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Visualizing Knowledge and Creating Meaning in Ancient Writing Systems



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Visualizing Knowledge and Creating Meaning in Ancient Writing Systems

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Content

Shai Gordin
Preface 7

Mesopotamia, Anatolia and the Aegean

J. Cale Johnson
The origins of scholastic commentary in Mesopotamia:
Second-order schemata in the Early Dynastic exegetical imagination 11

Shai Gordin
The Socio-historical Setting of Hittite Schools of Writing as reflected
in Scribal Habits 57

Mark Weeden
Anatolian Hieroglyphs: Logogram vs. Ideogram 81

Helena Tomas
Orality of Linear A, Scriptuality of Linear B 101

Egypt

Jiří Janák
Extinction of Gods: Impact of Climatic Change on Religious Concepts 121

Renata Landgráfová
Ars Memoriae Aegyptiaca? Some Preliminary Remarks on the
Egyptian Hieroglyphs and the Classical Art of Memory 133

Middle America and East Asia

Tze-wan Kwan
Phenomenological Interpretation of the "Six Ways" of Chinese Script Formation 157

Elisabeth Birk
Das Problem des Wortbegriffs im Deutschen und im Japanischen – Zum Verhältnis von Schriftsystem und sprachlichem Wissen 203

Erik Boot
On (Some of) the Principles and Structures of Graphic Sign Substitution in Classic Maya Writing 215

Preface

Ancient writing systems employ logographic and logophonetic principles playing on the relationship between writing, script and scribal learning. The workshop proceedings published in this volume explore the way these relationships encode knowledge and meaning reflected in the social, historical and cultural *mentalité* of early East Asia (China and Japan), Mesopotamia, Anatolia, the Aegean, Egypt and Mesoamerica. The two day workshop was organized at Freie Universität Berlin in September 2010 by the editor and Renata Landgráfová (now Charles University, Prague). It took place under the auspices of the DFG research training group 1458 "Notational Iconicity" ("Schriftbildlichkeit") headed by Eva Cancik-Kirschbaum and Sybille Krämer.

The premise of this book is that script and the organization of texts can reveal how knowledge is transformed and transmitted among different social groups across time and space, and eventually standardized as written tradition. Its multidisciplinary approach follows recent trends in the attempt to arouse debate between scholars of disparate ancient systems of writing – be it Cuneiform, Hieroglyphic or Linear in nature – and to discuss their elements independent of origin or cultural context. A broad perspective on ancient writing and its visual elements was established with contributions delving into the aspects of generating knowledge and meaning (J. Janák, J. Cale Johnson, M. Weeden), categorizing knowledge (E. Boot, T. W. Kwan, H. Tomas), diffusion and transformation of knowledge (Sh. Gordin, R. Landgráfová) and rationalizing knowledge (E. Birk). I extend my gratitude and thank Eva Cancik-Kirschbaum for her support throughout this endeavor.

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Finally, I wish to thank the participants of the workshop for making it a truly memorable experience.

Shai Gordin
Tel Aviv, June 2013

Mesopotamia, Anatolia and the Aegean

The origins of scholastic commentary in Mesopotamia: Second-order schemata in the Early Dynastic exegetical imagination

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Abstract

This paper investigates Early Dynastic scholasticism in Mesopotamia, particularly as represented in several Fara/Shuruppak precursors to the well-known Zami Hymns from Abu Salabikh. These texts are the earliest commentaries in the history of cuneiform, but they are also important in that they document a chain of self-conscious acts of reflection on philological method and exegetical technique. These schemata were encoded in the names of lesser divinities and culminate in a catalogue raisonné of scholastic practices in the Sumerian mythological text known as Enki and Ninhursag.

When we think of terms like philology, commentary or exegesis, particularly in connection with the cuneiform material from ancient Mesopotamia, the objects under discussion almost invariably stem from the first millennium BC. This was the age of the library of Ashurbanipal, and its efforts to rescue the full expanse of cuneiform scholarship from oblivion. The art and science of Mesopotamian philology in these "late" texts is now clearly thematized and surveyed

[1] Thanks to Mark Geller, Gebhard Selz, Bob Englund and Eva Cancik-Kirschbaum for reading an early draft of this paper. All errors remain my own, however. The research reported in this paper was supported by the DFG-funded SFB 980: Episteme in Bewegung, but has also benefitted from feedback at two conferences held in Vienna: The Early Dynastic Workshop in November 2011 and the Broken Narratives Conference in March 2013. Deity names are translated in their conventional form, even when this differs from their proper form in Sumerian: thus Ninhursag rather than Ninḫursaĝa, Inanna rather than Inana and so on.

in Eckart Frahm's recent work on the late commentaries.[2] The materials in Frahm's survey extend from the Old Babylonian period down to the very end of the cuneiform tradition in the first centuries CE, and I will speak of the commentaries dealt with in Frahm's survey as "late" in opposition to the "early" (mid-third millennium BC) materials that I focus on in this paper. The commentaries of the first millennium BCE represent the end of Mesopotamian scholasticism, not its beginning; for the beginning of Mesopotamian philology and scholasticism, we must turn to the middle of the third millennium BCE and a handful of texts that were excavated in places like Fara and Abu Salabikh. These tablets are few and far between and have never been discussed outside the narrow confines of Assyriology; even within the discipline the only examples of Early Dynastic scholasticism that enjoy some modicum of recognition are the so-called *Zami Hymns. The Zami Hymns* are relatively well known thanks to the edition of these texts that Biggs included in his publication of the Early Dynastic texts from Abu Salabikh: not actually hymns at all, they are best understood as scholastic commentaries concerned with the orthography, etymography and meaning of the names of various deities.[3]

