The Emar Lexical Texts

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Part 4 - Theoretical Interpretation

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INTRODUCTION TO PART 4

> *L'histoire du savoir ne peut être faite que à partir de ce qui lui a été contemporain, et non pas certes en terms d'influence réciproque, mais en terms de conditions et d'a priori constitués dans le temps*[1].

Aim

It was felt that a description of empiric features and organizational structures, i.e. a scientific analysis*, such as attempted in Part 3, could contribute to our present understanding of ancient Mesopotamian lexical texts, such as those found in the LBA Emar school. It was felt, in other words, that by employing the methods of contemporaneous scientific research such texts could be made understandable in terms of our modern knowledge system*. This, however, does not automatically mean that we can also understand them on their own terms, i.e. as part of the Ancient Mesopotamian knowledge system itself. Such an understanding should, theoretically, include insight into their original composition principles and their original uses. To understand these texts on their own terms - assuming this is at all possible - requires distancing ourselves from our own knowledge system, once again assuming this is possible at all. Thus, we would need to establish the position of our own knowledge system in relation to other knowledge systems.

In this respect one encouraging characteristic of our contemporary Western knowledge system, which modern science forms part of and within which this study aims to be of value, is its extreme self-reflexivity*. The philosophical and anthropological branches of modern science have produced a number of methodological models that can serve the purpose of establishing its own relative position. The aim of the theoretical interpretation provided by Part 4 is to apply three of these models to the Emar lexical corpus and to investigate how they can inform us about the character of the ancient Mesopotamian knowledge system that produced them. Where modern philological and text-historical sciences limit themselves to descriptive, quantitative and categorical *descriptions and evaluations* of ancient texts, philosophical and anthropological models may provide actual *explanations*. The explanations sought here are the answers to two specific questions: (1) 'why do these texts look the way they look?' and (2) 'why do they consistently remain recognizable (to some extent at least) throughout a centuries-long scholarly tradition?' It is clear that, even if certain answers to these questions are found by the application of the theoretical models proposed here, what remains problematic is the extent to which these answers can actually provide an understanding of the texts *on their own terms*. This problem has such profound theoretical and methodological implications that it must rightly be argued to properly belong to the specialized disciplines of Philosophy and Anthropology. Certainly it cannot be solved in the limited framework of this study. At the outset of this study it has been resolved, however, not to let this problem obstruct an attempt at getting a better understanding of the study object by means of a theoretical interpretation. Some more specific remarks concerning this issue will be found in the last paragraph of Chapter 1, which deals with the contentious issue of Cultural Relativism*.

[1] M. Foucault, *Les mots et les choses. Une archéologie des sciences humaines* (1966) 221.

Method

The method used here will be to select some important theoretical models relevant to knowledge and classification* systems and to apply these models to the ancient Mesopotamian lexical material. In this regard it should be noted that the theoretical models are applied to an object - i.e. the lexical material - which may be said to empirically form a coherent body of knowledge[2] but which, at the same time, remains generally undefined in terms of its precise function or use. Thus, the validity of the theoretical interpretations given here is not conditional upon the assumed function of the lexical texts as exercise materials (elementary or otherwise), or upon their assumed use in an educational context (either as exercises or as reference works). In other words, these theoretical interpretations are concerned not with the *function* or *use* of the knowledge found in the lexical material, but rather with its *nature*. Only in paragraphs 3.1.3.4-5 do some aspects of one of the theoretical models touch upon the function and use of the texts - in these paragraphs it is merely assumed that the lexical texts functioned as educational tools in an unspecified, general manner. The choice of the specific models used is briefly discussed later in this Introduction.

Before proceeding to explain the organization of the text, a word of caution is needed. It should be kept in mind that the models chosen are based on theories and hypotheses which lack the objective (i.e. empirically verifiable) validity that can be aimed at in a purely linguistic or philological study. The models chosen may easily be - and frequently have been - disputed on specific points or even as a whole. The point of the investigation offered here, however, is not to prove or disprove their underlying theories and hypotheses. Here the theoretical models chosen merely serve as convenient points of departure for a number of *thought experiments*. It is felt, in fact, that interdisciplinary speculation (preferably not too superficially informed) may be the only approach available to answer the kind of 'why' questions asked above - questions which the purely linguistic and philological approaches are not equipped to deal with. It should be noted that, although it is not the aim of this study to prove or disprove any of the theoretical models used in its thought experiments, one of the models chosen, viz. the 'technological' model of J. Goody, has attracted so much criticism in the past that a short excursus on its critical reception seemed warranted. This excursus may be found in Chapter 1.

Organization

Preceding the actual application of the theoretical models chosen, Chapter 1 (Theoretical Framework) seeks to briefly deal with two theoretical issues. The first is the relation of the lexical genre - the Emar version of which is the object of this study - to other text genres found in cuneiform literature. It does so by referring to the primarily philological analysis offered by Bottéro's 1974 article 'Symptômes, signes, écritures'. The investigation of inter-genre relations should serve to determine to what extent the application of theoretical models to the lexical genre may be relevant for cuneiform scholarship in general. The second is the criticism of Goody's theoretical model

[2] Cf. the relevant methodological remarks found in the Introduction to Part 3, viii.

mentioned earlier. Chapters 2-4 will proceed with the actual application of three theoretical models. Finally, based on the findings of these chapters, some theses (listed under Main Conclusions) are proposed with regard to the ancient Mesopotamian knowledge system in general.

It is important to note that although the context and content of the theoretical models to be used will be briefly summarized, it cannot be the purpose of this study to provide an exhaustive description of each of them. This means that no reproduction can be expected of all the examples, illustrations and elaborations that each of the authors amply provided around their theories in their respective works. The reader is therefore asked to be content with the brief historical and theoretical summaries given. Either they will serve to refresh what he is basically already familiar with, or they will provide him with the references needed in order to locate the relevant source materials.

In addition, the *alphabetic register of terminology* will provide an elementary guide to some of the specialized terminology used. This terminology is derived from the fields of Philosophy and the Social Sciences and it should be noted that the terms and concepts covered in the alphabetic register have a very specific content which is at times not immediately obvious from the surface meaning of the word[3]. To avoid misunderstanding, all special terminology has been marked with an asterisk (*) the first time it is used. Finally, it should be noted that the non-bibliographic abbreviations used in the text are listed immediately after the Introduction to Part 1.

The theoretical models chosen

> *... (les sciences humaines) représentent pour tous les autres savoirs comme un danger permanent: certes, ni les sciences déductives, ni les sciences empiriques, ni la réflexion philosophique ne risquent, si elles demeurent dans leur dimension propre, de <<passer>> aux sciences humaines ou de se changer de leur impureté; mais on sait quelles difficultés, parfois, rencontre l'établissement de ces plans intermédiaires ... c'est que la moindre déviation par rapport à ces plans rigoureux, fait tomber la pensée dans le domain investi par les sciences humaines: de là le danger du <<psychologisme>>, du <<sociologisme>>, - de ce qu'on pourrait appeler d'un mot l'<<anthropologisme>> - qui devient menaçant dès que par example on ne réfléchit pas correctement les rapports de la pensée et de la formalisation, ou dès qu'on n'analyse pas comme il faut les modes d'être de la vie, du travail et du langage. (l'<<anthropologisation>>) est de nos jours le grand danger intérieur du savoir*[4].

The above quotation points at the difficulty of the approach attempted in this *Theoretical Interpretation*, viz. the difficulty of interdisciplinary research seeking to utilize theories developed in the social sciences in the interpretation of empiric data gathered in an empiric science. For the (supposedly) empiric linguistic science of Ancient Near Eastern

[3] Methodically it is relevant to note that the author's has chosen to view the actual content of the scientific terminology used in this study as pre-determined by a series of Wittgensteinian *Sprachspiele* played in the modern scientific disciplines of Philosophy and the Social Sciences (methodological reference kindly suggested by Prof. Oosten). This caveat emphasizes the unresolved problem of how the *emic* (participant, i.e. Ancient Mesopotamian) and *etic* (observer, i.e. modern scientific) visions of classification relate to each other.

[4] Foucault, *Les mots*, 359.

philology such interdisciplinary research has been attempted before in a tentative manner - beginnings have been made and avenues of research have been pointed out[5]. The most considerable of these attempts in recent years may be found in Veldhuis' analysis of the Ancient Mesopotamian 'science of writing'[6]. The aim of the fourth and final part of this present study is to further investigate some points raised in his study. In fact, Veldhuis specifically suggested one of the three theoretical models chosen here, viz. Goody's 'technological' model, as worthy of further research. Another reason for including Goody's model is the wish to do justice to both sides of the great anthropological divide which formerly ran - to use oversimplified terms - between the 'empiric' Anglo-Saxon approach and the 'philosophic' continental European approach. Goody may be seen as a trying to strike a balance between the overly mathematical and deterministic science that has at times characterized the former and the sometimes quite abstract quality that has at times isolated the latter.

The other two models, Foucault's and Lévi-Strauss', are both from the continental European tradition in the social sciences and have been chosen in order to shed light on the subject matter from different disciplinary angles. These models may not constitute obvious choices, as their authors focus on the organisation and dynamics of knowledge in general terms, without specifically addressing lexical systems. It is felt, however, that they have an important value in facilitating a *manipulation of perspective*, allowing the modern observer to look at etnographic or historical data in a different matter[7].

On the one hand, Foucault's epistemological model primarily offers a philosophically considered cultural-historical critique that still retains some of the original iconoclastic, 'revolutionary' power it had when it was formulated in the Sixties. On the other hand, Lévi-Strauss' structuralist model offers the kind of amalgamation of philosophical methodology and empiric fieldwork that lies at the heart of classic continental Anthropology. Both thinkers, however different their respective approaches maybe, offer a depth and scope of analysis that is unmatched - for this reason alone a choice of their models may be considered an interesting challenge.

[5] Key references maybe found in the bibliography of H. Vanstiphout, 'Memory and Literacy in Ancient Western Asia' in: J.M. Sasson (ed.), *Civilizations of the Ancient Near East* IV (New York 1995) 2181-96.
[6] N.C. Veldhuis, *Elementary Education at Nippur. The Lists of Trees and Wooden Objects* (Groningen 1997).
[7] (Variant of) a methodological formulation kindly suggested by Prof. J.G. Oosten.

Methodological limitations[8]

The most important criticism that may be levelled at the methodology applied in this study is the admittedly problematic definition of what exactly constitutes a 'knowledge system'. In this context it is useful to paraphrase the manner in which one authority in the field of Structural Anthropology has put this problem: '(i)t cannot be assumed that, as in a given culture knowledge is shaped in different domains (e.g. language, technology, material culture, language, social organisation, cosmology), all these domains will be governed by a single dominant classification system. Rather, it may be assumed that these different domains will show different classificatory structures and dynamics'[9]. When introducing this Theoretical Interpretation it must, therefore, be stated clearly that the Ancient Mesopotamian knowledge system and episteme pursued here will be primarily the knowledge system and episteme *as they appear in the material remains of Ancient Mesopotamian lexicology*.

Based on the theoretical models chosen, however, two possibilities are postulated here: first that a description of one specific (in this case: lexical) knowledge system may be of *heuristic value* in understanding other, parallel knowledge systems (in this case: other systems found in Ancient Mesopotamia, cf. 1.1. below). Methodologically, this parallels Foucault's investigation of (aspects and parts of) Western scientific history and his discovery of developmental and structural similarities between various disciplines. Whether or not his conclusions, e.g. his proposition of a coherent developmental curve between successive epistemes, can stand the test of a more detailed analysis or of a wider definition of 'scientific' knowledge, is a matter that cannot be addressed in this study. The parallel drawn here merely serves to point to the value of the chosen approach as a *heuristic tool*. The second possibility postulated here is that there may be sufficient parallel structures and dynamics between different knowledge systems found within a single culture to justify the definition of a *coherent, single episteme* for that culture. On different levels such epistemical entities are proposed, directly or indirectly, in all three models chosen: in the Traditional, Classical and Modern Epistemes of Foucault, in the dynamics of Goody's alphabetic literacy and in Lévi-Strauss' totemic logic. Whether or not their models allow sufficient operationalization in empiric research to reach epistemological definitions in the investigation of any random culture, is again a question beyond the scope of this study. Here it is proposed, however, that at least in this investigation of the Emar lexical corpus, these models can indeed be helpful in defining its wider diachronic and synchronic epistemological position.

Another important remark should be made with regard to the *way* in which the concepts 'knowledge system' and 'episteme' will be pursued here: the scientific categories and concepts with which this study will attempt to analyze the Ancient Mesopotamian lexical texts are anchored in Western culture and history and cannot be assumed to have even

[8] The author wishes to express his gratitude to Prof. J.G. Oosten for offering the methodological considerations that this paragraph will address.
[9] Prof. J.G. Oosten - personal communication

approximate equivalents in any other culture, such as Ancient Mesopotamia - let alone universal validity. It is recognized that, in the final analysis, this study will merely serve to impose a Western scientific cognitive framework on the material it aims to study. The contribution aimed at, is to do so in a novel manner, through the manipulation of the working material by means of the theoretical models chosen. It is conceivable that the perspectives thus opened will allow the modern observer to grasp (aspects of) its elusive *emic* quality.

A final criticism to be anticipated from some quarters in the Social Sciences is that the three models chosen are now 'outdated', in the sense that they have been thoroughly criticized and perhaps even (ostensibly) superseded by subsequent counter-models and post-modern reinterpretations and deconstructions. Two remarks may be made in this regard. First, that this view by no means reflects the Anthropological consensus. Second, that it is obvious that any such criticism does not factually diminish the value of the chosen models as analytic tools - such value must become evident from their application and its results. In this context it seems useful to, once again, remind the reader of the primary and strictly limited aim of this study: viz. to conduct a number of *thought experiments* in relation to the Ancient Mesopotamian lexical material at hand.

CHAPTER 1 – THE THEORETICAL FRAMEWORK

1.1. The lexical lists as representative of the Ancient Mesopotamian knowledge system

Methodological remarks

As the three models treated in the Theoretical Interpretation, the final part of *The Emar Lexical Texts*, are tested exclusively on the lexical genre, the question may be asked to what extent any conclusions reached are applicable to the Ancient Mesopotamian knowledge system as a whole. As stated in the Introduction, the basic aim of this study is strictly limited to providing a series of tests for these models, without necessarily reaching definitive conclusions either about the validity of these models or about the nature of the Ancient Mesopotamian knowledge system as a whole. Nevertheless, the question posed may be considered significant enough to merit a preliminary investigation preceding the three theoretical experiments that will make up the bulk of this study. Indeed, this Theoretical Interpretation would not have been attempted if, from the outset, it would not have been considered possible - even likely - that its results could have some general relevance for the field of Assyriology as a whole. Various attempts to give an epistemological characterization of the Ancient Mesopotamian knowledge system as a whole have been made within the field of Assyriology in the past, but it was felt that one attempt in particular indicated that this knowledge system was of such a nature as to allow the extrapolation of the findings of the theoretical interpretation of one of its genres to its entirety. The work in question is Bottéro's 1974 article 'Symptômes, signes, écritures en Mésopotamie ancienne', in which such an extrapolation is made on the basis of a hermeneutical analysis of the Ancient Mesopotamian divinatory genre.

The main points of Bottéro's analysis will here be presented as preliminary arguments in favour of the possible relevance of the conclusions of this study, beyond the lexical genre, to the Ancient Mesopotamian knowledge system as a whole. This, it is felt, may go some way to justify the attempt that will be made in the course of this study to extrapolate various findings to a field as large, complex and distant as Ancient Mesopotamian epistemology. Some of the points that Bottéro makes will here be provided with specific anticipatory references to Chapter 2-4 (given in brackets), allowing the reader to cross-examine the relevant paragraphs of this study. Although, in any case, the reader will have to judge the findings of this study on their own merits, the following summary of Bottéro will serve to remind him of some of the epistemological issues at hand.

General divinatory hermeneutical approach of Ancient Mesopotamian scholarship

Bottéro gives a characterization of the Ancient Mesopotamian knowledge system *as a whole* from the perspective of its divinatory arts (cf. Foucault's assumption of a generalized divinatory hermeneutical approach for the TE in 2.1.2.4.), for which he finds some very specific formal features: *... selon une mise en forme tout à fait caracteristique de la literature scientifique mésopotamienne depuis les temps les plus reculés les oracles ont alignés <<en liste>> et classés, en function des protases, selon une ordre*

généralement rigoureux, et constant pour un meme sujet, lequel ordre est fondé sur une analyse plus ou moins poussée de l'objet oraculaire[10]. In this one sentence several important observations are made, viz. regarding (1) a preponderance of the list-form in which knowledge is presented (cf. the analysis of the list* as the literary device *par excellence* in 3.1.3.1.), (2) a characteristic formulation of knowledge in a juxtaposition of protasis and apodosis[11] (cf. the analysis of binary oppositions in 4.2.) and (3) a classificatory order based on concrete references rather than abstract concepts (cf. its relation to tabular presentation in 2.1.3.2. and to the principles of *bricolage* in 4.1.). Important in relation to the 'empiric' nature of Ancient Mesopotamian knowledge system is also Bottéro's postulate that even its divinatory art had a solidly 'empiric' basis: ... *le plus vieux procédé qui a dû server à l'établissement de oracle de divination deductive, et sans doute même présider à la proper <<découverte>> de cette divination (est) la constation des coincidences entre le deux series de la forme des présages et des événements de l'histoire. ...Il y a tout lieu de supposer que telle a été, en Mésopotamie, la dialectique grace à laquelle s'est élaborée la divination comme discipline et type de connaissance*[12]. This postulate of the overall importance of 'empiric' evidence and of concrete references in Ancient Mesopotamian scholarship is relevant for viewing it in terms of totemic logical quality (cf. 4.1.). In its divinatory practices Bottéro finds a generalized logical pattern of the Ancient Mesopotamian knowledge system which sees 'things through other things' and which is most distinctly related to its writing system: *(e)t à quoi se résume le trait essential ... sinon à* designer des choses par des choses*? L'écriture pictographique tissait donc entre les choses une multiple de rapports plus ou moins inattenus ou subtils: elle habituait l'ésprit à voir et à sentir ces liens que les vieux Mésopotamiens n'ont pas pu oublier, c'est une telle manière de regarder le monde materiel, autour d'eux, qu'ils ont acquise très anciennement et qu'ils ne se sont jamais résolus à abandoner. ... tout le principe foncier de la divination deductive est là: elle aussi* voit des choses *(l'oracle)* à travers d'autres choses *(le presage)*[13]. Aside from bringing up the important issue of how specific writing systems affects knowledge systems (cf. 2.1.2.1., 3.1.2. and 3.1.3.5.), Bottéro's analysis strongly reinforces the arguments that will be made for viewing the Ancient Mesopotamian knowledge system in terms of Foucault's theoretical model, a model that assumes that modern science became possible through the rigorous methodological separation of things and words (cf. 2.1.4.3.).

General characterization of the Ancient Mesopotamian knowledge system

Extrapolating from his analysis of the divinatory arts, Bottéro proceeds to a characterization of the Ancient Mesopotamian knowledge system in general with two

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[10] J. Bottéro, 'Symptômes, signes, écritures en Mésopotamie ancienne' in: J.P. Vernant (ed.), *Divination et rationalité* (Paris 1974) 84.

[11] *... une logique universéele ... depuis au moin la fin du III^e millénaire ... dans laquelle sont coulé non seulement des rituels, mais plus ou moins tous les traits scientifiques ... fait(e) d'une suite de propositions immuablement composées chacune de deux parties qui, pour le grammairien, apparaisent, la première comme* une *<<protase>>, introduite par šumma: <<s'il se trouve que>>, <<pose>> ou <<suppose que>>, la seconde comme une <<apodose>>, qui lui répond*. - Ibidem, 81-2.

[12] Ibidem, 149-50.

[13] Ibidem, 157.

main features: (1) a prosaic rationality* with a marked preoccupation with schematic classification[14] and (2) an intense preoccupation with the techniques of writing. In his discussion of this second feature Bottéro states his conviction that the impact of writing technique on the Ancient Mesopotamian knowledge system can cannot be overestimated, both in general, i.e. as *writing* per se[15] (cf. the excursus regarding Goody's model in 1.2. below), and specifically as *logographic* writing, which, as quoted above, saw 'things through other things' and which brought about a scholarship that was *closed* in the figurative as well as in the literal sense of the word (cf. 3.1.2. and 3.1.3.4. respectively). In Bottéro's analysis especially important among the specific effects of cuneiform writing on the Ancient Mesopotamian knowledge system is its intense grip on the direction of scholarly enterprise[16] (cf. Foucault's analysis of rhetoric figures in logographic knowledge systems in 2.1.2.2.).

Neither Bottéro's general characterization of the Ancient Mesopotamian knowledge system, nor the present attempt to extrapolate findings for the lexical curriculum to this system in general should be taken to imply a static view of the Ancient Mesopotamian episteme. In fact, as will be seen, there is an interesting partial parallel between the diachronic developmental scheme Bottéro develops for divinatory scholarship and the epistemological evolutionary scheme developed in this present study. Bottéro postulates a breaking point between an 'empiric' and 'scientific' phase of Ancient Mesopotamian divination around 2000 BC[17] and he describes the latter phase as characterized by the rise of rational analysis, visible in a heightened exploitation of polyvalency in the apodosis and in a deductive search for invariable and abstract categories[18]. This breaking point is matched in the epistemological evolutionary scheme postulated in Chapter 2, where 2000 BC marks the end of the *early* Ancient Mesopotamian Episteme (cf. 2.2.). A dynamic perspective on the Ancient Mesopotamian scholarly tradition, stretching from the early development of writing to the disappearance of cuneiform writing, will be an essential aspect of this study.

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[14] *...une tendance indiscutable à la curiosité pour les choses; une propension à les analyser et ranger; une sorte de rationalité qui explique la très archaïque passion de ces gens pour la mise en listes, la classification, les dictionnaire; la preponderance d'une façon de proseïsme raissonable et lucide, mais terre à terre, et qui refroidit en quelque sorte, jusqu'à leur poésie et la deprive de cette extraordinaire puissance, de l'image et vehémence du discourse qu'on trouve si couramment chez d'autre vieux Sémites, comme le Hébreux et les anciens Arabes: bref, comme une attitude objective et logique, qui a pénétré meme la religion, et dont on n'a peut-être pas encore mesuré la profondeur et la portée. ... la forme littéraire que (la divination) a finalement pris, celle des traits et de listes classifiées des présages, rejoint, l'énorme literature de <<mise en ordre>> dont les plus vieux témoins sont contemporains des tout premier débuts de l'écriture.* - Ibidem, 153.

[15] *Il n'est pas imaginable qu'une pareille découverte, qui joue dans l'ordre de l'intelligence le rôle de l'invention du feu dans la domaine de la technique, n'ait point révolutionné les habitudes de pensée de ses auteurs: quand on peut objectiver ce que l'on pense, le fixer en déhors de soi et en garder non seulement une image détachée de soi, mais une mémoire aussi perpétuelle qu'exacte, on ne pense plus come avant.* - Ibidem, 154.

[16] *... à côté des signes pris pour leur valeur phonétique, c'est-à-dire syllabique, les vieux usagers de l'écriture cunéiforme ont obstinément conservé l'emploi de les memes signes en leur antique valeur de pictogrammes, et cet usage primitif et obsolète, manifestement inviscéré en quelque sorte, à l'écriture des vieux Mésopotamiens, a duré autant qu'elle ...* - Ibidem, 156.

[17] Ibidem, 143.

[18] Ibidem, 180-3.

1.2. Excursus on the critical reception of Goody's model

Aim and organization

In the social sciences Goody's 'technological' approach to literacy has attracted strong criticism from some quarters. As stated earlier, it is not the purpose of this study to either prove or disprove any specific theoretical theory - it merely uses certain models as tools in a series of theoretical experiments. There is, therefore, no explicit need to burden the reader with a discussion of the prolonged social scientific debates which followed the formulation of the theories in question. An exception seems appropriate, however, with regard to Goody's theory, as some may feel that the sheer amount and intensity of criticism warrants at least some consideration of the substance of that criticism. The present excursus seeks to provide this in the form of a review of what may be considered the single most comprehensive piece of criticism of Goody, viz. that given in B.V. Street, *Literacy in Theory and Practice* (Cambridge a.o. 1984). For the reader interested in a further investigation of the debate stirred up by Goody's theories on the 'consequences' of literacy, Street's works provides ample references to relevant literature. It should be added that Goody gives a reply to his critics in an interview published in M.L. Pallares-Burke, *The New History. Confessions and Conversations* (Cambridge 2002) 7-30[19].

This excursus is organized into two parts. The first is a review of the two opposing models of literacy which Street proposes and which he uses to challenge the validity of Goody's theoretical approach. The second is a brief general discussion of the anthropological principle of Cultural Relativism, the ideological implications of which Street's work is concerned with.

The 'autonomous' vs. the 'ideological' model

It is Street's contention that the practice of literacy in any given society is a function of its social context, i.e. the outcome of specific processes of social formation. Street rejects the notion that the skills and concepts of literacy are autonomous, i.e. inherent in literacy – instead he argues that they are embedded in the given 'ideology' of a given society[20]. Thus, an 'autonomous' model of literacy may be opposed to an 'ideological' model and Street views Goody as a proponent of the former. Ultimately, Street argues, Goody's 'autonomous' model, which approaches literacy as a simple set of neutral technological tools that some societies have developed and others have not, is an unacceptable reincarnation of the antiquated, now discredited 'Great Dichotomy' found in early Anthropology, which employed opposing terms such as primitive-advanced, mythical-scientific etc. . In Street's view, the 'autonomous' model is simply another erroneous 'universal' theory resulting from the projection of (literary) practices specific to modern Western culture on previous or contemporary non-Western societies. In his view, the change of emphasis from cognitive *capacity* to cognitive *development* in the 'autonomous' model of literacy still implies an ethnocentric judgment in as far as the

[19] Reference kindly supplied by W.S. van Egmond.
[20] B.V. Street, *Literacy in theory and Practice* (Cambridge a.o. 1984) 1.

logic developed in a literate society is still considerate superior and valued higher[21]. This implicit superiority is reflected in the fact that it provides the standard by which 'the others' are measured and to which they are made to aspire (e.g. in literacy programs). Such an *etic* approach Street rejects, pointing to the fact that any literate technology is unavoidably ideologically charged, as it is always a historically-conditioned construct resulting from specific social conditions and from specific political and economic structures. He argues, for example, that the action of *abstraction** itself constitutes a cultural (educational) convention[22]. More specifically, Street criticizes Goody on the following points: (1) the overstated significance of literacy and the concomitant understated significance of oral communication, (2) the misplaced polarization of the literate and oral modes resulting from insufficient attention to mixed realities and (3) the distortion of developmental processes and of the role of ideology in the anthropological description of societies[23]. Street proposes to reject the 'autonomous' model in favor of his own 'ideological' model, a model in which the meaning of literacy depends on its social context and in which this meaning is instilled by the institutional (educational) processes through which literacy is transmitted. As a result, the meaning of literacy would be different for every society: there is not one kind of literacy, rather there are many kinds of literacies[24].

Here it is proposed that in Street's approach two issues should be clearly distinguished: (1) the 'ideological' issue and (2) the theoretical-methodical issue. Considering the former there is undoubtedly a case to be made for Street's argument that when literacy is transmitted, either in time or in space, it comes with 'strings attached'. Street points to the fact that many contemporary literacy programs effectively act as carriers of specific political and economic interests[25] and that imposition of literacy through compulsory schooling serves to uphold specific forms of social control as well as the transfer of specific dominant cultural values[26]. He is obviously correct when he states that certain forms of literacy theory developed in the social sciences may come to serve as 'scientific' justifications for such literacy programs. When literacy is assumed to have cognitive consequences, i.e. to be essential for the development of certain (presumably desirable) intellectual competencies, social theory may easily become relevant in political arguments. From this perspective Street's critical approach to literacy theory of the 'autonomous' variant is wholly understandable. It should be remembered, however, that possible political abuse of any given scientific theory does not automatically disqualify this theory itself. In this respect, the label that Street gives to his own theoretical model, viz. 'ideological', is bound to give pause to his readers: it indicates Street's preoccupation with the *political* extension of his own *scientific* discipline, i.e. of Cultural Anthropology. Street's model is relevant to value systems, not to epistemology* or technology. Which brings the discussion to the second issue at hand, viz. the question of the actual scientific,

[21] Ibidem, 29.
[22] Ibidem, 29-32.
[23] Ibidem, 5.
[24] Ibidem, 8.
[25] Ibidem, 13.
[26] Ibidem, 19.

theoretical-methodical validity of respectively the 'autonomous' and the 'ideological' models proposed and opposed to each other by Street.

In his eagerness to undermine any possible justification which over-zealous politicians may seek to derive from literacy theory, Street simply misses the point of Goody's theory. The point of Goody's theory is to address the impact of literate 'technology' on cognition and logic: this impact is not necessarily negated by the fact that it happens to be described in terms of the cognitive and logical framework particular to modern Western science. Neither does the wide range of classificatory sophistication found in many non-literate societies, as documented in anthropological literature and repeatedly referred to by Street[27], automatically invalidate Goody's thesis that certain features of cognition and logic are particular to literate as opposed to oral societies. Rather, the particular features assumed to be due to literacy by Goody should be judged on their specific merits. Street's criticism of Goody, however, completely fails in this respect: he does not offer any substantial counterargument concerning the various literate devices - such as the list, the table and the recipe - which constitute the pillars of Goody's theory. This is hardly surprising, as these devices, and the specific classifications and logic which they allow to develop, are undeniably inconceivable in an exclusively oral context. The fact is that literacy allows the development of certain cognitive skills, such as tabular classification and complex abstract formulae, which remain undeveloped in an exclusively oral context, where these skills are simply *unconceivable*. The Mesopotamian lexical texts attest to this: without the literate device of the table, for example, there would have been no way to attribute a variety of homophone and polyphone values to any graphic symbol in reference to *a dead language*. The abstract categories of 'gloss' and 'sign name' are inconceivable in an exclusively oral context. The table as used in the lexical texts constitutes a device which is 'good to think', but a device also *exclusively* found in a literate context[28]. Without anticipating further precise examples, for now it will suffice to say that Chapter 3 shows that the Mesopotamian lexical texts are actually a good illustration of Goody's argument that certain cognitive skills are uniquely particular to written contexts.

Cultural Relativism

In essence, Street's proposed opposition of the 'autonomous' and the 'ideological' model may be seen as reflecting concern for the near-axiomatic anthropological principle of Cultural Relativism. This principle - ultimately derived from Kant's and Herder's philosophical analysis of the mediated nature of human cognition - gained recognition as an indispensable anthropological method in the wake of the research innovations introduced by Boas (1858-1942). Essentially, the methodological principle of Cultural Relativism establishes the need to understand each culture on its own terms, refraining from ethnocentric typologies that establish 'levels of development'[29]. Cultural Relativism meant that anthropologists had to (attempt to) rise above culture-bound judgments - a

[27] Ibidem, 36-7.
[28] Cf. Street, *Literacy*, 36-7.
[29] T.H. Eriksen, *Small Places, Large Issues. An Introduction to Social and Cultural Anthropology* (London and Sterling VA 2001) 14.

principle which potentially has methodological as well as ethical implications. On the methodological level the Cultural Relativism of Boas meant the need to contextualize concrete objects and abstract phenomena in the wider culture where they occur while eliminating any *a priori* preferential taxonomies (e.g. by ethnography based on a certain attempt at enculturation). On the ethical level Cultural Relativism, however, may take on a doctrinal quality when it is wielded as an instrument of culture critique and confused with 'moral relativism'. The methodological principle of Cultural Relativism, stating that different cultures each have an autonomous logical cohesion within which their different value systems are autonomously valid, is then confused with the notion of a 'moral relativity' where there is a lack of any absolute or universal moral standards. It can safely be said that such an erroneous projection of the methodological principle into the sphere of ethical debate is a problem of politics rather than of Anthropology, the fact remains, however, that concern with the ethical dimension of Anthropology tends to haunt any discussion of the implications of Cultural Relativism.

It is such projection that may be observed in much of the criticism levelled at Goody's work on literacy, including that of Street. While ostensibly taking a 'cultural relativist' position to defend native cultures against Goody's supposed ethnocentric or universalist functionalism, Street in fact ignores Boas' own argument that, when comparing similar phenomena in different cultural settings, it should be remembered that similar as well as different causes can produce similar effects. Following this line of thought, Goody's approach to the phenomenon of writing and literacy is wholly compatible with the application of the methodological principle of Cultural Relativism. Similar communication techniques inherent in writing may very well have similar effects on the development of cognitive skills and logic in different cultural contexts.

Finally, it may be appropriate in this context to add a few words on how this present study itself should be regarded from a 'cultural relativist' perspective. This study, obviously written in the specific cultural framework of modern Western civilization and academic science, does *not* aim at *fully* understanding its object, the Ancient Mesopotamian lexical text corpus from Emar, on its own terms. Due to the impossibility of fully knowing the long-dead cultural context or of reconstructing it from the scarce and fragmentary archaeological and written sources, such understanding may very well prove beyond the capacities of modern science. In any case, even an attempt at such understanding would require a full-fledged multi-disciplinary approach including a professional anthropologist. The author of this study is not qualified as such and has limited himself to merely applying existing theories from the social science to the study object at hand. In this way the Ancient Mesopotamian lexical texts can gain meaning in terms of *our own* modern Western culture itself. What is aimed at here, in other words, is primarily a greater understanding of these texts in terms of *our own* culture as represented by *our own* Philosophy and Anthropology. Such an understanding is valuable, so it is proposed, not only functionally within the narrow framework of the academic discipline of Assyriology, but also in a wider sense, viz. by allowing us to mirror our Philosophy and Anthropology on the fascinatingly exotic monuments of Ancient Mesopotamian scholarship. In this enterprise we can exploit that special feature of our own unique culture which Lévi-Strauss termed our special capacity for self-reflexivity.

CHAPTER 2 – THE EPISTEMOLOGICAL PERPECTIVE

2.0. Aim, method and organization

Aim

The aim of this chapter is to analyse the Mesopotamian knowledge system represented by the Emar lexical texts from an epistemological perspective. The *first question* to be addressed here may be formulated as follows: 'what is the episteme, i.e. the nature and method of knowledge, in these texts?'. As the Emar lexical texts represent (variant) reproductions of traditional scholarly compositions, this question may be assumed to be relevant to the knowledge system found in ancient Mesopotamia as a whole, at least during the period that the compositions in question were recognizably used in a scholarly context. This does not mean that a single, *static* epistemological definition can adequately describe the whole Mesopotamian knowledge system over the whole time span that these compositions may be recognized in the scholarly compositions, i.e. starting in the OB period and ending with cuneiform writing itself. Rather, it means that the epistemological analysis of the lexical text corpus from one school produced during a relatively short period - such as that of the Emar school during the LBA period - can constitute a relevant *point of departure* for the epistemological analysis of other compositionally and methodologically related corpora. These related corpora of earlier and later date may very well contain indications of epistemological transformations in the Mesopotamian knowledge system, but they will always show them *in relation to* that reference point.

The *second question* to be addressed here is the following: 'what is the historic position of the ancient Mesopotamian episteme?'. This question brings up the issue of the position of the Mesopotamian episteme relative to other epistemes, especially to the one underlying modern western science. In seeking an answer to this question the ancient Mesopotamian episteme will be narrowly defined as the one specifically underlying the Emar lexical text. The diachronic transformation of the lexical curriculum between the OB and 1st Millennium canonical versions (cf. Part 3 Chapter 14) will be approached in terms of epistemological development.

Method

As announced in the Introduction, each chapter of this Theoretical Interpretation will aim at offering a different perspective on its object, viz. on the lexical texts of Emar, and each of these perspectives will be formulated in terms of a single key theory developed in the modern philosophical and social sciences. The epistemological perspective offered in this chapter will be formulated in terms of the theoretical concepts developed by M. Foucault in his 1966 work *Les mots et les choses*. His work aims at an 'archaeological' investigation of the foundations of modern western science[30], exposing its 'stratigraphy' as far back as the 16th C. Without necessarily assuming any common ground, such as a generic epistemological connection, between the object of Foucault's study (viz. western science from the 16th C onwards) and that of this study (viz. the Mesopotamian

[30] Foucault, *Les mots*, 13.

knowledge system as appearing in specific Late Bronze Age text witnesses), this chapter aims at making use of the conceptual tools developed by Foucault. In other words, an attempt will be made to apply Foucault's *methodology* to another study object.

The value of the proposed approach will be measured by its results. Before the attempt is made, however, two preliminary justifications can be given. First, the objects of Foucault's book and this chapter may be very different in spatial and temporal *situation*, but not in *quality*: both are concerned with knowledge systems. Both Foucault's book and this chapter aim at a (developmental) analysis of the epistemes underlying these knowledge systems. Second, it was Foucault's own explicit intention to develop conceptual tools that could be made use of outside the original context in which he had developed them[31].

To operationalize Foucault's methodology two complementary strategies will be followed. First, the episteme underlying the Mesopotamian knowledge system, as it appears from the Emar lexical texts, will be characterized by *comparing* it with the successive epistemes which Foucault distinguishes in his history of western science. Second, the concept of *universal language* as applied by Foucault to the successive epistemes of Western culture will be applied to the AME texts under consideration. In view of the fact that in the scribal school these texts were used for learning *language(s)* (most importantly Sumerian), it is deemed appropriate to give special attention to this concept. The first strategy will allow the determination of the relative position of the Mesopotamian episteme vis-à-vis that of epistemes which are more familiar to the modern western observer. It allows the modern western and ancient Mesopotamian knowledge systems to be compared in an epistemological sense. The second strategy aims at understanding the knowledge system which produced the lexical texts on its own terms: it may help explaining their enigmatic appearance in the eyes of the modern reader and allow them to be appreciated as intellectual achievements in their own right.

Organization

The first two paragraphs of this chapter, 2.1. and 2.2., set out to address its first and second aim respectively. The nature and methods of the Mesopotamian knowledge system, as it appears in the texts under consideration, will be investigated in 2.1. . The historical position of the Ancient Mesopotamian episteme and epistemological developments within the Mesopotamian knowledge system itself, will be addressed in paragraph 2.2. . These first two paragraphs apply the first of the two methodological strategies outlined above. Paragraph 2.3. proceeds with the application of the second methodological strategy, viz. the application Foucault's concept of universal language. Each of these paragraphs is divided into sub-paragraphs to allow for a precise analysis of each of Foucault's successive epistemes. The chapter closes with a short summary in paragraph 2.4., providing a listing of its main findings.

[31] *I would like my books to be a kind of tool-box which others can rummage through to find a tool which they can use however they wish in their own area … I don't write for an audience, I write for users, not readers.* - M. Foucault, 'Prisons et asiles dans le mécanisme du pouvoir' in: *Dits et écrits* 2 (Paris 1994) 523-4.

2.1. Epistemological comparison

> *Ce que nous laissent les civilisations et les peuples comme monuments de leur pensée, ce ne sont pas tellement les texts, que les vocabularies et les syntaxes, les sons de leurs langues plutôt que les paroles qu'ils ont preparés, moins leurs discourse que ce qui les rendit possibles: la discursivité de leur langage*[32].

2.1.1. Foucault's episteme(s)

The Greek word *επιστήμη* means simply 'knowledge' or 'science', which is the sense in which it is used in the term 'epistemology', viz. the science of the origins and methods of knowledge[33]. Foucault, however, uses the word *épistémè* as an analytic concept referring to the preconditions of knowledge - it may be defined as the historically contingent *a priori* condition of any given knowledge system and its discourses[34]. Thus, the episteme of a given knowledge system refers to the spatially and temporally bound modalities that determine the laws of that system. Effectively, its analytic position is that of an interface between the fundamental, implicit codes of direct knowledge and the interpretative, explicit codes of reflexive knowledge[35].

In his work *Les mots et les choses* Foucault uses the concept of the episteme to give a developmental analysis of the western scientific knowledge system between the 16th Century and the present. He concludes that the apparent continuity in European thought from the Renaissance to modern times is no more than a surface illusion. The drastic transformations he describes actually lead him to postulate a number of different successive epistemes, each of which corresponds to a new incarnation of the western knowledge system[36]. The three successive epistemes of western culture he describes may be (with approximate dates) chronologically ordered as follows:

(1) the Traditional Episteme, dominant until the early 17th C;
(2) the Classical Episteme, dominant from the mid-17th C to the late 18th C;
(3) the Modern Episteme, dominant from the late 18th C until the present day.

Foucault was committed to understanding a given knowledge system on its own terms, and he worked toward this end by determining its episteme. Writing about the 17th C theory of 'natural history', Foucault shows its conditional validity by analyzing it as a discourse fully embedded in the Classical Episteme. He goes on to point to the many alternative discourses about 'nature' or 'life' possible in other epistemes and to explain how the a priori episteme determines the formation of knowledge:

Sans doute, il y eut, dans cette region que nous appelons maintenant la vie, bien d'autres recherches que les efforts de classification, bien d'autres analyses que celle des identités et des differences. ... toutes reposaient sur une sorte d'a priori historique qui les

[32] Foucault, *Les mots*, 102.
[33] Cf. A.L. Hayward and J.J. Sparkes, *The Concise English Dictionary* (London 1982) 383.
[34] Foucault, *Les mots*, 13.
[35] Ibidem, 11-3.
[36] Ibidem, 13-4.

autorisait en leur dispersion, en leurs projects singuliers et divergents, qui rendait également possibles tous les débats d'opinions dont elles étaient le lieu. …Cet a priori, c'est ce qui, à une époque donnée, découpe dans l'expérience un champ de savoir possible, définit le mode d'être des objets qui y apparaissent, arme le regard quotidien de pouvoirs théoriques, et définit les conditions dans lesquelles on peut tenir sur les choses un discourse reconnu pour vrai[37].

In the following three sub-paragraphs (2.1.2-4) the three successive epistemes of western culture listed above will be separately compared to the ancient Mesopotamian episteme underlying the Emar lexical texts. It will be attempted to pinpoint similarities and dissimilarities between the features of each of these epistemes, as described by Foucault and as shown by the Emar lexical material respectively. It should be reiterated that in these comparisons the ancient Mesopotamian episteme will be approached as an object yet to be defined. Although some aspects of ancient Mesopotamian epistemology have been touched upon in earlier Assyriological literature[38], insufficient research has been done to allow precise assumptions regarding this object. In the present study, therefore, it will be approached strictly empirically. As the material basis for this study is limited to the Emar lexical texts, strictly speaking, the results apply only to the contemporary version of the ancient Mesopotamian episteme that they reflect. As that version, however, does in fact constitute a relevant reference point for the wider epistemological analysis of cuneiform scholarship (cf. discussion in 2.0.), here the wider term 'Ancient Mesopotamian Episteme' will be used to refer to it.

It should be noted that the various epistemes to be compared will be abbreviated: Traditional Episteme (TE), Classical Episteme (CE), Modern Episteme (ME) and Ancient Mesopotamian Episteme (AME); as stated earlier, the latter term always refers to the version appearing in the Emar lexical texts.

2.1.2. TE-AME comparison

2.1.2.0. TE features to be investigated

Four main features of the TE will be discussed here: (1) its general epistemological configuration, (2) its main analytic category, (3) its main analytical methods and (4) its limitations.

(1) The general epistemological configuration of Foucault's TE may be characterized as depending on *similitude*, touching all its aspects and implications, i.e. the observation, description and interpretation of likenesses and resemblances as well as the establishment of comparisons and metaphors. Until the beginning of the 16th C, in Foucault's view, the concept, theory and method of the similitude was the foundation of all western knowledge - it was this episteme that shaped and held sway over all endeavors in all

[37] Ibidem, 171.
[38] Relevant references regarding the intellectual background aspect of the 'cultural history approach' may be found in Veldhuis, *Elementary Education*, 4-7.

fields of arts, science and philosophy[39]. This was achieved, in the terms of modern western science, by consistently superimposing the methods of semiology (i.e. the identification and definition of signs) and hermeneutics (i.e. the interpretation and decipherment of signs). Foucault describes how this superimposition affected traditional thought as follows: *(c)hercher le sens, c'est mettre au jour ce qui se ressemble. Chercher la loi des signes, c'est découvrir les choses qui sont semblables. La grammaire des êtres, c'est leur exégèse. Et le langage qu'ils parlent ne raconte rien d'autre que la syntaxe qui les lie*[40].

(2) In this 'exegesis' the 'grammatical' tool, or analytic 'category' of choice, was the *signature*, i.e. the marker by which a similitude could be recognized. Effectively, the signature is a semiological description of the hermeneutically deciphered resemblance[41]. Foucault describes the role of the signature, allowing similitude to emerge, and the form in which it was experienced, as follows: *(l)e système des signatures renverse le rapport du visible à l'invisible. La ressemblance était la forme invisible de ce qui, du fond du monde, rendait les choses visibles; mais pour que cette forme à son tour vienne jusqu'à la lumière, il faut une figure visible qui la tire de sa profonde invisibilité. C'est pourquoi le visage du monde est couvert de blasons, de caractères, de chiffres, de mots obscurs - de <<hiéroglyphes>> ...*[42]. Thus, in the study of all things natural or cultural there should be a close scrutiny for the signatures of similitudes.

(3) The four main *figures* by which, according to Foucault, similitude was actually expressed in the traditional western knowledge system are[43]: *convenientia*, *aemulatio*, *analogia* and *sympathia*. These figures of similitude could be considered as analytic 'techniques', offering different avenues of approaching knowledge to be defined in terms of similitudes. The exact definition of each of these figures will be considered later on, when they will be related to the organizational structure of the Emar lexical texts.

(4) Foucault distinguishes the following main conceptual limits inherent in the TE[44]:

a. as the elements of knowledge are always individual similitudes, which are relatable only through accumulation, the sole link between them is *addition*;
b. the validity of similitudes is based on preconceived concepts of microcosm and macrocosm, therefore the knowledge system is necessarily conceptually *finite*.
c. knowledge that is classified as magic or irrational in terms of modern western science is necessarily valid due to the *inherently divinatory nature of knowledge acquisition* in the TE, which depends on the search for signatures;
d. the study of the natural world as well as that of literarily transmitted knowledge are subject to the same divinatory hermeneutical approach: *(l)'héritage de l'Antiquité est*

[39] Foucault, *Les mots*, 32ff. It should be borne in mind that Foucault uses the word *similitude* in a rather abstract manner: it primarily refers to a philosophical concept and method rather than to the actual literary similtudes by which this concept was expressed and by which it was made operational.
[40] Ibidem, 44.
[41] Ibidem, 45.
[42] Ibidem, 41-2.
[43] Ibidem, 32-8.
[44] Ibidem, 45-7.

comme la nature elle-même, un vaste espace à interpréter; ... les Anciens ont déjà des interprétations que nous n'avons plus qu'à recueiller[45].

For a comparison of the TE with the AME, as underlying the Emar lexical texts, it will be investigated to what, if any, degree the four above mentioned aspects of the TE are also applicable to the content and structure of these texts. First, it will be discussed what is the general role of similitude in the texts under consideration (2.1.2.1.). After that, specific evidence will be studied for the relevance of the category *signature* (2.1.2.2.) and for the 'techniques' *convenientia*, *aemulatio*, *analogia* and *sympathia* (2.1.2.3.). Finally, it will be discussed to what extent the conceptual limits imposed by the TE may also be relevant for the AME (2.1.2.4.).

2.1.2.1. Similitude in the AME

As stated above, it is the view of Foucault that the status of similitude as the dominant epistemological configuration of traditional western thought was achieved by the superimposition of semiology and hermeneutics. Effectively, under the aegis of the TE, the production of knowledge consisted of bridging the discrepancy between juxtaposed phenomena (semiology) by means of a discourse on meaning (hermeneutics) that takes the form of similitudes. The alphabetically coded discourse, however, could never render these similitudes in a form even remotely approaching a formal match: *... parce qu'il y a un <<cran>> entre les similitudes qui forment graphisme et celles qui forment discours, le savoir et son labeur infini recoivent là l'espace qui leur est propre: ils auront à sillonner cette distance en allant, par un zigzag indéfini, du semblable à ce qui lui est semblable*[46]. It is interesting, however, to note the caveat preceding this passage, viz.: *(t)out serait immédiat et évident si l'herméneutique de la ressemblance et la sémiologie des signatures coïncidaient sans la moindre oscillation*[47]. With other words: if there were no such 'notch' between *graphic* and *discursive* similitudes, knowledge would be 'immediate' because semiological discourse would exactly match hermeneutic interpretation. Here it will be proposed that in ancient Mesopotamia, in fact, there originally *was* such a match and that this original match partly determined the shape of the Emar lexical texts, in which it may at times still be recognized.

In ancient Mesopotamian culture the means by which knowledge was coded was of a profoundly different nature than that in western culture. Cuneiform writing evolved from a large repository of pictograms and ideograms which carried logographic values, formulated in Sumerian. From these, in turn, phonetic values were derived - the use of these derived values gained special prominence after the ascendancy of Akkadian as the main administrative language, replacing Sumerian around the time it died out as a spoken language. Sumerian and logographic writing, however, remained at the heart of scholarly learning. This is clearly visible in the lexical curriculum, which constituted the basic instruction material of apprentice scribes: the learning of logograms and logographic composition are its main concerns. With the passing of the ages, through gradual changes

[45] Ibidem, 48.
[46] Ibidem, 45.
[47] Ibidem, 45.

in their graphic shapes, the signs may have become increasingly removed from the original pictograms and ideograms, the scribes, however, were well aware of this process. They developed specialized palaeographic studies and even made the occasional conscious, if scientifically 'flawed', effort to return to the graphic 'roots' (e.g. by the attempted reintroduction of the older OB sign in some NB institutional documents). What certainly remained constant in the scholarly tradition was the knowledge and usage of the original logographic values: scribal competence was to a large degree defined by the knowledge and application of these values in learned compositions. It is in the essential role of logographic writing that the profoundly different nature of the coding of knowledge in ancient Mesopotamia resides.

Both logographic writing and alphabetic writing serve as a discrete code for conveying discourse. In case of the TE, Foucault has stated, this discourse concerned itself with the signatures of similitudes - it remains to be seen if this also holds true in the AME. What should be noted first, however, is that in the AME records vital elements of the code itself, viz. the logograms, ultimately derive their validity from the fact that they constitute *similitudes in themselves*. They do so by establishing graphic resemblances to external referents. As stated earlier, logograms originate from pictographic and ideographic markers, formed with the intention to graphically evoke the visual form of selected external referents, viz. various natural phenomena and cultural artefacts. The fact that in logographic writing all discourse is conveyed in the *form* of similitudes means that, inevitably, its *content* too is always interpretable as such. This potentiality is exactly what is realized in the lexical texts under consideration: it is the logogram that is consistently the core of their discourse (cf. Part 3 11.2.1). In other words: here the hermeneutic interpretation of the texts matches their semiological discourse.

Effectively, the lexical texts under consideration are nothing but a discourse on cuneiform logography by means of the logograms themselves, formulated in long lists of graphic analysis. The exact match of graphic and discursive similitudes - which Foucault observed to have eluded the TE scholarship - may, to a certain extent, be sought in those ancient Mesopotamian lexical compositions that exclusively contain logograms, viz. in the unilingual Sumerian texts. In these unilingual lexical texts the logograms define each other: they are expressed in terms of their graphic (dis)similitude, i.e. in relation to each other. Such texts effectively represent a self-contained knowledge system, which in its actual operation[48] relies on concrete internal references instead of on abstract external references[49]. Foucault's *figurative* description of the TE knowledge system may be said to apply *literally* to the AME knowledge system appearing in these lexical texts:

La ressemblance … n'est fixée que si elle renvoie à une autre similitude, qui en appelle à son tour de nouvelles; de sorte que chaque ressemblance ne vaut que par l'accumulation

[48] This obviously does not mean that these lists were originally *created* without reference to the real life world of objects and phenomena, including real life relations between such objects and phenomena. Rather, it means that these lists came to be *used* in a closed knowledge system which had the writing system rather than the real life world as its object.

[49] With *concrete* as opposed to *abstract* references here are meant the relation between the actual cuneiform signs juxtaposed in the texts as opposed to the relations that these signs might actually or potentially have had to any object or phenomenon in the real life world.

de toutes les autres, et que le monde entier doit être parcouru pour que la plus mince des analogies soit justifiée, et apparaisse enfin comme certaine. C'est donc un savoir qui pourra, qui devra procéder par entassement infini de confirmations s'appelant les unes les autres. … La seule forme de liaison possible entre les éléments de savoir, … c'est l'addition. De là ces immenses colonnes, de là leur monotonie[50].

Of course, instruction was needed to teach apprentice scribes, but this remained largely textually invisible as long as the language of instruction, i.e. the Sumerian language, matched the language of the texts. It was only with the demise of Sumerian as a spoken language that the addition of a visible 'interface', in the form of phonetically written glosses, translations and comments was first conceived of. This secondary introduction of additional, abstract references, through the non-logographic (phonetic-Akkadian) use of signs, eventually resulted in fully bilingual texts. This means that, concerning a bilingual text as a whole, the exact match between hermeneutic interpretation and semiological discourse was lost. From that point onwards, roughly in the OB period, the exact match was only preserved to the extent that the lists retained their original logogram inventories and sequences - found in ever scarcer unilingual copies - or preserved in the unilingual column of bilingual tablets[51]. However, as the bilingualization of the lexical curriculum progressed over time and as list inventories and sequences were transformed and new compositions arose, even here the exact match was increasingly lost. It can therefore be argued that a successful match of hermeneutic interpretation and semiological discourse was dependent on the predominant use of logographic (as opposed to phonetic) coding.

The eventual loss of the match between hermeneutic interpretation and semiological discourse is ultimately inherent in the nature of logographic writing itself. For any pictographic and ideographic codes to be expanded into logographic writing, abstract phonetic values must be assigned to selected graphemes. These graphemes (starting with phonetic complements and verbal prefixes in Sumerian) must be read, in specific contexts, without reference to their pictographic and ideographic values. Inevitably, any historic developments entailing the use of a given logographic system for another language than its original language (e.g. use of Sumerian writing for Akkadian or the use of Chinese writing for Japanese) will lead to an expansion of non-logographic coding. Thus, the bilingualization of the Mesopotamian lexical tradition constitutes a process by which the match between hermeneutic interpretation and semiological discourse is lost in the AME.

The inventory transformations and expansions set in motion simultaneously with the bilingualization of the lexical compositions (cf. Chapter 14 of Part 3), could be interpreted as attempts to cope with this new discrepancy by realigning and adding content. The realignments and additions constitute analysis needed to come to grips with a knowledge system which could no longer be understood on its own terms. Effectively, the addition of external references (i.e. the phonetic-Akkadian interpretations), although

[50] Foucault, *Les mots*, 45.
[51] The question to what extent the content of (certain) early unilingual OB lexical compositions was, in fact, already shaped by the bilingualization process, falls outside the scope of this study, it is however certainly relevant for any diachronic epistemological study with a wider scope.

meant to understand the old system in terms of new references, caused it to collapse. The replacement of its original semiological discourse signalled the fall of the original system, which had relied on the superposition of hermeneutics and semiology. What resulted, was a new system, with new compositions for which the old sign lists only served as raw material. In this new system, the old sign lists were approached as a heritage to be *interpreted* through the new discourse. If the old (unilingual) system constitutes the first instance of a literate *semiology*, the new (bilingual) system constitutes the first instance of literate *erudition*. For the first time, knowledge is produced by approaching the written discourse of the ancients as a sign to be deciphered[52].

The form in which this decipherment took place was, again, *similitude*. In deciphering the records of the old system, the new system extended the usage of similitudes from the concrete to the abstract. Whereas the old system had used concrete (graphic) similitudes to constitute its logograms, the new system used abstract (semantic) similitudes to express these logograms in terms of Akkadian words. In the resulting bilingual lexical texts each juxtaposition of a logogram and an Akkadian interpretation represents an abstract similitude in as far as it constitutes a comparison based on an invisible (exclusively semantic) resemblance of some kind. Effectively, the old lexical records, which had content solely expressed in concrete, graphic similitudes, were adopted and adjusted so that this content could additionally be expressed in abstract, semantic similitudes.

Comparing the status of similitude in the TE and the AME, it may be said that whereas in the TE the similitude was the *aim* of all knowledge, in the AME it was the *precondition* of all knowledge. Whereas in the TE the similitude was *sought* as original knowledge[53], in the AME it *constituted* original knowledge. In the lexical records it does so either as concrete, graphic content alone (the unilingual texts) or through abstract, semantic comparison as well (the bilingual texts). Whereas in the TE the production of knowledge consisted of establishing similitudes by bridging the discrepancy between hermeneutically interpreted resemblances and semiologically described signatures, in the AME originally no such production took place because originally there was no such discrepancy. Knowledge production similar to that during the TE only sets in with the end of the monopoly of the logogram as the vehicle of knowledge recording (the bilingualization of the lexical curriculum starts in the OB period) and even then it originally constitutes only an adaptation of the old texts to a new linguistic context. In terms of this development, the Emar lexical curriculum provides an important insight into the shift from the older to the younger Mesopotamian knowledge system: it is the last known text corpus to provide conclusive evidence for the simultaneous and systematic use of both uni- and bilingual lists in basic apprentice training[54]. The continued

[52] *... (Eruditio) va du graphisme immobile à la claire parole: elle redonne vie aux langages en sommeil* - Foucault, *Les mots*, 48-9.
[53] Ibidem, 50.
[54] It should be noted that it is very well conceivable that such usage in fact continued even longer in other sites – at present the textual evidence is simply lacking. Incidentally it should also be noted that no sharp shift in either educational practices or textual development, let alone epistemelogical development, is implied here. The developments that ultimately led to the transformed, 'canonized' 1st Millennium texts most likely were of a gradual nature and may have taken place over a span of multiple centuries.

production of unilingual lists shows that even in the 12th C BC scribes were still being trained in making the direct match between hermeneutic interpretation and semiological discourse particular to the older compositions. This evidence alone is a powerful argument in favor of assuming a great deal of continuity in the AME.

In summarizing the above analysis it may be said that in terms of Foucault's analysis in both the TE and the AME the general epistemological configuration may be characterized as geared to the pursuit of similitudes. The main difference between the two is that in the AME the coding of knowledge itself takes on the form of a (logographic) similitude, meaning that in the originally unilingual logographic texts there is a near-match between hermeneutic interpretation and semiological discourse. This match is progressively lost with the bilingualization of cuneiform literary culture (the Late AME).

