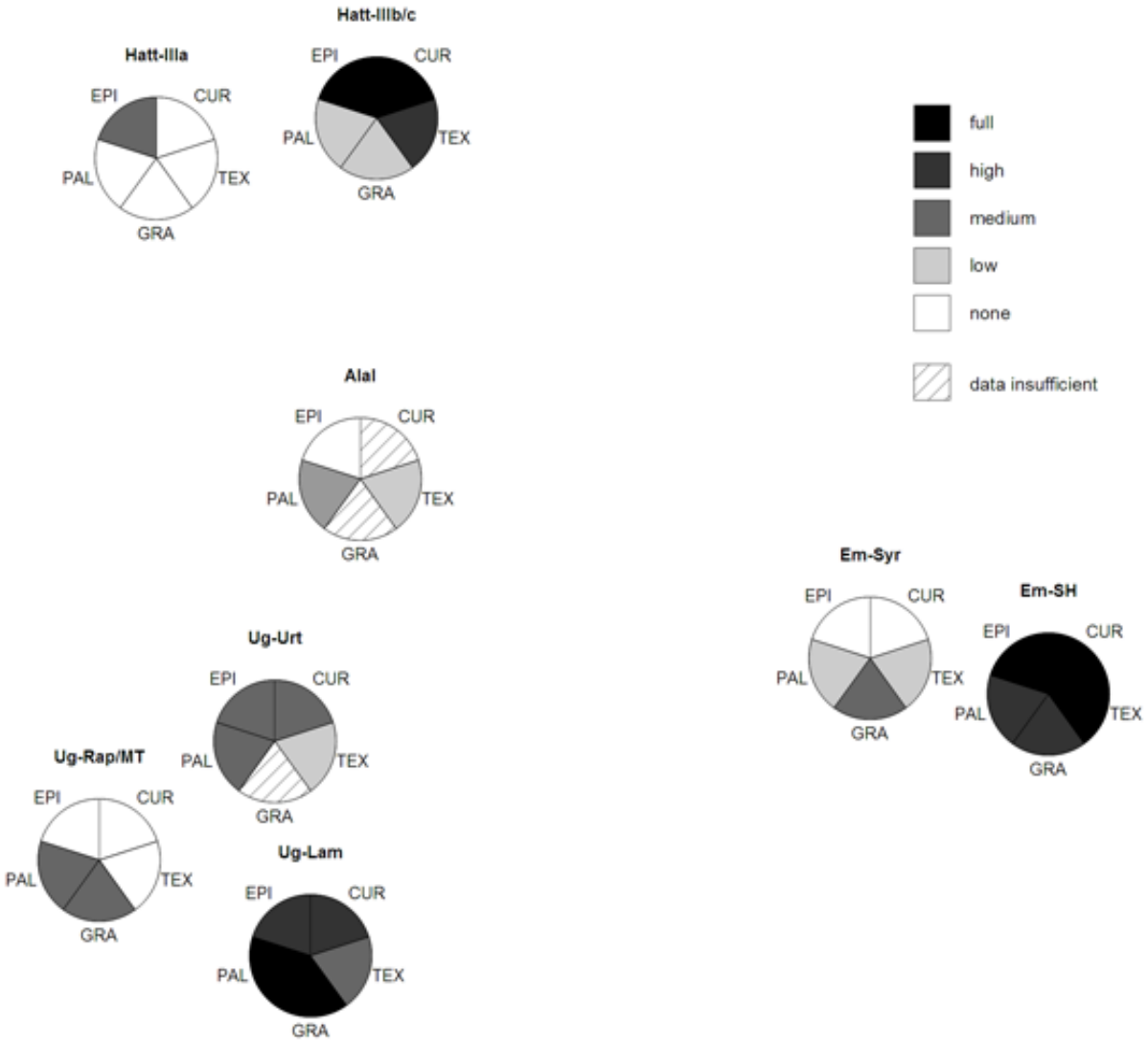
The diffusion of innovative material and the resulting contrasts of centrality/peripherality among the individual textual traditions have been investigated on several levels within the present study: The levels involve features of the tablet layout (epigraphic level; chapter 8, with a summary in sect. 5.2.), characteristics of the sign forms and ductus (paleographic level; chapter 5, with a summary in sect. 5.), features of the syllabaries used (graphemic level; chapter 9, with a summary in sect. 2.1.7.), contrasts among the parallel textual traditions (textual level; chapter 12; with exemplary investigations in sect. 5.), as well as characteristics of the linguistic formats and of the configuration of the curricula (curricular level; chapter 11, with summaries in sect. 1.3. & 2.2.).

1.2. [The long-distance transmissional context – a comparative map of peripherality and centrality] The map reproduced overleaf relates the individual textual communities identified with the degrees of innovation assessed for the individual levels. The map thereby distinguishes five degrees of innovation (as indicated by the staged gray shadings). The innovative features crucial for each level are as follows (as for details, cf. the summaries in the individual chapters as referred to in the previous section):

(1) epigraphic level (EPI)	the use of intersection rulings instead of line-by-line auxiliary rulings[1]
(2) paleographic level (PAL)	the integration of new (Babylonian and/or Assyrian) sign forms into the inventory
(3) graphemic level (GRA)	equal instead of privative or exclusive use of CV-dyads and the spread of the allographic variants <ŠÁ>, <ŠÚ>, <U>, <ÁŠ>
(4) textual level (TEX)	the degree of extensiveness of the individual textual versions
(5) curricular level (CUR)	the use of bilingual instead of unilingual linguistic formats and the spread of new compositions like Erimḫuš

Thus, Em-SH is the textual community with the highest overall degree of integrated innovations, and hence with the lowest overall degree of peripherality; it is closely followed by the contemporaneous communities Ug-Bab and Hatt-IIIb/c. Ug-Rap/MT, Alal, and Em-Syr, among which the latter is clearly chronologically earlier, form a second group. Ug-Urt is situated in-between these two groups; Hatt-IIIa, the earliest community among the eight, is also the community with the lowest overall degree of integrated innovations and hence with the highest overall degree of peripherality.

1 Further features that are clearly interrelated with the degree of innovation involve the average number of main columns as well as the physical devices for the visual separation of the main column (cf. chapter 8, sects. 2.2.5. & 2.3.2.). The evolving patterns are not yet clear cut as with regard to the contrast between intersection and line-by-line auxiliary rulings; the features are therefore disregarded in the following.



1.3.1.1. [The long-distance transmissional context – remarks to the individual textual communities/traditions – the Ḫattuša traditions – delimitation of the 14th-century and the 13th-century traditions] As remarked repeatedly within the present study, the Ḫattuša corpus is inhomogeneous. The isolation of specific contrasting textual traditions is complicated by the insufficiently documented archaeological context (cf. chapter 6, sect. 1) as well as by the demonstrably high loss of textual materials (as evidenced by the duplication rate; cf. chapter 12, sect. 2.1.).

As with regard to the Emar corpus, it is possible to distinguish at least two major phases, i.e., a 14th-century tradition (Hatt-IIIa) and a 13th-century tradition (Hatt-IIIb/c). However, in contrast to Emar, there is no direct opposition or sudden break between them. The later, 13th-century phase evolved out of the earlier, 14th-century phase; the transition being marked by some major changes with regard to epigraphic and curricular features. While Hatt-IIIa in many respects follows the OB curriculum – with a high share of traditional (thematically organized) compositions and with unilingual formats dominating – Hatt-IIIb/c shows a clear preference for multilingual formats and

a decrease in the share of traditional (thematic) compositions (cf. chapter 11, sects. 1.3. & 2.2.). Also, Hatt-IIIb/c has replaced the line-by-line auxiliary rulings, which are dominant in Hatt-IIIa, by intersection rulings; quite in line with this development is the notable culmination of prisms in Hatt-IIIa (cf. chapter 8, sect. 1.3.), a *schrifträger*, which is very common in the OB *eduba*. As the development from Hatt-IIIa to Hatt-IIIb/c apparently spanned some decades, the contact with the (unidentified) textual communities that borrowed the innovative material must, (according to the terminology elaborated in chapter 4, sect. 2.5.), have been: very frequent/permanent, not too asymmetrical (leaving space for local developments), and with medium intensity (enabling a rather 'organic' development).

The isolated group of *Kagal* manuscripts found in Hatt-BkA (Kagal Bo. B = KUB 30,7+ and C = KBo. 16,87+), which show the peculiar format <2 - 1 : 4> (cf. chapter 11, sect. 2.9.4.), and which possibly distinguish consonant voice and vowel length in the Syllabic-Sumerian column (cf. chapter 9, sect. 4.2.), probably forms a side branch of the 14th-century tradition. The group of SaV manuscripts found in Hatt-HaH, which show the deviant inversion of the Syllabic-Sumerian and Orthographic-Sumerian column (<2 - 1 - 4 - 4>; cf. chapter 11, sect. 2.9.1.), may be described as a side branch of the 13th-century tradition. Thus, as far as the find spot is accountably documented, the manuscripts of the main branch of both the 14th- and the 13th-century tradition mostly stem from Hatt-T.I.