The Zami Hymns, as I argue below, represent a relatively late phase in the history of the genre, and are constructed out of scholastic memoranda extracted from a heterogeneous array of third-millennium sources. But if we are to understand how knowledge was transferred and revalued within this tradition, we must turn to a corpus that is one or two generations older than *The Zami Hymns* from Abu Salabikh, namely the scholastic materials excavated near the present-day city of Fara (ancient Shuruppak). Published in a curious mixture of transliteration and hand copy in 1923, the materials in Deimel's *Schultexte aus Fara* were the first scholastic texts from Fara (ancient Shuruppak) to be published and this group of materials has been extended through two further publications by Jestin in 1937 and 1957 (abbreviated as TSŠ and NTSŠ respectively). As it happens the two texts from Shuruppak that will be of particular interest to us here both stem from Jestin's 1957 publication (although some fragments appeared in earlier publications) and are consequently designated as NTSŠ 168+ and NTSŠ 82. Thanks to the conservative orthography of divine and temple names in later periods and the window into the history of these early texts that these names afford, we can use the shifting configurations of divine names (alongside more diaphanous clues such as shared rubrics and textual formats) to arrange the early scholastic materials into four strata, extending from the so-called *Cities List* (ca. 3000 BCE), through two phases of the Fara/Shuruppak materials (represented by NTSŠ 168+ and NTSŠ 82 respectively, ca. 2600 BCE) and culminating in a sense with *The Zami* Hymns from Abu Salabikh (ca. 2500 BCE).[4] Of course the added difficulty of non-administrative texts such as these is that the processes of recopying and

[2] Frahm 2011.

[3] Biggs 1974. For a more recent overview of these materials, see Krebernik 1998.

[4] Krecher seems to have been the first person to recognize the substantial overlap in lexical items between NTSŠ 168+ and *The Cities List* (Krecher 1992: 293–294); he does not go so far as to describe NTSŠ 168+ as a commentary, however. The standard edition of *The Cities List* is Englund & Nissen 1993: 35 and 145–150, but it has also been dealt with in Matthews 1993: 33–50, Steinkeller 2002a, Steinkeller 2002b and Lecompte's unpublished dissertation (Lecompte 2009a), which he has kindly made available to me.

transmission—so well known from Classical textual criticism—were certainly in operation. Thus it is of critical importance to clarify the text-artifactual history (the cuneiform codicology if you will) of these materials. Unlike an administrative document composed in the ED IIIa period (ca. 2600–2500 BCE), scholastic texts such as these represent the endpoint of a transmission history that reaches back, in some cases, to the Late Uruk materials at the end of the fourth millennium BCE.

One of the primary goals of the Early Dynastic scholastic texts, at least at their point of inception, seems to have been the elucidation of the temple names that appear in *The Cities List*, and since many of these names are well attested in the Late Uruk administrative materials, we witness in these texts one of the earliest examples of scholarship in human history and certainly the earliest examples of commentary in the cuneiform world. In the interstices between these exegetical forays, however, we also find "new" materials, in particular divine names such as Nin-imma, Nin-nisig and Uttu. These three divine names will serve as a thread of Ariadne for us in the following, helping us to track the movement of individual memoranda through the four rather heterogeneous scholastic compendia mentioned above (*The Cities List*, NTSŠ 168+, NTSŠ 82 and *The Zami Hymns* from Abu Salabikh). In the end I will argue that the Early Dynastic literati who invented Mesopotamian philology such as, for example, the type of sign-by-sign decomposition of archaic divine names known from the last two tablets of *Enuma Elish*, did so precisely so as to rescue divine names such as these (and the scholastic lore associated with them) from complete obscurity. The set of techniques that these early philologists used to comprehend older Early Dynastic texts were ultimately collected, I would like to suggest, in the mythological text known as *Enki and Ninhursag*, lines 63–281, the only Classical Sumerian text in which Nin-imma, Nin-nisig and Uttu reappear as a group.

As Dina Katz has reiterated in two recent studies,[5] the second half of *Enki and Ninhursag* in lines 63–281 was originally an autonomous composition and here in the long second half of *Enki and Ninhursag* we find not only a rather detailed compendium of exegetical techniques, but also many of the trademark elements known from other discussions of technical compendia in antiquity such as the Enochic tradition, including the association of women (or at least increasingly mortal goddesses) with technical knowledge about plant-based (pharmacological) medicine as well as oblique references to the origin of human morality and mortality. Thus the same three goddesses that we use in the first part of the paper to track the movement of scholastic memoranda between various Early Dynastic compendia reappear in a maternal line of descent generated by Enki's incestuous actions and we have every reason to suspect that the *catalogue raisonné* of exegetical techniques embedded in *Enki and Ninhursag*

[5] Katz 2007 and 2008; see already Jacobsen 1987: 181–204. Enki and Ninhursag has also recently been discussed in Postgate 2010. Katz's suggestion that there is no essential thematic connection between lines 1–62 and the rest of the composition may be an overstatement, however. In *The Sumerian Flood Story*, after he is granted immortality, Ziusudra is settled in the land of Dilmun (**u_4.ba zi.u_4.sud.rá lugal.àm / … / kur bala kur dilmun.na ki.^{d}utu.è.šè mu.un.ti.eš**), which is precisely the location of the cosmogony in lines 1–62 of *Enki and Ninhursag* (*Eridu Genesis* vi 258–260, apud Kvanvig 2011: 86).

represents a native act of critical reflection on Early Dynastic philological and exegetical method. Enki's behavior must be seen as a model for the transmission of semantic and pragmatic content through the complex textual history of Early Dynastic scholastic tradition rather than the lurid fantasies of juvenile delinquents or philological dilettantes.

Early Dynastic scholasticism and the difficulties of conceptual metaphor theory

Already in his publication of the *Schultexte aus Fara* in 1923, Deimel recognized that these materials were not part of the usual array of administrative and legal documents amply documented in Early Dynastic Mesopotamia. But in speaking of these materials as "scholastic" (rather than, say, mythological or literary), I want to emphasize that they are essentially concerned with rule-governed techniques for the manipulation of written matrices (generally in order to generate coherent semantic and pragmatic schemata) rather than the transmission of mythological narratives *per se*. Indeed, by and large, the lesser goddesses that figure so centrally in a text like *Enki and Ninhursag* appear only rarely outside the Early Dynastic god-lists and the scholastic compendia and were never the object of extensive local cults. Thus it is fundamentally unreasonable to argue that these goddesses were included within the scholastic tradition because they were of great importance within the economic or political systems of Mesopotamian urbanism. I would like to suggest here that their purpose within the scholastic tradition is almost entirely philological, semiotic and hermeneutic. They were meant to express philological principles, to represent ontological relationships and ultimately to act as a mirror for the textual practices of the literati. Therefore it should be clear that we will be preoccupied in the following with second- and higher-order models, acts of reflexive awareness in which scholastics sought to model their own philological practices.