2.1.2.2. The signature in the AME - its coding in the horizontal organization of the lexical texts

Whereas the alphabetic writing used in the TE records can merely *convey* messages concerning the signatures that these records pursue, the logographic symbols used in the AME records actually *constitute* signatures themselves, regardless of the messages they convey. Alphabetic writing in itself always constitutes an abstract visual code for the spoken word, from which the conveyed message can be reconstructed. Signature status may or may not be consistently assigned to parts of the message, depending on the episteme underlying the knowledge system in which the message is produced. By contrast, logographic writing in itself per definition meets the definition of a signature: it is a visible marker of similitude because it gives an actual visual *image* of the conveyed meaning, or aims to do so. Thus Foucault's *figurative* description of the TE knowledge system, applies *literally* to the AME records: *... l'espace des immédiates ressemblances devint comme un grand livre ouvert; il est hérissé de graphismes; on voit tout au long de la page des figures étranges qui s'entrecroïsent et parfois se répètent. Ils n'est plus que de les déchiffrer ... Les reflets muets (des choses) sont doublés par des mots qui les indiquent*[55]. It will be noted that Foucault's description actually gives a quite accurate description of an Ancient Mesopotamian lexical list.

The signature may have been the main analytic category of the TE, but signature status was not an inherent feature of its writing system. The similitude, the main pursuit of the TE, is not actually visibly marked in its writing system. In the AME, by contrast, signature status is an intrinsic feature of the elements of its writing system. This implies that a text produced in cuneiform writing is always made up of visual signatures, which holds true even if in many documents only the phonetic values associated with such signatures are actually in use in relation to the message they convey. After the demise of Sumerian as a spoken language, cuneiform writing used in what could be termed a 'practical' (administrative, legal, epistolary) context did indeed develop into a largely syllabic script. In a scholarly context, however, this was not the case. On the contrary, in Mesopotamian scholarship the signature status of elements of the writing system itself always remained an object of scholarly inquiry. Clear prove of this is found in the

[55] Foucault, *Les mots*, 42.

evolution of the lexical corpus, which shows a consistent accumulation of interpretations (e.g. the diachronic growth visible in compositions such as Hh and Izi) and a persistent tendency to inquisitive revaluation (e.g. through the diachronic transformation of existing series and development of new series). It may be argued that it was precisely the visual signature status of elements of the writing system which determined the specific configuration of the AME. In this respect it is useful to follow Foucault's analysis of how logographic writing could develop from pictorial depiction in the first place: *(l)'écriture véritable a commencé lorsqu'on s'est mis à représenter non plus la chose elle-même, mais un des éléments qui la constituent, ou bien une des circonstances habituelles qui la marquent, ou bien encore une autre chose à quoi elle ressemble*[56]. It is these associative strategies that result in the signature status of the constitutive elements of a logographic writing system.

Foucault argues that these associative strategies can be analyzed as depending on the use of three types of tropes (i.e. rhetorical figures of speech): *synecdoche* (i.e. *pars pro toto*), *metonymy* (i.e. replacement) and *catachresis* (i.e. an improper, mixed metaphor). The validity of Foucault's analysis for the lexical corpus under consideration will be investigated by applying it to a sample text. In order to apply Foucault's analysis, what must be investigated here is, in fact, the manner in which logograms become logograms, i.e. the manner in which logograms attain their primary semantic values. In the texts under consideration explicit information relevant to this issue can be found on the level of their *horizontal organization*, as many Akkadian equivalents provide explicit discourse concerning the primary semantic value of the logograms by giving descriptions of their original pictographic content. It should be kept in mind that what is to be investigated here is the relation between *pictograms* and their interpretations, *not* the relation between the *logograms* and their interpretations. Thus, what is investigated in the sample text from the Emar lexical corpus of Table 1 is the manner in which its explicit interpretations (i.e. the Akkadian equivalents, described as element 4 in Table 1 of Part 3) *semantically* relate to the original pictographic values of its key-signs (i.e. those of its key-sign logograms, described as element 2 in Table 1 of Part 3)[57]. This semantic relationship is expressed using the terminology found in Foucault's analysis. By thus investigating the cognitive processes underlying the formation of logograms, it will be shown how logograms can acquire the status of signature, i.e. how they can establish meaning through the expression of various kinds of similitudes.

The sample chosen for Table 1 consists of the first five keys-signs of SaV and their interpretations as found in Emar - note that excluded from this sample are those equivalents which refer exclusively to Sumerian grammar (e.g. 001.20ff.) and those which remain uncertain (e.g. 001.18-9). It should be remembered that the semantic relations listed in Table 1 are possible, often plausible, but that they do not necessarily constitute the sole cause for a given key-sign to be provided with a specific interpretation

[56] Ibidem, 126.

[57] In this respect, a *logographic* reading may be defined as the means by which permanence is given to any specific interpretation of a pictogram; this permanence of interpretation is effectuated by means of assigning specific phonetic values.

- other types of relations may also be found. All types of relations occurring in Table 1, semantic and otherwise, will be commented upon below.

Table 1. Tropes in the semantic relation between pictograms and their interpretations

SaV PST	Key-sign	Pictogram	Interpretation i.e. *Akk equivalent*	Semantic relation between pictogram and interpretation with specification of *tropes*
001.01	A	water	*mû* - water	simple representation
.02			*abu* - father	*catachresis*: water > seed > father
.03			*abu abi-* grandfather	*catachresis*: water > seed > father > grandfather
.04			*ilu* - god	*catachresis*: water > seed > father > dead ancestor > god
.05			^{D}A.A - Ayya	*catachresis*: water > seed > father > dead ancestor > god > Ayya
.11			*kirru* - pitcher	*metonymy*: water - pitcher
.12			*nissatu-* lamentation	*catachresis*: water > tear > lamentation
.15			*šuttatu* - ditch	*metonymy*: water - ditch
.16			*zunnu* - rain	*synecdoche*: water = rain
.17			*ratbu* - wet	*metonymy*: water - wet
.24			*rihūtu-* impregnation	*catachresis*: water > seed > impregnation
.30			*kapru* - village	none (f-graph. ass. É-A)
002.01	ŠUR	bowl with spout[58]	*zanānu* - to rain	*catachresis*: bowl with spout > to pour out > to rain
.02			*ramāku* - to wash	*catachresis*: bowl with spout > to pour out > to wash
.03			^{D}*ištar* - Ishtar	none (graph. ass. ŠUR-DIŠ)
.04			*rību*-water butt; cask	*catachresis*: bowl with spout > to pour out > (overflowing) cask
003.01	PAD	bowl with divider[59]	*kurummatu* - ration	simple representation
.05			*kasāpu* - to cut; break off	*metonymy*: ration - to cut off
004.01	ŠIR	bulb	$BURU_4$ - crow	*metonymy?*: bulb-bulb shape?
a.01			*išku* - testicle	*metonymy*: bulb - testicle
005.01	HAR	liver; millstone[60]	*hašū* - lung	*metonymy*: liver - lung (organs)

[58] A. Deimel, *Šumerische Grammatik* (Rome 1939) nr.78 p.25.
[59] Ibidem, nr.285 p.78.

.02	*kabattu* - liver	simple representation
.03	*ṭulīmu* - spleen	*metonymy*: liver - spleen (organs)
.04	*harru* - watercourse	none (f-graph. HI-AŠ; phon. /har/)
.05	*semeru* - ring	*metonymy*: millstone - ring(form)
.06	*arāru* - miller	*metonymy*: millstone - miller
.07	*ṭênu* - to grind	*metonymy*: millstone - to grind
.08	*sāmidu* - miller	*metonymy*: millstone - miller
.09	*erû* - millstone	simple representation
.12	*têrtu* - instruction	*catachresis*: liver > omen > instruction
.14	*hubullu* - debt	none (phon. ass. UR_5)
.16	*kabāru* - to be thick	none (phon. ass. GUR_{14})
.17	*tītu* - nourishment	none (phon. ass. MUR)

Before listing the relation types and the comments that can be deduced from Table 1 a word of caution must be given concerning the difference between the *realization types* discussed earlier (2.1.2.1. of Part 3) and the *relation types* discussed here. The former are the various realizations possible in the relation *between logograms and their Akkadian equivalents*, the latter are the various types of relations occurring *between pictograms and their interpretations*. In the former, the realization of a given relation between a logogram and an Akkadian equivalent reflects a production of meaning that is valid *emically**, i.e. its validity is conditional upon its context, viz. the Ancient Mesopotamian knowledge system. These realizations produced by the ancient scribes can be considered as reflecting an informed choice, based upon relevant traditions and teachings, but they are not necessarily intrinsically meaningful from the perspective of another knowledge system, such as modern science. In the latter, however, the relation between a pictogram and its interpretation - as investigated here - is valid *etically*, i.e. it is valid in terms of the modern science, viz. as a reconstruction of historically attested grapho-semantic developments.

From the examples found in Table 1 it is possible to postulate four types of relations between the original pictograms and their interpretations as found in Emar SaV. The first two types are semantic associations, the other two types are non-semantic associations (in Table 1 the latter two are marked 'none'). Although the focus here is on the semantic relations, for completeness' sake the non-semantic relations will be briefly commented upon and shown in their function relative to the semantic relations. Thus, the four types may be described as follows:

(1) Meaning derived from the semantic relation of *simple representation*. E.g. PST 001.01 interprets key-sign A, a pictogram of flowing water, as simply meaning 'water',

[60] Ibidem, nr.242 p.67-8.

giving the corresponding logographic readings Sumerian A and Akkadian *mû*. In Table 1 these meanings are marked 'simple representation'.

(2) Meaning derived from the semantic relation of *association through the rhetoric figures* of speech distinguished by Foucault. E.g. PST 001.17 interprets key-sign A as meaning 'wet', giving the corresponding logographic readings Sumerian $DURU_5$ and Akkadian *ratbu*, by establishing a metonymous relation (viz. substitution based on contingency). It should be noted that in the Emar texts many of the interpretations derived from association through rhetoric figures could be designated 'inappropriate' in terms of modern lexical analysis. E.g. in PST 001.11 the interpretation of A as *kirru* 'pitcher' ignores the fact that the common logogram for *kirru* is not A but ÁBxŠÀ (AbZ 424 KÍR)[61]. But this is beside the point: the association was considered valid by the Emar scholars and indeed shows the way logographic meaning *can* be arrived at. It has already been said in Part 3 that 'inappropriate' interpretations may be considered an inevitable result of the integrative approach of Mesopotamian lexical scholarship (cf. Part 3 2.1.2.1. and 2.1.3.). It was also said that such interpretations can, in fact, be considered as indicating that the original methodology underlying the development of the writing system remained productive in Mesopotamian lexicology. Foucault's analysis now allows the cognitive processes within this methodology to be specified. In Table 1 the appropriate terminology is specified where applicable.

(3) Meaning not derived from a semantic relation but from *phonetic association*. In this type of relation the semantic field established by a type 1 or type 2 relation is extended to include the meanings belonging to homophonous words (i.e. following the 'rebus' principle). E.g. PST 005.14, .16 and .17 interpret the key-sign HAR, a pictogram of a liver, as 'debt', 'to be thick' and 'nourishment' respectively, by admitting the (semi-)homophonous readings of /ur/ for 'debt', /gur/ for 'to be thick' and /mur/[62] for 'fodder'. Occasionally, cross-linguistic homophony (i.e. between Akkadian and Sumerian words) is also admitted, as is the case in PST 005.04 were HAR is interpreted as *harru* 'watercourse' on the basis of a shared phonetic element /har/[63]. Of course this phenomenon could be designated, once again, as 'inappropriate' in terms of modern linguistics. It should be born in mind, however, that it was exactly such 'inappropriate', versatile use of cuneiform that guaranteed its extraordinary spread and longevity beyond the geographic and chronological boundaries of its cradle in 3rd Millennium Sumer. It was only through the cross-linguistic application of phonetically read writing elements that cuneiform could be used for another language after Sumerian died out as a spoken language.

(4) Meaning not derived from semantic but from *formal-graphic association*, i.e. graphic association that ignores the primary pictographic values of the associated elements. In this type of relation the semantic field established by a type 1 or type 2 relation is

[61] AHw. 484.
[62] Note that /mur/ also phonetically coincides with the word for 'spleen', which is also written HAR on the basis of its metonymy with UR_5 'liver'.
[63] Note that the commonly used logogram for *harru* is HI-AŠ (AbZ 405 SÙR), which shares a graphic element with HI-ÁŠ=HAR.

extended to include the meanings belonging to words which are otherwise written with shared elements or in a graphically similar manner. E.g. in PST 001.30 and 002.03 the interpretations *kapru* and ^{D}*ištar* are based on the fact that here graphic elements are found which are shared with the logograms commonly used for these words (É-**A**=É.DURU$_5$ and ^{D}**ŠUR**-DIŠ=^{D}INANNA respectively). Similar to phonetic association, formal-graphic association is not phenomenon to be dismissed lightly as merely reflecting 'inappropriate' relations in terms of our scientific criteria. There are several instances where formal-graphic association in lexical lists serves to identify important issues regarding the definition of and boundaries between logograms. In some cases logograms which have become formally indistinguishable in non-scholarly texts, are explicitly specified as derived from originally distinctly separate origins (e.g. SaV PST 014 KU vs. 205 ŠÈ and 178 BE vs. 203 IDIM). In other cases, vice versa, the juxtaposition of graphically associated logograms serves to emphasize detailed or even artificially created differences in signs that have a very similar graphic shape (e.g. SaV PST 168-9 NIN-DAM and 006-7 AH-A'). Effectively, it may be argued that the boundaries of logograms are, to a certain extent, fluid and open to interpretation. Formal-graphic association is one of the methods by which the ancient lexicographers were able to work on this definition. To dismiss formal-graphic associations as 'inappropriate' therefore does not necessarily do justice to their scholarship. Within its traditional framework, the scholarship that created the texts under consideration was of an empirically highly inquisitive nature, seeking to (re)establish all types of cross-connections wherever possible (cf. Part 3 2.1.2.1.).

It should be born in mind that the four types of relations between pictogram and interpretation listed above can and do overlap with each other to a certain extent. It is possible for a semantic relation to be matched by phonetic or formal-graphic association (or both, as in PST 001.02, .03 and .05). In fact, it may be said that in many instances the relations between pictograms and interpretations are characterized by multiple associations. E.g. the interpretations 001.12 **A**=*nissatu* 'lamentation' and 001.16 **A**=*zunnu* 'rain' show a semantic relation 'supplemented' by a formal-graphic association: respectively through 'tear'=ÉR=**A**-IGI and through *zunnu*=ŠÈĜ=**A**-AN). Table 1, however, focuses on the semantic relations, as they reflect the primary layer of meaning that is constructed. It is only on the basis of the rhetoric figures of speech established in this primary layer that, secondarily, any phonetic associations of the 'rebus' type can be developed. It is of course only in that secondary layer of meaning that the threshold of fully developed 'writing' is reached. The search for phonetic or formal-graphic signatures is also a common theme in the pursuit of knowledge in TE texts[64]. To the extent that AME lexicography progresses beyond the semantic analysis of pictograms it may be said to pursue the kinds of signatures that also concerned TE scholarship - be it within a wholly different cultural reference frame. Only when the logogram is no longer primarily relevant as a pictogram, it becomes the topic of the search for non-pictographic signatures of similitude[65].

[64] For respective examples cf. Foucault, *Les mots*, 51 and 54.

[65] Although it might be tempting to view this development as the first attestation of a 'TE-type' approach to the similitude, it should be noted that no such suggestion is necessarily intended here. Research into the epistemes of intervening epistemes (primarily of the Classical world), needed to support such a hypothesis, falls outside the scope of this investigation.

In Foucault's view the rhetoric figures of speech effectively determine the whole epistemological configuration of any knowledge system that uses logographic writing:

... c'est en suivant la nervure qu'elles prescrivent que les langages doublés d'une écriture symbolique vont pouvoir évoluer. Ils se chargent peu à peu de pouvoirs poétiques; les premières nominations deviennent le point de départ de longues metaphors: celles-ci se compliquent progressivement et sont bientôt si loin de leur point d'origine qu'il devient difficile de le retrouver. ... (A)insi naissent ... les savoirs ésotériques chez ceux (les prêtres) qui se transmettent de génération en génération des metaphors; ainsi naissent les allégories du discourse (si fréquentes dans les littératures les plus archaïques), et aussi cette illusion que le savoir consiste à connaître les ressemblances[66].

This presumably unavoidable 'poetic-esoteric' development may in fact help to explain some of the more 'exotic' associative strategies that riddle the lexical series (perhaps Svo and certainly Izi may be regarded as extreme examples in this regard). What is here more important, however, is that, following Foucault's analysis, an episteme such as the AME is necessarily inward-looking in as far as it is preoccupied with dealing with its own signatures and may therefore be qualified as 'static'[67]. From the modern western epistemological perspective, which necessarily measures any object of inquiry by the criterion of its own perceived historic 'evolution' and its own perceived scientific 'progress', the AME may be characterized as unavoidably scientifically stagnant and lacking in historic dimension[68].

Summing up the above analysis it may be said that in Foucault's TE, as well as in the AME text witnesses under investigation here, the main analytic category by which similitude is recognized is the signature. Unlike the writing system used in the text witnesses of the TE, however, the writing system used in AME texts *itself* actually consists of signatures, viz. of logographic elements that can be historically defined as

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[66] Foucault, *Les mots*, 127.

[67] *... l'histoire du langage doté d'une écriture figurée est vite arrêtée. C'est qu'il n'est guère possible d'y accomplir des progrès. Les signes ne se multipluent pas avec l'analyse méticuleuse des représentations, mais avec les analogies les plus lointaines: de sorte que c'est l'imagination des peoples qui est favorisée plus que leur reflexion. La crédulité, non la science. De plus la connaissance nécessite deux apprentissages: celui des mots d'abord (comme pour tous les langages), celui des sigles ensuite qui n'ont pas de rapport avec la pronunciation des mots; une vie humaine n'est pas trop longue pour cette double education; et si on a eu, de surcroît, le loisir de faire quelque découverte, on ne dispose pas de signes pour la transmettre. Inversement, un signe transmis, puisqu'il n'entretient pas de rapport intrinsèque avec le mot qu'il figure, demeure toujours douteux: d'âge en âge on ne peut jamais être sûr que le meme son habite la meme figure. Les nouveautés sont donc impossibles et les traditions compromises. ... le seul souci des savants est de garder <<un respect superstitieux>> pour les lumières reçues des ancêtres, et pour les institutions qui en gardent l'héritage ...* - Foucault, *Les mots*, 127-8.

[68] *C'est ... dans (l)e rapport de l'espace au language, que se situe ... l'essentielle difference entre l'Orient et l'Occident. Comme si la disposition spatiale du langage prescrivait la loi du temps; comme si leur langue ne venait pas aux hommes à travers l'histoire, mais qu'inversement ils n'accédaient à l'histoire qu'à travers le système de leurs signes. C'est dans ce noeud de la représentation, des mots, et de l'espace (les mots représentant l'espace de la représentation, et se représentant à leur tour dans le temps) que se forme, silencieusement, le destin des peoples*. - Ibidem, 128.

derived from particular pictograms. Foucault's analysis of the possible strategies - the rhetorical figures of speech - for arriving at signature status in any logographic knowledge system, as well as his ideas concerning their epistemological consequences, were found to be fully applicable to the AME.

2.1.2.3. The figures of similitude in the AME - their coding in the vertical organization of the lexical texts

In 2.1.2.1. and 2.1.2.2. it was argued that in the AME lexical texts under consideration the elements of the writing system themselves constituted similitudes and that the pictographic values they contain figured prominently among the signatures pursued by the ancient scribes. This means that, in as far as it deals with the analysis of the actual elements of the writing system, the pursuit of the signatures of similitudes by AME scholarship necessitated a wholly different set of technical skills than those relevant to TE scholarship. It was found that in the AME texts under consideration the elements of the writing system themselves actually constitute tangible similitudes expressed as visual signatures, i.e. similitudes that do not necessarily warrant figurative representations such as found in the TE. It is important, however, to investigate whether the figurative representations of similitude described by Foucault for the TE are relevant in AME scholarship to the extent that the latter pursues similitudes *beyond* the analysis of the actual elements of its writing system.

In the AME lexical texts under consideration such similitudes are conceivable in those places where different logograms occur in contrastive relationships. Whenever such contrastive relationships are of a (primarily) semantic nature, it is possible that they, in fact, constitute figuratively represented similitudes recognizable in terms of Foucault's analysis. Obviously, a multitude of contrastive relationships between different logograms is found at the level of the vertical organization of the lexical lists, i.e. in the vertical variations between consecutive key-signs and key-words. Thus, whereas the signature status of the writing elements themselves - which were shown to be ultimately dependent on the various tropes distinguished by Foucault - was found coded in the *horizontal organization* of the lexical lists, the figures of similitude distinguished by Foucault must be sought in their *vertical organization*. The investigation of their presence there is the primary objective of Table 2 below.

It should be noted that, in as far as figuratively represented similitudes can indeed describe the vertical variations of key-signs and key-words, the semantic relationships they imply do not preclude the additional validity of other types of relationships, i.e. the additional validity of graphic and phonetic associations. In fact, the integrative methodology used by the ancient scribes in both the horizontal and vertical organization of content (i.e. their pursuit of interrelations between graphic, phonetic and semantic associations, cf. Part 3 11.4.), results in the frequent simultaneous validity of various types of relationships. The manner in which the semantic relations implied by Foucault's figures of similitude relate to the other types of relationships is relevant to the epistemological-theoretical interpretation sought in this chapter. In Table 2 below, therefore, it will not only be investigated to what extent the figures of similitude

described by Foucault for the TE apply to (samples of) the AME texts under consideration, but also to what extent the semantic relationships implied by these figures of similitude occurred simultaneously with other types of relationships.

Samples will be given from most lexical series - the exceptions are SVo (for which the precise status of its logograms is uncertain - cf. Part 3 1.2.1. and 14.1.), SaP (which contains only palaeographic information), Izi (for which in Emar only fractions of sequences are preserved) and Kagal (its status as an independent series is unclear - cf. Part 3 7.0.). In the commentary following Table 2 it will be attempted to investigate what, if any, systematic discrepancies occur in the distribution of the different figures of similitude across the different lexical series.

At this point, before proceeding with the analysis of Table 2, it is necessary to provide a more detailed definition of the four figures of similitude distinguished by Foucault. The following are the four main figures, or articulations, of the TE similitude, as summarized from Foucault's own description[69]:

(1) *Convenientia*: a similitude based on (a degree of) (mutual) adjustment or adaptation necessitated by a spatial (physical) connection or proximity.

(2) *Aemulatio*: a similitude based on the formal similarity of otherwise spatially (physically) disconnected elements. *Aemulatio* involves a degree of willed action to (cause to) equal or excell.

(3) *Analogia*: a similitude based on relational or proportional agreement projected by man through an assumption of reversibility or polyvalence. *Analogia* is only (cognatively) imposed and (artificially) applied by the choice of man and is therefore independent of actual proximity or similarity to the objects concerned.

(4) *Sympathia*: a similitude based on the shared identity of objects that may occur in dispersion but belong together in substance and show affection and assimilation (possibly resulting in mobility). In this respect *antipathia* may be understood as a (reversed) form of *sympathia*.

It should be noted that in Table 2 these different figures of similitude will not be considered as mutually exclusive: multiple figures may simultaneously apply to different aspects of the sample texts.

[69] Ibidem, 32-8.

Table 2. Figures of similitudes in the semantic association between consecutive logograms

Note that matching graphic and semantic associations are indicated in **bold type**.

Series PST-EST		**Graphic association**	**Phonetic assocation**	**Semantic association** with specification of *figures of similitude*
SaV				
006 AH	007 A’	*graphic derivation*	/ah/ - /a’ /	-
006 AH[70]	008 HU	?	/Vh/ - /hV/	*sympathia*: shared aspect of identity (as ‘flying’: EH-MUŠEN/flea; louse - bird)
008 HU	009 RI	added vertical	-	*sympathia*: shared aspect of identity (as ‘flying’: MUŠEN - DAL / bird - to fly)
009 RI	010 BI	-	-	*convenientia*: spatial connection (DAL *tallu* - KAŠ *šikāru* / vessel - beer)
010 BI	011 NI	start with two horizontals	-	*analogia*: projected relation (*šu*(*ma*) / he; his - it; its[71])
G				
003 ^{D}EN.**LÍL**	004 ^{D}NIN.**LÍL**	elements ^{D} & **KID**	element /lil/	*sympathia*: shared aspect of identity (as **‘divinity’**, **‘wind’** & by marriage)
004 ^{D}NIN.LÍL	005 ^{D}NUSKU	element ^{D}	-	*convenientia*: spatial connection (mistress - servant) *sympathia*: shared aspect of identity (as **‘divinity’**)
005 ^{D}NUSKU	006 ^{D}SA.DÀR.NUN.NA	element ^{D}	-	*sympathia*: shared aspect of identity (as **‘divinity’** & by marriage)
006 ^{D}SA.DÀR.NUN.NA	007 ^{D}GIBIL$_6$	element ^{D}	-	*sympathia*: shared aspect of identity (as **‘divinity’**)
007 ^{D}GIBIL$_6$ (**NE**-GI)	008 ^{D}LI$_9$.SI$_4$ (**NE**-SU$_4$)	elements ^{D} & **NE**	-	*sympathia*: shared aspect of identity (as **‘divinity’** & as **‘fire’**)
Hh				
3a309 ^{ĜIŠ}U$_5$.**KUN$_4$**	3a310 ^{ĜIŠ}ŠÙK.**KUN$_4$**	elements ^{ĜIŠ} & **I-LU**	element /kun/[72]	*aemulatio*: disconnected similarity (step of stairs - bar of ladder) *sympathia*: shared aspect of identity

[70] As SaV PST 007 A’ may be considered a recent interpolation in the orginal Sa key-sign sequence, the relation that is relevant here is that between originally consecutive 006 AH and 008 HU.

[71] Because in Sumerian the morphemes BI and NI both serve as demonstrative and possessive suffixes, the logograms may be considered related in as far as they can *function* in a similar manner with regard to their referents, i.e. they are analogous with regard to their projected *function*.

[72] Note that the entries 3a309-10 also share a similar morpho-phonetic construction on more than one level: both are constructed by the combination of the element KUN$_4$ ‘stairs; ladder’ with a preceding logogram that doubles as a phonetic rendering of its Akkadian equivalent, viz. U$_5$ and ŠÙK for /hu/ and /šuk/ in respectively *hūqu* and *šukû*.

				(as **'wood'** & as parts of **stairs**/**ladder**)
3a310 ĜIŠŠÙK.KUN$_4$	3a311-6 ĜIŠBÚNIN/BUNIN$_4$	elements ĜIŠ & LAGAB	-	*sympathia*: shared aspect of identity (as **'wood'**)
3a311-6 ĜIŠBÚNIN/BUNIN$_4$	3a311-22 ĜIŠNÀĜA	element ĜIŠ	-	*convenientia*: spatial connection (tray or trough and a mortar within it) *sympathia*: shared aspect of identity (as **'wood'**)
3a311-22 ĜIŠNÀĜA	3a323 ĜIŠGAN.NA	element ĜIŠ	elements /naĝa/-/gana/	*aemulatio*: disconnected similarity (mortar - club) *sympathia*: shared aspect of identity (as **'wood'**)
3a323 ĜIŠGAN.NA	3a324 ĜIŠEME.ŠI(!SIG)	element ĜIŠ	-	*aemulatio*: disconnected similarity (club - plank) *sympathia*: shared aspect of identity (as **'wood'**)
Lu				
2087-8 KU.LI	2089 DU$_{10}$.ÚS.SA	-	-	*analogia*: projected relation (colleague - friend) *sympathia*: shared aspect of identity (as 'human')
2089 DU$_{10}$.ÚS.SA	2090 GÉME.ÌR	-	-	*analogia*: projected relation (friend - domestic personel) *sympathia*: shared aspect of identity (as 'human')
2090 GÉME.ÌR	2091-2 AN.TA/TAB.BA	-	-	*analogia*: projected relation (domestic personel - companion; partner) *sympathia*: shared aspect of identity (as 'human')
2091-2 AN.TA/TAB.BA	2093 ZU.A	-	-	*analogia*: projected relation (companion; partner - acquaintance) *sympathia*: shared aspect of identity (as 'human')
2093 ZU.A	2094 DÙG.GA MU	-	-	*analogia*: projected relation (acquaintance - 'name sayer') *sympathia*: shared aspect of identity (as 'human')
SagB				
166 **KA**-DUGUD	167 **KA**-AN-RA	element **KA**	word /inim/	*analogia*: projected relation (weighty - divine) *sympathia*: shared aspect of identity (as **'word'**)
167 **KA**-AN-RA	168 **KA**-LUGAL	element **KA**	word /inim/	*analogia*: projected relation (divine - royal) *sympathia*: shared aspect of identity (as **'word'**)
168 **KA**-LUGAL	169-70 **KA**-KAL	element **KA**	word /inim/	*analogia*: projected relation (royal - most precious) *sympathia*: shared aspect of identity (as **'word'**)
169-70 **KA**-KAL	171 **KA**-GIL	element **KA**	elements /inim/	*sympathia*: shared aspect of identity (as **'word'**)

			& /gal/ - /gil/	
171 **KA**-GIL	172 **KA**-LUL	elements **KA** & crossbars	word /inim/	*sympathia*: shared aspect of identity (as **'word'**)
Diri				
026 Ú-NAGA-HU (UGA^{MUŠEN})	027 Ú-KA (MÚZUG)	element Ú	-[73]	-
027 Ú-**KA** (MÚZUG)	028 Ú-**SAG** (MÙZUG)	elements Ú & **KA-SAG**	word /muzug/	*convenientia*: spatial connection (**mouth** - **head**) *sympathia*: shared aspect of identity (as 'impure')
028 Ú-SAG (MÙZUG)	029 Ú-KUR-SAL-TUKU (UZUG)	element Ú	element /uzug/	*sympathia*: identification as opposites (impure person - priest)

In commenting Table 2 the following conclusions may be drawn:

(1) The first conclusion concerns the applicability of Foucault's figures of similitude in general. In this regard it may be said that (a) indeed *they do apply* to the relations between many of the vertically consecutive entries in the lexical texts under consideration, that (b) all four of them may be recognized in the sample collection of Table 2 as whole and that (c) frequently more than one of them applies at same time to a single relation. The frequency of this multiple applicability of the various figures can mostly - but not exclusively - be explained by the fact that throughout large sections or the whole of certain series a similitude based on *sympathia* will automatically result from the presence of shared key-words or determinatives (e.g. all the entries of G share the ^{D} determinative, resulting in a necessarily shared aspect of identity).

(2) The second conclusion concerns the extent to which the semantic relations implied by presence of Foucault's figures of similitude occur simultaneously with other types of relationships (graphic, phonetic). It can be seen that this simultaneity is not uncommon. What is important to note, however, is the fact that in many instances the figures of similitude not only show themselves in the semantic analysis of the relations between consecutive entries, but that they also express themselves through graphic similarity. In other words, *in many instances there is an exact match between the visible graphic and the invisible semantic association* implied by Foucault's figures of similitude (this phenomenon is indicated in Table 2 by the use of **bold type**). In most cases this match is merely the automatic result of the presence of shared key-words or determinatives throughout large sections or the whole of a series. These grapho-semantic matches only refer to a limited aspect of the content of the entries in question. In some other cases, however, the match results from a direct graphic coding of another (additional) figure of similitude in the logogram which in such cases may reach its maximally conceivable extent. E.g. in G PST 007-8 the match extends to the ^{D} determinative (divinity) and the

[73] Note that although between entries 026-7 there is no direct phonetic association, there is an indirect mixed grapho-phonetic association: the *actual* phonetic value of 026 /uga/ matches the *potential* phonetic value of 027 Ú-KA.

NE logogram ('fire'), leaving out only a single phonetic element (GI[74] and SI_4 respectively), which establishes the discretionary value of each entry.

(3) The third conclusion concerns the distribution of the various figures of similitude across the various series. It should be born in mind that in this respect the evidence provided by Table 2 depends on rather narrow samples and that therefore this conclusion should be considered provisional. With this caveat in mind, the most important phenomena to be noted are the following:

Concerning the distribution of *aemulatio*: this figure is only found in the Hh sample, which may indicate that similitudes based on the formal (visually definable) similarity of otherwise spatially (physically) disconnected elements can be expected mostly in those lexical series that list physical objects, whether natural or man-made.

Concerning the distribution of *analogia*: this figure is (not restricted to but) very prominent in Lu, which is not unexpected given its definition as based on nothing more than human cognitive projection. Following the rest of the definition given earlier, it may further be said that nowhere is such projection as a means of establishing (nuances in) relational agreements more appropriate than in Lu - about which more will be said shortly.

Concerning the distribution of *sympathia*: this figure is clearly the most commonly found figure. Its presence is systematic in certain series, viz. in those that constitute thematic lists rather than sign-lists[75]: in those series it obviously reflects systematically shared graphic elements. What should be noted in this regard is that there is one series, Lu, in which - despite the obvious common (human) identity of its entries - the corresponding shared graphic element is lacking.

Finally the juxtaposition and use of some of the figures of similitude in Lu should be noted. Based on the above mentioned observations concerning *analogia* and *sympathia* it may be said that in Lu two significant phenomena coincide: the prominence of the *analogia* figure coincides with the systematic omission of graphic expression of the *sympathia* figure (the *sympathia* figure applies between many of its entries due to their shared identifiability as humans). The fact that this omission runs contrary to the common scribal convention of providing all word for humans with the ^{LÚ} determinative seems to indicate that it has been omitted purposefully: throughout the preceding thematic series (G and Hh) determinatives are used regularly[76], but Lu shows a sudden deviation from in this regard. In view of the findings of the preceding *Structural Analysis* concerning its pivotal position in the curricular switch from naturally to culturally defined external referents (Part 3 5.3.), this may be significant. It may, in fact, imply that the omission of

[74] In view of this analysis it may be suggested that the reading NE+GI as $GIBIL_6$ (as opposed to BIL_X-GI=GI↔BIL_X or $GIBIL_X^{GI}$) may be considered as an arbitrary convention of modern science which does not necessarily offer a realistic view of the lexical construct intended by the ancient scholars.
[75] For the terminology used in series typology cf. Part 3 11.3. .
[76] Note that the virtual status of determinatives in certain texts is not relevant in this respect (cf. Part 3 12.3.).

the explicit graphic expression of *sympathia* was *intentional* and that it served to de-emphasize one relational aspect, viz. *sympathia*, tangible through shared substantial identity, in favour of another, viz. *analogia*, intangible as it relies on *projection* of relational agreement only. It is not surprising that the figure of *analogia*, which basically involves the creation of artificial relations, gains in prominence when a given lexical list pursues culturally rather than naturally defined external referents. In as far as Lu is concerned with human beings, it focuses mainly on the culturally defined differences between them rather than on their naturally defined identities. As the cultural definitions involved essentially reflect unnatural, artificial (social) concepts (such as profession, rank, status and function), *analogia* is the obvious figure of choice for expressing many of the vertical relations found in Lu.

2.1.2.4. The limitations of knowledge in the AME

The main typifying characteristics of the text witnesses under consideration, as resulting from the general configuration of the AME, have already been described in 2.1.2.1.. The purpose of this paragraph is to investigate in more detail in how far this general configuration results in quantitative and qualitative limitations that are related to the epistemological limits referred to by Foucault for the TE. It should be noted that here the term 'limitations' has been chosen because this investigation is meant to be relevant primarily within a *etic* reference frame, viz. to describe epistemological 'short-falls' and 'restrictions' in relation to modern western science. It will be shown to what degree Foucault's 'limits' are useful tools to determine these 'limitations'. The four main points raised by Foucault will be addressed here in the same order (a-d) as they were introduced in 2.1.2.0. under (4):

a. *Addition as the sole relation between elements of knowledge*. In Foucault's analysis all TE knowledge is formulated in similitudes on the basis of signatures and these signatures always refer to external referents. From this it follows that each single similitude is ultimately valid only by the validity of all other similitudes: knowledge is therefore basically dependent on their accumulation. Applying this analysis to the AME text corpus under investigation, it perfectly explains the appearance of the lexical texts. The knowledge represented by these texts present, individually as well as collectively, is achieved exclusively by the accumulation of many individual elements that remain basically separate. The individual elements within the horizontal organization of each entry as well as the individual entries within the vertical organization remain basically unintegrated - they are merely juxtaposed by means of addition. In this system no synthesis of any sort is given or needed because there is no systemic prerequisite for it and no utilitarian functionality requiring it. Any 'scientific progress' or 'advance' in knowledge - terms that unavoidably imply *etic* projections - must here be measured exclusively in terms of further addition. Which is precisely what is diachronically observable, viz. the internal growth of compositions (e.g. Hh, Izi) and the external addition of other compositions that serve as extended (cross-)commentaries (e.g. Hg, Erimhuš). The limitative effect of this phenomemon described by Foucault for the TE may be said to apply in a very literal manner to the AME as it appears in the lexical texts:

... le savoir ... s'est condamné à ne connaître toujours que la même chose, mais à ne la connaître qu'au terme jamais atteint d'un parcours indéfini[77].

b. *The finite nature of knowledge resulting from the assumed relation microcosm-macrocosm*. In Foucault's analysis all TE knowledge is formulated in similitudes and these similitudes ultimately derive their validity from the preconceived notion that macrocosmic order is reflected in a stepped hierarchy of microcosms[78]. As the various observable microcosmic creations mirror the macrocosmic order and as their content is ultimately quantifiable and knowable, the implication of this notion is that knowledge is ultimately *finite*. It is within the finite knowledge domain thus defined, that the TE similitude gains epistemological validity and purpose. For the AME lexical corpus it may be argued that the cuneiform writing system, which is the object it pursues, constitutes a microcosm in its own right, in as far as its logograms aim to reflect the world through many tiny graphic-visual reconstructions. With all microcosms assumed to reflect the macrocosmic order, it is not surprising that the ultimate authorship of the writing system was presumed to be of a transcendent nature (viz. ascribed to the gods) and that the ancient scribes always took care to clarify their own position in this regard (viz. to refer to themselves as mere servants of the specific gods in charge of their microcosm). Concerning the presumed transcendent and ultimately finite nature of the ancient scribal microcosm, Foucault's description of the macrocosm-microcosm relation in the TE may be said to be equally well suited: *... il existe une créature de privilège qui reproduit, dans ses dimensions restreintes, l'ordre immense du ciel, des astres, des montagnes, des rivières et des orages ... c'est entre les limites effectives de cette analogie constitutive que se déploie le jeu des ressemblances. Par ce fait même, la distance du microcosme au macrocosme a beau être immense, elle n'est pas infinie; les êtres qui y séjournent ont beau être nombreux, on pourrait à la limite les compter; et par conséquent les similitudes qui, par les jeu des signes qu'elles exigent, s'appuient toujours les unes sur les autres, ne risquent plus s'enfuir indéfinement. Elles ont, pour s'appuyer et se renforcer, un domaine parfaitement clos*[79].

c. *Inclusion of 'unscientific' knowledge due to the inherently divinatory nature of knowledge acquisition*. In Foucault's analysis all TE knowledge formulated in similitudes is obtained from the study of signatures, which, pursued as a formal method does not distinguish between 'scientifically' or 'rationally' valid and invalid content[80]. The application of modern western scientific criteria is therefore an anachronistic and *emically* invalid undertaking. The perspective of modern linguistics, from which many associations in the AME texts will appear intractable, or just plainly 'wrong', may simply be inappropriate. As possible examples of 'magically' but not necessarily otherwise valid associations may be cited: SaV PST 006.01-3 (AH with the associative series 'magic>spittle>excretion'); 203.09-11 (IDIM with the associative series 'anointed priest>bull-man>underground water'). As a matter of fact, many associations found in the horizontal or the vertical organization of the lists may elude modern research simply

[77] Foucault, *Les mots*, 45.
[78] Ibidem, 46.
[79] Ibidem
[80] Ibidem, 47.

due to the (partially unavoidable) un-reconstructability of 'divinatory' associative mechanisms and of their context in general. It should be realized, however, that the original cause of many associations may have been as unclear to the ancient scribes as to the modern researcher: associations may have been considered appropriate for no other 'reason' than that they were transmitted by teachers and reproduced from older texts. This issue will be addressed in more detail under point d. below. Concerning the role of divinatory techniques, in conclusion, it may be said that the following quote from Foucault seems quite appropriate to put some of the 'irrationalities' of the AME texts under consideration in an *emic* perspective: *(l)a divination n'est pas une forme concurrente de la connaissance; elle fait corps avec la connaissance elle-même*[81].

d. *A divinatory hermeneutical approach to textually transmitted knowledge*. In Foucault's analysis all TE fields of study are approached in the same manner, viz. as objects of a universally applied *divinatory* hermeneutical approach. This means that in the TE, traditionally transmitted literary texts were not approached differently than the empirically accessible life-world[82]. *Eruditio*, in other words, did not impose the duty to make any effort at text-historical research, let alone text criticism. *L'héritage de l'Antiquité est comme la nature elle-même, un vaste espace à interpréter; ... les Anciens ont déjà des interprétations que nous n'avons plus qu'à recueiller*[83]. This analysis seems to be particularly relevant to the AME texts under consideration as they were primarily the object of *reproduction* (cf. Introduction to Part 3) and much less the result of *production*. The limited degree of visible analytic production took place primarily in reference to earlier texts, often in the form of additions to them. This implies that the ancient scribes considered the content transmitted in their lexical compositions - frequently preserved in recognizable form across many centuries - as valid *ipso facto*. In fact, it may be argued that the relatively limited diachronic development shown by the AME texts is an indication that in the AME the difference between *signature* and *word* was smaller still than in the TE due to the fact that writing of the AME itself was effected by (graphic, visual) signatures (cf. 2.1.2.2.). Thus, Foucault's observations on the timeless quality and unquestioned validity of the transmitted written text in the TE hold true to an even greater degree, and in a very literal sense, for the texts transmitted in the AME: *...le discours des Anciens est (lié) à l'image de ce qu'il énonce; s'il a ... la valeur d'un signe précieux, c'est parce que, du fond de son être, et par la lumière qui n'a cessé de le traverser depuis sa naissance, il est ajusté aux choses mêmes, il en forme le miroir et l'émulation; il est à la vérité éternelle ce que les signes sont aux secrets de la nature (il est de cette parole la marque à déchriffrer); il a, avec les choses qu'il dévoile, une affinité sans âge. Inutile, donc, de lui demander son titre d'autorité; il est un trésor de signes liés par similitude à ce qu'ils peuvent désigner*[84].

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[81] Ibidem

[82] *Entre les marques et les mots, il n'y a pas la différence de l'observation à l'autorité acceptée, ou du vérifiable à la tradition. Il n'y a partout qu'un même jeu, celui du signe et du similaire, et c'est pourquoi la nature et le verbe peuvent s'entrecroiser à l'infini, formant pour qui sait lire comme un grand texte unique.* - Ibidem, 49.

[83] Ibidem, 48.

[84] Ibidem, 49.

2.1.3. CE-AME comparison

2.1.3.0. CE features to be investigated

In 2.1.2. it was found that a number of essential features distinguished by Foucault for the TE were highly relevant to the AME text witnesses under investigation. In order to determine how the AME relates to the episteme described by Foucault next, viz. the CE, here it will be established to what degree and in what manner the main features of the TE were subject to transformations and developments in the CE. This should indirectly provide information concerning the position of the AME relative to the CE because what replaced the main features of the TE in their respective epistemological positions during the CE is clearly relevant to this question. First it is necessary to establish which are, among the many concepts developed by Foucault, the CE equivalents for the four main features described for the TE, viz. (1) its general epistemological configuration, (2) its main analytic category, (3) its main analytical methods and (4) its limitations.

(1) The general epistemological configuration of Foucault's TE may be characterized as depending on *representation*, which is defined as the conventionally determined functional value assigned to an arbitrary sign. This implies a profound shift in the concept of signs between the TE and the CE. Unlike the signs of the TE, which were assumed to reflect hidden identities providing multiple, variable clues (signatures) for the formulation of multiple, variable similitudes, the signs of the CE are valued exclusively in terms of their representative function. To be more precise, in the CE *signifier* and *signified* are conceptually separated and the signifier status of a CE sign is exclusively defined in terms of its representative function and only to the extent of its actual intrinsic capacity to represent[85]. In the words of Foucault: *(à) l'âge classique, la science pure des signes vaut comme le discours immédiat du signifié*[86]. This fundamental identification of signifier and representation implies that henceforth the sign has value only in as far as it is functional in relation to what is signified, which is identical with what is represented. This functional value is the analytic *instrumentality* of the signifier: the signifier represents the signified by constituting its de-contextual measurement in terms of space and time. A striking example of such instrumentality given by Foucault is the new role of precious metals due to the 'wealth analysis' science developed in the CE (i.e. the Classical counterpart to modern economic science). In this 'wealth analysis' precious metals are no longer intrinsically valuable, but merely instruments. They have become signifiers, viz. exchange tokens, which represent something else. What they signify or represent is 'wealth', as defined by (varying) human desires[87]. It should be noted that the superimposition of the methods of semiology (i.e. the identification and definition of signs) and hermeneutics (i.e. the interpretation and decipherment of signs), observed in the TE, can also be found in the CE, but that in the former it was effectuated in the similitude, whereas in the latter it is effectuated in the representation. This implies that in the CE there is no theory of signs as distinct from a theory of meaning: any meaning is assumed to be fully contained within the sign that expresses it. Meaning is therefore

[85] Ibidem, 79.
[86] Ibidem, 81.
[87] Ibidem, 186-7.

automatically assumed to be completely revealed by a systematically ordered (typically tabular) inventory of signs[88].

(2) The main analytic category of the CE, viz. the means by which it establishes representation (in other words: the means by which representative value is recognized), may be described as (the knowledge of) *order*[89]. This implies that order is no longer an *a priori* assumption, as it was in microcosm-macrocosm equation of the TE, but rather something that needs to be creatively *established*. In other words, order is still the necessary precondition of knowledge, but henceforth it must be produced instead of deciphered. In relation to empirically observable objects and phenomena this order is now essentially arbitrary because they are no longer taken to reflect the a priori cosmic order assumed during the TE[90]. Thus the nature of knowledge itself is changed. It no longer requires a (infinite) juxtaposition of similitudes, as seen in the TE, but rather a (finite) enumeration of measurable calculus units - which implies an epistemological shift from analogy to analysis. Knowledge is no longer viewed as a system of relative probabilities to be investigated, but as one of absolute order to be established. Whereas *interpretations* of the TE investigate *possibility*, the *calculations* of the CE investigate *veracity*. Consequently, the aim of knowledge is changed too: in the TE it was the diagnosis of a *transcendentally* relevant truth (the divination of a 'divine message'), in the CE it is the calculation of an *immanently* functional truth[91]. The change in the nature of knowledge is paralleled by a change in analytic methods, a subject touched upon next under point (3) below.

(3) In Foucault's view the analytic methodology that the CE uses to formulate its representations, depends on a three-fold disposition of order[92]. Its first element is *mathesis*, which he defines as the universal science of measurement (the assignment of calculable units) and order (the definition and serialization of objects according to their most basic form)[93]. *Mathesis* is the science of equalities, and hence of attribution and equation - it applies to simple phenomena, expressing them in terms of mathematical quantity. Its ultimate referent is the *abstract truth*. Its second element is *taxinomia*, which is defined as a science of articulation and classification - it applies to complex phenomena, expressing them in terms of comparative identification. Its ultimate referent is the *empiric being*. The third element is *genesis*, which is defined as historical semiology (i.e. the knowledge of the origin and chronological formation of signs) - it applies to all signs and applies to their temporal analogies. Its ultimate referent is *time*. These three elements relate to each other as follows. *Mathesis* is a prerequisite of *taxinomia* because all empiric phenomena are assumed to be analyzable as simple mathematical phenomena (i.e. in terms of the abstract truth). Vice versa *taxinomia* is a prerequisite of *mathesis* because it defines the conditions under which anything can be known (i.e. it establishes an ontology). Finally, *genesis* - and with it, for the first time, a

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[88] Ibidem, 80.
[89] *Ce qui rend possible l'ensemble de l'*épist ème *classique, c'est d'abord le rapport à une connaissance de l'ordre*. - Ibidem, 86.
[90] Ibidem, 68.
[91] Ibidem, 76-7.
[92] Ibidem, 86-9.
[93] Ibidem, 70-1.

historic dimension in science - is a requirement of *taxinomia* because the latter seeks to establish continuities for its phenomena that frequently require their projection across temporal gaps: *(d)e là la nécessité, toujours manifestée au long de l'âge classique, d'interroger l'origine des connaissances*[94]. It is clear that the three elements of the knowledge of order do not represent separate domains but rather constitute different aspects of a single epistemological configuration.

(4) Foucault distinguishes one main conceptual limit inherent in the CE, viz. *the complete transparency of the representations with regard to the signs that order them*[95]. This transparency implies that every concept of order is inevitably stated in terms of functional values, i.e. it implies an analytic functionality resulting from the complete match of representation and sign. Any other expression of order or of the relations between signs is inconceivable. In this respect Foucault points at concepts and projects aiming at *universal order* that may be considered a result of this conceptual limitation and typical of the CE, such as *universal language*, *universal discourse* and the *encyclopedia*[96].

In the following comparative analysis it will be investigated in what manner the CE relates to the AME partially by investigating the relations of the main features of the CE to those of the preceding TE. As the TE features were found to be highly relevant to the AME texts under consideration this will, to a certain extent, automatically result in indications relevant to the relation of the CE and the AME. Close attention, however, must also be paid to the possible divergences between the TE-CE and AME-CE relations. Such divergences will serve to more precisely define the AME in its own right. In a manner similar to that used in the comparative analysis of the TE-AME relationship found in the preceding paragraph (2.1.2.), the next four sub-paragraphs will systematically treat the four aspects of the episteme under discussion.

2.1.3.1. Representation in the CE - its epistemological position relative to the TE similitude and its role in the AME

Comparing the TE and the CE, it may be said that the relative epistemological positions of knowledge and similitude have undergone a drastic shift. Whereas in the TE the similitude represents knowledge itself, in the CE it merely represents the raw material base for its production. In the CE similitudes serve only as indicators of potentially shared elements, elements which in turn determine the representative status of a given sign. In other words, in the CE the similitude is no more than a cognitive pied-à-terre, a temporary station at which relations between phenomena are imagined, relations which are to be investigated at a subsequent stage[97]. Thus, it may be said that in the CE the similitude is the necessary precondition of knowledge and that it is related to actual knowledge, i.e. to representation, through the *analysis of imagination*. It is this analysis of imagination that allows virtual elements in spatial simultaneity, suggested by similitudes and natural resemblances, to be projected as representations that are

[94] Ibidem, 87.
[95] Ibidem, 91.
[96] Ibidem, 98-101.
[97] Ibidem, 81-3.

scientifically valid in actual, linear time. The necessary scientific complement to the analysis of imagination is the *analysis of nature*: the latter provides the empiric observation needed to corroborate the theoretical models provided by the former[98].

In 2.1.2.1. it was said that in both the TE and the AME the general epistemological configuration may be characterized as geared to the pursuit of similitudes. It was, however, also said that there was a very important difference, because in the AME the coding of knowledge itself took on the form of (logographic) similitude. Intrinsically present in the originally unilingual logographic texts, i.e. in the historical *Vorlage* of each of the AME texts under consideration, is a near-match between hermeneutic interpretation and semiological discourse. The strategies by which the signature status of elements of the AME writing system was actually achieved, were found to depend on the use of the same tropes or rhetorical figures of speech that produce the TE's similitudes in Foucault's analysis. From this perspective, the main difference between the use of tropes in the TE and the AME is that, unlike in the TE, in the AME tropes are intrinsically present and systematically expressed in each element of its writing system. It is with this difference in mind, i.e. the difference in *relative positioning* of the rhetorical operations, that it is possible to relate the AME configuration around the similitude to the CE configuration around representation.

The question of relative positioning of rhetoric operations is addressed in Foucault's concept of *rhetorical space*, which is the space where spoken and written signs obtain, change and loose meaning and where, ultimately, the evolution of individual languages and writing systems takes place and which, in the final analysis, results from the fact that spoken language is constructed as a *temporal succession* of sound elements that maybe projected in space [99]. In the TE this space could be said to be used in an exclusively one-dimensional manner. A single object or phenomena is assumed knowable through its equation with words, an equation showing up as a similitude, constituted by means of rhetorical figures of speech. Thus, in the TE the use of rhetorical space is strictly 'horizontal', limited to a single referent and a single object-word relation. In the CE, on the other hand, rhetorical space could be said to be used in a multi-dimensional manner. Multiple objects or phenomena must be constantly related to each other in order to become knowable in terms of their representative, i.e. conventional functional, value. In the CE the use of rhetorical space may be said to be necessarily of a 'vertical' nature as the representative value of each single referent is knowable only in terms of the other referents that precede or follow it in space and/or time.

When the AME texts under consideration are approached from the analytical perspective of rhetorical space, it is immediately obvious that these texts also operate in multi-dimensional rhetorical space. In order for the AME writing elements - which are the study object of the lexical texts - to be defined they need to be juxtaposed to each other. As in the CE, in the AME texts under consideration spatial simultaneity and juxtaposition of signs is required for these signs to become meaningful. In a very literal sense the various lexical compositions provide this spatial simultaneity and juxtaposition. In fact, it

[98] Ibidem, 83-5.
[99] Ibidem, 130f. .

may be said that the AME texts show a very remarkable similarity to the CE in as far as the preferred form of expression of both is that of the *table*. In many respects the particular suitability of the tabular expression of knowledge as described by Foucault for the CE may be said to apply equally to the AME texts:

Entre la mathesis *et la* genèse*, s'étend la région des signes, - des signes qui tranversent tout la domaine de la représentation empirique, mais ne la débordent jamais. Bordé par le calcul et la genèse, c'est l'espace du* tableau*. En ce savoir, il s'agit d'affecter d'un signe tout ce que peut nous offrir notre représentation ... c'est-à-dire articuler l'ensemble de la représentation en plages distinctes, séparées les unes des autres par des traits assignables; ils autorisent ainsi l'établissement d'un système simultané selon lequel les représentations énoncent leur proximité et leur éloignement, leur voisinage et leurs écarts, - donc le réseau qui, hors chronologie, manifeste leur parenté et restitue dans un espace permanent leurs relations d'ordre. Sur ce mode peut se dessiner le tableau des identités et des différences*[100].

Foucault also points out what may be the reference points (internal; contextual; analogous) on the basis of which representative value can be established in the rhetoric space opened by tabular analysis:

Si bien au fond du langage parlé comme de l'écriture, ce qu'on découvre, c'est l'espace rhétorique des mots: cette liberté du signe de venir se poser, selon l'analyse de la représentation, sur un élément interne, sur un point de son voisinage, sur une figure analogue. ... (L)es mots ont leur lieu*, non dans le* temps*, mais dans un* espace *où ils peuvent trouver leur site originaire, se déplacer, se retourner sur eux-mêmes, et déployer lentement toute une courbe: un espace* tropologique[101].

The reader may consult the relevant tables found in Part 3 (Tables 9-10, 13, providing an analysis in terms of key-signs and key-words, graphic, phonetic and semantic association), to notice the high degree to which Foucault's analysis of representation in the CE also applies to the AME texts.

Based on these systemic and formal similarities, it may be proposed that the AME texts under consideration aimed at establishing the representative value of their content in a manner similar to that of CE scientific treatises. In other words, it may be proposed that representation is central to the configuration of the AME. If this is true, the question arises how this relates to the fact that, as found in 2.1.2.1., the AME general epistemological configuration can also be characterized as geared to the pursuit of similitudes. The solution to this seeming contradiction must be sought in the *closed nature* of the AME knowledge system, i.e. in the fact that it has narrow boundaries, restricting the range of conceivable representative values.

The AME texts under consideration pursue similitudes, but only to the extent that this serves to establish representative values for the limited inventory of its writing elements.

[100] Ibidem, 87-8.
[101] Ibidem, 130.

Vice versa, these texts aim at establishing representative values for these writing elements, but never beyond the scope of their conventionally determined functional value, which is exclusively that of a writing element. In other words, in the AME texts, the pursuit of similitude and representative value are simultaneous and interdependent. The main difference between the analysis of signs in the CE and that in the AME is that the signs of the latter are *not arbitrary*. Rather, they constitute similitudes in themselves and these are never considered representative or functional in terms of anything except the writing system. The individual cuneiform sign remains the smallest, indivisible unit of investigation - the 'atom' of the Ancient Mesopotamian knowledge system. In AME lexical texts a given logogram can be qualified in innumerable ways but never in terms of anything that it does not in itself explicitly (visibly) express. E.g. the logogram for 'sheep' (UDU) may attract a long series of qualifications (Hh EST 8a001-56) but it will not itself be qualified as a representative of some larger unit that is not explicitly expressed by the logogram. In the AME texts it is only with regard to the intrinsic values of the (limited inventory) of logograms that any representative value is conceivable. This sharply contrasts with its Linnaean classification in the CE, abounding in external references (representing simultaneously the kingdom of *animalia*, the phylum of *chordata*, the class of *mammalia*, the order of *artiodactyla*, the family of *bovidae*, the subfamily of *caprinae* and the genus of *ovis*). In terms of Foucault's analysis it could be said that the AME texts admit only a vertical articulation of representative value (i.e. progress from substance to quality resulting from adding an adjective to a noun, e.g. sheep>wild sheep), whereas the analysis that becomes possible in the CE, which is not restricted by the conceptual limitations imposed by logographic formulation, also admits its horizontal articulation (i.e. progress from individual to general, e.g. sheep>animal)[102]. It is only after the abandonment of logographic writing in favor of alphabetic writing, Foucault argues, that language becomes fully analyzable in terms of representation: *(l)a rupture du parallelisme exact entre représentation et graphisme permet de loger la totalité du langage, même écrit, dans le domaine general de l'analyse ...*[103].