1.3.1.2. [The long-distance transmissional context – remarks to the individual textual communities/traditions – the Ḫattuša traditions – the secondary centrality of the 13th-century tradition] From a number of internal features it is clear that Hatt-IIIb/c achieved a secondarily-central status among the LBA western traditions: There are some clear indications that 13th-century Hittite scribes compiled new lexical compositions out of existing materials (further see sect. 2.1.3.6.), and specifics of the Hittite paleography and logogram inventory possibly influenced the sign inventory of the local version of SaV (cf. chapter 12, sect. 5.2.5.). The secondarily-central status is also obtainable from interrelations with the contemporaneous Syrian traditions: Individual sign forms found in the paleographic inventory of Ug-NS are clearly Hittite in origin (cf. chapter 5, sect. 5.2.), and some details of the syllabary used in Em-SH are best explained as caused by Hittite influence (cf. chapter 9, sect. 2.1.7.1.).

The West Semitic adstratum identified in a number of manuscripts (chapter 9, sect. 2.3. & chapter 10, sect. 3.2.) demonstrates that West Semitic speaking scribes – possibly even Aramaic speaking scribes (see chapter 9, sect. 2.3.4.) – were involved in the transmission of the textual material to Ḫattuša. The transfer was at least in parts a mediated – and not a direct – transfer. It is unclear whether the strong agreements between Hatt-IIIb/c and Em-SH as observable in individual parts of the curriculum (SaV and *Izi*; cf. chapter 12, sect. 5.2.5. & 5.5.2.) must be interpreted in

terms of this mediation. They could also be explained as originating in the feedback that the (secondarily-central) Hittite tradition exerted on the Emar tradition.

1.3.2. [The long-distance transmissional context – remarks to the individual textual communities/traditions – the Emar traditions] In contrast to the 'smooth' transition from Hatt-IIIa to Hatt-IIIb/c in Ḫattuša, the two Emarite traditions Em-Syr and Em-SH are clearly offset, not only through major cuts at the epigraphic, paleographic, and graphemic level, but also with regard to the textual and the curricular level. In fact, as observed in chapter 12, sect. 5.2.3.1., the textual versions of SaV for both Em-Syr and Em-SH show more qualitative agreements with individual versions from Ugarit than with each other.

Although both traditions clearly existed side by side for a certain period of time (cf. chapter 5, sect. 4.2.), and although the archive of the Syro-Hittite Zū-Ba°la clan also housed some well preserved manuscripts of the Syrian tradition, there is hardly any interference detectable between both traditions except with some marginal traces of mixed paleography, the hybrid formation of some elaborated colophons (cf. chapter 7, sect. 3.2.3.), and possibly, the use of blank spaces for separating the grapho-analytic columns; which is common in Em-Syr and appears to have been retained in a few manuscripts of Em-SH (see chapter 8, sect. 2.3.4.). The almost complete lack of interference is particularly true for the textual and the curricular levels. It can be explained by the fact that the Syro-Hittite scribal tradition was established in Emar very abruptly and from outside; in terms of the modes of contact defined in chapter 4, sect. 2.5., the establishment was asymmetrical, punctual, and very intense, leaving hardly any space for interference with the resident tradition Em-Syr, but simply leading to the virtually traceless replacement of the latter. Possibly, this absence of interference also points to a relatively strong dependence on writing-based modes of short-distance transmission within Em-SH (further see sect. 2.2.1.).

As for the interrelations of Em-SH with Hatt-IIIb/c and Ug-Urt, as well as of Em-Syr with Ug-Rap/MT, see the previous and the following section.

1.3.3. [The long-distance transmissional context – remarks to the individual textual communities/traditions – the Ugarit traditions] In contrast to the two Emar traditions, there is plenty of evidence for mutual interference among the three major Ugarit traditions, which generally suggests that there was continuous (and probably predominantly oral/memory-based) exchange among the respective textual communities.

The most interesting case therefore is Ug-Lam. There is pointing evidence that this tradition was imported directly from Babylonia by a Babylonian teacher who settled down in Ugarit and started to teach the local disciples in his distinct paleographic tradition (i.e., as with regard to Em-SH, it was

established through punctual, asymmetrical, and very intense contact). Compared to Ug-Rap/MT and Ug-Urt, the textual versions and the whole curriculum found in Ug-Lam are clearly more innovative (cf. chapter 11, sect. 1.3. & chapter 12, sect. 5.3. & 5.4.). Interference with the resident tradition is visible at the paleographic level with individual, relatively isolated Babylonian elements appearing in the local style (cf. chapter 5, sect. 4.1.), but particularly at the curricular level: As observed in greater detail in chapter 11, sect. 1.4., the tradition integrated parts of the local curriculum, foremost to be mentioned is the series RSGT, which is not attested to outside of Ugarit. The paleography of the respective manuscripts is mostly local or mixed local-Babylonian (with local elements dominating; also see sect. 3.2.2.). Thus, although the circumstances of the establishment of Ug-Lam in Ugarit were similar to the establishment of Em-SH in Emar, the specific interference with the local, resident tradition(s) suggests that, (other than with regard to Em-SH), there was a continued contact with these communities; i.e. the contact was frequent/permanent, rather symmetric, and with medium intensity.

Both Ug-Rap/MT and Ug-Urt also contain manuscripts in non-local paleography; these appear in an alternative North-Syrian style (cf. chapter 5, sect. 4.1.). The respective share of manuscripts thereby is (much) higher in Ug-Urt than in Ug-Rap/MT. Further individual pieces are found in the small-scale collections of Ug-Ršp and Ug-L. Individual sign forms of that style, that shows the specifically local sign forms discarded, are clearly influenced by Hittite paleography; with these being the only traces of potential (direct or indirect) textual-transmissional contacts with Hittite communities. Altogether, the ductus in many respects resembles the ductus of Em-SH. Regarding the textual and also the curricular and epigraphic level, Ug-Urt appears more innovative than Ug-Rap/MT, with more extensive textual versions, a higher share of bilingual manuscripts, and with a more frequent use of intersection rulings. The source of these innovations suggests itself to be sought in the intensive commercial contracts that the archive's owner, Urtēnu maintained, amongst others, with the branch of his enterprise in Emar (as mentioned in chapter 6, sect. 5.1.2.; further see chapter 12, sect. 5.4.1. & 5.4.5.) Compared to Em-SH; however, the extension is rather slight. The tradition of Ug-Urt in many respects remains compatible with that of Ug-Rap/MT. (see chapter 12, sect. 5.2.3.1. & 5.4.4.). Thus, the textual-transmissional contact between Ug-Urt and Em-SH was apparently frequent, relatively symmetrical (retaining local peculiarities) and not too intense (with comparably limited quantities of innovations acquired). The same qualifications go for the further contact between Ug-Urt and Ug-Rap/MT. As noted above, part of the innovations found in Ug-Urt also appear in Ug-Rap/MT; there yet, in smaller quantities.

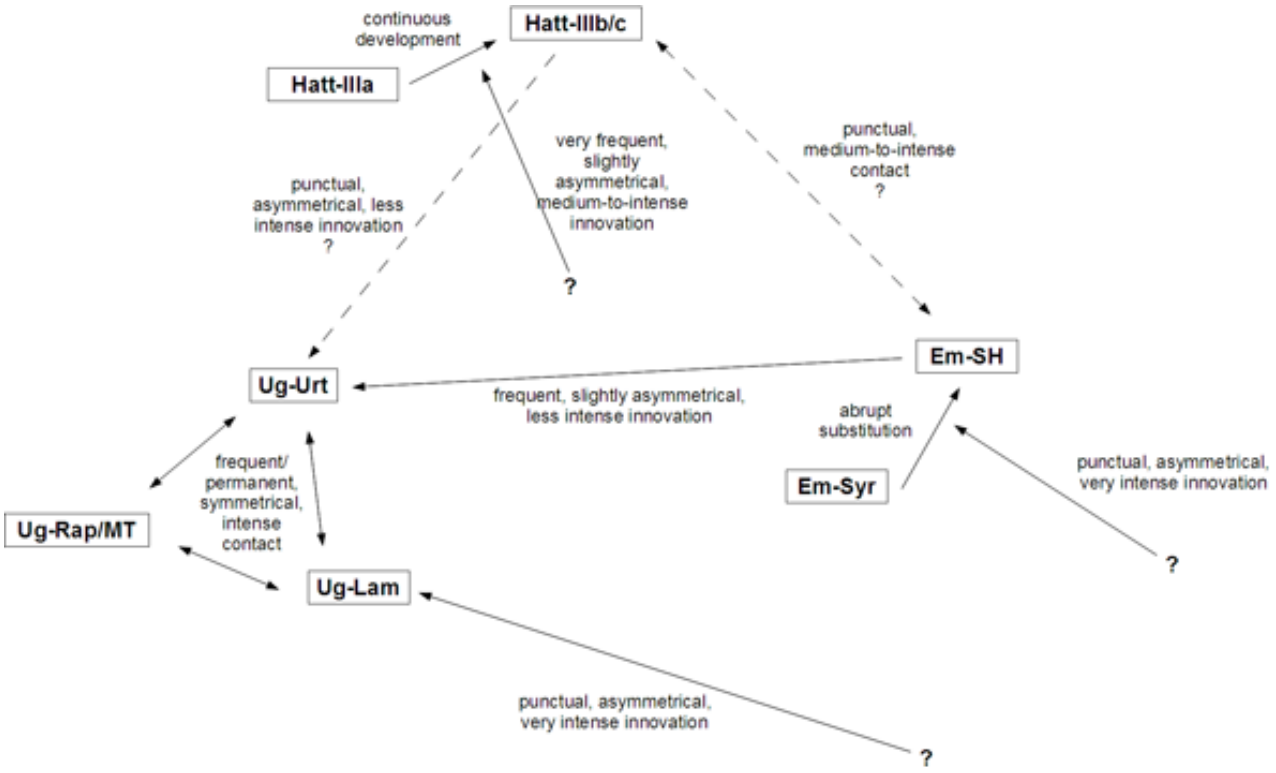
A further notable agreement is found between two manuscripts from Ug-Rap/MT (with a third manuscript from Ug-GP with identical paleography to be added) and the Syrian tradition from Emar (Em-Syr): Both groups share the cryptic-colophon signature <MAN MAN MAN> (cf. chapter 8, sect. 4.2.). The Ugarit manuscripts clearly belong to an earlier stratum of the corpus, so both groups