One of the central facts in these acts of scholastic reflection, a fact that has generally gone unnoticed, is that Early Dynastic scholasticism (as reflected in later texts such as the Classical Sumerian myth known as *Enki and Ninhursag*) chose to ground their models not in esoteric interpretations or obscure literary references (as we sometimes see in first millennium BCE commentaries), but rather in natural phenomena that were readily observable in their immediate environment. Although I will return to this question at the end of the paper, the idea of drawing the raw materials for a second- or higher-order model from the human body and its immediate surroundings is also quite popular today, particularly in a branch of cognitive linguistics known as conceptual metaphor theory. In recent years these ideas have come to be rather heavily employed within certain sectors of Egyptology, and one of the most insightful applications of conceptual metaphor theory to Egyptological data may be found in the recent work of Rune Nyord.[6] As Nyord points out, conceptual metaphor theory is rooted both in Rosch's work on prototypical categories and Lakoff and Johnson's influential *Metaphors We*

[6] These issues are dealt with at length in Nyord 2009, reference courtesy G. Selz, but for a concise summary of the relevant arguments, see Nyord 2012, on which I will focus here.

Live By (1980). Lakoff and Johnson argue that the human body functions as the key point of orientation for understanding basic conceptual structures, structures that could subsequently be extended into non-physical domains through the use of metaphor. As Nyord (2012: 146) puts it:

> In the part of cognitive linguistics now known as *conceptual metaphor theory*, a metaphor is regarded as a set of mappings between two conceptual domains. Thus, more basic, experiential domains provide structure to more abstract domains to make it possible to think and speak about such abstract domains at all.

As a general model for the nature of conceptual structures, conceptual metaphor theory is obviously very appealing since it bases its conceptual categories on a universal feature of human existence, viz. the physical body, and draws its metaphorical schemata from the current *lingua franca*. Yet the dangers of this approach are obvious: prototypical categories with fuzzy borders easily allow for slippery, elastic inclusion of all manner of exempla and the thick culturally specific embeddedness of native models can easily be swept away in our desire for cognitive or neurobiological universality.

The most promising of the cognitive metaphors for the issues dealt with in this paper is clearly SPEECH AND THOUGHT ARE CONTAINED WITHIN THE BODY and Nyord offers a particularly illuminating discussion of how this cognitive metaphor plays out in ancient Egyptian. As Nyord (2012: 162) summarizes the category:

> The rationale is that speech being uttered through the mouth implies its previous containment inside the body. This follows from the inherent logic of the CONTAINER image schema, which … consists of three basic interrelated parts, namely the *inside*, *outside* and *boundary*. When an utterance, conceptualized as a tangible object, crosses the boundary of the mouth, the CONTAINER structure implies that it must previously have been inside the CONTAINER. In Egyptian, this metaphor is found in several different connections, including very general ones where thoughts are referred to as contents or productions of the inside of the body.

As we will see below, this particular metaphor can be applied to the oldest strata in the cuneiform textual record by taking the womb as the CONTAINER and the birth of offspring as analogous to an utterance. But one must say that such a reading of the polyvalence of Sumerian **šà** 'interior, heart, womb' is rather impoverished. At best, cognitive metaphors such as SPEECH AND THOUGHT ARE CONTAINED WITHIN THE BODY may be able to provide an etic cartography for comparing otherwise disparate culture-specific models. At worst, they can easily amount to little more than pseudo-scientific window dressing. Either way, they should be subjected to a sustained methodological critique rather than accepted as axiomatic. Therefore, one of the secondary goals of this paper will be to demonstrate that cognitive metaphor theory actually tells us rather little about how speech, communication and meaning were conceptualized in the earliest phases of Mesopotamian philology. Instead, I will focus here on reconstructing the emic, Mesopotamia-internal history of native philological models.

Three Streams of Early Dynastic Literature

Now that we have partially motivated the special attention that I would like to pay to a small group of scholastic texts stemming from Early Dynastic Shuruppak, we must turn to the Early Dynastic texts themselves. The preeminent difficulty that we face in attempting to make sense of Early Dynastic scholasticism is largely a matter of decipherment. While Late Uruk (ca. 3300–3000 BCE) orthographies remain largely undeciphered,[7] certain texts from the Early Dynastic period are written in an orthography and language that are not so different from the "ordinary" Sumerian of later periods. Texts such as *The Barton Cylinder, The Kesh Temple Hymn* or the Early Dynastic proverb collections can be read more or less fluently on the basis of later Classical Sumerian versions of these same compositions.[8] But these are the *only* non-lexical texts that are transparently updated by scribes in later periods and the only literary materials that we can translate with confidence. This first stream of the Early Dynastic tradition was known in later tradition as **eme.gi$_7$(r)** "the native tongue" and I will refer to it here as Emegir.

Already in his preliminary survey of the epigraphic finds from Abu Salabikh in 1966, Robert D. Biggs was able to identify a second group of texts that he termed UD.GAL.NUN on the basis of a replacement cipher in which the three cuneiform signs UD, GAL and NUN correspond to the three Emegir signs AN, EN and LÍL; both sequences stand for the name of Enlil (**^{d}en.líl**), the chief deity of the Sumerian pantheon, but since the correct phonological value of its constituent elements remain unknown, I will refer to it here using the acronym UGN.[9] UGN, particularly in its instantiation in the materials from Early Dynastic Shuruppak, differs in a number of ways from Emegir, even in terms of sign forms, ductus and the organization of individual signs within the case or line. The UGN texts from Shuruppak regularly subdivide each case or line into two subcases by inserting a faint dividing line that runs down the middle of each column. Non-linear clusters of cuneiform signs are then grouped, as much as possible, within each half-case. Furthermore, each case in these texts begins with a wide, curvilinear AŠ/N$_1$ sign (basically a half-circle with the flat edge to the left).