2.1.3.2. Order in the CE and AME respectively

In 2.1.3.0. it was said that the main analytic category of the CE, i.e. its main instrument to recognize representative value, was order. As in 2.1.3.1. it was said that the establishment of the representative value of their content was also a central concern of the AME texts under consideration, the question arises to what degree the role of order is the same in the CE and the AME. To address this question, two aspects of order discussed by Foucault for the CE will be examined for the AME: (1) the manner in which it is obtained (to be established or to be assumed) and (2) its relation to the empirically observable life world (arbitrary or reflective with respect to it).

(1) In regard to the first aspect it was observed that, unlike the TE, the CE required order to be established or created instead of assuming it as a result of microcosm-macrocosm correspondences. With regard to the AME texts it maybe said that although they establish the representative value of signs in a manner very similar to that found in the CE (viz.

[102] Ibidem, 113.
[103] Ibidem, 128.

through the tabular presentation of data), the signs they deal with are of a profoundly different nature. In the CE, as in the TE, *all* conceivable natural and cultural signs are potentially interpretable (as representations or as signatures respectively) - this is not the case in the AME texts. In the AME texts the sign inventory dealt with is *closed*, because it is limited in advance to the traditionally transmitted inventory of cuneiform signs. Effectively, this closed nature of the Ancient Mesopotamian knowledge system precludes the possibility of an exact comparison with that of the CE. What is certain, however, is that, in as much as normative, prescriptive text models were transmitted over long periods of time, the ordering of knowledge in the AME was a *reconstructive* much more than a *creative* effort. If, then, a comparison is attempted for the manner in which order is obtained in the CE and AME respectively, it could be said that in the former it was to be established creatively from a potentially unlimited range of signs, whereas in the latter it was largely a priori assumed based on the available evidence from traditionally transmitted inventories.

(2) In regard to the second aspect it is clear that in the AME texts order is not formulated as it is in the CE: in the AME texts representative value is not established independently from empirically observable surface phenomena. The arbitrary relation of order to the empirically observable life world found in the CE is obviously absent from the AME texts. In many lexical texts the ordering of content is determined by non-semantic principles of a didactic (graphic and phonetic association) and/or text-historical (traditional-conventional) nature, but in those instances where a semantic principle can be recognized, it invariably shows close adherence to the empirically observable life world (cf. Part 3 11.3.). In the thematic lists the representative value of what is described is never projected beyond the obvious and visible peculiarities held in common between objects and phenomena, either in a material or in a utilitarian sense. E.g. in the 'wood' section of Hh 3-4 tree-related terminology is not listed according botanical criteria but rather in relation to agricultural utility, as obvious in e.g. the 'date tree' sub-section (Hh 3a117-180), which is organized by criteria such as the state of the produce (e.g. ripe/unripe/green/pit less/dried/sweet), the health of the tree (e.g. burnt/vermin invested) and relevant equipment (e.g. broom/climbing harness). The ordering of objects and phenomena from the natural world in the thematic lists is not determined by consideration of the structural properties of these objects and phenomena themselves (the form, quantity, distribution and relative size of elements which are the central methodological criteria in CE natural history[104]), but by utilitarian criteria such as raw material status or domestication (respectively Hh 3-7: wood, reed, clay, leather, metal and Hh 8: life stock[105]).

2.1.3.3. The elements of the CE disposition of order in the context of the AME texts

In the two preceding sub-paragraphs (2.1.3.1-2) it was shown that although representation was central to the configuration of both the CE and AME, the order by which it was established was of a profoundly different nature. This divergence was explained by the closed nature of the knowledge system represented by the Ancient Mesopotamian lexical

[104] Ibidem, 146.
[105] Cf. Part 3 Table 11.

corpus, i.e. by the fact that it constitutes a closed discourse exclusively concerned with the writing system itself, a system with a pre-set inventory and transmitted in a pre-set format. With this divergence in mind the question arises to what extend the analytic methods of the CE distinguished by Foucault are relevant in the AME texts under consideration. In 2.1.3.0. the elements of Foucault's three-fold disposition of order in the CE were listed as *mathesis*, *taxinomia* and *genesis*. In this paragraph it will be investigated if and, when yes, to what extent each of these elements can be recognized in the AME texts.

(1) In the AME texts under consideration the element of *mathesis*, i.e. calculable order expressed in equivalences, is clearly attested in two types of application:

a. Its first type is the *application of mathesis to the order of elements of the writing system*. Most of the graphic associations which partially guide the order of the elementary and advanced sign-lists can be viewed as *mathesis* applied to the form of spatially juxtaposed, consecutive key-signs. E.g. The sign RI given in SaV PST 009 may be viewed as calculably adding an element (viz. one extra vertical wedge) to the sign HU preceding it. Such calculable sign variations may also be found applied to multiple signs simultaneously. E.g. Diri EST 032-3 LAH_4-LAH_4 and $KAŠ_4$-$KAŠ_4$. This application type applies to elements distinguishable within signs (horizontal and vertical wedges, *Winkelhaken*, etc.) as well as to signs as a whole. E.g. Izi EST 2A011-2 GÚ-GAM and GÚ-GAM-GAM, where the whole sign GAM is given first once and is then given in reduplication. Thus, in many instances mathematical, calculable order is provided by the sign-lists by the systematic juxtaposition of graphically associated signs. It should be noted that the 'calculability' of graphic association is not always a matter of addition and deduction alone: spatial dispersion and formal variation can also play a role. E.g. Hh EST 3a310-6 gives the graphic variants LAGABxA (the A-element has three horizontals) , LAGABxNÍG (the NÍG-element also has three horizontals but in a different spatial configuration) and LAGABxU-A (the U-element adds a fourth element but of a different form).

b. The second type is the *application of mathesis to semantics*, i.e. the imposition of calculable order not on the graphic presentation of key-signs but on their semantic content. This second type potentially overlaps with the first in as far as the graphic association of key-signs may be matched by a semantic association. E.g. SaV PST 055-6 KA and SAG with the meanings 'mouth' and 'head' and Hh PST 1060 MÁŠ MÁŠ meaning 'interest on interest'. In many instances, however, this is not the case and calculable order is projected through numerals qualifying a given key-sign. As no mathematical compositions are found among the published Emar school texts, it is difficult to gain insight into the extent to which abstract *mathesis* was conceived of in Emar scholarship. In as far as *mathesis* is practiced in the available scholarly material under consideration, however, it may be said to consistently occur only in a *pragmatic context*, i.e. in practical application to a non-abstract referent. Table 3 below lists all instances of explicit semantically applied *mathesis* (i.e. *mathesis* made explicit by the use of numerals) found in the Emar lexical corpus and it shows them in their consistently pragmatic contexts.

Table 3. The pragmatic contexts of semantically applied *mathesis* in the AME texts

Series/ EST-PST	**Entries** ... - use of numerals	**Pragmatic context** *italics* - pragmatic context derived from preceding or following entries
G 010-1	^{D}40 / ^{D}30	numerical order of divinities
Hh 1110	UD ... KAM	day count *in context of administrative/legal terminology*
Hh 1147-8	ŠU.RI.ÀM / IGI ... ĜÁL.ÀM	accounting in trade and inheritance *cf. context 1146 and 1150ff.*
Hh 2103-5	MU.IM.MA/MU.AN.NA/MU.ÚS.SA ...	year count *in context of administrative/legal terminology*
Hh 3a361		shipping tonnage
Hh 4107	^{ĜIŠ}MÁ ... GUR	count of plough oxen
Hh 4152	^{ĜIŠ}APIN GUD ...	count of hoe 'teeth'
Hh 4173-4	^{ĜIŠ}AL ZÚ ...	metric content of (wooden)
	^{ĜIŠ}<DÚR> ... SÌLA / GÍĜ	baskets/boxes *cf. preceding* DÚR-*sequence*
Hh 5117-9	GI ...	(reed) yard stick measures *cf. Akk equivalents:* GI *nindakki / ammati*
Hh 5137-8		count of reed knots
Hh 7a242	GI DUR ... TAB.BA / DILI	metric content of (copper) vessels
Hh 7a378	^{URUDU}ŠEN ... BÁN	measure of gold purity
Hh 7b011-2	KUG.GI ... TA.ÀM ^{KUŠ}<DÙG.>GAN ... TAB.BA	count of (leather) bags
Hh8b044		age of donkeys
Hh 10190	ANŠE NÍTA MU ...	weight stones
Hh 14030	^{NA}$_4$ ... GUN / MA.NA / GÍĜ / U$_{20}$	field revenues
Lu 1003-5	$^{A.ŠAG}$$_4$ IGI ... ĜÁL TA.ÀM	range of royal authority
Lu 1178	LUGAL ... UGULA NAM ... *me-at*	range of overseer's authority

Two main conclusions may be drawn from Table 3. First, it shows that in all instances where it is empirically attested by the use of numerals in the texts, *semantically applied mathesis is consistently pragmatically embedded*. There is no single example of exclusively abstract treatment of mathematical operations to be found among the listed entries. Direct pragmatic referents in the entries themselves may be lacking in some instances (Hh 1147-8 and 4173-4) but also in these cases the textual context clearly suggests that the mathematical operations described have highly practical applications. Second, Table 3 shows that all instances of empirically explicit, semantically applied *mathesis* are to be found *exclusively in the thematic series*, i.e. in those series that can be defined as semantically coherent units of which the presentational format is conceived independently from graphemic criteria (cf. discussion of series typology in Part 3 11.3.).

From the above findings it may be concluded that there is a partially supplementary distribution of the two application types of *mathesis* in the AME texts under consideration: type a. (with application to the elements of the writing system) occurs throughout all series but type b. (application to semantics) occurs only in semantically, viz. thematically organized series. It is therefore reasonable to assume that the type b. application is merely an auxiliary organizational device used in the thematic lists. If the limited development of this type of *mathesis* and a general lack of abstract *mathesis* holds true for the AME in general, it may be explained from the different orientation of *mathesis* in scribal scholarship, viz. its primary orientation towards the writing system itself.

Finally there remains the question to what extent other types of *mathesis* may be relevant for the analysis of the AME texts under consideration. Two non-numerical types of *mathesis* suggest themselves: type c. *spatial* (geographical, topographical) and type d. *temporal* (chronological).

c. Concerning the former type the question arises if (and, when yes, in what manner) it determines the ordering of geographic elements and locations in Hh 15-6. Generally, it may be said that modern reconstruction of the ancient topography found in these lists has not progressed sufficiently to come to definite conclusions in this regard. A few preliminary remarks, however, can be made. First, many entry sequences are ordered according to shared, initial *key-sign*s rather than discernable relative geographic location. E.g. the sequences Hh EST 15023ff. and 16a026ff. give city names starting with respectively the key-words É and ÚR, independently of their actual location. Similar acrographic order is of course exactly what is also found on a higher level of organization in Hh 15-6: the geographic parts of these lists are consistently divided in sections that share the same determinative or key-words (Hh 15 has ^{KI}, Hh 16a has ^{KI}, ^{ÍD}, ÉG and TÚL and Hh 16b has ^{KI}, ^{KUR}, ^{ÍD}, TÚL, PA_5 and ÉG). This suggests that spatial, topographic *mathesis* is *not* the main organizing criterion for these lists. Second, some entry sequences involving waterways and levees are clearly not ordered according to geographic location but according to the *chronology* of their historic construction: Hh EST 16a094ff./16b179ff. and 16a115ff. respectively order sizeable portions of the ^{ÍD} and ÉG sequences in this manner. Third and finally, it is conceivable that another, additional organizational principle is at work in ordering the geographic entry sequences, viz. *pragmatic utility* with regard to the routing of trade and commerce. It could be suggested that there is some (admittedly meager) evidence in entry sequences such as Hh EST 15020-2, which gives the traditional trade route through the Persian Gulf to India: DILMUN-MÁ.KAM.MA-ME.LUH.HA[106] (often identified as Bahrain, Oman and the western coast of the Indian subcontinent respectively). In view of this possibility it is difficult to determine whether certain apparently coherent geographic entry clusters (e.g. 16a019ff., which lists cities in Syria and Anatolia) reflect pragmatic utility, such as listings of cities along trade routes, or actual abstract topographic *mathesis*. In view of the above evidence, however, it may be suggested that the balance of evidence is tilted in favor of the *absence* of such abstract spatial *mathesis*. Whatever analysis in terms of the spatial aspect of *mathesis* was conceived of by the ancient scholars seems to have been related

[106] Cf. Hh EST 3a343-5.

primarily to the (spatial) juxtaposition of the elements of the *writing system*, i.e. to have been conceived of in terms of the first of the application types discussed earlier. With regard to the possible presence of spatial *mathesis*, finally, attention should be drawn to the fact that Hh 16 also contains a ^{MUL}-section, giving the names of heavenly bodies (Hh EST 16a131ff./16b233-66). In addressing the issue of (possible) spatial *mathesis*, it would be important to determine the ordering principle underlying the sequencing of its entries because an obvious acrographic order beyond the shared ^{MUL}-determinative is lacking. Concerning this issue, there are a number of complicating factors: (1) there are two different sequences (Hh 16a and 16b) of which one is broken, (2) not all entries have been identified in terms of modern astronomical definitions and (3) the Emar list mixes planets and fixed stars. Unfortunately, the scope of this study does not allow this issue to be addressed beyond raising it.

d. Concerning the latter type, i.e. *temporal mathesis*, it is obvious that explicit attestations of chronological order of entries are almost completely lacking in the lexical curriculum. In fact, the only two instances found are Hh EST 1111, which gives the names of the months in chronological order, and Hh EST 16a094-107/16b179-97 and 16a115-9, which order portions of respectively the ^{ÍD} and ÉG sequences according to the OB chronology of royal succession and their (presumed) construction by consecutive kings. It should be noted that in both cases the chronological ordering of the entries does not take place in a specifically suitable analytic context but rather within a distinctly pragmatic analytic context. The first sequence is not part of a mathematical treatise on the calendar, but rather of a compendium of administrative and legal phraseology in which knowledge of the calendar was simply relevant to the scribal competences it set out to teach. The second sequence is not part of treatise on historical chronology, but rather of a list of waterways. In both instances temporal *mathesis*, in the form of chronological order, appears to be merely an auxiliary tool for obtaining order in a form of scholarship that clearly prioritized other forms of order.

(2) To measure the use of the element *taxinomia* in the AME texts under consideration, i.e. to measure the degree to which these texts articulate and classify complex phenomena in terms of each other (express them in terms of comparative identification), it seems appropriate to work with the main concept by which Foucault explains its operation in the CE, viz. *taxonomical continuity*. CE *taxinomia* is based on two central assumptions: first, that the visible world (things) and discourse (words) can be reduced to each other (i.e. that the latter can represent the former) and second that individual things only become knowable when defined in a universal table of discourse that establishes the relative differences[107]. Such a table assumes, requires and creates *taxonomical continuity*, i.e. it will result in a network of objects known through spatial juxtaposition[108]. In order to make use of this concept of taxonomical continuity for the AME texts, it is necessary to investigate what precisely is Foucault's view of it, a view developed in most detail in his discussion of the CE discipline of *natural history*. There, Foucault describes how it results in a scientific *system*, i.e. in knowledge structured through the coordination of differences:

[107] Foucault, *Les mots*, 144 and 157 respectively.
[108] Ibidem, 162.

Pour les systématiciens, la continuité n'est faite que de juxtaposition sans faille des différentes regions que les caractères permettent de distinguer clairement; il suffit d'une gradation ininterrompue des valeurs que peut prendre, dans le domaine entire des espèces, la structure choisie comme caractère; à partir de ce principe, il apparaîtra que toutes ces valeurs seront occupées par des êtres réels, même si on ne les connaît pas encore[109].

It is important to note that the taxonomical continuity of the CE is here conceived of exclusively in space and not in time: it implies no evolutionary relation between the elements that it juxtaposes[110]. Taxonomical continuity is assumed to exist independently with respect to time - it is actually assumed to constitute the precondition of any temporal succession of elements. In sequences of related elements a range from primitive proto-types to perfect end-types is consistently distinguished, but no evolutionary principle of modification internal to individual elements is admitted. Foucault distinguished two characteristic features resulting from the taxonomical continuity thus conceived of in the CE: the *monster* and the *fossil*. In his analysis of CE natural history these terms have, to a certain extent, a literal application to phenomena observed in the natural world[111]. However, they can alo be used in an exclusive figurative sense with regard to order, so that they become applicable to the intended analysis of the AME texts in terms of the CE's *taxinomia*. Thus, the 'monster' and the 'fossil' will be regarded as figurative descriptions of two essential analytical tools used to establish taxonomical continuity.

The monster, on the one hand, is a concept necessary to grasp the taxonomical continuity disguised behind the chaos and catastrophic loss which any element inventory is submitted to in the course of time. Monsters allow (or, actually, constitute) the (imaginative) conception of a multitude of possible variations and cross-connections within a given element inventory: *... la prolifération de monstres sans lendemain est nécessaire pour qu'on puisse redescendre du continu au tableau à travers une série temporelle*[112].The fossil, on the other hand, is a concept necessary to recover that part of an element inventory which existed only in the past and which has since become unrecognizable due to (a series of) historical metamorphoses. Fossils embedded in contemporaneous (natural and cultural) forms allow the reconstruction of past variations and cross-connections within a given element inventory. By investigating AME texts in terms of these two features of taxonomical continuity it should be possible to determine if, and when yes, to what degree the establishment of such continuity was in fact also (explicitly or implicitly) aimed at in the scholarship that produced them. Next, it will therefore be attempted to see if, and when yes, what types of 'monsters' (a.) and 'fossils' (b.) can be found in the AME texts:

a. A *monster* may generally be defined as a gross exception to the norms otherwise valid within a given system, but it also has the intrinsic semantic value of 'sign' or 'omen'

[109] Ibidem, 159.
[110] Ibidem, 162-3.
[111] Ibidem, 168-70.
[112] Ibidem, 169.

(Latin etymology *monstrum* < *monere* 'to warn'). In determining what constitutes a monster in the AME texts under consideration, both this definition and this intrinsic semantic value can be considered appropriate. In terms of its definition, a 'monster' in these texts may be said to be an entry that doesn't conform to the norms of form and content set by scribal tradition. In terms of its intrinsic semantic value, in these texts it may be said to be a specific 'sign' in the literal sense of the word, viz. a grossly inappropriate or unfit element of the writing system. Combining the search parameters thus obtained, the 'monsters' to be looked for are therefore simultaneously non-normative entries and non-normative elements of the writing system. As the central element of all entries in all lists is their logogram element (element 2), this means the 'monsters' to be looked for are *non-normative logograms*. A number of problems arise, however, when considering the normative or non-normative status in the texts under consideration. First, the norms of form and content applicable to lexical compositions can generally not be sufficiently ascertained. They were principally determined text-historically, i.e. in reference to (specific) preceding text traditions and these traditions have generally not been sufficiently reconstructed. Only for (parts of) a few series the (OB) *Vorlage* is sufficiently known to allow statements about the degree to which the Emar texts deviate from them. Second, the fragmentary preservation of the Emar material for many series means that insufficient reference material is available for a systematic comparison. Third, in some instances it is difficult to determine the difference between scribal errors and an intentionally inserted non-normative logograms, especially in view of the fact that the lexical series were (mostly) reproduced as school exercises by apprentice scribes. Some errors may be identified as such with reasonable certainty: e.g. *Hörfehler* in Hh EST 1002 (ŠE.DÉ.A for EŠ.DÉ.A) and 1059 (MÁŠ BA.RA.DAL for MÁŠ BA.RA.BAL), use of inappropriate phonetic spelling in Hh EST 2118' (MA.NA.LA for MA.NA.LÁ) and 3a091 (MA.NA HA.LU.UB for MA.NA HA.LU.ÚB) and confusion between graphically similar sign forms in Hh EST 3a211-2 (DUR for GÚ) and 7a274 (RI for NUN). Some of such errors may, in fact, have resulted from a corrupted textual transmission rather than from the incompetence of an apprentice scribes: in that case such errors are only be retrospectively recognizable as 'errors' by the modern scholar. In other instances it is almost impossible to distinguish between mistakes and unusual but intentional writings. E.g. Hh EST 1112 has KI-LÚ-KAL which may have been an intentional 'analytical' rendering of regular KI-KAL=ULUDIN with the added LÚ-element serving as a phonetic complement (hence the proposed reading KI^{LÚ}-KAL). In another example, Hh 3a115 IGI-TUR may have been an intentionally inserted variant of following 3a116 IGI-TUR-TUR=LIGIMA, perhaps indicative of an attempt by the scribe to render a semantic continuum between 3a114 ÍSIMU *per'u* 'bud; sprout' and 3a116 LIGIMA *ligimû* 'germ; bud'). In these and many other cases it is difficult to tell what constitutes a scribal error and what an intentionally given non-normative logogram. This problem is particularly acute in the advanced sign-lists. Unlike the elementary sign-lists (which focus primarily on the values single logograms) and unlike the thematic lists (the predictable semantic organization of which makes it relatively easy to reconstruct the 'correct' logogram fitting a given entry), the advanced sign-lists aim at investigating (all) the (possible) *relational values* of signs (cf. discussion concerning Izi given in Part 3 6.3.), which makes it very difficult to determine which entries have potential (merely analytical) rather than actual (historically realized) validity. The question can be posed, e.g., whether, in view of its possible reading as *alluttu*, Izi

EST 1012 AN-TAR-TAR is just a scribal error (for ^{MUL}ĜÍR.TAB, giving only one AN-element instead of the three needed to write ^{MUL} and giving graphically related TAR instead of GÍR), or actually a clever way of indicating the potential content of the AN-sign in relation to the heavens (which is the semantic context of Izi EST 1004-15) and simultaneously investigating the relation of the TAR-sign to GÍR by doubling it: the TAR is graphically similar to GÍR and by doubling it is called to mind in its combination with TAB (TAB meaning 'double'). Similar questions may be asked about many other 'erroneous' or obscure entries found in the advanced sign-lists (e.g. the 'wrong' in-written elements in the KA-entries found in SagB EST 211ff.). On balance, it may seem that the texts under consideration may very well contain plenty of 'monster' logograms, but it requires some conclusive attestations in at least one series to make this hypothesis reasonable. Fortunately, there is one series which is sufficiently reconstructed in its *Vorlage* as well as its Emar version to furnish some conclusive evidence, viz. SaV. Moreover, Part 3 has already provided an in-depth analysis of the non-core content attested in Emar, i.e. of the logograms outside the traditional-conventional key-sign core of the series (Part 3 2.3.3.). In that analysis plenty of 'monsters' show that they perform the same function in AME texts as that which Foucault found for them in the CE, viz. of establishing taxonomical continuity by giving cross-connections in a given element inventory. Different types of 'monsters' in the form of different types of non-core content perform this function: additional key-signs (e.g. PST 022 SIG_4 showing graphic variants of preceding 022 LUM and int(5) LAM), incidental compound forms with key-signs (e.g. PST 081a NUN-ME=ABGAL, a mythical creature of wisdom rising from the sea, grapho-semantically linking 080 NUN 'prince' with 082 ME 'water') and other interpolations (e.g. int(9) GUR_5 *ugguru* 'cripple' between 051 HAL *hallu* 'thigh' and 052 UR *awīlu* 'man') link otherwise unconnected key-signs. As the SaV series contains plenty of 'monsters' helping to establish taxonomical continuity, it does not seem unreasonable to suspect that they occur in the other series too. Furthermore, the fact that the 'monsters' in SaV may be considered as systemically resulting from the integrative methodology, found to prevail in the Ancient Mesopotamian scribal art (cf. Part 3 2.1.2.1. and 2.3.3.), implies that this integrative methodology may be interpreted as resulting from the same quest for taxonomical continuity that is characteristic of the CE. The difference between this quest in the AME and the CE must be sought primarily in its direction: in the former it is directed exclusively at the writing system whereas in the latter the abstract nature of the alphabetic writing ensures that there is no such restriction. In the former it occurs in a 'closed', in the latter in an 'open' knowledge system.

b. A *fossil* may generally be defined as the preserved remains or traces of an element that existed within a given system in the past. The etymology of the word fossil (Latin *fossus* 'dug up') indicates that these remains or traces are embedded (often hidden) within formations shaped by historical processes. In case of a knowledge system, the various chronologically sequenced strata of its written records may be considered its fossiliferous sediments. The study of the 'fossil' elements of a given knowledge system, i.e. the analysis of their encoding across time in its written records, can contribute otherwise unattainable information on its emergence and development[113]. Information, in other

[113] Cf. 'Fossil', *Wikipedia, The Free Encyclopedia* (28 June 2008). Retrieved 9 July 2008 from: http://en.wikipedia.org.

words, that allows the reconstruction of taxonomical continuity across time. In the AME lexical texts under consideration 'fossil' elements will be investigated from two perspectives. First, 'fossils' will be identified in the individual entries of the texts and it will be determined how they relate to the contemporaneous knowledge they are meant to convey. Second, 'fossils' will be identified as collective 'deposits' in chronologically sequenced 'strata' found throughout the lexical corpus as a whole: this second perspective may provide insights into the emergence and development of the AME as a whole. With regard to the first perspective, it should be determined whether 'fossil' status can be attributed to the original pictographic value of the logogram around which each entry of the lexical lists is constructed. In certain cases this original pictographic value is still explicitly recognized by the ancient scribes, as is shown by some of the Akkadian interpretations they provide, i.e. those of the 'simple representation' type found among the different types of semantic relations between pictogram and Akkadian interpretations analyzed in Table 1. E.g. SaV PST 001.01 gives the Akkadian interpretation *mû* 'water' for the logogram A, which is a pictogram of flowing water. In other cases the original pictographic value has apparently lost its relevance but may be reconstructed through modern research. E.g. SaV PST 002 gives a number of Akkadian interpretations for the logogram ŠUR, but none directly refer to the underlying pictographic value, which, based on paleographic analysis, can be reconstructed as a bowl with a spout. Based on the evidence provided by Table 1, which shows a clear statistical preponderance of relation types other than 'simple representation', it may be suggested that in fact the original pictographic values of the logograms had largely become of secondary relevance to the scribes by the time of the composition of the Emar lexical texts. In the logograms many derived values, i.e. secondary values constructed by means of tropes or by means of phonetic or formal-graphic association, have accumulated over the original pictographic values, which often have become invisible or 'buried' under many layers of these derived values. It may therefore be argued that these pictographic values have indeed true 'fossil' status: they are the skeletal remains of the primordial elements of the writing system, embedded within the lexical texts found in LBA Emar. They remain important, however, in terms of Foucault's taxonomical continuity: they can serve to reconstruct the mechanisms by which far-flung derivations are arrived at (as shown in the analysis of the tropes given in Table 1). With regard to the second perspective, viz. that of 'fossils' in collective deposits throughout the lexical corpus as a whole, it should be determined in what manner the individual 'fossils' detected using the first perspective relate to each other within the series in which they occur as well as between different series. In other words, it should be determined if and, when yes, how the 'fossilized' (pictographic) values of individual entries can help explain the order of entry sequences within a given series and even between different (related) series. An example of sequential coherence in pictographic values within a given series may be found in the SaV sequence PST 002-3 ŠUR (bowl with spout)-PAD (bowl with divider). This sample does not imply that the key-sign sequence of the whole SaV series is based on similar congruencies of the 'fossilized' pictographic values of its key-signs, but it may explain why PAD follows ŠUR. Another example is the key-sign sequence SAG (head)-KA (mouth) found in SagB. It should be noted that the SAG-KA sequence was extended in Proto-Sag to continue with the key-signs IGI (eye) and SAG_4 (heart) (cf. discussion in Part 3 14.8.), which suggests a fossilized key-sign structure underlying part of the advanced sign-lists based

on a top-to-bottom listing of body-parts. Finally, it is important to note that any more substantial investigation into 'fossil' elements in the lexical texts can only proceed on the basis of a reasonably solid text-historical record and in conjunction with extensive diachronic philological research. The former is unfortunately not (yet) available and the latter falls outside of the scope of this study. In conclusion of this preliminary investigation, however, it may be said that the concept of 'fossils' generally is a useful perspective for the analysis of the AME lexical texts in terms of the taxonomical continuity they seek to establish.

(3) In the AME texts under consideration attestations of the element of *genesis* - previously defined as historical semiology (the knowledge of the origin and chronological formation of signs) and a precondition of *taxinomia* (because the latter seeks to establish continuities for phenomena that often require their projection across temporal gaps) - must obviously be sought in relation to the specific kind of sign inventory they are concerned with, viz. in relation to the writing system. Thus, to establish the presence of the element of *genesis* in the AME texts, what must be sought is explicit knowledge of the temporal analogies of the writing system. *Implicit* knowledge may possibly be found in the orthographic variations attested between various texts in as far as they represent different chronological layers (a subject extensively dealt with in by Cohen[114]), *explicit* knowledge, however, is only found in the SaP texts. The series SaP deals explicitly with temporal analogies in the writing system by systematically contrasting contemporaneous and paleographic forms. The question to what extent the paleographic forms given in SaP actually do represent the sign forms found in real OB text is irrelevant in this regard: what matters is that the ancient scribes made a conscious effort to deal with the *genesis*, i.e. the historical semiology, of their writing system. This clear attestation means that all three elements of the disposition of the order by which representation was established according to Foucault's model are also found in the AME, as represented by the lexical texts under consideration. The main difference between the CE and the AME is that the latter represents a closed system*, exclusively concerned with the writing system. It is remarkable that in all of the considerable body of knowledge contained in the lexical corpus, the only attestation of any type of historical semiology is directed exclusively at the writing system. This may be interpreted as meaning that all knowledge was conceived of as being exclusively contained in the traditionally transmitted sign inventory by which it was coded. In other words, no historically generic, temporal (let alone 'evolutionary') evaluations of any other kind are found because these could be said to be simply inconceivable in the AME.

2.1.3.4. Functional limitation of knowledge in the context of the AME texts

It was said that Foucault distinguishes one main conceptual limit inherent in the CE, viz. the inevitable statement of any concept of order in terms of exclusively functional values. In his analysis this is due to the complete transparency of the representations with regard to the signs that order them: a complete match of representation and sign is assumed. The question to be answered here is whether such an exclusive ordering of signs in terms of

[114] Y. Cohen, *The Transmission and Reception of Mesopotamian Scholarly Texts at the City of Emar* (Ann Arbor 2003) 71-6 and 271-94.

their functional values is found in the AME too, and if so, what that functionality of these values consists of. As the signs which the AME texts under consideration are concerned with are the elements of the writing system itself, i.e. the elements of knowledge coding itself, this question may be immediately answered in the affirmative: it is the functionality of the elements of the writing system *as such* that determines their ordering in these texts. In terms of the postulated integrative methodology of the ancient scribes (cf. Part 3 2.1.2.1.) all series were found to constitute methodologically structured environments which are didactically functional with regard to the purpose scribal training (cf. Part 3 11.4.). In other words, the order of signs in the AME texts is determined by their functional value *as* elements of the writing system, to be taught to apprentice scribes. This holds true even if this sign order appears to be *imposed*, or rather projected, on traditionally transmitted texts in which the original (traditionally-conventionally established) ordering principle of key-sign escapes modern synchronic research (e.g. the S^a-series, Izi and Diri[115]). On balance, the AME as appearing in the lexical texts may be said to contain only one type of knowledge, viz. knowledge assumed to be contained in and retrievable from the traditionally transmitted signs of the writing system. In the AME these signs truly exclusively represent - and effectively replace - the empiric sign inventory of the real life world of natural and cultural phenomena. Such phenomena are validly known (defined, analyzed, ordered) solely in as far as they are relatable to the signs of the writing system. Their full representative potential is conceived of as already realized within these signs. Knowledge is gained not by approaching a given real-world phenomenon on its own terms but by learning the intricacies of the writing system, traditionally transmitted in the lexical curriculum, a writing system which is assumed to represent a divinely provided microcosmic repository of all knowledge. In this approach to knowledge a modern scientific analysis, involving the collection of empiric data and the formulation of hypotheses regarding given natural or cultural phenomena on their own terms is basically inconceivable. Or put another way: such an analysis is not found because it is *irrelevant* to the *emic* definition of knowledge in the AME. It may therefore be said that the functional limitation of knowledge which Foucault found to apply to the CE fully applies to the AME as well, but that in addition the AME represents a closed system in which the functionality itself is limited (viz. to the writing system and its transmission through learning).

Finally, it may be appropriate to draw attention to one of the effects of the functional limitation of the CE found by Foucault and referred to earlier on, viz. the resultant project of collecting knowledge in an encyclopedic format. The CE encyclopedia aims at collecting all knowledge in a specifically functional manner, viz. in a manner that allows it to be retrieved by exclusively formal (non-content related), abstract (alphabetic) reference. In the CE encyclopedic project knowledge is thematically de-contextualized and aimed at as a sum total, to be arrived at through a full tabular (alphabetic) listing of articles. It may be argued that a similar encyclopedic project is implicitly aimed at the AME lexical series because ultimately these series too aim at the listing of all knowledge in a specifically functional manner, viz. in a manner that explains how it is coded within the elements of the writing system. The various series offer different perspectives on this coding (cf. Part 3 11.3-4.), much like the different articles found in an alphabetic

[115] But cf. the sample diachronic analysis in the discussion of 'fossils' in 2.1.3.3. above.

encyclopedia offer different perspectives on shared external referents. The elementary sign-lists primarily study single graphemes, presenting them in a format that as a whole is unrelated to semantic criteria. The advanced sign-lists do the same for compounded graphemes. The thematic lists studies the same signs as the sign-lists but grouped according to abstract semantic themes. The various kinds of lists complement each other and only their sum total provides all the knowledge coded and code-able in the elements writing system.

2.1.4. ME-AME comparison

> *L'histoire du savoir ne peut être faite que à partir de ce qui lui a été contemporain, et non pas certes en terms d'influence réciproque, mais en terms de conditions et d'a priori constitués dans le temps*[116].

2.1.4.0. ME features to be investigated

As far as possible, this paragraph will proceed to investigate the relation between Foucault's last episteme, the ME, and the AME in parallel to the investigative methods used in the two preceding paragraphs. First, the main features of the ME will be defined in a manner similar to the one used for the CE treated in 2.1.3, i.e. these feauture will be defined in relation to the preceding episteme. Effectively, this allows the reader a convenient overview of the transformative relations between all three of Foucault's epistemes. As in 2.1.3., the sub-paragraphs will analyze the AME texts under consideration in terms of the main features of the ME.

Before proceeding with the actual investigation intended in this paragraph it seems appropriate to draw attention to an important conceptual condition on which its validity hinges, viz. to the fact that this investigation interprets the AME texts not in terms of *modern science* but in terms of the *Modern Episteme* (as defined by Foucault). (An attempt at) a modern scientific (philological and structural) investigation of the texts has been provided in Parts 1-3. The present investigation, by contrast, effectively requires a critical evaluation of the modern scientific approach itself. This paragraph must proceed to investigate the AME texts under consideration not in terms of modern science, which represents the *output* of the ME, but in terms of the epistemological preconditions of the ME, which represents its *input*. The question to be answered here is not how modern science relates to the AME texts, but how the epistemological preconditions of the modern (scientific) knowledge system relate to those of the ancient Mesopotamian knowledge system that produced these texts. In this sense, modern science is here as much the object of investigation as ancient Mesopotamian scholarship itself, with the obvious caveat that this study bases itself on Foucault's interpretation with regard to the former object. The seeming logical contradiction in the fact that, by such an approach, modern science analyzes itself - inherently present in any reearch project dealing with objects to be approached in what is basically an anthropological or ethnological manner - may be countered by the relevant analysis Foucault offers of modern ethnology as particularly conditioned by the ME:

[116] Foucault, *Les mots*, 221.

(L'ethnologie) suspend le long discours <<chronologique>> par lequel nous essayons de réfléchir à l'intérieur d'elle-même notre propre culture, pour nous faire surgir des corrélations synchroniques dans d'autres formes culturelles. Et pourtant l'ethnologie n'est elle-même possible qu'à partir d'une certaine situation, d'une événement absolutement singulier, où se trouvent engagées à la fois notre historicité et celle de tous les hommes qui peuvent constituer l'objet d'une etnologie ...: l'ethnologie s'enracine en effet dans une possibilité qui appartient en propre à l'histoire de notre culture, plus encore à son rapport fondamental à toute histoire, et ce qui lui permet de se lier aux autres cultures sur le mode de la pure théorie[117].

Proceeding with the investigation at hand it is now necessary to establish which are, in Foucault's analysis, the ME equivalents for the four main features earlier found for the TE and the CE, viz. (1) its general epistemological configuration, (2) its main analytic category, (3) its main analytical methods and (4) its limitations.

(1) The general epistemological configuration of Foucault's ME can be described as *organization*, which may be defined as a functional combination of internal relations between elements. Whereas the epistemological configuration of the CE, *representation*, was achieved by the ordering of elements according to their identity or difference, the epistemological configuration of the ME, *organization*, is achieved by ordering the *relations* between elements, irrespective of their particular individual identities[118]. And whereas the order established by the CE is based on a perceived seamless synchronic continuity between elements, expressed by a permanent tabular exposition of that continuity in synchronic space, any ordering of the objects of the ME, viz. any ordering of organizations, is necessarily of a diachronic nature. It is, in fact, only in the diachronic *succession* of functional *analogies* that any organizational continuity can be defined: ... *désormais les ressemblances contemporaines et observables simultanément dans l'espace ne seront que les formes déposées et fixées d'une succession qui procède d'analogie en analogie*[119].

(2) From this it follows that the main analytic category of Foucault's ME, viz. the means by which it defines organization, is *history*: *A partir du XIX^e siècle, l'Histoire va déployer dans une série temporelle les analogies qui rapprochent les unes les autres les organisations distinctes ... l'Histoire* donne lieu *aux organisations analogiques, tout comme l'Ordre ouvrait le chemin des identités et des différences* successives*. ... (l'Histoire) c'est le mode d'être fondamental des empiricités, ce à partir de quoi elles sont affirmées, posées, disposées et réparties dans l'espace du savoir pour d'eventuelles*

[117] Ibidem, 388.
[118] *...l'espace général du savoir n'est plus celui des identités et des différences, ... mais un espace fait d'organisations, c'est-à-dire de rapports internes entre des éléments dont l'ensemble assure un fonction ... ces organisations sont discontinues ... certaines sont de même niveau tandis que d'autres tracent des séries ou des suites linéaires ... on voit surgir, comme principes organisateurs de cet espace d'empiricités, l'*Analogie *et la* Succession*: d'une organisation à l'autre le lieu ... ne peut plus être l'identité d'un ou plusieurs éléments, mais l'identité du rapport entre les éléments ... et de la fonction qu'ils assurent ...* Ibidem, 230.
[119] Ibidem

connaissances et pour des sciences possibles[120]. The organizations which are the objects of knowledge in the ME are of a profoundly historical, or rather *historicized*, nature: all objects of knowledge are questioned regarding their origins and regarding what makes them possible. Crucial to the constitution of the ME in this regard is the philosophical and ontological investigation of the relation between the conditions of possibility of empiric objects and the conditions of possibility of experience itself. Foucault underlines the importance of Kant's work for understanding the transcendental referents around which, as a result of such an investigation, all knowledge is constructed in the ME, viz. Life, Labour and Language (at the centre of the new ME sciences biology, economy and linguistics respectively)[121]. In his analysis, effectively, each scientific endeavour of the ME can be interpreted as an *exegesis* of a given set of historical phenomena (in biology: life forms and their evolution; in economy: the chronology of labour productivity and capital accumulation; in linguistics: phonological and morphological transformations). In the final analysis, this exegesis always approaches its object in reference to the new transcendental objects of Life, Labour and Language. The transformation of knowledge between the CE and the ME may be said to originate in the discovery of autonomous historical dynamics particular to each of the key analytic elements Life, Labour and Language (Foucault draws attention to the pivotal works of Ricardo, Cuvier and Bopp respectively): this meant that these categories were no longer representable in terms of other elements and gained transcendental status: ... *la pensée qui nous est contemporaine et avec laquelle ... nous pensons se trouve encore largement dominée par l'impossibilité ... de fonder les synthèses dans l'espace de la représentation et par l'obligation corrélative ... d'ouvrir le champs transcendantal de la subjectivité, et de constituer inversement, au-delà de l'objet, ces <<quasi-transcendantaux>> que sont pour nous la Vie, le Travail, le Langage*[122]. The transcendental status of Life, Labour and Language, around which all knowledge is henceforward constructed, means that all synthetic knowledge is necessarily of a a posteriori nature (i.e. no substances but only phenomena can be known), which in turn explains the rise of the positivist sciences which characterizes the ME[123]. The methodological preconditions of these positivist sciences is of a profoundly different nature than that found in the CE, as will discussed under (3) below.

(3) The most essential features of the methodology of knowledge production in the ME are determined by the fact that ME organizations are defined in terms of their historicity. The analysis of this historicity imposes certain specific conditions on the *medium* in which knowledge is necessarily produced, i.e. on *language* itself. What is required of language as the medium of knowledge production in the ME is that it allows analysis to

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[120] Ibidem, 231.

[121] *Le travail, la vie et le langage apparaisent comme autant de <<transcendantaux>> qui rendent possible la connaissance objective des êtres vivants, des lois de la production, des formes du langage. En leur être, ils sont hors connaissance, mais ils sont, par cela même, conditions de connaissances* ... Foucault, *Les mots*, 257. It may be noted that, using Lévi-Strauss' model as found in Chapter 4 it could be argued that the scientific theory which most strongly incorporates the historicized transcendental status of Life in the ME, viz. Evolution Theory, actually is nothing but a modern form of totemism, where symbolic representation of social categories is effectuated by means of natural elements.

[122] Ibidem, 262.

[123] Ibidem, 257-8.

be formulated in a de-historicized manner. This implies that in the ME language itself is of a profoundly different nature than in the CE: *(a)u XVII^e^ et a XVIII^e^ siècle (le langage) ... était la première ébauche d'un ordre dans les représentations du monde, parce qu'il était la manière initiale, inévitable de répresenter les représentations. ... A partir du XIX^e^ siècle le langage se replie sur soi, acquiert son épaisseur propre, déploie une histoire, des lois et une objectivité qui n'appartiennent qu'à lui. Il est devenu un objet de la connaissance parmi tant d'autres à côté des êtres vivants, à côté des richesses et de la valeur, à côté de l'histoire des événements et des hommes. ... Connaître le langage n'est plus s'approcher au plus près de la connaissance elle-même, c'est appliquer seulement les méthodes du savoir en général à un domain singulier d'objectivité*[124]. In epistemological terms the resultant conditions of language in the ME may be considered as the effects of its *objectification*. Foucault distinguishes three specific effects, which here will be considered as methodological features particular to the ME[125]. The first is the search for and *use of scientific language*, i.e. of a 'neutral' language purified of its own historical dimension[126]. The kind of medium needed and aimed at in the ME sciences is a purified scientific notation, which can reflect pure logic and which is independent from the formal and semantic constraints inherent in grammars and words of historical languages[127]. This need explains the multitude of ME projects resulting in scientific coding systems, model reconstructions and artificial languages (e.g. constructs such as the 'IPA' or 'Proto-Indo-European' in linguistics). The second is the *use of language as an object of exegetical investigation*, in which language provides material for critical investigation by means of a philological approach.[128] To exemplify the exploitation of this newly acquired critical value of language Foucault argues that the whole of Marx's economic theory and the whole of Nietzsche's philosophy could be interpreted as nothing more than the exegesis of a few words (among them 'capital' respectively 'good' and 'bad'). The third methodological feature is *the rise of a conceptually isolated 'literary' language*, which Foucault views as a logical counterpart to the scientific objectification of language[129]: in a cultural domain separated from science and philosophy - and increasing in contrast and opposition to them[130] - language reconstitutes itself as an indisputably unified agent of expression.

(4) The obvious conceptual limit of the ME implied by the analysis of Foucault is *the transcendental nature of the referents around which knowledge is constructed in the ME*, i.e. Life, Labor and Language. This transcendental nature inevitably means that all

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[124] Ibidem, 308-9.
[125] Ibidem, 309-13.
[126] *C'est le rêve positiviste d'un langage qui serait maintenu au ras de ce qu'on sait: un langage-tableau ... en ce sens que il se tient à une certaine distance de la nature pour en ... recueiller finalement le portrait fidèle.* - Ibidem, 309.
[127] Ibidem, 310.
[128] *La vérité du discours est piégée par la philologie. De là, cette nécessité de remonter des opinions, des philosophies et peut-être même des sciences jusqu'aux mots qui les ont rendu possibles ... La philologie comme analyse de ce qui se dit dans la profondeur du discours est devenue la forme moderne de la critique.*- Ibidem, 311.
[129] Ibidem, 312-3.
[130] *... la littérature se distingue de plus en plus du discours d'idées et s'enferme dans une intransitivité radicale: elle se détache de toutes les valeurs qui pouvaient à l'âge classique la faire circuler (le goût, le plaisir, le naturel, le vrai) ...*- Ibidem, 313.

knowledge concerning the relation of man to these referents, i.e. the kind of knowledge as pursued by the humanities, cannot be of an objective nature as it must necessarily be constructed by means of reference to unconscious constructs. It is here that the humanities, which do not study man as a natural phenomenon, but always in relation to the transcendental referents, arise[131]. For Life (biology) to be related to man the new discipline of 'psychology' links known, conscious *functions* to unknown, unconscious *norms*. Similarly, for Labor (economics) to be related to man, 'sociology' links conscious *conflicts* to unconscious *rules* and for Language (linguistics) to be related to man 'literary and cultural studies' link conscious *significations* (meanings) to an unconscious *system* (of signs)[132]. Effectively, the humanities focus on the revelation of unconscious structures guiding human existence. Not only do these new disciplines, following Foucault's analysis, lack in objective character, they also ultimately lack in systematic character due to their inevitable historic conditioning[133]. From the epistemological point of view, therefore, even although they constitute knowledge disciplines particularly configured by the ME, the humanities may be said to be 'unscientific'[134]. The effect of the new relation between the transcendental referents and man is to de-historicize the latter[135], which in itself represents a conceptual limit to what may be known about and by man.

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131 *... les sciences humaines ne sont pas analyse de ce que l'homme est par nature; mais plutôt analyse qui s'étend entre ce qu'est l'homme en sa positivité (être vivant, travaillant, parlant) et ce qui permet à ce même être de savoir (ou de chercher à savoir) ce que c'est que la vie, en quoi consistent l'essence du travail et ses lois, et de quelle manière il peut parler. Les sciences humaines occupent donc cette distance qui sépare (non sans les unir) le biologie, l'économie, la philologie, de ce qui leur donne possibilité dans l'être même de l'homme.* -
Ibidem, 364-5.

132 Ibidem, 368-9.

133 *A chaque science de l'homme (l'Histoire) donne un arrière-fond qui l'établit, qui fixe un sol et comme une patrie: elle détermine la place culturelle - l'épisode chronologique, l'insertion géographique - où on peut reconnaître à ce savoir sa validité; mais elle les cerne d'une frontière qui les limite, et ruine d'entrée de jeu leur prétention à valoir dans l'élément de l'universalité ... Même lorsqu'elles évitent toute référence à l'histoire, les sciences humaines (et à ce titre on peut placer l'histoire parmi elles) ne font jamais que mettre en rapport un épisode culturel avec un autre (celui auquel elles s'appliquent comme à leur objet, et celui où elles s'enracinent quant à leur existence, leur mode d'être, leurs méthodes et leurs concepts).* - Foucault, Ibidem, 382-3.

134 Ibidem, 376-7.

135 *Les choses ont reçu d'abord une historicité propre qui les a liberées de cet espace continu qui leur imposait la même chronologie qu'aux hommes. Si bien que l'homme s'est trouvé comme dépossédé de ce qui constituait les contenus les plus manifestes de son Histoire: la nature ne lui parle plus de la création ou de la fin du monde, de sa dépendance ou de son prochain jugement; elle ne parle plus que d'un temps naturel; ses richesses ne lui indiquent plus l'ancienneté ou le retour prochain d'un âge d'or; elles ne parlent plus que des conditions de la production qui se modifient dans l''Histoire; le langage ne porte plus les marques d'avant Babel ou de premiers cris qui ont pu retentir dans la forêt, il porte les armes de sa propre filiation. L'être humain n'a plus d'histoire, ou plutôt puisqu'il parle, travaille et vit, il se trouve, en son propre être, tout enchevêtré à des histoires qui ne lui sont ni subordonnées ni homogènes.* - Ibidem, 380.

In the following comparative analysis it will be investigated in what manner the ME relates to the AME by investigating to what extent the AME texts under consideration may be analyzed in terms of the main features of the ME discussed above. In a manner similar to that used in the comparative analysis of the TE-AME and CE-AME relationships found in the preceding paragraphs (2.1.2. and 2.1.3.), the next four sub-paragraphs will systematically treat the four aspects of the episteme under discussion.

2.1.4.1. *Organization* in the AME

Part 3 of this study has described the Emar lexical texts in terms of the ME concept of *organization* by providing a structural analysis such as current in the ME sciences: it has primarily investigated the relations between the various elements that may be isolated in these texts. It has shown that such an analysis can bring to light various forms of (unconscious, implicit) formal-organizational as well as a didactic-functional coherence. On various levels of text structure, systematic 'organizations' have been detected (cf. Part 3 11.2-4.). The fact, however, that the AME texts under consideration *can* be described in terms of ME organization does not necessarily imply that this is caused by an inherently similar epistemological configuration of the AME. The question to be addressed in this sub-paragraph is whether the structural features of the AME texts, detectable by a (modern scientific) application of the ME concept of organization, were in fact purposefully pursued by the ancient scribes as the result of a configurative match between the AME and the ME.

Considering the fact that many of the AME texts are traditional-conventionally associated at their highest organizational level and they represent methodologically unstructured environments in terms of didactic functionality (cf. Part 3 11.4), it may be concluded that this question should be answered in the *negative*. Irrespective of the structural coherences that may be *projected* on them by modern science, the *original composition* of the texts themselves appears not to have been guided by an epistemological configuration similar to that of ME organization. Clearly, modern science can describe some relations between some elements of the lexical lists in terms of ME organization (which is what Part 3 aims at). By and large, however, such relations do not combine into functional systems beyond single, horizontal pairs of elements which are meant to represent each other. The vertical relations between the entries of the lexical lists rather serve to show the minimal contrasts between various representations, in a manner not untypical of the tabular listings described by Foucault for the CE. Thus, it can be shown that the projection of an earlier episteme of western culture (the CE) on the knowledge produced in a foreign episteme (the AME) can assist in determining the limitations of an interpretation of the latter in terms of the contemporary western episteme (the ME). An interpretation of the AME texts exclusively in terms of ME organization would inevitably show these texts to be the products of an 'underdeveloped', 'pre-modern' and 'primitive' mode of thinking. This is why it is useful to supplement an *etic* approach, implicit in the application of modern scientific (philological, structural) methods, as in Parts 1-3, with an *emic* (theoretical-interpretative) approach, as attempted here in Part 4.

2.1.4.2. History in the AME

For the ME it was found that its main analytic category, history, determined the transcendental status of the few central referents around which all knowledge production came to be centered (i.e. Life, Labour and Language). Approaching the AME texts with Foucault's analysis of the historicized nature of any ME organization in mind, the question to be addressed in this sub-paragraph is whether the knowledge object of these texts is of similar transcendental nature as the ultimate objects of knowledge in the ME. Concretely, the question is whether or not the elements of the cuneiform writing system, which are the objects of knowledge found in the texts, had a transcendental status in the AME. Because this question is posed from the perspective of the ME and because it raises - again, as in the preceding sub-paragraph - the issue of an *etic* vs. an *emic* interpretation of the AME material, it is here proposed that there are two conceivable answers to this question.

The first answer, provided by the *etic* approach, is that, because they originally constitute referents to natural and cultural artifacts (viz. across their pictographic values), the elements of the cuneiform writing system inevitably have a *derived transcendental status*. Analyzed in terms of the ME, ultimate reference to the transcendental objects of the ME, Life, Labor and Language is necessarily *implied* in the nature of the logographic writing system employed in the AME. From this perspective, however, the knowledge produced in the AME can be viewed as nothing more than a primitive, underdeveloped early version of the scientific knowledge found in the ME. Due to its preoccupation with the coding of knowledge, resulting from its insufficient analytic distinction between signifier and signified, the AME was incapable to provide either the historical nature of knowledge objects or their theoretical preconditions (and with it the transcendental nature of their ultimate referents) with the analytic transparency necessary to arrive at an authentically scientific output.

The second answer, provided by the *emic* approach, is that the elements of the writing system did *not* have transcendental status because there was nothing that was principally unknowable about these elements - they were certainly treated as fully (one might say at times, exhaustingly) knowable and analyzable in the texts under consideration. The elements of the writing system were used as fully transparent signs that could represent natural and cultural referents as well as each other, in a manner reminiscent of the full representability found for the elements of knowledge in the CE (cf. 2.1.3.1.). With regard to the question of transcendental reference in the AME the reader may, however, also be referred back to the comparison of the relation microcosm-macrocosm in the AME and the TE found in 2.1.2.4. . In terms of a microcosm-macrocosm relation the cuneiform writing system may be interpreted as the microcosmic *reflection* of the transcendental macrocosmic order. In 2.1.2.4. it was also discussed that the ancient scribes ascribed a transcendental *origin* to their writing system. However, the reflection of and *origin* in a macrocosmic transcendental order, should be carefully distinguished from an actual transcendental *status* of the elements of the writing system as objects of knowledge themselves, which the *emic* approach precludes.

If the object of knowledge in the AME texts, i.e. the writing system itself, is not defined in terms of history, the question arises what, in *emic* terms, is the nature of the relation between synchronic and diachronic knowledge in the AME. In other words: what is the manner in which the ancient scribes conceived of history in relation to knowledge production? Explicit *emic* discourse on this subject takes the form of myths describing the divine origin of knowledge, which was always conceived of being *established by writing*. This origin was projected into a far, mythical past ('before the Deluge') and caused a scrupulous deference to the scribal patron gods, as shown by the colophons with which the scribes concluded their works (a listing for the Emar material is found in Part 3 Chapter 13). The divine origin ascribed to writing and knowledge explains their state of semi-stasis in the AME: knowledge was not supposed to be produced but *re-produced*. This reproduction primarily involved ensuring that knowledge was handed down to the next generation of scholars in its traditional form. Any attempt at innovation or investigative endeavor visible in cuneiform scholarship was solely aimed at ensuring a better understanding of a basically static inventory of knowledge. From this perspective, the expansion of lexical works such as Hh and Izi in the 1st Millennium does not represent an expansion of knowledge but rather an attempt at recovering and discovering meanings and associations already implied by and derivable from the traditional core of knowledge around which these series were built. Similarly, the creation of new lists such as Ea and Aa may be viewed as merely providing new auxiliary devices for studying a field of knowledge of which the object (i.e. the elements of the writing system) remained basically unchanged. Undoubtedly such innovations involved a certain degree of reinterpretation and reevaluation of specific cuneiform sign (including some newly 'recovered' readings), but they hardly ever resulted in alterations either of the signs themselves or of their inventory. In view of this state of affairs, it can be said that the relation between synchronic and diachronic knowledge in the AME is one of (near-complete) *identification*. Past knowledge was basically not differentiated from present knowledge because the scribes made the latter conform to the former. In the AME texts under consideration the only explicit juxtaposition of what could be called 'past' and 'present' forms of knowledge is found in SaP, which offers a paleographic study of the basic S^a sign inventory, opposing old and new sign forms. It is important to note that this juxtaposition does not present any developmental, let alone evolutionary, analysis - it merely *identifies* different sign forms as variants of each other. The SaP aim of a description of conceivable formal variances instead of an analysis of actual historical developments is clearly shown by the fact that many of the 'paleographic' forms given by SaP are in fact mere orthographic variants or artificial 'archaisms' (cf. Part 3 2.3.2.1.). On balance it can be said that knowledge in the AME is of a timeless nature, because in the AME all knowledge that is produced (or rather: *reproductively achieved*) at any given moment in time is always formulated in terms of a predefined and conceptually closed classificatory system. In effect, any historical innovation or development was absorbed into a 'timeless' knowledge system. Modern philology may *etically* apply its methodology on the written legacy of AME and thus reconstruct 'objective' systematic diachronic developments ranging from developments in the semantic range of specific words to transformations in specific compositions (e.g. the diachronic analysis offered in Part 3 Chapter 14), this does not, however, affect the *emically* 'timeless' nature of the Ancient Mesopotamian knowledge system.

In this context it is useful to balance the philological perspective with the anthropological perspective on knowledge systems developed by Claude Lévi-Strauss. In terms of Lévi-Strauss' analysis any 'timeless' knowledge system, such as the one appearing in the AME texts, can be typified as 'time-repressing' in the sense that (similar to a myth) it constitutes a mechanism which organically absorbs any 'history', i.e. any external events, influences, innovations or developments[136]. To this issue more attention is given in Chapter 4.

2.1.4.3. The methodological features of the ME applied to the AME

In 2.1.4.0. it was discussed that the most essential features of the methodology of knowledge production in the ME are those concerning its specific use of language, viz. those deriving from the objectification of language. In this sub-paragraph the AME texts will be investigated in terms of two of the three specific features distinguished by Foucault, viz. (1) the search for and use of scientific language and (2) the use of language as an object of exegetical investigation. The third feature discussed by Foucault, i.e. the rise of an isolated literary language, cannot be investigated in this study as the AME texts it seeks to interpret are all belong to the lexical genre, a genre that necessarily excludes any content interpretable as paralleled in ME literature. In this regard it should, however, be noted that any projection of 'literature' as Foucault's defines it for the ME (he views it as a unique product of a unique epistemological configuration), on any other episteme would seem to be an *etic* enterprise par excellence, necessarily resulting in anachronistic projections and skewed concepts.

(1) With regard to the issue of *scientific language* it was said that the ME is concerned with the search of a neutral medium in order to achieve a purely scientific notation. In effect, this implies an attempt to surmount the conceptual restraints and cultural embeddedness particular to any given natural language. Projecting this concern on the AME texts under consideration it could be argued that the Ancient Mesopotamian scribes faced a *reverse* problem: they strove to decipher and interpret a traditionally transmitted code (logograms constructed in an artificially maintained dead language) into a natural language (Akkadian in case of the Emar texts). This reversal of direction when comparing AME and ME scholarship can be viewed from two perspectives, viz. (a) the scholarly use of a dead vs. a living language and (b) the use of a logographic vs. an alphabetic coding system.