may be roughly contemporaneous. In case the sign combinations really represent, (as proposed in chapter 8, sect. 4.2.), the seal-like signatures of specific textual communities / textual traditions, there must have been strong interrelations between the early local tradition(s) of Ugarit (around 1300 BCE) and Em-Syr. It is possible that both traditions eventually trace back to a common or to closely related source(s).

1.3.4. [The long-distance transmissional context – remarks to the individual textual communities/traditions – the role of Assyrian traditions] Assur and its textual and scribal traditions have not been specifically included in the map in sect.1.2. Regarding a number of aspects touched upon in the present study, it is clear that Assyrian traditions played a role within the transfer of innovative textual material from Babylonia to the peripheral west. Assyrian influence is particularly evident at the graphemic level (i.e., through the spread of distinctly Assyrian syllabic sign values; cf. chapter 9, sect. 2.1.7.1.) as well as at the textual level (i.e., within the extension and modification of the series SaV; cf. chapter 12, sect. 5.2.4.). As noted in chapter 5, sect. 5., the peripheral textual traditions show additional potential Assyrian imprints at the paleographic level (as a part of the so-called Later-Syrian stratum), it is however still difficult to identify those imprints as distinctly Assyrian in origin.

Altogether, the influence of Assyrian textual (and scribal) traditions is detectable among the individual peripheral textual communities to an unequal degree. (Potential) Assyrian features are particularly prominent in Em-SH (syllabary and textual version of SaV). To a lesser extent (textual versions of SaV), they are also detectable in Hatt-IIIb/c. Except within isolated manuscripts of SaV from Ug-Urt, distinctly Assyrian imprints are notably absent in the Ugarit traditions, as well as in those from Em-Syr and Hatt-IIIa. The extent of Assyrian influence on a textual tradition thus seems to be indirectly proportional to the degree of its peripherality, i.e., with the influence weakening the more peripherally-situated the tradition is. Therefore, dimensions of peripherality again include geographical-infrastructural as well as economical-political aspects: The closer the textual communities are situated to Assyria and the stronger their political-economical environment, the higher the Assyrian impact is on them. The textual traditions that antedate the rise of Assyrian power in the 13th century BCE, i.e., Em-Syr and Hatt-IIIa – as is expected – do not show any imprints of Assyrian scribal and textual traditions.

1.4. [The long-distance transmissional context – a map summarizing the modes of contact] The modes of contact among the individually identified textual communities as well as the modes which mark their contact to the additional (inexactly located) sources of innovation can be summarized in the following map:



1.5.1. [The long-distance transmissional context – some overall conclusions – **thesis 1: Independent spread of text-related and context-related innovations**] As can be obtained from the comparative map in sect. 1.2., some of the levels investigated are apparently interrelated as to the degrees of innovation: Within the four best documented textual traditions Hatt-IIIb/c, Em-SH, Ug-Rap/MT, and Ug-Bab, there appears to be a clear link between the paleographic and the graphemic level on the one hand, and between the epigraphic, textual, and curricular level on the other. I.e., a given textual tradition which is relatively innovative at the paleographic level is (expectedly) also at the graphemic level, but not necessarily at the other levels – as is the case for Ug-Rap/MT. Vice versa, a textual tradition which is innovative at the curricular level is in all likelihood also innovative at the textual and at the epigraphic level, but not necessarily at the paleographic and graphemic level – as is the case for Hatt-IIIb/c.

One may determine the first group of levels as conjoined by context-related features, i.e., features that are not specific to the lexical lists, but which are basically concerned with the level of writing and apply to all possible genres of text within a textual community (further see chapter 3, sect. 4.1.). In contrast, the textual and curricular levels unite text-related features, i.e., features that are exclusive to the lexical lists. Notably, the epigraphic level follows the text-related levels; the contrast between intersection rulings and line-by-line auxiliary rulings was apparently specific to the textual genre.

This split between text-related and context-related innovations is remarkable. It demonstrates that the transmission of, e.g., innovative usages of sign forms or of CV-dyads, was basically independent from the transmission of innovative textual versions of lexical lists. The local scribes in Ugarit (Ug-Rap/MT) apparently had access to innovative syllabaries and also used them when copying the textual versions of lexical lists, which, compared to the parallel versions from Emar and Ḫattuša, were antiquated. Vice versa, Hittite scribes (Hatt-IIIb/c) used highly innovative textual versions of the lists, yet when copying them made use of clearly antiquated graphemic principles.

1.5.2. [The long-distance transmissional context – some overall conclusions – **thesis 2: Basically oral and memory-based modes of long-distance transmission** and other consequences] The transmissional split between text-related and context-related features cannot be explained consistently through specifically internal characteristics of the individual traditions.

As for Ug-Bab, which shows a moderate gap between the innovation of text-related and context-related features, one may assume that both groups of features simply had not reached the same level of development in the specific period in which they were transmitted (directly) from Babylonia to Ugarit. Yet, there is no explanation, then, why the relative degree of innovation between the two groups of features is almost exactly inverted in Em-SH. With regard to Hatt-IIIb/c, the transmissional split may be explained by the secondarily central status this tradition had achieved: As argued in sect. 1.3.1.2., a strong awareness of the gradual independence of Hittite cuneiform from the corresponding Mesopotamian and Syrian traditions may have led Hittite scribes to maintain traditional features within the writing system although these were not up to date. As for Ug-Rap/MT; however, there is no proper explanation at all for the split if one solely draws on characteristics that are specific to this tradition.

It appears that the independence between text-related and context-related features must at least partially – if not fully – be rooted in developments that were common to the whole area:

(1) The almost inevitable point then is that the lexical lists and their transmission were no longer the primary means of maintaining and transmitting the (basic) knowledge of cuneiform writing, but that innovations within this (con-textual) knowledge were transmitted though other media. As will be elaborated in greater detail in sect. 3, there are further features within the three larger corpora to support the assumption that, compared to the OB tradition, the functional context of the lexical lists of the present corpus had changed.

(2) A second point concerns the potential modes of long-distance transmission: With the transmission of the actual lexical compositions and their curriculum basically separated from the transmission of the writing system, it appears very likely that the long-distance transmission of the texts and of textual innovations from one textual community to the next still strongly relied on oral and memory-based techniques.

1.5.3. [The long-distance transmissional context – some overall conclusions – interrelations between textual and spatial centrality/peripherality] Comparing the textual centrality/peripherality of the individual textual traditions assessed in the map in sect. 1.2., with the relative (1) geographical-infrastructural, (2) political-economical, and (3) cultural centrality/peripherality (cf. chapter 4, sect. 2.4.) of the respective sites and with their specific spread-zone/residual-zone location (cf. ibid.), one can obtain some clear interrelations:

(1) The relatively strong textual centrality of the Emar traditions (compared to the respective contemporaneous traditions) correlates with the relative geographic centrality and the spread-zone location of the site. I.e., among all sites investigated, Emar is the one located closest to Mesopotamia, and is situated at one of the most important trade routes from Babylonia to northern Syria and farther, to Anatolia.

(2) The high relative textual centrality of Hatt-IIIb/c, despite its peripheral geographic location suggests that, regarding the spread of textual innovations, political-economical centrality – 13th century Ugarit and Emar stood under Hittite rule – was a factor (almost) equally dispositive as that of geographical-infrastructural centrality.