These texts are therefore immediately visually recognizable (even when they resist translation) and can be contrasted with Emegir texts, although the slightly later UGN texts from Abu Salabikh largely abandon the "aesthetic profile" of the Shuruppak UGN materials and reconfigure the signs according to different principles of organization.[10] UGN forms the second stream under discussion here. This much of the story (viz. the contrast between Emegir and UGN) is well known and uncontroversial: nearly all descriptions of Early Dynastic literature only recognize a two-fold distinction between Emegir and UGN. In a particularly

[7] See in particular Englund 1998: 65.

[8] For the *editio princeps* of these compositions, see Alster & Westenholz 1994, Gragg 1969, and Alster 2005 respectively. *The Kesh Temple Hymn* was restudied and partially edited in Wilcke 2006.

[9] Kamran Zand has now treated all these materials in an unpublished dissertation, which is unfortunately not yet available to me.

[10] See Johnson & Johnson 2012 for a more detailed description; for a discussion of aesthetic profile, see Cancik-Kirschbaum & Mahr 2005.

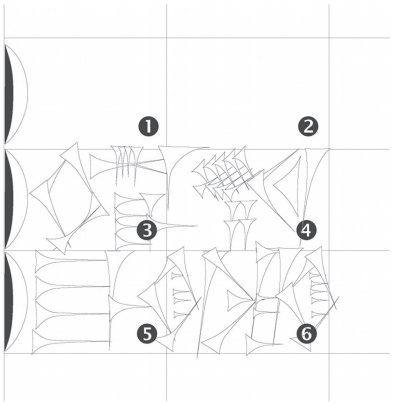


Figure 1: Subdivision of each line into two half-cases in the aesthetic profile of UGN in ancient Shuruppak

important paper published in 1992, however, Joachim Krecher argued for a more complex picture of Early Dynastic literary and scholastic traditions. Krecher draws a three-fold distinction between (i) Emegir, (ii) UGN and (iii) a third small group of poorly understood texts that use the same layout conventions as the UGN texts from Shuruppak, including the subdivision of each line into two half-cases and the use of a wide, curvilinear AŠ at the beginning of each case, yet seem to include signs drawn from both Emegir and UGN. Krecher himself focused his definition of this "third stream" (my term, not his) on *The Zami Hymns* from Abu Salabikh as well as certain Shuruppak precursors to the Zami Hymns such as NTSŠ 168+. The *Zami Hymns* normally provide either an etymographic explanation of a divine name or gnomic bits of knowledge associated with a particular divinity such as the following statement about Nin-isina from the *Zami Hymns*, lines 186–187:

isin$_x$(IN) bulug$_4$(NAGAR) an.ki
^{d}nin.isina(IN) zà.me
Isin, pole of Heaven and Earth / Nin-isina — hail! (translation after Krecher)[11]

While this example easily passes for a homogeneous tradition, other entries in *The Zami Hymns* seem to suggest a heterogeneous origin for the materials they collect such as the entry for Ningirim in lines 160–162:

gìrim(A.ḪA.MUŠ.DU)
ir.ḫa.an^{ir}ḫan$_x$(MUŠ.DIN.DAR.BALAG)
^{d}nin.gìrim(A.ḪA.MUŠ.DU) zà.me
Girim / Irḫan / Nin-girim — hail!

Interestingly enough, each of these three orthographies, namely (i) gìrim(A.ḪA.MUŠ.DU), (ii) ir.ḫa.an^{ir}ḫan$_x$(MUŠ.DIN.DAR.BALAG) and (iii) ^{d}nin.gìrim(A.ḪA.MUŠ.DU), can be associated with different sectors of literary practice within the kaleidoscopic world of Early Dynastic

[11] Krecher 1992: 293.

literature. The first entry, A.ḪA.MUŠ.DU alone (without NIN) appears as the theophoric element in a number of personal names associated with the rulership of Lugal-KISAL-si, an Early Dynastic king of Uruk, including his daughter **ME.gìrim** and a governor named **gìrim.si** (see RIME 1.14.15.3 and RIME 1.14.15.4), and the same theophoric element also shows up in personal names such as **AK.gìrim**, which appears in a number of Fara period contracts and administrative documents such as BIN 8, 46, WF 33 and WF 36.[12] The second component of the entry, the divine name $^{ir.ḫa.an}$irḫan$_x$(MUŠ.DIN.DAR.BALAG), occurs repeatedly in *The Barton Cylinder*, one of our best examples of Emegir literature from the ED IIIa period. The role of the third entry, **nin.gìrim**, as the patron deity in Early Dynastic and later incantations is well-known and need not be reiterated here, except to note that only the **nin.gìrim** orthography is used in the incantation literature, never either of the other two alternatives adduced here. The internal heterogeneity of the entry for Nin-girim demonstrates that one of the main goals of *The Zami Hymns* was to synthesize bits of information drawn from a wide variety of genres and scribal traditions, and to a great degree the third stream of Early Dynastic scholasticism (alongside Emegir and UGN) corresponds precisely to the textual tradition that culminates in scholastic compendia such as *The Zami Hymns*.