With regard to the first perspective (a) it should be noted that the rise of the ME, with its concern with 'scientific language', takes place at the same time that Western scholarship finally completely abandoned its formerly universal language of learning, Latin (supplemented to a certain degree by Greek). To a certain extent the use of the long dead Latin language had provided a 'scientifically neutral' medium of scholarship - albeit not in the exact sense required by the ME, as in the ME Latin would of course be only one

[136] M. Hénaff, *Claude Lévi-Strauss and the making of Structural Anthropology* (Minneapolis 1998) 225ff.

language among many. Previously, the cultural and literary heritage of the Classical World had provided an unquestioned point of reference, constituting an ultimate 'scientific' authority, and similarly the language(s) in which the knowledge of the Classics was originally written down had an unquestioned status as the language(s) of knowledge, to the extent that hardly any scholarly work was written in the vernacular until the Reformation (and in many disciplines this monopoly lasted longer still). Until the beginning of the 19th C no serious scholarship was possible in any field without at least a solid passive command of Latin - a situation which radically changed with the rise of the ME and the formation of the modern sciences. In the AME the position of the Sumerian language is, to a certain extent, comparable to that of Latin in the TE and CE: it was the primary language of scholarship. Even if Akkadian was the indispensable medium though which Sumerian was taught, the ultimate aim of a scribal education remained command of Sumerian. Whereas the degree to which this was actually achieved and the degree to which 'academic Sumerian' became an artificial medium after the demise of Sumerian as a spoken language are debatable, the scholarly status of this 'academic Sumerian' in the AME is not. In view of the parallel positions of Latin in the TE and CE and of Sumerian in the AME, it may be argued that the very idea of abstract scientific notation as divorced from any historic language becomes only conceivable in an epistemological configuration which abandons the *authority* of knowledge transmitted from earlier epochs. This clearly is not the case in the TE, CE and AME - it *is* the case in the ME[137]. It may, however, be argued that the gain of the ME, viz. conceptual autonomy from and analytic perspective on language, is at the same time its loss. The basis on which the ME denies the a priori validity of inherited knowledge and the concomitant universality of Latin, viz. the domination of the new transcendental referents Life, Labor and Language, also means that the knowledge it produces (the sciences: biology, economy, linguistics) can henceforth only describe phenomena - it can no longer provide insights into substances or into substantive universal truth. Similarly, the incidental relations it can observe between these (biological, economic, linguistic) phenomena and man (which are described by the humanities, i.e. psychology, sociology, literary studies etc.) lack any claim to universal validity: such relations are necessarily historically conditioned contingencies (cf. the summary of Foucault's analysis with applicable references in 2.1.4.0.). By contrast, in the AME, knowledge is formulated in terms of *substantive* identity (as indicated by equivalences and often formulated through similitudes) which necessarily implies (*emically*) universal validity.

With regard to the second perspective, viz. the use of a logographic vs. an alphabetic coding system (b), it should be noted that in the ME the difference between the coding used in the scientific notations and the coding used for natural languages is that between *ideographic* and *phonetic* coding. The various scientific notations achieved in the ME, such as mathematical notation and computer languages, express abstract *ideas* (abstract

[137] In this context it would be relevant to extend the epistemological research of Foucault beyond his chosen geographical and chronological boundaries and investigate what, if any, are the parallels for the degree to which the authority of earlier knowledge is abandoned at the transition from CE to ME (perhaps the rise of Classical Greece could be considered). Also it would be relevant to determine in what manner such an phenomenon is related to religious-ideological and technological-economic developments - a relation which Foucault, who emphasizes the autonomy of epistemological dynamics, does not concern himself with.

concepts) whereas the alphabet used for writing natural languages expresses concrete *sounds* (concrete phonemes). By contrast, the single coding system found in the AME, i.e. cuneiform writing, consists of logograms which constitute *both* an ideographic *and* a phonetic coding. Logography, such as found in cuneiform writing, codes whole words, including those representing ideas, as well as the phonetic values derived - by means of the rebus principle - from these words. The word values themselves have their origin in *pictograms*, i.e. in symbols that represent either abstract or concrete referents by means of illustrations, a category that includes a whole range of *ideograms*, i.e. of symbols that represent abstract referents (ideas, concepts). On the one hand, it could therefore be argued that the cuneiform writing system, by inherently constituting an ideographic coding, renders superfluous any concept of a separate 'neutral' or 'scientific' code: the logograms in themselves provide such a code. On the other hand, the unavoidable consequence of this constitution is that any inquiry of a 'linguistic' nature will tend to direct itself to *graphemic* analysis. The isolation and combination of pictographic elements and associations that tangibly and visibly offer themselves to investigation, will have greater priority than a philological or philosophical evaluation of words which would focus on their abstract meaning. Which is exactly what is found in the 'science of writing' developed by the ancient scribes and in the resulting lexical corpus. In keeping with Foucault's analysis it may be said that in cuneiform scholarship *things*, as represented in logograms, have not yet been separated from *words*. In Foucault's analysis this separation, with all its implications, is achieved only in the CE, during which he notes that *(l)es choses et les mots vont se séparer. ... Le discours aura bien pour tâche de dire ce qui est, mais il ne sera rien de plus que ce qu'il dit*[138]. The ME is built on the separation of things and words achieved in the CE.

(2) With regard to the issue of *language as the object of exegetical investigation* it was said that in the ME language is approached as material for critical investigation, conducted by means of a philological approach. This implies that language is simultaneously the medium by which knowledge is acquired *and* an object of knowledge acquisition in its own right, to the extent that its transparency as a medium becomes problematic - hence the concern with 'scientific notation' discussed under point (1) above. Turning to the AME, the question to be addressed here is whether in the texts under consideration language is also the object of an exegetical, 'philological' investigation. Again, as in the preceding sub-paragraph, because this question is unavoidably posed in the (scientific) context of the contemporary ME, it necessitates a two-fold answer, viz. an answer formulated in terms of an *etic* interpretation and an answer in terms of an *emic* interpretation.

The first answer, i.e. that provided by an *etic* interpretation, is that an exegesis of language equivalent to the approach found in the ME was *impossible* - or more precisely: inconceivable - in the AME because the prerequisite scientific instruments of the philological discipline developed in the ME are lacking in Ancient Mesopotamian scholarship. Lacking the tools, the ancient scribes were technically incapable of conducting an exegesis of language as found in the ME. In reference to the four formative elements distinguished by Foucault in the formation of the positivist philology that

[138] Foucault, *Les mots*, 58.

became possible in the ME, the technical 'deficiencies' of the AME may be summed up as follows[139]: (a) the only elements analyzed are those with concrete external referents, meaning there is *no conceptual break between speaking and thinking*, (b) the elements analyzed are of a visible, written nature instead of a audible, spoken nature, meaning that there is *no separate analysis of spoken language*, (c) the smallest constituent elements conceived of ultimately all have nominal instead of verbal referents, meaning that all analysis ultimately concerns *the nomination of concrete objects and phenomena instead of the expression of willed or undergone activity*[140] and (d) the juxtaposition of different languages only takes place in the framework of an analysis of visible representation (viz. written language), meaning that *no systematic comparative grammatical study of spoken languages is possible*. It may be argued that ancient scholarship did know the phenomenon of 'speech' but not the phenomenon of 'language' and that neither the first nor the second was conceived of as an object of scholarship. The former was studied only in as far as (some of) it was reflected in the writing system and the latter was not studied at all, being utterly irrelevant to what was basically a 'science of writing'.

The second answer, i.e. that provided by an *emic* interpretation, is that the knowledge produced in the AME is composed in a 'language' of a *profoundly different nature* than that found in the ME (or the TE and the CE). The only 'language' ever studied and used in Ancient Mesopotamian scholarship is a written code of conventionally established form and inventory, which finds its primary (pictographic) referents in a specific, temporally and chronologically bounded, natural and cultural environment. Natural language, as defined and studied by ME scientists, has a relation to this code only to the extent that one specific natural language, Sumerian, provided the original phonetic projection indispensable for graphemes to cross the threshold between pictograms and logograms. Beyond the point at which the cuneiform code achieved full logographic expressiveness through this phonetic projection, however, the concept of natural language was irrelevant to the scholarship that employed it. This irrelevancy can be illustrated by two phenomena: (a) the end of the use of Sumerian as a natural, spoken language (perhaps around 2000 BC) did not significantly affect the cuneiform code itself and the scholarship that employed it prospered for another two millennia and (b) the usage of the cuneiform code for many other languages (Akkadian, Elamite, Hittite, Hurrian, Urartian etc.) barely left a trace on the cuneiform code itself. Essentially, then, it may be argued that the 'language' in which knowledge was produced in cuneiform scholarship, i.e. the cuneiform code, was of an artificial nature. It could therefore be said that, in terms of an *emic* interpretation, ironically, the cuneiform code constituted a 'scientific notation' divorced from natural language in much the same manner as the artificial scientific languages created by ME scholarship.

[139] Ibidem, 297-304.

[140] With this regard it should be noted that single-sign logograms (Civil-code element 2) found in the lexical lists (cf. specifically SaV) are never interpreted exclusively by verb phrases: they all have consistently at least one nominal interpretation.

2.1.4.4. The conceptual limitation of the ME in the context of the AME texts

In 2.1.4.0. it was said that the conceptual limit of the ME implied by the analysis of Foucault is the transcendental nature of the referents around which knowledge is constructed in the ME (Life, Labor and Language). On the one hand, these transcendental referents, introduced in western thought with the rise of ME, opened up new fields of scientific exploration (biology, economics, linguistics), but on the other hand, they could be said to have closed off the possibility for the objective and systematic pursuit of any knowledge that is substantially relevant to the actual human condition. In the ME all knowledge pertaining to man is exclusively conceived of in terms of its transcendental referents, i.e. in terms of the biological, economic and linguistic conditions to which he is viewed as being subjected. The humanities construct such knowledge, i.e. they describe empirically observed phenomena in terms of their essentially unknowable transcendental referents, by proposing and assuming a variety of 'unconscious' categories and processes. Examples of such 'unconscious' categories are Freud's 'Id', 'Ego' and 'Super-ego' in psychology, Durkheim's 'collective representation' in sociology and Radcliffe-Brown's 'social organism' in cultural anthropology. In Foucault's view, the use of these 'unconscious' categories and processes implies that knowledge in the humanities lacks scientific objectivity. Furthermore, the historical conditionality of all phenomena studied by the humanities means that all knowledge they produce is of a fundamentally unsystematic nature. Approaching the texts under consideration with Foucault's analysis of this conceptual limitation of the ME (i.e. the lack of an objective and systematic approach to the sphere of man and human endeavor) in mind, the question to be addressed in this sub-paragraph is whether or not this limitation has an equivalent in the AME. This issue will be addressed here by establishing the inventory of knowledge related to man found in the AME texts under consideration and investigating whether or not that knowledge is presented in a different manner than other knowledge.

Before proceeding with an analysis of the inventory of relevant material presented in Table 4 below it is necessary to comment on the selection criteria applied. First, entries from the *sign-lists* are excluded because such lists do not systematically collect knowledge according to any specific semantic field or theme[141], such as the theme of 'man' investigated here. Therefore, only entries from the *thematic lists* (G, Hh and Lu) are considered. Second, entries that refer to human *products*, such as tools and manufactured foodstuffs and including architectural artifacts such as cities and canals, are excluded because such products represent material objects - which is exactly how they are classified in the Ancient Mesopotamian lexical texts. Third, entries representing *phrases belonging to coherently quoted, multi-entry text excerpts* (e.g. Hh 2194-206) are ignored as the content of such individual entries is only interpretable in a larger context.

[141] This includes the listing of PN elements found in Sa Appendix A, which is organized according to (initial) signs rather than meaning (PST 001-12 I-; 013-9 NA-; 028-30 KASKAL-; 034-5 LI-; 037-41 A-).

Table 4. Inventory of entries relevant to the theme of 'man' in the Emar lexical corpus

Series	EST	Content
Hh[142]	1063	'head' (i.e. person)
	1064 / 69-89	relatives
	1066	overseer of a city quarter
	1092-4	domestic personnel
	1126	business partner
	2009-12	city ruler; priest; chief administrator; craftsman
	2013	assembly
	2016-20	judiciary
	2099h	baker
	2115-18''	diviners; merchants; clerks
	2172-94	agricultural workers
	2207	'confirmer' (i.e. witness)
Lu	1001	'man'
	1002-20	royalty
	1021-81	officials
	1082-93''	engravers; scribes; scholars
	1094-110	barbers; bakers; butchers
	1110-42	military; guards
	1143-78 / 84-5	overseers
	1190-214	religious personnel
	1215-9	young men; bachelors
	1220-2	various institutional employees
	1223-35	women (mothers; sisters)
	1236	extended family
	1243-8	women (nurses; old women)
	1249-59	elders; witnesses
	1260-6	advisors; heralds
	1267-73	officials
	1274-7	agricultural workers
	2001-6	shepherds
	2015-24	porters
	2025	miller
	2026-32	entertainers
	2036-63	artisans
	2064-84	women (professionals; prostitutes)

[142] Note that the 'anatomical' section of Hh9 (i.e. the entries starting with UZU 9a044-122) is here taken to refer not to humans but to animals because (a) it follows immediately after the 'wild animals' section (after the key words MUŠ, UR, BA.AL.GI, KIŠI$_8$, EH, NIM, BURU$_5$) and (b) it includes entries that specify animal variants (9a116-8 ^{UZU}Ì.UDU GUD/UDU/ŠAH). It should also be noted that human anatomy is dealt with extensively in the advanced sign lists (e.g. Izi 2B018 BAD(=ÚŠ); 2B020 MUD, SagB 001 SAG; 077 KA(=KÌRI); 095 KA; 175 KA(=GÙ)).

2086	child
2087-96	friends; partners; acquaintances
2101-2	troops
2103-5	animal drivers
2106-13	invalids; sick people
2115-7	girls

The following observations are relevant to the entry inventory found in Table 4:

(1) There are two series where entries are found relevant to the theme of 'man': Hh and Lu. In Hh such entries only occur in the first two divisions, where they are relatively sporadic and they are widely dispersed across the text. It should be noted that in terms of vertical organization as well as actual content the first two divisions of Hh deviate substantially from the other divisions. Unlike the other divisions of Hh, divisions 1 and 2 list administrative and legal terminology rather than concrete objects, artifacts or locations (cf. Part 3 4.3.). Among this terminology some entries refer to human beings in various administrative or judicial capacities. E.g. entries referring to relatives (EST 1064 and 1069-89) occur in a context of entries relevant to ownership (EST 1062 paradigm of the verb 'to have' and 1067-8 'possession', 'property', 'livestock', 'revenue') and a list of judicial functionaries (EST 2016-20) is followed by contractual phrases (EST 2021-56, ranging from declinations of 'to swear' to conjugations of 'security' and 'inheritance'). It should be noted that occasionally an entry seems to be triggered by the polyphony of *signs* rather than the semantic associations between *words*. E.g. the entry EST 2099h MU=MUHALDIM 'baker' appears to be due to scribal concern with a systematic listing of polyphone values rather than with semantic coherence (both the preceding single MU's and the following compounds with MU- represent administratively relevant terms: 'oath', 'name', 'year' and year qualifications respectively). In Lu, on the other hand, the relevant entries found constitute the large majority of content: relatively few entries do not refer to the theme of 'man'. Unlike what is found in Hh 1-2, where aspects of human status and endeavor are listed merely as properly belonging in a collection of administrative and legal vocabulary to be learnt by the apprentice scribe, in Lu the theme of 'man' is dominant.

(2) Neither in Hh 1-2 nor in Lu is the complete inventory of entries relevant to the theme of 'man', even if in the latter series this theme is dominant. Thematically inappropriate entries are found scattered throughout the Lu text, increasing in frequency in the later part (cf. Part 3 5.3.). This is due to integrative approach of Mesopotamian scholarship, in which different associative principles (graphic, phonetic, semantic) are combined - in the composition of lexical lists these principles are supplementary rather than complementary (cf. Part 3 2.1.2.1. and 2.1.3.). It can therefore be concluded that, unlike in modern science, in Ancient Mesopotamian lexical scholarship *'man' as a classificatory concept is lacking*. Any knowledge with a human referent, i.e. the kind of knowledge that in the ME is distinguished and systematized by the humanities as a specialized discipline, in the AME is classified in the same manner as any other kind of knowledge, viz. by analyzing its coding in logograms. In this sense, it may be argued, the *emic* knowledge of 'man' in the AME, unlike that in the ME, *is* of an objective and systematic nature. Unlike in the

ME, in the AME there are no 'unconscious' categories which preclude empirically verifiable and objectively substantive knowledge and there is no historic conditionality which precludes a systematic description in universally valid terms. The objective and systematic, universal validity of the knowledge in the AME, including that concerning 'man', is determined by the full representability of that what is signified, i.e. any given natural or cultural phenomenon, by means of the signifier system that it employs, i.e. the cuneiform writing code (cf. 2.1.3.1. above).

In concluding this discussion of the different approaches to knowledge of 'man' found in the ME and the AME, it is appropriate to draw attention to the fact that the medium through which knowledge is defined and produced in the AME, viz. the cuneiform code, *by itself is wholly definable in relation to man*. The cuneiform code was not conceived or used as a collection of arbitrary signifiers (cf. 2.1.3.2. above), but instead it is based on pictographic references to the empirically verifiable, visual experience of man. The pictographic referents are either natural objects and phenomena (e.g. A 'water' and HU 'bird') or cultural artifacts and phenomena (e.g. É 'house' and DUB 'tablet') of which man has empirically verifiable, visual experience. All cuneiform signs are directly or indirectly relatable to such originally pictographic referents and thus ultimately definable in terms of man himself. The most striking expression of the implied conceptual relation between the writing system and the human life world is found in the many signs which are based on pictograms of *body parts*. It should be noted that in the lists which most strongly defy the application of a single modern classificatory principle, i.e. in the advanced sign-lists (cf. Part 3 6.3. and 11.3.), the most important key-signs are logograms based on body part pictograms. Looking at the (admittedly incomplete) evidence of the Emar texts the following observations may be made: Izi is for a very large part organized around Á 'arm', GÚ 'neck' (2A), GIŠ-TÚG-PI 'ear' (2B), IGI 'eye' (3), ŠU 'hand' (4), SagB is almost completely organized around SAG 'head' and KA 'nose, mouth' and Diri has again IGI 'eye'. It could be argued that whereas these series lack *etic* classificatory coherence, i.e. lack a single classificatory principle as distinguished by modern science, the prominence of anatomical referents may *emically* very well have provided a large degree of coherence[143]. What is certain is that in the AME texts under consideration knowledge relevant to man was coded and produced in the same manner as any other kind of knowledge. Knowledge concerning man may be said to have been conceptually fully integrated in the 'science of writing' of the ancient scholars.

[143] It is, in fact, not inconceivable that an important part of the oldest strata of the advanced sign-lists were originally organized according to a body part sequence: cf. in Part 3 the discussion about the modular structure and diachronic transformation of the advanced curriculum (14.6.) in combination with the remarks about Proto-Sag (14.8.).

2.2. The diachronic position of the AME

Introductory remarks

In the preceding paragraph the AME and the various epistemes of the western world distinguished by Foucault were compared in primarily *synchronic* terms, i.e. the AME was analyzed in parallel to the TE, CE and ME without regard to their respective chronological position vis-à-vis each other. This paragraph, however, is intended to put the AME in a *diachronic* perspective. What will be attempted in this paragraph is the consideration of the degree to which the AME may be conceived of as part of a systematic epistemological continuum. The manner in which this consideration will be effectuated is by establishing the position of the AME relative to the general epistemological configuration of the TE, as analyzed by Foucault. The reason that no comparible specific effort will be made with regard to the CE and the ME is that only the gap between the AME and the TE remains to be bridged - the development from the TE to the CE and to the ME has been sufficiently outlined by Foucault. The main issue to be addressed in attempting to determine the diachronic position of the AME is the manner in which it relates to the TE-CE-ME conglomerate as a whole. In approaching this issue, the general epistemological configuration of the TE, which Foucault typifies as determined by *similitude*, will be taken as the point of departure, projecting it, as it were, *backwards* in time.

By viewing the AME from the perspective of the TE *similitude* and by considering to what degree it lacks or shares common ground with the TE in its general configuration, it the diachronic position of the AME in relation to TE should become clear. It should be noted that this approach, without necessarily assuming or seeking to prove any 'evolutionary' principle or any 'guiding' epistemological development in time, at least admits its possibility. This is due to the fact that a diachronic approach cannot but establish an *evaluation*, viz. a qualitative and quantitative comparison, of the various epistemes in terms of each other and that such an evaluation necessarily implies a set of value judgments in which the characteristic configuration of each episteme is postulated as a point of reference with objective value. Thus, the AME will be *evaluated* in terms of the TE episteme and vice versa. Obviously the objective validity or 'proof' of these evaluations depends on the reference frame within which that judgment is made. From the perspective of modern science this means that the only evaluation that could possibly aspire to 'objective' or 'scientific' validity would be that of the AME in terms of the ME - with the caveat that such an evaluation would require a more thorough study of the epistemes following the AME and preceding those of the modern epoch than is feasible in the framework of this study. From that perspective, the evaluation of the AME in terms of the TE is no more than a thought experiment. The ultimate purpose of this paragraph, therefore, can be no more than to aim at emphasizing the unique quality and the often radical 'otherness' of the AME.

Evalution of the AME in terms of TE similitude

It was said that similitude is the *constitutive* principle of the early AME knowledge system, but the *constructive* principle of the TE knowledge system (cf. 2.1.2.1.). Tentatively assuming that the chronologically intervening epistemes - most importantly that of the Classical World - can be projected into a consistent curve of congruent historic development, it may be proposed that, in terms of knowledge arrived at by similitude, there is a wider historical tendency to *epistemological decline*. In this context the qualification 'decline' reflects the fact that, in terms of its constituent similitudes, the nature of (written) knowledge itself becomes increasingly less cohesive.

What may be found at the point of departure of this proposed historical epistemological development, i.e. in the episteme at the beginning of (written) history, in the framework of which the first writing systems were developed, is that of the *original, full similitude*. At first, knowledge of the natural and man-made world is captured and recorded as a visual similitude, as is the case in the lexical cuneiform records of the early AME and also in other logographic writing systems (Egyptian hieroglyphs, Chinese characters, Mayan glyphs). In terms of this original similitude, knowledge proceeds to decline due to a progressive dislocation of the originally match of hermeneutic interpretation and semiological discourse (cf. 2.1.2.1.). In the Mesopotamian context the replacement of Sumerian as the main language of administration and commerce by Akkadian necessitated the imposition of a secondary, phonetic interpretation of the written signs, in which the original visual similitude of these signs is strictly speaking irrelevant. The phonetic (Akkadian) text could not recapture the (visual, graphic) similitudes from which the Sumerian signs derived their meaning: the Akkadian translation of a Sumerian logogram, as found in the lexical lists, cannot do more than describe its phonetic and semantic meanings. Such a translation relies entirely on abstract *descriptions*. From this perspective, the bilingual lexical lists may be seen as attempts to cope with the discrepancy between the primary and the secondary interpretation of their subject matter, i.e. of the elements of the writing system. As the distance between the original and the actual interpretation increasingly widens over the centuries, so does the body of lexical learning accumulate. The accumulation of shifts in practical usage and of valid associations for many logograms is recognized in the scholarly tradition and necessitates an ever larger inventory of lexical knowledge. This is reflected by the exponential growth and partial reordering of lexical compositions such as found in Hh and Izi. Increasingly, the original constitutive principle of the AME, i.e. the original similitude, is lost through the accumulative deformation of the textual tradition.

Measured in terms of this development, the AME may be divided into distinct periods. The original primary use of cuneiform writing to directly visually simulate meaning ended with the death of Sumerian as a spoken language and with the ascendancy of Akkadian in its written form. Perhaps the period of *Early AME* could be said to have ended about 2000 BC. The resulting epistemological void led to a slow epistemological shift, viz. a slow reorientation in the scholarly tradition. This reorientation was only complete when the scholarly attempt to artificially preserve access to the lost original episteme, by predominantly transmitting knowledge through traditionally formatted

(unilingual) compositions, was finally abandoned. The transformation of the lexical corpus may be seen as the most reliable indicator of the progress of this reorientation. When the lexical curriculum was finally transformed into a predominantly bilingual instrument and when it had finally lost its compositional and formal dependence on OB 'forerunners', this reorientation, and the *Transitional AME* with it, may be said to have been complete. The Emar lexical corpus may be considered as one of the last witnesses to this Transitional AME period, which maybe lasted until about 1100 BC. Thus, the Emar text witnesses effectively provide insight into the formative stage of the final stage in the development of the AME, viz. the *Late AME*. The Late AME may be seen as resulting in a knowledge system that is in certain respects similar to that of the western TE: in both cases knowledge is configured around similitude, but in both cases similitude is a *reconstructive method* rather than a *constitutive principle*. In the lexical records of the Late AME similitude is still a latent or potential constitutive particularity of writing itself, but the text is no longer exclusively organized around this constitutive principle. The textual discourse in any Late AME document, including the lexical records, rather relies on the establishment of abstract similitudes. In the Late AME lexical records such similitudes are *produced* within and between lemmas by *interpreting* the meaning of lemmas and their elements in terms of abstract similitudes (graphic, phonetic, semantic) to each other. The long, ever expanding lists of often far-sought semantic associations found for single logograms in the canonical lists bear witness to this *production* of value and meaning. The production of value and meaning of logograms by contextual interpretation basically implies that in the Late AME lexical compositions the unity of writing and discourse has been abandoned. From this point onwards, the value and meaning of logograms relies on perceived rather than on intrinsic similitudes; it is produced rather than perceived. The logograms themselves are no longer the ultimate referent of their assigned values and meanings. From this point onwards, the lexical lists are bound to expand as the interpretations of these perceived similitudes shift and accumulate. This process is described by Foucault as follows: *... parce qu'il y a un <<cran>> entre les similitudes qui forment graphisme et celles qui forment discours, le savoir et son labeur infini recoivent là l'espace qui leur est propre: ils auront à sillonner cette distance en allant, par un zigzag indéfini, du semblable à ce qui lui est semblable*[144].

Effectively, the role of similitude in CE is largely matched by that in the Late AME. The difference is that in the Late AME an important element of the written medium itself, viz. the logogram, still incorporates constitutive similitudes from which many contextual interpretations are ultimately derived. What the CE and the Late AME share, however, is that in the written documents of both knowledge systems a name and a word *can* be interpreted fully independently from a picture. The potentially full separation of word and picture is particular to both the Late AME and the CE and distinguishes them from the Early AME. It may thus be proposed that the loss of the original name-plus-picture unity in written language made it possible for the epistemological role of the similitude to *shift from a constitutive to a reconstructive principle*. This means that after this loss, in all later Near Eastern and Western epistemes until the 17th Century AD, similitude appears as a *method*, aimed at reconstructing meaning through abstract interpretation. After the possibility of unequivocal interpretation of meaning, relying on the similitudes expressed

[144] Ibidem, 45.

in the written medium itself, was lost, abstract interpretation took its place. As meaning was now constructed instead of given, it opened the way for ever an increasing self-reflexivity by allowing the possibility of interpretations of interpretations. In this sense the Late AME lexical compositions shows the same problem of interpretative accumulation applicable to the TE and noted in the sentence by Montaigne quoted by Foucault: *(i)l y a plus à faire à interpréter les interprétations qu'à interpréter les choses; et plus de livres sur les livres que sur tout autre suject; nous ne faisons que nous entregloser*[145].

The literary culture carried by the Late AME eventually utterly collapsed, leaving hardly any trace. It can be suggested that this is not surprising given its utter preoccupation with the interpretation of its own interpretations[146], especially visible in the stupendous output of its divinatory and lexical literature. Here one might apply to the Late AME the same characterization of literary culture given to the TE by Foucault: *(c)'est ne point là le constat de faillite d'une culture ensevelie sous ses propres monuments; mais la définition du rapport inévitable que le langage du XVI*[e] *siècle entretenait avec lui-même*[147]. It could be argued that after the rise of alphabetic writing and the final demise of logographic writing, all later Near Eastern and Western epistemes have been shaped by the same process, viz. the process of epistemological 'decline', which had been set in motion with the development of abstract writing systems. In this respect, a fitting commentary on the epistemological significance of logographic writing may be found in the following quote from Foucault - the reader only need to substitute Foucault's word *peinture* by the word 'logogram':

(L)es noms propres formeraient d'utiles repères, éviteraient des désignations ambiguës… Mais le rapport du langage à la peinture (= logogram) *est un rapport infini … Ils sont irréductibles l'un à l'autre … Le nom propre … n'est qu'un artifice: il permet … de faire passer subrepticement de l'espace où l'on parle à l'espace où l'on regarde, c'est-à-dire de les renfermer commodément l'un à l'autre comme s'ils étaient adéquats. Mais si on veut maintenir ouvert le rapport du langage et du visible … de manière à rester au plus proche de l'un et de l'autre, alors il faut effacer les noms propres et se maintenir dans l'infini de la tâche. C'est peut-être par l'intermédiaire de ce langage gris, anonyme, toujours méticuleux et répétitif … que la peinture* (= logogram) *… allumera ses clartés*[148].

In western culture the meticulous work of simultaneously thinking (ordering, speculating, fantasizing) about the world and expressing it in visual codes is almost exclusively confined to the sphere of arts. In Ancient Mesopotamia, however, it was the essence of scholarship itself - its lexical text monuments are among the most impressive witnesses to its intriguing 'otherness'.

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[145] Montaigne, *Essais*, liv. III, chap. XIII apud Foucault, *Les mots*, 55.
[146] Obviously many historical factors contributed to the end of cuneiform literary culture - here only the epistemological perspective is discussed.
[147] Foucault, *Les mots*, 55.
[148] Ibidem, 25.

If the postulated - dynamically 'involutionary' - process of epistemological decline in terms of *similitude*, increasing from the Transitional AME to the ME, is followed, than it may be summarized as follows: in as far as knowledge was originally arrived at and defined in terms of similitudes, there has been, ever since, a historical development of epistemological decline because of the ever-increasing gap between hermeneutic interpretation and semiological discourse.

2.3. Universal language

This paragraph seeks to interpret the AME texts under consideration in terms of the various concepts of universal language that existed in the epistemes investigated by Foucault. By determining to what extent these concepts are applicable to the Emar lexical texts, it may be possible to shed light on the specific relation between language and knowledge in the AME. The AME texts will be discussed in terms of the concept of universal language found in each of Foucault's successive epistemes according to their chronological order.

2.3.1. The TE concept of universal language

> *Le langage fait partie de la grande distribution des similitudes et des signatures. Par conséquent, il doit être étudié lui-même comme une chose de nature*[149].

The above quotation conveniently summarizes what Foucault proposes is the essence of language in the TE: TE scholarship approached language as a system of similitudes and readable signs in the same manner as any other natural or cultural phenomenon. Basically, language was considered as one more esoteric discourse mirroring and revealing a transcendent macrocosmic order. Obviously, the fractured nature of this discourse, due the existence of many different languages, meant that it lacked transparency. In accordance with the authority of Scripture, language was thought of as having *lost* its original transparency as a result of the catastrophic destruction of the original *universal language* at Babel (cf. Gen.11:1-9): *(s)ous sa forme première, quand il fut donné aux hommes par Dieu lui-même, le langage était un signe des choses absolument certain et transpararent, parce qu'il leur ressemblait. ... Cette transparence fut détruite à Babel pour la punition des hommes. Les langues ne furent séparées les unes des autres et ne devinrent incompatibles que dans la mesure où fut effacée d'abord cette ressemblances aux choses qui avait été la première raison d'être du langage*[150]. Thus the scholars of the TE explained the distinction between signifier and signified in language as due to a *loss* of their original unity. After that loss, language entered the world of similitudes and signatures as an *instrument* for humanity to redeem itself by learning and interpreting the word of God. Ultimately all languages combined, in their combined relation to the world, were readable as a single symbolic system that allowed an analysis of the macrocosmic order. In terms of achieved instrumentality, the use and spread of

[149] Ibidem, 50.
[150] Ibidem, 51.

Latin - the language of the Church, the instrument of God on earth - was understood as the achievement of a *new* universal language, a sign of the grace of God[151].

With respect to the AME here two features should be noted as particularly relevant to the universal language conceived of in the TE: this original universal language, in which the signifier (the word) perfectly matched the signified (the thing), was supposed (1) to have existed at some point in the far past *preceding* the confounding of languages and (2) it was conceived of as *written*. This second point reflects the conceptual primacy of the written over the spoken word in the TE, which in turn explains the fact that in the TE there was essentially no distinction between what is seen and what is read. The written word was conceived of as the original source of knowledge and belonged to the created, visible world in much the same way as nature. Foucault elaborates on the TE concept of the written word in relation to the original universal language that preceded the confounding of languages as follows:

... l'écrit avait toujours précédé le parlé ... même dans le savoir des hommes. Car il se pourrait bien qu'avant Babel, qu'avant le Déluge, il y ait eu une écriture composée des marques mêmes de la nature, si bien que ces caractères auraient eu pouvoir d'agir directement sur les choses, de les attirer ou de les repousser, de figurer leurs propriétés, leurs vertus et leurs secrets. Écriture primitivement naturelle, dont peut-être certains savoirs ésotériques ... ont conservé la mémoire dispersée et tentent de resaissir les pouvoirs depuis longtemps endormis[152].

On the basis of the two features mentioned above, it may be proposed that the language employed in the AME texts under consideration can, in fact, be identified as the universal language preceding the confounding of language conceptualized in the TE. With regard to the first feature it should be noted that the Ancient Mesopotamian scribes too, ascribed the origin of their writing system to a remote past before the Deluge. With regard to the second feature it should be observed that the quote from Foucault given above accurately describes the qualities with which the cuneiform writing system was associated by the ancient scribes themselves. From the epistemological perspective of the TE, *the cuneiform writing system constitutes no less than the long-lost antediluvian universal language itself*.

2.3.2. The CE concept of universal language

In the TE universal language was conceived of as a *lost original*, leaving behind clues in the form of signatures deposited in its successor languages. In the CE, however, it is conceived as a *project* which could be realized by the categorical ordering of knowledge by the final fixation of the representative value of words. With this kind of universal language the CE sought to overcome the imperfect match, found in the use of any natural language, between what does the representing (words) and what is being represented

[151] Ibidem, 51-2.
[152] Ibidem, 53-4.

(things)[153]. The CE project of achieving a universal language depended on unambiguously defining the exact representative values of the words found in natural languages: *... à l'horizon peut-être indéfinement reculé du langage, on projette l'idée d'une langue universelle où la valeur representative des mots serait assez nettement fixée, assez bien fondée, assez évidemment reconnue pour que la réflexion puisse décider en toute clarté de la vérité de n'importe quelle proposition …*[154]. To achieve this, the use of natural language was to be counterbalanced by the use of the catalogue, the dictionary and the encyclopedia - works which are typical of and of pivotal importance to the CE (cf. 2.1.3.0.)[155]. The end result of the CE project of universal language would be, in the phrase used by Foucault, *... un langage parfaitement distinct (que) permettrait un discourse entièrement clair...*[156].

In investigating the AME texts under consideration in terms of the CE concept of universal language it is important to note how Foucault describes the constitution of its ideal universal language, viz. as an *ars combinatoria.* Looking the AME texts a number of things may be noted: (1) the language used by the scribes, i.e. the cuneiform writing system itself, constitutes an *ars combinatoria* in the most literal sense of the word, (2) in the scribal educational curriculum knowledge acquisition equals language acquisition and (3) language is learnt from catalogue-, dictionary- and encyclopedia-style lists. In view of these observations it may be proposed that the AME texts under consideration, in fact, constitute the kind of universal language aspired to in the CE. From the epistemological perspective of the CE, *the Ancient Mesopotamian lexical texts constitute no less than an actual realization of its universal language project*.

2.3.3. The ME concept of universal language

In the TE universal language was conceived of as having originally existed as a natural language in which the words, spoken or written, were wholly and transparently representative of things. This language was assumed to have been lost, but scholars could pursue clues left behind in the signatures deposited in its successor languages. In the CE, universal language was no longer projected into the (antediluvian) past, but into the (remote) future, when natural language would be transformed into an *ars combinatoria* capable of transparently expressing a scientifically established order of the world. This *ars combinatoria* would achieve the categorical ordering of knowledge by means of a

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[153] *En un moment donné ... et à l'intérieur d'une langue singulière, les hommes ont à leur disposition un ensemble de mots, de noms qui s'articulent les uns sur les autres et découpent leurs représentations; mais cette analyse est si imparfaite, elle laisse subsister tant d'imprécision et tant de chevauchements qu'avec les mêmes représentations les hommes utilisent des mots divers et formulent des propositions différentes: leur reflexion n'est pas à l'abri de l'erreur. Entre la designation et la derivation, les glissements de l'imagination se multiplient; entre l'articulation et l'attribution, prolifère l'erreur de la reflexion.* - Ibidem, 217.

[154] Ibidem

[155] *... l'exercice de toute langue réelle doit être double d'une Encyclopédie qui définit le parcours des mots, prescript les voies les plus naturelles, dessine les glissements légitimes du savoir, codifie les relations de voisinage et de ressemblance. Le Dictionnaire est fait pour contrôler le jeu des dérivations à partir de la désignation première des mots, tout comme la Language universelle est faite pour contrôler, à partir d'une articulation bien établie, les erreurs de la réflexion quand elle formule un jugement.* - Ibidem

[156] Ibidem

final fixation of the representative value of words. In the ME, however, the link between word and representation, taken for granted in the preceding epistemes, is cut, leaving no place for natural language as a carrier or medium for knowledge. In Foucault's words: *(l)e seuil du classicisme à la modernité ... a été définitivement franchi lorsque les mots ont cessé de s'entrecroiser avec les représentation et de quadriller spontanément la connaissance des choses ...*[157]. From that point onwards, modern science seeks to substitute natural languages with artificial codes that aim at a scientifically neutral coding of knowledge. Arguing from an epistemological perspective, Foucault effectively proposes that in the ME natural language has ceased to exist except as an object of study in itself and as a repository of discretionary elements used in the creation of its new scientific codes: *(d)étaché de la représentation, le langage n'existe plus désormais, et jusqu'à nous encore, que sur un mode dispersé: pour les philologues, les mots sont comme autant d'objets constitués et déposés par l'histoire; pour ceux qui veulent formaliser, le langage doit dépouiller son contenu concret et ne plus laisser apparaître que les formes universellement valables du discours ...*[158]. This means that in the ME there can be no universal *language* - there can only be a universally valid *scientific discourse*. In effect, the various modern scientific disciplines each have developed a code that establishes such a scientific discourse, each choosing the form and structure befitting it (e.g. algebraic code, chemistry code, IPA).

With regard to the AME the question must now be asked whether the text corpus under investigation can be qualified as formulated in a universally valid scientific discourse in terms of the ME. The answer to this question is that it can indeed be qualified as such. From the *etic* point of view, i.e. from the modern scientific (philological) perspective, the AME lexical text corpus constitutes a specialized discourse on the theme of the cuneiform writing system, simultaneously establishing and using the code particular to that system. From the *etic* point of view, therefore, this discourse could be accurately described as a 'science of writing'[159]. From the *emic* point of view (i.e. in terms of what was intended by the ancient scribes themselves), however, it may be argued that whereas the lexical text corpus does indeed effectively constitute a kind of 'scientific discourse', the scope of the 'science' in question extends far beyond the realm of the writing system only. The combined lexical lists do indeed give a description and analysis of the writing system but they simultaneously constitute a classificatory interpretation of the empiric life world. The knowledge they construct concerning a phletora of natural and cultural phenomena constitues, in fact, the AME equivalent to the knowledge constructed in the ME by such scientific disciplines as theology, biology, anatomy and economy. The fact that in the AME texts under consideration the study of natural and cultural phenomena was never pursued separately from the study of the writing system implies that they constitute a 'science' of more than writing alone. It also implies that knowledge *as such* was conceived of in an entirely different manner than in the ME. This difference is due to the fact that in the AME there was a very different relationship between language and knowledge than that found in the ME, as pointed out by Foucault.

[157] Ibidem, 315.
[158] Ibidem, 315.
[159] Veldhuis, *Elementary Education*, 139-40.

2.4. Summary

2.1. Epistememological comparison:

2.1.2. TE-AME comparison:

1. The general epistemological configuration of the TE is realized through *similitude*, in which there is a match between semiological discourse and hermeneutical interpretation - in the AME the same position of the similitude is found, but there it is realized in the principle building block of the writing system itself, viz. in the logogram. In the TE similitude is a sought aim, in the AME an assumed precondition.
2. In the AME the original match between semiological discourse and hermeneutical interpretation is lost due to the combined interference of phonetization and bilingualization. This implies that, from the OB period onwards, the original knowledge system is no longer understood on its own terms - transformations and expansions in the lexical texts can be understood as attempts to cope with this growing discrepancy by means of realignments and additions.
3. The main analytic tool or logical category of the TE is the *signature* – it is the marker by which the similitude is recognized. In the TE these signatures are conveyed in alphabetic textual messages, but in the AME the logographic elements of the writing system themselves have signature status. Interpretations, reinterpretations and re-evaluations inevitably focus on and accumulate around these logograms.
4. In the lexical texts signatures are interpreted on the horizontal level, i.e. in the horizontal organization around the logograms. In this horizontal organization logograms acquire signature status through the same logical processes that are found in TE signatures, viz. through *tropes* (synecdoche, metonymy, catachresis). These will inevitably determine the epistemological configuration of a logographically expressed knowledge system, such as the AME. In such a system the 'symbolic' nature of writing itself will inevitably lead to a poetic-esoteric development of knowledge and give it an in-ward looking and static character due to its preoccupation with its own signatures. This explains its scientific stagnation and lack of historic dimension.
6. In the lexical texts the similitude is expressed on the vertical level, i.e. through vertical associative mechanisms. In this vertical organization the same techniques are found as in the expression of similitude in the TE, viz. through *figures of similitude* (convenientia, aemulatio, analogia, sympathia)
7. The conceptual limits of the TE are also found in the AME, viz. (a) the addition as the sole relation between knowledge elements (knowledge production only through accumulation), (b) the finite concept of knowledge due to an assumed microcosm-macrocosm relation, (c) the divinatory nature of knowledge acquisition, leading to the inclusion of 'uncientific' knowledge, and (d) the divinatory approach to textually transmitted knowledge, i.e. a lack of conceptual differentiation between traditionally transmitted texts and the empirically accessible life-world.

2.1.3. CE-AME comparison:

1. The general epistemological configuration of the CE is realized through *representation*, i.e. by the conventional determination of a specific value assigned to an arbitrary sign. In the CE similitude only serve as indicators to find shared elements for a determination of representative value in a given sign and empiric observation is need to corroborate these indicators. In the CE, rhetorical space, i.e. in the space where signs obtain meaning, becomes multi-dimensional because the conventional representative value of objects and phenomena can only be established in a simultaneous sequential relation to multiple other objects and phenomena. The preferred form of expression for the required simultaneity and juxtaposition of elements is the *table* - which is where an important systemic and formal similarity occurs between the CE and the AME.
2. The fact that the general epistemological configuration of the AME revolves around similitude (as in the TE) *as well as* representation (as in the CE) may be explained by the closed nature of its knowledge system – the AME pursues similitudes but only to the extent that this serves to establish representative values for its limited element inventory, viz. for the elements of the writing system. The main difference between the CE and the AME is that the signs of the latter are not arbitrary, constituting similitudes in themselves, and that they are never representative of anything except in terms of functional value. The individual grapheme remains the smallest, indivisible unit of investigation - it is the 'atom' of the AME knowledge system.
3. The main analytic tool or logical category of the CE is *order*, which it requires to obtain representative value. Comparing the CE to the AME regarding order, two things are important: (1) in the former it was *established* creatively from a potentially unlimited range of signs, whereas in the latter it was *reproduced* from traditionally transmitted sources that imposed strictly closed sign inventories, and (2) in the former representative value is in principle established independently from empiric observation of surface phenomena, whereas in the latter it is not - in the AME lexical texts any reconstructable order derives either from graphic and phonetic associations or from functional-utilitarian semantic associations that adhere to the empirically observable life-world.

4. The analytic methodology of the CE depends on a combination of three interdependent ordering principles: *mathesis* (establishing equalities in relation to abstract truth), *taxinomia* (establishing classification in relation to empiric being) and *genesis* (establishing semiology in relation to time). These principles may be recognized in the AME as follows. *Mathesis* is found applied to the ordering of the elements of the writing system throughout all series but applied to semantics only in the thematic series, where it may be typified as an auxiliary organizational device. There are only rudimentary indications of spatial (geographic, topographic) and temporal (chronological) *mathesis*, again as mere auxiliary tools. *Taxinomia* is found in taxonomical continuity, which can be detected by the analytical categories of the 'monster' and the 'fossil'. The former appear as non-normative logograms that help plug perceived gaps in taxonomical continuity by means of non-standard variations and cross-connections. The latter appear as the individual original pictographic values attached to the primordial elements of the writing system - often embedded under accumulated layers of derived meaning - and also as in skeletal combinations, allowing a sub-surface reconstruction of taxonomical continuity. *Genesis* is found in explicit temporal analogies concerning the object of the ancient scribes, viz. concerning the writing system: such explicit analogies are found in the SaP texts.
5. The single conceptual limit of the CE, viz. the need for complete transparency of representations *vis-à-vis* the signs that order them, implies that any CE concept of order will be stated in terms of exclusively functional values – this phenomenon is also found in the AME because in the AME the written signifier is conceived of as fully transparent to the empiric signified of the real life world and it is the functionality of these signifiers that determines their order.
6. In the AME knowledge is not gained primarily in relation to the real-life world but rather in relation to the writing system, which is assumed to represent a microcosmic repository of all knowledge. Thus, in the AME a modern scientific analysis, which primarily relates to empiric data and formulation of hypothesis derived from their observation, is basically *inconceivable* – such an analysis would be irrelevant to its *emic* definition of knowledge.
7. One effect of the complete transparency of representations *vis-à-vis* signs in the CE is the project of collecting all knowledge in an *encyclopaedic format*, which allows it to be aimed at as a sum total in a thematically de-contextualized manner and to be retrieved by exclusively formal and abstract reference. This effect is also visible in the AME lexical texts to the extent that the lexical curriculum also aims at listing all knowledge in a specifically functional manner, i.e. in a manner that shows the coding of all knowledge in the cuneiform writing code.

2.1.4. ME-AME comparison:

1. The general epistemological configuration of the ME is realized through *organization*, i.e. by the functional combination of internal relations between elements. Whereas CE *order* was achieved by the juxtaposition of elements according to identity or difference in a *synchronic* continuum, ME *organization* is achieved by the juxtaposition of the relations between elements (i.e. irrespective of their particular identities) in a *diachronic* succession of functional analogies. Because the AME texts show traditional-conventional associations at their highest organizational level and because they represent methodologically structured environments in terms of didactic functionality, it should be concluded that the ME epistemological configuration of *organization* is not found in the AME. Interpretation of the AME texts in terms of the ME epistemological configuration of *organization* will inevitably lead to an *etic* classification of these texts as products of 'underdeveloped', 'pre-modern' and 'primitive' logic.
2. Due to the diachronic dimension in which ME *organization* is realized, the main analytic tool or logical category of the ME is *history* – ME *organization* is defined by means of *history* and ME science effectively is the exegesis of historical phenomena. This led to the discovery of the autonomous historic dynamic processes Life (biological evolution), Labour (capital accumulation) and Language (phonological and morphological transformation) which gained transcendental status. This meant that henceforth only phenomena (as opposed to substances) could be known, which explains the development of the positivist sciences characteristic of the ME. When the central object of AME lexical scholarship, i.e. the cuneiform writing system, is investigated in terms of possible transcendental status there are two possible answers: (1) *etically* it inevitably has derived transcendental status (in as far as ultimately - across its pictographic reference system - it may be linked to the transcendental objects of ME science) and (2) *emically* it does not have transcendental status because it was empirically treated as fully transparent in terms of its representative value.
3. In contrast to the situation in ME science, historical analysis did not play a role in AME knowledge production - in AME scholarship synchronic and diachronic knowledge are not differentiated.
4. In the ME, the inevitable historicism applied to any organization means that the medium in which ME knowledge is transmitted, i.e. its language, leads to its objectification, which in turn leads to certain specific effects that may be considered as methodological features specific to the ME. The AME lexical texts were investigated in terms of two of these ME methodological features (1) the search for 'neutral' scientific language and (2) the use of language as an object of exegetical investigation. With regard to (1) two conclusions are possible, viz. (a) that the ME idea of abstract scientific notation divorced from any historic

language becomes possible only in conjunction with the abandonment of the notion of traditional (textual) authority and is inconceivable in the AME with its universal scholarly medium of Sumerian and its high deference for traditionally transmitted knowledge, and (b) that the ME distinction between scientific coding and natural language coding, i.e. between ideographic and phonetic coding, is inconceivable in the AME where logographic writing combines both and where exegetical investigation will inevitably tend to the graphemic rather than to the philological spheres. With regard to (2) two interpretations are possible, viz. (a) that *etically* exegesis of language in the AME was impossible due to the lack of the required tools (there was no break between speaking and thinking, no separate analysis of spoken language, no analysis of willed or undergone activity and no comparative grammatical study of spoken language) and (b) that *emically* the 'language' studied by AME scholarship was not a natural language in a modern scientific sense but rather an artificial cultural code.

5. The single conceptual limit of the ME, viz. the transcendental nature of the central referents around which in the ME knowledge is constructed (Life, Labor and Language), means that man is exclusively conceived of in terms of these referents, i.e. in terms of the biological, economic and linguistic conditions to which he is viewed as being subjected. This effectively means that there is no longer any possibility of an objective and systematic pursuit of knowledge which is *substantially* relevant to the actual human condition: the humanities developed in the ME merely measure man in terms of 'unconscious' categories and historical contingencies, categories which lack substantive scientific objectivity. When entries that are relevant to the theme of 'man' are investigated in the lexical texts, it may be concluded that 'man' as an abstract classificatory concept - set aside and studied separately in the 'humanities' constructed by the ME - is essentially lacking in the AME. In AME lexical scholarship knowledge with a human referent is classified and analyzed in the same manner as any other knowledge, viz. in terms of its logogram coding. This means that any knowledge concerning 'man' was conceptually fully integrated into the body of knowledge produced by AME lexical scholarship.

2.2. <u>The diachronic position of the AME:</u>

1. It is possible that, in terms of knowledge derived from *similitude*, from ancient to modern times there is an accumulative historical tendency to *epistemological decline*, implying that, in terms of its constituent similitudes, the nature of (written) knowledge itself has become increasingly less cohesive. Originally, at the start of history, knowledge was expressed through full similitudes, as in early logographic writing. As the original match between hermeneutic interpretation and semiological discourse is increasingly dislocated, knowledge based on similitude *declines*.
2. The diachronic developments within the Ancient Mesopotamian textual tradition attest to this epistemological decline and are, in turn, explained by it in detail. In terms of epistemological development the AME could be divided into three phases: (1) the *Early AME* (till ca. 2000 BC), which ended with the death of Sumerian and the end of the hegemony of direct visual similitude in written knowledge production, (2) the *Transitional AME* (ca. 2000-1100 BC), which, under pressure of accumulative transformations in its text corpus, saw the abandonment of an artificial scholarly attempt to maintain access to the former episteme, and (3) The *Late AME* (ca. 1100 BC till the end of cuneiform culture), in which similitude is no longer a productive constitutive principle but rather a reconstructive method (as it was found to be in Foucault's CE). In the Late AME the production of semantic value was based on *perceived* contextual interpretations rather than on the intrinsic similitudes of the logograms themselves, implying that the unity of writing and discourse was abandoned. Starting with the Late AME, the original possibility of unequivocal interpretation of meaning, relying on the similitudes expressed in the written medium itself, was lost and abstract interpretation took its place.
3. It is possible to view the eventual utter collapse and complete disappearance of cuneiform literary culture as a inevitable consequence of a scholarly preoccupation with accumulatively layered interpretations of interpretations and a concomitantly rising level of abstraction. To the extent that this increasingly arcane scholarship was an exclusive, culture-specific social domain and that it was primarily occupied with a hermeneutically closed sign inventory, this meant that it eventually was bound to reach a degree of complexification that made its exercise socially, culturally and intellectually incompatible with the rising new late-Semitic and Hellenic epistemes and their convenient alphabetic media.

2.3. Universal language:

1. In the TE universal language was conceived of as a *lost original*. The cuneiform writing system as conceived by the ancient scribes themselves may be argued to constitute a reflection of exactly the antediluvian universal language itself: (1) its pictographic, ideographic origin matches the supposition of the TE about the origin of the lost universal language in a remote past, preceding the confounding of languages and (2) it was conceived of as written from its very origin.
2. In the CE universal language was conceived of as a *project* to be realized through categorical ordering was meant to overcome the imperfect match between representing words and represented things by a perfectly transparent *ars combinatoria* hence the, rise of the catalogue, the dictionary and the encyclopedia. The AME lexical texts could be argued to constitute no less than the actual realization of the CE universal language project: (1) the cuneiform writing system itself may technically be seen as an *ars combinatoria* in the literal sense of the word, (2) in the lexical curriculum knowledge acquisition empirically equals language acquisition and (3) in the lexical texts learning is achieved by means of catalogue-, dictionary- and encyclopedia-style lists.
3. In the ME the link between representing words and represented things, realized differently in the TE and the CE but important in both, is broken - natural language is abandoned as a medium for knowledge, to be replaced by artificial, scientifically neutral codes. The concept of universal *language* has been replaced by that of a supposedly universal *scientific discourse*. From an *etic*, modern scientific point of view, the AME lexical texts could be argued to represent a kind of (seriously flawed) 'scientific discourse' on the Ancient Mesopotamian 'science of writing'. From the *emic* point of view, however, the knowledge contained in them was conceived in an entirely different, 'pre-scientific' manner, which can be understood better in terms of the TE and the CE than in terms of the ME.

CHAPTER 3 – THE TECHNOLOGICAL PERPECTIVE[160]

> *If we are to understand the particular contribution of ... any ... science to the development of human thought, then we must be a good deal more precise about the matrix from which it was emerging, about the pre-existing conditions and the nature of 'pre-scientific thought'. Thus the attempt to gain precision leads us inevitably into an examination of the ways of thinking of earlier times and of other cultures, as well as of the manner in which these ways of thinking were related to particular modes of communication ...*[161]

3.0. Aim, method and organization

Aim

The aim of this chapter is to analyze the Mesopotamian knowledge system represented by the Emar lexical texts as a product of technological conditioning. It may, in fact, be more convenient to introduce here the hyphenated expression 'techno-logical', to emphasize that the kind of technology relevant to this chapter is of a kind most accurately expressed by the *combination* of the two terms which constitute it, viz. *τέχνη*, 'craft', and *λογος*, 'word'. The technology relevant here is of the kind where techniques or 'tools' interact with knowledge, where the former shape the latter by imposing specific organizations and systems on transmission and communication. The question to be addressed here may be formulated as follows: 'to what degree and how is the Mesopotamian knowledge system found in the Emar lexical texts conditioned by the specific technology employed for its transmission?'. The proposed 'techno-logical' investigation of the Emar texts is meant to relate the *mode* of transmission, i.e. the specific techniques employed, to the *form* knowledge takes in these texts. Thus, knowledge content is investigated as a function of a given organizational and systemic framework. To be interpreted as 'technology' are some of the most fundamental characteristics of the lexical text corpus, viz. its persistent appearance in the form of lists and tables as well as its consistent methodology of spatially juxtaposing specific isolated elements.

It should be noted that the 'techno-logical' investigation intended here is of a primarily *synchronic* nature, i.e. it primarily aims at analyzing only the Emar text corpus in terms of a given theoretical model (discussed under 'method' below) and it mostly ignores the question of diachronic developments in the wider lexical tradition. Only occasionally will reference be made to the manner in which the earlier and later (respectively the OB and 1st Millennium) sources of the lexical tradition show deviations from the LBA Emar corpus. This restriction is due to the limitations of purpose and scope particular to the research project in which this investigation is carried out, rather than to the chosen theoretical model - which, in fact, attempts to explain differences between various knowledge systems in terms of technological developments over time. However, as it was felt that a diachronic application of the chosen theoretical model would also offer a promising avenue of research, this chapter will include a short paragraph with some lines questioning that may be relevant to future research.

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[160] The author wishes to express his gratitude to W.S. van Egmond for reviewing the first part of this chapter and for the suggestions he offered.

[161] J. Goody, *The Domestication of the Savage Mind* (Cambridge 1977) 50-1.

Method

This chapter seeks to offer, as do the other chapters of this *Theoretical Interpretation*, a specific theoretical perspective on the study object at hand, i.e. the lexical texts of Emar, and it aims to do so in terms of a single relevant key theory. The technological, or rather 'techno-logical', perspective offered in this chapter will be formulated in terms of the theoretical concepts developed by J. Goody in his 1977 work *The Domestication of the Savage Mind*. It should be noted that the theory presented in this work is firmly embedded within, and indeed intended to be a further contribution to, a long-standing theoretical debate in the social sciences concerning the 'Great Divide'. The dichotomy this involves represents the opposition of 'us' ('modern' western society) and 'them' ('traditional' societies elsewhere in time and/or space), extended into the sphere of sociological, anthropologic and philosophic theory. This opposition utilizes various conceptual contrasts such as 'science' vs. 'magic', 'logico-empirical' vs. 'mythopoeic' thought, 'abstract' vs. 'concrete' thought (the engineer vs. the *bricoleur*), 'history' vs. 'myth' and 'open' vs. 'closed' societies[162]. The 'Great Divide' debate has served as a testing ground for a long succession of scientific theories which aim at accounting for the observed differences in social as well as cultural phenomena between different societies. Among the issues it touches are those of technological evolution and cognitive development, issues central to Goody's work. The position of Goody's work in the wider 'Great Divide' debate can be understood as a reaction to C. Lévi-Strauss's 1962 work *La pensée sauvage*; the title of Goody's work is of course a direct reference to the title of Lévi-Strauss's work in its (perhaps somewhat inadequate[163]) English translation, *The Savage Mind*. Goody opposes Lévi-Strauss's theoretical constructs - in his view of a rather static and abstract nature - by proposing a processual and developmental approach to the 'Great Divide'[164]. It should be noted that the theoretical model developed in Lévi-Strauss' *La pensée sauvage* will be the topic of Chapter 4.