(3) The relative textual peripherality of the 'indigenous' Ugarit traditions Ug-Rap/MT and Ug-Urt – i.e., which were unlike Ug-Bab, not transferred directly from Babylonia – as well as those of the Alalaḫ tradition, thus correlates with the relative geographical-infrastructural and political-economical peripherality of these sites. The textual peripherality is surprising in that Ugarit is located in an economical and cultural spread zone, and one can also observe important paleographic and graphemic innovations in the respective textual corpora. The spread of innovations apparently did not so much include the level of traditional (and academic) cuneiform culture.

2.1.1. [The short-distance transmissional context – the Ḫattuša corpus – evidence pointing to oral mediation] As has been summarized in the methodological presets in chapter 3, sect. 6.2., detecting traces of oral communication in the sources investigated is possible in specific contexts only, i.e., through phonetically-induced errors in the graphically determined Orthographic-Sumerian column. Thereby, the researcher further has to distinguish between real errors and common unorthographic and derivative spellings that are frequent and commonly occurring in OB and post-OB Sumerian.

Chapter 10, sect. 3.1. includes a brief list of all real errors of this kind that could be detected in the Ḫattuša corpus. They mostly stem from the series *Erimḫuš* and *Urra*, which deal with relatively complex Sumerian syntagmata. As noted in the same section, it is virtually impossible to determine the exact point or phase within the transmissional chain when these deviations affected the texts. It may well be the case that they already did so before the texts were transferred to Ḫattuša. In this

respect note that the long-distance transmissional context of the LBA western peripheral corpora was, as argued in sect. 1.4.2., very likely based on oral and memory-based techniques. As evidenced by the short-distance transmission of the texts in Ḫattuša, the errors; however, are not very pointing – if not altogether useless.

2.1.2. [The short-distance transmissional context – the Ḫattuša corpus – evidence pointing to memory-based storage] As noted in chapter 3, sect. 6.3., learning and the proper use of text always requires certain cultural techniques that have been internalized as well as a specific – memorized – cultural knowledge. Within the usage and reproduction of the Ḫattuša lexical lists, memorization – by this definition – must always have played a role. The question that is crucial in this respect is which are the textual, meta-textual, and con-textual components (as for this differentiation, see chapter 3, sect. 4.1.) that were specifically memorized. As was equally stressed in chapter 3, sect. 6.3., in order to demonstrate that scribes had individual components available from memory, is possible only if these components are absent in the written sources – either totally or indirectly, through the absence of explicitness – and if they were clearly essential for the understanding of the text.

Missing components of this kind can be found within the syllabaries and orthographies used and within the linguistic formats of individual compositions: As shown in chapter 11, sect. 2.3.1. & 2.3.2., a number of lexical series preserved in Ḫattuša, such as *Erimḫuš*, is attested to in various linguistic formats. In a Hittite scribal environment, unilingual Sumerian manuscripts of a given lexical series accompanied by duplicating bilingual or trilingual manuscripts only make sense if the respective Syllabic-Sumerian, Akkadian, and Hittite components had been or were going to be memorized. This also applies to the sign names, which may be present in one manuscript but absent in the duplicate.[2] As demonstrated in chapter 11, sect. 2.8.2., it even seems possible to reconstruct a curricular order of linguistic formats that guided the scribe through the memorization process. Also, note that manuscripts tend to assume more explicit, i.e., bilingual and trilingual formats in the course from the 14th-century to the 13th-century tradition (see sect. 1.3.1.1. & chapter 11, sect. 2.2.). Individual lexical compositions like SaV and *Diri* invariably appear in the most explicit, i.e., trilingual format irrespective of the period of production.

As with the omission of individual columns, the graphemic and orthographic ambiguities that arise from the specific syllabary used in the Akkadian column, in the Syllabic-Sumerian column, and also with regard to the sign names (cf. chapter 9, sect. 2.1.2., 3.2., & 4.2.) as well as the frequent use of logographic spellings both in the Akkadian and the Hittite column (cf. chapter 9, sect. 2.2. & 1.2.1.), presuppose additional con-textual, i.e., graphemic and orthographic knowledge, to have been internalized by the producers as well as by the (potential) users of the manuscripts.

2 Cf. SSgL Bo. E = KUB 3,94 and the duplicate Eb = KBo. 26,50.

Without knowing the meanings of the logograms and or of the Akkadian items, it was certainly impossible to make proper use of the texts. Conversely, as regards the manuscripts in unilingual Sumerian format, it is not necessary for this purpose to have the texts memorized. Note in this respect that, as argued in sect. 1.4.1., the con-textual level was apparently separated from the core-textual level in the long-distance transmissional practice.

2.1.3. [The short-distance transmissional context – the Ḫattuša corpus – evidence pointing to the copying of tablets] As explained in chapter 3, sect. 6.4., while it is easy to demonstrate that writing was involved in the mediation and storage of the Ḫattuša lists – i.e., through the mere presence of the (written) manuscripts – there are multiple transmissional modes conceivable in which a given manuscript could have been produced and/or used. And, not all modes conceivable can be verified in the sources. As a first step; however, it is possible to demonstrate that manuscripts have been copied from written *vorlagen*:

(1) As described in chapter 5, sect. 3.2. & 3.3., there are manuscripts which show a very specifically mixed paleography, involving the – apparently accidental – mixture of Hittite and Non-Hittite signs, as well as the peculiar concentration of early and late Hittite sign forms in specific parts of a manuscript. These peculiar mixtures can hardly be interpreted as the permanent writing styles of individual Hittite scribes, but must be rooted in their (inexact) copying of manuscripts in Non-Hittite paleography or respectively, of manuscripts with a Hittite, but earlier paleography.

(2) As explained in chapter 8, sect. 2.2.4., the revised column-format of some manuscripts, with the grapho-analytic subcolumns generally abandoned, but still reflected in the arrangement of part of the items, strongly suggests that there existed written *vorlagen*.

(3) As shown in chapter 8, sect. 3.5., there are two manuscripts that contain PAP-marks. As these marks indicate that respective passages were broken in a given *vorlage*, they simultaneously prove that such a *vorlage* existed.

(4) A number of errors, as summarized in chapter 10, sect. 3.1., are clearly writing-based, i.e., the errors rooted in graphic, graphemic, or orthographic misinterpretations.

(5) Peculiar spellings that are duplicated, as given in chapter 12, sect. 3.3., also prove that the respective manuscripts are mutual copies or trace back to a common third *vorlage*.

(6) There are indications that individual manuscripts have been compiled out of (written) chunks of distinct origins: They either retain 'blind' references (cf. chapter 11, sect. 3.2.), show peculiar sudden changes in orthography (cf. chapter 12, sect. 5.5.2.), or are left with a peculiar hybrid linguistic format (cf. chapter 11, sect. 2.9.2.).

Accordingly, the following manuscripts appear to be the copies of written *vorlagen* (with indicative criteria added in parentheses):

Acro Bo. B = KUB 3,104	IIIb(+)	(2)	Erim Bo. B = KBo. 1,36+	IIIc	(2)
Diri Bo. J = KUB 3,97	IIIa/b	(4)	Erim Bo. C = KBo. 1,50+	IIIb	(2)
Izi Bo. A = KBo. 1,42	IIIc	(2), (4)$^{?}$, (6)	Erim Bo. E = KBo. 26,27	IIIc$^{?}$	(2)
Izi Bo. B = KBo. 1,31	IIIb	(4)	Lu Bo. Ba = KBo. 26,36	IIIc	(1)
Izi Bo. D = KBo. 1,40	IIIa	(4)	OBLu Bo. A = KBo. 1,30	IIIc	(1)
Kagal Bo. B = KUB 30,8	IIc/IIIa	(4)	OBLu Bo. B = KBo. 1,39	IIIc	(1)
Erim Bo. Aa = KBo. 1,44+	IIIc	(3), (4)$^{?}$, (5)	SaV Bo. C = HT 42	IIIc	(3)
Erim Bo. Aac = KBo. 26,32	IIIb(+)	(2)	SaV Bo. A = KBo. 26,34	IIIc	(2), (4)$^{?}$, (5)$^{?}$
Erim Bo. Aaf = KBo. 26,23	IIIc	(4)	SSgL Bo. E = KUB 3,94	IIIc	(6)
Erim Bo. Ab = KBo. 1,35	IIIc	(4), (5)			

Thus, manuscripts are not numerous, yet stem from all paleographic periods and involve various lexical series. All manuscripts show distinctly Hittite paleography except for Lu Bo. Ba = KBo. 26,36, which has mixed paleography, yet nonetheless contains numerous Hittite sign forms. The copies therefore are definitely not foreign imports, but were produced in Ḫattuša.

2.1.4. [The short-distance transmissional context – the Ḫattuša corpus – evidence pointing to the use as information storage] It is clear that, as argued in the previous section, some manuscripts within the corpus were the copies of earlier manuscripts; a further important question then must address the purpose of this practice. As explained in chapter 4, sect. 6.4., manuscripts that have been copied from *vorlagen* in their primary usage were either copied during/for memorization (internal reproduction) or in order to be reproduced as storage (real transmission).