As it happens, Krecher's path-breaking efforts to identify earlier phases in the textual history of *The Zami Hymns* led him to focus on a text known as NTSŠ 168+ and in particular the fact that a number of archaic *temple* names from an even earlier text known as *The Cities List* frequently occur in the Shuruppak scholastic text known as NTSŠ 168+. Since this list of temple names (and indirectly urban centers) stems from the later phases of the Late Uruk period (ca. 3200–3000 BCE) and consists of temple names that were, in some cases, widely used throughout this the easiest phase in the cuneiform textual record, the reappearance of these lemmata in NTSŠ 168+ suggests that the nexus of temple names in these two traditions is particularly important for reconstructing Early Dynastic scholasticism. Robert D. Biggs has kindly made his preliminary hand copy of NTSŠ 168+, which served as the basis for Krecher's discussion, available to me as well, and it fully confirms Krecher's initial description: numerous lemmata from the Late Uruk *Cities List* (ca. 3200–3000 BCE) serve as head words in NTSŠ 168+, nearly always occupying the left half-case, while other elements occur in the right half of these cases and presumably function as a commentary on the entries drawn from *The Cities List*.[13] The full set of *City List* lemmata and the comments attached to them may be found in Appendix 1, but generally speaking NTSŠ 168+ alternates between material carried over from the Late Uruk *Cities List* and other clusters of entries in which no Late Uruk material seems to be present.[14] More importantly, with only one or two exceptions, the lem-

[12] There is also some limited evidence that Ningirim existed in the Late Uruk period as well: half a dozen texts, largely from MSVO 1, MSVO 4 and the unpublished materials from the Schøyen Collection, include ḪA DU as a sign cluster. In most of these examples ḪA DU occurs in the tablet metadata, where we might expect a temple or deity name to occur.

[13] KRECHER 1992: 293–294. KREBERNIK 1998: 314–315 and 317 refers to Krecher's paper without any further elaboration on Krecher's proposal; see also RUBIO 2009: 34–37.

[14] Given the fact that only 76.8 % of the entries in NTSŠ 168+ are partially or completely preserved (272 out of 354 entries in the entire text), it is remarkable that nearly half (46 %) of the lemmata in the Early Dynastic version of *The Cities List* (as re-

mata from *The Cities List* always occupy the left half-case, while the corresponding commentary occurs in the right half-case.

If we limit ourselves to the earlier materials from Shuruppak, one of the few other texts that should probably be included in Krecher's "third stream," even though it leans toward the use of UGN rather than Emegir (see Appendix 2), is NTSŠ 82. The tablet known as NTSŠ 82 has also been largely ignored in the secondary literature: Biggs offers a description of the text as "literary, perhaps UD.GAL.NUN" (again see Appendix 2 for a clarification) and M. Cohen translates the last half-dozen lines of the text.[15] But unlike NTSŠ 168+, which betrays no evidence of textual continuity with *The Zami Hymns*, parts of NTSŠ 82 were clearly forerunners to the most important member of Krecher's "third stream," *The Zami Hymns* from Abu Salabikh.[16] In fact, NTSŠ 82 represents one of the very few texts from Fara that makes use of **zà.me** as a rubric for a number of brief entries in succession but even then only in certain sections (iv 10–V 13 and vii 15).[17] In each of the six occurrences of **zà.me** in NTSŠ 82, **zà.me** always occurs in the right or bottom right corner of the right half-case. This is precisely the same position in which **zà.me** occurs in the vast majority of *The Zami Hymns*.[18] Since, in my view, these two texts (NTSŠ 168+ and NTSŠ 82) form the key link in the scholastic tradition between Late Uruk lists of temple names and *The Zami Hymns*, I would like to briefly describe their structure, subdivisions and their possible chronological placement in the Early Dynastic period.

presented in SF 23) make an appearance in NTSŠ 168+. This fact alone demonstrates the centrality of *The Cities List* as a set of lemmata that are commented on in NTSŠ 168+.

15 Biggs 1974: 41; Cohen 1976: 88.

16 The texts in the third stream have one other feature in common: the absence of EN.ME/NUN.ME orthographies. As I have demonstrated elsewhere, EN.ME/NUN.ME orthographies such as engiz(EN.ME.GI), endib (EN.ME.MU), enkum(EN.PAP.SIG$_7$.NUN.ME.EZEN×KASKAL), abgal(NUN.ME) and abrig(NUN.ME.DU) only emerge in the later phrases of the Late Uruk period (viz. Uruk writing phase III, ca. 3200–3000 BCE) and even after their introduction, they do not appear within certain subcorpora of Late Uruk and Early Dynastic materials such as *The Cities List* and the Early Dynastic scholastic compendia under discussion here; see Johnson forthcoming b for further discussion.

17 Alster (1976: 115) notes a number of other occurrences of **zà.me** in the scholastic materials recovered from Fara (SF 18 iii 20, iv 12, iv 21, vii 7; SF 36 v 15 and vii 9–10), but in none of these other passages do we find clusters of **zà.me** used in rapid succession to demarcate individual entries as we see them used in *The Zami Hymns*.

18 These two uses of **zà.me** as a rubric only differ in that NTSŠ 82 regularly clusters the ME sign to the left of ZÀ, while the Abu Salabikh texts almost always do the opposite. Local conventions as to the location of the sign within a cluster often differ from one scribal atelier to the next; see Johnson & Johnson 2012. The one occurrence of the divine name UD.GAL.UNUG (= Enki) in NTSŠ 82 indicates that it derives from the scribal atelier that produced SF 37 rather than the workshop that produced SF 39.

NTSŠ 168+ and NTSŠ 82

NTSŠ 168+ was recovered from modern-day Fara (Shuruppak) and now resides in the Arkeoloji Müzeleri in Istanbul, but it is unusual in that it has ten columns on the observe, but only four lines on the reverse.[19] Other large scholastic compendia such as the big Fara god-list (SF 1) also fit ten columns on the obverse of the tablet, but only when the overall length of the document required it (the reverse of SF 1 also has ten columns). Given the number of entries in NTSŠ 168+, we might have expected a tablet with eight columns on the obverse and a similar number on the reverse such as SF 40, SF 43 or SF 57. The opposition between SF 18 and SF 20 is also instructive in this regard: SF 18 has seven columns on each side, and if it has used all of this space (one and half columns on the reverse are not used), it would have amounted to approximately 300 lines, while SF 20 has nine columns on each side and amounts to roughly 450 lines.