In *The Domestication of the Savage Mind* Goody analyzes the relation between communication technology and cognitive development ('modes of thought') as resulting in different 'technologies of the intellect'[165], emphasizing the 'material concomitants' to the cognitive process of domestication, assuming these to be not merely manifestations (or products) of thought, but to constitute its determining features[166]. He does so on the basis of his (somewhat modified) earlier thesis, formulated in an article co-authored by

[162] Cf. Goody, *Domestication*, 146 ff.
[163] *La pensée sauvage* could be rendered as *The Wild* (or *Untamed*) *Thought* (rather than *The Savage Mind*) but is also the name of the little flower *Viola Tricolor* (shown on the cover of the original edition of Lévi-Strauss' book).
[164] The respective positions taken by Lévi-Strauss and Goody in the 'Great Divide' debate may actually be interpreted as a continuation of the opposing concepts of continental Rationalism (Descartes) and Anglo-Saxon Empiricism (Hobbes, Locke) found in 17th C social philosophy.
[165] *... differences in the means of communication are of sufficient importance to warrant an exploration of their implications for developments in human thought; and, in particular, to see whether they can give us a better account of observed differences than the dichotomies we have earlier rejected.* - Goody, *Domestication*, 10.
[166] Ibidem, 9.

I.P. Watt[167], which proposed that modern western logic, understood as an instrument of analytic procedures, is a function of writing as writing allowed the manipulation of 'captured' speech and the development of syllogistic forms of reasoning[168]. After the invention of writing important further transformations in the 'technology of the intellect' are to be attributed to other technological developments such as the introduction of alphabetic writing and that of the printed word. By introducing more specific criteria for the 'Great Divide' categories and by attributing many oppositions found in the 'Great Divide' debate to specific 'technologies of the intellect', related to developments in communication technology, Goody in fact criticizes the 'Great Divide' concept itself: in his view it neglects specific historical factors and contexts, 'including intellectual tradition, institutional setting and mode of communication'[169] and implies simplistic value judgments[170]. Goody explains the neglect of technological factors in social scientific theory as a result of its bias in favor of 'social facts' and of 'superstructure' (emphasized by respectively Durkheim and Weber, the founders of classical sociology, and underpinning the status of their investigative endeavor as a distinct scientific discipline)[171].

As noted in the Introduction, Goody's 'technological' approach to literacy has attracted strong criticism from some quarters in the social sciences. It was also noted that it is not the purpose of this study to either prove or disprove any specific theoretical theory: this study merely uses certain models as tools in a series of theoretical experiments. It was therefore generally considered unnecessary to expand this study with a discussion of the social scientific debates sparked by any of these models. In Goody's case, however, the amount and intensity of criticism seemed to warrant an exception. Thus, a relevant excursus, consisting of a commentary on the most comprehensive critical review of Goody, viz. B.V. Street, *Literacy in Theory and Practice* (Cambridge a.o. 1984), can be found appended to Chapter 1. The reader is invited to consult the appropriate section of that chapter for references to Goody's own responses to his critics.

There are a number of reasons that make the application of Goody's model particularly appropriate for inclusion in this *Theoretical Interpretation*. First, it is intended as an empirical instead of an abstract theoretical approach which offers a number of tangible notions (such as that of the list, table, formula, recipe and prescription) that may be operationalized in a concrete manner. Second, it allows the differences between Ancient Mesopotamian scholarship and modern western science to be approached without either the *etic* categorization dominating 'Great Divide' theories or the dogmatic rejection of differences in cognitive structures and processes dominant in the opposing cultural relativist position[172]. Third, Goody's model itself includes an investigation of the Ancient Mesopotamian scholarship, focusing on its appearance as *Listenwissenschaft* and

[167] J. Goody and I.P. Watt, 'The consequences of literacy', *Comparative Studies in History and Society* 5 (1963) 304-45.
[168] Goody, *Domestication*, 11.
[169] Ibidem, 4.
[170] *Such movement* (i.e. between the terms of the 'Great Divide') *inevitably tends to be phrased not only in terms of process but of progress too ...* - Ibidem, 3.
[171] Ibidem, 10-1.
[172] Cf. Goody, *Domestication*, 36.

including an analysis of its lexical lists. This specialist investigation, practically unique in the field of social scientific theory, could by itself be considered sufficient reason for including Goody's theory in this *Theoretical Interpretation*, especially in view of the fact that Goody's theory has received until now only a marginal response in Assyriological literature[173].

To operationalize Goody's theoretical model a number of Goody's key notions will be projected on the text corpus under investigation and it will be determined to what extent they are applicable and valid. This projection will, it is hoped, shed more light on the question of what kind of knowledge system - as compared to the modern western knowledge system - is represented by the Ancient Mesopotamian lexical lists. It may help to determine more precisely the nature of what has frequently been termed the Ancient Mesopotamian *Listenwissenschaft*.

Organization

The first paragraph (3.1.) will investigate a number of Goody's key notions - each of the sub-paragraphs starts with an outline of the theoretical implication of one such notion and continues with its application to the Emar lexical corpus. The second paragraph (3.2.) offers a short overview of issues relevant to the diachronic application of Goody's model that was otherwise ignored in this primarily synchronically directed investigation. This overview takes the form of a shortlist of research questions and a few relevant comments. The chapter closes with a short summary (paragraph 3.3.), listing its main findings.

3.1. Key notions applied

3.1.1. Generative transmission

In his discussion of intellectual activity and the position of individual intellectuals in oral (or 'pre-literate') respectively literate traditions, Goody develops the notion of *generative transmission* as characteristic of the former. In his view, communication and transmission of knowledge in an oral tradition is characterized by *... its capacity to swallow up the individual achievement and to incorporate it in a body of transmitted custom ...*[174]. The anonymous incorporation or rejection of individual achievement in the transmission process profoundly affects the nature of intellectual creativity in oral tradition. First, it means that there is a permanent, intricate relation between individual creation and collective culture. This relation is decisive with regard to any innovation and variation (i.e. the interaction between individual and society determines which elements can be added and dropped) in cultural products such as poems, ballads, myths etc.[175]. Second, it means that such cultural products inevitably lack permanent form and content: creativity and transmission are inextricably linked as composition and performance take place

[173] Cf. Veldhuis, *Elementary Education*, 7-8.
[174] Goody, *Domestication*, 27.
[175] Goody illustrates this process by discussing the variations found in the Bagre myth of the LoDagaa in Ghana - Ibidem, 28-9.

simultaneously[176]. According to Goody, this impermanence applies even to the 'magic' and 'religious' spheres, where ritual, belief and cosmology are often assumed to represent the most static fixtures of any society - even if the 'turn-over rate' in those spheres may be much lower[177]. In the transmission of cultural products within oral tradition there is generally ample scope for pragmatic adjustments to individual creativity and/or contextual developments. Thus, central features of generative transmission are (1) its anonymous authorship, (2) its amalgamation of creativity and transmission, (3) the lack of permanence of its objects and its (4) pragmatic dynamism.

It is now to be considered how Goody's concept of generative transmission, serving to explain the particularities of intellectual endeavor in oral traditions, can be applied in the analysis of the study object under consideration, viz. the Emar lexical texts, which are known only in their literate form. It is here proposed that what is important in this respect is the extent to which the features of generative transmission are applicable to the study object. This implies that whenever the features of generative transmission are found to be applicable to a written text, this text may be assumed to have been the product of an environment where literacy occurred side by side with a significant oral tradition. Assuming, for now, that generative transmission is a phenomenon uniquely particular to oral traditions (an issue to be discussed later on) it could, in fact, be argued that whenever the features of generative transmission are found to apply to a written text, such a text may be assumed to have been produced in an environment where the oral tradition was *dominant*. In that case the written text in question could, in effect, be considered as merely constituting a written reflection of an oral tradition. Before addressing the question of whether or not generative transmission is uniquely particular to oral traditions, it should now be investigated to what extent its four main features are to be found in the Emar lexical texts.

Anonymous authorship[178]

Concerning the feature of anonymous authorship, it should be noted that the large majority of the Emar lexical texts may be assumed to have had named authors. The findings of the structural analysis given in Part 3 (13.2.) suggest that all Type I tablets, which constitute the bulk of the preserved material, originally had a colophon, which has a standardized form that includes the name of the author. Only the Type III tablets, short single-column exercise tablets, systematically omit colophons. Strictly speaking, this state of affairs suggests that only the Type III tablets could be considered as the product of generative transmission. It is certainly conceivable that the Type III tablets in fact

[176] Ibidem, 26-7.
[177] Ibidem, 29-30.
[178] The use of the words 'author' and 'authorship' tends to be considered problematic in literary theory, where a distinction may be made between 'authors' and 'writers'. One definition of the word 'author' that addresses this problematic status is that of 'a person who originates or gives existence to anything' - 'the "anything" most usually associated with written work'. In terms of this definition 'authorship' may be described as what 'determines responsibility for what is created' (cf. 'Author', Wikipedia, *The Free Encyclopedia* (9 December 2008). Retrieved 27 February 2009 from: http://en.wikipedia.org/wiki/Author). It should be noted that this issue is, in effect, exactly what is addressed in Goody's discussion of 'anonymous authorship' – here, therefore, his terminology is maintained.

reflect short texts dictated by teachers and written down by pupils. In this respect it may be significant to note that a significant proportion of preserved Type III tablets (three out of twelve identified with certainty, cf. Part 3 Table 16) focuses on special *phonetic* exercises. Strictly taking the criterion of anonymous authorship as indicative of generative transmission and oral tradition, it seems clear that only the very early stages of scribal training has a significant oral component (as reflected in for example stage one of the curricular order within Hh described in Part 3 Table 12). For several reasons, however, it may be argued that the question of anonymous authorship must be approached more subtly.

First, it should be noted that the colophons are the *only* indicators of authorship - nowhere else are there any other references specifying the name, the person or the personal contribution of the author. Throughout the texts themselves there are no references to any authors, neither as sources, nor as attributions, nor as indications of any form of personal authority. No personal opinions or observations are ever mentioned - the first person form (I, my or me) is, in fact, totally absent. Second, there is the form of the colophon to consider. In many colophons the first statement serves to indicate completion and control rather than authorship. E.g. SagB T1 (Part 3 Table 26 Colophon 23) first gives the statement (28) AL.TIL IGI.KÁRA (29) ŠU.NÍĜIN 3 *me-tì* 52 (30) MU.BI.IM 'It has been completed (and) checked: (in) total 352 (are) its lines.' and only then the name of the author is given. In five of the eighteen colophons where the relevant sections are preserved such indicators are found and in three more of these, such indicators are absent in the colophon itself but given *before* the colophon as the last line of the text (cf. Part 3 Table 26)[179]. There are two aspects to this phenomenon: (a) it suggests that the preceding text was clearly *not* primarily considered as an individual *creation* but mainly as an individual *copy* of a standard model and (b) it suggests that the name of the author was included solely for the purposes of control in an educational context. Third, the colophons bear witness to a scrupulous deference of the ancient scribes to the gods, which were recognized as the ultimate source of the knowledge in general and as the indispensable patrons of the scribal craft. Earlier, it has been argued that the scribal art was, in fact, basically conceived of as an attempt to preserve and reproduce the body of knowledge of ultimately divine origins (cf. 2.1.4.2.). Thus, Ancient Mesopotamian scholarship could be considered as a *custodial* rather than creative occupation.

On balance, it may be argued that although in cuneiform scholarship authorship was not strictly speaking anonymous, this scholarship was of a thoroughly *impersonal* nature. In view of the preceding arguments it may be argued that the Ancient Mesopotamian scholars were primarily copyists rather than authors. Any form of creative authorship in Ancient Mesopotamian may be considered as having had a very limited scope and merely marginal significance.

[179] In addition it may be noted that it is conceivable that the very frequent end-of-text-unit markers themselves represent a 'cryptic' rendering of the phrase 'completed and checked', cf. Part 3 n.147).

Amalgamation of creativity and transmission

Concerning the feature of amalgamation of creativity and transmission, it is proposed that its most convenient measure is the extent to which creativity and transmission empirically *coincide*. In oral tradition, Goody argues, creativity and transmission are inseparable. He illustrates this point by stressing that during his fieldwork in the oral society of the LoDagaa in Ghana, he found that even its most institutionalized and standardized cultural product, the Bagre myth, is subject to significant variation and innovation as it is recited by different individuals and as it is passed on in time[180]. In deciding whether a similar amalgamation of creativity and transmission can be found in the Emar lexical texts, it is therefore important to determine the degree of variation and innovation found within and relative to that text corpus. Especially variation and innovation within that text corpus, which derives almost entirely from a single and synchronically unified archive (i.e. it spans a relatively short period of time), is important in this regard. Without extensively giving examples, many of which may be found by even the most cursory reading of the text edition (Part 1 allows a comparison of all individual text witnesses), it can be said that generally the Emar lexical text corpus does indeed show considerable internal variation and innovation. The non-conformity of the texts to any precise standard, either synchronically or diachronically, in fact presents a considerable obstacle in reconstructing and editing these texts - an issue extensively discussed in the Introduction to Parts 1-2 in the paragraph *Method - application of external and internal models*.

A single example must suffice to illustrate the point made here: in Hh1 the complete series of entries listed as EST 1016-20 (giving compounds with the key-signs ŠU and ZID) is only found in one single text witness (T3) - it is omitted in the others (T1 and T2). As all three text witnesses have different authors (T1 Ba^{c}al-belu, T2 Ishmah-Dagan, T3 Ba^{c}al-malik), this difference is clearly a matter of variation by an individual author (in this case by Ba^{c}al-malik). As a matter of fact, the difference may be explained by the fact that the author who included the extra entry series was a more advanced scholar: unlike him, the other two are both specified as mere Ì.ZU TUR.TUR 'junior diviner' and he was the son of the diviner, whereas the other two were mere servants bought by the family[181]. This does not mean, however, that the text variation in question is merely to be seen as resulting from an omission or mistake by less advanced students: the fact that the texts of both 'juniors' show the exact same omission may suggest that they in fact followed the same oral dictation (which would be confirmed by other precisely identical sequences in both T1 and T2, such as EST 1148a-e, which counts 'a third, a fourth, a fifth, a sixth, a tenth', omitting the divisions by seven, eight and nine, a sequence not found in the canonical version). Moreover, a comparison of section EST 1016-20 found in T1-2 and

[180] *During the recital itself, new elements are being introduced all the time ... something new gets incorporated all the time, just as something old gets dropped. We have here a process of composition that ... gives rise to a great number, indeed, an infinite number of variants. ... each reciter is an author, though some are more creative than others.* - Goody, *Domestication*, 29.

[181] Cf. Part 3 Table 29 and n. 165-6 with references. Also cf. Y. Cohen, 'Change and Innovation in the Administration and Scribal Practices at Emar during the Hitite Dominion', *TA* 32 (2005) 192-203 and Y. Cohen and I. Singer, 'A Late Synchronism between Ugarit and Emar' in: Y. Amit, E. Ben Zvi, I. Finkelstein and O. Lipschits (eds.), *Essays in Ancient Israel and Its Near Eastern Context. A Tribute to Nadav Na'aman* (Winona Lake 2006) 123-39.

T3 with its equivalent in the canonical version regarding both entry inventory and sequence suggests that, at least until its 1st Millennium 'canonization', there was no single, 'correct' standard version. Such a comparison, in fact, suggests that the T3 version of the relevant text section, authored by the more advanced scholar Ba^{c}al-malik, itself represents a variation or deviation of the more common version, because the last two of his entries, EST 1019-20 ŠU.ZID and ZID KAR.RA, are found neither in the other Emar material nor in the later canonical version. Such entries may represent innovations, but probably this kind of innovation was appropriate and even encouraged within the scholarly tradition: EST 1019 ads another ŠU compound to the ŠU-section starting in EST 1012 and EST 1020 continues the ZID theme taken up in EST 1019 - procedures which simply apply and extend the key-sign and key-word principles around which Hh 1-2, as well as many other lexical series, are built (cf. Part 3 4.3.).

The discussion of this sample variation illustrates that the Emar lexical corpus shows the kind of amalgamation of creativity and transmission that is characteristic of Goody's generative transmission. Within the Ancient Mesopotamian scholarly tradition the transmission of each series that is recognized as a distinct composition in modern science was in fact matched, in varying degrees, by a slowly accumulating series of innovations contributed by a long line of individual scholars. Over time, the accumulated effect caused some series to become transformed almost to the point of being unrecognizable (cf. Part 3 14.11.). This slow transformation may be considered as a *slow-motion version* of the generative transmission process that Goody described for oral traditions. The Assyriological concept of a 'stream of tradition' in which literary compositions are slowly formed and transformed may be interpreted as the literary deposit of this slow-motion generative transmission. At this point it is important to note that it is generally supposed that in the 1st Millennium the form and content of the various series finally became 'frozen' in what has been called a process of 'canonization'. It could be argued that what actually took place was a further slowing down in the process of generative transmission, almost to the point of standstill.

The most obvious explanation for such a development is that generative transmission is not so much a process unique to oral tradition as much as a reflection of the kind of 'technologies' employed for the communication of knowledge in a given culture. Some of these technologies, such as a purely oral medium, encourage a fast turn-over rate (i.e. a high intensity of variation, innovation and transformation), whereas others, such as a purely written medium, slow it down. At the extreme ends of this *technological spectrum* is found on the one hand the pure oral tradition, which impedes textual stability to the degree that the stability and recognizability of its cultural products across any significant duration of time is highly problematic, and on the other the pure written tradition, which can bring the development of any specific, independently recognizable text to a virtual standstill. At these extreme ends are found on the one hand the fairy tale and the nursery rhyme and on the other the sacred books of religion. Perhaps the complete disintegration of generative transmission is found at neither end of the spectrum. On the one hand it seems reasonable to assume that there are rules governing the transformations in the kind of generative transmission found in oral tradition which, up to a certain point, allow the reconstruction of the basic fabric of myths and other thought constructs (as is the premise

of structuralist social theory). On the other hand it seems equally reasonable to suspect that no literate tradition can indefinitely avoid the developmental process of generative transmission, even if only because of those occasional catastrophes found throughout history which can wipe out the very skills of literacy in a society.

Lack of permanence of cultural constructs

Concerning the feature of the lack of permanence of cultural constructs in generative transmission, it may be argued that this feature is a function of the degree of oral vs. literate 'technology' found in a given culture. In the preceding discussion of the amalgamation of creativity and transmission it was argued that the employment of specific techniques, oral and/or literate, determine the place of any given tradition has in the technological spectrum, ranging from high susceptibility to various transformation processes to virtual immunity to any form of change. Thus, the permanence of cultural constructs in general and of compendia of scholarly knowledge, such as the Ancient Mesopotamian lexical compositions in particular, may be seen as dependent on the degree to which literate 'technology' dominates their transmission. In view of the fact that on the one hand the lexical series remain largely recognizable, but that on the other hand their content and form show a considerable degree of flexibility in the synchronic as well as diachronic dimension, it can be argued that the place of the Emar lexical tradition on the proposed technological scale is somewhere in the middle, but inclining somewhat to the side of literate technology. Based on the evidence of an - admittedly superficial - analysis of the earlier and later stages of the Ancient Mesopotamian lexical tradition in this study (cf. Part 3 14.11.), it may be argued that for that tradition as a whole the position on the technological scale actually shifted over time. As it moves from the LBA period into the 1st Millennium, it appears to shift from the middle position, where oral and written technologies are still employed simultaneously and interactively, towards the side of literate technology. That shift seems to near completion with the 1st Millennium 'canonization' of the lexical series. Given the fact that for this 'canonical' version modern science works still resorts to 'composite editions', which tend to 'smooth over' variations and innovations, and given the fact that its reconstruction of the lexical record for the 1st Millennium is still far from complete, the question may be asked to what degree this 'canonization' actually resulted in complete textual stability. The evaluation of possible developments for the Ancient Mesopotamian lexical tradition as whole in this regard will be possible only after further research.

Pragmatic dynamism

Concerning the feature of the pragmatic dynamism of generative transmission its presence in the Emar lexical corpus may be shown in two ways. First, it is synchronically evident in the significance of the *integrative methodology* in the formal-organizational structure in key series (cf. Part 3 11.4.). This integrative methodology is characterized by a premium on interpretative improvisation and on innovation regarding problems of classification (a detailed treatment of this phenomenon is found in Part 3 2.1.2.1. and 2.1.3.), leading to concrete transformations in texts such as additions and interpolations (many examples may be found in Part 3. 2.1.3.). Second, pragmatic dynamism is

diachronically evident in the *historic development* of many compositions (cf. Part 3 Chapter 14). These developments may be viewed as *systematizations* resulting from pragmatic reinterpretations of the texts involved. Important examples of such systematizations are the progressive thematic and acrographic reinterpretations of respectively Lu and Izi. As regarding the feature of lack of permanence of cultural constructs raised in the preceding subparagraph, the question remains whether pragmatic dynamism decreased with the assumed 1st Millennium 'canonization' of the lexical texts.

Concluding remarks

On balance, it may be said that all features distinguished by Goody for generative transmission do apply to the Emar lexical texts at least to some degree. It should be reiterated that, even when a significant oral dimension is assumed for the LBA stage of the lexical tradition, this means that generative transmission is not a phenomenon unique to an exclusively oral context but rather that it constitutes a universal process affecting any given cultural product in proportion to the kind of communication 'technology' employed. The most distinctly different categories of communication 'technology' that affect generative transmission undoubtedly are the oral and literate modes, but, as pointed out by Goody, other categories (the logographic vs. the alphabetic mode, the manuscript vs. the printed mode etc.) may also be assumed to be relevant. On the basis of the features distinguished by Goody for generative transmission it may be argued that the Emar lexical texts show a mixed use of oral and literate technologies. The degree to which some of the concrete literate techniques discussed by Goody (his 'figures of the written word') are evident in the Emar lexical texts will be discussed in 3.1.5. below.

The final remark to be made here regarding the issue of generative transmission concerns the apparent analytic relation between one of the features of generative transmission and its intensity. It appears that *anonymous authorship* and generative transmission relate to each other in a manner of *proportionality*: the higher the degree of anonymity, the higher, or faster, its intensity. In exclusively oral traditions anonymity is virtually total across any longer period of time and simultaneously the intensity of generative transmission is very high, resulting in very rapid and very profound transformations in its cultural products[182]. In strongly literate traditions the situation seems to be reversed: author anonymity is virtually eliminated, and the speed of generative transmission of any given cultural product (e.g. a given work of art or a given scientific work) has slowed-down to the point of arrest.

In a strongly literate context, such as 21st C science, *individual* intellectual achievement is very much emphasized, even to the point that many *ideas* are referred to as 'authored' and even 'owned' (e.g. 'Darwinist' theory, 'Marxist' theory, the 'Safir-Whorf' thesis). Knowledge is conceived of as originating in individual authors who are supposed to have 'produced' it, possessing exclusive 'ownership' rights to it (e.g. patents and copyrights). Such labeling may in fact be challenged and is, in fact, possible only by ignoring the historic dimension of knowledge: most if not all scientific discoveries are in fact visions

[182] A discussion and appropriate illustration of such transformations may be found in Lévi-Strauss, *Pensée*, 90-2.

which only became possible on top of the accumulation of many generations of earlier work and most if not all scientific theories are merely reformulated and re-assembled conglomerates of knowledge deposited throughout earlier ages. 'Individual achievement', it could be argued, is in fact merely the mastery and continuation of the 'collective' work preceding it, often throughout long ages. From this perspective, any 'individual achievement', however distinguished in the eyes of contemporary experience, is irrelevant compared to the general human achievement of knowledge itself. With this in mind it is clear that the modern concept of 'authored' science is diametrically opposed to any traditional vision of knowledge, where the scholar is merely its vessel and where his individuality or name is of little consequence. It should, in parenthesis, be noted that in the strongly literate context of the contemporary western world the emphasis on individual achievement could well be more pronounced in the sciences than in other fields of intellectual endeavor, such as literature, where the (thematic, structural) ties with earlier creations are likely to be stronger. However, any assessment of the principle of generative transmission for such other fields, and especially the arts, falls outside the scope of this study.

The counterpart to the individual authorship found in a strongly literate context such as modern science is the extreme slow-down in generative transmission. In such a context there are relatively few generatively transmitted, collectively-owned works and there are few cultural products that constitute works-in-progress worked on by consecutive generations of scholars. Instead, knowledge is increasingly individualized, atomized and 'frozen' in individually authored records that are intended as 'final products' and meant to 'conclude' some scientific issue or other. In such an environment there is bound to occur an exponential drive towards specialization, in which individual scholars attempt to fence off ever-narrowing fields of expertise, frequently limiting themselves to the point of absurdity and irrelevance. The few remaining works that still have a wider scope, such as some dictionaries and encyclopedias, are the only ones that still preserve some features of generative transmission. Such works may still be regularly re-edited and updated and - even if all contributions to them are individually authored - the result is larger than the sum of these individual contributions. Such works may still see multiple individual scholars working as a collective and the works themselves may continue across multiple generations[183]. Such works may be said to still bear some resemblance to the products of Ancient Mesopotamian scholarship, which, with its much more intense generative

[183] One way of arguing in favor of the continued relevance of the principle of generative transmission in the context of modern science is by viewing the modern scientific emphasis on individual achievement as principally a function of its tendency to ever-increasing specialization. Many of the atomized individual contributions could be seen as simply opening up new (sub)fields of specialization and they could still be considered as accumulatively, synchronically constituting a single body of knowledge, subject to diachronic generative transmission with each new generation of scholars. The principle of generative transmission could then be recognized only in the sum of the individual works produced, rather than in any single, shared and continuous scholarly creation. In such an approach, the difference between 'modern' generative transmission and its earlier, 'traditional' form is most importantly that the former generally lacks the explicitly shared creations which lend (or impose on) the latter its coherence and coordination. The increase in specialization furthermore decreases the level of mastery that any single scholar may wield in any single discipline of wider scope. Thus, the 'modern' form of generative transmission basically precludes its recognition at all but the most abstract (epistemological) macro-level, effectively rendering it irrelevant in relation to intent and experience at the level of the individual scholar.

transmission, occupies the middle ground between the anonymous, dynamic products of exclusively oral traditions and the individually-authored, static output of modern, 'super-literate' knowledge systems.

3.1.2. Functional cognitive system

In his discussion of the relation between literacy and the growth of knowledge Goody presents two main theses. The first is of a general nature and proposes that changes in the modes of communication affect the development of cognitive structures and processes by influencing the storage, analysis and creation of knowledge. The second is more specific and proposes that alphabetic writing allowed the development of modern western science by increasing the scope for critical scrutiny of general and by increasing the potentiality for knowledge accumulation. According to the first thesis different modes of communication result in different *functional cognitive system*s - together these differences account for much of the differences between cultures. According to the second thesis modern western science is an example of one such a functional cognitive system, ultimately made possible by alphabetic writing (and shaped by later developments in communication technology such as printing) [184].

Now it is to be considered how to apply Goody's concept of the functional cognitive system to the study object under consideration, viz. the Emar lexical texts. The question to be addressed here is what *kind* of functional cognitive system is reflected by these texts. Following Goody's first general thesis, the answer to this question is to be sought in the mode of communication technology that underpins the functional cognitive system. In order to profit from the theoretical considerations found in Goody's work the approach to be followed here is to investigate the differences between the communication technology on which Goody's analysis focuses, viz. alphabetic writing, and that found in the Emar lexical text corpus, viz. logographic writing. Goody's offers a series of reflections on certain earlier theories, commenting on them from his 'technological' perspective - among these is R. Horton's.

Open and closed systems

R. Horton postulated a closed-open system dichotomy, in which closed systems are characterized by the absence of alternatives and anxiety about threats to the system[185], a dichotomy that basically runs parallel to the traditional-modern dichotomy found elsewhere in the Great Divide debate. Goody offers a systematic reconsideration of the criteria Horton gives for this dichotomy by reviewing them in terms of differences in communications technology[186]. Here the most important of Horton's criteria and Goody's reviews of them will be looked at more closely: they will be considered with Mesopotamian logographic 'technology' instead of Goody's western alphabetic 'technology' in mind.

[184] Goody, *Domestication*, 36.
[185] R. Horton, 'African traditional thought and Western science', *Africa* 37 (1967) 50-71 and 155-87.
[186] Goody, *Domestication*, 41-6.

Magic vs. science

First, there is Horton's criterion of the magical (closed system) vs. the scientific (open system) attitude to words: the magical attitude depends on a unity of the word with ideas and with reality, whereas in the scientific attitude words, ideas and reality are conceived of as independent registers. Goody argues that in as far as 'word magic' is replaced by the scientific attitude, which in his view effectively replaces it by 'print magic', this is actually an effect of the *objectification of words in writing*: *... words assume a different relationship to action and to object when they are on paper than when they are spoken. They are no longer bound up directly with 'reality'; the written word becomes a separate 'thing', abstracted to some extent from the flow of speech, shedding its close entailment with action, with power over matter*[187].

Looking at this matter with cuneiform writing in mind, it may be proposed that Goody's argument applies specifically to *alphabetic* writing rather than to writing as such. In many logographic writing systems, such as the cuneiform system found in the Emar texts, the relationship between word and reality is determined at least in part pictographically. In the Emar lexical corpus plenty of evidence of such relations is found in the 'pictographic' readings of logograms (e.g. SaV PST 117-8 AZ and UG read as *asu* 'bear' and *lābu* 'lion') or in the 'pictographic' interpretations contained in sign-names (e.g. SaV PST 057 DÙL = šag gu-nu-u 'shaded head'). Such relations mean that, even if there is an undeniable break between word and *speech*, there is no complete break between word and *idea* - or between word and *reality*. Certainly the separate 'thing' that the word has become in logographic writing is of profoundly different nature than that in alphabetic writing - a 'thing' with nothing approaching the abstraction level of the alphabetically spelled word. In this sense it may be said that a certain capacity for 'word magic' is inevitably inherent in logographic writing, a capacity that may indeed be said to have been fully exploited in the lexical lists of the Ancient Mesopotamian scholars. It may therefore be argued that while Goody's arguments may hold true for alphabetic writing, they are not necessarily valid for logographic writing. In fact, when Horton's concept of a 'magical' attitude to words is applied to cuneiform scholarship, it is not inconceivable that it accounts for (some of) those aspects of classification which elude modern research.

Occasion- vs. idea-bound ideas

Second, there is Horton's criterion of occasion-bound (closed system) vs. idea-bound (open system) ideas, only the latter of which permit de-contextualized or abstract formulations. Goody attributes this difference, again, to the effect of the objectification of words in writing. Considering this matter with cuneiform writing in mind it would seem that, again, Goody's argument is applicable to alphabetic writing rather than to writing as such. If, as proposed in discussion of magic and science above, logographic writing avoids the break between word and idea, or the break between word and reality, that characterizes alphabetic writing, it seems reasonable to assume that any scholarly endeavor based on logographic writing will tend to direct itself towards the ideas and realities that are visibly contained in, or contextually associated with the logograms that

[187] Ibidem, 46.

provide its medium. Such a tendency to investigate 'occasion-bound' ideas indeed characterizes the kind of scholarship found in the Mesopotamian lexical tradition, with its strong emphasis on analyzing tangible contextual (visible, audible) associations.

An example of the effects of this type of contextual-associative scholarship may be found in the vertical organization of the SaV sequence PST 055-8, giving a list of basic, simple (non-compounded) logograms. Entry 055 KA is based on the pictogram of a face. Among its multiple readings are the graphically visible references KAG *pû* 'mouth', ZÚ *šinnu* 'tooth' and KÌRI *appu* 'nose' but also the graphically invisible references INIM *awātu* 'word', DUG_4 *qabû* 'to speak' and GÙ *rigmu* 'noise'. The readings collected around KA are clearly not selected either solely on the basis of the graphic visibility or solely on the basis of the close thematic unity of the referents. Entry 055 KA is followed by 056 SAG, based on the pictogram of a head. Again, its readings include graphically visible references, such as *rēšu* 'head' and *pūtu* 'stern', as well as to graphically invisible references, such as *awīlu* 'man' and even *kiššatu* 'world', the latter possibly a meaning conceived due to the traditional position of Kish as the 'head' of the early Sumerian league of cities. A thematic association may be read in the sequence of KA-SAG as both entries refer to closely linked body parts, the next entry, however, does not continue this theme. Instead, 057 DÙL follows 056 SAG based on graphic rather than thematic association (DÙL is SAG with an added graphic element). In turn, the next entry, 058 DU, interrupts the graphic association linking KA, SAG and DÙL: DU does not have a graphic link to the preceding sequence. Instead, the most obvious association between DÙL and DU is phonetic - less obvious is the semantic contrast between the readings DÙL=KÚŠ pars-pro-toto for KÚŠ.Ù *anāhu* 'to tire' and DU=ĜEN *alāku* 'to go'. From this example it is clear to what extent SaV lacks a single unifying organizational principle - no single abstract concept guides its sequence. Rather, the associations found in SaV are of various kinds and determined, as far as they are reconstructable, by the direct context.

What dominates Ancient Mesopotamian lexical scholarship is its concern with the constructive principles of the writing system itself - these tend to shape the classification of knowledge in general. These principles rely on a contextual interpretation of signs (by means of the pictographic and rebus principles) and are distinctly occasion-bound: they are bound to the imaging of specific visual referents (viz. the original pictograms) as well as to the reflection of specific acoustic referents (viz. Sumerian phonemes and morphemes). As any concept expressed in cuneiform writing is necessarily simultaneously interpretable within the limited framework provided by these referents, Mesopotamian lexical scholarship may well be described as having a natural tendency to structure itself a self-contained or closed knowledge system. It is reasonable to expect such closure to be reinforced by the phenomenon of 'conditioning' postulated for many knowledge systems. Goody described the 'conditioning' postulated for 'normal science' by T. Kuhn as follows: *... (such normal) science, proceeds to work within one paradigm* by solving the puzzles offered by it. The very boundaries of a paradigm are a condition of growth of a subject, a development from a pre-paradigmatic stage since, by limiting the scope of enquiry, they create specialist areas of concentration*[188]. In the case of

[188] Ibidem, 48, in reference to T. Kuhn, *The Structure of Scientific Revolutions* (Chicago 1962) - Goody also discusses the criticism to Kuhn and the subsequent adjustments he made to his theory.

cuneiform scholarship such 'conditioning' may have been especially pronounced in view of the sheer effort of learning the writing system, with all its nuances of graphic, phonetic and semantic association, learning which includes mastering the many interpretations accumulated around it throughout earlier generations of scholarship.

An illustration of the closed nature of Mesopotamian lexical scholarship is found in the particularities of the thematic lists, which are the only ones to show any classificatory principle other than those to be derived from the particularities of the writing system itself (the other 'sign-lists' all serve to teach either associative techniques or specific graphemic principles, e.g. a special category of compounds in Diri). Although the thematic lists treat categories ('themes') which may be considered to contain an abstract conceptual aspect (e.g. the 'wood' section of Hh, which includes trees as well as music instruments), they in fact show a considerable organizational similarity to the sign-lists: these thematic lists too are structured by graphemic devices, such as determinatives, key-signs and key-words.

The fact that the cuneiform writing system may be said to favor context- or occasion-bound ideas in the lexical lists has two implications with regard to Goody's stance concerning Horton's concept occasion- vs. idea-bound ideas. On the one hand, it suggests that Goody's attribution of the difference between these kinds of ideas to the technology of *writing* should be modified to the more specific technology of *alphabetic writing*. On the other hand, it reinforces Goody's more general main thesis which proposes that changes in the mode of communication affect the development of cognitive structures and processes. The specific mode of communication under consideration here, viz. the logographic writing utilized in cuneiform scholarship, was found to affect - indeed shape - knowledge in a very specific way in its lexical product.

Unreflective vs. reflective thinking

Third, there is Horton's criterion of unreflective- (closed system) vs. reflective (open system) thinking, of which only the latter permit the development of logic (rules of thought), epistemology (grounds for thought) and philosophy. A usable definition of reflective thinking relevant to this criterion may be found in M.W. Wartofsky's description of rationality quoted by Goody: ... *(rational practice) entails ... the self-conscious or reflective use of concepts, i.e. the critical attitude towards scientific practice and thought, which constitutes not simply scientific knowledge alone (which is its necessary precondition), but the* self-knowledge *of science, the critical examination of its own conceptual foundations*[189]. Goody rejects Horton's unreflective-reflective distinction and instead attributes the development of logic, epistemology and philosophy to the development of specific techniques: he argues that *'(t)raditional' societies are marked not so much by the absence of reflective thinking as by the absence of the proper tools for constructive rumination*[190]. He suggests that the emergence of logic, epistemology and

[189] M.W. Wartofsky, 'Metaphysics as a Heuristic for Science' in: R.S. Cohen and M.W. Wartofsky (eds.), Boston Studies in the Philosophy of Science 3 Proceedings of the Boston Colloquium for the Philosophy of Science 1964/1966 (New York 1967) 123-72 there 151 apud Goody, 48.
[190] Goody, *Domestication*, 44.

philosophy as coherent, formalized constructs are linked to writing. In his view, the formalization of propositions in logic, epistemology and philosophy relies on the abstraction from the flow of speech and the formalized inspection of communication that become possible with the introduction of writing. Considering this matter with cuneiform writing in mind it may be asked if Goody's argument applies to logographic writing in the same way as it applies to alphabetic. In other words, does logographic writing provide the same kind of tool for reflective thinking as alphabetic writing?

Given the absence of anything resembling the logical, epistemological or philosophical categories and procedures of western thought in Ancient Mesopotamian scholarship, it seems that the answer must be negative. However, an alternative answer may be conceived of if it is argued that it depends on the definition of logic, epistemology and philosophy. If logic, epistemology and philosophy are interpreted strictly according to the formal definitions that have historically developed in western science, they are absent in Ancient Mesopotamian scholarship. A wider interpretation is, however, conceivable, e.g. on the basis of etymological considerations. Thus the term 'logic' derives from *λογική*, the adjective for the 'possession of reason, intellect and dialectic argumentation', derived from the noun *λόγος*, 'word; thought; idea; argument; account; reason; principle' - certainly the meanings of both the adjective and the noun are relevant in any description of the lexical lists. Similarly, the term 'epistemology' refers to the application of *λόγος*, 'word' or 'thought' to *επιστήμη*, 'knowledge', an application that can be expected to be made by certain specialists as long as a class of scholars exists that is in need of professional standards and of a reference framework for these standards. Such a class most certainly existed in Ancient Mesopotamia, as did explicit honorific terminology for its members (e.g. Lu 1039 ^{LÚ}GAL.ZU 'great knowing man', 1051 *ummānu* 'expert' and 1085 ^{LÚ}DUB.SAR MAH 'chief scribe') and as did explicit abstract terminology for scholarship (e.g. Lu 1091-2 speak of ÚMUN 'scholarship' and SUN_5 'authority' as attributes of scribes). Finally, the term 'philosophy', derived from *φιλοσοφία*, indicates the 'love of knowledge; of wisdom', which many monuments of Ancient Mesopotamian literature attest to as being held in high esteem among scholars. Thus, it can be argued that forms of logic, epistemology and philosophy in their wider sense certainly existed in Ancient Mesopotamia. When such wider interpretations are admitted, it may be said that, rather than lacking them, Ancient Mesopotamian scholarship has *other kinds* of logic, epistemology and philosophy. What is evident in the lexical tradition is its concern with very *different* issues, resulting in a very different classificatory logic, a very different grounding of knowledge and a very different definition of knowledge itself. One of the main concerns evident from the form and content of the lexical lists is the preservation and maintenance of the relation between word, idea and the empiric life world. This concern stems obviously from the medium of these lists, cuneiform writing, in which words, ideas and the empiric life world relate to each other in a manner very different from that found in alphabetic writing. Their relation in cuneiform writing could be somewhat simplistically summarized as 'the medium *makes* the message'[191]. In the study of lexical lists the question is not so much what messages were coded in writing but rather what messages are *created* from the elements of cuneiform writing themselves. In

[191] A variant of the expression that the 'medium is the message', found in the title of M. MacLuhan, *The Medium is the Message: an Inventory of Effects* (Corte Madera 2001).

this sense the 'message' of the lexical lists depends on the *creative* potential of the principles of cuneiform writing. The *integrative methodology*, which the lexical curriculum has been shown to teach (cf. Part 3 2.1.2.1. and 2.1.3.), in fact emphasized an actively *creative* study of these principles: lexical scholarship not merely sought to preserve and maintain knowledge concerning the creative potential of these principles - it sought to expand and explore it further.

Protective vs. destructive attitude to established theory

Fourth, there is Horton's criterion of the protective (closed system) vs. destructive (open system) attitude to established theory in general and to the category system in particular. The former attitude is said to block out any questioning of the particular paradigms established by a given knowledge system, whereas the latter is said to encourage such questioning, which can be viewed as the hallmark of 'scientific' thought. In Horton's analysis the mechanism crucial to the development of the destructive attitude is *essential skepticism* (or conceptual, explicit skepticism)[192]. Goody, however, argues that it is, in fact, not skepticism *as such* that distinguishes scientific thought, but rather the *accumulation* of skepticism, which becomes possible with writing. He illustrates this point by showing how a written text can be subjected to forms of critical analysis that are impractical with respect to oral discourse.

It should, in parenthesis, be noted that with regard to Horton's view that the regulation of the category systems in protective, closed traditions relies on taboos, Goody suggests that any categorical 'taboo' merely reflects a linguistic designation for a certain form of social behavior rather than a conceptual boundary - basically putting this notion aside[193].

It seems appropriate to clarify what's at stake in this debate by carefully reconsidering the concepts involved. It should be noted that Goody's thesis concerning *accumulation* of skepticism does not address the issue raised by Horton concerning skepticism *itself*. In fact, Goody's apparent assumption is that the occurrence of skepticism is universally found in all knowledge systems. This assumption, however, needs argumentation - argumentation different than that relevant to the relation between literacy and the accumulation (or intensification) of skepticism. Only if Goody's apparent assumption holds valid, and skepticism is indeed a universal feature of all knowledge systems, can a debate about its *accumulation* be conducted in a structured manner. Only then it can be asked whether the accumulation of skepticism applies to logographic systems, such as the Ancient Mesopotamian one, to the same extent as to alphabetic systems. Above all it is therefore important to determine whether skepticism is indeed a universal feature of all knowledge systems.

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[192] *The requirements for a community of criticism, presaging the scientific community, is central ... as a condition for rationality.* - M.W. Wartofsky, 'Metaphysics as a Heuristic for Science' in: R.S. Cohen and M.W. Wartofsky (eds.), Boston Studies in the Philosophy of Science 3 Proceedings of the Boston Colloquium for the Philosophy of Science 1964/1966 (New York 1967) 123-72 there 168 apud Goody, *Domestication*, 42.

[193] Goody, *Domestication*, 45ff.

Here two propositions will be made concerning this issue. (1) First, it is proposed that skepticism is *not* a universal feature of all knowledge systems. This proposition is arrived at by applying the most common scientific definition to the term 'skepticism', viz. its reference to a specific philosophical method of obtaining knowledge through systematic doubt and continual testing. As even in the western philosophical tradition there are alternative methods and schools, such a systematic practice of doubt or testing as a hermeneutic method can obviously not be assumed to be a universal feature found in all knowledge systems. Rather, here it is proposed that 'skepticism' is merely a *specific particularity found in a specific kind of knowledge system*, a view recognizable in Horton's scheme. (2) Second, it is proposed that the relation between literacy and skepticism is of an *indirect* nature. Literacy has been shown to slow down the process of generative transmission, a slow-down during which individual authorship increasingly replaces anonymous authorship (cf. 3.1.1.). It was said that individualized authorship resulted in a ever increasing multitude of static, atomized forms of knowledge, 'frozen' in isolated, individualized 'final products' of an increasingly specialized nature. If literacy can thus be said to produce a slowdown in generative transmission, with a concomitant increase in individualized authorship, then the rise of systematic skepticism may be interpreted as *a function of* individualized authorship. Skepticism results from the individualization of scholarship due to the inevitable friction between contradictory and mutually rejected interpretations and theories. Increasingly, interpretations and theories are authored and 'owned' by isolated individuals engaged in increasingly incoherent attempts at knowledge production. In fact, the application of the skeptical method may come to increasingly constitute an unavoidable *professional requisite* in the specific knowledge system that is modern science, shaping the product of individual authors. In as far as modern science is concerned with issues beyond those of mere material or social utility, the ultimate consequence of this kind of skepticism would be the *replacement of knowledge by opinion*. What Goody describes as the 'accumulation of skepticism' is merely a conglomerate of techniques developed at the extreme end of literacy to serve the needs of competing individual authors working in a very specific, probably *unique environment*, viz. that of modern science. The example offered by Goody to illustrate the issue of accumulation of skepticism in the social sciences gives a good impression of both the techniques involved and the kind of special environment in with they are relevant[194] - an environment characterized by polarized 'debates', competitive 'exchanges' and opinionated 'reviews'. The 'skeptical' and unstable character of modern science, causing an ever-increasing credibility deficit especially in the fields of the social sciences and the humanities, may, in the final analysis, be traced to the abandonment of any universally valid transcendental referent, a referent ultimately indispensable for the maintenance of internal coherence in any given knowledge system[195]. This wider theoretical issue, however, is not the subject of this study.

The proposition that neither 'skepticism' nor its accumulation are a necessary outcome of the development of literacy is confirmed by the multitude of examples to be found of literate systems which lack anything like Horton's 'essential skepticism', let alone

[194] Ibidem, 48-50.
[195] Cf. for example the analysis of modern science offered by J. Evola, *Revolt against the Modern World* (Rochester, Vermont 1995) 319ff orig.: *Rivolta contro il mondo moderno* (Rome 1969)

Goody's accumulation of it. The Ancient Mesopotamian knowledge system, although of a clearly literate nature, could generally be described as of a decidedly conservative nature, lacking the skeptical qualities found to be characteristic of modern scientific thought. In as much as Ancient Mesopotamian scholarship lacked the theoretical diversity of modern science it can be described as *monolithic*. In as much as individual scholars in successive generations were concerned with the generative transmission of a single, unified body of knowledge, rather than with the incessant creation of multiple autonomous specializations, Ancient Mesopotamian scholarship may also be described as *static*. In view of these properties and of its lack of 'essential skepticism', which combine to contribute to a state of continuity, stability and consensus, it appears that the Ancient Mesopotamian knowledge system may well deserve Horton's epithet 'protective'.

To answer the question *why* Ancient Mesopotamian scholarship did not develop the 'essential skepticism' found in modern scholarship, it may be argued that the investigative and critical skills of its scholars were bound to be directed in a different direction due to the *nature of its category system*. This fits in neatly with Horton's theory, which specifically distinguishes a 'protective' attitude to the category system as one of the criteria for 'closed' knowledge systems. As all classificatory categories in Ancient Mesopotamian scholarship were inevitably formulated in reference to the logograms that constituted its medium, knowledge could only be conceived of and expressed in the specific forms and associations found within a tradition-bound, 'closed' logographic matrix. Thus, any investigative, 'critical' effort was effectively 'bounced' back and forth within the boundaries of this paradigm. The nature of the integrative methodology as described for the lexical lists illustrates the direction investigative and critical scholarship was bound to take: it was bound to investigate new (kinds of) cross-connections between the elements rather than to question, let alone reject, the ones already established. The diachronic development of the lexical tradition (cf. Part 3 14.11.) shows that the main contribution of new generations of scholars was indeed of a *accumulative* rather than of a *transformative* nature (e.g. the general tendency to diachronic expansion). In those instances that real transformations do occur (e.g. the acrographic systematization of Izi), they are the result of the organic, gradual processes particular to generative transformation rather than of the radical theoretical shifts particular to 'essential skepticism'.

3.1.3. Figures of the written word

Most of Goody's work *The Domestication of the Savage Mind* is taken up by a discussion of the effects of certain specific non-speech uses of language on the organization and development of knowledge in literate societies. Goody describes these different non-speech uses as *figures of the written word* and he views them as constituting pivotal elements of the literate 'technology of the intellect' which, in the final analysis, underpins the eventual development of the modern western knowledge system. The first aim of the investigation offered in this subparagraph is to determine the analytic value of the most important of Goody's figures of the written word for describing the knowledge system underlying the Ancient Mesopotamian lexical texts, viz. the *list*, the *table*, the *formula*

and the *recipe* (3.1.3.1-4.). Its second aim is to evaluate some of Goody's general conclusions in terms the relevant evidence thus gathered (3.1.3.5.).

3.1.3.1. The list

In his discussion of the *list* as a literate device Goody proposes two complementary theses relevant to the study of the Mesopotamian lexical corpus. It should be noted that he, in fact, actually discusses the Mesopotamian lexical lists to illustrate his theory - one of the rare examples of Assyriological evidence being used in relation to social and anthropological theory. The first of Goody's theses is that *writing changes cognition* by affecting the capacity and manner of recall and by encouraging a systematic reflection upon information, causing it to be organized differently[196]. The shift from the oral to the written medium led, in Goody's words, to *...significant developments of a sort that might be loosely referred to as a change in consciousness and which in part arose from the great extension of formal operations of a graphic kind*[197]. The second thesis is that an important role in this change was played by the rise of the *written list*, which he sees as *...characteristic of the early uses of writing, being promoted partly by the demands of complex economy and state organization, partly by the nature of scribal training, and partly by a 'play' element, which attempts to explore the potentialities of this new medium.* He proposes that the list generally represents *...an activity which is difficult in oral cultures and one which encourages the activities of historians and observational sciences, as well as on a more general level, favoring the exploration and definition of classificatory schemas*[198]. These two theses are complementary in the sense that the introduction of the written list can be viewed as of crucial importance in the development of the new 'information technology' of the written word. In order to determine the value of Goody's theses for the interpretation of the Emar lexical material it will now be attempted to measure the actual tangible effects that they predict.

With regard to the first thesis, i.e. the change of cognition due to writing, the most important of the predicted effects of the introduction of writing is the effect on classification, viz. the sharpened outline of categories, due to a reappraisal of the nature of classes prompted by their graphical juxtaposition[199]. Describing the written list as a device *... that permits and requires explicit expression of certain implicit semantic categories and relations ...*[200], Goody illustrates his point in reference to the Mesopotamian lexical lists as follows: *(t)he explicit formulation of category systems or semantic fields e.g. kinship terminology, zoological species and literary genres, is a function of the reduction of classificatory terms to writing, and not simply writing in a linear fashion but writing that takes words out of their speech context and places them, so abstracted, in a unilateral relationship with words (concepts/morphemes, lexical units, possibly phrases) deemed to be of a similar 'class', i.e. possessing certain common features which may relate to the concrete world outside (i.e. animals, trees) or to some*

[196] Goody, *Domestication*, 109.
[197] Ibidem, 75.
[198] Ibidem, 108.
[199] Ibidem, 102.
[200] Ibidem, 106.

other ordering concern[201]. The examples of the explicit expression of implicit categories given in this quote obviously refer to the organization of content found in specific parts of the lexical curriculum: kinship terminology is the theme around which a part of Hh1 is organized (EST 1069-89) whereas zoological species are the themes found in Hh8-10/12. What should be noted, however, is that the level of 'abstraction' found in the lexical series is limited: the organizational principles of the various series mostly involve concrete, graphic associations in some form or other. It could, in fact, be argued that in the Mesopotamian lexical corpus Goody's 'reduction of classificatory terms to writing' is mostly realized through a rather concrete kind of association, viz. through graphically explicit key-sign association. In the Mesopotamian lexical lists the new, 'abstract' classes which Goody refers to as triggered by writing are actually classes that are based primarily on the specific particularities of the *cuneiform* writing system: the 'common features' of these classes are mostly shared graphic values rather than anything abstract on the level of an implicit 'concept' or 'idea'. Such graphic similarities between written words happen to largely coincide with empiric similarities between things in the outside world (e.g. words written with the sign ĜIŠ coincide with things made from wood and words written with GI coincide with things made from reed). The level of actual classificatory 'abstraction' is quite limited. This obviously does not invalidate Goody's thesis, but it does serve to draw attention to the specific manner in which writing has effects on classification when the writing in question is of the logographic variety.

The classificatory tools specified by Goody as arising with the written list are (1) determinatives, (2) spatial separations and (3) diacritical markers. The role of these three tools for organizing content in the Mesopotamian lexical texts has been sufficiently described for the Emar corpus in Part 3. (1) Determinatives are arguably vital for the organization of content, although this derives from their role as key-signs rather than from their existence as an actual, independent classificatory category (cf. Part 3 4.2.1.). In this respect the role of determinatives as classificatory tools by Goody should be seen as empirical rather than categorical. With this caveat, the definition of determinatives given by Goody seems empirically accurate enough, viz. ... *a form of classification which is imposed by writing upon speech; it is a visual sign that characterizes the common features of series of objects or actions*[202]. (2) Spatial separation within a list, which in the Mesopotamian lexical tradition is linked to the use of vertical and horizontal ruling, was found to be vitally important both for providing the basic structures of any given text and for distinguishing different compositions as different formal-organizational units (cf. Part 3 11.2.). With respect to (3) diacritical markers attention may be drawn to the use of line markers and separation markers (cf. Part 3 2.1.2.1. and 12.2. respectively). The use of the latter should be considered as an *auxiliary* device, providing spatial separation only where other devices, such as position shifts and vertical ruling, have failed. In this respect it should be noted that in those lexical series where vertical ruling and exclusive slot positioning suffices to separate words, the use of separation markers is very limited. It could be argued that in the lexical lists the use of diacritical markers is a secondary phenomenon, arising only at the point that the list-form itself was threatened by elements

[201] Ibidem, 104-5.
[202] Ibidem, 104.

intruding across slot-boundaries. On balance, the importance Goody attaches to these three phenomena as special classificatory tools occurring in written lists seems justified.

With regard to the second thesis, i.e. that the written list played an important role in the change of cognition linked to the shift from the oral to the written medium, it is appropriate to pay closer attention to the specific effects Goody attributes to the Mesopotamian lexical texts. In his view they represent a special kind of list with two specific characteristics: (1) their abstract nature and (2) their tendency to trigger the growth of knowledge. Concerning the first characteristic Goody writes that *(u)nlike (administrative and event lists,) ... lists of this kind appear to have no immediate 'advantage' for those who compile them ... Such lists are much less activity-oriented than inventories of estates or lists of contributions to a sacrifice; they represent an abstraction, a decontextualisation, a game and sometimes a conceptual prison*[203]. With regard to this first characteristic it is important to clarify the exact definitions to be applied to Goody's implied 'non-utilitarian' and 'abstract' status of the lexical lists. If 'non-utilitarian' is merely meant to imply the absence of direct economic usage, the description may be considered accurate enough. If, however, it is meant to imply the absence of any practical usage it would be highly misleading. Certainly up to the LBA, the lexical lists mostly served a quite practical and mundane purpose, viz. the purpose of providing exercise material for scribal apprentices seeking to become proficient in writing and reading cuneiform signs. The Emar colophons abundantly attest to this purpose. If 'abstract' is merely meant to imply the absence of specific, concrete reference objects for the words found in these school texts, the description may again be considered accurate enough, because - unlike in inventory lists and other administrative lists - such concrete, outside referents are indeed lacking in the lexical corpus. E.g. when the apprentice scribe was studying terminology relevant to sheep (Hh EST 8a001-56) there were no concrete situations in the outside world to which this terminology actually and necessarily referred. If, however, 'abstract' is meant to imply that the lexical texts were composed according to classificatory concepts similar to those found in modern science (e.g. according to modern linguistic criteria such as 'morphemic analysis' or 'semantic range'), it would not be appropriate. Even if the modern scientist can sometimes successfully *project* such abstract categories on some (parts of the) lexical compositions, there is no doubt that these projections only *happen* to coincide with what was otherwise evidently the sole purpose of the ancient scribes, viz. to provide a compendium of *graphemes* for educational usage. E.g. the modern scientist may project various biological, economical or even anthropological classificatory principles on (parts of) the lists of animals found in Hh8-9, for the ancient scribes themselves, however, these lists did not serve the expression or development of such abstract concepts - for them they primarily represented compendia of writing elements, i.e. of very concrete tools used in a very concrete professional setting. During the later stages of Mesopotamian lexical scholarship, i.e. after the 'canonization' of the lists visible in the 1st Millennium, this situation may very well have changed. It could be argued that in later lexical scholarship more 'abstract' classificatory criteria and concepts *did* develop (as visible in e.g. acrographic and thematic systematization), possibly as a function of a different usage of the list material. The considerable increase in the length of certain (new) lexical

[203] Ibidem, 94.

compositions (e.g. Aa, Ea) and the systematic transformation of certain others (e.g. Izi, cf. Part 3 14.6.) point in this direction. The sheer encyclopedic size of certain compositions in the 1st Millennium curriculum, even if still used as exercise materials in an educational context[204], increasingly makes them take on a scope that in modern scientific terms is normally associated with scholarly reference works. Here it is proposed that Goody's first characteristic of the lexical lists, viz. abstraction, becomes proportionally more pronounced as his second characteristic, viz. of the tendency to trigger the growth of knowledge, bears fruit. A number of 1st Millennium texts attest to this process.

What Goody describes as a tendency to trigger a growth in knowledge is clearly visible in the diachronic development of most lexical compositions (cf. Part 3 14.11.). In the 2nd Millennium this development appears to have been slow but steady for most series, whereas in the 1st Millennium it appears to have accelerated. It may, in fact, be suggested that at some point around the turn of the Millennium the growth of knowledge, as reflected in the increased size of many lexical compositions, reached a tipping point, beyond which both the original 'practical' purpose and the original classificatory criteria of the texts broke down under the weight of the accumulated knowledge. The sheer accumulation of collected data achieved by the end of the 2nd Millennium may effectively have triggered a re-think of their organization and of their usage. It seems that the rise of more abstract, 'scientific' classificatory principles and the rise of 'encyclopedic' 'research' in lexical scholarship, both beyond the exercise format of the original school texts, may be interpreted as a result of this development[205]. On balance, therefore, Goody's statement that lists ... *crystallize problems of classification and lead to increments of knowledge, to the organization of experience* ...[206] seems to be fully appropriate with regard to the Mesopotamian lexical lists.