Whatever the primary usage leading to their production – it is clear that some manuscripts (at least as a part of their secondary usage) found their way into the Hittite long-term tablet collections: As noted in chapter 5, sect. 2.3., some of the manuscripts show an exceptionally early date of production, and provided that the archaeological date of the archives is correct, some of them – at least the ones stemming from Hatt-BkA – must have even been removed from other archives (cf. chapter 6, sect. 3.2.). Yet, as noted in chapter 3, sect. 6.4., their mere – and possibly accidental – inclusion into the long-term tablet collections does not prove the manuscripts to have been actively used as information storage.

Instead, a number of features listed in the previous section not only proves that the respective manuscripts were the copies of written *vorlagen*, but that the *vorlagen* must have already been the results of longer cycles of reproduction and rework. I.e., they were not only a part of the long-term tablet collections, but were actively and continuously reproduced, updated, and hence – in all likelihood – used:

(1) The rudimentary maintenance of grapho-analytic subcolumns, as explained in greater detail in chapter 8, sect. 2.2.4., is very probably not the result of a single copy of a manuscript that had the original format intact, but evolved during a process that involved the repeated recopying of the same text over a longer period of time.

(2) The use of PAP-marks, as discussed in chapter 8, sect. 3.5., not only proves the existence of written *vorlagen*: It appears very improbable that the scribe copying a deficient *vorlage* did so in order to memorize the text; he reproduced the vorlage in order to restore and save the text.

Evidence further involves the following points:

(3) As noted in chapter 9, sect. 1.5., individual linguistic elements of the Hittite column appear fossilized, i.e., they are outdated compared to the paleographic date of the manuscripts. Some of them can moreover be shown to have been retroactively updated in the Hittite column. Thus, individual manuscripts were subjected to the regular archival processes which also mark other genres of text in the Hittite tablet collections and which strongly suggest them to have been produced as a regular part of these collections.

(4) As noted in chapter 8, sect. 4.5., the elaborated colophons preserved on the manuscripts – in contrast to those found on the Emar and Ugarit lexical lists – attest to a strong preference for editorial information. Therefore preference may be interpreted as an emphasis put forth by the scribes on the recoverability of the contents of the manuscripts, and hence, as an indication for the scribes' interest in the archival preservation of the texts. Yet, since colophons were possibly added to manuscripts by default and irrespective of the individual manuscript's function, this argument is of complementary use only.

The number of manuscripts marked by the four features to have been used actively as information storage is – again – not very high. Notably, all pieces were produced in the 13th century:

Acro Bo. B = KUB 3,104	IIIb(+)	(1)	Erim Bo. C = KBo. 1,50+	IIIb	(1)
Diri Bo. Ac = KBo. 26,10	IIIc	(4)	Erim Bo. E = KBo. 26,27	IIIc?	(1)
Diri Bo. E = KUB 3,103	IIIc	(3)	SaV Bo. C = HT 42	IIIc	(2)
Izi Bo. A = KBo. 1,42	IIIc	(2), (3), (4)	SaV Bo. A = KBo. 26,34	IIIc	(1)
Erim Bo. Aa = KBo. 1,44+	IIIc	(2), (3), (4)	Unid Bo. 1-1 = KBo. 26,29	IIIb	(3)
Erim Bo. Aac = KBo. 26,32	IIIb(+)	(1)	Unid Bo. 4-1 = KBo. 13,2	IIIc	(3)
Erim Bo. B = KBo. 1,36+	IIIc	(1)			

2.1.5. [The short-distance transmissional context – the Ḫattuša corpus – evidence pointing to the use as exercise] While it is clear that, as demonstrated in the previous section, manuscripts were copied in order to reproduce them as information storage, there is limited evidence that tablets were copied as a part of the practice of memorization. The following traces that are decidedly exclusive to exercise tablets are (almost) all absent in the manuscripts:

(1) As noted in chapter 8, sect. 1.1.3., the whole corpus does not include a single piece that can be identified as an excerpt tablet.

(2) As noted in chapter 8, sect. 3.2., almost all manuscripts are inscribed with regular, often beautiful, and minute script (cf. chapter 8, sect. 3.2.)

(3) MIN-marks or empty slots are, as explained in chapter 8, sect. 3.4.2., never used as meta-

textual deivces; i.e., the items they substitute for can always be deduced from the same manuscript and do not require further extra-textual information.

(4) Also, grapho-analytic subcolumns (cf. chapter 8, sect. 2.3.3.), which supposedly had an exercise function, are missing from large sections of the manuscripts.

Notably, manuscripts of the parallel corpora from Emar and Ugarit show plenty of these features; however, as summarized in chapter 6, sect. 6., the archaeological context of both of these corpora is as well distinct from that of the Ḫattuša lists.

Two additional features found in the Ḫattuša lists may be considered typical for exercise tablets, yet can also be explained otherwise:

(5) A number of manuscripts, as noted in chapter 3.5. & 3.6., are marked by a high number of errors, a phenomenon particularly expected for exercise tablets. Yet, taking into account the Hittite scribes' cultural and linguistic remoteness from the source of the material and the long transmissional chain that it had to pass through, this does not necessarily expose the manuscripts to be the products of practice.

(6) The logographic spellings in the Akkadian and Hittite column (cf. chapter 9, sect. 2.2. & 1.2.1.) and the ambiguous syllabaries used in the Akkadian column, in the Syllabic-Sumerian column, as well as with regard to the sign names (cf. chapter 9, sect. 2.1.2., 3.2., & 4.2.) may be considered as a kind of abbreviations that make the lists unsuitable as reference works – at least, unless the users had relatively profound skills in (written) Hittite and Akkadian. Otherwise the abbreviations could only be properly explained as resulting in exercises or assignments, as substituting for items that the practicing scribe had already memorized. Yet, as elaborated in sect. 3.1.3., it is not improbable that the scribes who wrote and used the tablets were proficient in logographic writing as well as in Akkadian and Sumerian.

To be sure, exercise tablets may, despite their actual usage, appear in very good scribal condition, so they are practically indiscriminate from professional manuscripts that have for e.g., been produced for later reference. The badly written pieces may simply have been discarded soon after their production. However, one can state that none of the pieces preserved would be unsuitable to serve as long-term information storage.

2.1.6.1. [The short-distance transmissional context – the Ḫattuša corpus – some conclusions – **thesis 3: primary storage on tablets, secondary storage in memory**] Notably, the corpus combines manuscripts with features that clearly point to the practice of memorization with manuscripts that were obviously used as written (long-term) information storage. It is noteworthy that there are no individual manuscripts that combine features of both categories and that for the most part, manuscripts are indeterminable with regard to the mode of storage that formed their context. All manuscripts

verified to have been used as information storage were produced in the 13th century, whereas most of the manuscripts evidencing the practice of memorization stem from the 14th century, with many pieces however, also produced in the 13th century. It seems that the practice of storing the lists by means of writing was initiated or strongly expanded by the beginning of the 13th century, whereas simultaneously, the practice of memorizing the texts continually lost its original importance.

Nonetheless, scribes apparently used both modes side-by-side at least during the 13th century, still memorizing the lists, but also producing and keeping written sources for reference. How is this to be integrated, if not by generally presuming contemporaneously concurring modes of transmission? It is clear that lexical lists with their inconsistent structure and without any kind of index appended were practically useless in the shape of written sources if the user had not at least internalized their general structure and their general content. Although the principal mode of storage had switched from memory-based to writing-based modes, proper use of the tablets still required a certain degree of initial study, memorization, and practice. The exact degree of this memorization cannot be determined. It is possible that students still memorized the lists word-for-word; their primary storage on written sources however suggests that these time-consuming procedures were in decline. At any rate, the kind of storage through memorization as described is secondary: Texts were still stored in memory, yet were no longer handed down from memory to memory. Memorization for the purpose of conservation and storage had given way to memorization for the purpose of proper utilization.

This local practice of primary storage on written material stands in a notable contrast with the long-distance transmissional practices, which, as reconstructed in sect. 1.4.2., probably inhered a strong oral/memory-based component. Brought to Ḫattuša by scribes who had memorized the texts, the innovative textual material apparently 'coagulated' into a writing determined form. This local shift can be interpreted as a further argument for the proposed secondarily central position of the 13th-century Hittite textual community.

2.1.6.2. [The short-distance transmissional context – the Ḫattuša corpus – some conclusions – the modes of internal reproduction and mediation] Since, as has been argued in the previous section, texts were still memorized to some degree in the 13th-century tradition, with their primary storage still on tablets, it is almost inevitable to assume that scribes did this memorization from written *vorlagen*. Probably the *vorlagen*, which they used as aide memoire were the same tablets that were shelved for long-term storage in the collection, and possibly, particularly successful and well-shaped exercise pieces also found their way into the long-term tablet collections.