The fact that NTSŠ 168+ places ten exceedingly long (35 line) columns on the obverse, only four lines on the reverse, and maintains 35 lines per column in those columns that are preserved (the big Fara god list shows substantial variation between 28 and 32 lines per column) are indications that it is organized schematically rather than linearly.[20] In other words, if the goal of the text had been merely to transmit a linear sequence of 354 entries to posterity, without also communicating meaningful subdivisions within the text, there is no reason for it to be organized in this way. Thus, although NTSŠ 168+ remains largely undeciphered, certain features of its textual layout suggest that it may have been astronomical, astrological or hemerological in function: not least, the simple fact that the total number of lines in the document can be plausibly reconstructed as 354.[21] This is precisely the number of days in a Mesopotamian lunar year, assuming a schematic alternation between 29- and 30-day lunar months. In addition, there are other pieces of structural information in the text that might suggest its original function such as the twenty occurrences of the rubric É.ŠÀ that are scattered throughout the text.[22] Since only 272 lines out of the 354 that were originally on the tablet are partially

[19] As Biggs notes "[p]arts of this tablet were published in TSŠ [and] … only the newly added parts of the tablet were copied by Jestin in NTSŠ … . The end of the composition is preserved on the reverse right side (published as TSŠ 269 rev. on Pl. 97)" (Biggs 1974: 42). Photographs and published hand copies are also available at CDLI under P010486 and P010794.

[20] The only other group of texts within the scholastic corpus that regularly organize materials in this way (the vast bulk of material on the obverse with an occasional few lines in the first column of the reverse) are the Early Dynastic copies of Late Uruk lexical lists (see Veldhuis 2010 for an overview). But as we will see in a moment, the presence of orthographies that are otherwise first attested in Archaic Ur (ED I-II) speaks against the possibility of a Late Uruk precursor to NTSŠ 168+.

[21] For the four lines in the rightmost first column on the reverse, see n. 19. That the four lines on the reverse are part of the primary text and not a colophon is clear from the fragmentary remains of a colophon from the leftmost column on the reverse: the colophon is visible as a series of SANGA signs running down the left edge of the reverse in the CDLI photo (P010486).

[22] One could obviously posit a translation such as "the interior [**šà**] of the house [**é**]," but other expressions within the astronomical domain use compounds involving ŠÀ such as **an.šà** to refer to celestial or astronomical regions as in Gudea Cyl. B i 6 **^{d}utu.àm an.šà.ge im.si** "it was (the sun-god)

or entirely preserved (76.8 %), brute calculation might suggest that the text originally contained 25 or 26 of these rubrics, although they are not evenly spread throughout the text, so we cannot be certain about how many É.ŠÀ sections originally existed in NTSŠ 168+. Nonetheless, the division of a calendrical or hemerological text into 25 or 26 sections might also be of some significance, since various systems of so-called lunar mansions or stations often include 25 to 30 segments. The asterisms that define the twenty-eight mansions in Chinese astronomy, for example, were linked to the "culmination" of particular circumpolar stars, while somewhat similar zones are defined in some star lists from the first millennium BCE Mesopotamia: the *ziqpu* "culmination" and GU "paranatellon" star lists likewise seem to consist of either 26 or 30 asterisms.[23] Only further decipherment of NTSŠ 168+ can confirm its genre more precisely, but even if it is not astronomical or hemerological in character, its layout and structure strongly suggest that it is a schematic technical compendium of some kind rather than a literary text or collection of proverbs.

The final few lines on the reverse of NTSŠ 168+ parallel a number of other Early Dynastic texts, and as Alster says, "[a]lthough we cannot translate these concluding lines word by word, we can observe two constant features of interest, the mention of the goddess Nisaba, and of stars (mul.an). With this we may compare the mention of stars both in the conclusion of the archaic and of the Old Babylonian version of 'The Instructions of Shuruppak.'"[24] If we can look behind Alster's description, it is at least plausible, given its schemata layout, that NTSŠ 168+ literally conforms to both of these two features in that it was clearly a scholastic document and yet may also have been concerned with how the lunar calendar was related to the movement of the fixed stars. Yet the same cannot be said for the vast majority of the Early Dynastic texts that end with the same doxology: the proverbial lore contained in *The Instructions of Shuruppak* is neither scholastic, nor astronomical/calendrical, but rather almost entirely made up of practical advice for future elites. One possibility is that texts such as NTSŠ 168+ were the authentic examples of Early Dynastic technical compendia, while formally analogous texts with the same doxology (but filled with proverbial lore concerning efficient household management) were developed as educational tools for the training of members of the royal family or other elites who were not planning on entering a scholastic or technical discipline. Thus in spite of its occasional formal similarities, "wisdom literature"

Utu that filled the interior heaven," but the meaning of **an.šà** remains unclear; see generally Heimpel 1986 and Horowitz 1998: 247–249. Although the later Ur III/OB *Temple Hymns*, as well as the Old Babylonian version of *The Kesh Temple Hymn* use É 'house, temple' in combination with divine names and numerical schemata as section markers or rubrics, I have not been able to coordinate these schemata with the use of É.ŠÀ in NTSŠ 168+.

[23] For a broader discussion of the history of these systems, see Hunger & Pingree 1999: 84–112. It should be emphasized that the Chinese and Mesopotamian systems do not operate using the same type of culminations, and I do not mean to suggest that they are historical related.

[24] Alster 1976: 117. Alster's recognition of these similarities builds on Biggs' obsevation that "[t]he end of [NTSŠ 82] is paralleled by SF 56, NTSŠ 168, and IAS 123 and 153" (Biggs 1974: 41) and is conveniently summarized in Krebernik 1998: 323. For a recent discussion of the significance of **mul.an**, see Sallaberger 2003, particularly 614–616.

such as *The Instructions of Shuruppak* should really be excluded from discussions of Early Dynastic scholasticism.