A final point to make with regard to Goody's description of the Mesopotamian lexical lists is to reconsider his phrase 'conceptual prison'[207]. The question is how to explain the fact that, although these lists show Goody's characteristics of abstraction and the growth of knowledge, they still seem to warrant such a description. The most obvious answer is that such a description is merely an *etic* label which can do no justice to the *emic* reality of Mesopotamian scholarship. Such an answer, however, leaves unexplained *why* a contemporary scientist may experience the Mesopotamian material as a 'conceptual prison' - an experience perhaps more common than explicitly admitted. Here Goody's view that the list represents a device characteristic of early literate societies which profoundly affects the classification of knowledge in those societies may offer a solution. Following this view it can be suggested that in Mesopotamian scholarship the list-form itself was conceived of as *indispensable* for the production and transmission of certain kinds of knowledge. In other words, in Ancient Mesopotamia, the list-form may be said to have formed part of the very condition, or basic paradigm, of certain kinds knowledge.

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[204] The colophons of such texts frequently state that they were written by 'students'.
[205] Cf. also A. Cavigneaux, 'Lexicalische Listen, *Reallexikon der Assyriologie und vorderasiatischen Archäologie* Band 6: Klagesang-Libanon (Berlin and New York 1980-3) 609-41.
[206] Goody, *Domestication*, 94.
[207] Ibidem

Modern observers, operating in a wholly different scientific paradigm, are bound to experience difficulty in conceiving of such a condition, which for them inevitably constitutes a conceptual limitation. They are bound to experience a conceptual *boundary* rather than a conceptual *framework*. If, however, as Goody argues, the list is indeed characteristic of early literate societies and it does indeed shape cognition by shaping classification, leading to the increased abstraction and growth of knowledge, then the conception of the list as a necessary condition of (certain kinds of) knowledge need not come as a surprise.

3.1.3.2. The table

Here, unlike in Goody's book, the *table* as a literary device is treated *after* the list because the table may be said to constitute a specialized species of list, i.e. a specific type of list. A list basically contains information read in a single direction, most commonly in a single column, whereas a table always contains information that must be approached from multiple, different directions. The distinction between the two is important with respect to Mesopotamian lexicology because originally the early, unilingual lexical compositions constituted single-column lists of logograms rather than multi-column tables. At a later stage explicit graphic expressions of various kinds of interpretations were added to the logograms, a process which started with the occasional addition of glosses that gave Akkadian equivalents. As a result, many compositions that started out as lexical *lists* developed into lexical *tables* over time. It is possible that at least a few compositions (such as Diri, cf. Part 3 14.10.) were originally conceived of as multi-column tables rather than as single column lists; for such originally tabular compositions, however, no evidence survives which predates the OB period. Generally, the shift of a given series from a single-column list into a multi-column table over time involves a transformation in terms of logogram inventory and sequence as well as a gradual expansion in the number of equivalents (cf. Part 3 14.11.). It may therefore be suggested that the development of relatively complex tables out of relatively simple lists is an important illustration of Goody's thesis, confirming that the list as a literary device indeed does tend to foster the growth of knowledge, even to the point of causing the increased complexity and eventual transformation of the device itself. This transformation is ultimately triggered by an external development, viz. the shift from a unilingual (Sumerian) to a bilingual linguistic medium (Sumerian-Akkadian), but the fact that the list could accommodate, perhaps even encourage, this development illustrates its capacity to foster the expansion of knowledge in a horizontal as well as vertical direction.

Goody's main thesis with regard to the table, however, is that it tends to reduce and distort the complexities of reality expressed in oral communication to graphic simplifications: *... since the table is essentially a graphic (and a frequently literate) device, its fixed two-dimensional character may well simplify the reality of oral communication beyond recognition and hence decrease rather than increase understanding*[208]. Goody applies this thesis mainly as a critique of anthropological research methodology, it may, however, also be applied to any knowledge object expressed in a tabular format, including the Mesopotamian lexical texts. In fact, applying

[208] Ibidem, 54.

Goody's thesis to these texts raises the important issue of the relation between the written and the oral medium in the Ancient Mesopotamian school. It raises the question to what extent the written texts reflect the actual width and the organizational structure of knowledge available in its original - certainly partially oral – context, i.e. in de educational contexts in which these texts were produced. Goody's thesis predicts that any attempt to reconstruct the original, underlying body of knowledge and classification system 'coded' in written tables will be highly problematic: *(t)he result (i.e. the table) is often to freeze a contextual statement into a system of permanent (relations), an outcome that may simplify reality for the observer but often at the expense of a real understanding of the actor's frame of reference*[209]. There are two ways in which this problem applies to the Mesopotamian lexical texts: first in the relation of the written text to its original context at the time of its production and second in the relation of modern scientific interpretation to the preserved written text.

In the first relation it is unclear to what extent and in what manner oral knowledge exceeded the knowledge contained in the written record. Later written records, from the 1st Millennium, show that the lexical texts had by then become 'canonized', standardized and, one might say, ossified to such an extent as to suggest that the oral tradition, at least with regard to a number of important compositions, had been replaced by a primarily written tradition. In that tradition, the established scholarly practice seems to have had a distinctly formalized, literary character. That the situation was different and that the oral tradition was still important in LBA Emar, however, may be assumed on the basis of various factors: there are many synchronic variants that suggest that in the written record somehow choices and selections were made from a (much) larger available repository of memorized knowledge, a body of knowledge presumably maintained and accessed with ease in oral discourse. For the preceding OB period previous studies have established that, although in the scribal school the primary study object was writing itself, in the living oral tradition that constituted its context, a large unwritten repository of knowledge was actually available. In relation to that unwritten knowledge, which could be viewed as a collection of 'virtual' 'model' texts, any written text may be viewed as a merely incidental text witness or as an imperfect, partial reflection of the larger body of unwritten knowledge[210]. To what extent such a living oral tradition and such a different, larger repository of (memorized) knowledge[211] are still relevant in the context of LBA Emar is debatable. However, the closeness of the compositions to their OB 'forerunners', the continued use of unilingual texts as well as the attestation of some apparent *Hörfehler*, make it not unlikely that in the Emar school the OB oral tradition continued to live on at least to some degree. From the quality of the texts it may be postulated that it did so in a quantitatively reduced and qualitatively degraded manner - a reflection of its chronological and geographic distance from the former centers of learning. Irrespective of this state of affairs, however, the question of the relation between the written text and its oral context in LBA Emar remains open. The question is to what extent the written

[209] Ibidem, 71-2.
[210] Cf. Veldhuis, *Elementary Education*, 141-2.
[211] In this context it should be noted that in the Emar material there is evidence of the presence of multiple teachers as well as of at least one foreign teacher (cf. Y. Cohen, 'Kidin-Gula – the Foreign Teacher at the Emar Scribal School, *Revue d'assyriologie et d'archéologie orientale* 98 (2004) 81-100).

text represents a simplification of the wider, combined written-oral context in which it was presumably produced. The inevitable discrepancy between the two with regard to any symbolic system, including cuneiform writing, is emphasized by Goody: *... the basic trouble lies in the attempt to apply a single graphic device (the table) to the study of 'symbols' in an oral culture. It is doubtful if words and their meanings can ever be subjected to such reductionism with any degree of profit ... For this simplification produces a superficial order that reflects the structure of a matrix more obviously than the structure of the (or a) human mind and thus produces gross general similarities in all this type of construct*[212]. Applying Goody's idea to the Mesopotamian material at hand means that the problem of the relation between written and oral knowledge was a problem faced by the ancient scribes themselves. One way of investigating this problem is to ask to what extent the written text found in Emar still betrays its origins in a partially oral body of knowledge in terms of what from a modern scientific perspective would be termed logical 'flaws' or, perhaps better, 'systematic aberrations'. Goody suggests a number of typical 'flaws' to be expected: (a) the lack of systematic application of logical categories and (b) the tendency to add impromptu series of context-dictated qualifications[213]. With regard to the former there is indeed found a consistent mingling of logical categories such as 'opposition' and 'equivalence', examples of which are SaV, where PST 001 A is rendered *rīštu* 'joy' (001.08) as well as *nissatu* 'lamentation' (001.12) and 048 AN is rendered *šamû* 'heaven'(048.01) as well as *erṣetu* 'earth' (048.02) and DIĜIR^{li} 'god' (048.03) as well as *awīlu* 'man' (048.04). With regard to the latter examples of a tendency to render exhaustive series of context-dictated qualifications to key-words are found in Hh9, where EST 9a023 EH 'vermin' is followed by specifications of the places where vermin may be found (9a024 gives A.ŠAG$_4$.GA 'field', 9a025 ^{ĜIŠ}KIRI$_6$ 'garden', 9a026 ŠE 'barley' etc.). Studying the preserved or reconstructed sections of the longer, coherent texts (Part 2) it will be noticed how these two phenomena recur consistently throughout the lexical curriculum - they present, as it were, a picture of systematic aberrations. This consistent presence of these embedded phenomena may reflect the closeness of the written text to the lost oral tradition in which it was produced.

In the second relation to be considered, i.e. that of the practice of modern scientific interpretation to the preserved written text, the most obvious problem is the manner in which the former will inevitably distort the latter, thus increasing the distance between, on the one hand, the original, combined oral-written, knowledge system underlying the preserved text and, on the other hand, the modern student of that text. A short critique of a sample of modern scientific interpretation will suffice to illustrate the point.

If the reader considers the first section of the reconstructed, composite edition of SaV (Part 2 2.1.) he will observe a number of striking divergences between this modern 'interpretation' and the actual texts on which it is based. First, the actual cuneiform signs have been replaced by a Latinized coding system. The text does not give the first logogram (PST 001) by reproducing the three vertical cuneiform wedges used for writing the 'water' pictogram, but rather it gives a Latinized reconstruction of its Sumerian

[212] Goody, *Domestication*, 67-8.
[213] Ibidem, 70ff.

pronunciation, viz. the letter A. This distance to the text inevitably means that the user of this modern interpretation cannot immediately note the (partial) graphic correspondences between successive key-words, such as those between 001 A, 002 ŠUR as well as 003 PAD, or such as those, more obvious ones, between 008 HU and 009 RI. Thus, a vital ingredient of the organizational principle of the ancient composition is bound to impress the user of the modern texts less than he would be if he would use the original text. Second, to achieve an unambiguous graphic coding of the cuneiform signs the scientific convention selects a single reading of any given sign, chosen from what is in reality mostly a considerably larger inventory of phonetic readings available. E.g. SaV PST 005, a composite sign consisting of three horizontal wedges 'stapled' on top of each other by a single vertical wedge and preceded by four smaller wedges ordered in a diagonal triangle (HI-ÁŠ), is conventionally rendered as HAR, but in reality its readings also include the variant values ÀR, HUR, GUR_{14}, UR_5, MUR and KÍN. The modern scientific rendering HAR effectively obscures the full polyphonic content associated with the graphic sign-form. Third, the modern scientific interpretation tends to isolate graphemes, phoneme(-cluster)s as well as specific semantic meanings within the text, even although the text empirically emphasized a multifaceted *relational aspect* - this aspect is bound to become obscured in such a modern analytic approach. Many lexical compositions teach how various graphic shapes in signs have sound and meaning *relative* to each other, i.e. the explain how certain logographic values are arrived at in relation to others. E.g. the positioning of 001 A followed by 002 ŠUR shows their graphic relation (the last part of ŠUR embeds the three verticals of A) as well as a their semantic relation (001 A .01 *mû* 'water' > .16 *zunnu* 'water' > 002 ŠUR .01 *zanānu* 'to rain' > .02 *ramāku* 'to wash'). The phonetic and semantic ranges associated with individual signs are of an eminently *relative* nature: the various possible phonetic and semantic values of the signs are made possible by the pragmatic extension of their pictographic associations. E.g. the key pictographic association between graphic HI-ÁŠ and semantic 'liver', with the phonetic value UR_5, is simultaneously semantically and phonetically extended to include 'spleen' and MUR and hence again (secondarily) to 'nourishment', which happens to represent an alternative semantic content of the homophone MUR. It should be noted that a second pictographic association of HI-ÁŠ, viz. 'millstone', is ingeniously linked to its first pictographic association by the inclusion of the entries 005.06-8 HAR=ÀR *arāru* 'miller', *.têmu* 'to grind' and *sāmidu* 'miller': this clearly represents a convenient extension of the phonetic interpretability of the sign HI-ÁŠ from /ur/ to /ar/ as a function of its varied pictographic interpretability. This results in an empiric *relativity* of the graphic, phonetic and semantic values associable with HI-ÁŠ. In the lexical texts the logograms effectively (originally, empirically) served as a series of clues for the scholarly investigations into their traditional and potential graphic, phonetic and semantic associative range. In regard to this role, the modern scientific transliteration or transcription of these texts inevitably fails to reflect their true content and aim. The fourth and last divergence between the actual SaV text as found in Emar and its modern 'interpretation' found in Part 2 2.1. concerns the fact that the modern text is an artificial construct which collects the maximum amount of data from many individual texts and text fragments and presents these data in a structure (entry sequence) based on statistical averages. The modern 'composite text' may serve a number of scientific purposes (e.g. inventory,

reconstruction, diachronic comparison), it fails, however, to give the modern observer access to the actual texts produced by the actual scribes.

On balance, it may be concluded that the divergences between ancient and modern scholarship, i.e. the shown differences in scholarly methods and aims, are bound to represent yet another obstacle to the modern effort to understand the oral context in which the ancient texts were produced. A systematic description in terms of the categories that are important in modern linguistic analysis (palaeography, phonology, morphology, lexicology) is inevitably bound to ignore much of the actual issues and questions with which the ancient scribes sought to come to terms. Many of the categories important in modern scientific research are of such a high abstraction level that they are bound to either collide with or simply ignore the kind of concrete, context-bound associative strategies found in the ancient texts. The distance of modern science to the oral context *underlying* these texts, i.e. the context where these strategies originated and formed themselves, can be said to present a formidable obstacle indeed.

One way in which Goody proposes that the table is likely to distort any oral reality is by its tendency to *simplification*. Goody argues that *…(t)he complexity of (the table) lessens as the range of material widens. This lessening of complexity is accompanied by the attribution of increasing generality to the result*[214]. In other words, the literary device which is the table projects features of organization that are alien to the oral reality it seeks to code, distorting many of the ambivalences inherent in oral classification. Observing the Mesopotamian lexical corpus with Goody's proposition in mind it can be suggested that this may, in fact, explain certain tendencies visible in the diachronic development of that corpus. It could help explain the fact that the 'canonization' of the curriculum in the 1st Millennium was matched by a 'systematization' of certain series - most notably the thematic systematization of Lu and the acrographic systematization of Izi (cf. Part 3 14.11.). The elimination or drastic decrease of 'non-systematic' classificatory principles and of 'mixed' associative strategies apparent in these developments could be considered as due to an increase in abstract conceptualization. Here is visible what Goody would term the 'attribution of increasing generality' and 'simplification'. It may be that the progressive loss of the oral component or oral context during the continuous reproduction of the texts allowed them to eventually develop into exclusively literary creations with a tendency to become increasingly 'systematized', a tendency due to an exclusively literary - hence increasingly abstract - conceptualization. The extent to which this development may be typified as 'progress' is a manner of opinion, but it may be appropriate to quote Goody's observation in this regard: *(t)he* reduction *of cultures to writing, whether by actors or observers, by Cabalists or by anthropologists, tends to order perception in similar ways, providing simplified frameworks for the more subtle systems of oral reference...* (author's italics)[215]. It would seem that a decrease in classificatory subtlety and in conceptual capacity is the inevitable consequence of the tabular presentation of knowledge in an exclusively literary knowledge regime.

[214] Ibidem, 67.
[215] Ibidem, 70.

3.1.3.3. The formula

In Goody's view the *formula* may be considered a typical figure of the written word, i.e. a typically literary device, because only in writing it can achieve fully the fixed standard form which it seeks to impose on communication. The full degree of fixed formalization to which the formula tends can only be found in a literary context: ... *writing permits a further stage of formalization, the extreme form of which appears in the list and the table*[216]. He argues that while in both oral and literate context the composition of texts depends on the reworking of earlier materials, in a literate context there will be much *more* of such material available. Similarly, he argues that while in both types of contexts the reproduction of texts depends on the model available, only in a literate context a truly *standardized* model is available[217]. Goody proposes that the differences between oral and literate societies with regard to the composition and reproduction of texts may be expressed in terms of their different positions in a *formulaic continuum*, a continuum in which ... *the standard oral forms of non-literate societies fall towards the variable rather than the repetitive ends of the continuum; that is, they may be standard both with regard to 'genre' and in contract to the syntax of ordinary utterance, and standard too in certain aspects of their construction, but not necessarily with regard to their content*[218]. In an oral setting the lack of fixed formulae, i.e. of fixed standard forms, means that compositional creativity and text reproduction are bound to mix - resulting in the process of generative transmission that was discussed earlier (cf. 3.1.1. above). In relation to the Emar text material two observations will be made regarding Goody's interpretation of the formula as a literary device.

First, Goody considers the list and the table as an *extreme stage of formalization*. The manner in which this is true for the Emar lexical texts and the way formulae play a role in these texts may be illustrated by a few examples. Looking at the unilingual lexical texts, which constitute (single-column) *lists*, the interpretation of logograms may be said to have been achieved by means of a *vertically read formula*. The core element in this formula was the key-sign logogram. E.g. the GUD 'ox' key sign found throughout the entire sequence Hh8a086-104, which establishing a common identity for all these entries. Readings of individual entries within this entry series are achieved by vertical juxtaposition of secondary elements. E.g. the fertility distinctions between bulls 'young' and 'breeding' in 8a097-8 are expressed by the vertical juxtaposition of the elements NÍNDA and ÁB, similarly the price level distinctions between 'buying price' and 'market-rate' in 8a097-8 are expressed by the vertical juxtaposition of the elements SÁM.MA and ŠAKAKA. In short: the 'formula' of the unilingual lists is achieved by the vertical juxtaposition of multiple different elements. Looking at the bilingual lexical texts, which are (multi-column) *tables* rather than (single-column) lists, the interpretation of logograms is more complicated: it is achieved by *vertical as well as horizontal* juxtaposition. E.g. bilingual Hh8b presents the GUD-section in a different manner than the corresponding unilingual version. The first difference is that the GUD key-word is only given for the first entry of the section and that in all other individual entries it is omitted.

[216] Ibidem, 114.
[217] Ibidem, 117-8.
[218] Ibidem, 119-20.

It should be noted that this omission resembles the omission of the (key-sign) determinatives found in many texts (the so-called 'virtual determinative sequences', cf. Part 3 12.3.) and that *such omissions are only found in bilingual texts*. This indicates that the omission phenomenon is related to the use of a different *formula* in bilingual texts. The second difference is that on a horizontal level the logogram is structurally juxtaposed to other elements, viz. the gloss (in the bilingual GUD-section only found in Hh8b012-3) and the Akkadian interpretation. It should be noted that these elements are often omitted as well. As generally the gloss is in limited use in Emar Hh the frequent omission of the Akkadian interpretation is the most striking: it is, for example, completely omitted in the GUD-sequences 8a097-8b011 and 8b014-25 on fragment 550E (7522 – p.731). When the Akkadian interpretation *is* given, it often omits any reference to the key-word. E.g. in 8b030 <GUD> AN.NA the Akkadian *elû* refers to AN.NA only, completely ignoring the omitted key-word GUD. Similarly in 8b012-3 *ša qarīti* and *nīqi ša* ^{D}IM refer to the qualifications ŠÚKUR <KI> KAŠ.DU and ŠÚKUR <KI> KAŠ.ĜAR, again ignoring the omitted key-word GUD. It should be noted that the omission of a reference to the key-word in the Akkadian interpretation is not related to the omission of the key-word itself: the former phenomenon may also occur when the key-word is not itself omitted. E.g. in Hh9a002 MUŠ SIG_7.SIG_7 is interpreted by Akkadian (*w*)*arqu* 'green', which refers to the qualification SIG_7.SIG_7 only, ignoring the key-word MUŠ 'snake'. Thus, as extra elements are introduced into the basic two-element 'formula' of the original (unilingual) lexical lists, the 'formula' itself becomes more complex (i.e. it expands to include a horizontal juxtaposition in addition to a vertical juxtaposition) and achieves a greater level of abstraction, as shown by the *abstract coding* (omission) of certain elements.

Second, it must be asked what position the Emar material should be assigned in the *formulaic continuum* postulated by Goody: does it lean towards the variable, non-literate or towards the repetitive, literate end of such a continuum? Decisive in regard to this question is the level of standardization of *content* visible in the text material under consideration. Goody points to the fact that in a primarily oral context no standard, fixed model is available to guide text reproduction, which means that the lack of such a model for the Emar texts would suggest a significant oral component in their production process. As the relation between the text and composite edition (respectively parts 1 and 2 of this study) in fact shows the lack of fully standardized models for any of the compositions of which more than one text is attested, it may be concluded that in terms of Goody's theory the Emar text corpus was produced in the context of a still partially oral transmission process. Thus, on the evidence of the analysis provided in parts 1-3, it may be argued that Goody's characterization of reproduction in oral societies indeed still partially applies to the Emar text corpus: *(a)ny model we may erect is simply an average of the variations in the number of versions we happen to have collected; it is a statistical artifact, not the authorized version*[219]. With regard to the exact relation between the oral and literate component of the transmission process in LBA Emar it may be suggested that reproduction still took place in a basically oral context in which the written text was primarily an *auxiliary* tool. The true text object reproduced in the school could be said to be of a virtual, *oral* nature - in which case the written reflections merely constitute by-products of a basically oral process. In view of the postulated 'canonization' of the lexical

[219] Ibidem, 118.

texts in later times, which in terms of Goody's theory indicates a shift to a primarily literate compositional process, it is not inconceivable that the Emar text corpus in fact represents one of the last witnesses of the original, primarily oral compositional process.

3.1.3.4. The recipe

In his penultimate chapter Goody describes how two more figures of the written word, viz. the *recipe* and the *prescription* (as the latter is a variant of the former and here only the former term will be used), become possible with the rise of nominal lists. He adds that, in turn, scientific *experiment* becomes possible on the basis of these additional figures. Goody's argument is that certain features of nominal lists encourage new forms of thought - such as those expressed in recipes and prescriptions - and ultimately formalized scientific experiments. These features encourage the distinction and creation of new classificatory categories, effectively serving as instruments of cognitive development, viz. (a) diacritical demarcation (Goody's example: the addition of initials to the names of people with mere 'dining rights' on a dining list), (b) lateral displacement in a matrix (Goody's example: the lateral shifts given to names of mere 'guests' in a dining list - indicating the category of people of 'protected but interstitial status'), (c) combining the specification of variables with the omission of constants (Goody's example: the specification of wines as opposed to the omission of beer on a menu) and (d) inclusion of what is foreign at the expense of what is local (Goody's example: the preferential use of French on menus)[220]. These four above mentioned instruments are indeed attested in the Emar lexical corpus. Diacritical demarcation (a) is found, for example, in the use of vertical and horizontal lining (cf. Part 3 9.2.). Lateral displacement in a matrix (b) can be found in the general scribal convention of the 'right position shift' (cf. Part 3 12.1.). The combination of a specification of variables and an omission of constants (c) can be found in the 'virtual determinative sequences' as well as in formulaic omission of key-signs (discussed in Part 3 12.3. and Part 4 3.1.3.3. respectively). The inclusion of what is foreign at the expense of what is local (d) can be found in the focus on and dominance of the scholarly language of Sumerian in the lexical curriculum (obvious in the older unilingual compositions but persisting in the later bilingual compositions).

In Goody's view the *recipe*, which is basically a set of formulaic instructions found in both oral and literate settings, gains enhanced potential as an instrument for the exploration of and experimentation with knowledge when it is endowed with the instruments of the written nominal list. The consequences of this enhanced instrumentality specified by Goody are: (a) the *extension of knowledge range* made possible by depersonalized storage, (b) the *development of experimental thought* (i.e. the testing of quantitative and qualitative variations) made possible on the basis of the explicit formulae which the original recipe provides, (c) the *democratization of knowledge* made possible by depersonalized programmatic learning (i.e. by availability of knowledge independent from a teacher - in as far as instructions are not purposefully coded) and (d) the *specialization of labour* made possible by the separation of practice and theory[221]. If the various lexical compositions found in Emar are considered as

[220] Ibidem, 130-1.
[221] Ibidem,137ff.

intrinsically constituting 'recipes' (i.e. sets of formulaic instructions), for obtaining certain kinds of knowledge about the writing system, then it should be asked to what extent the four consequences listed by Goody actually apply to the Ancient Mesopotamian knowledge system which underlie these compositions.

It seems that Goody's first consequence, viz. (a) the *extension of knowledge range*, may indeed be said to apply as the lexical curriculum as a whole as it shows a *general tendency to diachronic expansion* (cf. Part 3 Ch. 14 Summary 14.4/6.1.). The Emar corpus, however, shows that this tendency had not yet led to the phenomenal growth visible in later 1st Millennia products (e.g. Aa and Izi). On the one hand, the *physical* expansion of the LBA Emar texts relative to their OB predecessors may be partially explained by the intervening introduction of the bilingual format in many series, which led to an inevitable increase in the *physical* space taken up by every single entry on the tablet (e.g. triggering the expansion of Hh – cf. Part 3 4.2.2.). On the other hand, a general tendency to diachronic expansion is also visible in absolute terms, i.e. in the increase in the number of entries. It has been suggested that this was due to the *accumulative* effect of the integrative methodology postulated for ancient scholarship (cf. Part 3 14.4.2.). The question is whether either the physical expansion due to the introduction of the bilingual format or the accumulative effect of the integrative methodology can be identified as aspects of the extension of knowledge range which Goody sees as due to the propensities of the nominal list and of the instrumentality of the recipe. Here it is proposed that they can be so identified because the nominal list *did* indeed provide the basic framework in which the bilingual format was be accommodated and because the formulaic instructional 'recipes' represented by the various lexical compositions *did* indeed provide the basis for further scholarly investigation along the line of a integrative methodology. Two things should be borne in mind however. First, the actual change from unilingual list to bilingual table - even if it shows the adaptability of the former as an instrument of a versatile literary scholarship – was triggered by a change in the environment of that scholarship, viz. the demise of Sumerian as a spoken language and the consequent intrusion of Akkadian into the educational domain. Second, the accumulation of written lexical knowledge over the period from the OB to the LBA period seems quantitatively modest and qualitatively restrained in comparison to the stupendous growth found in the 1st Millennium. An explanation for this discrepancy may be sought in the strong *oral* component of lexical scholarship up to the LBA postulated in 3.1.3.3. above: such a oral context may have somewhat inhibited the 'extension of the knowledge range', which would have been of a much more pronounced nature in a more literate context. On the basis of its output, it may be speculated that 1st Millennium lexical scholarship was a much more literate endeavor - perhaps it was partially removed from the educational context in which it was found in earlier ages.

In the texts under consideration, Goody's second consequence, viz. (b) the *development of experimental thought* by means of testing quantitative and qualitative variations, must be seen as directed exclusively at a very specific object which remains without conceptual equivalent in the context of modern western science, viz. the cuneiform writing system. Efforts at 'experimental thought' may be detected in the lexical lists, but only in relation to the writing system itself. The various approaches to the writing system

found in the various lexical compositions effectively constitute a series of experiments in terms of an integrative methodology, where various (graphic, phonetic, semantic) aspects of writing elements were systematically analyzed in relation to each other in a variety of ways. The resulting classificatory schemes and compositional units found in the lexical texts must be understood as at least in partially shaped by this kind of experiments - in effect *each separate lexical composition may be viewed as a result of a specific development in experimental thought*. Thus 'the development of experimental thought' proposed by Goody may be accepted in relation to these texts, but only if such a development is not associated with the directions and developments of such thought in modern western science.

Goody's third consequence, viz. (c) the *democratization of knowledge*, is difficult to discern in the Ancient Mesopotamian context in which the Emar texts were produced. Goody argues that 'depersonalized programmatic learning', i.e. the availability of knowledge independent from a teacher, allows knowledge to become accessible to non-specialists. In practical terms this means to postulate the availability of the lexical texts outside of the school, which would allow for some form of self-teaching. With regard to the possibility of such forms of 'depersonalized programmatic learning' occurring in Ancient Mesopotamia two issues must be addressed. First, it may be doubted that any 'depersonalized' learning is feasible if the student lacks basic familiarity with the medium in which the text is written. It is exactly this kind of basic familiarity which the Emar lexical texts seek to impart - they are, in other words, the indispensable basis for mastering that medium. In a modern context one may argue that anybody who masters at least the alphabetic writing system and some basic grammar may, in theory, proceed with relative ease to learning in a 'depersonalized' manner. Even in a modern context, however, this still leaves the issue of actually mastering the alphabet and some basic grammar. It may be argued that, in a modern context too, some form of oral instruction remains indispensable. In Ancient Mesopotamia, where even the most simplified forms of the writing involved a much more complex system, this would have been the case much more emphatically. Compounding the problematic concept of 'depersonalized' learning in Ancient Mesopotamia is the much more limited accessibility of appropriate text material. On balance, Goody's 'depersonalized programmatic learning' may be said to be an issue applicable only to those who are at least basically familiar with the medium in which knowledge is coded. As the Emar lexical lists serve to create that basic familiarity, their content cannot be expected to shed light on any form of 'democratization of knowledge' which may or may not have been experienced by the students after they had mastered the basic skill of writing. The second issue raised by Goody's suggested 'depersonalized programmatic learning' is the definition of 'knowledge' itself: what knowledge was aimed at and where? The evidence of the lexical lists is that the student was taught a large amount of knowledge that far exceeded the practical demands of private and public administration[222]. The education of a scribe was not a strictly functional preparation in craftsmanship which merely imparted the minimum practical skills needed for a professional career. Rather, this education involved a comprehensive program geared to the transmission of a large body of traditional knowledge, knowledge

[222] Veldhuis, *Elementary Education*, 82-3.

thought to be of divine origin and held in high regard[223]. It was also geared to instilling a set of special analytic skills related to that body of knowledge in a select group, probably of mostly privileged young people[224]. Undoubtedly many fully trained scribes went to fill positions where they worked on various rather mundane clerical and other administrative tasks. That, however, does not change the fact that the knowledge aimed at in the school, even in its initial phases where the lexical curriculum was taught, was certainly not of a primarily, practical utilitarian nature. On balance for Ancient Mesopotamian lexical scholarship Goody's concept of the 'democratization of knowledge' must be rejected because the knowledge aimed at in the scribal school simply did not lent itself to 'democratization': its transmission aimed a perpetuating a very specialized knowledge tradition which was of a primarily non-practical, non-utilitarian nature. At least until the LBA much of this knowledge transmitted in the scribal school was transmitted in the oral medium and scholarly achievement was primarily conceived of as the memorization of knowledge and the internalization of analytic skills, probably combined with the acquisition of a certain amount of what may be termed 'cultural capital'[225]. Even if educated men outside of the select circle of those who had completed the long years of training provided by the scribal schools, such as traders or soldiers, mastered some skills in writing and reading (most likely phonetically spelled) cuneiform (the evidence concerning the OA trade correspondence is a case in point), the question arises to what extent such men would have been actually able - or motivated - to gain access to the arcane dissertations with which these scholarly circles occupied themselves.

Regarding Goody's fourth consequence, viz. (d) the *specialization of labour*, allowed by the separation of practice and theory arising with written formulae, it is important to consider the possible *uses* of the kind of knowledge pursued in the scribal school. These uses determine the extent to which the texts it produced may have led to labour specialization. The *first use* of these texts is in the scribal profession and in school. Explicit information regarding labour division within the field of scribal activity we find in the profession lists embedded in Lu1. Many administrative professions, such as the SUKKAL 'secretary' and the ŠÀ.TAM 'auditor; administrator', as well as many cultic professions, such as the GUDUG '(shift) priest' and the IŠIB 'sorcerer; incantation priest', probably required (some) literate skills. Lu1 shows long lists of various functions in which such professionals could be working. It could therefore be argued that writing did indeed create many new professional specializations, including specializations between various kinds of scribes. Here, however, the question must be if the lexical texts themselves could and did cause any specific specialization of labour by opening some gap between practice and theory in the manner conceived by Goody. The answer to this question could be affirmative but needs two important qualifications. The first is that there was a labour division but *only in the school itself* and only as result of the (re)production of these *text themselves* (a lists of titles among the scribes known by name is found in Part 3 Chapter 13 Tables 28-9, the issue of the ranks they reflect is discussed in the secondary literature referred to in the bibliography provided in Part 2). The second qualification is that the only separation of practice and theory arising from these texts was

[223] Ibidem, 142ff.
[224] Ibidem, 144-5.
[225] Ibidem, 143-4.

that students had to do writing *practice* while teachers held the *theory* needed for this practice. The lexical text as found in Emar was a written practice (viz. a written exercise) aimed at reflecting an unwritten theory (viz. an unwritten model text). The concrete practice material, i.e. the tablet written by the student, ultimately aimed at achieving an abstract mastery of the theory material, i.e. the memorization of a virtual text. As long as the oral component remained essential and the virtual model text remained central to the lexical curriculum - which, it was proposed earlier, remained the case until the LBA period -, 'practitioners' aimed to become 'theorists' and all 'theorists' had at one time been 'practitioners'. At least until the LBA therefore, any 'labour specialization' resulting from the lexical texts does not reflect a static divide between different professions or social groups but rather reflects a dynamic divide between different *generations* within a single professional and/or social group. As such generational divides maybe considered to be a universal phenomenon throughout all societies, oral or literate, it can be argued that the lexical texts themselves did *not* trigger any additional specialization of labour within the school. These texts constituted a minimum body of knowledge which all scribes had to master and as such could not trigger professional specialization. The *second use* of the lexical texts is that in relation to the wider society of which scribes were a part, i.e. its 'social' use. In this respect it should be noted that there is no evidence of any direct usage of the lexical texts by anybody but the scribes themselves. It may be argued, however, that there was a 'social' use of an *indirect* nature, viz. by helping to create a next generation of the socially distinguished scribal professional group as an educational tool. In other words, it may be argued that the lexical texts served to re-create or perpetuate the long-standing labour specialization between scribe and non-scribe. Such an argument, however, requires two qualifications. First, the lexical texts did not by themselves re-create or perpetuate this labour specialization: this was only achieved through the curriculum *as a whole* - the lexical texts where merely one part of this curriculum. Second, as the scribal curriculum had an important oral component, its literary output - such as the lexical lists - did not constitute either an actual mechanism or a recognized demarcation with regard to the social distinction imparted by scribal education. On balance, it may therefore be proposed that the lexical texts did not by themselves trigger any specialization of labour - they were mere tools in a larger educational mechanism which perpetuated the existing labour specialization between scribe and non-scribe. Thus, of the mechanism by which labour specialization comes about in Goody's theory, viz. the separation of practice and theory that supposedly results from literary devices such as the 'recipe', the lexical texts can be said to constitute merely a minute part.

3.1.3.5. Evaluation of Goody's general conclusions

In this sub-paragraph it will be considered how some of Goody general conclusions, as formulated in his final chapter, may be applied to the Emar lexical texts.

First, it may be asked what *type* of literacy is represented by the texts under consideration. Goody proposes that there are two types of non-general literacy, viz. *restricted* and *specialized* literacy[226]. The former, *restricted* form of literacy implies a limitation in the *range of its application*, e.g. literacy restricted to application in administration only. In LBA Emar no such restrictions apply: the texts found in many archives attest to a wide variety of literate genres, including the administrative, the epistolary, the divinatory, the astronomical, the medical etc. Perhaps it is possible to postulate some forms of restricted cuneiform literacy for other, earlier periods of Mesopotamian history, this, however, is certainly not the case for LBA Emar. The latter, *specialized* form of literacy implies a limitation in the *range of its practice*, e.g. literacy restricted to practice by a priestly class only. The textual evidence of the Emar school and its context shows that, as in earlier periods of cuneiform culture, scribal training was geared to creating a professional group which had its own professional standards, its own nomenclature, its own hierarchy and its own privileges. This, in conjunction with the concentrated attribution of literary products to a few named individuals, suggests that literacy in LBA did indeed tend to be of the specialized type. Even if a limited use of literate skills by people outside the scribal professional group is certainly conceivable and even likely (e.g. traders conducting their own business correspondence), literacy seems to have been the exclusive domain of a few specialist interest groups. Parenthetically, it may be of interest to note Goody's suggestion that specialized literacy tends to produce *... not only ... its own particular written forms but its own particular oral ones as well. ... the oral component in societies with writing may be influenced in a whole variety of ways by the presence of this additional register*[227]. This effectively implies that specialized literacy will actually help shape oral discourse or even create specialized forms of it. An obvious example relevant to this phenomenon is how oral discourse in modern academies will show very significant deviations from other, more common forms of oral discourse. This should be borne in mind in any discussion of the oral component of scribal education: the form and content of that oral component will, to a certain extent, inevitably be shaped by the literate register.

Second, it may be asked in what kind of *linguistic situation* the Emar texts were produced. Goody proposes that there are three conceivable linguistic situations relative to literacy: (1) the exclusive oral situation, (2) the combined oral plus literate situation and (3) the exclusively literary situation[228]. Each of these three different linguistic situations indicates a different status regarding the language in question. In the published lexical material from Emar two languages are found, viz. Sumerian and Akkadian. With regard to the former it is likely that, besides the Sumerian formulae used in the cultic and divinatory spheres, there was still a residual oral use of Sumerian in scribal training (cf.

[226] Goody, *Domestication*, 152-3.
[227] Ibidem, 52.
[228] Ibidem, 154ff.

the analysis of the phonetic exercises in Part 3 4.4.). As a living, spoken language, however, Sumerian had died out centuries earlier - it was kept alive only as a language of learning, often in a somewhat artificial fashion. Thus, it may be said that in the case of Sumerian Goody's third type of linguistic situation applies, i.e. that of the exclusively literary use. This means that, in his terminology, Sumerian may be described as a *classical language*. With regard to Akkadian the situation is different. In the LBA Akkadian was still a spoken language: not only was it still the mother tongue of much of the population of the Mesopotamian heartland, it was also the language of governance, diplomacy and commerce throughout the periphery, including Syria. Many of the idiosyncrasies of the Akkadian found in the Emar text material, including the lexical texts, may be attributed to the fact that for native scribes Akkadian was a foreign language: their spelling and grammar betray a certain degree influence from their native (West Semitic) language(s). Irrespective of this substrate influence, however, it is clear that in Emar Akkadian was the oral as well as the written medium of communication of choice. To Akkadian, therefore, Goody's second type of linguistic situation applies, i.e. that of combined oral and literate use. In his terminology Akkadian may be described as a *world language*. Finally, Goody's third type of linguistic situation may be said to apply to the largely invisible native language of Emar - an unspecified form of West Semitic -: this language existed in an exclusively oral register and may be described as a *local language*.

Third, it may be asked how the Emar lexical texts are to be evaluated in terms of Goody's general concluding statement that the 'figures of the written word' were instrumental in the changing the construction of knowledge itself. In a somewhat playful reference to Lévi-Strauss' *pensée sauvage* Goody states that *... depending on social as well as technological conditions, (writing) encourages special forms of linguistic activity associated with developments in particular kinds of problem-raising and problem-solving, in which the list, the formula and the table played a seminal part. If we wish to speak of the 'savage mind', these were some of the instruments of its domestication*[229]. In the preceding analysis it has been shown that in the Emar lexical texts various 'particular kinds of problem-raising and problem-solving' can indeed be explained by the various 'figures of the written word' distinguished by Goody - even if not all the consequences he suggests are found to consistently apply. The question is to what degree this statement affirms the postulate of a direct relation between the technology of writing and cognition, i.e. the process of thought itself.

In this regard it is important to make clear that the only aspect of cognition deemed accessible in the present study is its logical aspect, i.e. the part of cognition that may be described in terms of the laws of demonstration and inference. Thus the above postulate must here be modified somewhat to read: 'is there a link between the literate techniques employed in the lexical texts and the logic followed in its content?'. On the basis of the preceding analysis it is felt that the answer to this question must be affirmative. The literate techniques of list, table and recipe may be said to *dictate* the logic found in the content of the texts because these techniques establish inevitable *relations* between the various units of information that are inserted in them. Information units are juxtaposed in

[229] Ibidem, 162.

such a way that relations between them become unavoidable, triggering unavoidable classificatory questions. In case of the cuneiform writing system these classificatory questions are bound to be different than they are in an alphabetic writing system because more *types* of association are possible between cuneiform signs as these signs have various pictographic and graphic associations, multiple, simultaneous phonetic readings as well as more flexible semantic ranges. Items in an alphabetic word list may be arranged following a number of clearly distinct methods (e.g. in alphabetic order, by rhyme, by semantic association), the selection of any *one* of these methods for items in a cuneiform list, however, unavoidably contradicts the inherent polyvalence of values assignable to cuneiform signs. The Emar lexical texts seek to come to terms with concrete polyvalence rather to impose any abstract classificatory criteria. The consistent application of a single classificatory criterion, i.e. what would be termed 'systematization' in modern scientific terms, is not found - only in the later, 'canonical' version of the 1st Millennium can any tendency to 'abstract', single-method association be detected. In short: there is no lack of logic in the lexical lists, it just happens to be of a fundamentally different kind. The laws of demonstration and inference are formulated in an entirely different fashion and the list-format, the table-format and the recipe-format determine this difference. When subjected to the same formats apparently not every writing system will allow the development of a similar logic - rather, in accordance with the unique input provided, these instruments seem to guarantee the development of a unique output. And if Ancient Mesopotamian thought does not strike the modern observer as particularly 'domesticated', this may to be due to the specific logographic nature of the cuneiform writing system rather than to the 'figures of the written word'. Perhaps the power of the contextual associations and interpretative ambivalences inherent in cuneiform writing was too great for ancient scholarship - perhaps too challenging and too fascinating - to ever approach the abstraction levels found in the 'domesticated' logic of modern science.

3.2. Avenues for diachronic research

The preceding application of Goody's theory to the Ancient Mesopotamian knowledge system was necessarily limited to a synchronic approach because only the Emar lexical material was considered as evidence of that knowledge system. The question remains what picture would emerge when a diachronic approach would be attempted. Even a superficial diachronic comparison such as found in Part 3 Chapter 14 has shown that there are some important differences between the Emar material and the earlier OB material on the one hand and - especially - the later 1st Millennium material on the other hand. The differences with the 3rd Millennium material will undoubtedly be even more striking. In terms of Goody's theory, these differences may be due to (multiple) developments in the nature of literacy throughout the long centuries throughout which the Ancient Mesopotamian lexical tradition endured. Here only two preliminary research questions are formulated, with the idea that the challenging issues they raise can perhaps be taken up at a later point.

(a) What are the changes in the types of literacy reflected in the lexical material? To be investigated are for example possible changes in the *range of literacy*, i.e. in the kind of

specialists who used (certain types of) the lists. Given the exponential growth of certain lists it is conceivable that in the 1st Millennium (certain of) the lists evolved outside of the basic educational context, possibly taking on the role of reference work rather than exercise material. If true, it may point to scholarly specialization in the field of lexicology, with a concomitant narrowing in the range of effective literacy. In this regard also worth investigation are changes in the *type of linguistic situation*. The question then becomes: how did shifts in spoken language, such as from Sumerian to Akkadian and from Akkadian to Aramaic, affect the production of the lexical lists? Although there is no Aramaic-language cuneiform material, the replacement of Akkadian by Aramaic may have affected the composition of (certain) lists, for example by triggering a purposeful additional storage of Akkadian references - a situation possibly somewhat similar to the OB attempt to 'store' knowledge of Sumerian when it died out as a spoken language. Another shift in linguistic situation that is likely to have affected the composition of the lists is the need to accommodate the use of a third, fourth and fifth language in certain LBA peripheral sites (most strikingly in Ugarit)[230].

(b) What are the effects of palaographic developments on the development of literacy? More specifically, it could be asked whether the increasingly stylized, abstract form of cuneiform writing, with the concomitant accumulative loss of recognizable pictographic value, affected the way in which literate knowledge was stored, organized and transmitted. If so, paleographic developments it is conceivable that the allowable scope for the interpretation of logograms widened, or at least changed, as the knowledge or - more likely - the importance of their original pictographic associations diminished. Under such conditions a higher degree of abstraction in the interpretation of the logogram could have occurred, widening its discretionary scope. This may help explain the veritable 'explosion' in the number of Akkadian equivalents given for each logogram visible especially in certain 1st Millennium lexical compositions such as Aa. Certainly the increasing graphic stylization of the logograms throughout the centuries may have affected scholarly attempts at acrographic analysis. Old lists may have lost some of their acrographic analytic coherence (e.g. SaV 116 UL is close to the following 117 AZ and 118 UG in its OB graphic form - all of them have a 'triangular' shape in their left-most and right-most parts - which is not the case with its NA graphic form), whereas new lists may have reorganized old key-sign sequences to conform to new acrographic values.

[230] A matter presently being investigated by T. Scheucher.

3.3. Summary

Note: the remarks listed under points '0' below serve as short explanatory introductions, whereas those under other points summarize the actual findings of this study.

3.1. Key notions applied:

3.1.1. Generative transmission:

0. Goody's *generative transmission*, defined as a feature of oral tradition in which the communication and transmission of knowledge that implies a 'capacity to swallow up individual achievement and to incorporate it in a body of transmitted custom', has four central features in terms of which the lexical texts are investigated, viz.: (1) anonymous authorship, (2) amalgamation of creativity and transmission, (3) lack of permanence of cultural constructs and (4) pragmatic dynamism.

1. Concerning *anonymous authorship* there are three relevant observations to be made: (1) there is a complete lack of explicit reference to authorship aside from the colophons, (2) the presence of colophons is not a sufficient counter-indication because the colophon is only concerned with (a) the copy status of the text and with (b) educational control and (3) ultimate authority is consistently and explicitly ascribed to the divine sphere. On balance, Ancient Mesopotamian lexical scholarship appears as a collective and custodial rather than an individual and creative enterprise.

2. Concerning *amalgamation of creativity and transmission* it may be observed that in the lexical texts creativity and transmission empirically coincide: the texts show a slowly accumulating series of innovations contributed by a long line of individual scholars. Even within the Emar lexical curriculum, deriving from a single, synchronically unified archive, variation and innovation occur simultaneously. Over longer periods of time, the accumulated effect the process of transformation caused by amalgamated creativity and transmission caused some lexical series to become transformed almost to the point of being unrecognizable. This slow transformation may be considered as a *slow-motion version* of the generative transmission process that Goody described for oral traditions

3a. Concerning *lack of permanence of cultural constructs* it is proposed that this feature may be seen as dependent on the degree to which literate 'technology' is seen to dominate in the transmission of the lexical texts. Because on the one hand the lexical series remain largely recognizable but on the other hand their content and form show considerable synchronic as well as diachronic flexibility, the place of the Emar lexical tradition could be said to be somewhere in the middle of the proposed technological scale, even if inclining somewhat to the side of literate technology.

3b. Based on the evidence of a limited analysis of the earlier and later stages of the Ancient Mesopotamian lexical tradition in this study, it is argued that for the lexical tradition as a whole its position on the technological scale shifted over time. As it moves from the LBA period into the 1st Millennium, it appears to shift from a middle position, where oral and written technology are still employed simultaneously and interactively, towards the 'literate' technological position, a shift that is near to completion with the 1st Millennium 'canonization'.

4. Concerning *pragmatic dynamism* it may be said that the synchronic integrative methodology, with its premium on interpretative improvisation and classificatory innovation, as well as the diachronic development of systematization indicate a dominance of pragmatic interpretation in Ancient Mesopotamian lexical scholarship.

5a. It appears that *generative transmission* and *anonymous authorship* relate to each other in a manner of *proportionality*: the higher the degree of anonymity, the higher, or faster, its intensity. In exclusively oral traditions anonymity is virtually total across any longer period of time and simultaneously the intensity of generative transmission is very high, resulting in very rapid and very profound transformations in its cultural products. In strongly literate traditions the situation seems to be reversed: author anonymity is virtually eliminated, and the speed of generative transmission of any given cultural product (e.g. a given work of art or a given scientific work) has slowed-down to the point of arrest.

5b. It appears that strong emphasis on individual intellectual achievement as well as increasing disciplinary specialization, such as visible in modern western science, are by-products of the extreme slow-down in generative transmission inevitable in 'super-literate' knowledge systems.

3.1.2. Functional cognitive system:

0. Goody's *functional cognitive systems* are the results of specific modes of communication that affect the development of cognitive structures and processes by influencing the storage, analysis and creation of knowledge. The specific character of the functional cognitive system reflected in the Emar lexical texts is investigated by contrasting its communication technology, i.e. logographic writing, with that of modern Western science, i.e. alphabetic writing. This investigation will follow Goody's analysis of Horton's theory of *open* and *closed systems*, operationalizing the various conceptual dichotomies offered by the latter.

1. The difference between the *magical* and the *scientific* attitude to words is that in the former there is a supposed unity of word, idea and reality which is lacking in the latter - in Goody's analysis the objectification of words in writing breaks the magical unity. It is here proposed that if such a break is achieved by alphabetic writing, it is not necessarily achieved by logographic writing, such as cuneiform writing, where no complete abstraction of idea from word is achieved and where a capacity for magic (across pictographic and ideographic associations) remains inherent.

2. The difference between *occasion-bound* and *idea-bound* ideas is that only the latter allow de-contextualized or abstract formulations - in Goody's analysis this kind of formulations are made possible by the objectification of words in writing. It is here proposed that, unlike alphabetic writing for which Goody's theory may hold true, logographic writing will rather tend to direct scholarly endeavour to the tangible, visible and audible, realities associated with the logogram - this is exactly what is found in Ancient Mesopotamian lexical scholarship with its empiric concern with the constructive principles of the cuneiform writing system itself. The dominance of context- or occasion-bound ideas in the lexical lists does, however, reinforce Goody's general thesis that specific modes of communication will result in the development of specific cognitive structures and processes.

3. The difference between *unreflective* and *reflective* thinking is that only the latter allows the development of logic, epistemology and philosophy - in Goody's analysis, however, this distinction is attributed to the presence or absence of specific techniques which are the prerequisite tools for certain kinds of constructive rumination, techniques developed by writing. It is here proposed that the attributes of reflective thinking, i.e. logic, epistemology and philosophy, should be defined very precisely before a judgment is made about the possible lack thereof in Ancient Mesopotamian lexical scholarship. It may be said that the ancient scholars were concerned with very different issues, resulting in a very different classificatory logic, a very different grounding of knowledge and a very different definition of knowledge itself.

4a. The difference between the *protective* and the *destructive* attitudes to established theory is that the former blocks out any questioning of the particular paradigms established by a given knowledge system, whereas the latter is said to encourage such questioning, which may be viewed as the hallmark of 'scientific' thought. In this dichotomy the mechanism crucial to the development of the destructive attitude is *essential scepticism* (conceptual, explicit scepticism) - in Goody's analysis, however, it is not scepticism *as such* that distinguishes scientific thought, but rather the *accumulation* of scepticism, which becomes possible with writing. It is here proposed that (1) scepticism is not a universal feature of all knowledge systems but rather a particularity of a specific kind of knowledge system, as it is in Horton's scheme, and that (2) the relation between literacy and scepticism is of an indirect nature, with systematic scepticism a function (a professional prerequisite) of individualized authorship, which itself is a function of the extreme slow-down of generative transmission in any 'super-literate' knowledge system. The Ancient Mesopotamian knowledge system is an example of literate system in which essential scepticism did not develop: it is *monolithic* (i.e. it lacks theoretical diversity) and *static* (i.e. it transmits a single body of knowledge rather developing specializations). This may be attributed to the fact that investigative and critical scholarship was guided in a different direction by the very nature of its category system, which is 'closed' and subject to a protective attitude similar to the one proposed in Horton's scheme.

4b. It is proposed that ultimately the logical consequence of the development of essential scepticism - part of the intrinsic dynamics of modern Western science - would be the *replacement of knowledge by opinion*. In the final analysis this phenomena can be traced back to the abandonment of a universally valid transcendental referent, which is indispensable for the maintenance of internal coherence in any given knowledge system.

3.1.3. Figures of the written word:

3.1.3.1. The list:

0. Goody proposes that as a new 'information technology' writing changes cognition and that an important role in this change was played by the rise of the written *list*, which encourages empirical observation and historical recording as well as the definition and exploration of classificatory schemes.

1. The importance Goody attaches to the classificatory tools arising with the written list, viz. (1) determinatives, (2) spatial separation and (3) diacritical markers appears justified in the light of the empirical evidence of the Ancient Mesopotamian lexical list.
2. Goody's suggestion that the Ancient Mesopotamian lexical lists show an 'abstract' and 'non-utilitarian' nature may be somewhat misleading in as far as, at least in the earlier texts, 'abstract' categories were often expressed by concrete graphic markers and that the texts were used in a quite practical and mundane educational context. It could be argued that at a later stage in the lexical tradition (i.e. after the 1st Millennium 'canonization') Goody's suggestion is more applicable.
3. Goody's suggestion that the lexical texts 'crystallize problems of classification and lead to increments of knowledge' seems to be borne by empiric evidence regarding the diachronic development of the texts.
4. Goody's description of the lexical lists as a 'conceptual prison' is an *etic* qualification due to the fact that contemporary science is bound to experience a conceptual *boundary* where ancient scholarship experienced a conceptual *framework* indispensable for the production and transmission of certain kinds of knowledge.

3.1.3.2. The table:

1. The development of the relatively complex multi-column *table* out of the relatively simple single-column lists confirms Goody's thesis that the list as a literary device does indeed tend to foster the growth of knowledge, even to the point of causing the increased complexity and eventual transformation of the device itself.
2. Goody proposes that the table, as a graphic device of a fixed two-dimensional character, will simplify the complexity of any underlying oral body of knowledge and knowledge classification and that the reconstruction of the latter from the former will therefore be highly problematic. With regard to the relation between the preserved written text and its original mixed oral and written context it should be noted that in the OB lexical curriculum there existed an unwritten, virtual 'model' text of which any written version was merely a partial reflection - there are indications that in LBA Emar this OB oral tradition continued to live on, even if in a quantitatively reduced and qualitatively degraded manner. With regard to relation between the preserved written text and its modern scientific interpretation it should be noted that the latter will inevitable distort the former in many ways (alphabetic coding of logograms, selective phonetic interpretation, distortion of relational aspects, loss of divergences in composite interpretation). The divergences between ancient and modern scholarship are bound to represent a formidable obstacle to the modern effort to understand the original oral context in which the ancient texts were produced. A systematic description in terms of the categories that are important in modern linguistic analysis (palaeography, phonology, morphology, lexicology) is inevitably bound to ignore much of the actual issues and questions with which the ancient scribes sought to come to terms. Many of the categories important in modern scientific research are of such a high abstraction level that they are bound to either collide with or simply ignore the kind of concrete, context-bound associative strategies found in the ancient texts.
3. Goody postulates 'attribution of increasing generality' and 'simplification' as a result of the introduction of the written table. A corresponding 'canonization' and 'systematization' visible in the diachronic development of the lexical curriculum indeed suggests that the progressive loss of oral context during the continuous reproduction of the texts allowed them to eventually develop into exclusively literary creations with a tendency to become increasingly 'systematized', a tendency due to an exclusively literary, and hence increasingly abstract conceptualization.

3.1.3.3. The formula:

0. Goody proposes that in an oral setting the lack of fixed *formulae*, i.e. of fixed standard forms, means that compositional creativity and text reproduction are bound to mix (resulting in the process of generative transmission that was discussed earlier). Thus the differences between oral and literate societies with regard to the composition and reproduction of texts may be expressed in terms of their different positions in a *formulaic continuum* in which 'the standard oral forms of non-literate societies fall towards the variable rather than the repetitive ends of the continuum'.
1. In the lexical texts fixed formulae are indeed found, operating either only vertically (in the unilingual lists) or both vertically and horizontally (in the bilingual tables), achieving greater levels of abstraction as their complexity rises (e.g. in 'virtual determinative sequences').
2a. The position of the LBA Emar material in Goody's formulaic continuum may be decided by the level of standardization of content visible, because the lack of such standardization in primarily oral contexts, Goody argues, results in the lack of fixed models for text reproduction. In this respect the divergence between individual text witnesses (given in Part 1) and the reconstructed 'virtual' composite model text (given in Part 2) would suggest a significant residual oral component in the production process of the former.
2b. In view of the subsequent 'canonization' and 'systematization' evident in the lexical tradition, the fact that the transmission process in LBA Emar still took place in a basically oral context (with the written text still

having the status of an auxiliary tool), then the Emar lexical texts may well represent one of the last witnesses of the original form of primarily oral compositional process.

3.1.3.4. The recipe:

0. Goody proposes that the *recipe* - which includes the prescription variant - is a form of thought that is enhanced with the rise of the written nominal list, and which ultimately allows the rise of formalized scientific experiments.
1. The four features of the nominal lists that allow the recipe to develop are also found in the lexical lists, viz.: (a) *diacritical demarcation* in vertical and horizontal lining, (b) *lateral displacement in a matrix* in the 'right position shift', (c) *combination of specifications of variables with omissions of constants* in 'virtual determinative sequences' and (d) *inclusion of what is foreign at the expense of what is local* in the dominance of Sumerian.
2. Of Goody's four consequences of the enhanced instrumentality of the recipe in written nominal lists two are also found in the lexical lists, viz.: (a) the *extension of knowledge range* in the general tendency to diachronic expansion and (b) the *development of experimental thought* in the different approaches to writing proposed in each different lexical composition. The third consequence, viz. (c) the *democratization of knowledge*, must be rejected as the knowledge aimed at in the scribal school simply did not lent itself to 'democratization': its transmission aimed a perpetuating a very specialized knowledge tradition which was of a primarily non-practical, non-utilitarian nature. The fourth consequence, viz. (d) the *specialization of labour* (based on the separation of practice and theory) is relevant with regard to two different uses of the lexical texts, viz. (1) use in the scribal professional itself, where any labour division achieved was found only in the school itself and where (temporary, generational) separation of theory and practice is only found between teachers and students, and (2) use in relation to the wider society, where the lexical texts indirectly contributed to labour specialization by being a (small) part in a larger mechanism that (re)created the socially distinct group of professional scribes.

3.1.3.5. Evaluation of Goody's general conclusions:

1. In terms of Goody's classification literacy in LBA Emar may be typified as *non-general* and *specialized* (i.e. unrestricted in its range of application but limited in its range of practice).
2. In terms of Goody's classification the linguistic situation in LBA Emar may be typified as *exclusively literary* with regard to Sumerian, which had the status of *classical language*, as *combined oral and literate* with regard to Akkadian, which had the status of *world language*, and as *exclusively oral* with regard to West Semitic, which had the status of *local language*.