The primarily memory-based transmission having vanished, written sources were no longer needed as a means of mediation. As argued in chapter 3, sect. 6.4., it is methodologically impossible

to demonstrate that written sources were used as such; however with regard to the 13th-century tradition, it is practically impossible that that was the case. In contrast, there is evidence suggesting oral communication to have been involved as a means of mediation; yet, it is unclear on which stage(s) of the textual tradition, i.e., in which chronological phase, this was the case; if it (still) was the case in the 13th-century tradition the only mode of oral communication conceivable for that period is that of dictation as a part of the copying of a written *vorlage*, i.e., as a part of the literate reproduction of written sources.

2.1.6.3. [The short-distance transmissional context – the Ḫattuša corpus – some conclusions – memory accessible or visually accessible vertical structuring?] In light of the preceding observations, it is possible to have a closer look at a formal feature of many manuscripts that has hitherto been excluded from the discussion. As noted in chapter 8, sect. 2.4.2., most of the manuscripts of the 13th-century tradition as well as the bilingual and trilingual manuscripts of the 14th-century tradition show the texts to be structured by the insertion of horizontal intersection rulings. These mostly follow specific organizational breaks in the overall arrangement of the text. The average number of entries grouped into those sections is two to six. This is fairly congruent with the amount of items that, according to experiments in mental cognition, can be memorized without additional organization or elaboration (which is five plus or minus two; cf. chapter 3, sect. 5.5.). The texts thus appear in a physical arrangement that potentially facilitates their memorization.

Notably however, the manuscripts which do not exhibit this device, i.e., the unilingual tablets from the 14th century, form the stock of manuscripts that were clearly the (by-)products of memorization. In contrast, the manuscripts that (could be) demonstrated to have been used as written storage all show their texts to be organized through horizontal intersection rulings. Accordingly, it appears that scribes introduced these devices as a kind of visual structuring which facilitated the retrieval of individual sections or entries on the inscribed surface, and not in order to mark off the individual units as the individual chunks for memorization.

2.2.1. [The short-distance transmissional context – the parallel corpora – the Emar corpus] Evidence found among the manuscripts of the Syro-Hittite tradition in Emar (Em-SH) is less pointing than for the Ḫattuša corpus.

That a practice of exercising and memorization also existed in Emar is proven by: the presence of a considerable number of excerpt tablets (cf. chapter 8, sect. 1.1.), a hierarchy of linguistic formats between a group of fully bilingual manuscripts and a group of manuscripts that include Akkadian translations in individual sections only (cf. chapter 11, sect. 2.8.1.), and by the metatextual use of MIN-marks and empty slots on manuscripts of the latter group as well as on excerpt

tablets (cf. chapter 8, sect. 3.4.2.). I.e., numerous manuscripts lack essential parts of the text, which the scribes either had memorized or intended to memorize. Interestingly, entirely unilingual manuscripts are – in contrast to Ḫattuša and Ugarit – almost completely absent in Em-SH (see chapter 11.sect. 2.2.).

On the other hand, the duplication of a number of peculiar Akkadian spellings (cf. chapter 12, sect. 3.3.) proves that the Emar scribes copied lexical lists from written *vorlagen*. It is yet unclear whether this was done just for the purpose of memorization or in order to reproduce the manuscripts as information storage. That tablets were kept in the long-term collections is clear from the survival of manuscripts of the older Syrian tradition. These are notably preserved in very good condition (cf. chapter 8, sect. 2.1.), which suggests that the Syro-Hittite scribes handled them with extreme care. In contrast, the strongly damaged condition of many Syro-Hittite manuscripts may be taken as evidence that these were not intended to be kept for a longer period of time. Yet, the unexpectedly low share of excerpt tablets – if it is not to be explained away by specific changes in the memorizing practices (cf. chapter 8, sect. 1.1.3.) as well as the frequent use of firing holes (cf. chapter 8, sect. 2.6.) – suggests that also a number of Syro-Hittite full-text manuscripts were (designed to be) shelved in the long-term collections.

While there is no doubt that lexical tablets were shelved in Emar, it is not clear if they were actively used as information storage: The colophons interestingly include biographical information only and lack any editorial information about the actual texts (cf. chapter 8, sect. 4.5.2.); however, it appears possible that the tablets were kept for biographical needs, e.g., as some kind of exams, and not in order to preserve the contents. Also, there do not exist any Syro-Hittite copies of older Syrian textual versions, so the Syro-Hittite scribes did not copy them, but perhaps kept them for reasons of mere scholarly curiosity.[3] The only – however not fully compelling – indication suggesting that the compositions were actively stored on written sources involves the side-by-side existence of two contemporaneous versions of the sign list SaV. These two versions show strong variations regarding the sign inventory they treat as well as regarding the added Akkadian translations; yet, there is also a considerable portion of entries shared by both versions. From a cognitive perspective, it seems unlikely that two textual versions showing these characteristics coexist without interfering, if their storage does not build – at least basically – on written sources (cf. chapter 12, sect. 5.2.6.).

The Syrian tradition of lexical tablets is far too scarcely preserved for reconstructing its transmissional context. Yet note that one of the manuscripts preserved is signed by a professional scribe (cf. chapter 7, sect. 3.2.1.) and thus very likely did not evolve from within the context of practicing.

3 This would also explain why Urra 3 Em. 543-5+ also contains parts of an Akkadian translation.

2.2.2. [The short-distance transmissional context – the parallel corpora – the Ugarit corpus] The transmissional context within the Ugarit tradition apparently differs from that of the Ḫattuša manuscripts – at least for great parts of the corpus, involving Ug-Rap, Ug-MT, and Ug-Urt.

Equal to the Emar corpus, the Ugarit lexical lists include a number of excerpt tablets (cf. chapter 8, sect. 1.1.), with meta-textual use of MIN-marks and of empty slots (cf. chapter 8, sect. 3.4.2.). Also, compositions are preserved in duplicating and contemporaneous unilingual and bilingual copies, which clearly suggest a curricular hierarchy of linguistic formats (cf. chapter 11, sect. 2.8.1.). It is clear from these points that scribes memorized lexical lists.

The practice of copying tablets is attested to for only one pair of manuscripts, which show the duplication of a peculiar Akkadian spelling (cf. chapter 12, sect. 3.3.; Ug-Rap); and this copying may have been a part of the memorization process. From historical synchronisms of scribes who have signed some tablets (cf. chapter 7, sect. 3.3.3.) and from the use of firing holes (cf. chapter 8, sect. 2.6.), it is moreover very probable that some pieces of the corpus had been shelved. Their number; however, is low and notably many pieces stem from archives which do not show any further attestation of lexical lists (Ug-Ršp and Ug-L; regarding the firing holes), and which thus do not belong to the regular corpus. The unexpectedly high number of full-text tablets as opposed to the number of excerpt tablets does not necessarily point to a storage of the full-text tablets, but can also be explained as due to a change in the traditional (i.e., OB) memorizing procedures (cf. chapter 8, sect. 1.1.3.). Also, the fact that manuscripts – even manuscripts with very basic lexical compositions – were appended by colophons is not proof that they were produced in order to be stored, since the composing of colophons may have been a part of the practicing (cf. chapter 8, sect. 4.5.).

Thus, there is no compelling positive evidence that manuscripts of lexical lists were regularly used as information storage in Ugarit. In contrast, the comparably high degree of interference between parallel versions of the same composition, such as that of SaV, suggests that the lists were primarily kept in memory and that they were handed down from memory to memory (cf. chapter 12, sect. 5.2.6.). This rather traditional transmissional context is well in agreement with the long-distance transmissional practices, as described in sect. 1.3.3. & 1.4.2., and with the general peripheral position which the Ugarit textual traditions – at least Ug-Rap, Ug-MT, and Ug-Urt – assume as compared to contemporaneous Hatt-IIIb/c and Em-SH. Apparently, the Ugarit textual communities did not work with up-to-date versions of the lists, but also worked with transmissional techniques which the communities in Ḫattuša and – possibly – Emar had replaced with more innovative, writing-based procedures.

The transmissional context of the lists in Ug-Lam possibly differed from those reconstructed for the main corpus. However, the number of manuscripts published from this archive is too low for a further investigation.

3.1.1. [The functional context – the Ḫattuša corpus – evidence contradicting basic scribal education as functional context] Manuscripts of the 13th-century tradition show a number of features that are incompatible with the interpretation that lexical lists belonged to the curriculum of elementary scribal education in Ḫattuša during that period:

(1) As can be obtained from the table in chapter 11, sect. 1.3., the elementary compositions that make up the initial parts of the scribal curriculum in the OB period and in contemporaneous Ugarit, i.e., the series *Tu*, SAl, and SaS, are completely absent. Also, SVo, which is the composition that presumably followed that triad in the curriculum, is preserved by a small, single fragment only.