If we wish to locate the non-head word materials in NTSŠ 168+ within some kind of chronological framework, it is best to look in the poorly preserved materials from Archaic Ur (ED I-II, ca. 2900–2700 BCE), where several sign clusters from NTSŠ 168+ such as ŠU.DU$_7$, AMAR.KU$_3$ and MUŠ$_3$.KUR first appear.[25] In doing so we are taking our lead from Lecompte's suggestion that the presence of particular sign combinations from Archaic Ur (in combination with other factors) in the Early Dynastic god-lists can be used as a means of dating their composition back into the earlier phases of the Early Dynastic period.[26] Consequently, the occurrence of forms such as ŠU.DU$_7$, AMAR.KU$_3$ and MUŠ$_3$.KUR constitutes some limited evidence that much of the commentary in NTSŠ 168+ was composed in the Early Dynastic I-II period (ca. 2900–2700 BCE), while the apparent textual continuity between NTSŠ 82 and *The Zami Hymns*, that we will turn to in a moment, indicates that NTSŠ 82 is somewhat later in origin than NTSŠ 168+. Steible has pointed to the structural parallels between the sequence of deities in *The Zami Hymns* and the Fara god lists and it may well be that the materials in NTSŠ 82 that resemble *The Zami Hymns* may represent a stage in the textual history prior to the reorganization of entries on the basis of the god lists.[27]

Even though it is also a piece of Early Dynastic scholasticism, NTSŠ 82 is a very different kind of text. Like NTSŠ 168+, NTSŠ 82 stems from the excavations at Fara and is held in the collection of the Arkeoloji Müzeleri in Istanbul. But unlike NTSŠ 182+, NTSŠ 82 has nine columns on the obverse and one nearly complete column on the reverse and these columns each amount to approximately 25 lines, so the total number of lines in the composition is approximately 250. The rubric É.ŠÀ does not appear in the text, but instead we find the **zà.me** rubric or doxology (the same metapragmatic descriptor that defines and gives its name to *The Zami Hymns*) repeated four times in the course of column iv and then again repeated once in column v and once in column vii. The internal textual structure of the approximately 250 lines in NTSŠ 82 is also quite different from the textual format of NTSŠ 168+: the first four or five columns seem to be concerned with divine names much as the later *Zami Hymns* are, while the second half of the text (columns vi through x) appears to be a five-fold repetition of a single text. This can be see by comparing three sequential "lines" in the repeated composition, although it should be noted that there are significant orthographic variations in some of these repetitions.

[25] See UET 2, 371 i 1, UET 2, 3 ii 5, and UET 2, 168 i 7, for these three examples, but other terms such as SAG+LAM occur in both Late Uruk and Archaic Ur and must be treated with caution.

[26] Lecompte 2009b.

[27] See Steible 1996, although Steible does not mention the use of **zà.me** as a rubric in NTSŠ 82. For a more recent discussion of the Early Dynastic god lists, see Rubio 2011.

A	NTSŠ 82 vii 1	AŠ A BU NA ZU
B	NTSŠ 82 vii 20	AŠ A BU NA ZU
C	NTSŠ 82 ix 7	[AŠ] A BU [NA] ZU
D	NTSŠ 82 ix 19	AŠ A BU NA ZU
E	NTSŠ 82 x 11	AŠ A BU NA ZU

A	NTSŠ 82 vii 2	GAL AŠ A BU NA SAHAR
B	NTSŠ 82 vii 21	[GAL] ⌜AŠ⌝ A ⌜BU⌝ NA SAḪAR
C	NTSŠ 82 ix 6	GAL AŠ A BU NA SAḪAR
D	NTSŠ 82 ix 20	GAL AŠ A BU NA SAḪAR
E	NTSŠ 82 x 12	[GAL AŠ A] ⌜BU NA⌝ SAḪAR

A	NTSŠ 82 vii 3	BU BU*tenu* NU_2 HAR LI NUN LU_3 KI
B	NTSŠ 82 vii 22	BU BU*tenu* NU_2 HAR AK LU_3 KI
C	NTSŠ 82 ix 8	[BU BU*tenu* X] HAR NUN GAR
D	NTSŠ 82 ix 21	BU BU*tenu* NU_2 HAR LI KI GAR
E	NTSŠ 82 x 13	⌜BU⌝ [BU*tenu* NU_2] HAR LI KI GAR

The sequence A.BU.NA is particularly important since A.BU occurs numerous times in one of the most important UGN literary texts, namely SF 37 and its duplicates, where it probably represents an early orthography for the Anunna deities.[28] For our purposes here, however, the important point is that, while the first half of NTSŠ 82 represents a forerunner to the slightly later *Zami Hymns*, the second half consists of either a narrative or a liturgy of some kind. Although we return to the links between the first half of NTSŠ 82 and *The Zami Hymns* below, we first need to clarify the intertextual links that exist between NTSŠ 168+ and a group of liturgical texts known as Drachenmutter Hymns, since these links may help us to locate both NTSŠ 168+ and NTSŠ 82 in their respective historical strata.

Intertextual rubrics in NTSŠ 168 and the Drachenmutter Hymns

One of the few intertextual links between these scholastic texts and other types of material in the Early Dynastic period is the use of the sign cluster KA.ZI.LU_2 as a comment or rubric in both NTSŠ 168+ and also in the so-called Drachenmutter Hymns. And while the phrase itself remains enigmatic, the intertextual link that it identifies between these two genres is

[28] See generally Falkenstein 1965. I am currently preparing a new edition of SF 37 and duplicates in collaboration with Adam Johnson, who also first suggested to me that A.BU might correspond to the Anunna gods. This suggestion seems to be partially confirmed by the presence of NA in combination with A.BU in NTSŠ 82. However, NA never occurs in conjunction with A.BU in SF 37. There is an obscure reading {nun_3} for BU and one could transcribe A.BU.NA as {a-nun_3-na}, but since the {nun_3} reading is otherwise only used as a first-millennium logogram for Akk. *anuntu* and not attested with this value elsewhere in the third millennium, I have not yet adopted it here.

particularly important in that the Drachenmutter Hymns are our best evidence for the profound level of orthographic heterogeneity that existed in the earlier phases of the Early Dynastic period, a heterogeneity that is only dimly represented by post factum classifications such as the opposition between Emegir and UGN. The sign cluster KA.ZI.LU$_2$ occurs no less than four times in NTSŠ 168+, and in each of these occurrences it occupies the right half-case. Given the overall textual layout of NTSŠ 168+, therefore, KA.ZI.LU$_2$ probably represents an element of commentary rather than a head word.