3a. In support of Goody's central thesis it may be said that for the lexical texts investigated there is an undeniable link between the literate techniques they employ and the kind of logic found in their content: the literate techniques of list, table and recipe may be said to *dictate* the logic found in the content because these techniques inevitably certain specific *relations* between the various units of information that are inserted in them.

3b. From the 'technological' perspective it may be said that the difference between the logic found in alphabet-based Western knowledge system and the logic found in the logogram-based Ancient Mesopotamian knowledge system is that the laws of demonstration and inference are formulated in an entirely different fashion and that the list-format, the table-format and the recipe-format *determine* this difference. Apparently, when subjected to the same formats, not every writing system will allow the development of a similar logic - rather, specific writing systems seem to guarantee the development of unique output.

3.2. Suggested avenues for diachronic research:

1. The development of literacy reflected in the lexical tradition (more specifically regarding range of literacy and type of linguistic situation).
2. The effects of palaeographic developments on the development of literacy (more specifically the effect of the loss of recognizable pictographic value).

CHAPTER 4 – THE STRUCTURALIST PERSPECIVE

> *L'explication scientifique ne consiste pas dans le passage de la complexité à la simplicité, mais dans la substitution d'une complexité mieux intelligible à une autre qui l'était moins*[231].

4.0. Aim, method and organization

Aim

The aim of this chapter is to analyze the Ancient Mesopotamian knowledge system represented by the Emar lexical texts in terms of the theory on classification developed by C. Lévi-Strauss in his 1962 work *La pensée sauvage*. This theory re-examines the enigmatic 'totemic' quality that earlier anthropologists had assigned to a large variety of classificatory schemes found in a large number of non-literate societies around the world, societies deemed 'primitive' by Western scientists until fairly recently. Between many of these schemes, applied to - and often linking - varying fields, from kinship to cosmology, earlier anthropologists thought to notice vague resemblances in various societies around the world. The common denominator of many of these schemes, earlier qualified as 'primitive' or 'pre-logic', was generally held to be their 'totemic' nature. The anthropological term 'totemic', derived from the Ojibwe[232] word *doodem* 'clan' in a context of differentiation of social groups by means of varying non-human ancestries, was - rather vaguely - applied to the general phenomenon of analogies between natural and cultural phenomena found in many non-literate societies. Anthropologists have approached 'totemism' from a number of different functional perspectives (e.g. from the perspective of social and religious identity by Durkheim or from the perspective of empiric bio-functionality by Malinowski), but it was Lévi-Strauss who discerned its cognitive functionality, i.e. its function as a classificatory tool. Lévi-Strauss views 'totemism' as only one (albeit striking) expression of what was earlier generally referred to as 'primitive' thought. Lévi-Strauss uses the term *sauvage* 'wild' thought, interpreted by Goody as 'undomesticated' thought - thought which depends on *analogue* rather than on *analytic* reasoning and which uses natural objects as referents, in contrast to modern Western science which uses abstract concepts. In Lévi-Strauss' analysis such 'undomesticated' thinking differs from 'scientific' thinking not in terms of *capacity* but of *interest*: it is interest that determines both, even if the specific interest of each are directed differently. To measure knowledge by the degree to which it is abstract - that is to say abstract conform modern Western scientific standards - is merely a matter of convention. If, for example, a given society lacks the abstract concept 'wood' or 'animal' this does not imply it lacks the capacity for abstract thinking, but merely that it has no interest in and no need for a concept with this kind of abstract value. It should be remembered that in Lévi-Strauss' view such a lack of specific - one might say *irrelevant* - terminology does not indicate that 'primitive'knowledge is only functionally utilitarian, but rather that the conceptual relation between what is (practically) *useful* and what is

[231] C. Lévi-Strauss, *La pensée sauvage* (Paris 1962) 328.
[232] A language of the Central Algonquian language group spoken in the Eastern Great Lakes area of North America.

(theoretically) *interesting* varies between societies[233]. Lévi-Strauss actually proposes that practical usefulness and theoretical interest found in particular societies are shaped by the structure of their particular knowledge systems. He gives examples of extraordinarily developed non-utilitarian knowledge found in many primitive societies[234] and concludes that *... (d)e tels exemples, qu'on pourrait emprunter à toutes les régions du monde, on inférait volontiers que les espèces animals et végétales ne sont pas connues, pour autant qu'elles sont utiles: elles sont décrétées utiles ou intéressants, parce qu'elles sont d'abord connues*[235]. It follows that the primary object of what he terms the 'science of the concrete', found in many non-literate, 'primitive' societies, is not of a practical but of an intellectual nature. The primary concern shared by all knowledge systems, 'domesticated' or 'undomesticated', may be said to be the imposition of order, order achieved by the *classification* of objects and phenomena - *... le classement quel qu'il soit, possédant une vertu propre par rapport à l'absence de classement*[236]. It is the nature of 'undomesticated' classification and its relation to 'domesticated' classification that Lévi-Strauss seeks to investigate. The means by with he does so is a structuralist approach, i.e. an approach which assumes that surface cultural phenomena - including classificatory schemes - are manifestations of subsurface cognitive structures. The present chapter aims to apply this structuralist approach to the Ancient Mesopotamian classification system, as apparent in the lexical texts under consideration, by following the investigative framework set up by Lévi-Strauss in *La pensée sauvage*. The question which it attempts to answer may be formulated as follows: 'to what extend are Lévi-Strauss' conclusions about 'undomesticated' classification relevant for the Ancient Mesopotamian classification system found in the Emar lexical texts?'.

It may be asked whether the Ancient Mesopotamian classification system is at all comparable with the 'undomesticated' classification systems treated by Lévi-Strauss. At first glance, any such comparison may seem awkward, as the former is the product of a literate civilization steeped in history and scholarly tradition, whereas the latter are the products of small-scale, non-literate cultures, profoundly different in technological and material accomplishment. Any such *a priori* objection, however, would miss the point of the thought experiment aimed at in this chapter, viz. the comparative analysis of underlying classificatory principles, irrespective of transmission technology or historical longevity. In any case, it is the result of this investigation, not its experimental nature, which should decide its value.

Method

Before explaining the investigative method chosen for this chapter, a note should be made regarding terminology: the term *totemic* will henceforth be used to refer to the kind of 'wild', 'undomesticated', non-literate logic, classification and knowledge systems which Lévi-Strauss aims to analyse. This is done merely for convenience, without necessarily implying any of the concrete animal or kinship associations inherent in the

[233] Lévi-Strauss, *La pensée*, 3-6.
[234] Ibidem, 14.
[235] Ibidem, *La pensée*, 15.
[236] Ibidem, *La pensée*, 16.

original meaning of the word 'totem' and without necessarily subscribing to any notions attached to this term by anthropologists preceding him. Following Lévi-Strauss, it thus becomes possible to speak of *totemic* classification and *totemic* logic as opposed to *scientific* classification and *scientific* logic. The actual content of what is totemic classification in Lévi-Strauss' analysis will be discussed as this chapter develops its arguments. Obviously, Lévi-Strauss' use of the term totemic implies a measure of generalization - this is intentional and meant to achieve a scientific model, a model which does not necessarily match any empirically verifiable classification system encountered in the real world. The resultant scientific model, however, will be tested in at least one empirically verifiable classification system, viz. the Ancient Mesopotamian classification system, as encountered in the lexical texts under consideration.

To determine to what extend Lévi-Strauss' analysis of totemic classification apply to the lexical texts Lévi-Strauss' key concepts will be systematically tested on them. First, the lexical texts will be positioned in terms of Lévi-Strauss' opposition of the techniques of totemic respectively scientific logic, viz. of *bricolage* vs. engineering. Subsequently, it will be investigated how the lexical texts handle certain of what Lévi-Strauss' considers key structural operations, viz. *systematic transformations*, *classifications as species* and *classifications as proper name*.

Organization

This chapter is divided into five paragraphs - the first three apply three of Lévi-Strauss' key notions concerning totemic classification to the lexical texts. The fourth constitutes an excursus of a philosophical nature concerning the degree to which Lévi-Strauss' analysis of history in totemic logic and that may help explain certain tendencies visible in the development of the Ancient Mesopotamian lexical tradition. The final, fifth paragraph gives a summary of the findings of this chapter.

4.1. *Bricolage* technique

Bricolage *vs. science*

Lévi-Strauss uses the term *bricolage intellectuel* to describe the operations of totemic logic[237]. In his view, the operations of the totemic *bricoleur* may be viewed as opposed to those of the scientific 'engineer' primarily in terms of the scope of their respective instrumental inventories. Whereas scientific logic - the modern 'engineer' - works with *concepts*, which always require the incorporation of human mediation (i.e. interpretation, reorganization), totemic logic - the 'primitive' *bricoleur* - works with *signs*. The totemic sign is conceived as an object totally transparent to reality, effectively it is merely a pre-transmitted message received by the *bricoleur*[238]. In Lévi-Strauss' analysis, the difference between totemic and scientific logic is essentially reduced to a difference in operational scale: *... les éléments que collectionne et utilise le bricoleur sont <<préconstraints>> ... On pourrait être tenté de dire qu(e l'ingénieur) interroge l'univers, tandis que le*

[237] Ibidem, 26.
[238] Ibidem, 30.

bricoleur s'addresse à une collection de résidus d'ouvrages humains, c'est-à-dire à un sous-ensemble de la culture[239].

In this analysis there are two aspects of the difference in operational scale that can help explain the often very peculiar - or simply 'wrong' - appearance of totemic classification systems in the eyes of the modern scientific observer (e.g. the concept of 'magic' as critically investigated by Lévi-Strauss himself[240]), viz. (1) the rigorous application of a *single organizing principle* found in totemic logic and (2) the *single-level, non-hierarchical approach* of totemic logic, as opposed to the multi-level, hierarchical approach of scientific logic. The first aspect may be viewed as an imperative, *intransigent form of determinism* that would be untenable in scientific logic[241]. The second aspect may be viewed as a *totalizing micro-perequation* of all possible objects and phenomena at a single conceptual level, allowing their incorporation into a single, unified system with no equivalent in (or perhaps eluding) modern science[242]. These two aspects will here serve as criteria by which to measure to what degree the Ancient Mesopotamian texts under investigation - which by no stretch of imagination can qualify as 'scientific' in the modern sense in either appearance or character - could actually be explained as constituting a totemic classification system.

Intransigent determinism and totalizing micro-perequation

With regard to the first criterion, i.e. *intransigent determinism*, a single organizing principle, consistently applied, may indeed be found in the lexical texts, viz. the *integrative methodology* pursued by the ancient scholars as analyzed in Part 3. As stated in Part 3 (2.1.2.2., 2.1.3.), this methodology consists of the establishment of relations between what are, in terms of modern science, unrelated phenomena, and is achieved by the systematic description of cross-classificatory connections between scientifically heterogeneous (graphic, phonetic, semantic) elements. There is no plurality of scientific principles or criteria in the lexical curriculum: its classification system is *exclusively* determined by one criterion only, viz. the potential (theoretical, projected) relation between cuneiform signs. This potential relationship is actualized by applying the noted integrative methodology, which ignores modern scientific categories. The lexical lists are *exclusively* cuneiform sign lists, i.e. lists of historically transmitted cuneiform grapheme inventories. In these lists there is no pursuit of any specialized scientific discipline, even if modern scientific interpretation may be able to *project* some semblance of specialized 'scientific' (e.g. botanic, geographic, astronomic) classification on some of them. The *exclusive* determinating principle underpinning the knowledge contained in the lexical lists is the interpretability of the cuneiform sign by means of the integrative method. In this sense, any particular composition (i.e. any particular lexical series) attested in any given historical period and any particular individual realization (i.e. any specific tablet)

[239] Ibidem, 29.
[240] Ibidem, 18-9.
[241] *... n'est-ce pas que (cette) pensée... se distingue moins de la science par l'ignorance ou le dédain du déterminisme, que par une exigence de déterminisme plus impérieuse et plus intransigeante, et que la science peut, tout au plus, juger déraissonable et précipitée?*- Ibidem, 18.
[242] Ibidem, 19.

attested in any specific school may be considered a *bricolage* product, i.e. an ad hoc improvisation constructed from a historically limited element inventory. Lévi-Strauss' analysis of how the *bricolage* 'game' works gives a strikingly fitting description of how the lexical curriculum is in fact constantly re-worked, re-created and re-defined:

... la règle du ... jeu (de bricolage) est de toujours s'arranger avec le 'moyens du bord', c'est-à-dire un ensemble à chaque instant fini d'outils et de matériaux hétéroclites au surplus, parce que la composition de l'ensemble n'est pas en rapport avec le projet du moment, ni d'ailleurs avec aucun projet particulier, mais est le résultat contingent de toutes les occassions qui se sont présentées de renouveler ou d'enrichir le stock , ou d'entretenir avec les résidus de constructions et de destructions antérieures. ... les éléments sont recueillis ou conservés en vertu du principe que <<ça peut toujours servir>>. ... Tous ces objets hétéroclites qui constituent son trésor, (le bricoleur) les interroge pour comprendre ce que chacun d'eux pourrait <<signifier>>, contribuant ainsi à définir un ensemble à réaliser ...[243].

Thus, the lexical lists, with their limited and constantly re-worked inventory of cuneiform signs, can be interpreted as a particular *univers instrumental clos*[244] within which the ancient scholars operated. The historical development of these lists across the centuries can be interpreted as a series of variations on a single *bricolage* theme. It should be noted, however, that the speed of the transformations found in this particular Ancient Mesopotamian *bricolage* 'game', as evident from durable written documents, may be considerably lower than the transformations occurring in non-literate traditions, such as constitute the bulk of Lévi-Strauss' empiric material. Also it should be noted that the mechanisms behind the slower transformations are probably - at least partially - of a very different logical order than those found in non-literate traditions. This issue will be discussed in 4.2. below. For now, however, it should be noted that the basic set-up of the lexical lists resembles that of any *bricolage* operation.

The applicability of Lévi-Strauss' *bricolage* concept to the lexical lists also may be seen with regard to the second criterion, i.e. to *totalizing micro-perequation*, as the lexical lists do indeed show a persistent single-level logical approach. This approach consists in the interpretation of all objects and phenomena in terms of (graphically expressed) *signs*. What the lexical lists effectively serve to do is to provide an equation for all conceivable natural and cultural objects and phenomena to a limited, traditionally accepted body of signs, i.e. to a sign code. The sole ultimate purpose of the lists is the transmission of this sign-code. The fact that the presentation of this sign code varies over time, as evident from the diachronic transformation and synchronic variation in the various attested compositions, does not alter the fundamental fact that the lists are never concerned with a pursuit of knowledge other than that of (re-)formulating a sign-code. There is no evidence of any other investigative interest - even obviously separate logical categories such as graphic, phonetic and semantic value are never consistently investigated separately. The modern scientist may discern, here and there, in some parts of the curriculum, rudimentary 'beginnings' of quasi-scientific investigative endeavor (e.g. in later quasi-

[243] Ibidem, 27-8.
[244] Ibidem, 27.

'acrographic' versions of Izi), but never does the Ancient Mesopotamian lexical list quite manage to rise above the single logical level of what has been called its *Listenwissenschaft*. An explanation of this single-level logical approach may be found in Lévi-Strauss' analysis of the nature of the smallest knowledge units in *bricolage*, i.e. the nature of the kind of elements that it deals in: *(c)haque élément représente un ensemble de relations, à la fois concrètes et virtuelles; se sont des opérateurs, mais utilisable en vue d'opérations quelconques au sein d'un type. ... (ils) se situent toujours à mi-chemin entre de precepts et de concepts*[245]. In other words: the kind of elements that *bricolage* occupies itself with are of a binary nature and this is exactly the kind of element the lexical lists are concerned with, viz. the *sign*[246]. The type of signs dealt with in the lexical lists is, more precisely, the logogram. The logogram indeed has a binary status, referring to both concrete precepts (i.e. their original pictographic referents) and virtual concepts (i.e. their derived associative content), which effectively precludes any discourse that separates the former from the latter: *(i)l serait impossible d'extraire les premiers (les precepts) de la situation concrète où ils sont apparus, tandis que le recours aux seconds (les concepts) exigerait que la pensée puisse, provisoirement au moins, mettre ses projets entre parenthèses*[247]. Following this line of thought, it may be suggested that the occasional appearances of quasi-scientific analysis in the lexical lists, such as occasional 'grammatical' investigations (e.g. the declination and conjugation sequences in Hh) and 'acrographic' investigations (e.g. the series SagB), are, in fact, examples of what Lévi-Strauss calls 'provisional' conceptual 'excursions'. These appearances should therefore be considered as *atypical* relative to what, in view of its exclusively logographic origin and element inventory, cannot be other than a *bricolage* system.

Having found that the lexical curriculum fulfills the criteria of both intransigent determinism and totalizing micro-perequation, it should be concluded that, in terms of Lévi-Strauss' theory, the lexical curriculum, in fact, *constitutes a* bricolage *system*, a system operated on the basis of totemic logic. It should be noted that in addition to the *logical* evidence presented here, *formal* evidence can be produced for this conclusion. The general theoretical question of formal procedure will be pursued in paragraph 4.2., but it should be noted that specific formal comparison of the lexical lists with ethnographic evidence will not be pursued here. This would require a professional re-assessment of the ethnographic evidence impossible in the context of the present study. Perhaps a formal comparative analysis of the lexical curriculum - and other genres of cuneiform literature - in terms of Lévi-Strauss' ethnographic evidence could be attempted in another context. For now, however, a single clue to its promise must suffice. Even the most cursory investigation of the mass of empiric evidence from 'primitive' classification systems provided by Lévi-Strauss reveals striking formal similarities between these systems and the classification system constituted by the lexical lists in terms of their heavy reliance on the mechanism of *systematic oppositions* used in the construction of

[245] Ibidem, 27-8.
[246] Note Lévi-Strauss' definition: *Or un intermédiaire existe entre l'image et le concept: c'est le signe, puisqu'on peut toujours le définir, de la façon inaugurée par Saussure à propos de cette catégorie particulière que forment les signes linguistiques, comme un lieu entre une image et un concept, qui dans l'univers ainsi réalisée, jouent respectivement les roles de signifiant et de signifié.* - Ibidem
[247] Ibidem

identity and function. Elements of a given inventory are systematically opposed in different arrangements, allowing a different use and the establishment of different identities and functions. Whatever is the nature of the elements involved - whether they be totemic geographic sites, as in the case of Lévi-Strauss' re-analysis of social structures in the New Hebrides[248], or whether they be cuneiform logograms, as in the case of the Ancient Mesopotamian lexical lists - is essentially immaterial. What matters is the great similarity found in the formal procedure of opposition. This may serve as an indication of the avenues available to formal approach.

Concluding this sub-paragraph, it may be said that the lexical texts, despite their origin in a literate culture and a urban civilization, present the modern scientist with the kind of classificatory system and logical quality more commonly associated with non-literate, 'primitive' cultures. In view of the profound implications of this conclusion, it is felt that it would be appropriate to explore some of these implications in more depth. Thus, it will be attempted to relate two important aspects of Lévi-Strauss' theoretical model to the lexical texts, viz. the historical aspect and the artistic aspect.

History in totemic classification

In Lévi-Strauss' theory, science distinguishes contingent events and necessary structures (scientific structures here being defined as the general theories underlying specific scientific theses), but *bricolage* derives its structures from events (*bricolage* events here being defined as *témoins fossiles de l'histoire d'un individu ou d'une société*[249]). Thus, it could be said that science and *bricolage* proceed with a reversed view of what is diachronic and what is synchronic relative to their classificatory structures. With this in mind it can be understood that, for Lévi-Strauss, history is not an objective reality, but a social construct taking on the form of structural discourse: *... l'histoire n'est pas liée à l'homme, ni à aucun objet particulier. Elle consiste entièrement dans sa méthode, dont l'expérience prouve qu'elle est indispensable pour inventorier l'intégralité des éléments d'une structure quelconque, humaine ou non humaine*[250].

On the one hand, modern historical methodology is constructed by means of a *historical code*, based in turn on *date classes*, each defined by their respective frequency and each constituting a historical domain. Thus, historical events can appear as ordinal or cardinal numbers (all of these relative only in relation to other numbers) and simultaneously as members of class (a year class, a month class, a date class etc.)[251]. The value of historic events is determined solely by this structural framework, within which each event is related to a specific social function: *(c)e qui rend l'histoire possible, c'est qu'un sous-ensemble d'événements se trouve, pour une période donnée, avoir approximativement la même signification pour un contingent d'individus qui n'ont pas nécessairement vécu ces*

[248] Ibidem, 105ff.
[249] Ibidem, 32.
[250] Ibidem, 345.
[251] *(La) quantité variable de dates appliquées sur des périodes d'égale durée, mesure ce qu'on pourrait appeler la pression de l'histoire: il ya des chronologies <<chaudes>>, qui sont celles des époques où de nombreux événements offrent, aux yeux de l'historien, le caractère d'éléments différentiels.* - Ibidem, 343.

événements, et qui peuvent même les considérer à plusieurs siècles de distance. L'histoire n'est donc jamais l'histoire, mais l'histoire-pour[252].

On the other hand, in totemic classification, the present (social) context (or: functionality) tends to continually re-shape the structural framework of historic discourse, to the extent of eliminating historic contingency: *(i)l y a ... une sorte d'antipathie foncière entre l'histoire et les systèmes de classification (totèmiques)... Dans le totémisme ... la fonction l'emporte inévitablement sur la structure*[253]. Thus, a classification system based on totemic logic will inevitably seek to annul any historical event, by incorporating the event by imposing a fixed homology between the natural and cultural paradigms, a procedure which lies at its core. It will, in effect, 'absorb' the event into these paradigms. Although it has to deal with historical events no less than any other thought system[254], totemic logic seems to be 'absorbing' them directly into a-historical classificatory schemes: *... on ... découvre (l'histoire) déjà enracinée dans la pensée sauvage, (mais) ... elle ne s'y épanouit pas. Le propre de la pensée sauvage est d'être intemporelle; elle veut saisir le monde, à la fois, comme totalité synchronique et diachronique ...*[255]. A totemic classificatory scheme will integrate knowledge irrespective of its chronological provenance and such a scheme will inevitably lack concern with any explicit genealogy. Thus, paradoxically, the near-total transparency of totemic classification to historical contingency actually imparts it with a seemingly 'timeless' quality. Totemic logic has no use for explicit analysis of historical causality and relativity - instead, it incorporates historical developments by juxtaposing them with and filing them along formally parallel signs, adding them to the larger sign inventory without changing the structure of that inventory.

Lévi-Strauss describes the resultant total sign inventory as essentially nothing but a collection of *aide-mémoires* based on similitude: *(u)ne multitude d'images se forment simultanément, dont aucune n'est exactement pareille aux autres; dont chacune, par conséquent, n'apporte qu'une connaissance partielle (du monde réel), mais dont le groupe se caractérise par des propriétés invariantes exprimant une vérité. La pensée sauvage approfondit sa connaissance à l'aide d'*imagines mundi*. Elle construit des édifices mentaux qui lui facilitent d'intelligence du monde pour autant qu'ils lui ressemblent. En ce sense, on a pu la définir comme pensée analogique*[256]. This description, in fact quite well fits the Ancient Mesopotamian lexical lists. These lists contain a multitude of graphic images, none exactly equal to the other, clustered in groups, each group characterized by invariable properties and each group expressing a particular classificatory 'truth'. These graphic images, i.e. the cuneiform logograms, may be considered *imagines mundi* in the most literal sense - they allow knowledge to be constructed by means of associative mechanisms which, in the final analysis, depend on the resemblances between the logograms and their real world referents.

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[252] Ibidem, 341.
[253] Ibidem, 301.
[254] *Long ... que la recherche d'intelligibilité aboutisse à l'histoire comme à son point d'arrivée, c'est l'histoire qui sert de point de départ pour toute quête de l'intelligibilité. ... l'histoire mène tout, mais à condition d'en sortir.* - Ibidem, 348.
[255] Ibidem
[256] Ibidem

Viewing the cuneiform lexical lists as a species of totemic classificatory system also explains the clear disregard for what the modern scientist would term the 'historical value' of these texts by their authors. These authors simply modified the texts, according to current curricular needs and local context, as seemed suitable to them, discarding the 'original' versions. Interpretations and vocabulary could be inserted into or omitted from a lexical composition, irrespective of the ancient origin of the core of that composition and irrespective of the eventual accumulative changes in the nature of the composition itself (cf. the transformations in Lu and Izi discussed in Part 3 14.5-6.). Even the most textually stable compositions, such as SaV, which shows some stability at least with regard to its key-word inventory and sequence (cf. Part 3 14.2.), are subject to such modifications. More importantly, nowhere is any attempt made at an historical analysis of the lexical material itself: there is no explicit analysis of any historical phenomena such as etymological connections, phonetic developments or semantic shifts. Causality and relativity are never explicitly explored in the historical dimension. Here Lévi-Strauss' term 'analogue thinking' comes to mind as a quite appropriate description for the logic behind the Ancient Mesopotamian lexical lists.

Art in totemic logic

> *... l'exigence d'organisation est un besoin commun à l'art et à la science et ... par voie de conséquence la taxinomie, qui est la mise en ordre par excellence, possède une éminente valeur esthétique*[257].

In Lévi-Strauss' view there is an intermediate stage between magic and scientific knowledge, viz. authentic traditional art[258]. His argument is that any authentic traditional art object is essentially a *reduced model*, which has universal aesthetic appeal due to its implicit reversal of the process of knowing (in his view enlargements are, simply put, reduced models as well, resulting from *reverse reduction*). Lévi-Strauss proposes that, whereas in real life knowledge of parts precedes that of the whole, in the reduced model knowledge of the whole precedes that of the parts: the quantity-quality experience is reversed and man-made experience supplants real-life experience[259]. Lévi-Strauss posits that traditional art and totemic logic are similar in *procedure*. To arrive at his reduced *model* the traditional artist will always incorporate contingent 'events' of what he is modelling (e.g. the color of the sky in a painting or the facial expression of his subject in a sculpture). In terms of formal procedure this process is similar to the *bricolage* of totemic logic, which always proceeds from - and incorporates - such elements as are contextually available. In this sense, traditional art maybe viewed as 'concrete' in the same way as totemic logic was found to be the 'science of the concrete'. It could be said that both traditional art and totemic logic proceed by means of *bricolage* in as far as both use contingent events, definable as ... *témoins fossiles de l'histoire d'un individu ou d'une société* ..., to obtain structure[260].

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[257] Ibidem, 21.
[258] Ibidem, 33ff.
[259] Ibidem, 35.
[260] Ibidem, 32. It may be noted here how the procedures of modern science and totemic logic are opposed by a reversal in the relation between the diachronic and the synchronic: the former proceeds from necessary

A side-effect of the *bricolage* procedure found in both traditional art and totemic logic is that it enables both to incorporate non-sense, something modern science cannot achieve: *(d)e son côté, la pensée mythique (le bricolage) n'est pas seulement la prisonnière d'événements et d'expériences qu'elle dispose et redispose inlassablement pour leur découvrir un sens, elle est aussi libératrice, par la protestation qu'elle élève contre le non-sens, avec lequel la science s'était d'abord résignée a transiger*[261]. This feature of totemic logic may be one way of explaining the fact that in the eyes of the modern scientific observer its products - such as the Ancient Mesopotamian lexical lists - tend to be profoundly lacking in 'logical' adequacy.

Lévi-Strauss' analysis also allows another perspective, especially applicable to the Ancient Mesopotamian lexical lists, viz. to view them as possessing a clear *artistic* value. If Lévi-Strauss' proposition, outlined above, is followed and reduced models are said to have universal esthetic appeal, then the lexical lists certainly qualify as art objects. In front of these lists the reader is factually transformed into a viewer of collections of what are in effect miniaturized 'reduced models', viz. the logograms. One of the things that art does, in Lévi-Strauss' view, is to imbue the viewer with the powers of the author, by giving him access to a variety of potential modalities regarding a given object, access which is achieved by the one specific, actual modality of the object in question chosen by the artist. In his own words: *(c)omme le choix d'une solution entraîne une modification du résultat auquel aurait conduit une autre solution, c'est donc le tableau de ces permutations qui se trouve virtuellement donné, en même temps que la solution particulière offerte au regard du spectateur, transformé de ce fait - sans même qu'il le sache - en agent*[262]. In fact, in the lexical lists, such a 'table of permutations' is given not only virtually, but also - at least partially - *factually*. The universal esthetic appeal of the reduced model, applicable also to the lexical lists, may perhaps best be summarized by Lévi-Strauss' statement that *... le vertu intrinsèque du modèle réduit est qu'il compense la renonciation à des dimensions sensibles par l'acquisition de dimensions intelligibles*[263]. Which is, it may be added, exactly the principle that guided the invention of cuneiform logograms in the first place.

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structure (theory, hypothesis) to contingent event, whereas the latter proceeds from contingent event to improvised structure.

[261] Ibidem, 33.

[262] Ibidem, 35-6.

[263] Ibidem

4.2. Systematic transformations

Introductory notes

Two precautionary remarks are necessary before investigating how totemic logic depends on the structural operation of *systematic transformations* and before determining to what degree this kind of operation is found in the lexical lists.

First, it should be noted that there are two important difficulties in understanding totemic classification: (1) the identification of significant elements and (2) the difference between these and their discretionary functions. What should be remembered is that the elements found in *bricolage* operations are not raw material - they have concrete, real-life referents, but these referents are 'recycled' and applied out of their original context. They may be said to be heterogenic in content and analogue to each other only in *form*. In other words, the value of the terms (or elements) of *bricolage* classification are not determined primarily by their specific 'surface' content, but rather by their position in the overall classification system[264]. In case of the lexical lists this principle is evident in the fact that the cuneiform signs consist mostly of original pictograms that are re-interpreted as ideograms, logograms and phonograms (e.g. UD, originally a pictogram of the sun rising over the horizon, carrying the ideographic association 'day', may be read as a logogram with value ZALAG *namru* 'shining', as in SaV PST 068.05, and as a phonogram with value /ut/, as in SaV T2 VIII 38 ÚR *ut-lu₄* 'lap'). Thus, it is evident that the value of the element UD is primarily determined by it's *position* in the system. Concerning the identification of significant elements in cuneiform lexicology it is striking that - despite the limited total inventory of logograms and many having a reconstructable genealogy dating back to the dawn of writing itself - the precise pictographic origins of a considerable number of these logograms still remain obscure. Here applies the general difficulty, noted by Lévi-Strauss, faced by modern science when it comes to reconstructing a logic which was primarily imparted by the *practical* conditions and which depended on *concrete* knowledge, knowledge doubly intellectual and affective, conditioned by a lost natural life-world[265]. In the words of Lévi-Strauss: *bricolage* classification systems, such as the one underlying cuneiform lexicology, ... *opèrent avec des logiques à plusieurs dimensions, dont l'inventaire, l'analyse et l'interprétation exigeraient une richesse d'informations ethnologiques et générales qui font trop souvent défaut*[266]. Which implies that (part of) the origin, significance and functionality of the elements under investigation most likely escape modern scientific analysis. As a result, any modern scientific understanding of the cuneiform logograms is limited to an empirically gained, but inevitably only partially achieved reconstruction of *functions* - a reconstruction based on an inevitably very fragmentary understanding of their original real-life referents or their originally associated context.

Second, it should be noted that whenever a 'pure' totemic classification system, such as found in exclusively oral, so-called 'primitive' societies, is subjected - perhaps slowly,

[264] Ibidem, 48-9.
[265] Ibidem, 52-3.
[266] Ibidem, 86.

gradually - to fusion, incorporation, replacement or deformation under pressure of other classification systems, such as those intrinsically inherent in writing (cf. the discussion of the 'techno-logical' implications of writing in Chapter 3), the totemic classification will tend to *progressive entropy*. To understand this, it is appropriate to look at the internal dynamic of the 'pure' totemic classification system. There, every *content relation* in totemic classification, i.e. all content carried by its juxtaposed discretionary elements, is of a temporary, *unstable* nature. Only the *formal operation* of the totemic classificatory system is of a constant, *stable* nature: *(p)ar son caractère formel et par la <<prise>> qu'il exerce sur toute espèce de contenus, (l)e souci (des écarts différentiés qui imprègne l'activité empirique aussi bien que spéculative de ceux que nous appelons primitifs) explique que les institutions indigènes puissent, bien qu'emportées elles aussi dans un flux de temporalité, se maintenir à distance constante de la contingence historique et de l'immutabilité d'un plan, et navigues, si l'on peut dire, dans un courant d'intelligibilité*[267]. In a 'pure' totemic classification system the actual content handled by its formal operations, i.e. the contents assigned to discretionary elements at a certain point in time, is imbued with a certain amount of 'weight' - this content, or at least (residual) association with this content, is not easily completely dislodged. Systemically this implies a certain 'unwieldiness', a tendency to delay and an intrinsic 'resistance' to radical alterations in logical process. Lévi-Strauss describes this quality and explains its effects in relation to the myths and rites, which he takes as frequent examples of totemic logic: *(l)es mythes et les rites changeront, mais avec un certain retard et comme s'ils étaient doués d'une rémanence qui préserverait en eux, pendant un temps, tout ou partie de l'orientation primitive. Celle-ci demeurera donc, à travers eux, indirectement agissante pour maintenir les nouvelles solutions structurales dans la ligne approximative de la structure antérieure. A supposer un moment initial (dont la notion est toute théorique) où l'ensemble des systèmes ait été exactement ajusté, cet ensemble réagira à tout changement affectant d'abord une de ses parties comme une machine à <<feed-back>>: asservie ... par son harmonie antérieure, elle orientera l'organe déréglé dans le sens d'un équilibre qui sera, à tout le moins, un compromis entre l'état ancien et le désordre introduit du dehors*[268]. Obviously, when other kinds of logic (for Ancient Mesopotamian lexicology read: those implied in the 'techno-logy' of writing) intrude and become dominant, this 'feed-back' machine, inherent in totemic logic, inevitably breaks down. Content and form transmitted from the old totemic logic will be forced into different relations as logical patterns shift. Old contents and old formal relations can become 'frozen' and become unrecognizable as they are assigned new functions. In the lexical material under investigation here, a good example of elements 'frozen' and re-assigned may be found in the series Diri, which in construction and function distinguishes itself by a level of abstraction far removed from the concrete pictographic referents which originally gave life to its constituent elements, i.e. to the graphemes combined into Diri-values (cf. Part 3 Chapter 10). Lévi-Strauss' argument, that the most 'pure' totemic classification systems are found in the most 'primitive' contexts[269], is of profound significance here. From this argument it effectively follows that the classification system found in the Ancient Mesopotamian lexical lists can be considered *as a totemic*

[267] Ibidem, 99.
[268] Ibidem, 92.
[269] Ibidem, 98.

classification system in a state of entropy. This idea is consistent with the conclusion of the diachronic research presented in Part 3 (14.4-6.), which was, in short, that throughout the centuries the lexical curriculum was subject to a transformative process (slightly unevenly), evident throughout its different parts and caused by a combination of internal and external dynamics (most importantly respectively the accumulative impact of its own integrative 'logic' and the introduction of the bilingual format). New functions were projected on old texts, which were not abandoned, but which were transformed and progressively lost any residual 'totemic' characteristics in the process. As will be seen next, Lévi-Strauss' theoretical model in fact offers an explanation of how such a development is the inevitable outcome of classificatory complexification inherent in totemic logic itself. It is important, however, to finally re-emphasize the conclusion that the Ancient Mesopotamian lexical texts can be *interpreted as a fossilized* bricolage-*type classification system*.

The mechanism of systematic transformation

In Lévi-Strauss' view the mistake of the older, 'classical' interpretation of 'totemism' was to link the coded elements of the totemic system to actual specific content. Instead, he argues, totemic logic should be viewed as a method to assimilate *any* kind of content by means of discretionarily used elements[270]. He exemplifies this by radically re-interpreting Frazer's 'classical' view of the totemic social structure in the New Hebrides (present-day Vanuatu). In that society, different populations on different islands have different totemic food prohibitions and different totemic rules of exogamy. Lévi-Strauss shows that these differences are not to be explained by looking at the nature of the totemic symbols themselves but by looking at the *structure* of the differences in question. What is really relevant is not the difference between one totemic symbol and another, but rather the structure of the opposition *itself*. Food prohibitions are *individual* in one group and *collective* in another. Exogamy is *transitive* in one group (where children are considered to constitute a distinct social group) and *intransitive* in another (where children are considered merely the reproduction of the parental group). Important is that the elements of the totemic classification system within one given inventory can be re-arranged and functionally re-defined in discretionary fashion[271]. The actual process of re-arrangement and re-definition is what constitutes *systematic transformation*.

Lévi-Strauss shows that the mechanism through which systematic transformation is practically effectuated is that of *systematic opposition*. He proposes that *(l)e principe logique (totémique) est de toujours* pouvoir opposer *des termes, qu'un appauvrissement préable de totalité empirique permet de concevoir comme distinct.*[272]. The logical operation of (systematic) opposition constitutes a *coding process*, i.e. the formal *replacement* of the elements in one logical register by those in another, a replacement which by necessity implies a selection, i.e. a logical reduction of the natural and cultural empiric life-world. In the words of Lévi-Strauss: *...les systèmes de dénomination et de classement, communément appelés totémiques, tirent leur valeur opératoire de leur*

[270] Ibidem, 101.
[271] Ibidem, 105-12.
[272] Ibidem, 100-1.

caractère formel: ce sont des codes aptes à véhiculer des messages transposables dans les termes d'autres codes et à exprimer dans leur système propre les messages reçus par le canal de codes différents[273]. In Lévi-Strauss' view the reliance of totemic logic on systematic transformations effectuated by systematic oppositions is simply explained by its basic, original function, viz. *the mediation between nature and culture*[274]. An illustration of this mediating function may be found in his analysis of food prohibitions: in a given totemically organized society for certain social groups certain consumables may be prohibited whereas certain non-consumables are privileged in symbolic 'consumption' - this serves to de-naturalize the *natural* resemblances between these social groups and makes them *culturally* distinct[275].

Systematic transformation in the lexical curriculum

With regard to the lexical texts two aspects of Lévi-Strauss' theory of systematic transformation in totemic logic are of special relevance: (1) the status of *bricolage* classificatory element inventories as *totemic inventories* and (2) the problem of *systemic complexification* resulting from accumulating transformation.

With regard to the first aspect, it is here proposed that the *element inventory of the lexical texts is to be regarded as of a totemic nature*. Even if, as argued earlier, the later LBA texts show the totemic classification system of the original lexical compositions to in a state of entropy, still the elements themselves, viz. the logograms, remain conceived of as they would be in a totemic classification system. The lexical texts present cuneiform logograms as *discretionary* signs, defined by *systematic horizontal oppositions* and subject to *systematic vertical transformation*. Horizontally logograms acquire meaning through contrast with other elements, such as pronunciation glosses and translations, whereas vertically they shift in meaning through systematic transformations, transformations that may be described in terms of associative strategies (e.g. graphemic transformation, effected by substitution of writing elements, may be described in terms of graphic association - for further analysis of the various associative strategies cf. Part 3 11.3.). In other words, if Lévi-Strauss analysis of totemic logic as an epistemological superstructure is followed, the lexical texts may be described as based on a totemic classification system because (a) they depend on *contrasting pairs* of discretionary elements (viz. of various horizontally and vertically contrasted entry elements) and because (b) they rely on *systematic transformations* to achieve meaning in each of their consecutive individual horizontal entries. These horizontal entries may be regarded as the *constitutive units* of the lexical texts, which, taken together, reflect a logical system in which a synthesis between idea and fact is achieved by transforming the latter into a *sign*. In Lévi-Strauss' words: *(l)'esprit va ainsi de la diversité empirique à la simplicité conceptuelle, puis de la simplicité conceptuelle à la synthèse signifiante*[276]. A few examples of how the lexical lists are build around the two principles of contrasting pairs and systematic transformations are given in Table 5 below. It should be noted that the

[273] Ibidem
[274] Ibidem, 120.
[275] Ibidem, 142.
[276] Ibidem, 174.

both contrasts and transformation may involve multiple (graphic, phonetic, semantic) principles simultaneously.

Table 5. Examples of contrasting pairs and systematic transformations

Series/ E/PST	**Entries**	**Contrasting elements and transforming sequences** Gr – graphic association; Ph – phonetic association; S – semantic association; grammatical contrasts are indicated in LARGE case **Vertical**	**Horizontal** LOGOGRAMS contrasted to *Akkadian* equivalents
SaV 170-1	AK-IG	170 to 171: Gr: stable initial elements (single horizontal + single vertical) *succeeded by* varying final elements Ph: stable final consonant (G) *preceded by* varying initial vowels 170.1. to 170.2.: Gr: AK *succeeded by* ^{D}AK 171.1. to 171.2.: NOUN → VERB S: 'door' *succeeded by* 'to guard'	170.1 AK *contrasted to* equivalent verb *epēšu* 170.2. AK *contrasted to* AK with added ^{D} determinative 171.1. IG *contrasted to* equivalent noun *daltu* 'door' 171.2. IG=ĜÁL *contrasted to* equivalent verb *naṣāru* 'to guard'
SaV 174-5	EŠ-KUR	174 to 175: Gr: stable number of elements (3 wedges) *in different relative positions* 174.1. to 174.2.: S: DN 'Sîn' *succeeded by* noun 'temple' 175.1. to 175.2.: S: 'land' *succeeded by* 'mountain' 175.2. to 175.3.: NOUN → VERB Ph: *šadû* succeeded by ***ka-šādu***	174.1. EŠ contrasted to EŠ with added ^{D} determinative 174.2. EŠ contrasted to equivalent noun *eššu* II 'temple' 175.1. KUR contrasted to equivalent noun *mātu* 'land' 175.2. KUR contrasted to equivalent noun *šadû* 'mountain' 175.3. KUR contrasted to equivalent verb *kašādu* 'to reach'
Sag 075-7	SAG-DÙL-KA	075 to 076: Gr: stylized 'head' *with added* hatches 075 to 077: Gr: stylized 'head' *with added* facial features 076a to 076b: NOUN → VERB Ph: ***m-ānahu*** succeeded by *anāhu* S: 'labour' *succeeded by* 'to tire' 076b to 076c: G VERB →Št VERB	076a. KÚŠ.Ù contrasted to equivalent noun *mānahu* 'labour' 076b. KÚŠ.Ù contrasted to equivalent verb *anāhu* 'to tire' 076.c. KÚŠ.Ù AK.AK contrasted to equivalent verb *anāhu* Št 'to tire' 077 KÌRI contrasted to equivalent noun *appu* 'nose'

With regard to the second aspect, i.e. that of systemic complexification, it is here proposed that in the course of many centuries the original totemic classification system underlying the lexical texts became increasingly complex as a result of historical developments and internal dynamics. Eventually, the original compositions had been expanded and modified to a point at which they had effectively become transformed into something very different. Historical factors, such as the growing distance to the extinct Sumerian language, the introduction of the bilingual format and shifting functional demands in the educational context in which the texts were reproduced, may all be assumed to have played a role in this transformative process. At least as important, however, must have been the unceasing scholarly endeavour to apply what has been termed the integrative methodology, by which each generation of scholars would dissect,

re-evaluate, re-define and add to the knowledge passed on from earlier generations (cf. Part 3 14.4-6.). It is here proposed all these transformative factors contributed to a complexification process of such intensity as to effectively and relatively early *cause the loss of the original totemic classificatory coherence of the transmitted texts*. The loss of certain compositions (Sal-Svo, Kagal, Sag, Nigga), the drastic expansion or entire transformation of others (Harra, Izi) and the rise of completely new composition (Ea, Aa) may be seen as the inevitable outcome of a centuries-long textual transmission process during which the original classificatory system becomes progressively obscured. In fact, it is conceivable that even in the OB period, the original totemic classificatory coherence of the texts had already been largely lost in much of the lexical curriculem[277]. This issue, regarding diachronic development, however, would require a specialized investigation which is impossible in the framework of the present study.

Lévi-Strauss describes the loss of the original classificatory structure as follows: *(i)ntelligible au départ, la structure atteint, en se ramifiant, une sorte d'inertie ou d'indifférence logique*[278]. In the final analysis it is the accumulation of knowledge, in the form of interpretations or otherwise, which causes any totemic classificatory scheme to eventually loose its workability, relevance and validity: *(p)lus nos connaissances s'accumulent, plus le schème d'ensemble s'obscurit, parce que les dimensions se multiplient et que l'accroissement des axes de référence au delà d'un certain seuil paralyse les méthodes intuitives: on ne parvient plus à imaginer un système, dès que sa représentation exige un continuum dépassant trois ou quatre dimensions*[279]. Various elements originating in the collapsed totemic classification system may of course have been preserved and incorporated in the new classification system that replaced it. It must be denied, however, that in case of the cuneiform lexical curriculum, i.e. a literate tradition subject to the various 'techno-logies' particular to writing, any classification system that replaced the original one could still possibly be in any way termed authentically 'totemic'.

Rather, a different historical development suggests itself. It may be argued that the only authentically totemic classification system that can ever be found in (logographic) writing is probably the one which at the very outset lends its element inventory to writing, shaping it and giving it impetus (i.e. which shapes its pictograms, ideograms and logograms). Thus, the *origin* of logographic writing could be explained as simply a graphic projection of a totemic classification scheme. In the subsequent early literate context the signs used for logographic writing can still be viewed as classified in the same way as other totemic sign inventories in non-literate societies, i.e. they can be viewed as still fitted in a totemic classificatory scheme. Over time, however, as writing becomes the subject of institutionalized education and professional scholarship, it is inconceivable that writing should *not* develop its own, autonomous 'techno-logical' dynamics (cf. Chapter 3

[277] Some survivals of the original totemic classificatory system may assumed to exist in those instances where early texts were integrally incorporated in later series (e.g. the early 'wood lists' which are still recognizable in Emar Hh 3-4). In those instances the original classificatory system remains accessible and the question then arises how it affects its new educational context – remark by Prof. van Soldt (personal communication).
[278] Ibidem, 211.
[279] Ibidem, 117.

on Goody's 'techno-logical' model). To the extent that an understanding of the original pictographic and ideographic content of logograms remains visible in the lexical scholarship of later centuries, the working of totemic logic may be assumed to remain at least marginally relevant in a logographically written scholarly tradition. Thus, due to their origin and inherent character, the logographic elements found on all lexical lists, i.e. the logograms themselves, may in principle be regarded as of a totemic nature, regardless of when they were composed. The *organization and analysis* of these elements within these lists by the writers, however, will inevitably have become increasingly influenced by non-totemic forms of (literate) logic with the passage of time. Diachronic developments must inevitably have interfered with the originally conceived structure of the lists, lists which were originally exclusively synchronically defined[280]. Obviously, diachronic developments also interfere with synchronic structures in exclusively oral societies, i.e. societies that know and maintain exclusively totemic forms of classification[281]. The difference, however, is that in a literate society such interference will inevitably also include non-totemic forms of classification, viz. forms of classification inherent in, triggered by and derived from the literate 'techno-logy' which it utilizes (cf. Chapter 3). The lexical lists as found in LBA Emar could be said to effectively constitute hybrids of originally totemic elements organized according to subsequent non-totemic classification - ... *résulte d'un processus historique d'accrétion, plutôt que d'une entreprise systematique*[282].

4.3. Classificatory levels - species

Species

An important structural operation distinguished by Lévi-Strauss is that of the establishment of *classification levels*. In his view, totemic classification lacks hierarchy: its classificatory levels are functionally fluid, each allowing growth and expansion of the binary logic by which they were established in the first place[283]. What is clear, however, is that there is a differentiated, rising level of abstraction. The central classificatory level is that of *species*, suspended between concrete individual referents (the level of proper names) and the more abstract classes (the levels of elements, categories and numbers). Species, adjustable downwards or upwards, is the totemic classificatory medium *par excellence*[284]. In reference to the natural world, to which the notion of species is inextricably linked and in which it has empiric validity, the Lévi-Strauss describes its classificatory operation as follows: *(l)a notion d'espèce possède ... une dynamique interne: collection suspendue entre deux systèmes, l'espèce est l'opérateur qui permet de passer (et même y oblige), de l'unité d'une multiplicité à la diversité d'une unité. ... la*

[280] An example of this kind of process is discussed in Part 3 14.11., which treats the diachronic processes, visible in the development of the lexical curriculum, by which layers of various organisational structures are superimposed on each other.

[281] *Dans de telles sociétés synchronie et diachronie sont engagées dans un conflit constamment renouvelé, et dont il semble que chaque fois, la diachronie doive sortir victorieuse ... (une) lutte constante entre l'histoire et le système* ... - Ibidem, 204/7.

[282] Ibidem, 205.

[283] Ibidem, 182ff.

[284] Ibidem, 197.

diversité des espèces fournit à l'homme l'image la plus intuitive dont il dispose et elle constitue la manifestation la plus directe qu'il sache percevoir, de la discontinuité ultime du réel: elle est l'expression sensible d'un codage objectif. ... d'une combinatoire objectivement donnée dans la nature et que l'activité de l'esprit, et la vie sociale elle-même ne font que lui emprunter pour l'appliquer à la création de nouvelles taxinomies[285]. In other words, the notion of species naturally offers itself for use as a classificatory tool - it constitutes a classificatory notion that can be projected on all kinds of knowledge and used in all forms of analysis. It is here that must be sought the cause of the misinterpretation of 'totemism' in earlier western science: totems were interpreted in terms of their apparent functions (economic, social, religious), instead of being recognized for what did were, viz. as part of the classificatory schemes to which they belonged[286]. Here the question must be in what manner Lévi-Strauss' notion of *species* is relevant to the lexical texts - whether, in fact, in these texts it constitutes a classificatory medium in the manner to be expected in totemic logic. To answer this question it is proposed that in these texts the concept *species* was expressed in specific logograms, viz. in *key-words* and *determinatives*, i.e. those graphemes that were shared throughout various entry sequences, either pronounced or left unpronounced (cf. Part 3 4.3.). It will be seen whether or not the usage of key-words and determinatives in the lexical texts complies with the four characteristic particularities of the totemic classificatory medium *species* distinguished by Lévi-Strauss. These four particularities will be investigated here point by point: (1) lack of hierarchy, (2) passage between *species* and *category* in natural taxonomy, (3) expansion of binary logic triggered by an original scheme and (4) a rising level of abstraction[287]. It should be noted that the following investigation will be limited to the thematic lists (G, Hh, Lu). The other lists are primarily sign-lists, meaning that in their organization *species* had a graphemic rather than a semantic definition (i.e. the other lists treated key-*signs* rather than key-*words*). Although the sign-lists could equally be viewed in terms of abstractly extended totemic logic (viz. extended into the field of graphics), the thematic lists offer an opportunity to keep the investigation closer to the empiric life-world of the 'primitive', non-literate cultures on which Lévi-Strauss bases his theory.

Lack of hierarchy

A good example of the lack of explicit, i.e. *graphemic*, hierarchy between different determinatives and key-words is found when looking at the organization of Hh divisions 3-18, i.e. of those divisions covering those natural or cultural creatures, objects, artefacts and locations, that are neither divine nor human (divine identity and human identity are extensively dealt with in the preceding series G and the following series Lu respectively). It should be emphatically reiterated that what will be primarily investigated here is *graphemically* empirical hierarchy, not any other kind of (abstract, semantic) hierarchy. A short overview of the content of Hh maybe found in Part 3 Table 11.The texts dealing

[285] Ibidem, 180-1.
[286] *... les croyances hététogènes, arbritrairement rassemblées sous l'étiquette du totémisme ... s'apparentent à d(es) croyances et practiques directement ou indirectement liées à des schèmes classificatoires, permettant de saisir l'univers naturel et social sous forme de totalité organisée.* - Ibidem, 178.
[287] Ibidem, 182, 185,188 and 197 respectively.

with wood (indicated by the initial ^{ĜIŠ} determinative) may occupy two full divisions (Hh3-4) and may occur earlier than the single division (Hh5) dealing with reed (indicated by the initial ^{GI} determinative), but no hierarchy is implied. The only detectable relations between the adjoining wood and reed section are, in fact, graphic association through juxtaposition (^{ĜIŠ} has two horizontal wedges followed by one vertical wedge, whereas ^{GI} starts with one horizontal wedge followed by two vertical wedges) as well as phonetic association (/ĝi(š)/ - /gi/). These associations may have influenced the placement of earlier separate lists vis-à-vis each other during the accretion process which eventually resulted in the encyclopaedic series now known as Hh. It should be pointed out, however, that such associative mechanisms may not have been the only or even the main organizational principle by which earlier separate series may were 'glued' together into the larger Hh series - it is also conceivable that the earlier separate series were placed vis-à-vis each other rather on the basis of their respective historical prestige and/or their perceived value as educational tools[288]. In any case, the various associative mechanisms (graphic, phonetic, semantic) have a formal-organizational rather than a hierarchical effect. On the whole Hh3-18 treats its all its key-words and determinatives on a single level: it simply lists key-word and determinative sequences one after another, leaving the subject 'wood' at the same level as the subjects 'reed', 'pottery', 'leather' and 'metal'. The complete absence of explicit hierarchy between different key-word and determinative sequences becomes even clearer upon closer inspection of divisions 8-9 and 17-8. These divisions lack even the unifying determinatives that distinguish most of the other divisions. Division 8 has eight key-words, each representing a specific domesticated animal. Division 9 lists wild animals and meats, partially by means of some key-words and a determinative but partially without bothering with either (e.g. EST 9b008-17). In those sections without key-words or determinatives, there is an almost complete lack of any consistent, graphemically explicit hierarchy. A mixture of associative strategies may be seen to organize the text (e.g. graphic association in EST 9b013-4 AZ-UG and phonetic association in EST 9b19-20 LU.LIM-A.LIM). Again very clear is the lack of hierarchy in divisions 17-8 - these simply gives a list of foodstuffs followed by a section on mortar and bitumen, all formulated in multiple short key-word sequences. The impression that no *overall* semantic hierarchy is implied in the encyclopaedic collection presented by Hh is strengthened by the fact that there is a lack of semantic hierarchical cohesion even on the level of tablet content: some tablets treat natural materials (Hh3-4 wood, Hh5 reed, Hh10 stone), others treat agricultural industrial products (Hh6 pottery, Hh7 leather and metal products, Hh13 clothing, Hh17 processed foods, Hh18 agricultural and building materials), but others treat the natural world (Hh8-9 animals, Hh11 vegetation, Hh12 fish and birds) and yet others land management (Hh14) or geography and astronomy (Hh15-6). In fact, it is likely that any visible semantic hierarchical cohesion on the level of tablet content is unintentional. This may be illustrated by the fact that the same semantic category 'industrial products' which defines divisions 6, 7, 13 and 17-8 may be found to define *sub-divisions* within another division, viz. in the second part of Hh3, which has industrial products, but only those made from wood.

[288] It is also conceivable that the *number of entries* of earlier separate compositions played a role in determining their placement within the larger Hh series (van Soldt - personal communication).

The only organizational principles seen at work throughout Hh are those of key-word and determinative, which effectively juxtapose various *lexical species*, i.e. a totemic classificatory *species* as validly distinguished in cuneiform writing. One *species* of organic material, 'wood', is juxtaposed to another, 'reed' and one *species* of inorganic material, 'tin', is juxtaposed to others, like 'clay' and 'copper'. One *species* of domesticated animal, 'sheep', is juxtaposed to others, like 'goat' and 'cow'. It should be noted that these are *species* distinguished and valid only in terms of the Ancient Mesopotamian writing system - they do not necessarily match any *species* known to modern Western science. For example UDU (Hh8) does not exactly match modern *ovis aries*, which is evident from the fact that $SILA_4$ refers to the lamb, i.e. the young version of a sheep. Similarly, EH and NIM (Hh9) refer to 'crawling vermin' and 'flying vermin' rather than to any specific insect species. On balance, the *lexical species* seem to aim at empirically useful references rather than at abstract definitions in the modern scientific meaning of the word. In the texts the various *lexical species* are not hierarchically ordered but rather merely juxtaposed. The exact juxtaposition sequence, in the MBA text largely a question of traditionally transmitted convention, may originally very well have been a reflection of empiric context (e.g. the first part of Hh9, starting with its MUŠ (snake) and UR (canines and felines), may have been conceived as a systematic overview of all predators threatening life stock in the field), but its reconstruction is problematic in an exclusively synchronic study. For now it should suffice to say that the definition of the *lexical series* as aiming at empirically useful references rather than at abstract definitions helps to explain the lack of *overall* hierarchical semantic structure in the encyclopaedic series Hh.

It should, however, be noted that, up to a point, something of a semantic hierarchical structure may be discerned in the other two thematic series, G and Lu, which deal with divinities and humans respectively. It would, in fact, be surprising if in these two texts the respectively applicable hierarchies would not be reflected - *lexical species* after all deal with empirically useful references, and nothing was more empirically useful in a description of the divine and human spheres than to make them reflect the religious and social hierarchies which pervaded Mesopotamian culture. It remains to be seen, however, to what extent the content of these two series is fully determined by a semantic hierarchy.

G starts with the highest divinities in the pantheon, always paired with their 'spouses', and then more or less descends to the lower echelons, finally naming peripheral and local deities. It should be noted, however, that the order of DNs does not precisely follow the exact hierarchy of any known pantheon and that some names may simply be different epithets of a god mentioned earlier in a different place (e.g. Marduk is found in PST 065-6 (ASAL.LÚ.HI and AMAR.UTU) but also under the epithet TU.TU in PST 135; similarly Damkina is found in PST 059-60 (DAM.GAL.NUN.NA and DAM.KI.NA) but also under the epithet $KI.SAG_9$ in PST 064). It should also be noted that Ancient Mesopotamian religious synchretism (where originally different dieties are identified which each other) complicates the maintenance of the ranking system of its original pantheon. On balance it is clear, however, that the sequence of G is not consistently fully hierarchical with regards to semantic content.

A similar picture emerges for Lu. After treating the word LÚ 'man' itself, Lu starts with the king, his family and his court, continues with high civil officials, writers and administrative personnel and then lists palace staff and security personnel. Next are found the 'overseers' (perhaps something like guild masters) and temple personnel. Starting with EST 1215, the list changes to giving relational terminology and it ends, after giving the titles of various city officials, with a long list of 'common' professions. It seems, in fact, that after EST 1215 Lu no longer strictly reflects a specific social hierarchy and becomes simply a 'list' pure and simple. Also it should be noted that, starting from EST 1179, Lu increasingly lists non-thematic, non-human entries around its core thematic content (cf. Part 3 5.2.1. and 5.3.). These entries mark the beginning of the curricular transition to the advanced sign-lists, which start in the series Izi, a series that in Emar is still closely related to Lu. On balance, as in the case of G, Lu is certainly not consistently fully hierarchical with regards to semantic content.