(2) The Hittite translations added to the entries, as summarized in chapter 9, sect. 1.5., belong to the literary stratum of the Hittite language and in parts represent an outdated diachronic stage. In order to make proper use of the translations, the scribes needed profound skills in literary, written Hittite – skills that, according to the traditional model of scribal education, they were to have acquired *after* finishing the elementary stages of their scribal education.

3.1.2. [The functional context – the Ḫattuša corpus – further evidence pointing to an atypical functional context] As argued in sect. 1.4.2., the specific long-distance transmissional context of the lists suggests their functional context to have deviated from the traditional schema. There is a further group of features within the corpus supporting this suggestion:

(1) The manuscripts were found within the remains of large, official buildings, moreover they make up a proportionally small group within the total contents of these archives with the remaining groups being of a non-private character (cf. chapter 6, sect. 6.). Therefore the archival context rather resembled that of the tablet collections of the post-canonical period, where lexical lists were stored for exegetical and scholarly needs. In any case, it strongly differed from the OB and the contemporaneous Syrian archives, which were housed in private, domestic buildings and which also included a good deal of private documents.

(2) Other than in Emar and Ugarit, the scribes signing the tablets did not mention themselves as disciples (Akk. *kabzuzu*) or junior scribes (Akk. DUB.SAR.TUR), nor did they mention a potential teacher or supervisor (cf. chapter 7, sect. 2.2.).

(3) As already noted in sect. 2.1.5., manuscripts do not show any of the typical features that would inevitably mark them as the products of exercises: There are no excerpt tablets among them (cf. chapter 8, sect. 1.1.3.); they hardly make use of grapho-analytic subcolumns (cf. chapter 8, sect. 2.3.3.); they were inscribed in regular, often beautiful and minute script (cf. chapter 8, sect. 3.2.); and MIN-marks and empty slots never refer to extra-textual information (i.e., the items they substitute for can always be deduced from the same manuscript; cf. chapter 8, sect. 3.4.2.).

(4) Apart from lacking the initial elementary lists, the curriculum generally appears imbalanced (cf. chapter 11, sect. 1.3.): with thematic series almost absent, with an important share of the series *Erimḫuš*; and with a notable focus on series which show a high degree of polysemic differentiation, i.e., which provide several Akkadian translations for a single Sumerian item. Altogether, it appears that the Hittite scribes preferred series that put a stronger focus on Akkadian.

3.1.3. [The functional context – the Ḫattuša corpus – **thesis 4: lexical lists as a part of a secondary, academic phase of study**] As it has already been stressed regarding the short-distance transmissional context of the lists, there are some clear indications that lexical lists were (still) memorized in Ḫattuša – in the 14th-century tradition, but also in the 13th-century tradition – and that practicing was (still) an integral part of their functional context. In the following; however, it is held to be true that the context of the lexical lists – at least for those of the 13th-century tradition – is not that of elementary scribal education, but rather of a kind of academic secondary study. The scribes approaching the lexical lists as the materials of this study apparently were proficient in producing the kind of standard Hittite texts that were a regular part of the local tablet collections, and they were perhaps also proficient in producing Akkadian documents.

By the beginning of the Empire Period at the latest (i.e., in the late 14th century), Hittite scribal practice had evolved into an autonomous tradition, using its own language and paleography, its own tablet formats, its own syllabary and orthographic conventions, and producing its own genuine literary genres. This conforms to the secondarily central status that the textual tradition of the lexical lists had achieved by this time (see sect. 1.3.1.2.). Formally, the manuscripts of lexical lists appear fully integrated into the local tradition, displaying local paleography (cf. chapter 5, sect. 1.) and local tablet layout (cf. chapter 8, sect. 5.1.); and even showing the Akkadian syllabary transformed by the local Hittite syllabary (cf. chapter 9, sect. 2.1.7.).

Yet, for learning to produce standard Hittite and Akkadian documents, the lexical texts as preserved in Ḫattuša contained far too much and far too little. To be sure, a similar gap can already be found within the curriculum of the OB *eduba* (see chapter 2, sect. 4.2.3.). However, this gap is by far more dramatic in Ḫattuša. Not only was Sumerian an extinct language at that time – also the Akkadian passed down by the lists was outdated compared to the contemporaneous Akkadian (diplomatic) language; which had by this time developed its own terminology and ductus. It seems odd that Hittite beginner scribes, in order to learn the basic inventory of the Hittite syllabary and the few dozen logograms necessary to (re)produce regular Hittite compositions, spent years memorizing hundreds, if not thousands of trilingual (!) lexical equations.

It appears more likely that Hittite scribes went through other training procedures in order to acquire their basic scribal skills. In this respect, the fact that many local literary compositions

are preserved in multiple copies – a specific of the Ḫattuša archives, which marks it off from any other earlier and contemporaneous cuneiform archives – appears in a new light. Those loads of duplicates are probably best identified as the exercises that actually formed the first phase of scribal education in Ḫattuša. This interpretation is confirmed by the fact that all attestations of colophons in which scribes introduce themselves as disciples or junior scribes stem from manuscripts with genuine Hittite compositions (cf. chapter 7, sect. 2.2.). As part of a kind of academic study, individual, talented scribes went on to copy and memorize lexical lists and to penetrate into the cultural heritage as covered by the 'original', Mesopotamian scribal tradition (see sects. 2.1.6.1. & 2.1.6.2.). Getting deeper insights into the system of cuneiform writing and into the relations between Sumerian, Akkadian, and Hittite grammar and lexicon, meant that they also acquired some of the prestigious scribal abilities that were necessary for the further study of traditional Mesopotamian literature. The preference for lexical compositions that focus on Akkadian (i.e., *Erimḫuš* and compositions with high polysemic differentation, such as SaV or *Izi*) thereby suggests that the scribes' main interest was the study of Akkadian rather than of Sumerian traditional literature.

In contrast, the manuscripts of the 14th-century (Hatt-IIIa) tradition in many respects resemble those of Ug-loc and Em-Syr, involving the tablet layout (cf. chapter 8, sect. 1.3. & 2.4.2.), the curriculum of compositions (cf. chapter 11, sect. 1.3.), and the linguistic formats (cf. chapter 11, sect. 2.2.). It is suggestive that the functional context of these earlier manuscripts followed a more traditional pattern.

3.1.4. [The functional context – the Ḫattuša corpus – beyond elementary scribal education] The separation of the study of lexical lists from the primary scribal education entails some consequences that help to explain some additional features of the corpus:

(1) As not all would-be scribes necessarily had to master the study of lexical lists, and as lexical lists possibly even ceased to be at all a part of the broader scribal education, but formed an advanced curriculum to be approached by individual talented apprentice scribes or even by professional, 'post-graduate' scribes only, the number of manuscripts expected to be preserved is considerably lower: In fact, their embedding into an academic context forms a good explanation for the generally scarce attestation of lexical lists in Ḫattuša compared to the total number of tablets found in its tablet collections (cf. chapter 6, sect. 4.2.).

(2) As the traditional training procedures of word-for-word memorization and continuous rehearsal quite possibly lost their practical necessity and were replaced by a partial storage on tablets and by memorization of a general structural outline of the compositions (see sect. 2.1.6.1.), the traditional role of teachers in the process of study also lost their ultimate importance; the compositions could simply be studied from authoritative reference sources that were kept in the tablet

collections. Also, the traditional curricular order of compositions then lost its importance, and scribes probably picked out those compositions that suited their current needs.

(3) Partially freed from their practical ties and primarily stored on written sources, the lists could also shirk some of their original character as sole instruments of study and develop into independent objects of study, being studied and reproduced like any other regular piece of foreign literature within the tablet collections of Ḫattuša. Whether such developments were related to and/or influenced by simultaneous developments in Babylonia, where the lists by their canonization turned into tools and objects of philological exegesis and speculation, is unclear. Taking into account; however, that the Hittite scribal tradition of the Empire Period had reached a highly literate conception of cuneiform texts, it appears no less likely that these developments had a local stimulus.

3.2.1. [The functional context – the parallel corpora – the Emar corpus] In contrast to the Ḫattuša corpus, the Syro-Hittite lexical lists from Emar appear in a functional context which is much more in agreement with the traditional model as represented by the OB *eduba*: The manuscripts were found in a private archive that was located in a domestic building (cf. chapter 6, sect. 5.2.), the training took place within a scribal family (the Zū-Baʿla clan) and was conducted by family members or by hired external teachers (cf. chapter 7, sect. 3.2.2.); many manuscripts clearly exhibit an exercise character (see summary in sect. 2.2.1.), and scribes mention themselves as *kab-zuzu*-s "pupils" in the colophons.

Yet, although the curriculum of lexical series generally conforms more to that of the OB period than to the one found in Ḫattuša – regarding the series attested to as well as the quantitative relations among them – the initial elementary lists *Tu*, SAl, and SaS are completely absent (cf. chapter 11, sects. 1.2. & 1.3.). Other than for the Ḫattuša tradition, this lack cannot be provisionally explained by the general absence of exercise tablets, since the corpus includes plenty of tablets of this type. Manuscripts with the elementary lists were not discarded earlier than others: Elementary lists were not a part of the curriculum. The absence of these – per definition – unilingual compositions (cf. chapter 11, sect. 2.3.1.) remarkably goes along with a generally marginal share of unilingual manuscripts (cf. chapter 11, sect. 2.2.).