NTSŠ 168	v 26	^{d}GA$_2$×(ŠAR$_2$×DIŠ)	KA.ZI.LU$_2$
	vii 15	^{d}nin.IGI.TAR	KA.ZI.LU$_2$
	vii 28	$^{d\lceil}$nin.AB$^{\rceil}$.NAGAR	KA.ZI.LU$_2$
	vii 31	abzu	KA.ZI.LU$_2$

At the same time, very nearly the same expression (KA.SI.LU$_2$) acts as a rubric or metapragmatic label in a number of short hymns or liturgies (the Drachenmutter Hymns) that Krebernik has edited in recent years. The following example (SF 30 and a shorter parallel text SF 50*) is dedicated to Aruru, the birth goddess, and is unusual in that it includes several words and phrases known from later Sumerian texts.

SF 30			SF 50*			
i	1	a.ru.ru				
	2	šul a$_2$ daĝal				
	3	da.da RU				
	4	NE.NE RU				
	5	i$_3$.na.šum$_2$				
ii	1	munus ra AK	SF 50*			
	2	**gi šul.ḫi**	i	1	**gi šul.ḫi**	A
	3	**gi šul.ḫi**		2	**gi šul.ḫi**	A
	4	**gi diri**		3	**gi diri**	B
	5	**^{d}ama.ušumgal**		4	**^{d}ama.ušumgal**	C
	6	**gi šul.ḫi**	ii	1	**gi šul$^{!}$.ḫi**	A
	7	**gi diri**		2	**gi diri**	B
	8	**bir$_5$.bir$_5$ zal.la**		3	**bir$_5$.bir$_5$ zal.la**	
iii	1–2	**AMA a ĝiš.gi / DU.DU**	ii 4–iii 1		**AN.LAGAB / a ĝiš.gi**	
	3	**KA.SI.LU$_2$**		2	**KA.SI.LU$_2$**	
	4	AN.NE AK DUN$_3$ gi$_4$				

Table 1: The parallel between SF 30a and SF 50* and what it tells us about KA.SI.LU$_2$

Krebernik identified the section in **bold** above as nearly identical in SF 30 and SF 50*, but SF 50* (on the right) represents an "abstract" out of SF 30 and consists of a single hymn, while SF 30 goes on through a second hymn on the reverse (not transliterated here). The important thing about this parallel, however, is that SF 50* ends precisely with KA.SI.LU$_2$, which due to its placement in SF 50* must be seen as a rubric or doxology in both SF 50* and SF 30. The only difference between the cluster KA.SI.LU$_2$ in SF 30 // SF 50* and the four occurrences of the same rubric in the scholastic text NTSŠ 168+ is that ZI in NTSŠ 168+ is replaced with SI in the Drachenmutter Hymns. This alternation is a regular one, however, with clear examples of the alternation already in the Late Uruk period, where in ATU 5, p. 35, W 9123,a1 "a homophonous relationship appears to exist between the signs ZI and SI$_4$."[29] The parallel between ŠAḪ$_2$ / SUḪUR / SI$_4$ / ZAR$_c$ / ZATU721 on the obverse with ŠAḪ$_2$ / SUḪUR / ZI$_b$ / ZAR$_c$ / ZATU721 makes this an ironclad example of homophony and legitimates, in part, my equation of KA.ZI.LU$_2$ with KA.SI.LU$_2$.

The key phrase **^{d}ama.ušumgal** and the poetic structure (A A B C A B) in SF 30 // SF 50* are regular features of Drachenmutter Hymns and also explain the name of the genre, since one of the few readily identifiable words in the genre is **^{d}ama.ušumgal** "dragon-mother" and their poetic structure suggests that they represent some form of hymn or liturgy. Krebernik has identified a number of other examples of the genre and, as the following table demonstrates, the Drachenmutter Hymns often come in pairs:

	ME SAR.TUR diri (rev. iii 1)		ME NANNA (rev. i 3)		ME ⌜KAŠ⌝ […] MU KA […] (iii 3)	
	SF 30a // 50*	SF 30b	SF 31a	SF 31b	SF 51a	SF 51b
A	gi šul.ḫi	an šul.gen$_7$ ḪUB$_2$.DU.DU	me PA.PA	UL$_4$ du$_{10}$	gu$_4$ suen(EN.ZU)	IGI KIŠ IGI amar
A	gi šul.ḫi	an šul.gen$_7$ ḪUB$_2$.DU.DU	me PA.PA	UL$_4$ du$_{10}$	gu$_4$ suen(EN.ZU)	IGI KIŠ IGI amar
B	gi diri		UNUG DU.DU	buru$_5$ LAGAB.LAGAB	DU ŠE$_3$ UR$_2$	
C	^{d}ama.ušumgal	^{d}ama.ušumgal	^{d}ama.ušumgal	^{d}ama.ušumgal	^{d}ama.ušumgal	^{d}ama.ušumgal
A	gi šul.ḫi	an šul.gen$_7$ ḪUB$_2$.DU.DU	me PA.PA	UL$_4$ du$_{10}$	gu$_4$ suen(EN.ZU)	IGI KIŠ IGI amar
B	gi diri		UNUG DU.DU	buru$_5$ LAGAB.LAGAB	DU ŠE$_3$ UR$_2$	

Table 2: Poetic structure and orthographic heterogeneity in three distinct cultic centers: ME SAR.TUR diri (SF 30), ME NANNA (SF 31) and ME ⌜KAŠ⌝ […] MU KA […] (SF 51)

[29] ENGLUND 1998: 77. Note that SI$_4$ is a slightly elaborated form of SI in the Late Uruk period, and although it is not clear when specifically Sumerian phonological values can be attached to signs like ZI, SI and SI$_4$ in the Late Uruk period, in the Early Dynastic period this type of phonological variation can be taken for granted.