What is remarkable to note in this context is the fact that, after many older separate thematic lists coalesced in Hh, G and Lu remained *separate series*. Despite the fact that G and Lu are thematic series and not quantitatively deviant (they are both not any larger than for example the wood-list in Hh3-4) they were apparently seen as *qualitatively distinct*. It may be suggested, however, that this was not due to any intrinsic hierarchical semantic structure in their texts - which in any case was seen to rather limited in scope -, but rather that it may have been caused by an effort to keep the *lexical species* 'god' and 'man' as a whole separate from other *lexical species*, irrespective of their internal sub-species hierarchy. In the case of Lu, however, even such modest effort was not completely successful, in as far as this series shows an intrinsic tendency to shift from a thematic to a sign-list format, increasingly mixing human and non-human referents based on graphic association.

On balance, it can be concluded that the lexical texts give only very limited evidence of any hierarchical organization - only in some parts of G and Lu is there any evidence of such an organization, and even there it is not of a consistent nature.

Passage between species and category in natural taxonomy

In a modern scientific description of a given totemic classification of the natural world the concepts of *species* and *category* will inevitably become problematic because totemic classifications equivalent to *species* and *category* are basically classifications of convenience[289]. Here it is important to elucidate how the phenomenon of 'classification of convenience' affected the lexical texts. For this it is convenient to consider those sections of the lexical curriculum that directly thematically treat the natural world, viz. the early part of Hh3 and Hh8-12.

Already it was said that in Hh9 the *lexical species* EH and NIM expressed what in modern Western science would be termed a *category* rather than a *species* (respectively 'crawling

[289] Often they are also temporary modes, i.e. modes that maybe exchanged when (re)classifying shifting cultural phenomena in terms of shifting natural phenomena. To analyse this modality in the lexical texts, however, would require a diachronic study of some depth.

vermin' and 'flying vermin'). In order to clearly distinguish the classification system of the lexical texts (here presented as of totemic nature) from that of modern science it here seems appropriate to introduce the terms *lexical species* and *lexical category*. The first term, *lexical species*, has already been used and may be more concretely defined as the empiric classificatory unit expressed by a *key-word logogram* (such as e.g. UR 'canine or feline predator'). The second term, *lexical category*, can be defined as the empiric classificatory united expressed by a *determinative* (such as $^{\text{MUŠEN}}$ 'something that flies'). In addition it should be noted that there are a few instances where a lexical category is empiric but not concretely expressed by a determinative. There are, however, only a few instances that such implicit categories may be assumed with certainty. Examples are the categories 'domesticated' and 'wild' animal life implied by the semantically coherent content of HhXIII-XIV.

Although it could be argued that classification of the natural world was one of the major preoccupations of the lexical texts, it is clear that there are many instances that their classificatory devices, viz. lexical species and categories, are patently invalid in modern scientific classification. Lexical species such as the SUHUR cover a number of entries (EST 12003-5) that probably include different kinds of fish, but sharing some common formal characteristic, a characteristic apparently evident and relevant in its Mesopotamian context - it does *not* constitute a 'species' in terms of modern biology. Another example is the case of the lexical species of AGARGAR (EST 12027-33), which does not even cover fish of any similar appearance, but rather the general phenomenon of spawn, applicable to sea- as well as river-fish. The lexical species in these examples are both included in a larger lexical category, indicated by the determinative $^{\text{KU}}{}_{6}$, which must have had a quite wide and loose definition as applying to 'whatever lives in water', including fish as well as turtles (EST 12017). It may be approximately equivalent to the modern term 'marine life'. The general impression of the classifications encompassed by the Ancient Mesopotamian lexical species and lexical categories is that they are indeed classifications of convenience, serving to achieve quick identification of natural phenomena, mostly by rather superficial associations.

Expansion of binary logic triggered by an original scheme

Lévi-Strauss describes totemic classification as basically dependent on binary oppositions and he shows that any systemic opposition scheme has the potential to trigger new juxtaposition schemes, i.e. new systematic opposition scheme: *... les schème initial, agissant comme catalyseur, déclenche la cristallisation d'autres schèmes, binaires, ternaires, quarternaires ou d'ordre numérique plus élevé*[290]. Here three examples will be given to illustrate the applicability of this thesis in the texts under consideration:

Example 1. The elementary sign-list SaV is designed to teach basic signs one by one. Following PST 039, however, the sign GÁ triggers a secondary scheme in which the original grapheme GÁ is supplemented with different 'in-written' elements, viz. PST 039a. GÁxNÍG, b. GÁxME.NA, c. GÁxÁŠ, d. GÁxPA, e. GÁxŠE, f. GÁxNIR and g. GÁxLI. This secondary expansion is found only on one tablet, SaVT3, which gives a

[290] Lévi-Strauss, *La pensée*, 188.

very much longer version of the elementary composition SaV. Effectively, this expansion creates a collection of the different possible ways in which the basic sign GÁ, pictographically depicting a crate, may be directly complemented with other graphemes, to give different 'diri' readings. This is achieved by systematically opposing the different alternatives in a vertical sequence. The sign GÁ 'crate', when complemented with the 'shepherd's stick' sign PA gives SILA$_4$ 'lamb', as opposed to its complementation with the sign ŠE 'barley', which gives ÉSAG 'granary' etc.. In this example oppositions are implemented by graphic contrasts.

Example 2. The first two divisions of Hh are designed to teach administrative and legal terminology and is structured around key-word and key-sign sequences (cf. Part 3 5.3.). In fact, most of the content is made up of secondary schemes triggered by these key-words and key-signs. Some of these secondary schemes appear as a type of interpolation, termed 'sub-entry' in the composite edition, and add systematic semantic qualifications to the basic entry. In Hh1 EST 1021 gives the key-word HA.LA 'share' and in two of the three preserved tablets (Hh1T1-2) this entry is followed by a sub-entries series of a grammatical nature, viz. EST 1021a-f HA.LA**-ĜU$_{10}$**, **-ZU**, **-A.NI**, **-ME**, **-ZU.NE.NE**, **-BI.NE.NE**, establishing a list of all possible pronominal suffixes. The grammatical paradigm thus introduced may be presumed to have had an educational function when included but what is interesting about this example is that this specific paradigm was not a fully stable part of the standard text - it is not found in either Hh1T3 or in the 1st Millennium standard version. This shows the clear secondary status of this specific expansion: it is triggered by a standard key-word (HA.LA) but not included in the standard text. In this example oppositions are implemented in a grammatical paradigm, i.e. by semantic contrasts.

Example 3. An example in Hh1 of an altogether more essential form of expansion is found in EST 1042, where the key-word MÁŠ 'interest' triggers a secondary scheme in which the original word MÁŠ is supplemented with different qualifications, resulting in fixed expressions and phrases relevant to administration and justice. The sequence EST 1044-61 gives MÁŠ.BI ^{D}UTU 'interest of Shamash' (the sun god and dispenser of justice), MÁŠ.BI ^{D}UTU GI.NA 'fixed interest of Shamash', MÁŠ.BI ^{D}UTU GI.NA HÉ.DAM 'fixed interest of Shamash he shall add', etc. What is seen here effectively constitutes a secondary expansion that is an integral part of the standard text: it is found in both of the tablets that preserve the relevant section (Hh1T1 and T2). Effectively, this expansion creates a collection of the most important administrative and legal expressions in which the word MÁŠ is used. This represents the kind of collection Hh1-2 are meant to provide the student with. Vertical structure is achieved by contrasting different expansion levels (e.g. EST 1042 noun MÁŠ vs. 1047 noun MÁŠ + adjective GI.NA vs. 1048 noun MÁŠ + adjective GI.NA + verb HÉ.DAM) as well as by opposing alternative complements in given horizontal structure (e.g. EST 1053 MÁŠ **ŠÚM**.MU.DAM 'interest shall be *given*' vs. 1054 MÁŠ **GUR**.RU.DAM 'interest shall be *returned*'). In this example oppositions are implemented by semantic contrasts.

In the three examples given above the operation of secondary expansions of a basic (key-sign or key-word) scheme in the lexical texts is illustrated in its principle as well as in its function within the compositional process. In the first example the expansion is a distinct

interpolation, i.e. a addition in relation to the standard text, unique in relation to the archive under consideration. What should be noted, however, is that the maximum inclusion of interpolations (and of extra interpretations in general) is apparently exactly what is aimed at in the so-called 'long version' of SaV, which could be considered to constitute an intermediate (be it eventually abortive) stage in the development from the traditional short Sa/SaV format of the OB period to the longer Ea/Aa format of the 1st Millennium[291]. In the second example the expansion is neither an exception nor rule, but rather an *optional sub-entry sequence*. Effectively it shows how an expansion may - potentially - become absorbed during the development of a composition over time. In this case the grammatical expansion in question was not *absorbed* into the 1st Millennium standard text - it may be suggested that its exclusion could be explained as a corollary to the rise of specialized grammatical exercises. Finally, in the third example a secondary expansion triggered by a given key-word can be interpreted as an *integral part* of the text itself, showing how secondary expansions remain distinct at the very core of the standard lexical compositions.

On balance, it may be said that binary opposition, be it graphic, phonetic or semantic in nature, constitutes the most basic operation in the lexical texts and shaped its basic structure. Much of the content of the lexical text may be analyzed as consisting of secondary (and tertiary) expansions of the binary principle, a principle which remains recognizable at its very core. Sometimes these expansions may appear as interpolations or sub-entries but mostly they are simply an integral part of the standard texts, which means that the expansion principle must have been at the root of the original compositional process itself. This is in line with Lévi-Strauss' argument that the expansion of binary operations is an intrinsic ingredient in totemic classification as such.

Rising level of abstraction

Lévi-Strauss' postulates that a rising level of abstraction is bound to occur after any sustained application of totemic classification principles. Given a certain durability, in a totemic classification system, the rise of the concepts of species and category will cause classificatory boundaries to be gradually defined less and less in terms of concrete natural referents.

The rise of abstract semantic distinction in the lexical curriculum, at least in its later stages, was indicated in several places during the structural analysis offered in Part 3 (e.g. 4.3. regarding divisional boundaries; 10.3. regarding the composition process of Diri; 14.11. regarding historical tendencies to acrographic and thematic systematization). Other indications to this effect were noted earlier in this paragraph - mainly concerning the abstract nature of certain lexical categories and the abstract notion of the grammatical paradigm underpinning certain secondary expansions added onto the core texts. The most obvious evidence of a certain level of abstraction, however, remains the simple fact that the central and all-pervasive concern of the lexical texts is always cuneiform writing itself. As the cuneiform logograms developed beyond the point of pictographic

[291] It is possible that this specific intermediate development reflects not a general, but a specifically peripheral phenomenon (van Soldt - personal communication).

references, they, by definition, came to constitute abstractions in relation to the empiric life-world of nature and material culture. Thus, the classification system found in the lexical lists is *per definition* dealing with abstractions, albeit on a different level than and inevitably with different result than classification systems based on non-logographic, syllabic or alphabetic writing. However, what is important to remember with regard to the proposal to view the lexical texts as incorporating a totemic classification system, is that the *potential level of abstraction* remained low. The classificatory schemes of the ancient Mesopotamian lexical scholars remained bound to the real and presumed natural and material referents in terms of which they investigated their logographic writing inventory. The empirical, textual evidence shows that, in their view, cuneiform logograms remained *interpretable* in terms of such referents. This inevitably focussed their interest, guiding the direction of their research and it inevitably restricted the potential level of abstraction.

It may be suggested that, although the level of abstraction visible in the classification system underlying the lexical texts was empirically and potentially lower than that reached in modern Western science, it probably rose above that of any other totemic classification system in any non-literate society. In this regard it is important to note what Lévi-Strauss terms the inherent *complexification* tendency of totemic classification systems over time. He proposes that … *(i)ntelligible au départ, la structure atteint, en se ramifiant, une sorte d'inertie ou d'indifférence logique. Sans contredire à sa nature première, elle peut désormais subir l'effet d'incidents multiples et variés, qui surviennent trop tard pour empêcher un observateur attentif de l'identifier et de la classer dans un genre*[292]. In other words, totemic classification systems, left to develop without major disruption, will incur so many transformations over time as to become ultimately unrecognizable. The analogy with the genealogy of language may be appropriate in this context: given time, systematic transformations will eventually change any given language into an unrecognizably altered new language. It may be argued that for a totemic classification system *in a logographic literate context* the impact of such systemic complexification will be even greater. In a non-literate context the natural and material referents which form the basic vocabulary used in totemic classification may be freely accessed by succeeding generations. In a logographic literate context, however, this access is cut off after the canonization of the logographic inventory: by necessity, all subsequent external input and all subsequent internal transformation will be dealt with in a hermeneutically closed system. All classificatory development will inevitably be of an abstract nature, because it will inevitably formulate itself in the abstract terms of its own medium, i.e. those of its own writing.

Effectively, a logographic classification system such as found in the Mesopotamian lexical texts, cannot be but a *denaturalized, dematerialized totemic system*, i.e. a system based in an originally totemic logical process - in its original pictographic constitution - but where this process has inevitably become *abstracted* from the natural and material wealth of referents that feed non-literate totemic classification systems. In the lexical texts the means of reference are defined for once and all in its limited logogram inventory, something which the scholar-*bricoleur* has to work with in an increasing separation from the real life-world to which the non-literate *bricoleur* retains access. The

[292] Lévi-Strauss, *La pensée*, 211.

result inevitably is a separate conceptual universe with its own particular internal dynamics. These particular dynamics are of an inevitably abstract nature and are shaped by a unique developmental history, determined by its precise original set-up in terms of inventory. In classificatory terms, the procedures of totemic logic remain applicable - at least as long as logograms are not replaced by syllabic writing - but they are applied only to a very limited inventory and according to these particular internal dynamics. This is why it is not surprising that recognition of the totemic nature of classification in the Mesopotamian lexical texts will depend on a structuralist approach and analysis.

4.4. Classificatory levels - proper names

Proper names

In the previous paragraph the lexical texts were investigated in terms of the classification level of *species*, as *species* may be considered a key concept in any totemic analysis. In addition, the present paragraph will consider the lowest classification level, viz. that of the *proper name*. The reason for this is that Lévi-Strauss' analysis of the proper name may offer insights in the Ancient Mesopotamian manner of dealing with two types of proper names, the PN and the DN. The lexical texts dealing with PNs and DNs are SaA1 and G respectively (the former has a spelling exercise with PNs, the latter a thematic list of DNs) - they will here be looked at in terms of Lévi-Strauss' analysis of proper names.

Lévi-Strauss proposes that any given totemic classification scheme has two possible processes by which it may be extended, viz. (1) universalization and (2) particularization. The first process, universalization, allows the formulation of abstract concepts which can be systematically operationalized in relation to each other. E.g. the abstract concepts 'plant', 'animal', 'human' can be operationalized 'medically' by systematically opposing specific animal totems to specific combinations of human ailments and plant remedies assumed relevant to these ailments. The second process, particularization, allows the identification of individual objects, phenomena or persons, i.e. the establishment of *proper names*. A proper name may be defined, to use Lévi-Strauss' words, as a ... *moyen d'assigner une position dans un système qui comporte plusieurs dimensions*...[293]. This definition means that, within a given totemic classificatory system, a proper name is always arrived at by a process of de-totalization in relation to a given totemic inventory. Individual objects, phenomena and persons may be seen as aspects or functions of a totemic species to which they are related. E.g. within a given animal species a single member may be distinguished by a body part or attitude, or within a certain human social segment a single member may be distinguished by his individual socially relevant attributes. Another way of explaining proper names in this manner is to view them as no more than a type of *title*: *(d)u nom au titre, on passe ... par une transition insensible, qui n'est liée à aucune propriété intrinsèque des termes considérés, mais au rôle structural qu'ils jouent dans un système classificatoire dont il serait vain de prétendre les isoler*[294]. What constitutes a proper name in a culture ultimately does not depend on either its surface reference value (e.g. the person Rosie in reference to a flower) or its relation to

[293] Ibidem, 248.
[294] Ibidem, 252.

other words (e.g. 'Rosie' in relation to 'rosy'), but rather on its classification system, i.e. on the way in which a culture makes distinctions and sets limits in relation to the questions it has posed itself. If a word is used as a proper name it means a point has been reached where no more classification is needed in that specific cultural context: *(l)e nom propre demeure toujours du côté de la classification*[295]. Having thus established the principle of the *discretionary nature of the proper name*, it now becomes possible to study the PNs attested in the lexical material in terms of Lévi-Strauss' analysis of the proper name.

SaA1 and G in terms of Lévi-Strauss' analysis of proper names

Lévi-Strauss ascribes three general characteristics to proper names in totemic classification systems - here the PNs of SaA1 and the DNs of G will be looked at in terms of these three characteristics:

(1) *Regular classificatory derivation* - which implies that proper names, instead of forming a separate classificatory category, have the same classificatory status as other terms[296]. SaA1 largely consists of a list of nominal phrases and verbal phrases commonly found as part of Ancient Mesopotamian PNs and used in conjunction with either reference to family members or, more frequently, to divinities. In fact, a few SaA1 entries contain family references (PST 037-9 A-A, *a-bi* and *a-hi*) and divinities (PST 048-9 ^{D}*é-a* and ^{D}*iš$_8$-tár*) with which the remaining entries may be combined. With the two DNs in its last two entries, PST 048-9, SaA1 in effect initializes the list of DNs found in the exercise that immediately follows it in the curriculum, viz. G. All individual entries in SaA1 derive their ultimate classificatory validity as parts of PNs either directly or indirectly from their theoretical juxtaposition with the genealogical or theological vocabulary found elsewhere in the thematic series (G, Hh, Lu). They may be said to constitute *indirect* derivations in as far as they rely on other vocabulary which has been derived itself. By contrast, the entries of G, forming a list of DNs, are mostly *directly* derived, to the extent that they relate to concrete referents through either their logographic (e.g. PST 003-4 ^{D}EN.LÍL and ^{D}NIN.LÍL for 'lord wind' and 'lady wind') or phonetic readings (e.g. PST 235-6 ^{D}TA.ŠI.LA and ^{D}BU.LA.LA for the gods of two cities found in Hh16a009-10). Even where the appropriate phonetic readings of the logograms are unrelated to their pictographic referents (e.g. PST 029-30 with BARAG, the 'altar' sign, read ŠARA and MÚŠ, the 'snake' sign, read TIŠPAK), their derivation is often direct. Such DNs have direct, concrete referents in natural phenomena (heavenly bodies, animals etc.) and geography (rivers, cities etc.). A few of G's entries, however, are indirect derivations, arrived at through a projection of divine identity on human attributes (e.g. PST 077 DI.KUD 'judgment' and PST 100 LUGAL 'king'). It should be noted not only that the entries of both SaA1 and G have regular classificatory derivations (whether direct or indirect), but also that they formally present their content in a manner similar to that found in all other lexical series (i.e. in regular formatted lists), emphasizing the equal classificatory status suggested by Lévi-Strauss.

[295] Ibidem, 283-5.
[296] Ibidem, 259.

(2) *Classificatory auxiliary status* - which implies that in certain ways proper names occupy a subordinate place in any classification system: *... dans (un) système complexe, les noms propres occupent une place subordonnée. ... Le nom propre souffre ainsi d'une véritable dévalorisation logique. Il est le marque du <<hors-classe>> ou de l'obligation temporaire, où sont des candidats à la classe, de se définir aux-mêmes comme hors-classe*[297]. With regard to SaA1 the subordinate place of PNs in the scholarly system constituted by the lexical curriculum is confirmed by the fact that SaA1 itself always is a mere appendix to the Sa(V) series. With regard to G it is evident that, although it constitutes a whole series to DNs, still these DNs are treated *separately*, confirming Lévi-Strauss' proposition that proper names are always *hors-classe* within a given totemic classification system. This is exactly what maybe observed in SaA1 and G: they *separate* proper names from other content, indicating their special status.

(3) *Neutralization of structural threats* - which implies that proper names are always means to handle the structural threat posed by the admission of new elements in a given classification system, *in casu* the admission of new members of society or of the pantheon in need of identification by means of PNs and DNs. Because, in the words of Lévi-Strauss, *... n'importe quel système qui traite de l'individuation comme une classification ... risque de voir sa structure remise en cause, chaque fois qu'il admet un membre nouveau*[298]. It is clear that in the case of PNs the Ancient Mesopotamians handled this structural threat by resorting to *positional* shifts. They constructed different PNs by juxtaposing phrases from a few limited categorical inventories (such as 'leadership epithets' and 'family relations' found in SaA1 PST 013-24 and 037-9 respectively) in different combinations. In case the need arose to incorporate new elements in the DN inventory, this could be achieved by juxtaposing two names, identifying the first as the second. A few of such juxtapositions are found in Emar G (PST 005-6 and 010-1) - many more in the OB Weidner list (the latter are listed in the interpretation of Emar G in Part 2). Another way of incorporating new elements in the DN inventory was to reassigning GNs to the G list, effectively repositioning GNs by combining them with a ^{D} instead of a ^{KI} determinative. These various operations visible in the construction of PNs and DNs show that the Ancient Mesopotamians managed to control PNs and DNs within their classificatory system through the repositioning of a relatively limited inventory of autonym elements. It should also be remembered that here another confirmation may be seen of the proposed thesis that the lexical curriculum constitutes a totemic classificatory system in terms of Lévi-Strauss' analysis: in his view the 'recycling' of discretionary elements - such as seen here with regard to the construction of Ancient Mesopotamian PNs and DNs - is one of the most salient characteristics of totemic *bricolage*.

4.5. History in totemic classification

To conclude the application of Lévi-Strauss' theoretical model to the lexical texts, some remarks will be made regarding his view of the relation between synchronic structure and diachronic contingency in totemic classification. These remarks may help to look again at

[297] Ibidem
[298] Ibidem, 261.

the singularly 'timeless' quality of the lexical tradition, a quality which impresses the modern observer by a number of empirical observations concerning the lexical texts: their lack of explicit historical discourse, their centuries-long unbroken transmission, their slow but seamless transformative development and the emphatic deference to tradition by the scholars that produced them. Effectively, the question to be answered here is to what extent Lévi-Strauss view of history in totemic classification can explain these observations.

Lévi-Strauss proposes that in a totemic classification system *history is subordinated to system*, because such a system will always view any diachronically contingent development in terms of the same homology between the natural and cultural paradigms that forms its very basis. In other words, the existing totemic classification system will always deal with subsequent historic developments (which bring about subtractions and additions to its element inventory as well as developments in the relative positions of known elements) by incorporating them. Effectively, the system will reformulate historic developments so as to be able to absorb them, simply 'annulling' them in order to maintain its equilibrium[299]. Given enough time, this will eventually lead to a progressive accumulation of absorptions sufficient to - perhaps very gradually - transform the original content beyond all recognition. Thus, although diachronic contingency is absorbed by synchronic system, paradoxically over time the former will overcome the latter. What is important to remember, however, is that a radical transformation of *content* may very well leave the classification system intact in *form*: *... la grande leçon du totémisme c'est que la forme de la structure peut, parfois, survivre, quand le structure elle-même succombe à l'événement*[300]. This, it may be proposed, offers an explanation of some of the phenomena observed in the diachronic development of the lexical curriculum. Over time, this curriculum often shows slow, gradual developments (e.g. expansions, systematizations) but these eventually accumulate and lead to very drastic transformations in the textual compositions transmitted (cf. Part 3 Chapter 14). On the one hand, purpose and function of compositions may shift and content may be absorbed and transformed. On the other hand, old labels (old names of series) and old content may remain recognizable in 'skeletal' structures. These seemingly contradictory phenomena are well explained by Lévi-Strauss' model, which allows for the possible survival of formal synchronic structure in totemic systems over time.

Following this brief discussion of Lévi-Strauss' analysis of the role of history in totemic classification systems, it seems appropriate to conclude this chapter with a quotation relevant to the general question of how a different view of history - and of time in general - makes totemic logic essentially different from modern scientific thinking: *... on ... découvre (l'histoire) déjà enracinée dans la pensée sauvage, (mais) ... elle ne s'y épanouit pas. Le propre de la pensée sauvage est d'être intemporelle; elle veut saisir le monde, à la fois, comme totalité synchronique et diachronique, et la connaissance qu'elle en prend ressemble à celle qu'offrent, d'une chambre, des miroirs fixés à des murs opposés et qui se reflètent l'un l'autre, ... mais sans être rigoureusement parallèles. Une multitude d'images se forment simultanément, dont aucune n'est exactement pareille aux*

[299] Ibidem, 308-10.
[300] Ibidem, 307.

*autres; dont chacune, par conséquent, n'apporte qu'une connaissance partielle de la décoration et du mobilier, mais dont le groupe se caractérise par des propriétés invariantes exprimant une vérité. La pensée sauvage approfondit sa connaissance à l'aide d'*imagines mundi*. Elle construit des édifices mentaux qui lui facilitent d'intelligence du monde pour autant qu'ils lui ressemblent. En ce sense, on a pu la définir comme pensée analogique*[301].

These words grasp the very essence of the thinking that produced the lexical texts - texts which quintessentially preserve, transmit and elucidate the *imagines mundi* of Ancient Mesopotamian scholarship. Viewing these images as arranged in a system of totemic logic (Chapter 4), shaped by the technology of writing (Chapter 3) and reflective of an episteme of similitude, essentially different from that of modern man, (Chapter 2) has been the aim of this study.

4.6. Summary

Note: the remarks listed under points '0' below serve as short explanatory introductions, whereas those under other points summarize the actual findings of this study.

4.1. *Bricolage* technique:

0. Whereas scientific logic and the modern engineer work with *concepts*, which require a priori incorporation of human mediation (interpretations, organizations), the 'primitive', totemic logic of the *bricoleur* works with *signs*, which are conceived of as objects totally transparent to empiric reality. The procedures of modern science and totemic logic are opposed by a reversal in the relation between the diachronic and the synchronic: the former proceeds from necessary structure (theory, hypothesis) to contingent event, whereas the latter proceeds from contingent event to improvised structure. Essentially these differences are caused by a difference in operational scale: the scientific 'engineer' addresses the universe, whereas the *bricoleur* addresses merely the limited element inventory to his specific cultural heritage. Hence the two criteria of totemic classification, viz.: (1) imperative, *intransigent determinism* (based on a single organizing principle) and (2) *totalizing micro-perequation* (based on a single-level, non-hierarchical approach).
1. The first criterion of totemic classification, *intransigent determinism*, applies to the classification system found in the lexical texts because it is exclusively determined by its *integrative methodology*, i.e. by the interpretability of cuneiform signs in terms of their potential (theoretical, projected) interrelations. Any specific individual realization of any specific lexical composition may be considered a *bricolage* product, i.e. an ad hoc improvisation constructed from a historically limited element inventory that is transmitted in a series of variations in a single *bricolage* theme.
2. The second criterion of totemic classification, *totalizing micro-perequation*, applies to the classification system found in the lexical texts because it shows a persistent single-level logical approach, viz. the exclusive interpretation of all objects and phenomena in terms of *signs*. In the lexical texts effectively serve to provide an equation of all conceivable natural and cultural objects and phenomena to a sign code - no knowledge is pursued aside from the (re-)formulation of this sign code.
3. Based on the evidence listed under points 1. and 2. above it is found that the lexical curriculum originally *constitutes a* bricolage *system*, i.e. a system based on totemic logic. The consequences of this thesis from the historical and artistic perspectives are summarized under points 3. and 4. below.
4. *Historical perspective.* Science and *bricolage* result in a diametrically opposed treatment of history: science distinguishes contingent event and necessary structure, whereas *bricolage* derives structures from events. This means that in totemic classification contingent context and functionality tend to continually re-shape the structural framework of historic discourse. It will effectively annul any historical event by incorporation it by imposing a fixed homology between the natural and cultural paradigms. Totemic logic, therefore, results in a-historical classificatory schemes: it has no use for an explicit analysis of historical causality and relativity, instead, it incorporates historical developments by juxtaposing them with and filing them along formally parallel signs, adding them to the larger sign inventory without changing the structure of that inventory. It is the resulting

[301] Ibidem, 348.

near-total transparency of totemic classification to historical contingency which imparts it with the kind of 'timeless' quality that is found in the Ancient Mesopotamian lexical tradition: causality and relativity are never explicitly explored in the historical dimension.

5. *Artistic perspective.* In Lévi-Strauss' view there is an intermediate stage between magic and scientific knowledge, viz. authentic traditional art. He states that any authentic traditional art object is essentially a *reduced model* with universal aesthetic appeal due to its implicit reversal of the process of knowing: whereas in real life knowledge of parts precedes that of the whole, in the reduced model knowledge of the whole precedes that of the parts. Traditional art and totemic logic may be said to be similar in terms of *procedure*: to arrive at his reduced model the traditional artist will always incorporate contingent 'events' of what he is modelling. This process is similar to the *bricolage* of totemic logic, which always proceeds from - and incorporates - such elements as are contextually available. This artistic perspective helps explain two features of the lexical tablets that will strike the modern observer, i.e. (1) their lack of 'logical' adequacy due to incorporation of (contingent, contextually determined) non-sense elements and (2) their artistic value due to their visual presentation of what are, in effect, tables of permutation filled with reduced (pictographic, ideographic) models.

4.2. Systematic transformations:

1. Due to the fact that the logic of writing (its 'techno-logy') became dominant in the Ancient Mesopotamian knowledge system, the 'feed-back' mechanism in the underlying totemic classification system broke down: old content and old formal relations became 'frozen' and unrecognizable by being assigned new functions. From this point onwards, the lexical texts represent a *fossilized totemic classification system in a state of entropy*.
2. *Systematic transformation* is the process of rearrangement and functional re-definition of discretionary classificatory elements within a given inventory. The mechanism through which systematic transformation is achieved is that of *systematic opposition*, which is a coding process by which elements of one register formally replace those in another (and which originally has the function of mediation between nature and culture). For the lexical texts two proposition are made with regard to systematic transformation, viz.: (1) that - despite the state of entropy of the overall classification system - the elements within that system were still conceived of as belonging to a totemic inventory, where the logograms are discretionary signs which depend on contrasting pairs and systematic transformations to achieve meaning, and (2) that accumulating transformation resulted in a *systemic complexification* of such intensity that the original totemic classificatory coherence of the texts was lost relatively early (with the loss of certain compositions, the drastic transformation of others as well as the rise of completely new ones).
3. The origin of logographic cuneiform writing may be conceived of as a graphic projection of a totemic classification scheme. However, as this original scheme was subjected to institutionalized education and professional scholarship, written 'techno-logy' inevitably imposed its own dynamics. In case of the lexical curriculum the result may be termed a *hybrid* of originally totemic elements organized according to subsequent non-totemic classificatory principles.

4.3. Classificatory levels - species:

0. Totemic classification levels lack hierarchy as they are functionally fluid, allowing growth and expansion based on a dynamic development of binary oppositions, but they do allow for differentiated levels of abstraction. The most important of these levels is *species*, which is adjustable downwards (to concrete individual referents on the level of the proper name) and upwards (to abstract classes such as elements, categories and numbers) - it is the totemic classification medium *par excellence*.
1. It is proposed that in the lexical texts the classification medium of species is expressed in specific logograms, viz. in key-words and determinatives. The usage of these logograms will be investigated for the four characteristics that Lévi-Strauss distinguishes for species, viz.: (1) lack of hierarchy, (2) passage between species and category in natural taxonomy, (3) expansion of binary logic triggered by an original scheme and (4) a rising level of abstraction.
2. Regarding point (1), *lack of hierarchy*, it is noted that there is indeed no detectable semantic hierarchy in the sequencing of key-words or determinatives - there is a lack of hierarchy even at the level of tablet content, where completely unrelated semantic categories can follow each other. The only organizational principles visible are the key-word and the determinative, which indicate *lexical species* that at empirically functional references rather than at abstract definitions - they are not hierarchically ordered but merely juxtaposed.
3. Regarding point (2), *passage between species and category in natural taxonomy*, it is noted that whereas key-signs function as *lexical species*, determinatives function as *lexical categories*, the latter having a far wider range than the latter but not reaching the level of unexpressed abstraction and always functioning as classifications of functional convenience based on rather superficial associations.
4. Regarding point (3), *expansion of binary logic triggered by an original scheme*, it is noted that in a number of examples the implementation of expansions in the texts is indeed effectuated by paradigmatic contrasts reducible to binary oppositions. According to the frequency of inclusion of these expansions in the textual record they

maybe classified as *interpolations*, *optional sub-entry sequences* or *integral parts of the text*.

5a. Regarding point (4), *a rising level of abstraction*, Lévi-Strauss' postulates that a rising level of abstraction is bound to occur after any sustained application of totemic classification principles. Given a certain durability, in a totemic classification system, the rise of the concepts of species and category will cause classificatory boundaries to be gradually defined less and less in terms of concrete natural referents. Obviously, the classification system underlying the lexical texts may be said to deal with abstractions *per definition*, as it deals with writing elements which constitute abstractions in relation to the empiric life-world. In addition, a certain rise in abstraction is found in certain secondary expansions and paradigms. On balance, the *potential level of abstraction* in the lexical texts remained low overall as the writing elements they deal with ultimately remained interpretable in terms of the real and presumed natural and cultural referents to which they were linked through their pictographic and ideographic values.

5b. The abstraction level of the classification system underlying the lexical texts may be said to be empirically and potentially lower than reached in modern Western science, but it probably rose above that of totemic classification systems in non-literate societies.

5c. The inherent complexification tendency of totemic classification systems, which, when left to develop without major disruption, will incur so many transformations over time as to become ultimately unrecognizable, seems to be very pronounced in case of the cuneiform literate context. The logographic inventory is cut off from reinforcements from the natural and cultural life-world and therefore all subsequent external input and all subsequent internal transformation will be dealt with in a hermeneutically closed system. All classificatory development will inevitably be of a very peculiar abstract nature, because it will inevitably formulate itself in the abstract terms of its own medium, i.e. those of its own writing.

4.4. Classificatory levels - proper names:

0. In totemic classification the formation of *proper names* is achieved by the operation of *particularization*, i.e. by a process of de-totalization in relation to a given totemic classificatory inventory, in which individualization of objects, phenomena and persons are viewed as aspect or functions of the totemic species to which they are related. The constitution of the proper name depends completely on the classification system in which it is formed - this is the principle of *discretionary nature* of the proper name. The proper names in the lexical texts will be investigated for the three characteristics that Lévi-Strauss distinguishes for the usage of proper names in totemic classification systems, viz.: (1) regular classificatory derivation, (2) classificatory auxiliary status and (3) neutralization of structural threats.

1. Regarding point (1), *regular classificatory derivation*, it is noted that, when compared to other kinds of entry elements, the PNs and DNs found in the lexical texts show regular classificatory derivation, either directly or indirectly, through their theoretical juxtaposition with other (genealogical or theological) vocabulary found elsewhere in the curriculum. They are also presented in a formally similar manner, emphasizing their regular derivation.

2. Regarding point (2), *classificatory auxiliary status*, it is noted that the separation of proper names (in SaA1 and G) indicate their special, *hors-classe* status in the classification system underlying the lexical texts.

3. Regarding point (3), *neutralization of structural threats*, it is noted that in the lexical texts proper names are created by positional shifts between a limited inventory of elements that could be variously juxtaposed. This allows for the assignment of new proper names to new elements (new members) without the need to enlarge the limited inventory of lexical categories from which such names had to be created. This is an example of the 'recycling' of discretionary elements typically found in totemic classification systems.

4.5. History in totemic classification:

1. Lévi-Strauss' model postulates the absorption of diachronic contingency by synchronic system but at the same time it shows that the former will eventually overcome the latter, as a progressive accumulation of absorbed 'events' will transform the original content and structure beyond all recognition. In this process it is possible, however, that a radical transformation of the *contents* will leave intact the *form*. This explains the singular 'timeless' quality of the lexical curriculum, as visible in its lack of explicit historical discourse, its centuries-long unbroken transmission, its slow but near-seamless transformative development and the emphatic deference to tradition shown by the ancient scholars. The curriculum shows slow, gradual developments which eventually accumulate and lead to very drastic transformations in the textual compositions transmitted. On the one hand, purpose and function of compositions may shift and content may be absorbed and transformed, on the other hand, however, old labels and old content may remain recognizable in 'skeletal' structures. These seemingly contradictory phenomena are well explained by Lévi-Strauss' model, which allows for the possible survival of formal synchronic structure in totemic systems over time.

MAIN CONCLUSIONS

1. Projecting Foucault's epistemological analysis of the TE on the AME, it may be concluded that in the latter the original match between semiological discourse and hermeneutical interpretation is lost due to the combined interference of phonetization and bilingualization. This implies that, from the OB period onwards, the original knowledge system is no longer understood on its own terms - transformations and expansions in the lexical texts can be understood as attempts to cope with this growing discrepancy by means of realignments and additions.
2. Projecting Foucault's epistemological analysis of the TE and the CE on the AME, it may be concluded that the general epistemological configuration of the AME revolves around *similitude* (as in the TE) *as well as representation* (as in the CE). This is explained by the closed nature of its knowledge system: the AME pursues similitudes but only to the extent that this serves to establish representative values for its limited element inventory, viz. for the elements of the writing system. The main difference between the CE and the AME is that the signs of the latter are not arbitrary, constituting similitudes in themselves, and that they are never representative of anything except in terms of functional value. In the AME the individual grapheme remains the smallest, indivisible unit of investigation - it constitutes its knowledge 'atom'.
3. In terms of *similitude*, as analyzed by Foucault for the TE, it is possible to extrapolate a universal accumulative historical tendency to *epistemological decline* as in terms of its constituent similitudes the nature of (written) knowledge itself has become increasingly less cohesive. Originally, as in early logographic writing, knowledge was expressed through full similitudes, however, as the original match between hermeneutic interpretation and semiological discourse became increasingly dislocated, knowledge based on similitude *declined*. For the AME, diachronic developments within textual tradition attest to this epistemological decline and are, in turn, explained by it in detail. The AME may be divided into three phases: (1) the *Early AME* (till ca. 2000 BC), which ended with the death of Sumerian and the end of the hegemony of direct visual similitude in written knowledge production, (2) the *Transitional AME* (ca. 2000-1100 BC), which, under pressure of accumulative transformations in its text corpus, saw the abandonment of an artificial scholarly attempt to maintain access to the original episteme, and (3) The *Late AME* (ca. 1100 BC till the end of cuneiform culture), in which similitude is no longer a productive constitutive principle but rather a reconstructive method, as was found to be the case in Foucault's CE. In the Late AME the production of semantic value was based on *perceived* contextual interpretations rather than on the intrinsic similitudes of the logograms themselves, implying that the unity of writing and discourse was abandoned. Starting with the Late AME, the original possibility of unequivocal interpretation of meaning, relying on the similitudes expressed in the written medium itself, was lost and abstract interpretation took its place.

4. The lexical texts fulfill a large part of Goody's criteria for *generative transmission*, which he considers an important indicator oral tradition: they show a type of authorship that is *collective and custodial* rather than individual and creative, they show a slow-motion version of the *amalgamation of creativity and transmission* normally found in oral context, they show a long-term *lack of permanence of cultural constructs* and their integrative methodology indicates a dominance of *pragmatic interpretation*.
5. The phenomena Goody terms *generative transmission* and *anonymous authorship* relate to each other in a manner of *proportionality*: the higher the degree of the latter, the higher the intensity of the former. In exclusively oral traditions anonymity is virtually total across any longer period of time and simultaneously the intensity of generative transmission is very high, resulting in very rapid and very profound transformations in its cultural products. In strongly literate traditions the situation seems to be reversed: author anonymity is virtually eliminated, and the speed of generative transmission of any given cultural product (e.g. a given work of art or a given scientific work) has slowed-down to the point of arrest. The strong emphasis on individual intellectual achievement as well as increasing disciplinary specialization visible in modern western science are by-products of the extreme slow-down in generative transmission inevitable in 'super-literate' knowledge systems.
6. Against Goody it is here proposed that scepticism is not a universal feature of all knowledge systems but rather a particularity of a specific kind of knowledge system and that the relation between literacy and scepticism is of an indirect nature: systematic scepticism is a function and professional prerequisite of individualized authorship, which in itself is a function of the extreme slow-down of generative transmission in any 'super-literate' knowledge system. The Ancient Mesopotamian knowledge system is an example of a literate system in which essential scepticism did not develop: it is *monolithic*, i.e. it lacks theoretical diversity, and *static*, i.e. it transmits a single body of knowledge rather than developing specializations. This may be attributed to the fact that its investigative and critical scholarship was guided in a different direction by the very nature of its category system, which is 'closed' and subject to a 'protective attitude' as proposed in Horton's scheme.
7. In support of Goody's central thesis it may be said that for the lexical texts investigated there is an undeniable link between the literate techniques they employ and the kind of logic found in their content: the literate techniques of list, table and recipe may be said to *dictate* the logic found in the content because these techniques inevitably involve certain specific *relations* between the various units of information that are inserted in them. From Goody's 'technological' perspective, it could be maintained that the difference between the logic found in alphabet-based Western knowledge system and the logic found in the logogram-based Ancient Mesopotamian knowledge system is that the laws of demonstration and inference are formulated in an entirely different fashion and that the list-format, the table-format and the recipe-format *determine* this difference.

8. Analyzing the lexical curriculum according to Lévi-Strauss' criteria of *intransigent determinism* (as visible in the integrative methodology) and *totalizing micro-perequation* (as visible in the exclusive interpretation of all empiric knowledge as signs) it may be said to constitute a *bricolage* system, i.e. a system based on totemic logic.
9. Due to the fact that the logic of writing (its 'techno-logy') became dominant in the Ancient Mesopotamian knowledge system, the 'feed-back' mechanism in the underlying totemic classification system broke down: old content and old formal relations became 'frozen' and unrecognizable by being assigned new functions. From this point onwards, the lexical texts represent a *fossilized totemic classification system in a state of entropy*. Originally, logographic cuneiform writing may be conceived of as a graphic projection of a totemic classification scheme. However, as this original scheme was subjected to institutionalized education and professional scholarship, written 'techno-logy' inevitably imposed its own dynamics. In case of the lexical curriculum the result may be termed a *hybrid* of originally totemic elements organized according to subsequent non-totemic classificatory principles.
10. It is proposed that in the lexical texts Lévi-Strauss' totemic classification medium of *species* is expressed in specific logograms, viz. in key-words and determinatives. The usage of these logograms fulfils the criteria he distinguishes for species: lack of hierarchy, passage between species and category in natural taxonomy, expansions of binary logic triggered by the original scheme and a (limited) tendency to higher abstraction.
11. Lévi-Strauss' postulated inherent complexification tendency of totemic classification systems, which, when left to develop without major disruption, will incur so many transformations over time as to make them ultimately unrecognizable, seems to be very pronounced in case of the cuneiform lexical context. The totemic (*in casu*: logographic) inventory is cut off from reinforcement from the natural and cultural life-world; therefore all subsequent external input and all subsequent internal transformation is dealt with in a hermeneutically closed system. All classificatory development will inevitably be of a very peculiar, abstract nature, inevitably formulated exclusively in the abstract terms of its own medium, i.e. conceived of exclusively in terms of its writing system.

ALPHABETIC REGISTER OF TERMINOLOGY

Abstraction	*... (T)he mental separation of an element from the situation or context in which it is embedded ...* - P. Greenfield, 'Oral or Written Language: the Consequences for Cognitive Development in Africa, U.S. and England', *Language and Speech* 15 (1972) 169.
Analysis	From Gr. *ανάλυσις* 'loosening; break-up' - the process of breaking up a complex object into smaller parts to gain a better understanding of it.
Classification	*... (A) mode of bringing data under control which is intrinsic to the whole range of sciences ...* - Goody, *Domestication*, 46; or: to obtain what is abstract and general from what is concrete and specific – cf. Lévi-Strauss, *La pensée*, 287.
Closed system	*... (A) science (that) proceeds to work within one paradigm by solving the puzzles offered by it. The very boundaries of a paradigm are a condition of growth of a subject, a development from a pre-paradigmatic stage since, by limiting the scope of enquiry, they create specialist areas of concentration, based on positive results.* - T. Kuhn's definition as summarized by Goody, *Domestication*, 48.
Cultural Relativism	A (axiomatic) anthropological principle which states that each culture needs to be understood on its own terms and that ethnocentric typologies that establish 'levels of development' should be refrained from - cf. Eriksen, *Small Places*, 14 (discussion in 1.2.).
Emic/etic	*... (T)erms used by anthropologists and by others in the social and behavioral sciences to refer to two different kinds of data concerning human behavior. In particular, they are used in cultural anthropology to refer to kinds of fieldwork done and viewpoints obtained. An 'emic' account is a description of behavior or a belief in terms meaningful (consciously or unconsciously) to the actor; that is, an emic account comes from a person within the culture. Almost anything from within a culture can provide an emic account. An 'etic' account is a description of a behavior or belief by an observer, in terms that can be applied to other cultures; that is, an etic account is (supposedly) 'culturally neutral'.* - 'Emic and etic', *Wikipedia, The Free Encyclopedia* (4 January 2009). Retrieved 16 June 2010 from: http://en.wikipedia.org.
Epistemology	From Gr. *επιστήμη* 'knowledge; science' - the science of the origins and methods of knowledge. Note that Foucault uses the word *episteme* as an analytic concept referring to the preconditions of knowledge which may be defined as the historically contingent a priori condition of any given knowledge system and its discourses. Thus, the episteme of a given knowledge system refers to the spatially and temporally bound modalities that determine the laws of that system and its analytic position is that of an interface between the fundamental, implicit codes of direct knowledge and the interpretative, explicit codes of reflexive knowledge (cf. 2.1.1.).
Knowledge system	The sum total of discourses, i.e. of formal debates, empirically attested in a given cultural complex, i.e. the empiric output of its specific episteme.
List	*... (A) catalogue or roll consisting of a row or series of names, figures, words, or the like* - Goody, *Domestication*, 80.
Paradigm	Primarily a linguistic concept referring to a class of similar grammatical elements, secondarily a less specific scientific reference to any kind of philosophical or theoretical framework.
Rationality	*... (Rationality) entails ... the self-conscious or reflective use of concepts, i.e. the critical attitude towards scientific practice and thought, which constitutes not simply scientific knowledge alone (which is its necessary precondition), but the* self-knowledge *of science, the critical examination of its own conceptual foundations.* - Wartofsky, 'Metaphysics', 167.
Syntagma	An element of syntagmatic structure, i.e. of the mode of time-awareness imposed by the message (e.g. 'narrative', 'epic', 'lyrical') - in semiotics syntagmatic analysis is the analysis of syntax or surface structure rather than of paradigms.

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SAMENVATTING

De vier delen van *The Emar Lexical Texts* werden geschreven in het kader van het onderzoeksproject 'Kennisoverdracht en cognitie in een spijkerschriftcultuur' van de Universiteit Leiden. Onder supervisie van Professor W.H. van Soldt van de vakgroep Talen en Culturen van Mesopotamië en Anatolië beoogt dit project de filologische ontsluiting en sociaal-theoretische interpretatie van de schoolteksten die werden overgeleverd in de westelijke periferie van de Mesopotamische schriftcultuur gedurende de Late Bronstijd (Syrië-Anatolië ca. 1500-1200 v.Chr.).

De bijdrage van *The Emar Lexical Texts* aan dit project is het onderzoek naar de lexicale teksten, dat wil zeggen van de kleitablet lijsten gebruikt in de eerste fase van het schrijversonderricht, gevonden bij opgravingen in de oude stad Emar. In de periode in kwestie (een betrekkelijk kort tijdsbestek ca. 1200 v. Chr.) werd deze stad bestuurd door de Hettitische vice-koningen van Karkemish en was Emar een belangrijk handelsknooppunt aan de Eufraat in Syrië. Dit lexicale tabletten materiaal, vrijwel geheel afkomstig uit één enkel archief van één schooltje met een beperkt aantal vaak met naam bekende leraren en leerlingen, geeft een waardevolle momentopname van een zeer oude kennistraditie. Enerzijds gaan de binnen die traditie eeuwenlang getrouw overgeleverde woord- en tekenlijsten terug op voorlopers uit de vroegste periode van schriftgebruik in Mesopotamië - ze bewaren een schat aan kennis van het Sumerisch, de belangrijkste Mesopotamische geleerdentaal, dat al rond 2000 v.Chr. als gesproken taal was uitgestorven. Anderzijds bevatten de Emar teksten variaties in vorm en inhoud die kenmerkend zijn voor de periferie van de Mesopotamische schriftcultuur en meer specifiek voor de Syrische spijkerschrifttraditie.

Het onderzoek naar de lexicale teksten in *The Emar Lexical Texts* valt uiteen in twee deeltaken: ten eerste is er de noodzaak tot (verdere) filologische ontsluiting van het waardevolle bronnenmateriaal en ten tweede is er de wens te komen tot een interdisciplinaire theoretische interpretatie van het materiaal. De eerste deeltaak heeft derhalve mede tot doel de wetenschappelijke basis te leggen voor de interpretatie beoogd in de tweede deeltaak en vindt zijn weerslag in de eerste drie delen van *The Emar Lexical Texts*. De tweede deeltaak wordt beantwoord door het vierde en laatste deel.

Het filologisch deel van het onderzoek wordt gepresenteerd in drie afzonderlijke delen, hetgeen het tegelijkertijd werken met de losse teksten, de compositietekst en de tekstanalyse vergemakkelijkt. *Deel 1* geeft de volledige teksteditie van alle teksten afzonderlijk, voorzien van een uitgebreid referentiesysteem verwijzend naar parallelle teksten uit andere periodes en vindplaatsen alsmede een notenapparaat met referenties naar relevante vakliteratuur. *Deel 2* geeft een zgn. compositie-editie van de opeenvolgende soorten lijsten die in het schrijversonderwijs aan bod komen. Deze compositie-editie voorziet in gebonden transscripties en vertalingen alsmede een systematisch referentiesysteem en een aantal bijlages ten behoeve van teksthistorisch onderzoek. *Deel 3* tenslotte geeft een 'structurele analyse' waarin eerst de vorm en inhoud van elk soort lijst worden onderzocht in relatie tot elkaar en waarin daarna alle lijsttypen typologisch met elkaar worden vergeleken. In Deel 3 wordt verder speciale

aandacht besteed aan de 'redactionele noten' die de schrijvers plachten toe te voegen aan hun werk en aan de historische positie van de Emar lijsten binnen de wijdere Mesopotamische lexicale traditie. Door een systematische beschrijving van het Emar materiaal via een structurele methodiek kunnen een aantal waardevolle conclusies worden getrokken met betrekking tot de dydactische techniek van de schoolteksten en met betrekking tot het soort 'wetenschap' beoogd door de Mesopotamische geleerden.

Afgezien van de volledig nieuwe tekstuitgave en een systematische taalkundige herinterpretatie van de teksten - inclusief vertalingen - die men aantreft in de delen 1 en 2, resulteert het filologisch onderzoek in een aantal belangrijke conclusies ten aanzien van de tekststructuur - deze vindt men samengevat in de sectie 'Main Conclusions' aan het slot van Deel 3. Onder meer blijken de verschillende lexicale series formeel-organisatorische eenheden te representeren die een gespecialiseerde didactische functionaliteit hebben, gerelateerd aan hun positie in een curriculum van oplopende complexiteit. Het blijkt dat in het Mesopotamische schrijversonderwijs een met modern-wetenschappelijke benaderingen onverenigbaar beginsel werd onderwezen, dat men een 'integrerende methodologie' zou kunnen noemen en waarin relaties werden gezocht tussen wetenschappelijk gezien ongerelateerde grafische en taalkundige fenomenen. Ook blijkt er in het lexicale materiaal een duidelijke modulaire structuur te zijn die werd gemanipuleerd gedurende de ontwikkelingsgeschiedenis van het lexicale curriculum en die een aantal diachrone transformaties beter laat begrijpen. Tenslotte blijkt ook dat het Emar tekst corpus een belangrijke intermediaire plaats inneemt in de ontwikkelingsgeschiedenis van de lexicale traditie, een plaats van waaruit zowel de eerdere Oud-Babylonische vormen als de latere canonisatie van het 1st Millenium v. Chr. goed kunnen worden begrepen in termen van de transformatieve processen die beide met elkaar verenigen.

Het theoretische deel van het onderzoek komt aan de orde in Deel 4, waarin de confrontatie wordt aangegaan met een aantal tot nu toe onopgeloste wetenschappelijke vraagstukken. De oplossing van deze vraagstukken wordt gezocht door middel van een interdisciplinaire benadering waarin de geschiedsfilosofie en de antropologie worden gebruikt voor een interpretatie van het Mesopotamische tekstmateriaal. Onder meer komen een aantal specifiek op de Mesopotamische teksten toepasselijke vragen aan de orde: Hoe werkt het overleveringsmechanisme van de lexicale teksten? Wat was de relatie van het gesproken met het geschreven woord in de Mesopotamische 'wetenschap'? Waarom had in de Mesopotamische 'schriftwetenschap' geschreven kennis zo vaak de vorm van een lijst? Maar ook komen in deze laatste fase van het onderzoek een aantal meer algemene sociaal-wetenschappelijke en wetenschapsfilosofische vragen aan bod: Welke sociale en culturele mechanismen kunnen de opmerkelijk lange duur en de speciale vorm van de schriftcultuur in de westelijke periferie verklaren? Wat was de aard van die schriftcultuur in vergelijking met latere, alfabetische schriftculturen? Wat is de epistemologische verhouding tussen het oude Mesopotamische kennissysteem en de moderne wetenschap? Aan de hand van drie verschillende theoretische modellen, ontwikkeld in de sociale wetenschappen, blijken verschillende soorten antwoorden mogelijk. De specifieke benaderingen hier gekozen

zijn de epistemologische van Foucault, de technologische van Goody en de structuralistische van Lévi-Strauss.

De toepassing van de drie gekozen theoretische modellen, samengevat onder de kop 'Main conclusions' aan het slot van Deel 4, hebben een aantal waardevolle resultaten opgeleverd, zowel met betrekking tot de doelstelling, namelijk een beter begrip te krijgen van de denkwereld achter de lexicale teksten, als met betrekking tot de theoretische methodiek zelf. Foucault's epistemologische model liet onder andere zien dat er overeenkomsten zijn tussen de configuratie van het Europese Traditionele Episteme en het Mepotamische Episteme, beide geconstrueerd rond het concept 'gelijkenis'. Het bleek dat in beide een verschuiving van de oorspronkelijke overeenkomst tussen semiologisch discours en hermeneutische interpretatie in de 'gelijkenis' een epistemologische verschuiving te weeg bracht: in Europa naar het Klassieke Episteme, vanaf ca. het midden van de 17de eeuw, en in Mesopotamië naar een Interim Mesopotamisch Episteme, vanaf ca. 2000 v. Chr.. Op zijn beurt liet Goody's technologische model zien dat bepaalde trekken van orale transmissie techniek doorleven in de Mesopotamische lexicale traditie: er was sprake van het soort generative transmissie dat normalerwijze wordt geassocieerd met een orale context. Anderzijds bleek dat Goody's veel-bekritiseerde centrale stelling omtrent het verband tussen schrift en cognitieve ontwikkeling wel degelijk in overeenstemming is met de aantoonbare invloed van bepaalde specifieke schriftelijke technieken op de specifieke karakteristieken van de Mesopotamische logica. Tenslotte leidde de toepassing van Lévi-Strauss' structuralistische model tot de verrassende conclusie dat de lexicale traditie feitelijk een totemisch logisch systeem representeert dat functioneert middels hetzelfde soort *bricolage* procedures als gevonden bij wat men vroeger wel 'primitieve' volkeren noemde. De in dat systeem aangetroffen beginselen van 'binaire oppositie' en 'soorten klassificatie' zijn belangrijke compositionele principes die ten grondslag liggen aan de lexicale lijsten. De interne dynamiek van het totemisch logisch systeem, zoals geanalyseerd door Lévi-Strauss, blijkt ook veel van de diachrone ontwikkeling in de lexicale traditie te kunnen verklaren. Door de toepassing van de drie theoretische modellen wordt nu veel van het enigmatische en exotische karakter van de lexicale teksten - te lang afgedaan als pre-logische *Listenwissenschaft* - verhelderd en naderbij gebracht.

* Gegeven Den Haag, 17 juni 2010 *

CURRICULUM VITAE

In 1968 werd ik te Zeist geboren als de zoon van een Duits-Joodse luchtmachtofficier en een Nederlandse kunstenares. Mijn levensloop is in aanmerkelijk mate beinvloed door een aangeboren stoornis tegenwoordig veelal beschreven als passend in het Autisme Spectrum.

Van 1981 tot 1987 voltooide ik het Gemeentelijk Gymnasium te Apeldoorn en daaropvolgend vervulde ik van 1988 tot 1989 mijn militaire dienstplicht gestationeerd in West-Duitsland. In de jaren daarna verbleef ik geruime tijd in verschillende plaatsen in het buitenland en daar hield ik mij zelfstandig bezig met de studie van verschillende wetenschappelijke onderwerpen, zoals de Nieuwe en Nieuwste geschiedenis, 19de eeuwse geschiedsfilosofie en verschillende Oost-Europese talen en culturen.

Van 2001 tot 2004 voltooide ik de opleiding Semitische Talen en Culturen aan de Universiteit Leiden, met specialisatie Assyriologie en met Zuid-Semitisch als extra bijvak. In die tijd besteedde ik ook enige aandacht aan de klassieke en structuralistische stromingen binnen de Culturele Antropologie. In de jaren 2005-2010 was ik aangesteld als Junior Researcher bij het Centrum voor Niet-Westerse Studies (inmiddels overgegaan in het Leiden Institute of Area Studies) van de Universiteit Leiden voor het doen van een promotie-onderzoek naar de lexicale teksten gevonden in de archieven van de Late Bronstijd stad Emar (in het tegenwoordige Syrië).

Sinds 2010 woon ik in Boedapest, Hongarije, samen met mijn vrouw, prinses Sona Khanom Bahadori - zij is de dochter van de Iraanse schilder Bijan Khan Bahadori en stamt af van Nader Shah Afshar, keizer van Iran 1736-1747.