It is in this respect conceivable that the Emar scribes of the Zū-Baʿla archive had acquired some basic skills in cuneiform writing and in producing (Akkadian) short-term documents *before* they began to copy and memorize lexical lists. Since short-term documents in Emar are mostly composed in Akkadian and never in the local West-Semitic idiom, the local scribes definitely had to learn Akkadian. It appears more suggestive that they did so orally and/or by practicing simple document formulas than by memorizing lexical lists. The lists mainly reflect a literary stratum of Akkadian and besides listing lots of – often highly specific – vocabulary, they do not provide much

insight into the morphological or syntactic structure of Akkadian. It rather appears that – like in Ḫattuša – individual talented scribes studied the lists as a part of an additional, academic program, which finally enabled them to deal with traditional Mesopotamian literature. It is clear that the would-be scribes of the Zū-Baʿla archive had to work with traditional Akkadian religious texts later in their careers, since they were to follow their ancestors as the chief diviners of Emar: The family's archival remains include quite a number of manuscripts of this type (cf. chapter 6, sect. 5.2.).

It is possible that the apprentice scribes had received their basic scribal training at another (more administrative) archive in Emar. The initial proficiency they had acquired there may be reflected in the relatively low share of excerpt tablets within the corpus – if this is not explained otherwise as caused by specific tablet keeping practices (cf. chapter 8, sect. 1.1.3.). The focus on specifically Akkadian (and not Sumerian) literature in the later careers of scribes may be reflected throughout the bilingual formats of the lists. The general configuration of the corpus (cf. chapter 11, sect. 1.3.) and the *sammeltafel* Lu 2 / Izi Em. 602M+ suggest that – other than in Ḫattuša – scribes principally followed the traditional curricular sequence of compositions in their study.

The earlier, Syrian tradition (Em-Syr) is too scarcely preserved for a more detailed hypotheses. The relative similarity of the corpus and of the individual manuscripts with the main tradition from Ugarit (Ug-Rap/MT and Ug-Urt) suggests the functional context of Em-Syr to have been relatively similar to the context of these traditions (see the following section).

3.2.2. [The functional context – the parallel corpora – the Ugarit corpus] The *sammeltafel* Tu Ug. C = RS 22.225; which combines the elementary lists *Tu* on the one side with an Alphabetic-Ugaritic literary composition on the other side, as well as the excerpt tablet RSGT Ug. D = RS 20.148+, which also contains an exercise of the Ugaritic alphabet; suggests that – similar to Ḫattuša and Emar – the scribes beginning to copy and memorize lexical lists had already received some scribal education in the specifically local cuneiform tradition. This would explain why: the scribes mention themselves in the colophons not only as Akk. *kabzuzu*-s "pupils", but also as Akk. DUB.SAR-s "(fully-educated) scribes" (cf. chapter 7, sect. 3.3.2.); the manuscripts of the initial exercise *Tu* appear in very good scribal condition (Tu Ug. B = RS 25.446+ even has a well-formed elaborated colophon added on the edge); as well as why the number of excerpt tablets is relatively low (if this is not to be explained by specific tablet-keeping practices; cf. chapter 8, sect. 1.1.3.). It is unclear; however, if the scribes were already proficient in the production of Akkadian short-term documents, as was supposedly the case in Emar.

According to specific imbalances among the major archives with regard to the tablet types and the compositions preserved, it seems that the individual levels of scribal training were concentrated in specific archives: Ug-MT and Ug-Lam contain hardly any (MT) or even no (Lam) excerpt tablets

(cf. chapter 8, sect. 1.1.2.), but include quite a number of manuscripts with traditional Mesopotamian literature (cf. chapter 6, sect. 5.1.1.). As for Ug-Rap and Ug-Urt, the situation is exactly the opposite, with medium (Rap) or high (Urt) rates of excerpt tablets but with (almost) no literary texts preserved. It appears that the scribal training in Ug-Rap and Urt-Urt – at least at the time the site was abandoned – rather focused on the initial phases of the training, while in Ug-MT and Ug-Lam, scribes went over to the later phases, which also included the study of literary texts. The lexical lists preserved besides the literary texts in these two archives possibly served as reference sources during the study of the more advanced compositions: It is in this respect peculiar that the lexical manuscripts in Ug-Lam (those that belong to the initial stage of the curriculum) often do not appear in Babylonian paleography as is common for that archive, but in the local paleography as current in Ug-Rap, Ug-MT, or Ug-Urt. (cf. chapter 11, sect. 1.4.; also see sect. 1.3.3.). Probably, the scribes studying in Ug-Lam had absolved the elementary classes in other archives. When they changed over to Ug-Lam for the study of more advanced lists and literary compositions in Babylonian paleography, they possibly took with them parts of the (elementary) material which they had written (and memorized) earlier and in local paleography, and which they now had at hand for further reference. The scribal apprentice Yanḥāna is known to have worked in Ug-Rap and Ug-MT, mentioning two distinct teachers and two distinct titles in his colophons (cf. chapter 7, sect. 3.2.2.); according to an analysis of his handwriting, he was also active in Ug-Lam (or: some of the manuscripts he had produced elsewhere were transferred to Lam; cf. chapter 8, sect. 3.3.2.). This suggests that the archives and/or teachers where an individual scribe worked during his training career could change, depending on the level of proficiency he had achieved.

The numerous *sammeltafeln* preserved within the corpus and the sequence of compositions they exhibit suggest that scribes studied at least the initial compositions of the curriculum according to the traditional order (cf. chapter 8, sect. 1.2. & chapter 11, sect. 1.3.). Regarding the coexistence of contemporaneous duplicating unilingual and bilingual manuscripts (at least in Ug-Rap, Ug-MT, and Ug-Urt; as for an example, cf. chapter 12, sect. 5.4.), it is moreover suggestive that they did so according to a curricular hierarchy of formats, beginning with the complete, bilingual versions and, after the memorization of the Akkadian translations, going over to the more advanced unilingual Sumerian versions. Similar to that in Emar, the training took place in the private houses of high officials (cf. chapter 6, sect. 5.1.) and the archives, besides the lexical lists, contained a sizable lot of private short-term documents. There is moreover reliable evidence that suggests family members taught their younger siblings (cf. chapter 7, sect. 3.3.1.).

4. [Some remarks on the smaller corpora] For reconstructing the functional and transmissional context of the lexical lists from Alalaḫ, Ortaköy, El-Amarna, Tell Aphek, Ashkelon, and Hazor,

the respective corpora are too small. By viewing them as analogous to the three larger corpora; however, one may at least arrive at some basic suggestions.

As summarized in chapter 1, sect. 3.5., the historical site of Alalaḫ was similar to Ugarit and Emar in its political and economical importance. The four manuscripts preserved were produced in the same period as was the bulk of the material from these two parallel sites. Notably, all four manuscripts are unilingual and in this respect, they are rather congruent with the Ugarit corpus, and not with the Emar corpus. One may provisionally propose the functional and also the short-distance transmissional context of the Alalaḫ lists to have been similar to the context of the Ugarit lists.

About the political-economical structure of the Hittite regional center of Ortaköy, not much is known as yet; also, the single manuscript found there antedates the bulk of material that was unearthed in the capital Ḫattuša. Thus the material basis for an analogy is too slim. Similarly, the culturally unique status of El-Amarna, which stood totally apart from cuneiform culture in that cuneiform was used exclusively for diplomatic correspondence, hardly allows for any far-reaching analogies.

As for the Palestinian sites of Tell Aphek, Ashkelon, an Hazor, K. van der Toorn (2000) suggests a functional and short-distance transmissional context similar to that of Ugarit. Yet, one must ask if the general material insignificance of epigraphic finds made at these sites is not to be regarded as evidence for a general insignificance of scribal education: With so little scribal activities attested to, there was possibly no need for scribal education in the traditional manner; perhaps, it was not even feasible, presuming that the maintenance of the textual tradition of lexical lists was bound to strong, textual communities.

As a paleographic and prosopographic investigation of Amarna's letters that were sent by Palestinian rulers to the Pharaoh has shown (Vita 2000), letters from geographically distinct Palestinian city-states were written by one and the same scribe. This pattern suggests that the local rulers hired itinerant scribes to have the (occasional) official document written. If the Palestinian scribes were itinerant, then the scribal apprentices - i.e., in all likelihood: the scribes' sons – were probably also itinerant and the whole (Palestinian) textual community was not bound to a specific residential archive. To be sure, there is not much positive evidence in favor of that hypothesis, however it would explain the scattered attestations of lexical lists and of the other scholarly texts unearthed at Palestinian sites.